

Office of Enterprise Community Benefit/  
Community Health Improvement  
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## Sanford Health 2014 Community Benefit Annual Report

### Overview and Purpose

Sanford Health is an integrated health system headquartered in the Dakotas and is now the largest rural, not-for-profit health care system in the nation with locations in 126 communities in nine states. In addition, Sanford Health is developing international clinics in Ghana, China and Mexico. Sanford Health includes 43 hospitals, 225 clinic locations, and 1,360 physicians in 81 specialty areas of medicine.

With nearly 27,000 employees, Sanford Health is the largest employer in North Dakota and South Dakota. The system is experiencing dynamic growth and development in conjunction with about \$1 billion in gifts from philanthropist Denny Sanford. These gifts are making possible the implementation of several initiatives, including global children's clinics, multiple research centers and finding cures for type 1 diabetes and breast cancer.

#### **Our Mission:** *Dedicated to the Work of Health and Healing*

We provide the best care possible for patients at every stage of life, and support healing and wholeness in body, mind and spirit.

#### **Our Vision:** *To Improve the Human Condition through Exceptional Care, Innovation and Discovery*

We strive to provide exceptional care that exceeds our patients' expectations. We encourage diversity in thought and ideas that lead to better care, service and advanced expertise.

#### **Our Values:**

- **Courage:** *Strength to persevere, to use our voice and take action*
- **Passion:** *Enthusiasm for patients and work, commitment to the organization*
- **Resolve:** *Adherence to systems that align actions to achieve excellence, efficiency and purpose*
- **Advancement:** *Pursuit of individual and organizational growth and development*
- **Family:** *Connection and commitment to each other*

#### **Our Promise:** *Deliver a flawless experience that inspires*

We promise that every individual's experience at Sanford—whether patient, visitor or referring physician—will result in a positive impact, and for every person to benefit from a flawless experience that inspires.

**Guiding Principles:**

- *All health care is a community asset*
- *Care should be delivered as close to home as possible*
- *Access to health care must be provided regionally*
- *Integrated care delivers the best quality and efficiency*
- *Community involvement and support is essential to success*
- *Sanford Health is invited into the communities we serve*

Support for our mission is demonstrated throughout our Community Benefit work. Sanford Health is a non-profit organization developed to provide the best care possible for patients at every stage of life, and 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. During fiscal year (FY) 2014 Sanford Health contributed \$340,255,756.00 as Community Benefit.

The purpose of this Community Benefit Annual Report is to communicate the work that has transpired during FY 2014 and also to discuss the 2012-2013 community health needs assessment and implementation strategies for 2014- 2016. The rational standard for Community Benefit at Sanford Health is to meet our charitable purpose.

The purpose of a community health needs assessment (CHNA) is to develop a global view of the population's health and the prevalence of morbidity within a community. A CHNA is critical to a vital community investment/community benefit program that builds on community assets, promotes collaboration, improves community health, and promotes innovation and research. A CHNA also serves to validate progress made toward organizational strategies and provides further evidence for retaining not-for-profit status.

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 CHNA 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 is to provide continuing education curriculum across the enterprise for medical, nutrition, nursing, and behavioral health professionals to advance the knowledge and professional practice and improve the human condition through the prevention and management of obesity. A Sanford Obesity Symposium was presented to over 400 registrants during April 2013. The symposium will be held again during the spring of 2015 and 2016.

A second implementation strategy 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. *fit* initiative**

- The Sanford Health *fit* initiative, a childhood obesity prevention initiative, continues to grow and mature as we work to refine the offerings and enable broad replication and meaningful use. Supported by the clinical experts of Sanford Health, *fit* educates, empowers and motivates families to live a healthy lifestyle through a comprehensive suite of resources for kids, 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). 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.
- The *fit* website for Juniors, Kids and Teens creates 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 7.5 million visitors. Over 700 pieces of content have been added to the sites including videos, slideshows, games, articles, and even *fit* songs!
- In addition to the web, *fit* is developing meaningful school resources to bring value and fun into the primary education setting. We are doing this by integrating *fit* points into science and math components to provide health promotion, an avenue into the classroom without taking valuable time away from those critical subjects.
- *fit4theclassroom.com* – *fit* 4 the Classroom is an on-line school resource developed in cooperation with Discovery Education that incorporates topics into math and science curriculum. The on-line resource for the classroom went live in September of 2012. To date the program has 14 STEM (integrating science, technology, engineering, and math) unit plans that can be downloaded for classroom use.
  - Reached 50,000 schools
  - 180,000 page views from educators across the country
  - 12,000 lesson plan downloads, representing 600,000+ students

We are also reaching thousands of students through several pilot school programs.

- *fit* Club for Girls – *fit* Club, an after school program for 4th and 5th grade girls, has been conducted at 9 schools in Sioux Falls with over 260 girls participating.
- *fit4Schools* – *fit4Schools*, which includes unique *fit*-based lessons integrated into daily classroom activities, is in its final phase of development. It is being piloted in seven elementary schools in the Sanford region.
- Mission: *fit* Possible – This distinctive assembly program has held sessions in 20 schools in the Orlando, FL area.
  
- Daycare
  - *fit*-care is designed to help children in child care settings learn and establish healthy habits early in their lives. Child care providers in South Dakota have access to the *fit*-care curriculum and training courses designed to teach and role model *fit* behaviors along with educating parents and families. The program was launched in March of 2012 and was developed in cooperation with the South Dakota Departments of Health and Social Services. The program has been delivered at all 5 training centers across South Dakota and utilized by almost 800 child care providers, reaching approximately 8,000 children.
  
- Community
  - 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.
  
- Looking Forward
  - *fit* is continuing to look to the future for ways to continue to make a meaningful impact on children and families both on-line and off-line. Other exciting expansions that are in the works include:
    - Clinical Setting – Resources for the clinical setting to spur actionable and understandable discussions between health care providers and families.
    - Health Coaches – Exploring meaningful ways for health coaches to promote healthy choices with children and adults.
    - Engage Key Role Models – Firefighters and youth sport coaches are role models and have a big influence on children so that's why *fit* is developing resources for them to teach the principles of *fit* along with sports fundamentals and other outreach efforts.
    - *fit*Club 4 Boys – 10-week after school program for boys, ages 8-12, to develop knowledge of *fit* principles and healthy behavior choices.
    - *fit* Parent/child – Class for parents and children to understand healthy choices and the benefits of living a healthy lifestyle.

## 2. Camp Fuel

Camp Fuel is a program for youth focusing on healthy self-esteem and body image and includes curriculum for healthy nutrition and activity. The camp promotes a positive self-image and strives to create an understanding that the body requires “fuel” from the foods we eat and burn. Topics covered in this camp include portions, dining out choices, label reading to create knowledge of purchasing options, increasing activity and the importance of an active lifestyle, behaviors that promote a healthy lifestyle, positive self-esteem, and body image. Camp Fuel was conducted for youth in Sioux Falls, Fargo/Moorhead and Chamberlain.

## 3. Family Wellness Centers

- The Family Wellness Centers in Fargo and Sioux Falls offer many classes each week that address wellness for children and families in partnership with Sanford Health and the YMCA. The facilities have multiple group exercise rooms as well as classrooms for educational events. Children and families have numerous fitness options as well as classes that address health, healthy nutrition and healthy cooking. The Family Wellness Center is a place for the entire family with drop-in child care, a kid-friendly pool with water slide, swimming lessons and an open gym for free play. A new Family Wellness Center for Bismarck, ND was announced during 2014.
- Sanford Aberdeen supports the YWCA in that community through financial support. Supporting the YWCA and promoting physical activity are ways that Sanford is addressing the needs in the community.
- Sanford Bemidji is developing a Medical Weight Management program, inclusive of medical oversight, nutritional counseling, psychological counseling and exercise programming. Understanding that obesity is highly prevalent in Bemidji/Bagley and the surrounding area, the medical experts are developing a bariatric approach to managing this concern through interdisciplinary programming with bariatric surgery implemented if appropriate. An intensive medical nutrition therapy/behavioral therapy program has been developed for Medicare patients who work with the licensed registered dietitian team.

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. During FY 2014 Sanford expanded programming to include community-based exercise events such as walking, biking and running. Go 100 for Health, a community walk, and the Blue Ox Marathon are just several examples of community engagement in the Active Living collaborative initiative.

- Sanford Health Great American Bike Race (GABR) is a fundraiser for children and young adults with cerebral palsy and related disabilities. GABR funds pay for medical services and equipment purchase such as wheelchairs, communication devices and adaptive tricycles for children and young adults with cerebral palsy or related disabilities.

The 2014 GABR involved 97 teams of 12 riders pedaling a combined 7,338.55 miles. GABR has grown to be the largest fundraiser of its kind in the United States. The 18th annual Sanford

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Health Great American Bike Race (GABR) held Saturday, April 26, at Century High School in Bismarck, raised \$354,000. Since it began, GABR has raised more than \$2.5 million.

- The Sanford Canby Wellness Center strives to improve the health and wellness of our members by taking a holistic approach to their health needs, and addressing the physical, mental and social aspects of good health through exercise, education, diet and socialization. The facility is open 24/7, sponsors an annual 5K event, and offers personalized programs and a variety of fitness classes each month.
- Sanford Fargo provides numerous services, classes and events to address obesity. During FY 2014 Sanford dietitians and exercise specialists provided leadership for the Schools Alive events at more than a dozen schools. The Sanford Health Fargo Region licensed registered dietitians and exercise physiologists provided expert clinical guidance for the new Family *Fit* Night programs in area schools. These programs were scheduled on a monthly basis and provided educational sessions on health, nutrition and physical fitness, as well as providing a time for creative physical activity with children and family members. The local elementary schools were selected in partnership with TNT Kids Fitness and the Boys and Girls Club. Over 2,200 parents and children attended these events.
- 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.
- Sanford Hillsboro supports the Hillsboro and Buxton 5 K races.
- The Sanford Luverne Medical Center 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. Sanford Luverne participates in the American Cancer Society Relay for Life and is a corporate sponsor for the Rock County Relay for Life. The Power Center 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. This seven-week camp consists 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.
- Sanford Mayville sponsors an annual 5K run and also hosted a weight management conference during FY 2014.
- Sanford Webster offers a Power Program for sports acceleration.
- Sanford USD offers a wide variety of healthy programs and services to address obesity in the community. Kid’s healthy nutrition cooking classes, 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.

- 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.
- 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 Sheldon contributes to and supports the community wellness center to provide 24/7 access for community members and to promote physical activity and healthy living.

#### **4. Athletic Training**

The Sanford athletic training coverage at high school, college and local sporting events promotes wellness and fitness. During FY 2014 the Fargo athletic trainers contributed over \$1,300,000 in Community Benefit to local sports teams at sporting events. Sanford Wheaton contributed over \$11,000, Sanford Sheldon contributed over \$19,000, Sanford Luverne contributed over \$24,000, Sanford Tracy contributed over \$318,000, and Sanford Worthington contributed over \$11,000 in Community Benefit for athletic training.

#### **MENTAL HEALTH/BEHAVIORAL HEALTH**

Sanford is addressing behavioral health needs throughout its large footprint through a \$12M CMS Innovation Grant. The grant is used to transform health care delivery in North Dakota, South Dakota and Minnesota through the integration of primary care and behavioral health. Sanford One Care is a new approach to addressing behavioral health in primary and specialty care clinics and medical centers. Sanford One Care uses technology to conduct behavioral health screenings in order to identify behavioral health concerns as early as possible. Through deployment of Medical Home with fully integrated behavioral health care services, Sanford is providing patient-centered care collaborative teams to meet the needs of Sanford patients.

A key implementation strategy for Sanford Health is to fully integrate behavioral health services into all primary care clinics in Fargo and Sioux Falls.

A second implementation strategy is to fully integrate behavioral health services or access to behavioral health outreach in all regional clinic sites in the Fargo, Sioux Falls, Bismarck and Bemidji regions.

Sanford is in the second of a three-year roll-out plan for a full integration of behavioral health services into all primary care clinics in Fargo and Sioux Falls, and the assurance of access to behavioral health outreach in facilities within the regional networks.

The following programs are samples of mental health/behavioral health Community Benefit contributions for FY 2014:

- Sanford Rock Rapids participated in the Iowa Mental Health Collaborative meetings.
- The Fargo/Moorhead ReThink Mental Health Collaborative convened over 100 key stakeholders to address behavioral health through prevention, early intervention/treatment, crisis management, and recovery support.

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- 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 2015 legislative session.
- Sanford 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.

### **AGING SERVICES**

Services for the elderly is an area of high concern based on the findings from the 2013 CHNA. Sanford is addressing the need for services through the following Community Benefit contributions:

- Sanford in Fargo is participating in a “Services for the Elderly” community collaborative. During FY 2014 the collaborative members set strategy to increase resources for Adult Protective Services in ND. Representatives from this collaborative met with Governor Dalrymple to request funding for additional adult protective services (APS) for the Governor’s 2015/2016 budget. In addition to this request for additional APS workers, the collaborative is working in partnership with the Elder Abuse Forensic Center, which is a new program located in Fargo.
- 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 on-line 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.
- Neilson Place, a long-term skilled nursing facility in Bemidji, Minnesota, opened in August of 2004. The new facility was part of a Sanford Health \$46.5 million dollar construction and renovation project and replaced the former Sanford Health Nursing and Rehabilitation Center. Neilson Place supports the social model of care philosophy. The social model focuses on caring for the elderly in a living place, versus the former medical model, a concept fashioned after hospital care.

Neilson Place consists of four neighborhoods. Mulberry is the neighborhood where many patients stay for short-term rehabilitation. The Mulberry neighborhood has 18 beds, 2 that are reserved for hospice patients. The other beds are for patients who need rehabilitation therapy, have complex wounds, need IV antibiotics, or other skilled nursing care. Neilson Place offers physical, occupational and speech therapy services. It has a large, well-equipped gym for strengthening and conditioning, mat tables for exercise, and stairs for climbing. The therapy department has a large wall of windows that provide natural light and a private door to an outdoor courtyard. Outdoor access allows the therapy staff to incorporate outdoor mobility into the patient's plan of care. During FY 2013 Sanford contributed \$111,000 to Baker Park House, a long-term care facility that in Bemidji.

- Sanford Health Bemidji contributed over \$481,000 in FY 2014 to the aging population through subsidized continuation of care and home care services to help the aging population return



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home after hospitalization or medical procedures and to help the patients remain in their homes.

- 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 years. During FY 2014 faith community (parish) nurses made 8,829 contacts with community members.
- At Sanford Medical Center USD, the Faith Community Nursing Center offers individual visits and phone follow-ups. During FY 2014 there were 8,466 contacts with the majority of the contacts at 51 years of age or older. During FY 2014 the SIGH (Stepping into Good Health) Program continued to provide free foot clinics as a first step to link underserved individuals in the Sioux Falls area with diabetes screening and education, and also cardiovascular disease screening and prevention. Other concerns often present at the free clinic including mental health and anxiety disorders, stroke, orthopedic, tobacco use, depression and obesity.

### **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)
- 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)
- 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)
- The American Academy of Sleep Medicine Center Accreditation (Sanford Medical Centers in Bismarck, Fargo and Sioux Falls)
- 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 Bismarck, Fargo and Sioux Falls)
- American College of Radiology *Breast Imaging Center of Excellence* - Breast Ultrasound (Sanford Medical Center, 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

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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 re-verification* (Sanford Medical Center, Fargo)
- 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)
- Blue Cross Blue Shield of North Dakota *2012 Distinctive Award for Care Delivery*, recognition for redesigning practice around MediQHome patient-centered Medical Home model (Sanford Bismarck)
- *Commission on Accreditation of Ambulance Services (CAAS)* three-year accreditation for FM 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)
- 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)
- Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program Accredited Centers
- 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)
- 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

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- 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)
- Accredited by the American Institute of Ultrasound in Medicine (AIUM).
- National Accreditation Program Level II Trauma Center (Sanford Medical Center Bismarck, Fargo, Sioux Falls)
- Pediatric Level II Trauma Center (Sanford Medical Center Fargo, ND)
- Commission on Cancer of the American College of Surgeons three-year accreditation with commendation (Sanford Bemidji Cancer Center, Bemidji, MN)
- National Accreditation Program for Breast Centers three-year accreditation (Sanford Bemidji Breast Center, Bemidji, MN)
- Centers for Medicare & Medicaid (CMS) 5-Star rating for health inspection and quality measures (Sanford Hillsboro Medical Center, Hillsboro, ND)
- CMS 5-Star rating for overall and quality measures (Mahnomon Health Center, Mahnomon, MN)
- American College of Surgeons Cancer Survivor Exercise Program (Sanford Mayville Medical Center, Mayville, ND)
- Top 10% Minnesota Nursing Home – quality of life (Perham Living, Perham, MN)
- CMS 5-Star rating overall (Perham Health, Perham, MN)
- *US News & World Report* Best Nursing Homes 2014 (Sanford Canby Medical Center, Canby, MN)
- Press Ganey Guardian of Excellence award for patient satisfaction (Sanford Canton-Inwood Medical Center, Canton, SD/Inwood, IA and Sanford Clear Lake Medical Center, Clear Lake, SD)
- MN Hospital Association Patient Safety Award (Sanford Luverne Medical Center, Luverne, MN)
- Level IV Trauma Center certification from American College of Surgeons (Sanford Wheaton Medical Center, Wheaton, MN and Sanford Aberdeen Medical Center, Aberdeen, SD)
- College of American Pathologists accreditation for Sanford Clinic Laboratories (Sanford Bemidji, Blackduck, Cass Lake and Walker, MN)
- *Hospitals & Health Networks* “Most Wired” designation for excellence in information technology utilization (25 Sanford facilities)
- Blue Distinction for Specialty Care Center Plus designation (Sanford Heart Hospital, Sioux Falls)
- Commission on Accreditation of Medical Transport Systems accreditation (Sanford AirMed – enterprise accreditation)
- Joint Commission and American Association for Accreditation of Ambulatory Surgery Facilities (Sanford Health Dickinson Clinic, Dickinson, ND and Sanford Health Detroit Lakes Surgery Center, Detroit Lakes, MN)

### **Sanford Clinic**

Sanford Clinic has 1,360 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.

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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 has grown to 18 interventional, invasive, general cardiologists and vascular surgeons in Sioux Falls and 16 in Fargo, 8 in Bismarck and 4 in Bemidji. The strong clinical research program and preventive focus with screenings programs all provided the foundation for a new Heart Hospital which opened in Sioux Falls in March of 2012.

Surgical Care for the Sanford Clinic is performed by 32 surgeons in Sioux Falls and 20 in Fargo, 13 in Bismarck and 6 in Bemidji. Bariatric, trauma and general surgery as well as surgical oncology care, a strong breast cancer program, GI cancer program, and lung cancer program 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 72,000 surgical procedures. There are over 200,800 ER visits annually and approximately 9,142 births. The Medical Home model consists of RN health coaches and information technology to serve patients in their primary care location.

Sanford is addressing behavioral health needs throughout its large footprint through a \$12M CMS Innovation Grant. The grant will be used to transform health care delivery in North Dakota, South Dakota and Minnesota through the integration of primary care and behavioral health. The Medical Home model will implement 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 43 hospitals and 46 long-term care homes. Sanford Health supports a network of owned, leased, managed and affiliated facilities in 140 communities 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, called docZ, remains a priority.

The new \$60 million Sanford Thief River Falls Medical Center expands patient access so that families living in and near Thief River Falls, MN won't have to travel far to get expert care and a broad range of services in one place. The new medical center is the largest construction project in the history of Thief River Falls. It is a state-of-the-art facility equipped with the most advanced technology in a 25-bed critical access hospital and clinic with more than 30 specialties. Sanford Thief River Falls is also home to more than 540 Sanford employees. Additional services that will be located at the current clinic location include audiology, a fitness center, optometry and pharmacy. New services that will be located at the current downtown medical center location include behavioral health, dialysis and public education.

In addition to the family medicine, internal medicine, pediatrics, OB/GYN and general surgery services that Sanford Health currently provides in Dickinson, the new clinic, which will be more than three times the size of the current one, will house a walk-in clinic, an ambulatory surgery center, infusion services for cancer treatment, and space for mobile MRI and CT scans. The clinic will have room for more than 20 physicians and will accommodate more opportunities for visiting specialists. Sanford Health is analyzing additional services and community needs for the clinic as well.

The new Sanford Moorhead Clinic opened in 2014 on a \$20 million campus. The 49,000 square foot facility will include 52 clinical exam rooms with shelled space for an additional 13 rooms for expansion/growth. The clinic will house over 20 physicians and other clinicians. Services will include internal medicine, family medicine, pediatrics, obstetrics and gynecology, occupational medicine, behavioral health, lab, x-ray, ultrasound and pharmacy.

Businesses and residents had the opportunity to be a part of the planning of the new Moorhead facility. Given the high visibility location, Moorhead wanted the clinic to be iconic and specific to their needs. One of the services is occupational medicine, giving easy access to worksite services for businesses in the adjacent Moorhead industrial park.

The renovation and new construction on the campus of Sanford Canton-Inwood are designed to meet the growing and unique needs of the patients it serves. The design focuses on convenience for patients and their families, as well as a focus on privacy.

The project renovated 17,630 square feet of current space, finished updates on 8,000 square feet of existing space, and added approximately 11,000 square feet of new construction during 2014.

This is a \$6.5 million project with \$1.5 million being funded through a generous donation from the Canton-Inwood Area Health Foundation.

Patient benefits:

- Increased access to outpatient and same-day services
- Centralized scheduling and registration
- Convenient lab access
- Ease of movement around campus
- Larger physical therapy and rehab service areas

Sanford Health believes in investing in wellness opportunities in the communities we serve. It's part of our mission of health and healing. The Sanford Pentagon is a 160,000 square foot facility that includes 9 basketball courts (6 high school regulation, 2 professional/college practice courts, and the "heritage" court). While the entire facility features modern design and amenities, the heritage court, located in the center of the building, is a premium NBA/college size court with design inspiration reminiscent of 1950s/1960s basketball. The Pentagon will be the epicenter of the Sanford Sports Complex. The Sanford Pentagon opened in the fall of 2013.

Sanford's new Fargo Medical Center will open in 2016 and is 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 is in the top 10 health care projects in the U.S.

The new Sanford Fargo Medical Center is a 384-bed, 11-story, 1 million square foot project located on the south side of I-94 at the intersection between Veterans 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
- 28 ORs ( 10 are shelled)
- 4 angio suites ( 2 are shelled)
- Orthopedics/Neurosurgery
  - 64 beds
- Emergency Services
  - 51 treatment rooms

Sanford Home Health Fargo provides skilled nursing care, PT/OT/ST 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 51,111 skilled visits and 65,718 personal care hours during FY 2014.

Sanford Sioux Falls Home Health Certified provided 12,600 skilled visits in FY 2014 including SN, HHA, PT, OT, and ST services. Sioux Falls Hospice provided 11,610 visits for a total of 18,311 days of care. Home Health non certified services included 12,943 visits.

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. The homemaker and personal care aide programs provide care to people in their homes on a community need or private-pay basis. There were

5,439 hospice visits, 16,605 home care visits (including community need personal care services), and 2,164 private pay (help at home) visits during FY 2014 at the Sanford Bismarck location.

Sanford Research is a non-profit research organization formed between Sanford Health and the University of South Dakota. In 2007, a transformational gift of \$400 million by Denny Sanford 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 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.

With a team of more than 200 researchers, Sanford Research is comprised of several research centers, including Genomic and Molecular Medicine, Children's Health, Edith Sanford Breast Cancer Research, Health Outcomes and Prevention, National Institute for Athletic Health and Performance, Sanford Applied Biosciences, and Clinical Research. Sanford Health has over 150 open clinical trials and over 350 ongoing clinical studies.

Sanford USD Medical Center in Sioux Falls, SD is a 545-bed tertiary care regional medical center with 4,000 employees, a Level II trauma emergency care center, and is the primary teaching hospital for the Sanford School of Medicine. It also features:

- 714,509 outpatient and 31,626 inpatient visits per year
- Stable, compliant population base for clinical research
- Electronic medical record and clinical information system
- Multi-generational families for clinical studies
- Accommodating regulatory environment
- Comprehensive research infrastructure
- Ongoing in-house research
- The Sanford Project
- Global presence in clinical and research relationships

### **Sanford Research**

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 staff now totaling more than 150.

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

Again 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.

### **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 has one goal: Curing type 1 diabetes. The Sanford Project is designed for results and focuses 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.

Sanford Health physician and scientist Michelle Baack, MD, has been awarded a grant totaling nearly \$600,000 from the National Institutes of Health (NIH) for research focused on preventing cardiovascular disease in the offspring of diabetic mothers.

Baack's five-year project, "Lipotoxic effects of maternal diabetes and high fat diet on the developing heart", was awarded under the NIH's Eunice Kennedy Shriver National Institute of Child Health and Human Development.

According to Baack, certain babies are born with a deficiency of good fats or an excess of bad fats. Infants born to mothers who have diabetes during pregnancy, for example, have a deficiency of omega-3 fatty acids important for heart health. Current treatment for diabetes during pregnancy focuses on the regulation of blood sugar levels. However, diabetes also changes the levels of circulating fats transported from mother to the developing baby. Exposure to abnormal circulating fats before birth may put these babies at a higher risk for heart disease at birth and throughout life.

Baack will use a rodent model to further determine the role lipids play in the development of heart disease in offspring born to diabetic mothers. Previous research by Baack's lab discovered that rats born to diabetic mothers died more frequently of heart disease when their mothers ate a high-fat diet. Her study will aim to answer why those rats experienced a high mortality rate. Furthermore, by understanding the consequences of a high-fat diet during pregnancy, Baack hopes to identify preventative strategies and improve long-term outcomes of infants who are at high risk for heart disease.

Baack, a neonatologist, also runs a lab in the Children's Health Research Center at Sanford Research. Her lab focuses on the importance of different fats (good and bad fatty acids) needed to promote normal growth, brain development and vascular health during early development.



### **Edith Sanford Breast Cancer Research**

Edith Sanford Breast Cancer Research is pursuing cutting-edge forward 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.

### **Children's Health Research Center**

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 David Pearce, 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.

### **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 in 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.

### **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 under the direction of Michael F. Bergeron, PhD, FACSM, internationally known for his 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. Primary research involves many different areas including infant mortality, childhood obesity, fetal alcohol spectrum disorders, childhood cancer, teen pregnancy, and infertility. Faculty members have a broad range of expertise, specializing in public health, medicine, psychology, reproductive endocrinology, pediatrics, epidemiology, nutrition, and biostatistics. A number of research studies involve engagement and partnerships with American Indian communities and community-based organizations. The center is committed to improving health through education and research in prevention and health outcomes in the local community and the population at large.

An Evaluation Core, where staff is 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 form 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 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.

### **Collaborative Research Center for American Indian Health**

The Collaborative Research Center for American Indian Health (CRCAIH) was formed in September 2012 upon receipt of a grant from the National Institute for Minority Health and Health Disparities. This five-year grant creates a communication and infrastructure platform that brings together Tribal communities

and health researchers, from multiple disciplines, to work 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. 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 that 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 two 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:** 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**

Healthcare 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 three 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 and 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 that 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 imbedded 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) Site 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**

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.

### **Additional 2014 Community Benefit contribution examples:**

- Sanford Mayville provides an annual SCRUBS Camp for high school students. This camp provides a hands-on learning experience for four area high schools to introduce students to a variety of health careers. SCRUBS is a program initiated by the University of North Dakota School of Medicine to recruit new workforce by providing positive experiences for students who are considering a medical field of study.
- The Roger Maris Cancer Center's *embrace* cancer survivorship program impacted over 2,600 people during FY 2014. This program provides monthly educational meetings and a chance for patients and their families to share their journey with others. The program also provides an exercise program and various other components to enhance the patient's health after cancer treatment.
- The Friends of the Family program impacted over 1,300 people in FY 2014 by assisting with immediate needs such as taxi vouchers or bus passes for transportation to and from medical appointments.
- Community health fairs are held in many of the communities that we serve and reach over 14,000 people.
- Sanford's contributions of medical equipment and supplies to HERO and other agencies totaled over \$170,000.
- Lamaze classes were provided for 600 patients.

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- Sanford dietitians (LRDs) provided nutrition presentations on medical nutrition therapy topics.
- Education for University of North Dakota School of Medicine students.
- Sanford Hillsboro provides meals for the jail.
- Sanford Thief River Falls provides an annual safety camp.
- Sanford Canton-Inwood sponsors quarterly programs on a wide range of topics such as a heart healthy cooking class.
- Sanford Chamberlain provided health screenings that impacted nearly 500 people.
- Sanford Canby provides a subsidized dialysis center for the community.
- Sanford Canby supports a dental clinic.
- Sanford Sheldon supports a farm safety camp. The medical center also provides clinical experiences for students in the following disciplines: physician, advanced practice providers, radiology, pharmacy, physical therapy and athletic trainers.
- Sanford Jackson provides an Active Community Program that in FY 2014 addressed child safety and held a diabetes expo and a family fun night.
- Sanford Rock Rapids provides blood pressure and dermatology screenings and reached out to over 200 people in FY 2014. The medical center also provided clinical experiences for students in pharmacy, nursing, physical therapy and radiology.
- Sanford Worthington provides a Wellness Partners Clinic for over 900 people.
- Sanford Mayville and Sanford Hillsboro have partnered with the medical center in Northwood to bring physical therapy to the local communities. These services meet a need in the community, especially among nursing home patients who have suffered strokes and have other health conditions.
- Sanford Luverne has partnered with area community leaders on CHIP (Community Health Improvement Program) initiatives to decrease obesity. A community garden project was implemented to promote the growing of fresh produce. In addition to the focus on nutrition there is also a focus on creating a more active community. During FY 2014 a wellness challenge was initiated.
- Sanford Tracy and Sanford Westbrook offered heart and lung screens during FY 2014.
- The Sanford Tracy athletic trainers also contributed nearly \$319,000 in uncompensated care with an impact to 7,740 student athletes.
- Sanford Webster provided CPR training to 60 individuals in FY 2014 and initiated a sports acceleration "Power Program".
- Sanford Aberdeen donated \$10,000 to the local Family YMCA to support the obesity prevention initiative.
- Sanford Wheaton provided community health education at the FY 2014 Abuse Walk, a series on women's health, the Traverse County fair, and through hearing and vision screenings for 300 students at the local schools.
- Sanford Sheldon provided a farm safety camp, a Great Beginning Clinic, athletic trainer services for the local school district, and supported the Wellness Center with the use of a facility. Sanford Sheldon also provided BSN preceptors for 2 student nurses, career pathways for 15 high school students, clinical training for 1 MLT student, CPR training for 60 high school students, CNA clinicals and labs for 21 individuals, LPN preceptors for 4 students, pharmacy clinicals for 1 pharmacy student, an internship for 1 Master's in social work student, and preceptorships for 81 RN students.
- Sanford Vermillion provided foot care clinics, blood pressure screenings, and an annual health fair and an immunization clinic to a total of 3,365 individuals during FY 2014.

## Community Benefit Annual Report

- Sanford Canby provided a Wellness Center for community members during FY 2014. Diabetes education classes and support groups were offered monthly, and a pre-diabetes class was also offered monthly. A stroke survivors group and a Parkinson's Support group meet monthly at the medical center and a support group for Multiple Sclerosis meets quarterly.
- Sanford Clear Lake provided subsidized services for a Wellness Center during FY 2014.
- The Sanford USD Medical Center provided a wide range of classes during FY 2014. Examples of the numerous offerings of classes include kid's nutrition cooking classes, cardiac nutrition, heart health education, stress reduction, women's heart disease, growing up healthy, bariatric post op, and cooking classes for interstitial cystitis.
- Dr. Michael Bergeron, et al published articles in the *British Journal of Sports Medicine*, the *Journal of Science and Medicine in Sport*, the *Journal of Neurological Sciences*, and presented at the National ACSM meeting.
- Education was provided for 639 nurses/nursing students at Sanford USD Medical Center, 339 nurses/nursing students at Sanford Fargo Medical Center, and over 1.2 million clinical hours were provided to student nurses at Sanford Bismarck Medical Center.
- Sanford Bemidji sponsors the "Go 100 for Health" walking program.
- Sanford Bismarck Medical Center contributed community health education and advocacy for over 101,000 individuals during FY 2014. Additionally the Support Group for Premies and Multiples provided support for 75 community members, and the cancer education contribution served over 7,900 individuals during FY 2014.
- Sanford Fargo Medical Center contributed \$750,378.25 in in-kind lab services contributions to the Family Healthcare Center in Fargo. In addition, Sanford supports the FHC with administrative support and with biomedical services.
- Donna Newman, BA RT (R) CNMT, Nuclear Medicine/PET Lead Sanford Fargo, was asked to represent the technologist voice as Director of Professional Practice for her international organization, the International Society of Radiographers and Radiological Technologists (ISRRT), at the Global Health consortium sponsored by the International Atomic Energy Agency at the the Radiological Society of North America (RSNA) meeting on December 2, 2013. The presentation focused on what the technologist community is doing globally to reduce doses to patients who are having radiological procedures done.
- Donna Newman, BA RT (R) CNMT, Nuclear Medicine/PET Lead Sanford Fargo, served on the International Committee to rewrite the draft version of DS399, a new safety guide, "Radiation Safety in Medical Uses of Ionizing Radiation". This guide addresses nuclear medicine and incorporates the requirements for the New International Basic Safety Standards (BSS) as they apply to uses of radiation. The International Atomic Energy Agency (IAEA) is mandated by the United Nations to develop international safety standards and the development of a way to provide for their application. The new BSS will cover radiation protection in all uses of radiation including uses in medicine. This book is used by governmental regulators (for example, the NRC in the United States and the North Dakota Health Department) as well as end-users (the department of radiology and nuclear medicine at Sanford) to understand what the regulation mean and how hospitals should adhere to the regulations and pass inspections. These guides will be distributed in all countries of the world. Additionally, Donna is working to create awareness of the risks of radiation in the pediatrics population through the WHO Radiation Risk Communication in Pediatric Imaging Initiative. Children are considerably more sensitive to the effects of radiation than adults; have a longer life span for developing long-term radiation-induced effects; and could receive a higher dose than necessary if adult parameters are used in pediatrics imaging. Awareness of radiation risks and radiation exposures in pediatrics imaging



procedures among referrers, patients and the public is low. The World Health Organization (WHO) will play a role in improving global practices. The objective of this Global Initiative is to mobilize the health sector towards safer and more effective use of radiation in health and to improve patient care by identifying Member States' needs, improving capacity, and identifying priorities.

## Analysis of the 2014 Community Benefit Inventory Data

Sanford Health contributed \$340,255,756.00 in Community Benefit during FY 2014. This accounts for 10.3% quantifiable benefit as a percent of total net revenue.

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 2014 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. Sanford Health's contribution for Charity Care for FY 2014 was \$51,360,001.00. At Sanford, the Charity Care program is known as the Community Care Program.

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) is \$81,875,219.00 for FY 2014.

The total traditional medical care contribution for FY 2014 is \$123,235,220.00

### 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 \$2,138,052.00 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 2014:

- The My Sanford Nurse Program (formerly called Ask-A-Nurse) served 324,295 individuals from throughout the footprint and nation during FY 2014 and provided a Community Benefit of \$1,866,350 with more than 45,965 nursing staff hours.
- Community-based licensed registered dietitians provided Community Benefit contributions of over \$89,000 through nutrition presentations to over 5,300 individuals.
- Cancer education was provided for 2,830 patients and cancer survivors.
- Better Choices, Better Health impacted 178 individuals who live with a chronic illness.
- The Sanford Patient and Family Resource Center served 5,430 individuals.
- 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.

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- Sanford diabetes education classes were provided 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 classes were provided.
- The Speaker's Bureau provides numerous health care experts from Sanford who responded to a request to address specific topics to a broad range of community organizations.
- Numerous support groups are hosted by Sanford each month and receive indirect support as well as expert health care presentations as requested.
- 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.
- The Confident Living with an ICD meeting hosted by cardiology.

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 2014 include the following:

- The shelter nurse program for homeless shelters has assessed and provided nursing care for 8,281 interventions.
- 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.
- Collaboration with the National Kidney Foundation's KEEP Screening.

### 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 2014, 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 2014 was \$12,621,370.00.

### 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

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organization. Examples from our work include the renal dialysis services and radiology screenings during the Legs for Life event. During FY 2014 \$140,536,133.00 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 \$27,863,006.00 to research during FY 2014.

### 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 2014 Sanford contributed \$11,011,200.00 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 \$986,823.00 in Community Building Activities during FY 2014.