

# Shared Medical Simulation Center: A Unique Partnership

Charles D. Peterson, NDSU  
Laura L. Goldhahn, Sanford Health Fargo



**SANFORD**  
HEALTH

# Tri-College University

- Since 1970, a course exchange collaboration between five academic institutions supports 35,000 students.
- Allows students to take courses at partner campuses with no additional tuition with grades recorded on home campus transcripts.

**North Dakota State University\***

**Concordia College\***

**Minnesota State University Moorhead\***

**Minnesota State Community & Technical College**

**North Dakota State College of Science**

\* founding members

# Challenges with Clinical Education for Academic Institutions

- Finding sufficient clinical training sites, preceptors, and the right patients (both acuity and variety) to fulfill program requirements.
- Finding sufficient specialized rotations (mental health, critical care, infectious disease, neurology, OB, pediatrics)
- High patient variances from site to site and week to week create inconsistent clinical experiences from student to student
- Gaps in the health care team in preparing students to be “practice-ready” and “team ready”
- Distant rotations create issues for students related to travel, housing, costs and program site visit monitoring
- Paying preceptors and sites to train students is costly

# Challenges with Sim Education for Academic Institutions

- Cost including equipment, space, and personnel to deliver high fidelity, interdisciplinary, standardized patient simulations
- Personnel with expertise to run high fidelity simulators
- Labor intensive consuming large amounts of faculty time in creating and assessing patient scenarios
- Access to a comprehensive health care team to provide interdisciplinary “team-based care”
- Delivering a variety of simulation experiences (both breadth and depth) needed to train students especially in specialization areas (trauma, ER, pediatrics, OB, psych, geriatrics, critical care, hospital and ambulatory settings)
- Training facility that can handle large numbers of students (250 students in 4-5 hours)
- Location of training facility is inconvenient and a barrier to usage

# Shared Simulation Center

## Benefits to the Academic Institutions

- Provides equal access to a high fidelity simulation center to all five TCU partners regardless of their size or number of health disciplines ensuring high quality standardized training for all students and programs
- Provides a simulation experience for students in a real life hospital setting with exposure to state-of-the-art simulation technology and highly skilled technical staff to run it
- Fosters new interdisciplinary collaborative relationships which leverages the strengths of each partner in sharing resources, personnel, equipment, expertise, & standardized patient scenarios
- Develops an interprofessional team-based care model of training that includes all disciplines including physician providers that satisfies accreditation standards
- Augments existing curricula especially in scarce specialty areas
- Can lower reliance on clinical rotations, preceptors, & sites
- Lowers the cost of equipment, maintenance, and space needed for simulation training

# SANFORD HEALTH TODAY

Serving 2.74 million people in 300 communities across 252,215 square miles in nine states and nine countries.



44 medical centers



\$4.6 billion in annual revenue



482 clinics



48 senior living facilities



188,574 Sanford Health Plan Members



1,382 physicians, 973 advance practice providers and 6,503 registered nurses delivering care in more than 80 specialty areas



29,622 employees



## Each year, Sanford provides:

- 5.3 million outpatient and clinic visits
- 84,466 admissions
- 136,436 surgeries and procedures
- 9,537 births
- 210,129 emergency department visits



Health Service Delivery Area



World Clinics

# Simulation Training: The New Gold Standard in Healthcare

- Simulation Training is foundational to High Reliability Organizing
  - Aviation
  - Nuclear Power
- HRO: Risk is a function of probability X consequence
- Team training environment
- Eliminating the “second victim”
- “An amateur practices until they can get it right. A professional practices until they can’t get it wrong.” John Madden (or was it George W. Loomis, 1902)

# Clinical Training Programs: Ripe for Interdisciplinary Team Training

- Sanford/Tri-College University Simulation Disciplines
  - Sanford
    - Physicians & Advanced Practice Providers
  - Concordia
    - Clinical Laboratory Science, Food, Nutrition, and Dietetics, Nursing, Psychology, Social Work
  - M-State
    - Cardiovascular Technology – Invasive, Dental, Medical Assistant, Medical Laboratory Technology, Medical Receptionist, Mental Health Behavioral Aide II, Nursing, Pharmacy Technology, Phlebotomy Technician, Radiologic Technology, Surgical Technology
  - MSUM
    - Social Work, Gerontology, Nursing, Nursing Educator, Psychology, Speech Language Hearing Sciences
  - NDSCS
    - Dental, EMT, Community Paramedic, Nursing, Occupational Therapy
  - NDSU
    - Dietetics, Gerontology, Nursing, Pharmacy, Respiratory Care, Radiologic Sciences, Medical Laboratory Science, Social Work, Athletic Training, Theater

# SMCF & Repurposing Broadway Campus



# Investment, Development Process and Timeline

- \$5 million project
- 17,000 square feet of remodeled space
- Actual inpatient hospital setting, embedded on 4<sup>th</sup> floor of Broadway Campus
- Architect Hired; Plans must be approved by the State
- Design Committee
  - Representatives from Academic Institutions & Sanford
- Academic Advisory Committee
  - Development of library of shared sim scenarios
- Projected completion date of Fall 2020

# Shared Simulation Center Benefits to Sanford Fargo

- Increases our ability to offer simulation training to existing employees and providers
- Improves the quality and reliability of the care we provide to patients
- Further strengthens our relationship with clinical programs who train our future work force
- Ability to showcase Sanford Fargo and recruit students as possible future employees
- Usage revenue from the academic institutions will offset some of the operational costs of the center
- Academic faculty can help develop and run a broader range of simulations
- Yet another differentiation factor for Sanford nationally!

# Questions

