Virtual Care Center Fact Sheet

What is Telemedicine?

Telemedicine is the use of electronic information and telecommunications to enable remote clinical health care. Mercy uses telemedicine to extend both primary and specialty care to patients in a variety of settings, including physician offices, hospitals and homes.

The Critical Need for Telemedicine

- The nation’s health care needs will be impacted by a shortfall of 124,000 physicians by 2025\(^1\)
- Only one out of 10 U.S. doctors practice in rural areas, while nearly one in four Americans live in these areas\(^2\)
- The number of specialists per 100,000 people is 54 in rural areas, compared to 134 in urban areas\(^3\)
- The number of patients cared for through the technology has risen to about 10 million people in rural as well as urban settings\(^4\)
- The telemedicine monitoring market has more than doubled since 2007, growing from $4.2 billion to $10 billion in 2012\(^5\)

Virtual Care Center Fast Facts

- First of its kind in the nation
- 24/7 operation with nearly 300 highly specialized medical professionals providing virtual care
- Services are available to facilities within Mercy, as well as non-Mercy health care providers
- Located in Chesterfield, Missouri
- 4-story, 120,000-square-foot building that will include an expanded electronic ICU (eICU) command center and serve as the hub for more than 75 telemedicine programs
- $50 million investment in construction of the building and interior design
- Center opening slated for 2015
- The development of the center will require 500 construction workers
- When fully operational, the virtual care center’s total annual economic impact is projected to be $83.4 million
- Special care was taken to conserve nature at the construction site, including:
  - A portion of open space adjacent to the building will be returned to a native savanna prairie
  - Storm water will be captured within parking areas and relayed to bioswales designed to remove silt and pollution from the water, which will then be used in areas planted with native grass, perennials, trees and shrubs
- Clayco is serving as the design/builder
- Forum Studio, Clayco’s architectural subsidiary, is the designer

Mercy’s Telemedicine Programs

The virtual care center will house all of Mercy’s 75+ telemedicine programs. Some of the largest programs include:

- eAcute
- eNICU
- ePharmacy
- eVisits
- Home Monitoring
- Nurse-On-Call
- SafeWatch eICU
- Teleconsultations
- Teleheadache
- Telemetry
- Telepathology
- Telepediatric Cardiology
- Teleperinatal
- Teleradiology
- Telesepsis
- Telestroke
Results

Following are examples of results from two of Mercy’s largest telemedicine programs.

**SafeWatch eICU** – The largest single-hub eICU in the nation. Using in-room, two-way audio, video and computer connections, Mercy doctors and nurses provide around-the-clock monitoring of hospital ICU patients. These critical-care specialists use high-tech tools to identify abnormalities, uncover potential problems and assist with care when a patient’s attending physician is not in the ICU.

- Launched in September 2006
- Mercy specialists monitor more than 450 beds
- Service is provided in 28 ICUs over a five-state region (includes non-Mercy facilities in South Carolina)
- High-definition cameras and sophisticated technology allow physicians and nurses to zoom in and see details as small as pupil dilation
- Mercy’s SafeWatch results include:
  - Since 2009, ICUs using Mercy’s SafeWatch program have mortality rates 25 percent below Acute Physiology and Chronic Health Evaluation (APACHE) predictions
  - More than 2,000 lives have been saved in 2012 and 2013 alone
  - ICUs using Mercy’s SafeWatch program have seen a 20 percent reduction in length of stay, resulting in an annual savings of $25 million according to APACHE

**Telesepsis** – Mercy’s electronic health record system automatically searches for more than 800 warning signs to identify patients at risk for sepsis and alerts doctors, so they can move aggressively to prevent it.

- Mercy piloted its telesepsis program in St. Louis. Program data from July 2011 to May 2012 showed dramatic improvements compared to national averages and prior Mercy averages:
  - Decrease in septic shock-related deaths from 46.7 to 18.5 percent
  - Decrease in severe sepsis-related deaths from 28 to 14.5 percent
  - Decrease in ICU length of stay from 8 to 3.4 days
- Due to the success of the St. Louis pilot, Mercy implemented telesepsis at its facilities in Washington, Missouri; Oklahoma City, Oklahoma; and Fort Smith and Rogers, Arkansas. Program data from September 2013 to March 2014 showed comparable results:
  - Severe sepsis deaths at 8 percent, compared to 29 percent nationally in 2007
  - ICU length of stay at 2.48 days, compared to 9.2 days nationally in 2007

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2 ([Office of Rural Health Policy, Healthy People 2010: A Companion Document for Rural Areas](#))
3 ([Reschovsky, James D. and Andrea B. Staiti, “Access and Quality of Medical Care in Urban and Rural Areas: Does Rural America Lag Behind?,” Center for Studying Health System Change, 2004](#))
4 ([Jonathan Linkous, American Telemedicine Association Ohio Telehealth Summit, June 2013](#))
5 ([Erin McCann, Telehealth Sees Explosive Growth: Healthcare IT News, June 6, 2013](#))