

Using Advanced Telemedicine to Bring Specialty Care to Rural America - October 19, 2011

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Many of America's rural residents do not have adequate access to healthcare. According to the 2009 National Healthcare Disparities Report, of the nearly 1,000 "frontier counties" in the nation, most have only limited healthcare services and many do not have any. Meanwhile, rural communities represent nearly 25 percent of America's population, but less than 10 percent of physicians practice in those communities.

Ascension Health, the country's largest non-profit healthcare system, has successfully concluded a groundbreaking telemedicine pilot program that offers a way to greatly improve rural healthcare access by delivering high-quality, convenient and effective specialty consultations to people outside urban areas.

Earlier this year, Nashville's Saint Thomas Health, part of Ascension Health, piloted the use of Cisco's HealthPresence, a telemedicine technology that is so advanced that in some ways it is better than a face-to-face physician visit, thanks to the use of high-definition video and audio amplification.

Saint Thomas used this technology to reach patients in underserved communities in rural Tennessee and southern Kentucky who have limited access to specialty physicians. The technology combines high-definition video, advanced audio and real-time medical data telemetry to create a "same room" experience for patients and physicians as they interact remotely.

Here's how it works: At a rural community hospital or inside the Saint Thomas Mobile Medical Unit – a high-tech exam room in a truck – a clinical caregiver performs exam functions such as taking blood pressure readings or listening to a heartbeat. Data, video and audio are instantly relayed to a specialty physician in Nashville on the other end of the link.

The program allows for real-time physician-patient interaction via a high-definition video link and sharing of diagnostic data. A 37-inch screen provides a life-size image with video quality that is superior to the naked eye. This creates a "same room" interaction and experience – patients have said that physicians are "completely focused on them."

The technology allows patients to see a cardiologist or a neurologist without having to drive 50 to 100 miles to Nashville, and allows the specialists to spend less time driving and more time seeing patients. This offers significant convenience and removes hurdles in accessing care.

Access to a cardiologist is particularly important in rural America. The National Healthcare Disparities Report shows that the overall heart attack death rate is significantly higher for people admitted to hospitals in noncore areas (82.0 per 1,000 heart attack admissions) than for people living in large central metropolitan areas or small metropolitan areas (69.6 per 1,000 admissions and 78.6 per 1,000 admissions, respectively).

The overall rate of heart attack deaths was also significantly higher for people admitted to hospitals in metropolitan areas than for people living in large central metropolitan areas (85.8 per 1,000 admissions compared with 69.6 per 1,000 admissions).

By providing access to specialized care, the Saint Thomas advanced telemedicine program promotes more regular patient follow-up and care, with the potential to substantially improve overall patient health and disease management.

Ascension Health is exploring the potential of advanced telemedicine technology at other Health Ministries within our system. Other health systems outside of Ascension Health could also use it much in the same way we have to reach patients they have been unable to treat before.

Another potential use we see for this type of technology in the Tennessee and Kentucky areas – as well as worldwide – would be employing Mobile Medical Units or similar vehicles to travel to sites of natural disasters, such as this summer's disastrous tornado, or even the earthquake in Japan, to deliver expert remote treatment to patients who otherwise would not have access to primary and specialty physicians.

We believe advanced telemedicine technology represents an important and effective way to expand access and provide healthcare in the future. It can revolutionize the way rural patient care is provided.

For more information, see <http://bit.ly/vbBf50>