

Rural Kentucky Gains More Access

By DEBORAH BURTON, MA, PhD(c), and F. ROSE REXROAT RNC, MSN

In September 2014, Ruth Brinkley, president and CEO of Louisville-based KentuckyOne Health Inc. and senior vice president of operations for Englewood, Colo.-based Catholic Health Initiatives (CHI), gathered 800 KentuckyOne Health leaders for a two-day conference and talked about the importance of telehealth.

For her, it's personal.

"Many of you know that I grew up in a rural area and know firsthand the importance of access to health care," Brinkley said. "We are so fortunate in this day and time to have the technology that will help our patients have greater access to our health providers who can deliver quality care at the patient's place and time of need through telehealth."

Telehealth is "the remote delivery of health care services and clinical information using telecommunications technology."¹ It can help bridge the gap between need for services and access to health providers.

KentuckyOne Health is the product of a merger between the former Jewish Hospital & St. Mary's HealthCare and Saint Joseph Health System, with an operating agreement for University of Louisville Hospital — James Graham Brown Cancer Center. It is the largest and most comprehensive health system in Kentucky, with more than 200 locations in that state and in adjacent southern Indiana.

Kentucky, and particularly the 60 counties in KentuckyOne Health's central and east service areas, suffer from great economic burdens. Poverty rates are high, as are rates of disease and chronic conditions, but the number of health care providers in the areas is decreasing. More than

half of the service area's counties are in rural Appalachia, and many of them, including Powell, Wolfe and Bath counties, are federally designated health professional shortage areas or medically underserved areas.

As it positioned itself to expand telehealth services, KentuckyOne Health drew on years of experience with the technology. In 1997, a primary care mobile health service in the urban Lexington-Fayette county area was outfitted with equipment to link patients to clinical specialists for virtual consultations, and, in 2003, one mobile clinic operated in five eastern Kentucky rural communities offering similar telehealth links.

Since then, a research study funded by a grant from the Foundation for a Healthy Kentucky/Social Innovation Fund helped initiate KentuckyOne Health telehealth specialty services for

"We are so fortunate in this day and time to have the technology that will help our patients have greater access to our health providers."

— Ruth Brinkley



primary care clinics in Powell and Wolfe counties. In Owingsville/Bath County, telehealth services soon will be operational at a KentuckyOne Health rural health center staffed by a physician and advanced practice registered nurse (APRN).

For the past two years, Edward Allen Sizemore, DNP, APRN, NP-C, has been managing primary care practices in Powell and Wolfe counties and connecting patients to cardiology and pulmonology specialists in Lexington and Mt. Sterling. Sizemore described one of his patients, a 21-year-old female with no health insurance, whose chief complaints involved shortness of breath, feeling faint and heart palpitations. Finding her EKG to be slightly abnormal, he initiated a telehealth consultation with a cardiologist in Lexington. The cardiologist suggested the patient wear a Holter monitor for 24 hours in order to record her heart rhythm. She did so, and the monitor revealed heartbeat irregularities that called for a medication regimen to treat her condition.

“The biggest impact of telehealth has been greater access to services to provide for patients’ cardiac, respiratory needs and having that service readily available when the patient needs it,” Sizemore said. “Some patients have not had the option to see a specialty provider, let alone a primary care provider. Now, they have more timely access and, if needed, usually within the same week. Telehealth offers me the added shoulder to rely on, should I have a specific question. I know I can virtually communicate with the specialists to better serve my patient.”

HOME TELEMONTORING

In November 2010, CHI developed a one-year pilot program at three sites in three states to study top care management models to reduce avoidable hospital readmissions. A CHI Mission and Ministry Fund three-year grant allowed KentuckyOne Health to further study the model by adding home

“The biggest impact of telehealth has been greater access to services to provide for patients’ cardiac, respiratory needs and having that service readily available when the patient needs it.”

— Edward Allen Sizemore

telemonitoring devices and “transitions of care” registered nurses to coach patients making the transition from hospital to home.

Transitions of care nurses serve predominantly Medicare patients living in geographic areas made up of more than 35 counties. Of these patients, 86 percent have multiple chronic diseases, and 91 percent are receiving more than six medications or treatments.

The evidence shows that home telemonitoring is not just a quick fix, but a long-term strategy for helping patients avoid trips to the emergency department as well as hospital readmissions beyond the 30-day penalty window. Since the beginning of telemonitoring in October 2013, 14 patients have used the home equipment, and they have achieved a 56 percent reduction in patient hospital admissions and a 63 percent reduction in patient bed days.

One RN transition coach said the home telemonitoring equipment has made her patients more aware of their symptoms and more engaged and successful in their own medical self-management.

“Two of my patients say that the equipment and coaching have saved their life,” the nurse said. “Both of them are financially strapped, and they have very little social or emotional support. The knowledge that using the equipment ensures someone will check

on them is huge. It allows us to have quick contact with their primary care provider before symptoms get out of control.

“All of my patients are aware of their numbers, and if there is a change and I call them, they say to me, ‘I knew you would call today.’ Many times they say, ‘I’ve already taken my extra [medication]’ or ‘I’ve already called my doctor.’”

One home telemonitoring patient’s daughter wrote a thank-you note for the service.

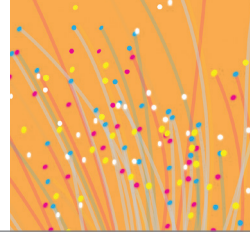
“I honestly believe because of Dad’s vitals being monitored, he has controlled the fluid retention, avoiding afib [atrial fibrillation], and his blood pressure is in the normal range,” she wrote. “He has not been in the hospital since being on the monitoring equipment. Without the availability of his nurse coaching him, and the ability to monitor Dad’s vitals, I don’t believe my dad would be alive today.”

KentuckyOne Health’s Saint Joseph Hospital Foundation recently received a grant from Verizon Foundation to explore the role technology could play in patients’ self-management of their chronic diseases. The program will involve 300 patients, ages 50 and older, who have multiple chronic diseases. Each patient will receive a smartphone or tablet; a Fitbit activity tracker and the Fitbit Aria “smart scale” that tracks weight, body-mass index and body fat percentage; a blood pressure monitor; a digital nutrition food scale; and a CalorieKing fat-, carbohydrate- and calorie-counter book.

As part of the program, nurse care transition coaches, health coaches and dietitians will provide health coaching and nutritional counseling. All data resides with the patient and is not transmitted.

EMERGENCY TELEPSYCHIATRY

Telehealth is an expedient way to give emergency room patients in other parts of the state access to services from Our Lady of Peace, a KentuckyOne Health psychiatric hospital in Louisville that



offers the most comprehensive array of psychiatric treatment services in the state.

Equipment from a previous grant-funded initiative and redeployment of existing telecommunications equipment jump-started an emergency telepsychiatry assessment pilot between Our Lady of Peace and emergency departments in two rural hospitals and one urban hospital.

The Louisville hospital's mental health therapists assess patients via telehealth link, then review the clinical information with an Our Lady of Peace psychiatrist to obtain recommendations for the appropriate level of care: acute inpatient, partial hospitalization, intensive outpatient or traditional outpatient counseling.

The result has been "one of the best improvements to patient care and safety we have ever made in this department, not only for the patient, but for the staff as well," said Lori M. Coots, BSN, RN, EMT-P, interim director of emergency services and outpatient services at Saint Joseph London, a rural hospital in London, Ky. She described how a patient went to the ED in crisis, having witnessed the suicide of her son. The staff immediately set up an emergency telepsychiatry connection between the patient and clinicians at Our Lady of Peace.

"Clinicians at Our Lady of Peace provided the assistance and the care our patient needed to be able to cope with this devastating situation and possibly prevented this family from having to deal with another tragedy," Coots said.

TIMING AND BANDWIDTH

Telehealth seems so simple and logical. Introducing and implementing the three telehealth programs turned out to be both complex and confounding because they happened at the same time KentuckyOne Health was being formed, and CHI was undertaking its own restructuring and expansion efforts. The scenario presented numer-

ous challenges in maneuvering through multiple levels of compliance, security, legal, contracting, data, networking, primary care and hospital telecommunications infrastructure — not to mention outsourced IT and the flux of departing and arriving staff across KentuckyOne and CHI health systems.

Add to that the element of surprise. Equipment testing went well, and telehealth began at several primary care clinics. All of a sudden, the audio/video connections degraded, and office staff computers and tablets stopped exchanging data during what seemed like random times. The culprit — not recognized at the time — was the introduction of electronic medical records, a completely new variable in the health system's telecom infrastructure. It took several months investigating local, regional and national telecommunications operations and systems to understand that there simply wasn't enough bandwidth for the telehealth programs and the electronic medical records system to operate simultaneously. Each rural clinic needed new telecommunications lines.

This experience helped stave off bandwidth issues before the Emergency Telepsychiatry Assessment program got started, and health care facilities were urged to assess their telecommunications infrastructure before bringing electronic medical records online.

THE FUTURE

Telehealth consultations will continue to grow to meet new health service needs, such as in-school telehealth, or as service lines are expanded system-wide, such as in facilitating a statewide telestroke network, or in offering pre- and post-oncology rehabilitation medicine telehealth consultations.

In addition, as technology evolves, opportunities for telehealth consultations will expand through mobile com-

munication devices, wearable monitoring and smart appliances to where the patient is the originating site — wherever he or she is — 24 hours a day, seven days a week.

As health care reform shifts traditional patterns of service, telehealth consultations will meet the demand for services in nontraditional modes from retail clinics, worksite kiosks, pharmacy spaces and hospital to the home. Telehealth will be intertwined in man-

Telehealth consultations will meet the demand for services in nontraditional modes from retail clinics, worksite kiosks, pharmacy spaces and hospital to the home.

aging population health, facilitating coordinated care, extended through health insurance providers and offered as a part of bundled services for specific procedures or to targeted groups of patients.

The challenge is to shift slow-moving health systems into a higher gear. They must establish a culture of collaboration and innovation to enable a more rapid response to change, if they are to meet consumer demand and compete at a higher level of expectation in a growing field of providers willing to serve health care needs.

DEBORAH BURTON is manager, telehealth, KentuckyOne Health, and is located in Lexington, Ky.

F. ROSE REXROAT is manager, telehealth and community outreach, KentuckyOne Health, and is located in Lexington, Ky.

NOTE

1. American Telemedicine Association, www.americantelemed.org/about-telemedicine/faqs#VDNyufldXyO.

JOURNAL OF THE CATHOLIC HEALTH ASSOCIATION OF THE UNITED STATES

www.chausa.org

HEALTH PROGRESS®

Reprinted from *Health Progress*, January - February 2015
Copyright © 2015 by The Catholic Health Association of the United States
