Telemedicine in Transition: *Growth and Challenges*

BY EVAN GODT

Telemedicine's potential is vast, but before it can be realized, a number challenges must be overcome. High-speed bandwidth still is not available in some areas of the country, and telemedicine's role in the transition to a fee-for-performance model needs to be supported by clearer reimbursement guidelines. Just how close are we to meeting healthcare needs at anytime, from anywhere?

Healthcare "without walls," connecting with patients without limiting factors, is how Lee Marley sees telemedicine. To Marley, the senior vice president and CIO of Presbyterian Healthcare Services in New Mexico, who spoke on the topic in January at the Institute for Health Technology Transformation's Health IT Summit in Phoenix, telemedicine allows for the delivery of care without the constraints of geography or travel that could limit access.

The list of telemedicine applications already is long and growing:

- Teleradiology, especially providing overnight on-call interpretations;
- Remote monitoring of cardiac devices, such as pacemakers;
- Behavioral health videoconferencing;
- Remote overnight monitoring of intensive care unit beds by an intensivist;
- Teledermatology featuring remote consultation with specialists regarding rare skin conditions; and
- Remote analysis of pathology slides.

Patients seem to be on board. "There's lots of receptivity to using these technologies, especially when we're able to provide access that otherwise wouldn't happen," says Marley. While there are some generational differences, she notes that there has been increasing adoption of telemedicine applications among older patients, as well as younger, seemingly more tech-savvy individuals.

Every study on patient acceptance of telemedicine has been positive, says Jonathan Linkous, CEO of the American Telemedicine Association in Washington, D.C. "There's been so much universal support that when we look at scientific papers for our meeting, we generally don't accept papers that look at patient acceptance because it's all uniform," he says.

ESTABLISHING A CONNECTION

Despite the positivity surrounding the field of telemedicine, a number of issues remain to be addressed, not the least of which is access to a broadband connection. Some rural clinics—and in the case of at-home use of telemedicine, sometimes patients themselves—don't have high-speed bandwidth, says Marsha Birmingham, manager of telecommunications for Presbyterian Healthcare Services. In a state like New Mexico, which is large and includes areas of rough terrain, remote care would provide a valuable service, but greater connectivity is needed.

Government grant programs intended to extend broadband access for healthcare could be the answer, but have been difficult to utilize. The Universal Service Fund, established after the Telecommunications Act of 1996, aimed to provide resources. In January, the Federal Communication Commission announced the latest iteration of such broadband grant funding, promising $400 million annually for development of broadband networks to support rural telemedicine.

Birmingham says Presbyterian Healthcare Services has received grant funds to connect rural hospitals, but it's been a challenge to use grants to their fullest extent. Smaller nonprofit organizations might not be able to raise the matching funds to secure the grant, and there are limiting stipulations on what is considered rural. Linkous also notes that it takes a skilled grant writer who can develop a relationship with a telecommunication company and complete a detailed analysis of costs, because money doesn't go directly to providers, it goes to telecommunications companies as a subsidy.

When the subsidies work, they can be quite a boon to telehealth. Karen Rheuban, MD, medical director of the Office of Telemedicine and director of the Center for Telehealth at the University of Virginia (UVA) in Charlottesville, says a broadband connection to rural southwest Virginia cost $5,800 a month before being subsidized, and dropped to several hundred dollars per month after the grant program was implemented.

The organizations served by the subsidies have really needed and benefited from them, says Linkous. "However, it's been unsuccessful in that not many programs have actually gotten the money." He adds that he's optimistic that changes incorporated in the latest iteration of the program will lead to more of the money being effectively used.

Once the connectivity hurdle is cleared, healthcare professionals need to know how to utilize these new technologies. In Virginia, this will be aided later this year by the opening of the Southside Telehealth Training Academy and Resource Center (STAR), a grant-supported program operated by the New College Institute and the UVA Center for Telehealth. Rheuban says the goal of STAR is to train health professionals—from nursing assistants to physicians, if they're interested—in making the most of the technology through didactic materials and hands-on-training.

"We've seen with public policy changes—certainly within our state but which are occurring around the country—the need for a workforce that is comfortably trained in the use of these technologies," says Rheuban.

CROSSROADS OF REFORM

Healthcare reform provides both a challenge and an opportunity for telemedicine. "It's time to look for the best opportunities to put this technology in place and transform how healthcare is delivered in this country," says Marley. "Clearly, the cost pressure and the number of people who will now have access to healthcare under the Affordable Care Act—which is a wonderful thing—puts tremendous pressure on the capacity of our systems to meet the demand. I think it's very important to leverage this technology as we move into different models of care."

At the same time, the way reform laws have been written, accountable care organizations may not be properly reimbursed for telehealth services, something the American Telemedicine Association hopes Congress will address. Linkous says a number of bills have been introduced in the past and will be reintroduced this year to fix Medicare reimbursement of telemedicine and address state-by-state licensure requirements that limit, for example, national teleradiology practices by requiring the radiologists to be licensed in each state served. Whereas in the past government had a role in spurring telemedicine adoption, Linkous says it's time to get government out of the way and pull back some of these regulations.

"I think, as we realign the healthcare payment system, [the challenge is] making sure telemedicine is a part of that driving mechanism," says Linkous. CI+T