

Is Your Hospital Prepared to Support TeleHealth Technology?

by Mike Mitchell

[Senator Susan Collins](#) of Maine, a member of the Senate Special Committee on Aging, describes Health Information Technology this way, "Health information technology - a powerful combination of medical expertise, computers and high-speed internet called telehealth - has the potential to transform healthcare, simultaneously enabling better patient outcomes and lower costs."

What is Telehealth?

The [American Telemedicine Association](#) defines the term this way, "Closely associated with telemedicine is the term *telehealth*, which is often used to encompass a broader definition of remote healthcare that does not always involve clinical services.

Videoconferencing, transmission of still images, e-health including patient portals, remote monitoring of vital signs, continuing medical education, and nursing call centers are all considered part of telemedicine and TeleHealth."

Practical Telehealth

In 2005, my hospital began transmitting images from one campus to another. As you know, images require tremendous bandwidth. We ordered and installed high bandwidth Native Mode LAN Interconnection (NMLI) circuits from our local exchange carrier to meet the demands of image transmission. [Metro Ethernet](#), the next generation of NMLI, is now available for even more bandwidth.

You may already support telemetry to monitor heart patients within your hospital. [Banner Health](#), a healthcare provider operating primarily in the southwest, describes [telemetry monitoring](#) as, "... patients typically wear a heart monitor (a small box that weighs less than one pound) that sends signals to the nurse's station where a technician observes the heart rate and rhythm. Nurses monitor vital signs, weight measurements and fluid levels to provide the best standard of care to patients."

The [Volunteer Hospital Association](#) (VHA) of Georgia's Telecommunication Manager Council used videoconferencing very effectively to include managers from across the state in our monthly meetings. Educational programs, industry updates, and cost saving initiatives were presented to members in geographically separated hospitals within the state.

Telehealth Privacy and Security Concerns

In their article, [Has the Time Come To Embrace Telehealth as a System Solution?](#), published in [iHealthbeat.com](#), Louis Bransford, Charlie Nahabedian, and Vince Waterson express their concerns about privacy. "Privacy issues continue to haunt telehealth applications. Who has control and/or access to medical records?"

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The authors relate this recent incident, "Just recently, hackers demanded \$10 million from the state of Virginia to return millions of patient records they were holding hostage. The hackers were not successful, but it reinforces the need for greater security to ensure privacy when sensitive medical information is being transmitted or stored electronically."

What are the Telehealth Possibilities?

The above authors ask this question: "On a futuristic note, what if telehealth services were available in unmanned clinics in publicly accessible locations? It is estimated that the service would cost half of what manned clinics charge, or about the cost of some insurance copayments."

The Northwest Herald carried Luran Neergaard's report: [Cell phones could aid doctors, patients in fighting disease](#) citing an innovative trend called mobile health or mHealth. Patient cell phones are the ubiquitous technology driving this trend. The author gives these examples:

- In a study of 70 Boston residents to improve the cancer-preventing use of sunscreen, daily texts were found with reminders hooked to the weather forecast for six weeks this in turn, increased sunscreen use by 40 percent.
- Researchers at New York's Mount Sinai Medical Center found episodes of rejection dropped when they texted take-your-medicine reminders to 41 pediatric liver transplant recipients or their caregivers, adding another text nag to the parent if teen patients didn't quickly respond that they'd taken their dose.
- Free text4baby, where government-vetted health tips timed to pregnant women's due dates are texted weekly to about 50,000 participants.

Your hospital will need creative approaches to improve healthcare and contain costs as we run headlong toward healthcare reform. Telehealth is just one area you should research and be prepared to speak with knowledge, ideas, and out-of-the-box thinking.