Telehealth: A Hidden Revenue Source?

Better outcomes and new revenue streams mean hospital CFOs are increasingly excited about the opportunities presented by telehealth.

Hospital telehealth programs are quickly picking up steam, and no wonder—the opportunities to improve patient care and develop new revenue sources are enormous.

In fact, studies of telehealth programs show that the right technology and approach can help hospitals achieve three critical goals: improved patient care, increased patient satisfaction and healthier financials.

In Tennessee, a rural health network was formed employing telehealth to serve patients from nine counties and two states. It succeeded in improving outcomes and reducing costs for crisis and dental care while improving diabetes and congestive heart failure management. The study projected that telehealth services could reduce the cost of hospitalization for congestive heart failure from $8 billion to $4.2 billion a year if rolled out at the national level[1].

Patients with access to telehealth services have a higher opinion of the quality of the healthcare in their community, and technologically savvy hospitals have a much higher patient satisfaction rate on a variety of services[2].

For hospitals to widely adopt telehealth programs, they must understand all the potential benefits, in detail, as well as the barriers to adoption.

There are virtually unlimited opportunities to improve patient care. Here are two examples.

• Stroke patients must receive a tissue plasminogen activator within three hours of onset. Many times, patients are unable to be seen by a neurologist quickly enough to be diagnosed with a stroke and treated. Tele-stroke programs that give ED physicians access to a centralized stroke team have proven highly successful at improving stroke outcomes in patient populations, lowering mortality and long-term disability rates.

• Medication adherence can significantly improve patient outcomes, but not all patients are able to speak to a pharmacist in person due to mobility or language issues. Connecting pharmacists with patients via telehealth expands services and reduces care cost through increased medication adherence.

Here are some use case examples:

Reduce ICU staff.
With remote monitoring, a centralized group of intensivists and nurses can monitor patients in multiple locations, reducing overall staff. A tele-ICU system can be integrated with a computerized alert system to notify caregivers when vital signs change.

Improve radiologists' efficiency.
Telehealth systems allow radiologists to connect as needed to EDs, ORs, doctor's offices and clinics. Providers and patients get results faster, and a single radiologist can serve multiple providers.

Increase specialists' reach.
With telehealth, each specialist can cover a wider geographic area. By providing specialized care to those in rural or underserved areas, hospitals can improve patient outcomes while increasing specialist utilization rates.

Decrease administrative costs.
Telehealth saves hospitals time and money by bringing employees together virtually. Management meetings, care-team meetings, cancer review board meetings and clinical status meetings can be quickly coordinated with no travel time required. Similarly, clinical and staff training can be conducted virtually, saving travel expenses and easing coordination.

Decrease hiring costs.
By using telehealth to temporarily fill specialist positions, HR personnel spend less time on temporary solutions and more time recruiting permanent employees.

New Revenue Streams

Workplace clinics.
Many employers have realized the benefits of providing on-site healthcare clinics that provide wellness checkups and sick visits. With telehealth, hospitals can partner with workplace programs to provide greater access to doctors and improve outcomes through faster access to specialty care.

Prison consultations.
Health education and sick visits are both needed in prisons, especially with inmate populations growing and resources declining. Telehealth is extremely attractive to prisons, delivering care without the need for extra security or inmate transportation.

Virtual house calls.
Chronically ill patients need the most care, yet they are often the least mobile. Telehealth enables one-on-one physician visits without either party leaving their location. More frequent visits combined with sophisticated monitoring systems raise the quality of the interactions and improve patient outcomes.

Clinical training programs.
Using telehealth, hospitals can provide training and continuing education to the broader medical community, establishing their reputations as healthcare leaders and bringing academic-level medical education to less populated areas.

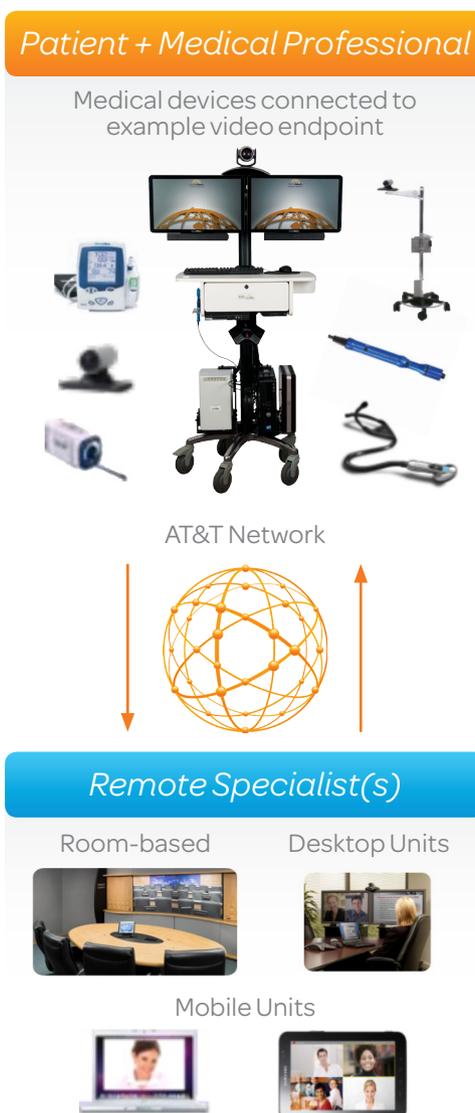## Working to Overcome Telehealth Barriers

Telehealth's benefits are so numerous it seems inevitable that it will someday be ubiquitous. But telehealth adopters still face significant issues.

- **Network speed.** Telehealth services for consultation and diagnosis require fast, robust connections. Existing telecommunications infrastructure can be leveraged with programs that prioritize telehealth traffic on the network to provide a high-quality experience.

- **Reimbursement.** Medicare telehealth services have been expanded over the years to encompass a greater variety of provider types and services. However, there are still some restrictions on services, providers and originating sites, and the encounter must happen in real time, not asynchronously.

- **Licensure.** CMS issued new telehealth rules in 2011, allowing providers like hospitals to provide medical credentials to telehealth providers via privileging by proxy, which means a facility accredited by the Joint Commission can accept the privileging decisions of another accredited facility for "distant site" providers who engage in telehealth services.

- **Cost.** The technology to support telehealth services and managing operations and training can be expensive, so it's important for providers to select solutions tailored to their needs and budget. Initially, federal and state grants can subsidize costs, but telehealth programs must be appropriately sized and designed to support continued financial sustainability.

- **Resistance to change.** Some hospitals have been slow to adopt the key technology pieces that enable telehealth, including network-enabled monitoring devices. Patient acceptance of telehealth is also a challenge in some areas.

- **Security and privacy concerns.** Healthcare organizations must implement telehealth in a way that establishes rigorous security measures to reduce risks of telehealth data breaches. Temporary data storage on telehealth devices such as digital diagnostic tools must be adequately protected from potential security breaches.

Choosing the Right Technology is Crucial

Selecting the right technology for a telehealth initiative a crucial to its success. The performance and quality of the telehealth system interface is essential to building a positive experience for patients and providers. However, what many healthcare organizations do not consider is that the network that powers that system can make or break the telehealth system's success.

Implementing telehealth services can be a significant investment. Providers should work with a telehealth partner that looks at the big picture: understanding the organization's goals, processes and technological challenges to design a telehealth system that meets the organization's needs. Following are a number of areas that healthcare organizations should consider when planning the design and implementation of a telehealth system.

Patient + Medical Professional

Medical devices connected to example video endpoint

AT&T Network

Remote Specialist(s)

Room-based   Desktop Units

Mobile Units

Security and privacy. A telehealth network is required by HIPAA and other state and federal regulations to meet security and privacy standards. An effective telehealth system will ensure encryption of data both in transit and at rest.

Technology management. The cost and complexities of network optimization and data backup and redundancy can be cumbersome for many IT departments that choose to manage this in-house. Some healthcare systems are turning to fully managed telehealth solutions, through which a telehealth provider can install, engineer, optimize, maintain and manage all aspects of the telehealth network.

Networking. Many telehealth providers emphasize their high-definition equipment, but what counts is how that equipment comes together into a comprehensive solution that serves providers at every endpoint. Organizations should look for a telehealth partner that takes a consultative approach to designing a networked system across the enterprise, with an eye for how the system can scale to accommodate new departments, users and devices over time.

Training and adoption. Fostering widespread usage and adoption of telehealth solutions can be a hurdle for healthcare organizations. Whether an organization is attempting to indoctrinate physicians who are technology-shy or appeal to recent medical school grads who insist on using iPads, creating usable telehealth across a healthcare system is a challenge. Every organization's telehealth strategy must include a plan to evangelize telehealth and train users.

AT&T Telehealth

AT&T supports healthcare organizations' telehealth initiatives with a market-leading solution that combines network-based videoconferencing capabilities with digital diagnostics instruments, scheduling services and system integration. AT&T combines its extensive experience in designing robust telehealth networks with its expertise in networking to optimize organizations' networks for a virtually seamless telehealth experience that fosters adoption, supports better patient outcomes, increases organizational efficiency and helps protect patient privacy.

AT&T takes a consultative approach to designing telehealth solutions, working with organizations to determine and understand business objectives and challenges. AT&T then works with health systems' IT departments to implement an enterprise-wide system or provide a turnkey, fully-managed telehealth solution that removes the burden of maintaining equipment and networked endpoints.

AT&T brings a cost-efficient, flexible, integrated networked solution tailored to healthcare organizations' specific needs:
- It's vendor agnostic, allowing virtually seamless integration with existing systems
- It's flexible and scalable, from small to large deployments that can be self-managed or vendor-managed
- It's cost-effective because customizable pricing and services reduce upfront capital costs
- It can include end-to-end network solutions and connectivity (turnkey)
- AT&T systems are supported by a reliable and highly secure digital voice and data network that reaches more than 300 million people around the world

To learn more about the AT&T ForHealth Telehealth Solution visit **forhealth.att.com/solution/provider/telehealth**.

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1. "Outcomes of an integrated telehealth network demonstration project." Telemedicine Journal and e-Health. March 2003.

2. Hospitals & Health Networks' Most Wired Survey and Benchmarking Study, 2008.

Conclusion

Telehealth holds great promise for healthcare organizations, helping them provide far-reaching care to patients while operating more efficiently and cost-effectively and creating new revenue sources. Many of the obstacles to successful telehealth programs are being resolved, and robust technology solutions are now available. Across the country, organizations are beginning to share their telehealth success stories, as technology and strategy come together to solve healthcare's toughest challenges.