TAPPING THE POTENTIAL OF TELEHEALTH

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TELEHEALTH

What is it?

As recently defined by the Telehealth Advancement Act of 2011 in Section 2290.5 of the California Business and Professions Code, “telehealth” means “the mode of delivering healthcare services and public health via information and communication technologies to facilitate the diagnosis, consultation, treatment, education, care management, and self-management of a patient’s healthcare while the patient is at the originating site and the healthcare provider is at a distant site. Telehealth facilitates patient self-management and caregiver support for patients and includes synchronous interactions and asynchronous store and forward transfers.”

There are many applications for telehealth including medical care for home-bound patients, providing care in geographically remote locations, monitoring for chronic disease/condition management, remote monitoring of at-risk populations, mental telehealth for incarcerated populations, and increased access to services in areas with provider shortages.

What is the Difference between Telemedicine and Telehealth?

Telemedicine often refers only to the provision of clinical services while the term telehealth can refer to clinical and non-clinical services such as medical education, administration, and coordination. There are two main approaches for providing telemedicine services: live face-to-face encounters between patient and health professional via real-time image technology, and “store and forward” which allows a provider or technician at the patient site to capture diagnostic information using clinical instruments and send the digital image of the information to a clinician at a remote site.
Promise of Telehealth

Telehealth has moved into the Mainstream. In 2013, 52 percent of hospitals utilized telehealth, and another 10 percent were beginning the process of implementing telehealth services. Consumer interest, acceptance and confidence in telehealth are growing as well. Recent studies on the use of telehealth services have shown that:

- **74%** of U.S. consumers would use telehealth services
- **76%** of patients prioritize access to care over the need for human interactions with their healthcare providers
- **70%** of patients are comfortable communicating with their healthcare providers via text, e-mail or video, in lieu of seeing them in person
- **30%** of patients already use computers or mobile devices to check for medical or diagnostic information
The Three Traditional Modalities of Telehealth

Telehealth traditionally encompasses three main modalities, each with distinct applications within the broader telehealth industry.

1. One telehealth modality is Real-Time, a live, two-way interaction between a patient (or the patient’s caregiver) and a healthcare provider using audiovisual technology. Real-time telehealth services can be used to consult, diagnose and treat patients.

2. Another telehealth modality is Store-and-Forward, involving transmission of a patient's recorded health history (e.g., pre-recorded videos or digital images such as X-rays and photos) through a secure electronic communications system to a healthcare provider, usually a specialist. The information is used to evaluate a patient’s case or, in some cases, render a service outside of a real-time interaction. Store-and-Forward technologies have the advantage of providing access to patient data after it has been collected, and are particularly beneficial to patients requiring specialty care when providers are not otherwise available locally. This modality also is used for providing services to patients in other countries.

3. A third telehealth modality, Remote Patient Monitoring, involves collection of a patient's personal health and medical data via electronic communication technologies. Once collected, the data is transmitted to a healthcare provider at a different location, allowing the provider to continue tracking the patient's data once the patient has been released to his/ her home or another care facility.
### Hospital-Based Telehealth Platforms

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<thead>
<tr>
<th>Platform</th>
<th>Description</th>
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<tr>
<td>Telestroke</td>
<td>Remote evaluations, diagnoses and treatment recommendations are transmitted to emergency medicine doctors at other sites using advanced telecommunications technologies.</td>
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<tr>
<td>Teleradiology</td>
<td>Images and associated data are transmitted between locations for the purpose of primary interpretation or consultation and clinical review.</td>
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<tr>
<td>Tele-ICU</td>
<td>Networks of audiovisual communication and computer systems are linked with critical care physicians and nurses to ICUs in other, often remote hospitals.</td>
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<tr>
<td>Telemental Health</td>
<td>Mental health and substance abuse service are provided from a distance (e.g. using videoconferencing and other advanced communication technologies).</td>
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<td>Telepathology</td>
<td>The practice of pathology is performed at a remote location by means of video cameras, monitors, and a remote-control microscope.</td>
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<td>Cybersurgery</td>
<td>Surgeons use surgical techniques with a telecommunication conduit connected to a robotic instrument to operate on a remote patient.</td>
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<td>Remote Monitoring</td>
<td>Patients are subject to continuous or frequent periodic clinical monitoring via advanced communication technologies.</td>
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<tr>
<td>Telepharmacy</td>
<td>Pharmaceutical care for patients (or supervision to technicians) is provided at a distance using advanced telecommunications technology.</td>
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<td>Consultations</td>
<td>Remote consults are conducted with remote specialists, primary care providers, counselors, social workers and other healthcare professionals.</td>
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HOW CAN LOCHBRIDGE SUPPORT YOUR TELEHEALTH INITIATIVES?

Enabling Better Access to Healthcare
Lochbridge assists healthcare systems and providers with the selection and implementation of low-cost, high-quality telemedicine systems and workflow. Whether it is establishing a telehealth network, leveraging existing equipment or optimizing existing programs, Lochbridge has the expertise to make your program a success.

Client-Focused Solutions
Lochbridge is vendor agnostic, so the solutions we develop integrate the best of emerging technology with your existing resources to create a system that meets your specific needs. The company's high quality, competitively priced services assist with the assessment, selection and implementation of telemedicine solutions.

One Source, Many Solutions
With a strong base of experience in multiple aspects of telehealth, telemedicine and telepresence, Lochbridge serves as a single source for every aspect of the selection, assessment, review, implementation and integration process, including technology and workflow development. Lochbridge serves as your partner for all specialties and services related to telehealth, ensuring you have an optimized solution that meets the needs of stakeholders throughout your organization.
CONCLUSION

Hospitals and health systems are adopting telehealth technologies to provide convenient access for patients and these technologies hold great promise to increase access and patient satisfaction. However, implementation has been hampered by operation challenges, as well as the confusion caused by the patchwork of reimbursement rules and rates for public and private payers. To date, there is no consensus on criteria or reimbursement rates for telehealth services, while payers are concerned that paying for virtual visits in a fee for-service system may increase volume and costs.

The implementation and effective use of Internet, mobile and video technologies offer hospitals, physician groups and health plans ways to improve their performance and provide greater convenience and value to patients. As new healthcare delivery and payment models evolve, and the systems to support the use of new technologies improve and become less costly, telehealth offers the potential to improve the efficiency, convenience and cost-effectiveness of our healthcare system.
ABOUT US

Over the past 40 years Lochbridge has served as a trusted business partner providing technology consulting and services for some of the world’s most respected brands. Lochbridge has unique offerings in the IoT space and all the supporting pillars to enable transformations including Digital, Analytics and Business Intelligence. Lochbridge has worked with more than 2,000 organizations and businesses, creating custom-designed technology platforms, which have transformed the way our clients connect with their employees, partners and customers.

Balaji Satyavarapu has 18 years of professional IT consulting experience specializes in the healthcare sector. He managed and collaborated with a major national healthcare system in developing and implementing a new industry leading and cutting edge TeleHealth solutions for Stroke Network and Behavioral Health service lines. He collectively designed a robust TeleHealth store-and-forward capabilities to help clinicians acquire patient information that can then be forwarded to remote specialists for clinical evaluations. This new innovative solution provides seamless, comprehensive multi-media and real-time communications across the continuum of care using advanced unified channels.