Telehealth

Educational Briefing for IT Professionals

Executive Summary

Telehealth refers to a group of telecommunication technologies and clinical services that facilitate the electronic exchange of medical information. Though unevenly reimbursed, telehealth programs are becoming popular as providers seek to conveniently expand access to care while reducing utilization and costs without compromising clinical quality.

Why is telehealth a key issue for providers?

Telehealth services are a primary example of how technological innovations facilitate high-quality care delivery to patients at an appropriate site in a timely fashion. Telehealth programs provide both clinical and financial value to providers and the communities they serve. Rural and underserved communities benefit clinically from enhanced access to clinical care and expertise, and financially from a reduction in commuting costs. Providers benefit clinically by expanding their care networks and enhancing the standard of care through the sharing of clinical best practices, and financially through brand expansion, greater referral generation, and higher patient retention.

How does telehealth work?

The purpose of telehealth is to conveniently connect end users from remote locations for clinical, informational, or educational purposes. Telehealth services can be divided into four categories:

<table>
<thead>
<tr>
<th>Established Technologies</th>
<th>Emerging Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Store and Forward</strong></td>
<td><strong>mHealth</strong></td>
</tr>
<tr>
<td><strong>Remote Monitoring</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Live Virtual Interactions</strong></td>
<td></td>
</tr>
<tr>
<td><strong>mHealth</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Definitions**

- **Established Technologies**
  - Store and Forward: Platforms that allow asynchronous transmissions of images, test results, or other data
  - Remote Monitoring: Platforms that allow for transmission of patient vitals or other clinical parameters to clinicians
  - Live Virtual Interactions: Platforms enabling remote, synchronous services to be provided via live video conferencing or phone connection
  - mHealth: Mobile health applications used by patients to manage their care on smartphone and tablet devices

**Examples**

- **Established Technologies**
  - Radiology exams being interpreted by a remote physician; email messaging between a patient and provider
  - Digital scales, BP cuffs, pulse oximeters with transmission capabilities
  - Virtual behavioral health visits; remote telestroke video consultation

**Questions That Hospital Executives Should Ask Themselves**

1. How is my organization planning to use technology to expand market presence?
2. How do I envision telehealth technologies will influence the patient experience?
3. What challenges exist for my hospital in funding a telehealth program?
How does telehealth affect providers?

Clinical
Providers’ focus on disease and population health management is influencing the adoption of telehealth technologies. Real-time data transmission and enhanced monitoring capabilities are playing significant roles in chronic disease management, in particular, through remote home monitoring technologies that better connect providers to patients. Home health agencies are using these platforms successfully to reduce readmission rates, and hospitals are investing in these systems to avoid exacerbations, prevent readmissions and inappropriate admissions, and lower overall costs of care. Population health management is enhanced through added access points for patients, particularly those in medically underserved areas or rural communities.

Financial
Under traditional fee-for-service payment, telehealth receives limited reimbursement, but this is changing. Medicare currently reimburses telehealth encounters serving rural areas with an expanding list of approved codes. The Next Generation ACO (accountable care organization) model greatly expands reimbursement for telemedicine coverage in a wide variety of circumstances. In the near future, the Centers for Medicare & Medicaid Services (CMS) may reimburse primary care physicians for providing chronic disease management services to beneficiaries without an in-person visit. Some payers and state Medicaid agencies reimburse a variety of telehealth services including live consultations and a limited number of store-and-forward services; others lag behind in developing telehealth reimbursement standards. Importantly, many payers and employers are beginning to offer these services to members and employees at little or no cost. Some providers are actively engaged in lobbying efforts for additional reimbursement from Medicaid and commercial plans.

Operational
The greatest operational challenges in implementing telemedicine relate to provider workflow and information integration into the EMR. Organizations generally need to redesign clinician workflow from the standard office model in order to offer telemedicine services. Some organizations dedicate a resource to staff virtual visits. Others fit consultations into physicians’ marginal time. There are other models as well. In addition, remote monitoring generates large amounts of data that must be managed and responded to using manual or automated systems.

Integration of telehealth encounter information into the EMR is challenging whenever the consulting clinician is not using the EMR to document the visit. Thus, provider organizations working with virtual visit companies must ensure the capture and import of company physicians’ visit notes into the provider organization’s EMR. Remote monitoring data, and decision making based on such data, must be captured in the EMR as well.

How might telehealth affect IT?

Physician Adoption Can Be a Barrier
- Physicians must be reassured that the quality of care will not suffer in a telemedicine model. Workflow concerns must be addressed, and physician compensation models must reflect the value to the organization of the telemedicine encounter.

Do Not Forget Security and Privacy
- HIPAA’s 2013 Omnibus Final Rule increases financial penalties for breaches of protected health information (PHI), adding pressure to securing PHI and maintaining HIPAA (Health Insurance Portability and Accountability Act) compliance.

Need to Upgrade IT Infrastructure
- Using telehealth platforms may present interoperability challenges. Providers will need to ensure compatibility of telehealth systems with their current technology, including optimization of their data collection and usage capabilities.

Additional Advisory Board research and support are available.