TELEMEDICINE TECHNOLOGY: GETTING CONNECTED

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Objectives

- Learn the basic technology needs for telehealth
- Identify equipment and platform choices for different types of telehealth services
- Discuss telehealth connectivity challenges and resources
Technology Can Limit Telehealth

- The technology does guarantee a successful telemedicine program.
- But failing to make the right technology will likely lead to a failed program.

- “The equipment is too difficult to use”
- “Nobody showed me how to use the …”
- “The audio or video quality made a diagnosis impossible”
- “Equipment fails repeatedly”
Common Technology Types

- Videoconferencing Software
- Peripheral Devices
- Telemedicine Carts
- Remote Patient Monitoring Equipment
- Smartphone Apps and Devices

Telemedicine technology was cited as the most important asset relative to program success.

2017 US Telemedicine Benchmark Survey, REACHHealth
Technology Needs for Telemedicine
Types of Telehealth

*Medicare (and some other payers) define “telehealth” as live audio-visual visits only
Common Software and Equipment

- Videoconferencing Software
- Desktop or laptop, tablet, camera, speakers
- Peripheral Devices
- Telemedicine Carts
- Remote Patient Monitoring Equipment
Connectivity

Suitable internet bandwidth to support at least a 512kbs video call with overhead

- Will require 1000kbs (1MBPS) of bandwidth uplink and downlink for HD video
- Via DSL, cable, or direct fiber connection
- 4G data network, hot spots
Connectivity: Behavioral/Mental Health

• HIPAA defines a Transmission Security standard (technical)
• Also a professional and ethical mandate for digital confidentiality
• You will need:
  • Computer, camera, and speakers at both sites
  • Videoconferencing software that provides for encryption
  • Ability to operate at a bandwidth of 384 Kbps or higher
Platforms
Functions

- Integrated audio and video
- Patient virtual waiting room
- Scheduling
- May interface with EHR
- Patient intake/secure registration
- HIPAA compliance
- Support workflow
Selecting a Vendor

When selecting vendors, consider:

- Software and hardware compatibility
- Integration into your electronic health record
- Cost (one time and monthly/annual)
- End-user/patient experience and ease of use
- Provider experience/ease of use
- Regulatory requirements (HIPAA, documentation, etc.)

- Always test equipment and software before purchase
Equipment Choices
What Equipment Do I Need?

- How will you use telemedicine?
- What type of exam is needed?
  - Dermatology – skin and lesions
  - Primary care – multiple exam types
  - Dental and ENT – oral imaging
  - Surgery – skin, wounds, anatomical landmarks
Telemedicine Cart
Peripherals

- Exam cameras
- Stethoscopes
- Otoscopes
Other Peripherals

- Tympanometers
- EKG
- Retinal Screening
- Vital Signs
Devices for Telehealth to the Home
Tips for Selecting a Vendor

- **Plan ahead**
  - Number of Connections?
  - Bandwidth and existing IT/HIT structure?

- **Research**
  - Search vendors online
  - Contact current users

- **Demo**
  - On-site demo and pilot testing

- **HIPAA Compliance**
  - BAA

- **Long-term**
  - Recurring fees and upgrade costs
  - Will vendor remain in the market?

- **Feedback**
  - All Stakeholders
  - Interoperability with partners?
Broadband and Internet Challenges
Connectivity Challenges: COVID Effect

- Social distancing
- Work from home
- School from home
- Now more healthcare from home
- Health inequities magnified

Has internet availability become a social determinate of health?
Internet Access in Louisiana

By Parish 25+ MBPS

By Parish 100+ MBPS
Patient Resources

• Broadband Now
  • Affordable internet for low- & fixed income households

• Telehealth for Seniors
  • Access to devices and free tech-support for seniors and low-income communities

• FCC - Keep Americans Connected
  • Telehealth program support – CARES Act
  • Funding to expand telehealth during COVID-19 pandemic
Resources
Resources

TTAC: National Telehealth Technology Assessment Resource Center

http://www.telehealthtechnology.org/
- Toolkits for equipment and platform selection
- User reviews
- Technology Showcase:
  www.texlatrc.org
Questions?
CONTACT INFORMATION

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