Telehealth: Models for Bridging Gaps and Making Connections in the Northeast

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Who do we serve?

- Academic Institutions
- National, State, or Regional Associations
- Federal, State, Regional, or Local Government Agencies
- Legislators/Policy makers
- Health Systems
- Rural Clinics
- Federally-Qualified Health Centers (FQHC)
- Critical Access Hospitals (CAH)
- Community & Urban Hospitals
- Primary Care Clinics
- Individual Providers
- Ambulatory Care Centers
- Nursing Homes
- Schools
- Vendors
- and many others!
We provide:

- Short and long term technical assistance services for organizations
- Education for the telehealth workforce
- Access to educational materials
- Access to specialized tools + templates
- Access to telehealth experts willing to share their experiences
- Monthly newsletter updates and other alerts on telehealth in the northeast
- Support for collaboration that fosters a favorable environment for telehealth
- And more!
Select Resources

• Telehealth Resource Library
  – Over 1,500 publicly available journal articles and other resources

• Find Telehealth Providers
  – Recently launched to map telehealth in the northeast

• Telehealth Basics Curriculum
  – Developed with the Veterans Rural Health Resource Center- Eastern Region as training for telepresenters

• Personalized Toolkits
  – We are available to create toolkits with resources to fit your needs!

Join our newsletter!

www.netrc.org
Historical Background

The Teledactyl (Tele, far; Dactyl, finger — from the Greek) is a future instrument by which it will be possible for us to “feel at a distance.”

Gernsback, Science and Invention Magazine, 1925
What is telehealth?

A collection of means or methods for enhancing health care, public health, and health education delivery and support using telecommunications technologies.

Consortium of Telehealth Resource Centers
What is telehealth?

“Telemedicine, as it pertains to the delivery of health care services, means the use of interactive audio, video or other electronic media for the purpose of diagnosis, consultation or treatment. ‘Telemedicine’ does not include the use of audio-only telephone, facsimile machine or e-mail.”

ME Revised Statutes Annotated. Title 24, sec. 4316
What is telehealth?

“The use of information technology by a Health Care Provider to deliver clinical services at a distance for the purpose of diagnosis, disease monitoring, or treatment. Telehealth Services may be either Telephonic or Interactive (combined video/audio).”

Telehealth vs. Telemedicine

• “Telemedicine” more commonly used in the past, but “telehealth” is a more universal term

• “Telehealth” crosses most disciplines, including dentistry, counseling, physical therapy, home health, and others

• “Telehealth” includes consumer and professional education
Four Types of Telehealth

- Live Videoconferencing (Synchronous)
- Store and Forward (Asynchronous)
- Remote Patient Monitoring
- Mobile Health (mHealth)
### Where is telehealth?

- Academic Medical Center
- Airplane
- Boat
- Celebrity Tour Bus
- Coal Mine
- Community Health Center
- Community Mental Health Center
- Disaster Zone
- FQHC
- Home
- Hospital

- Public Health Dept.
- Public Library
- Nursing Home
- Oil Rig
- Prison
- Refugee Camp
- Retail Pharmacy
- Rural Health Center
- Public School
- Space Ship
- *And Many More!*
Select Telehealth Uses

- Behavioral Health
- Burn
- Cardiology
- Dentistry
- Chronic Care Management
- Dermatology
- Education / Grand Rounds
- Emergency Services / Trauma
- Family Planning
- Genetics
- Home health
- Infectious Disease
- Medication Adherence
- Neurology / Stroke care
- Obstetrics and Gynecology
- Oncology
- Ophthalmology
- Pain Management
- Pathology
- Pediatrics
- Palliative Care
- Primary Care
- Psychiatry
- Radiology
- Rehabilitation
- Rheumatology
- Surgical
- Wound Care
- And more!
Benefits of Telehealth

- Increased patient access to providers (travel)
- Timelier access to providers
- Improved continuity of care and case management
- Reduced use of institutional care
- Improved access to training and other educational services
- Cost savings in care delivery
- Reduction or prevention of complications, decreased readmissions
- Patient Satisfaction
Telehealth Today

• Medicare reimbursed a total of $17.6 million in Calendar Year 2015 (< 0.003%), up from $61,302 in Calendar Year 2001

• The Department of Veterans Affairs requested $1.2 billion for telehealth programs in FY 2017, treated 677,000 veterans through telehealth in fiscal year 2015

• According to the HIMSS Analytics 2015 Telemedicine Study, Telemedicine adoption is up to 65% for hospital respondents and 34% for physician practices, with two-way video as the most utilized solution.

• Strong, peer-reviewed evidence base and many clinical guidelines, including those from the American Telemedicine Association
Telehealth in the Northeast

• Programs and policy traditionally more active in **northern part of region**, but states like MA and CT are getting very involved

• Increasing interest in **home telehealth services**, including Direct-to-Consumer

• Increasing interest from **private practitioners**, many providing behavioral/mental health

• **Significant policy and regulatory activity** throughout the region
Challenges for Telehealth

- Start-up costs and connection fees
- Availability of broadband or other
- Need for training and workforce development
- Increase in staffing demand in some instances
- Provider push back
- Slow/confusing legal and regulatory landscape
Maine Seacoast Mission – Primary Care

Presented on behalf of Sharon Daley, RN
Director of Island Health Services

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Primary Care by Boat

Maine Seacoast Mission:
• 110 years old with history of spiritual and medical care provided by nurses visiting the islands
• Telemedicine started 14 years ago to four islands visited by Sunbeam
• Going off island for a medical appointment can be a 2-3 day trip. Cost of ferry or plane plus hotel room and missing work makes it difficult

Program Description/Setup:
• Program started to offer access to medical care for the islands where there was none
• Meetings were held on each island to determine interest and choose providers who had interest and connection to that island
• Room on 74 foot Sunbeam made into a medical office with Polycom. Connection was ISDN and now NETC. Equipment includes: AMD Otoscope, stethoscope and Gen camera
• Primary Care provided on 5 islands, 3 by Sunbeam and two land-based units operated by trained medical assistants
Primary Care by Boat

Docked – low tide
Primary Care by Boat

Enroute
Primary Care by Boat

Exam Room
Primary Care by Boat
Primary Care by Boat

Patient Consult with Scott Shift Slater, MD
Business Model/Sustainability:

- The Mission does not charge for services: Providers bill for their services
- Also relies on endowment, grants and donations

Outcomes:

- Increased medical care and health to island residents both primary care and behavioral health; presentations on topics such as smoking cessation, nutrition and addiction
- Having providers to work with on each island allows nurse (Sharon) to offer other services: flu clinic, screening clinics, lab draws, prenatal checks, education
Primary Care by Boat

Challenges:

• Scheduling with several islands and providers – tides and weather
• Challenging to get hospital IT folks interested in small program
• Small population means difficulty with: measuring outcomes, getting grants

Lessons Learned:

• MUST have dedicated providers and office staff for this to work, particularly with scheduling
• Islanders are very open to technology; more of a learning curve for providers
• Islanders’ comfort level with boat and nurse has made it easier for people to ask for counseling etc.
Finger Lakes Community Health – Teledentistry

Presented on behalf of Sirene Garcia
Director of Special Programs
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Pediatric Teledentistry

Finger Lakes Community Health – New York State: Community/Migrant Health Center (FQHC) with 9 sites - 23,000 patients seen in 2014

Program Description/Setup: Uses point-to-point telehealth network to connect clinic pediatric patients in rural NY with dental providers in Rochester, NY.

Business model: public and private payers, managed care, ROI via improved patient outcomes, grants
Pediatric Teledentistry
Pediatric Teledentistry

Implementation Approach: Goal to increase access to dental screenings and treatment for high risk pediatric patients

Outcomes:
• Decreased travel time for patients/families and FLCH Community Health Liaisons
• Treatment and follow-up compliance rates > than 90%
• Improved patient outcomes
Heywood HealthCare - School-based Telepsychiatry

Presented on behalf of Rebecca Bialecki
Vice President of Community Health & Chief Change Agent

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School-based Telepsychiatry

Athol Hospital/Heywood Healthcare – Massachusetts: Critical access, non-profit acute care hospital serving 9 Communities in North Quabbin Region.

Program Description/Setup: Collaborative program with Athol-Royalston Regional School District (ARRSD) and Clinical and Support Options (CSO) - connecting students and pediatric psychiatrists via high definition video conferencing solution
School-based Telepsychiatry

Photos courtesy of AMD Global Telemedicine
School-based Telepsychiatry

**Business model:** HRSA Network Development grant; contracts; future telehealth parity reimbursement

**Implementation Approach:** Goal to increase access to child psychiatry services for treatment/medication management for students with BH needs

**Anticipated Outcomes:**
- ↓ travel time for students/families; ↓ lost work time
- Less disruption in student routines
- Increased access to psychiatric services leading to appropriate med management and improved patient outcomes
University of Vermont - Teledermatology

Presented on behalf of Julie Lin, MD
Asstant Professor of Medicine

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Teledermatology

Program Description/Setup:
Uses Access Derm, a free, HIPAA compliant application sponsored by American Academy of Dermatology to facilitate referrals from primary care providers for remote dermatology consults using mobile devices and the internet (store and forward).

Business Model:
Reimbursement limited for store and forward services at this time; pursuing grant opportunities as available
Current Pilot Teledermatology Workflow

1. **Patient Signs Consent**
   - Patient signs consent

2. **Staff Acquires Digital Image**
   - Staff acquires digital image via Access Derm app

3. **Templated Telederm Consult**
   - Templated telederm consult entered by MD

4. **Staff Transfers Consult**
   - Staff transfers telederm consult to access derm app

5. **Secured Server**
   - Secured server

6. **E-mail Alert**
   - E-mail alert that consult has been requested
   - E-mail alert that consult has been answered

7. **Consult Review**
   - Reviews consult and replies

*The University of Vermont*
Teledermatology

**Implementation Approach:** Goal to increase access to dermatology throughout VT - currently 20 state-wide.

- ↓ melanoma mortality with 1 dermatologist/100,000 residents vs. none.*

**Outcomes:**

- Post-implementation: 44 SAF consults
- Average response time of SAF consult: 9.2 hrs
- Average wait for appointment: 12.9 days vs. 60.2 days for traditional consults (*78.6% reduction*)

Home Health Visiting Nurses - RPM

Presented on behalf of Mia Millefoglie, MA
Vice President, Development & Marketing

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Remote Patient Monitoring

Home Health Visiting Nurses – Maine:
Fully licensed not-for-profit provider of home health care (nursing, PT, OT, speech, home health aide, and counseling services) 24/7 throughout 3 counties.

Program Description/Setup: 4G tablet with pre-loaded software and peripherals at patient home – provides real-time patient data; algorithms highlight patients at ↑ risk for readmission; empowers patients to change behaviors and view of medical condition
Remote Patient Monitoring
Remote Patient Monitoring

**Business Model:** grants, public and private payer reimbursement and contracts

**Implementation Approach:** Goal to expand access to care and improve quality measures for elders with at-risk chronic diseases by deploying enhanced telehealth technology

**Outcomes:**

- Served 275 Patients (CHF, COPD, Diabetes) 3/2015-8/2015
- Patient Adherence: 74.5% - 77%
- Improved Clinical Outcomes
- Increased Patient Satisfaction Average
- Reduced Hospital Readmission
Remote Patient Monitoring

Hospitalization rates of nontelehealth and telehealth patients

12,000 patients served from 2011-2013, with 3,200 receiving traditional home healthcare augmented by telemonitoring

Challenges/Lessons Learned

• **Start small** with an evaluation model to develop/familiarize with equipment and flow

• Develop a **community partnership model** with like-minded organizations

• **Reach out** to folks who have already done this!

• Focus time, effort and $ on **program development and a sustainable business model** – technology is the easy part!
Strategies for Sustainability

- **Lead advocacy efforts** within local health system for contract negotiation with private payers
- **Incorporate monitoring reimbursement** in payment system for private and state payers
- **Develop business plan** for private pay options
- **Integrate** health system protocols and practice guides in telehealth practice
- Develop and diligently **monitor resource utilization**
- Advocate for **uniform platform across providers**
- Identify system opportunities for **grant awards**
Resources

• Northeast Telehealth Resource Center
  [www.netrc.org](http://www.netrc.org)

• National Telehealth Resource Centers
  [www.telehealthresourcecenters.org](http://www.telehealthresourcecenters.org)

• Center for Connected Health Policy
  [www.cchpca.org](http://www.cchpca.org)

• Telehealth Technology Assessment Center
  [www.telehealthtechnology.org](http://www.telehealthtechnology.org)

• American Telemedicine Association
  [www.americantelemed.org](http://www.americantelemed.org)

• Center for Telehealth & e-Health Law
  [www.ctel.org](http://www.ctel.org)

• And many great regional programs willing to share!
Questions that NETRC receives include:

- Reimbursement
- Program development
- Strategic planning and market analysis
- Licensing & credentialing
- Malpractice & liability
- Regulations & other legal considerations
- Internet prescribing
- Technology selection
- Security, privacy, & HIPAA compliance
- Workforce development and training
- Best practices and networking
- Tools, sample forms, templates, etc.
- Program evaluation
- Research and Supporting Evidence
- And more!
Contact Us

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Questions?

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