Telemedicine 1.0
A Roadmap for Building Your Telemedicine Program
The F. Marie Hall Institute for Rural and Community Health at Texas Tech University Health Sciences Center is partnered with the Louisiana Health Care Quality Forum to form the TexLa Telehealth Resource Center (TRC).

The TexLa Telehealth Resource Center is a federally-funded program designed to provide technical assistance and resources to new and existing Telehealth programs throughout Texas and Louisiana. The TexLa TRC will continually evaluate Telehealth programs in these two states for effective delivery of Telehealth services, efficiency, sustainability, and patient satisfaction.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number G22RH30359, the TexLa Telehealth Resource Center, in the amount of $325,000.00. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS, or the U.S. Government.
Getting Started
Best Practices

- Define clear goals with objective measurements
- Involve your staff
- Learn about reimbursement rules and your state regulations
- Find the right technology partner
- Decide on your practice model
- Market the service
- Ask for feedback from staff and patients
- Measure your success against your goals
Step 1: Needs Assessment

- Identify unmet clinical or educational needs
- Assess your organizations readiness
- Perform a preliminary technology assessment
- Identify potential telehealth opportunities
- Learn factors that predict success
- Put a team together
Step 2: Define Services and Program Model

- Develop preliminary goals for service delivery
- Choose a model that best fits your services goals and objectives
- Determine how you can incorporate health IT
- Find and recognize your champions
- Know your geographic area
Step 3: Develop a Business Model

- Perform a market analysis and develop a report
  - Need AND demand?
  - Initial funding?
  - Reimbursement?
Step 4: Develop Implementation Plan

- Timelines, deliverables and milestones
- Submit to senior leadership and key stakeholders
- Get the equipment right
- Plan and incorporate workflow
- Know the law
- Plan for IT support
- Appoint a telehealth program manager
- Build redundancy (back-up) for systems and network
- Plan for policy and procedure development
Step 5: Plan for Evaluation and Monitoring

- Establish short and long term performance goals
- Determine how you will measure success
- Develop a QI process
Step 6: Program Implementation

- Create successful telehealth room design
- Appoint or hire and train staff
- Provide simple tools and processes for scheduling, billing, measurement, and documentation
- Ongoing communication with all sites
Step 7: Monitor, Evaluate, Improve

- Implement your QI process
- Report regularly
- Present your outcomes

Celebrate Your Successes!
Technology Can Limit Telehealth

- Technology doesn’t guarantee a successful telemedicine program.
- Failing to make the right technology selection 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

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

2017 US Telemedicine Benchmark Survey, REACHHealth
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?
Ranks of Criteria for Purchasing Telehealth Equipment

1. Ease of Use
2. Price
3. Conformance to Standards
4. Performance of Equipment during Demo
5. Ability to Interface with Peripherals
6. Service/Support
7. Speed
8. Mode
# Cloud vs Traditional Videoconferencing

<table>
<thead>
<tr>
<th></th>
<th>Traditional Systems</th>
<th>Cloud Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video quality</td>
<td>Built-in resolution</td>
<td>Potential resolution issues</td>
</tr>
<tr>
<td>Audio quality</td>
<td>Built-in quality control</td>
<td>Potential for echo/feedback</td>
</tr>
<tr>
<td>Scalability</td>
<td>Can be difficult</td>
<td>Built-in capability</td>
</tr>
<tr>
<td>Hardware</td>
<td>Built-in OS and camera control</td>
<td>Need to appraise computer capabilities</td>
</tr>
<tr>
<td>Interoperability</td>
<td>High, H.323 standard</td>
<td>Not standardized</td>
</tr>
<tr>
<td>Security/network management</td>
<td>Management / coordination required; HIPAA compliant</td>
<td>HIPAA compliance will require coordination; potential for PHI compromise</td>
</tr>
<tr>
<td>Cost</td>
<td>Expensive</td>
<td>Expensive for servers, cheaper for clients</td>
</tr>
</tbody>
</table>
Equipment: Telemental 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

Many licensing boards require training to establish and maintain competence for telehealth
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
Digital Cameras

Images may vary based on:
- Room lighting
- Stability of the camera
- Skill of the presenter
- Equipment
Otoscopes
Stethoscopes
Other Peripherals

- Tympanometers
- EKG
- Retinal Screening
- Vital Signs
Videoconferencing Apps

- What about Microsoft Lync?
  - Is software purchased and on an internal server or on the cloud?
  - Is it set up to be secure?

- Facetime or Skype?
  - Do they claim it is secure?
  - Will they sign a BAA?

Is it an acceptable risk?
Telemedicine and Broadband

- Broadband enables critical services to remote and home-bound patients
- Suitable internet bandwidth to support at least a 512kbs video call with overhead
  - Will require 1000kbs of bandwidth uplink and downlink for HD video
  - Via DSL, cable, or direct fiber connection
  - 4G data network, hot spots
Office for the Advancement of Telehealth Programs & Rural Broadband Opportunities

Natassja Manzanero, MS
Program Coordinator for Telehealth Resource Centers
Rural Health IT Policy Lead
Office for the Advancement of Telehealth (OAT)
Federal Office of Rural Health Policy (FORHP)
Health Resources and Services Administration (HRSA)
Federal Office of Rural Health Policy

Community-Based Division
- Rural Health Outreach Program
- Rural Access to Emergency Devices
- Black Lung Clinic Program
- Radiation Exposure and Screening Education Program

Hospital-State Division
- State Offices of Rural Health Program
- Medicare Rural Hospital Flexibility Grant Program
- Small Hospital Improvement Program Grant

Office for the Advancement of Telehealth
- Telehealth Network Grant Program (TNGP)
- Evidence-Based TNGP
- Rural Child Poverty TNGP
- Veterans Flex Telehealth Program
- Telehealth Resource Ctr Program
- Licensure Portability Program

Policy and Research Division
- Rural Health Research Center Program
- Rural Training Track Technical Assistance Center
- Rural Assistance Center
- Rural Policy Analysis
- Rapid Response Data Analysis
- Rural Health Value
Expands the use of telecommunication technologies to link rural health providers with specialists in urban areas to improve health care delivery, education, and health information services.

- Telehealth networks
  - Expand sites and services
  - Increase program effectiveness and expands the evidence base
  - Supports technical assistance and research.

- Nearly 3,500 telehealth sites were added or expanded since 2005.

- New or expanded telehealth service sites increased nearly 10% from 2015 to 2016.
# Office for the Advancement of Telehealth Grant Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Grants (sites)</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telehealth Network Grant Program</td>
<td>21 (220)</td>
<td>$6.30M</td>
</tr>
<tr>
<td>Evidence-Based Telehealth Network Grant Program</td>
<td>6 (80)</td>
<td>$2.40M</td>
</tr>
<tr>
<td>Rural Child Poverty Telehealth Network Grant Program</td>
<td>4 (30)</td>
<td>$1.30M</td>
</tr>
<tr>
<td>Flex Rural Veterans Health Access Program</td>
<td>3 (states)</td>
<td>$.90M</td>
</tr>
<tr>
<td>Telehealth Resource Center Grant Program</td>
<td>14 (regions)</td>
<td>$4.55M</td>
</tr>
<tr>
<td>Licensure Portability Grant Program</td>
<td>2 (assocs)</td>
<td>$.50M</td>
</tr>
<tr>
<td>Telehealth-Focused Rural Health Research Center</td>
<td>1 (center)</td>
<td>$.75M</td>
</tr>
<tr>
<td><strong>Total (Annual Awards)</strong></td>
<td><strong>51 (350)</strong></td>
<td><strong>$16.70M</strong></td>
</tr>
</tbody>
</table>

![Telehealth Network Grant Program (TNGP)](image)
TRC’s have a mission to serve as a focal point for advancing the effective use of telehealth and support access to telehealth services in rural and underserved communities. The Mid-Atlantic Telehealth Resource Center (MATRC) was established as a regional TRC in September 2011.
# Texas and Louisiana Telehealth Specialty Provider Listing

[www.texlatrc.org/providerdirectory.html](http://www.texlatrc.org/providerdirectory.html)

## RCH Innovations in Healthcare Transformation

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## Telehealth Specialty Provider Listing

Welcome! The TexLa TRC Telehealth Specialty Provider Listing is organized by state and then alphabetically by city.

This list is comprised of organizations who have given permission for us to share their information or are otherwise gathered from public resources. If you wish to have your information removed or updated, please let us know. Furthermore, this list is not all-inclusive and there may be additional organizations providing similar resources in your area.

If you have any questions, please use the email address or phone number at the bottom of this page to contact us.

If you’d like to be on our Telehealth Specialty Provider List, please click [HERE](http://www.texlatrc.org/providerdirectory.html) to send us an email or [HERE](http://www.texlatrc.org/providerdirectory.html) to complete the survey with your information.

To go to the Texas listing [Click Here](http://www.texlatrc.org/providerdirectory.html) or to go to the Louisiana listing [Click Here](http://www.texlatrc.org/providerdirectory.html).

### Louisiana Provider List

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Website</th>
<th>Specialty Offered</th>
<th>City</th>
<th>State</th>
<th>Zip Code</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christus St. Frances Cabrini</td>
<td><a href="http://www.texlatrc.org/providerdirectory.html">Christus St. Frances Cabrini</a></td>
<td>Contact Organization</td>
<td>Alexandria</td>
<td>LA</td>
<td>71301</td>
<td>318-467-1422</td>
</tr>
<tr>
<td>in Alexandria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stephen F. Austin Community</td>
<td><a href="http://www.texlatrc.org/providerdirectory.html">Stephen F. Austin Community Health Center</a></td>
<td>Contact Organization</td>
<td>Lakeview</td>
<td>LA</td>
<td>77411</td>
<td>281-335-1680</td>
</tr>
<tr>
<td>Health Center</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tangipahoa Parish Sheriff’s</td>
<td><a href="http://www.texlatrc.org/providerdirectory.html">Tangipahoa Parish Sheriff’s Office</a></td>
<td>Contact Organization</td>
<td>Amite City</td>
<td>LA</td>
<td>70422</td>
<td>985-740-8147</td>
</tr>
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</table>
Key Telehealth Policy Issues

Payment
- Medicare
- Medicaid
- Private Pay

Licensure
- Federation of State Medical Boards to define telemedicine
- Concern about paying for telephone consultations

Broadband Capacity
- Gaps in access to high-speed and affordable broadband
- Price of broadband services can be three times higher in rural than urban areas
FirstNet Responder Network Authority

Transforming public safety communications

The First Responder Network Authority (FirstNet) has entered into a public-private partnership with AT&T to build the first nationwide wireless broadband network dedicated to first responders for use in disasters, emergencies and daily public safety work.

FirstNet provides initial funding, 20 MHz of spectrum and deep public safety expertise to the partnership. AT&T brings a proven track record and strong commitment to public safety, as well as the commercial expertise and nationwide resources to deploy, maintain and operate the network.

This 25-year partnership offers the best overall value to America and its public safety responders – both from an investment perspective and in terms of the lifesaving technology it will put in the hands of law enforcement, fire and emergency medical personnel in communities across the nation.
Public Safety and Technology
FirstNet Broadband Service Area

FirstNet will serve...

**FIRST RESPONDERS**
- fire, police, EMS

**COMMUNITIES**
- counties, cities, tribal, rural

**THE NATION**
- 50 states, 5 territories & DC

IN — ACROSS
Technology Capabilities for First Responders

Technology first responders need to save lives, protect communities

<table>
<thead>
<tr>
<th>MODERNIZED</th>
<th>PRIORITIZED</th>
<th>SPECIALIZED</th>
</tr>
</thead>
<tbody>
<tr>
<td>innovative app &amp; device ecosystem</td>
<td>emergency communications receive highest priority</td>
<td>robust coverage where public safety needs it</td>
</tr>
<tr>
<td>network improvements &amp; upgrades</td>
<td>rapid buildout with public safety input</td>
<td>connectivity for advanced mobile data</td>
</tr>
<tr>
<td>commercially proven cybersecurity solutions</td>
<td>nationwide public safety solutions leveraging existing infrastructure</td>
<td>24h highly available customer care</td>
</tr>
</tbody>
</table>

Learn more at FirstNet.gov/mediakit
Next Steps for States to Participate in FirstNet

9. Now that an RFP awardee has been selected, what are the key next steps for the Network?
FirstNet and AT&T are focused on building the core network and delivering State Plans. The FirstNet team will develop and deliver an individualized State Plan to each of the 50 states, 5 territories, and District of Columbia detailing the proposed network deployment in their jurisdictions. As the law stipulates, once a governor receives his or her State Plan, each state governor will have 90 days to either **opt in or opt out**.

10. What is the timetable for delivering draft and final State Plans?
FirstNet is prioritizing the development of State Plans. In order to deliver on the promise of releasing draft State Plans to the governors, FirstNet is targeting a release date in the summer of 2017. This will enable FirstNet and AT&T to engage with stakeholders on the draft State Plans. FirstNet expects to deliver the final State Plans simultaneously to each Governor through an online portal as soon as fall 2017. Once the State Plans are delivered to the Governors, the 90-day review and decision period starts (as specified in the legislation that created FirstNet). To learn more about the State Plans process, please see the following tutorial on key considerations for the **State Plan**.

For more information visit: [www.firstnet.gov](http://www.firstnet.gov)
Rural Broadband Programs

LIFELINE PROGRAM
provides reduced rates for telecom services to eligible low-income consumers

HIGH COST PROGRAM
provides reduced rates for telecom and broadband services in eligible high-cost areas

SCHOOLS AND LIBRARIES PROGRAM
provides funding for telecom and broadband services to eligible schools and libraries

RURAL HEALTH CARE PROGRAM
provides funding for telecom and broadband services to eligible rural health care providers

www.usac.org/rhc
Questions?

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