Developing a Telemedicine Program

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March, 2015
Why Telehealth?

• Patient
  – Empowerment (additional choices)
  – Satisfaction
  – Decreases disparities
  – Increases health care provider availability
  – Improves quality of care (larger health care team, increased frequency)
  – Decreases cost (time away from work and uncovered travel expenses)

• Provider
  – Reimbursement (innovative payment models) & Cost Effectiveness
  – Travel savings (especially important to Federal entities)
  – Collegiality / education
Do I Need Telemedicine?

• For the consulting provider:
  – You provide service to remote areas (expand primary care and/or care oversight services)
  – Patients have difficulty getting to you (pediatric endocrinology standard of care example)

• For the recipient (patient side):
  – Frequent need for specific specialty or subspecialty services that you cannot provide
  – Financial benefit to keeping patients local (tele-ICU example)
  – Education or provider to provider consultation needs
Types of Telehealth

- Store & Forward
- Live Video
- Remote Patient Monitoring
- mHealth
# Types of Telehealth

<table>
<thead>
<tr>
<th>Modality</th>
<th>Primary Uses</th>
<th>Advantages</th>
<th>Challenges</th>
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<tbody>
<tr>
<td>Store &amp; Forward</td>
<td>ENT, dermatology, radiology reads</td>
<td>No scheduling</td>
<td>Limited assessment</td>
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<td></td>
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<td>Minimal tech support</td>
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<tr>
<td>Live Video</td>
<td>Specialty clinic follow up,</td>
<td>Can assess for non verbal cues</td>
<td>Scheduling Support (IT and clinical)</td>
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<td>behavioral health, group therapy</td>
<td>Can discuss treatment plan with patient</td>
<td>Still need a secure system for sharing medical records information</td>
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<td>Remote Patient Monitoring</td>
<td>Home telehealth, telemetry, smart</td>
<td>Can get into patient homes</td>
<td>Need to track (usually a monitored dashboard)</td>
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<td></td>
<td>homes</td>
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<tr>
<td>mHealth</td>
<td>Prevention, fitness, chronic</td>
<td>It goes with the patient or with the provider</td>
<td>What do we do with all that data?</td>
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<td>disease management</td>
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Live Video

- Types of visits
  - Scheduled visits
  - Urgent consultations
  - On demand visits

- Types of systems
  - Room systems
  - Carts
  - Desktop
  - Mobile

- Considerations
  - Codec (coding and decoding)
  - Bandwidth=more traffic lanes
  - Dual monitors
  - Peripheral capabilities
  - Hidden costs
Store and Forward

- Consultations
  - Images
  - Short video or sound recording
- Referrals
- Administrative / off label
  - Discharge Summaries
  - Travel
  - Certifications
Remote Patient Monitoring

• Home telemedicine
  – Mattress sensors
  – Smart homes

• Video monitoring (ICU)

• Telemetry / Wearable devices
mHealth

• Tracking of symptoms or results: electronic record that can be shared with the provider

• Data collection with medical device interfaces
  – Blood glucose readings
  – Blood pressure

• Texting
  – Education (maternity)
  – Encouraging (diabetes)
  – Challenging (weight loss)
  – Simple reminders
mHealth
Telemedicine Business Plan
Common Business Plan Elements

• Foundational work
  – Needs and demand assessment
  – Services plan
  – Organizational assessments
  – Market study
  – Technical plan
  – Regulatory environment
  – Management plan overview (includes outcome measures & evaluation)
  – Financial plan
  – Executive summary with introduction and background

• Roll out work
  – Training plan
  – Operations (implementation)
  – Evaluation
  – Conclusion and recommendations
General Resources

• ATA
  - Telemedicine outcomes & case studies (white paper on research outcomes)
  - Standards and guidelines (core and specialty)
  - Special Interest Groups
  - Public policy news and activity
  - General telemedicine news
  - Education information
  - Products
  - Liability insurance information
  - Legislative tracking

• TRC’s
  - Regional
  - National Telehealth Policy Resource Center
  - National Telehealth Technology Assessment Resource Center

• Center for Telehealth and e-Health Law
• National Conference of State Legislatures
• CMS/Medicare/Medicaid

Core Operational Guidelines for Telehealth Services Involving Provider-Patient Interactions
May 2014
General Resources: Highlights

• Center for Telehealth and e-Health Law
  - Legal resource team; provide expertise (credentialing, privileging, e-prescribing, physician licensure, reimbursement, etc.)
  - Resource Directory
  - Publications based on research they’ve done in all 50 states

• ATA State Policy Toolkit
  - Features of a “good telehealth policy”
  - Medicaid coverage/reimbursement information
  - Private insurance coverage discussion
  - Specific talking points in support of telehealth
  - How to rebut arguments opposing coverage
  - Model legislative language/proposed state action plan

• National Conference of State Legislatures
  - Telehealth and rural health care delivery overview
  - Current licensure requirements by state
  - State coverage for telehealth services
1. Needs & Demand Assessment

- Define the need—be very specific
  - What is the clinical and/or service need? (drives equipment selection)
  - Is there a demand (not just a need)?
  - Where are the services to be delivered? Where are the patients? The partners?
  - When is it needed? Urgency?
  - Why is it important?
  - How is telemedicine already being provided?
    - Learn from successes and failures, evaluate processes for ideas
    - Look to see if there’s a bigger need

- Collect data for all of these questions if possible

- Other sites: for all of the above, assess from their perspective
2. Services plan

- What service will be added or enhanced?
- Who are the players? Champions?
- How should we provide it?
  - Remote monitoring
  - mHealth
  - live video
  - store & forward.
- Are there protocols developed for telemedicine in this service line? Check ATA Practice Guidelines (NEW: Live, On Demand Primary and Urgent Care; Pathology; ICU; Telemental Health; etc.)
- Where should we deliver the services?
- Provider staffing? 24/7 coverage?
- Other sites: assess from their perspective
3. Organizational Assessment: Climate

- Interest
- Motivation
- Readiness (SWOT?)
- What’s the vision and mission of each organization who will be involved—does the plan match?
3. Organizational Assessment: Capability

• Support
  – IT
  – Administrative/leadership
  – Clinical

• Equipment
  – Telemedicine hardware and software and licensing
  – EHR vs telemedicine platform: can you communicate? Can you integrate?

• Connectivity

• Clinical service capabilities
  – Staffing
  – Skill mix
  – Credentialing and privileging

• Space

• Other sites: assess from their perspective
4. Organizational Assessment: Feasibility & Market Analysis

• Telehealth policy and law (CTEL, NCSL, CMS, ATA, TRC’s, etc.)
• Patient flow
  – Will it work?
  – Who will be impacted with extra time demands?
• Other sites: assess from their perspective
• Market analysis
  – Reimbursement/patient payer mix
  – Other revenue opportunities
  – Budget and sustainability
  – Is there a demand (not just a need identified)
  – Grants are designed for seed funding (equipment, infrastructure, etc.)
Grants as seed money

2014 VTC Patient Visits

January  February  March  April  May  June  July  August  September  October  November  December

Non-Grant THOs
Grant THOs
5. Technical plan

- What technology makes the most sense based on clinical need?
- What model is best? Consider ease of use, durability, clinical clarity, etc.
- Will it work with other stuff? With our EHR? With other telemedicine equipment?
- Can we support it? How about long term?
- Can we afford it? Initial cost, ongoing licenses and service contracts, disposables, replacements. Do we need/want a grant??
- National Telehealth Technology Assessment Resource Center
  - User reviews
  - Video clips
  - Innovation watch
  - Toolkits: how technologies work and how to assess them for use in telehealth programs (mHealth app selection, digital cameras, mobile blood pressure, videoconferencing endpoints, etc.)
6. Regulatory environment: licensing, credentialing & privileging for nurses

• Interstate Nurse Licensure Compact
  – National Council for State Boards of Nursing model proposed in 1997
  – Recognized growth in telephone triage, telehealth consultation, air transport and other nursing practice areas that cross state borders

6. Regulatory environment: licensing, credentialing & privileging for Physicians

• Licensing, credentialing and privileging primarily driven by the site where the patient is “seen”

• Resources
  – National Telehealth Policy Resource Center
    – Current and pending information about licensing & credentialing
  – National Conference of State Legislatures
    – Current licensure requirements listed by state
  – Center for Telehealth and e-Health Law
    – Consultation requirements
    – Foreign medical graduate licensure report
6. Regulatory environment: Prescribing

- National Telehealth Policy Resource Center
  - Online prescribing issues:
    - Patient-provider relationship
    - Adequate physical exam
    - Accuracy of self reported history
    - State board requirements
  
- Center for Telehealth and e-Health law
  - Country-wide research done with publications on:
    - Pharmacy laws pertaining to telemedicine and e-prescribing
    - Prescribing laws for medical devices and diagnostic testing
    - Internet and telemedicine prescribing

http://telehealthpolicy.us/credentialing-privileging Downloaded 4/9/14
6. Regulatory environment: Malpractice

- National Telehealth Policy Resource Center
  - Very few cases, most settled out of court
  - The few cases that have gone to court are sealed
  - Recommend checking current malpractice insurance to see if telehealth is covered and if it extends to any applicable states

http://telehealthpolicy.us/malpractice-0 downloaded 3/17/15
6. Regulatory environment: security & privacy

- Provide for patient privacy and confidentiality with all modalities
  - The cubicle question
- Restrict access to patient data, limit disclosure
- Comply with HIPAA security rule
  - Use technically secure devices and systems
  - Control access to the facility and equipment
  - Follow policies and obtain training r/t information security

- Resources:
  - Center for Telehealth & e-Health Law
    - Medical record access laws (50 state research)
  - National Telehealth Policy Resource Center
    - Health Information Technology section
      - FCC
      - mHealth regulation
      - HITECH act and Meaningful Use
6. Regulatory environment: reimbursement

- Resources
  - ATA
    - Medicaid overage/reimbursement information
    - Private insurance coverage discussion
  - National Telehealth Policy Resource Center—Policy Overviews:
    - Medicare
    - Medicaid
    - State laws and reimbursement
  - National Conference of State Legislatures
    - State coverage for telehealth services: Medicaid
    - State coverage for telehealth services: private insurance
  - Medicare and Medicaid
    - CMS.gov
    - Medicare 2014 Telehealth Services publication ****
    - Medicaid definition of telemedicine: cost effective, a mode of care delivery ****
  - Center for Telehealth and e-Health Law
    - Publication on stark and anti-kickback policies and regulations for all 50 states
6. Regulatory Environment: Reimbursement

- **Medicare:**
  - primarily reimburse for live video with 2 demonstration projects for store and forward reimbursement

- **Medicaid**
  - Most states have some sort of Medicaid telemedicine coverage (43 plus D.C. January 2014 update)

- **Private insurance and parity laws**
  - Growing number of states with parity laws (19 plus D.C. January 2014 update)

http://www.ncsl.org/research/health/state-coverage-for-telehealth-services.aspx
7. Management plan

• Overview of how the program/project will be managed
  – Reporting structure
  – Interagency agreements
  – Outcome measures/ongoing evaluation
  – IT support

• Telehealth program manager (would also oversee performance monitoring and evaluation)

• Telehealth coordinator or assistant

• P&P
  – Available services and how they are provided
  – Authorized technology/devices
  – Scheduling
  – Case management
  – Technical support
8. Financial plan

First: what is the financial objective: increase profit? Increase market share? Break even?

Revenue
- Reimbursement
- Referral streams
- Contracts
- Program and user fees
- Etc.

Expenses
- Clinical and non-clinical personnel
- Clinical expenses
- Telecommunication expenses
- Equipment (purchase, maintenance and fees)
- Etc.
9. Executive summary

• Seeking the “green light”

• Components
  – What are you doing?
  – Why are you doing it?
  – What do you hope to achieve?
  – What critical components will affect your success?
Business Plan: The Roll-Out

Operations, Training, Pilot/Deployment and Follow Up
AFHCAN Telehealth

• Managed by AK Native Tribal Health Consortium (ANTHC)

• MISSION: to improve access to health care through sustainable telehealth systems

• >15 year Operational History
  o Store & Forward: >35,000 cases/year in the AK Tribal Health System alone
  o Video visits: 138 last month & rapidly climbing (77 in January)
  o Telemedicine facilitates care between ANMC and rural tribal sites and between villages and rural hubs
  o Greatest impacts of program seen in reduced travel expenses, increased access to primary and specialty care and in decreased clinic wait times
AFHCAN Store & Forward Support

Cases packaged and sent via secure, encrypted software from a telemedicine cart, computer or mobile device.
AFHCAN Video Support

Live visits: patient to provider and provider to provider consults
Support provided for cart, desktop and mobile
Project Milestones Tracking Sections

- Leadership and team coordination
- Site equipment
- Planning and workflow analysis
- Training
- Pilot
- Deployment
- Follow up

### Milestone: Leadership

**Initial Leadership Kickoff Meeting**
- 1 week
- Prog Dev Director facilitates leadership meeting
- ANMC team identified by name
- Remote team identified by name
- Discussion items: Scope and timeline, Work Flow Diagram, team members/roles, room locations, equipment and accessories, accounts, testing, credentialing, scheduling, EHRs, training, village roll out plan & timeline.

**Weekly Meetings (as needed)**
- Facilitate Weekly Meeting
- Send out weekly email to team members

### Milestone: Site Equipment

- 2 weeks
- SI
- Technical evaluation local site equipment
- ANMC physical room identified
- THC facilitate discussion
- SI
- ANMC worksites purchase equipment if needed
- equipment installed, software configured
- SI with remote IT
- Test all ANMC endpoints (workstations) SI & IT

### Milestone: Planning & Workflow Analysis

- 3 weeks
- THC
- Vidyo accounts
- DocumentLocator\AFHCAN\Documents\Operations\requirements worksheet submission Planning\Vidyo
- credentialing privileging agreement
- AMMC workspaces purchase equipment if needed
determine equipment, software, connectivity to be used & verify that it meets specs
- SI
- equipment installed, software configured
- Clinic, SI & IT
- Test all ANMC endpoints (workstations) SI with all remote site endpoints
directory entries made into the Vidyo system as needed for remote accounts
- SI
- Site survey for organizational network needs
- SI and IT
- remote physical room selection
- network connections ID’d, equipment installed
- THC facilitate
- SI with remote IT
- test connection remote w AMMC endpoints
- 3 weeks
- THC
- AMMC and remote sites—ensure they get set up
describe challenges, can’t use AFHCANweb for Rx, discuss remote site preference for this process
- Lead THC
Kick Off Meetings

• Purposes
  – Ensure IT, administration and clinical agreement on all sides
  – Mutually determine scope
  – Clearly identify the team to do the actual roll out work
  – Overview of the plan
    – Rooms
    – Equipment*
    – Credentialing*
    – General workflow including scheduling
  – Timeline

*These items can take a significant amount of time
Ongoing communication plan

- Meet weekly and keep it short and sweet
- Send weekly update to all participants and leadership
Equipment

- Technology needs to follow the clinical need (not the other way around)
- Sometimes the technology can’t do what providers want it to
- Once you’ve determined the clinical need, though, you may need to focus on technology first
- Do you have redundancy built in on both ends?
- Technical evaluation components (both ends)
  - Physical space
  - Outline requirements (equipment, software, connectivity, etc.)
  - Purchase, install and test
  - Moving target—plan for upgrades, warranties, replacements
  - Is there a need for a service contract?
  - Note: technical issues can be show stoppers, be cautious of moving too far ahead with the clinical folks
Planning and Workflow Analysis

• Details are super important
• Work through them with your clinical group
• Need to look at the whole process, from scheduling to final communication & billing
• How does the chosen equipment/technology fit? Who will be using it and how easy is it for them to do so?
Processes

• Credentialing, privileging and contracts
• Access and accounts
• Scheduling & rooms
• Preparatory work process
• Documentation including coding and billing
Some Notes about Room Design

- Private
- Quiet
- Well lit but avoid backlighting
- Minimize clutter
- Equipment as needed for telemedicine
  - Dual monitors with access to EHR
  - Headsets vs. speakers
- Way to call for help
Training—consider all sites

• Equipment training
  – New software? New hardware? New way to use old equipment?
  – Processes
  – Troubleshooting

• Detailed walk-through for all parties

• Repeated practice is critical

• Challenges and cheat sheets
  – Process checklist (planning)
  – Visit checklist (pre and during)
ANMC CLINIC VIDYO TELEMEDICINE
DAY OF VISIT RESPONSIBILITIES

Before the Scheduled Session:
- Log in 5-10 minutes before the session
- Ensure all ordered items are available for provider, including any 'day of visit' tests.
- When receiving notification that patient is present, check patient in to EMR
- Answer incoming call
- Mute microphones until visit initiated

Beginning the Session:
- **Look at the camera, not the monitor**
  - Introduce yourself to the patient
  - Ask patient if he/she can see & hear you clearly, let him/her know you can see & hear them
  - Troubleshoot any issue(s) immediately
  - Pan your own room to show patient you're providing for privacy/confidentiality
  - Ask the rural staff member to introduce all parties in their room, then refocus camera on patient
  - Remind patient of right to terminate videoconference at any time

During the Session:
- Treat the encounter as you would any face to face encounter.
- Patient camera/microphone: if you can't control, so need to ask rural staff to assist with placement
  - If disconnected, attempt to reconnect to your room for 5 minutes. If you cannot connect after 5 minutes, contact the patient clinic by telephone. Report your issue to ANMC helpdesk at 2626.

Ending the Session:
- Communicate end of session with follow up plans
- Ask patient if OK to see him/her again via VIDYO (if applicable)
- ANMC to schedule follow up and write orders related to the patient
- Discontinue the call (exit the Vidyo room)
- Document in Cerner, send copy of note and orders to patient's clinic via original case

Best Practices for Video Patient Visits:
- Center your display monitor directly underneath your camera. Camera at eye level if possible.
- Check your "self view" before the call. Look for clutter or other distractions behind you.
- Speaker and microphone should be directly in front of you. Speak in a normal tone of voice.
- Use caution with noise near microphone (papers shuffling, tapping on desk, etc.)
- Light should be on your face. Avoid bright lighting behind you.
- Turn off/silence other devices and LOCK or password protect your Vidyo Room.
- Pay attention to your body language—it's easy to forget that you're being watched.

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### Telemedicine Patient Video Visit Process Management

**ANMC Clinic Responsibilities**

- Schedule Video Visit in Cerner - use VTC slot and appointment type.
- Create patient case in AFHCANweb and fill out the Video orders form for your clinic.
- Send AFHCANweb case to the specific group associated with the visit (example: Manilal VTC Group. If not sure, please contact an AFHCAN Telehealth Coordinator).
- Monitor your group in AFHCANweb for the return of the case from the patient site group.
- Ensure all required attachments are available from case. (If not, return case to sender with a comment of information needed.)
- All documentation should be scanned into patient record in Cerner.

### Day of Video Visit

- Place VIDEO VISIT IN SESSION sign on exam door.
- At least 5 minutes before visit, if using Vidyo, log on to the exam room computer and on to Vidyo and join the ANMC provider's room.
- If not using Vidyo, turn on your video equipment and call directly to the patient site.
- If anyone is present in the provider's room, introduce yourself.
- Perform a video and audio check with patient. Have them speak and wave their hands.
- If audio and video are not present, refer to troubleshooting guide in exam room.
- Collect vitas from the patient site team if not already received.
- Once all preparations are complete, let the patient site know that you are signing off and the provider will join the room shortly.
- Log off Vidyo. Log off computer. (If connected with another video system, do nothing)
- Assist your provider with joining their room and LOCKING room in Vidyo if necessary.
- Ensure that the patient has been checked in for their Video Visit in Cerner.

### After Video Visit

- Shred any materials if necessary.
- Attach video visit Cerner notes to original AFHCANweb case.
- Send case to patient site group in AFHCANweb.
- If another video appointment was requested during the visit, begin Video Visit Checklist process with a new AFHCANweb case.
- When the case is sent back to you, notify ANMC provider of the information.
- Archive case.
ED VIDYO IPAD SESSION

- Take incoming call from Ward Clerk.
- Ask if it is an emergency.
- Determine with FAST and if it is to be a VIDYO call, if yes, confirm the VIDYO room name to join and follow the steps below.
- Join the ANMC_ED Room. The PIN will be XXX

1. Beginning the Session:
   - Clinic staff to be present with patient and remain in session.
   - Provide for privacy/confidentiality.
   - Patient and/or guardian has right to stop VTC at any time.
2. During the Session:
   - Avoid moving camera and/or microphone unnecessarily.
   - If disconnected, attempt to rejoin room, if unable, the clinic will call the ANMC ED by telephone.
3. Ending the Session:
   - ANMC doctor will advise on patient follow-up plans and end call.
   - Log out of VIDYO by going to Settings, then selecting Log out.

- Document session per your organizational policy.
- Notify your IT department if there are any technical problems.

**Best Practices for Video Patient Visits:**
- Place mobile devices in landscape if possible.
- Be familiar with the VIDYO tool bar (shown below), including switching to different camera views. To get this toolbar to appear, tap on the screen.
- Turn off all other devices.
- Avoid bright back lighting.
Training—patients

• Key elements:
  – Consent
  – Pre-visit work
  – What to bring to the appointment
  – Visit instructions: where, when, who
  – Day of visit tips: look at camera, what to do if there’s a problem
Pilot / Deployment

• Mock patient walk through
• Initial deployment
  – Technology green light
  – Administrative green light
  – Clinical green light
Follow Up—all sites

- Need
  - Goals and success measures
  - QI system
  - Reports

- Monitor weekly at first
- Monthly
- Quarterly—probably not enough. Need relationship.

- Monitor for:
  - Volume / usage
  - Training needs
  - Assistance needs (problems)
  - Growth/expansion needs
Thank you!