# Developing a Telemedicine Program

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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
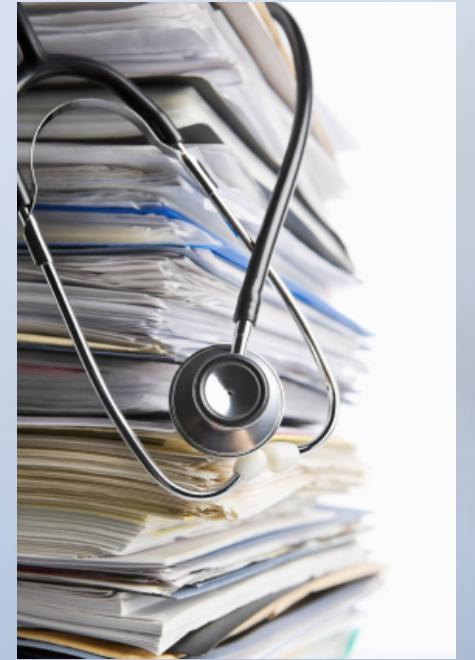
1. Needs & Demand Assessment

- 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
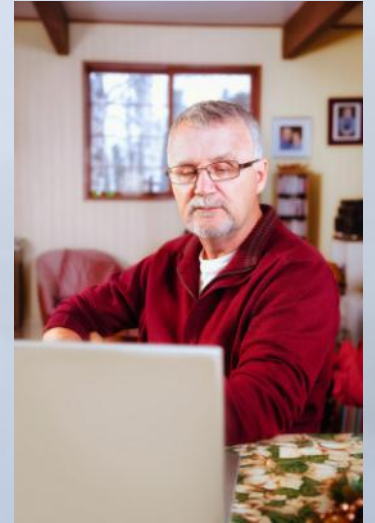
2. Services plan

- 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?
- Where should we deliver the services?
- Provider staffing? 24/7 coverage?
- Other sites: assess from their perspective

Types of Telehealth

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

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 and contracting

- 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.)

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: check for user reviews, innovation, toolkits for equipment selection

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
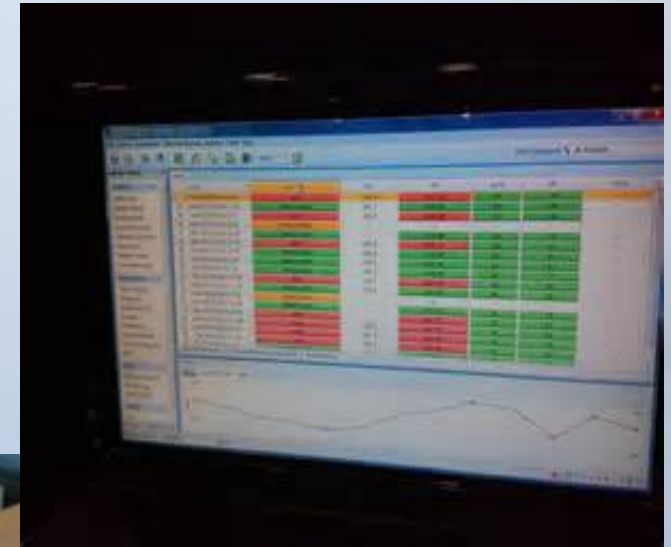 - Peripheral capabilities
  - Hidden costs

Store and Forward

- Consultations
  - Images
  - Short video or sound recording

- Referrals

- Administrative / off label
  - Discharge Summaries
  - Travel
  - Certifications
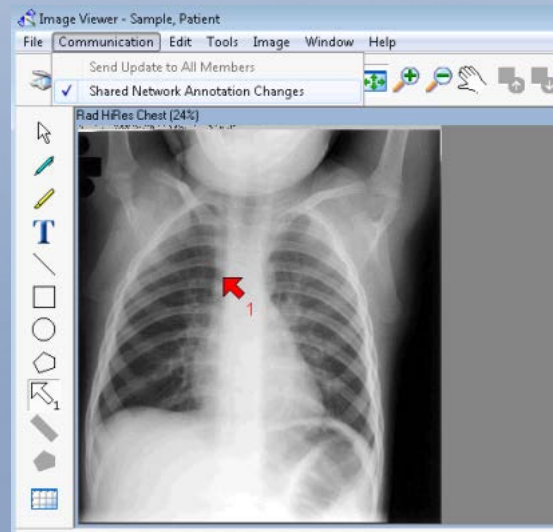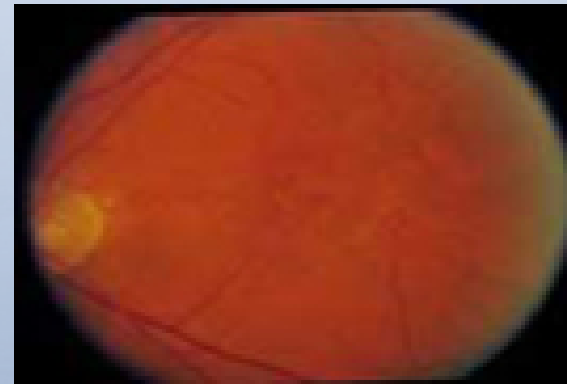
Remote Patient Monitoring

- 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
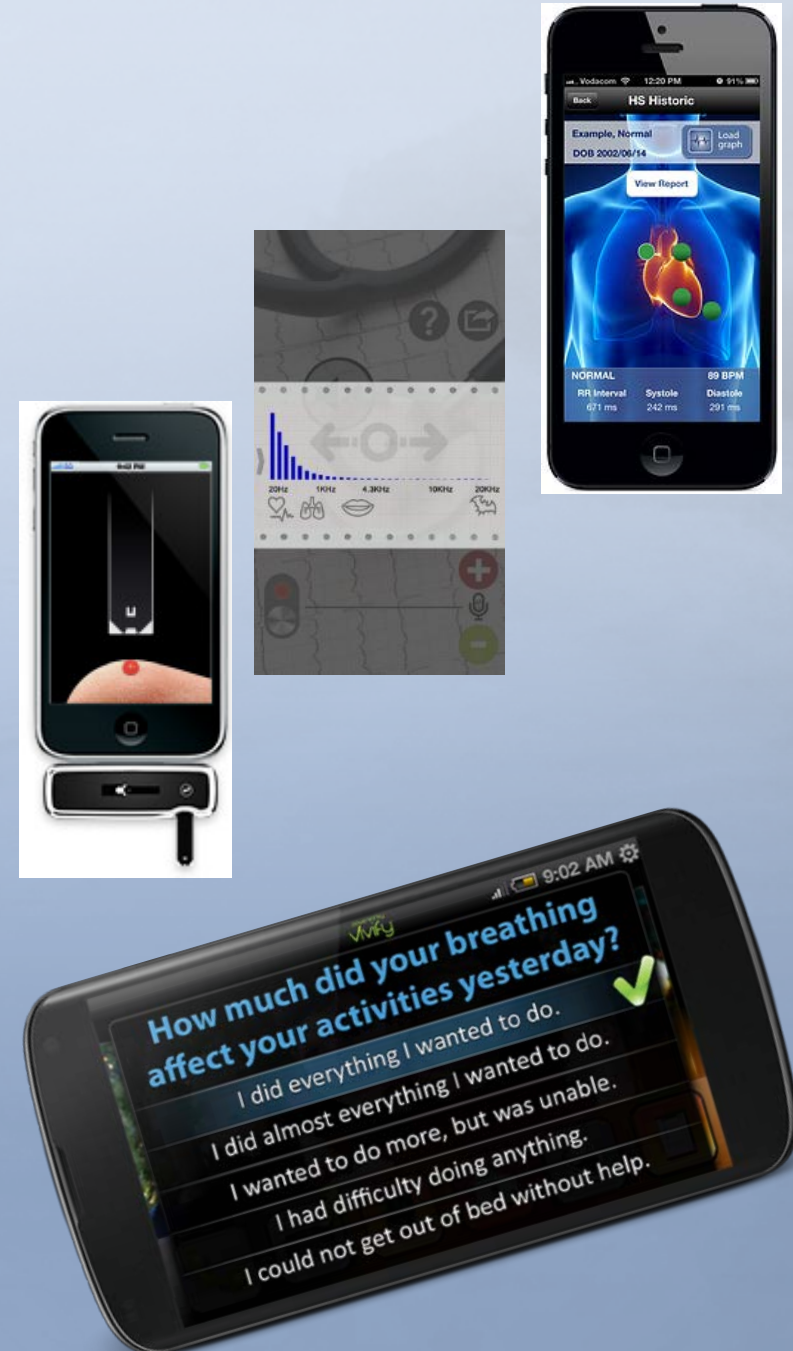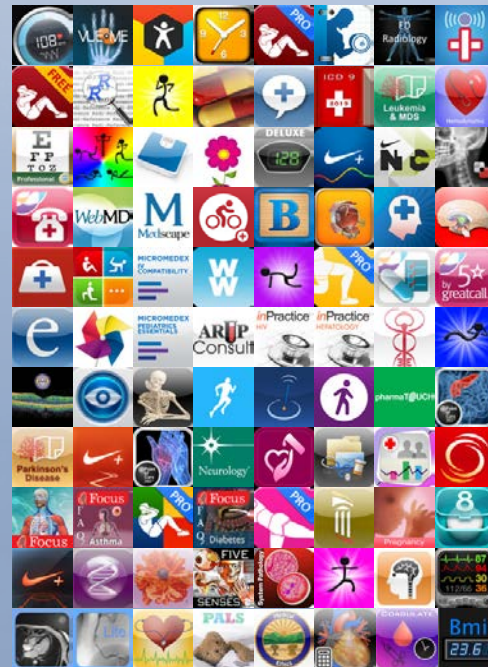
mHealth
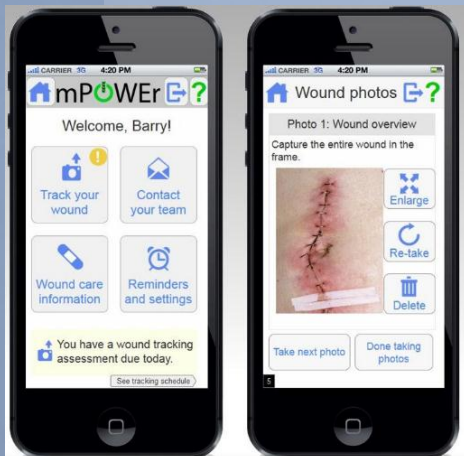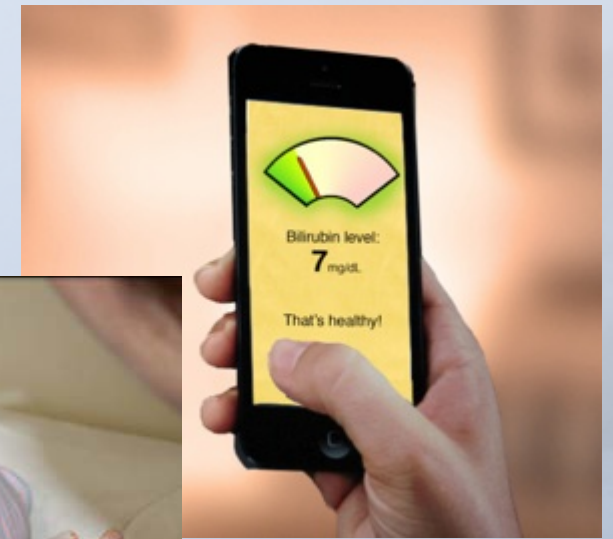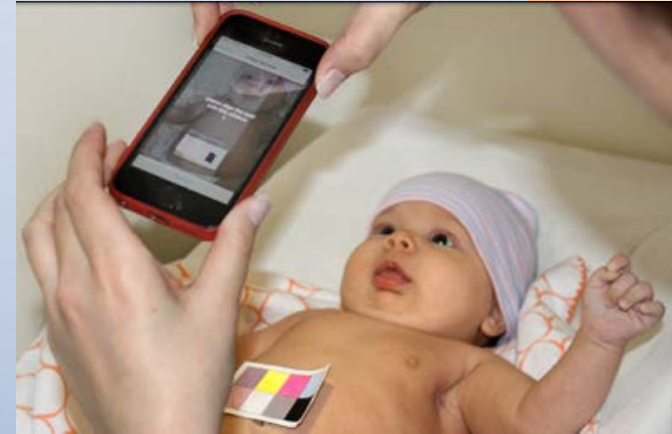
6. Regulatory environment

- Interstate Nurse Licensure Compact

- Licensing, credentialing & privileging for providers

- Prescribing

- Malpractice

- Security & privacy

- Reimbursement

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

Map downloaded 3/17/15   https://www.ncsbn.org/nurse-licensure-compact.htm
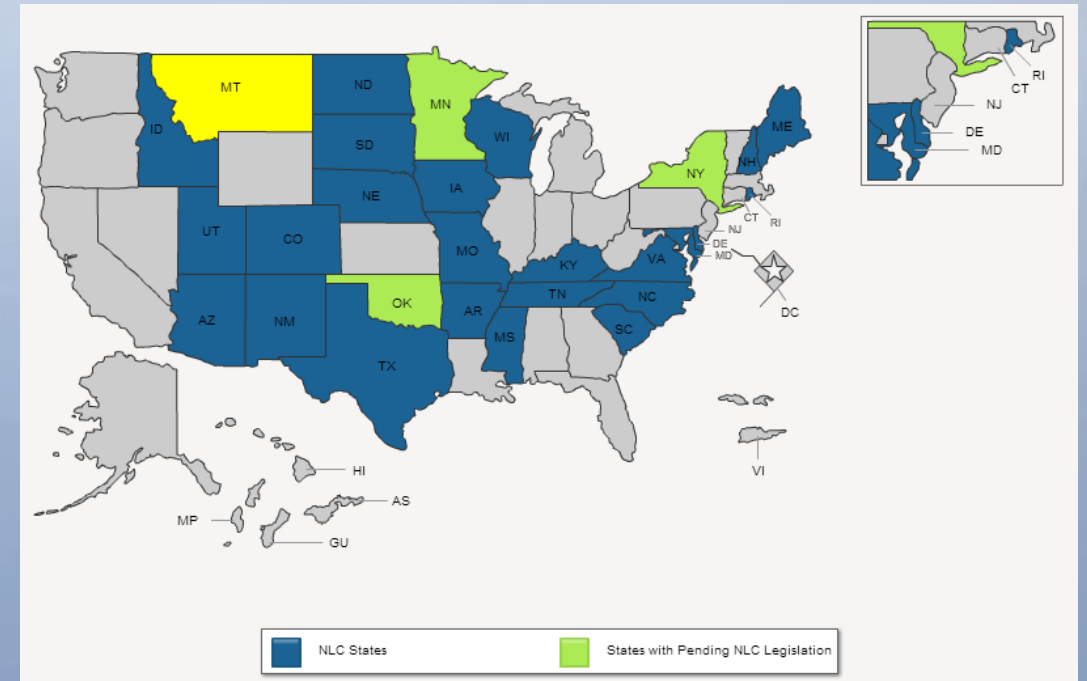
6. Regulatory environment: licensing, credentialing & privileging for Physicians

- 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

  http://telehealthpolicy.us/credentialing-privileging Downloaded 4/9/14

- 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

6. Regulatory environment: Malpractice

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

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

- Resources:
  - Center for Telehealth & e-Health Law
    - Medical record access laws (50 state research)
  - National Telehealth Policy Resource Center
    - Health Information Technology section including information on the FCC, mHealth regulation, HITECH act and Meaningful Use

6. Regulatory environment: reimbursement

- Resources
  - ATA has information on Medicaid and private insurance coverage/reimbursement
  - National Telehealth Policy Resource Center—Policy Overviews on Medicare, Medicaid, state laws and reimbursement
  - National Conference of State Legislatures site discusses state coverage for services: (Medicaid & 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 (implementation, monitoring and evaluation oversight)

- 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
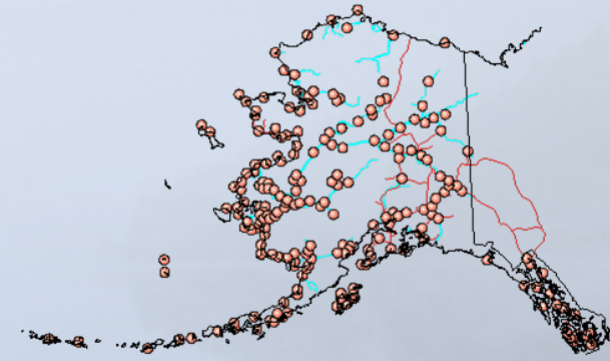
- Managed by AK Native Tribal Health Consortium (ANTHC)

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

- >15 year Operational History
  - Store & Forward: >40,000 last year in the AK Tribal Health System
  - Video visits: 1519 last year (with ANMC as an endpoint)
  - Telemedicine facilitates care between ANMC and rural tribal sites and between villages and rural hubs
  - 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.
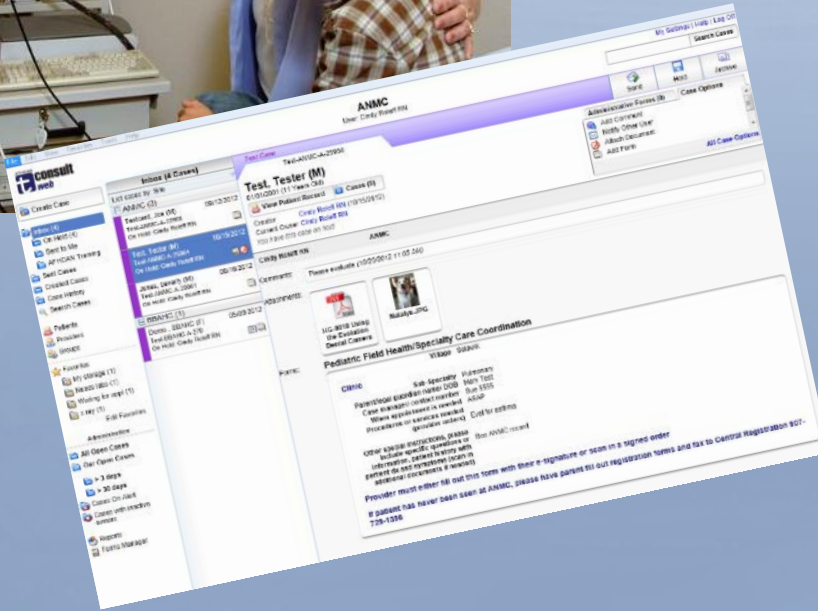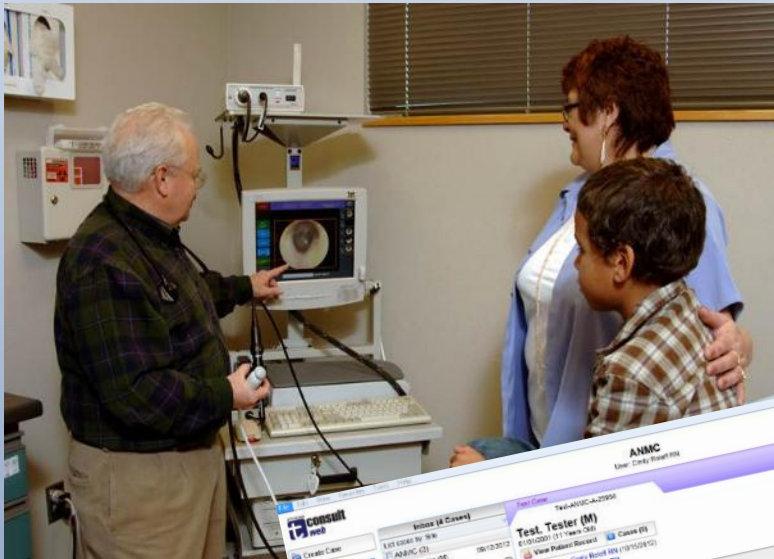
AFHCAN Video Support

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	Supported Reources	Definition / tasks	Lead Person
Leadership		1 week	
Initial Leadership Kickoff Meeting		Prog Dev Director facilitates leadership meeting	Lead THC
		ANMC team identified by name	Primary THC
		Remote team identified by name	Remote Leaders
Initial Project Leadership Meeting		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.	Primary THC
Weekly Meetings (as needed)		Facilitate Weekly Meeting	Primary THC
Weekly Formal Communication		Send out weekly email to team members	Primary THC
Site Equipment		2 weeks	SI
Technical evaluation local site equipment		ANMC physical room identified	THC facilitate discussion
	DocumentLocator\AFHCAN\Documents\Operations\Planning\Vidyo	requirements worksheet submission	THC
		determine equipment, software, connectivity to be used & verify that it meets specs	SI
		ANMC worksites purchase equipment if needed	
		equipment installed, software configured	Clinic, SI & IT
		Test all ANMC endpoints (workstations) with all remote site endpoints	SI
		directory entries made into the Vidyo system as needed for remote accounts	SI
Technical evaluation remote site equipment	DocumentLocator\AFHCAN\Documents\Operations\Planning\Vidyo	Site survey for organizational network needs	SI and IT
		remote physical room selection	THC facilitate
		network connections ID'd, equipment installed	SI with remote IT
		test connection remote w ANMC endpoints	
Planning & Workflow Analysis		3 weeks	THC
Vidyo accounts	http://home.anthc.org/empres/index.cfm support_tab/IT_work_orders	ANMC and remote sites--ensure they get set up	
Vidyo room		configure if needed	
swim lane process diagram	\\afhcan-dmbkup-1\share$\Projects\VIDYO_ROLLOUT\Flowcharts	review with clinic staff (usually case managers)	THC
credentialing privileging agreement	\\afhcan-dmbkup-1\share$\Projects\VIDYO_ROLLOUT__Master_list of_THO_VtV_readiness	Check on status	Lead THC
Prescribing		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/contracting*
    - 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
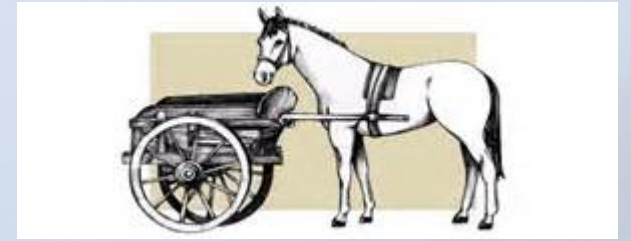
- Technology needs to follow the clinical need (not the other way around)
- Sometimes the technology can't do what providers want it to (SLP)
- Once you've determined the clinical need, though, you may need to focus on technology first
- Do you have redundancy built in on both ends?
- Technical evaluation components (both ends)
  - Physical space
  - Outline requirements (equipment, software, connectivity, etc.)
  - Purchase, install and test
  - Moving target—plan for upgrades, warrantees, 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?
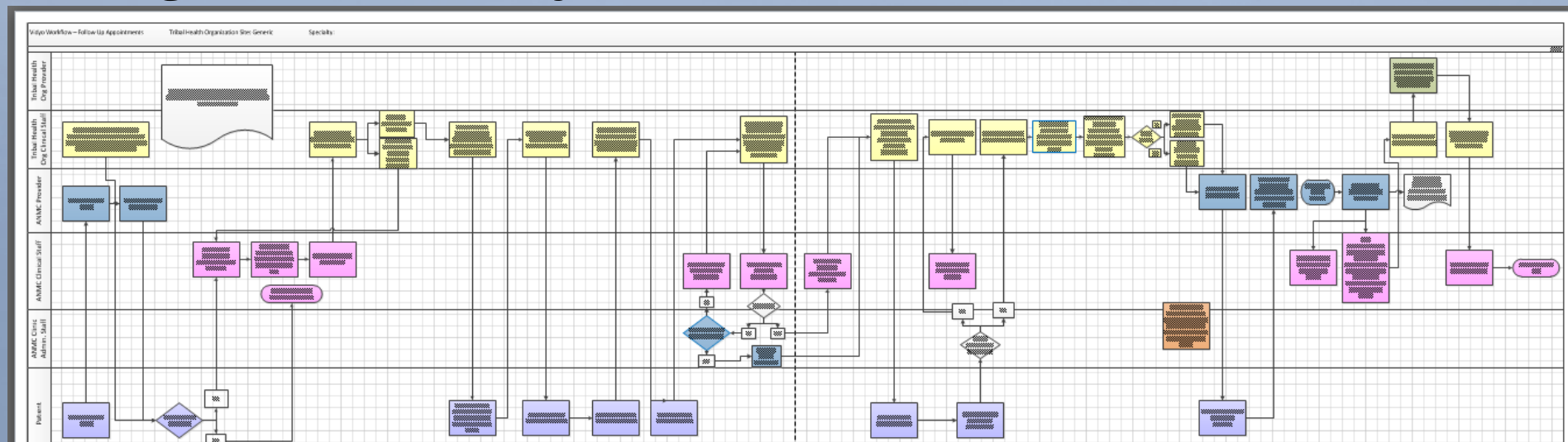
ANMC Emergency Department Workflow: DRAFT

Phase

Patient

Patient presents to provider

Village Provider

Assess patient and determine need for phone and possible Vidyo call to ANMC ED

If time (non-emergent), send telemedicine case to the ANMC ED with your PEF
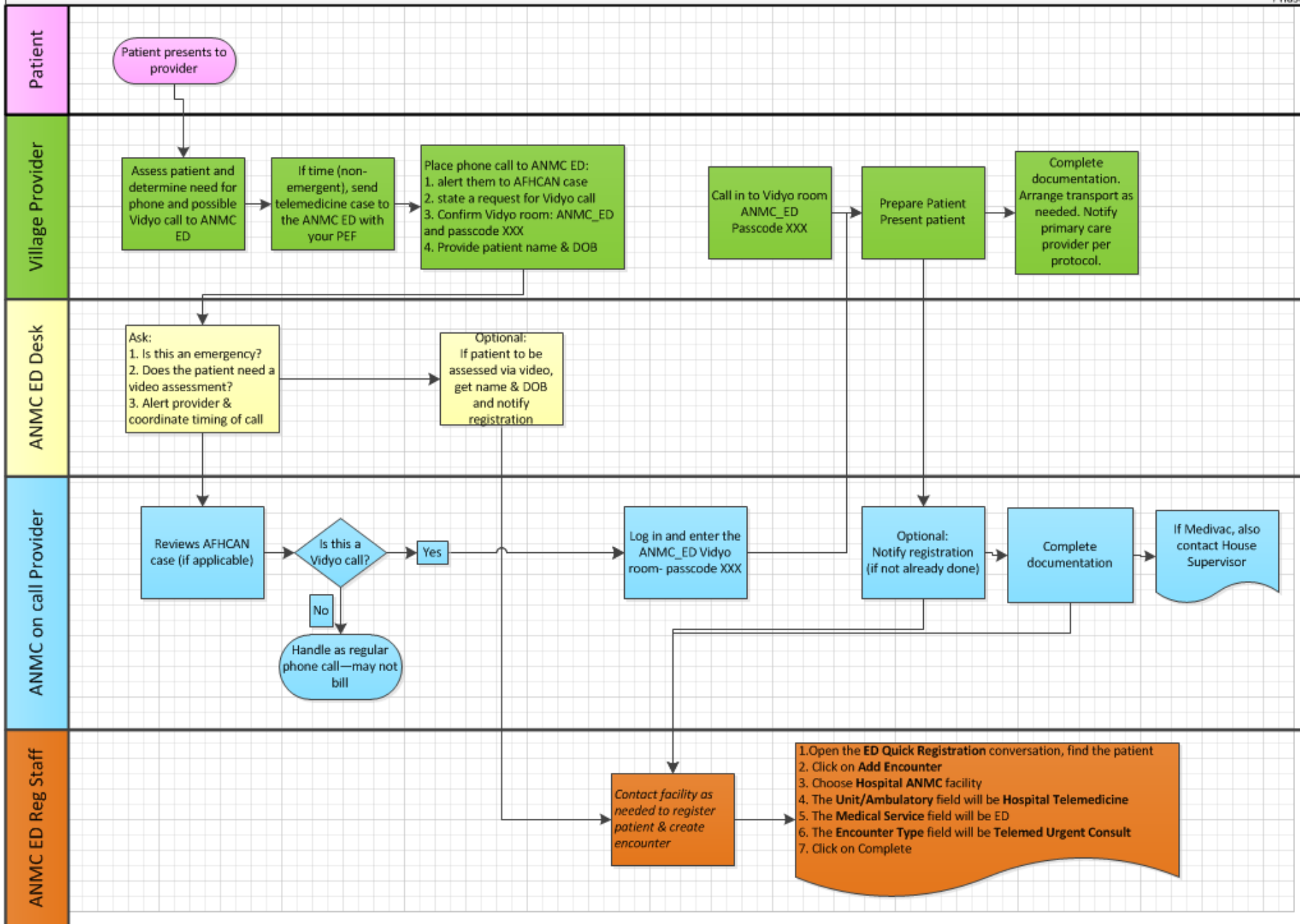
Place phone call to ANMC ED:
1. alert them to AFHCAN case
2. state a request for Vidyo call
3. Confirm Vidyo room: ANMC_ED and passcode XXX
4. Provide patient name & DOB

Call in to Vidyo room ANMC_ED Passcode XXX

Prepare Patient Present patient

Complete documentation. Arrange transport as needed. Notify primary care provider per protocol.

ANMC ED Desk

Ask:
1. Is this an emergency?
2. Does the patient need a video assessment?
3. Alert provider & coordinate timing of call

Optional: If patient to be assessed via video, get name & DOB and notify registration

ANMC on call Provider

Reviews AFHCAN case (if applicable)

Is this a Vidyo call?

Yes

No

Handle as regular phone call—may not bill

Log in and enter the ANMC_ED Vidyo room- passcode XXX

Optional: Notify registration (if not already done)

Complete documentation

If Medivac, also contact House Supervisor

ANMC ED Reg Staff

Contact facility as needed to register patient & create encounter

1. Open the **ED Quick Registration** conversation, find the patient
2. Click on **Add Encounter**
3. Choose **Hospital ANMC** facility
4. The **Unit/Ambulatory** field will be **Hospital Telemedicine**
5. The **Medical Service** field will be **ED**
6. The **Encounter Type** field will be **Telemed Urgent Consult**
7. Click on Complete

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 RESPONSIBILITES

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 receive 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 priva-cy/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
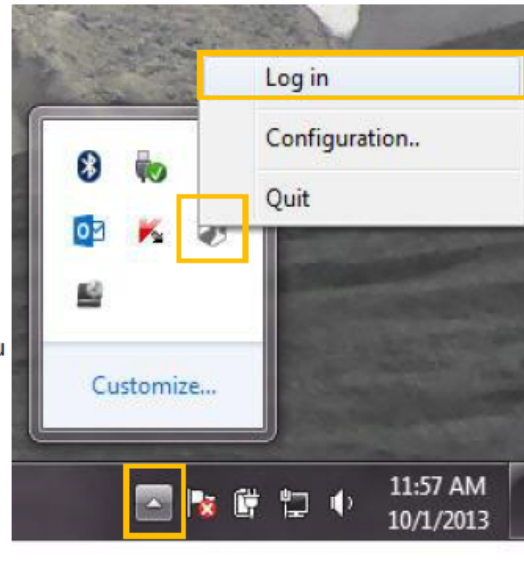
During the Session:
◊ Treat the encounter as you would any face to face encounter.
◊ Patient camera/microphone: you can't control, so need to ask rural staff to assist with placement
◊ If disconnected, attempt to reconnect to your room for 5 minutes. If you cannot connect after 5 minutes, contact the 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.

Telemedicine Patient Video Visit Process Management
ANMC Clinic Responsibilities

ANMC IT Help Desk Number- ext. XXXX
AFHCAN Telehealth Support Number- X-XXX-XXX-XXXX

- ☐ 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- Maniilaq 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 vitals 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 far end 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.***
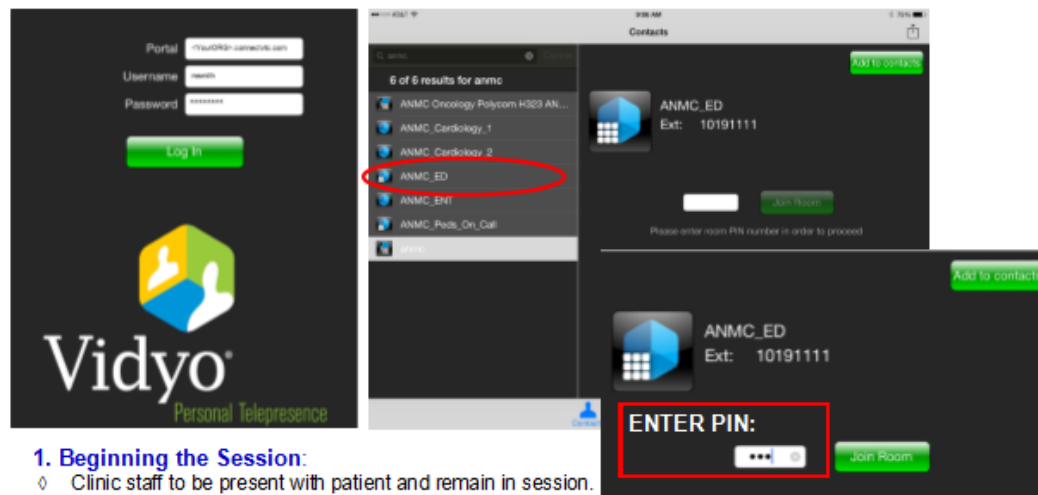
1. Beginning the Session:
◊ Clinic staff to be present with patient and remain in session.
◊ Provide for privacy/confidentiality.
◊ Patient and/or guardian has right to stop VTC at any time.
2. During the Session:
◊ Avoid moving camera and/or microphone unnecessarily.
◊ If disconnected, attempt to rejoin room, if unable, the far end will call the ANMC Emergency Room 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 stands if possible.
• Be familiar with the iPad tool bar (shown below), including switching to different camera views. To get this toolbar to appear, tap on the screen.
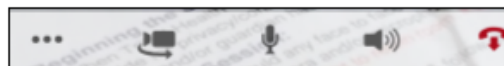
• Turn off/silence other devices.
• Avoid bright back lighting.

Training—patients

- Key elements:
  - Consent if required
  - 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
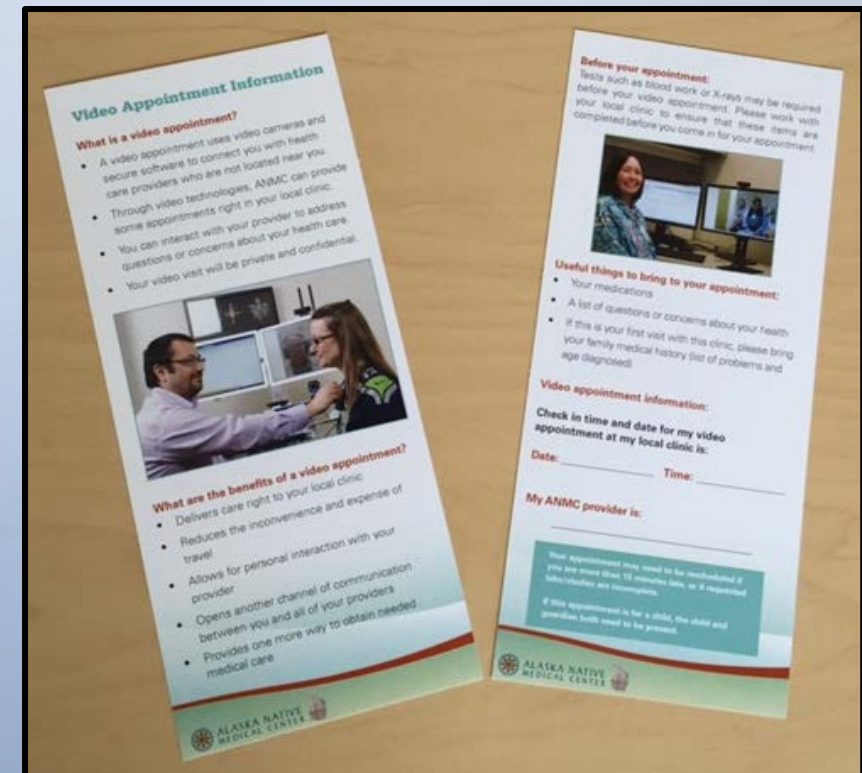
Pilot / Deployment

- 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

General Resources

- ATA
  - Telemedicine outcomes & case studies
  - Telemedicine practice guidelines (core and specialty)
  - Special Interest Groups
  - General telemedicine & public policy news
  - Learning Center
  - Buyer's guide
  - Liability insurance information
  - Accreditation for online patient consultations
  - Accreditation for training programs

- 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

American Telemedicine Association
Connected to Care

Preamble..
Scope..
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General Resources: Highlights

- Center for Telehealth and e-Health Law
  - Legal team provides expertise in credentialing, privileging, e-prescribing, licensure, reimbursement, etc.)
  - Resource Directory
  - Publications based on 50 state surveys

- ATA State Policy Resource Center
  - Helpful information for those working with state government
  - State comparisons/gaps re: policies

- National Conference of State Legislatures
  - Telehealth and rural health care delivery
  - Current licensure requirements by state
  - State coverage for telehealth services

Thank you!