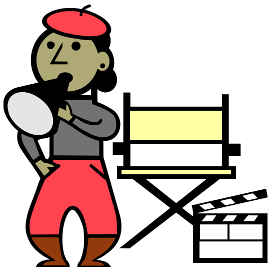
Arizona Telemedicine Program

Janet Major, B.S.
Associate Director for Facilities
Arizona Telemedicine Program

Telepresenting

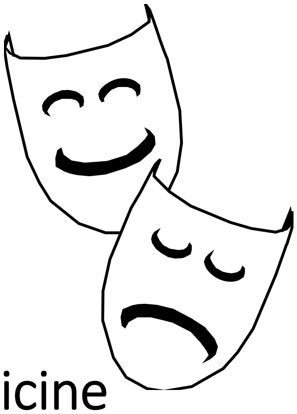
Technology
+
Telecommunications
=
Telehealth/Telemedicine

Communication Technology



- Lights, Camera ACTION!
- Two way videoconferencing Using hardware/software
- Web cams using secure sites over the internet
- Other devices or programs which connect to your laptop or desktop @home or bedside

The Art
of
Telemedicine



Telemedicine = REALITY TV

Elements of Production

- Sound
  - microphones
  - electronic stethoscope
- Lighting
  - color temperature
  - angle
- Space and geography of the room

- Same Elements of production whether you are in a state-of-the-art videoconferencing suite, using a videophone or a webcam @ your desktop!
- Background
- Lighting
- Audio
- Camera skills – be sure you are looking GOOD!

- Bandwidth and managing your bandwidth
- Back-up plan
- Old/new technology combinations
- Data Access & Management
- Test in advance - and the day of – and repeat!

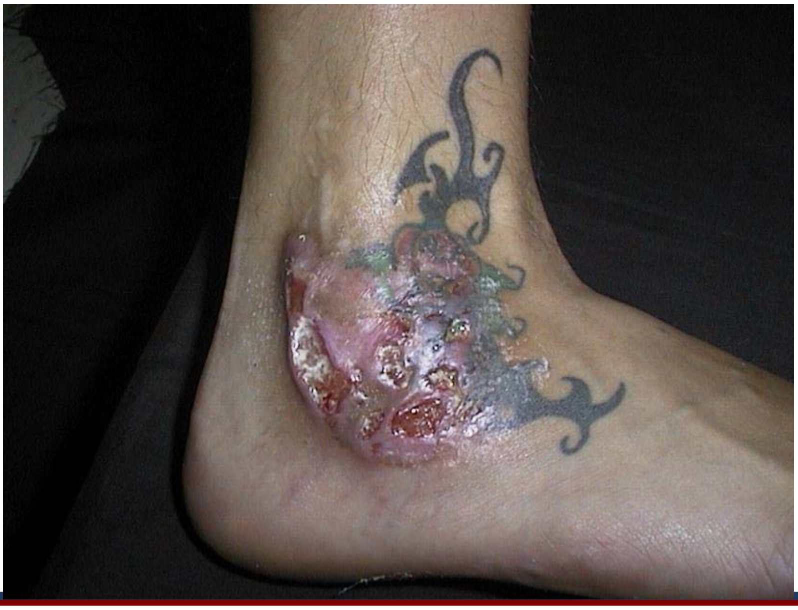
Best Practices

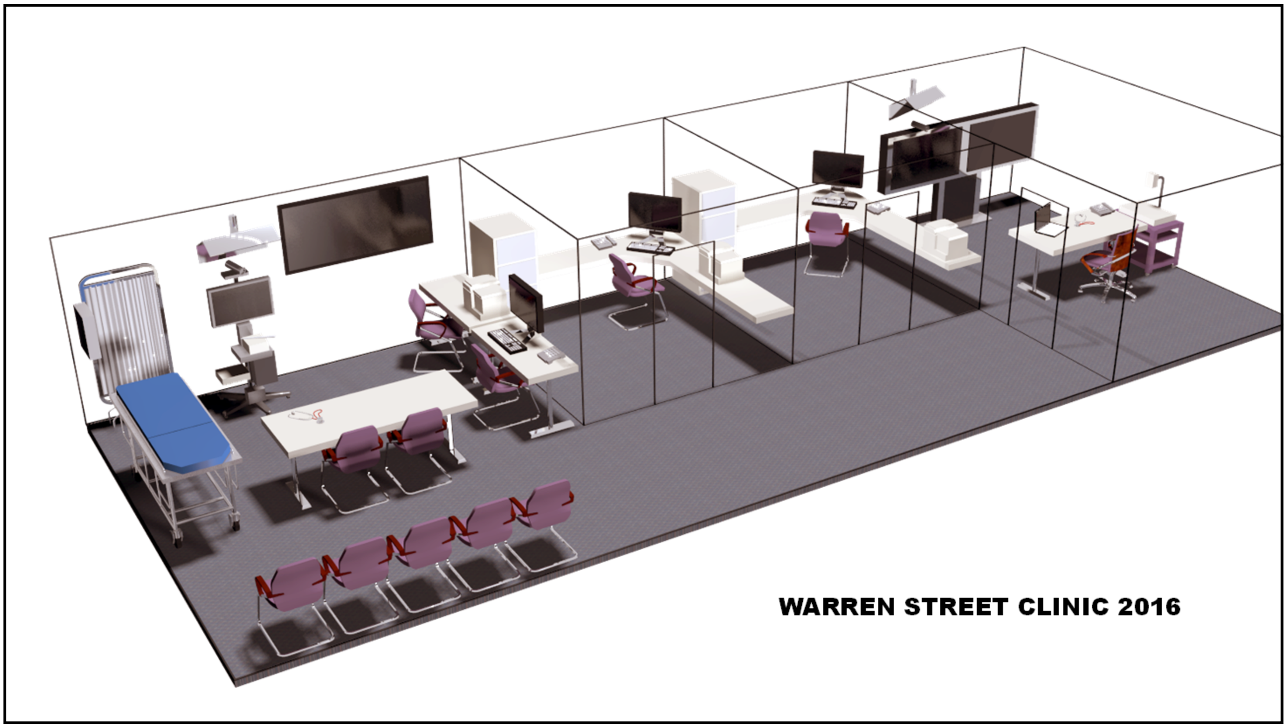
- **Technical Protocols**
- **Clinical Protocols**
- **Mock Patients**
- **Training**

Cameras

- Angle
- Framing
- Lighting
- White balance
- Choosing the right one
- Focus on communication and NOT the technology

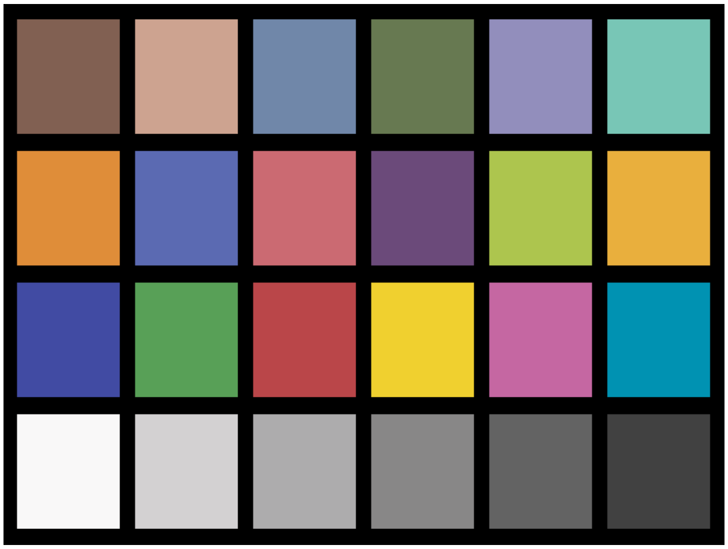
AF CCD
POWER
RECEIVE

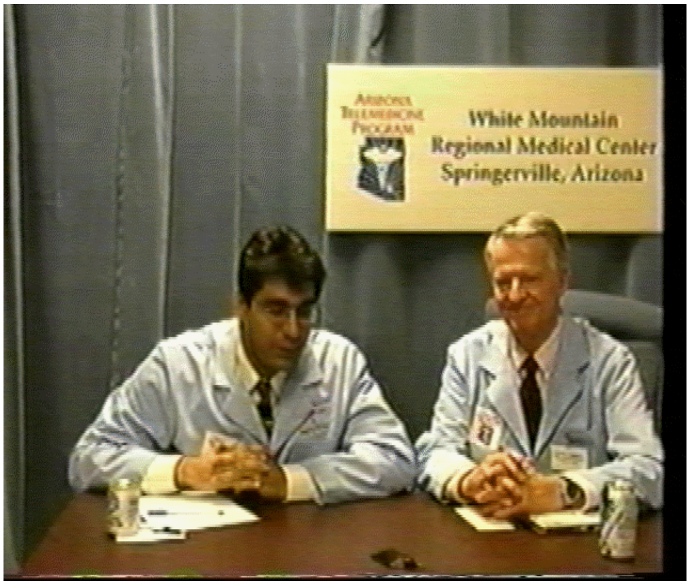


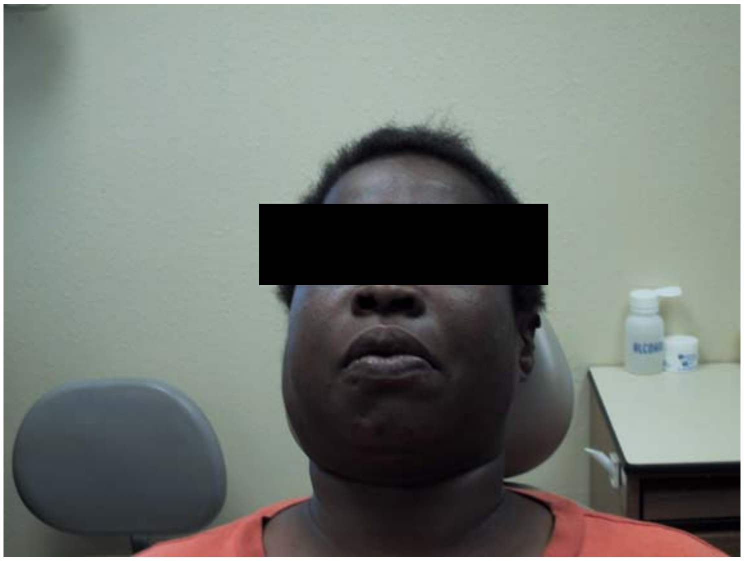


WARREN STREET CLINIC 2016

telemedicine
=
medicine at a distance




Arizona Telemedicine Program
White Mountain
Regional Medical Center
Springerville, Arizona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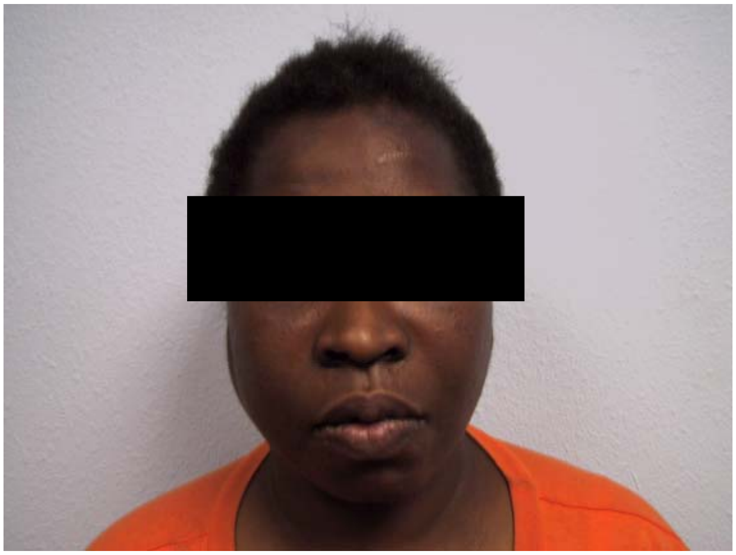
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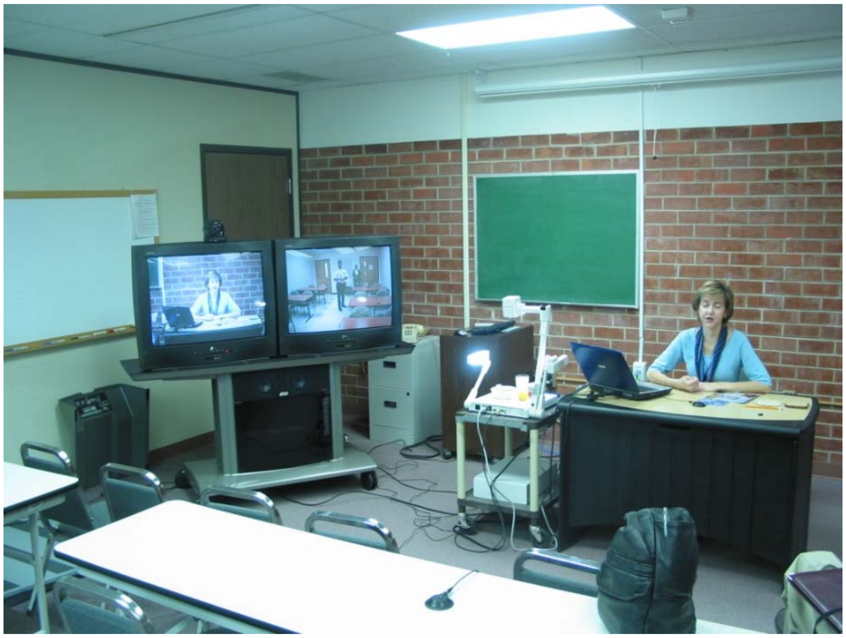


Objectives:

EXIT

ARIZONA
TELEMEDICINE
PROGRAM

Arizona Telemedicine Program
Tele-urgent Services

Robots for Education

ARIZONA TELEMEDICINE PROGRAM

Educational

- Diabetes education
- Students @ home with a connection to classmates and teachers
- Field trips to really cool places like Biosphere 2, City Zoo, Mars!
- Google Hang-Out

Clinical

- Boston Children's Hospital
- Pre and Post Surgery
- Stroke Networks
- Homehealth
  - Nurse specialists
  - Ostomy care
  - BMT patients
  - Medication compliance

Vidyo
GoogleHangout
AdobeConnect
Skype
WebEx
Elluminate
RealPresence
Windows
ZOOM
GoToMeeting
LIVE
Bluejeans
Blackboard

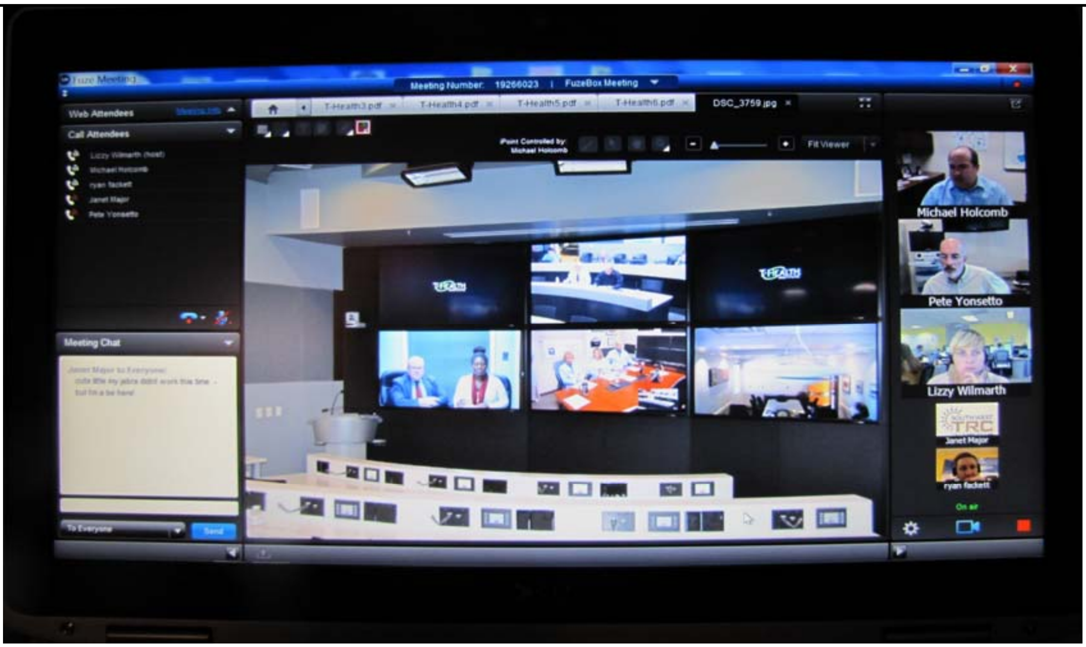
HIPAA Health Insurance Portability And Accountability Act of 1996

Knock Knock!
-Who's there?
HIPAA!
-HIPAA who?

I can't tell you that.

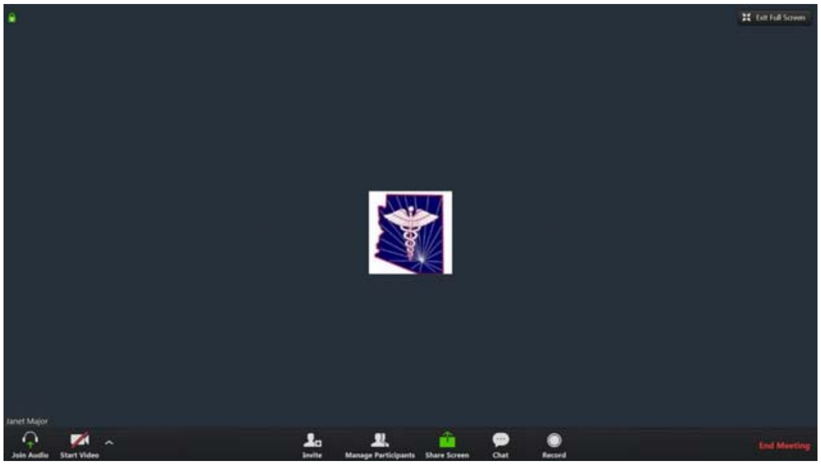
someecards
user card

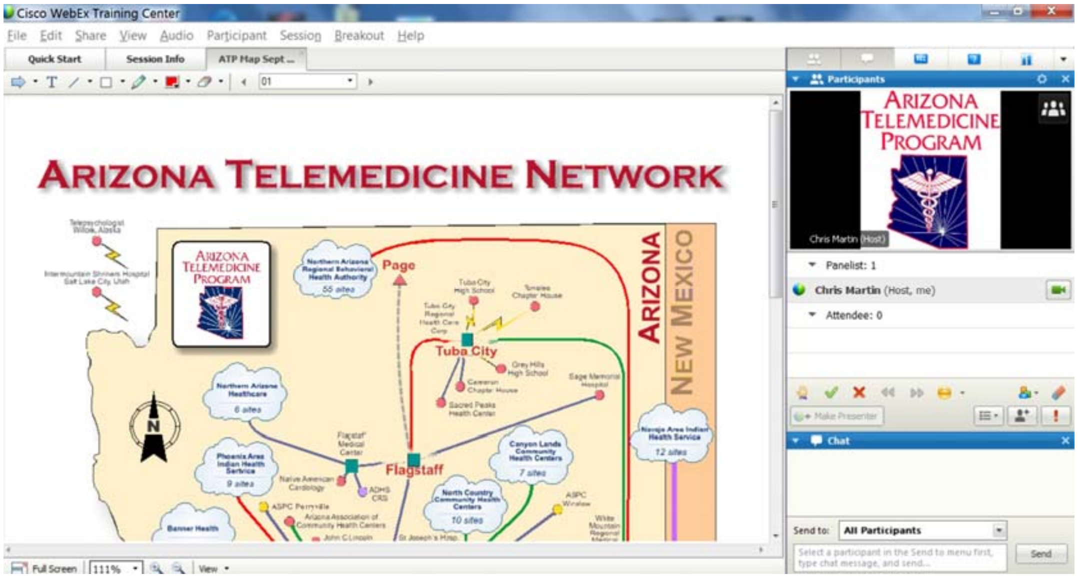
- Cisco WebEx
- Elluminate
- GoToMeeting
- Polycom RealPresence
- Windows LIVE
- Skype
- GOOGLE Hang-out
- Audioconferencing
- Combinations to create a team, produce a LIVE experience and for an added bonus: a great archived product for the future

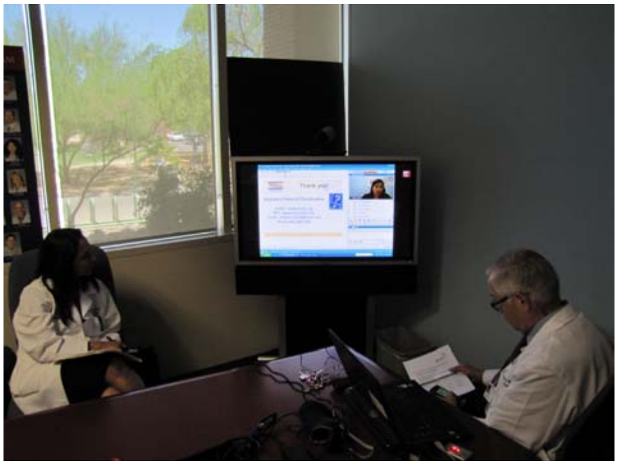

Fuze Meeting
Meeting Number: 19266023 | FuzeBox Meeting
T-Health3.pdf
T-Health4.pdf
T-Health5.pdf
T-Health6.pdf
DSC_3759.jpg
Web Attendees
Call Attendees
Lizzy Wilmarth (host)
Michael Holcomb
ryan fackett
Janet Major
Pete Yonsetto
iPoint Controlled by: Michael Holcomb
Fit Viewer
Meeting Chat
To Everyone
Send
Michael Holcomb
Pete Yonsetto
Lizzy Wilmarth
Janet Major
ryan fackett
On air

Laptops

Arizona Telemedicine Program
Southwest TRC Telehealth Resource Center
T-Health
American Telemedicine Association 2015 Exhibit Hall


Exit Full Screen
Janet Major
Join Audio
Start Video
Invite
Manage Participants
Share Screen
Chat
Record
End Meeting

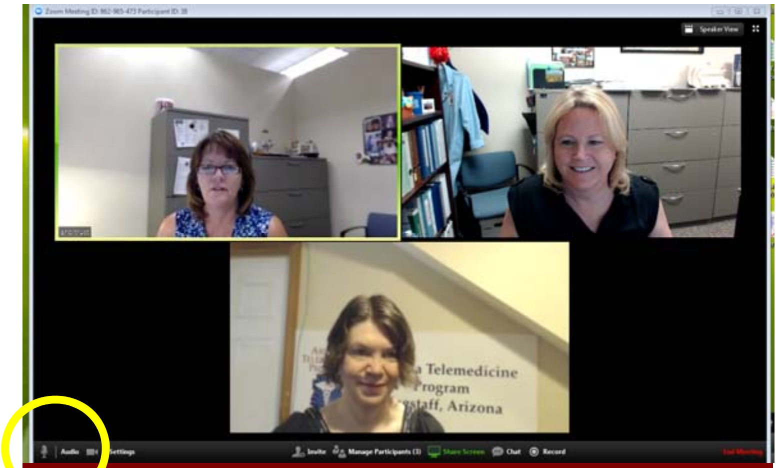

Cisco WebEx Training Center
File Edit Share View Audio Participant Session Breakout Help
Quick Start
Session Info
ATP Map Sept ...
01
Arizona Telemedicine Network
Arizona Telemedicine Program
Telepsychologist Willow, Alaska
Intermountain Shriners Hospital Salt Lake City, Utah
Northern Arizona Regional Behavioral Health Authority
55 sites
Page
Tuba City High School
Tonalea Chapter House
Tuba City Regional Health Care Corp
Tuba City
Grey Hills High School
Cameron Chapter House
Sacred Peaks Health Center
Sage Memorial Hospital
Northern Arizona Healthcare
6 sites
Flagstaff Medical Center
Flagstaff
Phoenix Area Indian Health Service
9 sites
Native American Cardiology
ADHS CRS
ASPC Perryville
Arizona Association of Community Health Centers
John C Lincoln
St Joseph's Hosp
Banner Health
Canyon Lands Community Health Centers
7 sites
North Country Community Health Centers
10 sites
ASPC Winslow
White Mountain Regional Medical
Navajo Area Indian Health Service
12 sites
ARIZONA
NEW MEXICO
N
Participants
Chris Martin (Host)
Panelist: 1
Chris Martin (Host, me)
Attendee: 0
Make Presenter
Chat
Send to:
All Participants
Select a participant in the Send to menu first, type chat message, and send...
Send
Full Screen
111%
View



zoom

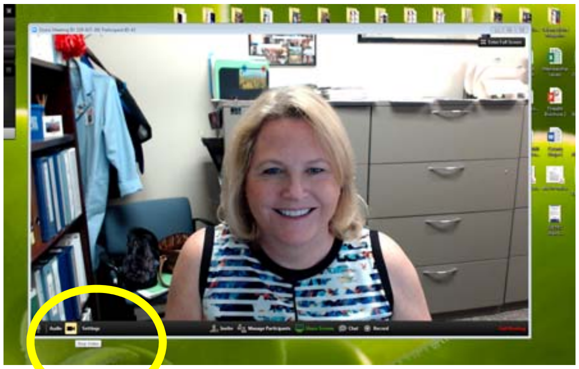
- Mute your audio
- View
  - Speaker mode
  - Gallery mode
  - Full Screen

Mute / unmute your microphones


Speaker View
Audio
Settings
Invite
Manage Participants (3)
Share Screen
Chat
Record
End Meeting

MUTE = ALT A

Mute / unmute your video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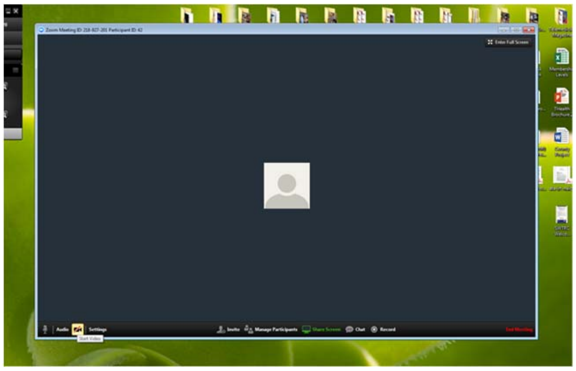
Manage Participants
Share Screen
Chat
Record
End Meeting

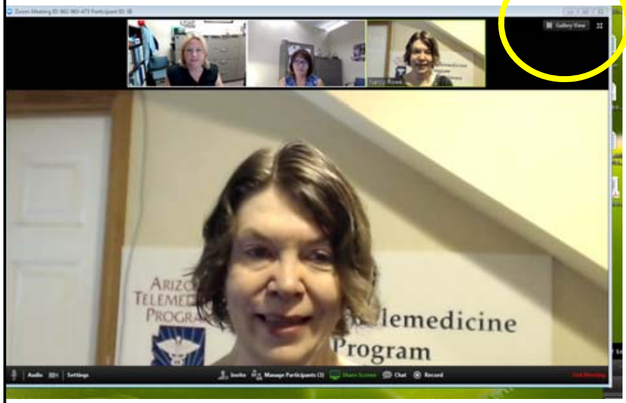

Audio
Settings
Invite
Manage Participants
Share Screen
Chat
Record
End Meeting

MUTE = ALT V

ARIZONA TELEMEDICINE PROGRAM

SOUTHWEST TELEHEALTH RESOURCE CENTER TRC

Speaker View or Gallery View


Gallery View
Audio
Settings
Invite
Manage Participants (3)
Share Screen
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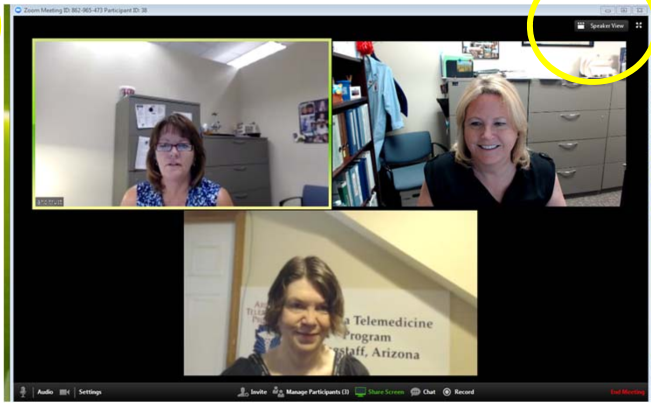
Record
End Meeting


Speaker View
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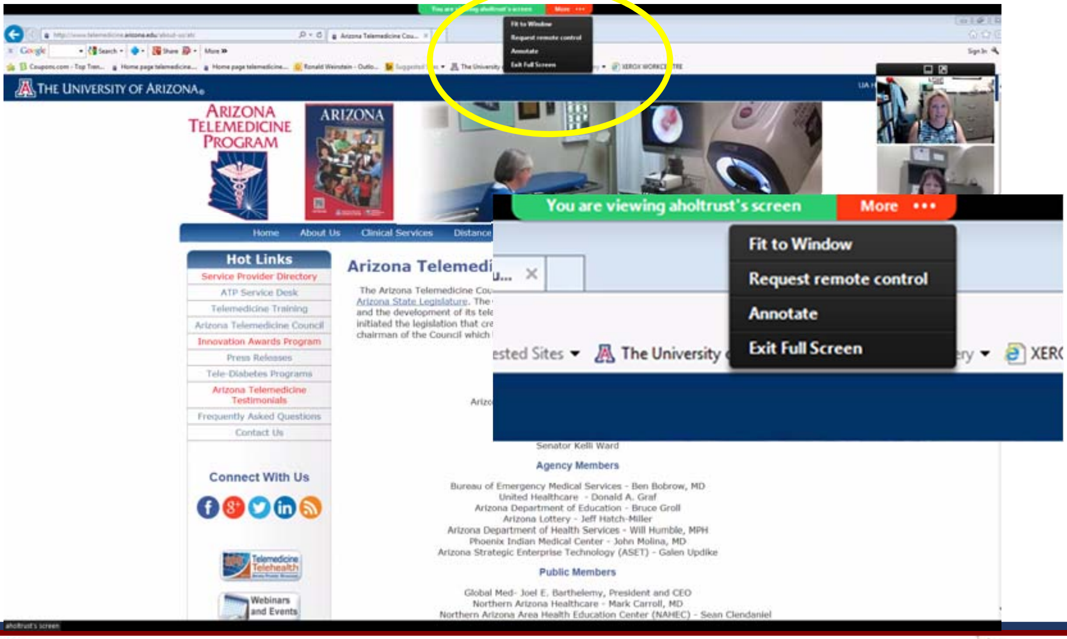
ARIZONA TELEMEDICINE PROGRAM

SOUTHWEST TELEHEALTH RESOURCE CENTER TRC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Request remote control
Annotate
Exit Full Screen
The University of Arizona
Arizona Telemedicine Program
Arizona
Home
About Us
Clinical Services
Distance
Hot Links
Service Provider Directory
ATP Service Desk
Telemedicine Training
Arizona Telemedicine Council
Innovation Awards Program
Press Releases
Tele-Diabetes Programs
Arizona Telemedicine Testimonials
Frequently Asked Questions
Contact Us
Connect With Us
Telemedicine Telehealth
Webinars and Events
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Arizona Telemedi

The Arizona Telemedicine Cou
Arizona State Legislature. The
and the development of its tele
initiated the legislation that cre
chairman of the Council which

Arizo

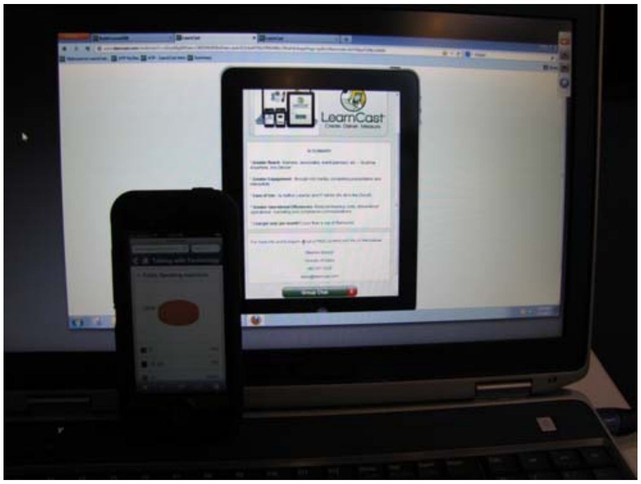
Senator Kelli Ward

Agency Members

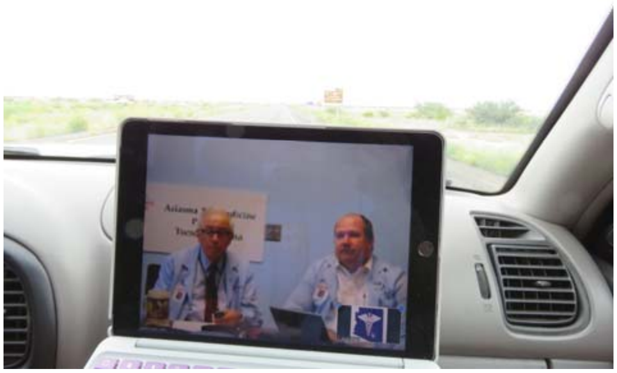
Bureau of Emergency Medical Services - Ben Bobrow, MD
United Healthcare - Donald A. Graf
Arizona Department of Education - Bruce Groll
Arizona Lottery - Jeff Hatch-Miller
Arizona Department of Health Services - Will Humble, MPH
Phoenix Indian Medical Center - John Molina, MD
Arizona Strategic Enterprise Technology (ASET) - Galen Updike

Public Members

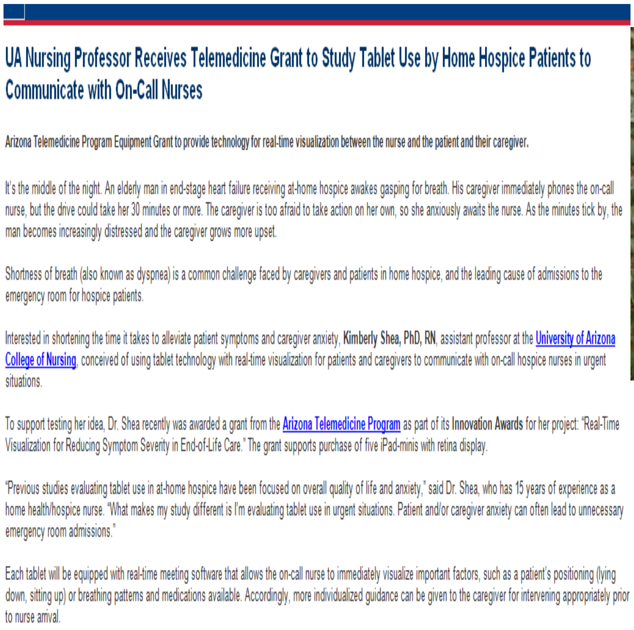
Global Med- Joel E. Barthelemy, President and CEO
Northern Arizona Healthcare - Mark Carroll, MD
Northern Arizona Area Health Education Center (NAHEC) - Sean Clendaniel



IPads



IPads



UA Nursing Professor Receives Telemedicine Grant to Study Tablet Use by Home Hospice Patients to Communicate with On-Call Nurses

Arizona Telemedicine Program Equipment Grant to provide technology for real-time visualization between the nurse and the patient and their caregiver.

It's the middle of the night. An elderly man in end-stage heart failure receiving at-home hospice awakes gasping for breath. His caregiver immediately phones the on-call nurse, but the drive could take her 30 minutes or more. The caregiver is too afraid to take action on her own, so she anxiously awaits the nurse. As the minutes tick by, the man becomes increasingly distressed and the caregiver grows more upset.

Shortness of breath (also known as dyspnea) is a common challenge faced by caregivers and patients in home hospice, and the leading cause of admissions to the emergency room for hospice patients.

Interested in shortening the time it takes to alleviate patient symptoms and caregiver anxiety, **Kimberly Shea, PhD, RN**, assistant professor at the University of Arizona College of Nursing, conceived of using tablet technology with real-time visualization for patients and caregivers to communicate with on-call hospice nurses in urgent situations.

To support testing her idea, Dr. Shea recently was awarded a grant from the Arizona Telemedicine Program as part of its **Innovation Awards** for her project: "Real-Time Visualization for Reducing Symptom Severity in End-of-Life Care." The grant supports purchase of five iPad-minis with retina display.

"Previous studies evaluating tablet use in at-home hospice have been focused on overall quality of life and anxiety," said Dr. Shea, who has 15 years of experience as a home health/hospice nurse. "What makes my study different is I'm evaluating tablet use in urgent situations. Patient and/or caregiver anxiety can often lead to unnecessary emergency room admissions."

Each tablet will be equipped with real-time meeting software that allows the on-call nurse to immediately visualize important factors, such as a patient's positioning (lying down, sitting up) or breathing patterns and medications available. Accordingly, more individualized guidance can be given to the caregiver for intervening appropriately prior to nurse arrival.

Teleconferencing Tips

- wear appropriate clothing and jewelry
- be aware of your body language
- use an agenda and facilitate introductions
- develop protocols for questions
- be familiar with the equipment
- test all equipment in advance

Educational Materials

- send in advance whenever possible
- suggest powerpoint from a computer
- use 24 point font or greater
- use fonts like Arial or Times New Roman
- use a medium blue background with white or yellow font (high contrast)
- use a document camera for 3-D objects
- don’t use red

Be Interactive

- Journal Club
- Pass the Laserpointer
- EKG Bingo
- Team Competition
- Small Group Discussions
- Use photos, nametags or a namelist
- Use Multi-point and PIP options
- don’t be just another talking head

Whiteriver Hospita
Whiteriver, Arizon

Native American Cardiology Program Distance Education "EKG Jeopardy"

Dr. Eric Brody - Tucson

Students – Phoenix Indian Medical Center

Dr. Eric A. Brody received the 2005 Excellence in Teaching Award from the USDLA

EKG JEOPARDY

TANDBERG
Tuba City
Health Care
Tuba City

Interactive Tumor Board

Wound Management Workshop

Healthcare Professionals in Douglas

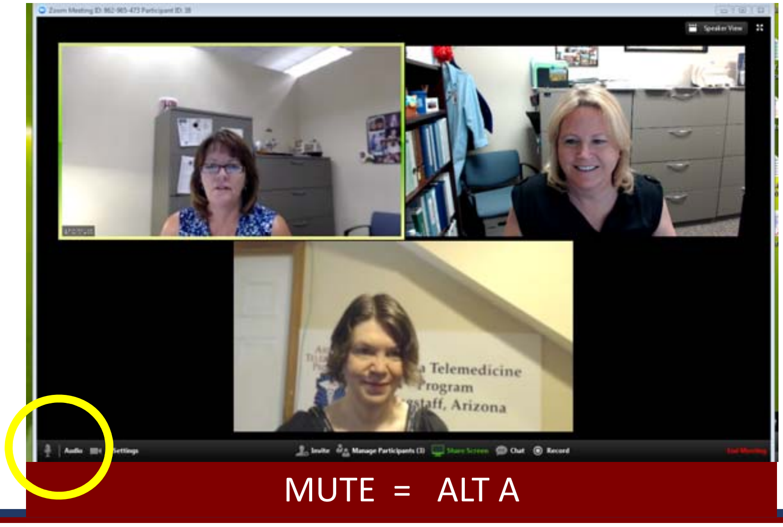
Ostomy Specialist in Tucson

Think of yourself as a politician…assume that your microphone is always ON.

microphones

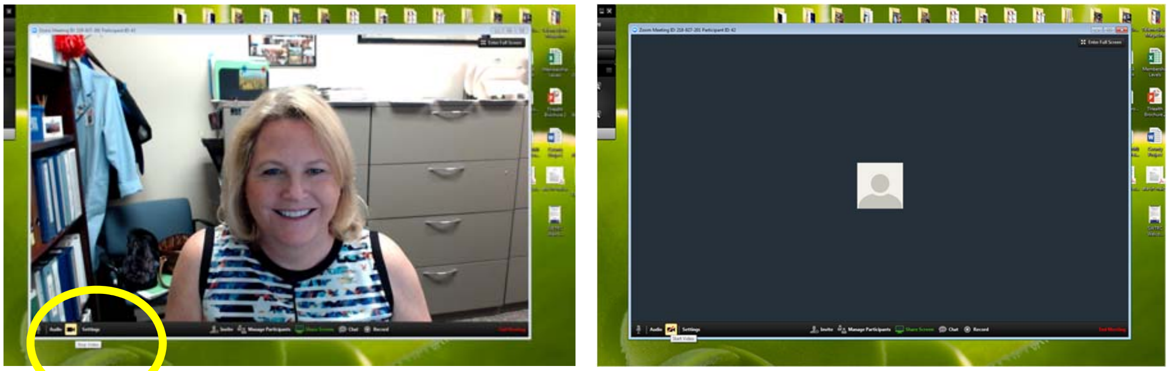
- Require the ability to easily to turn on/off
- Laptop mics and cameras can be adequate but you absolutely have to be able to control on/off quickly
- Echo cancellation is necessary for two-way communication
- Multi-Point events need testing and practice
- Just one open microphone can make or break the conversation or crash a good time!

Mute / unmute your microphones


Audio
Settings
Invite
Manage Participants (3)
Share Screen
Chat
Record
a Telemedicine
Program
Flagstaff, Arizona

MUTE = ALT A

Mute / unmute your video



MUTE = ALT V

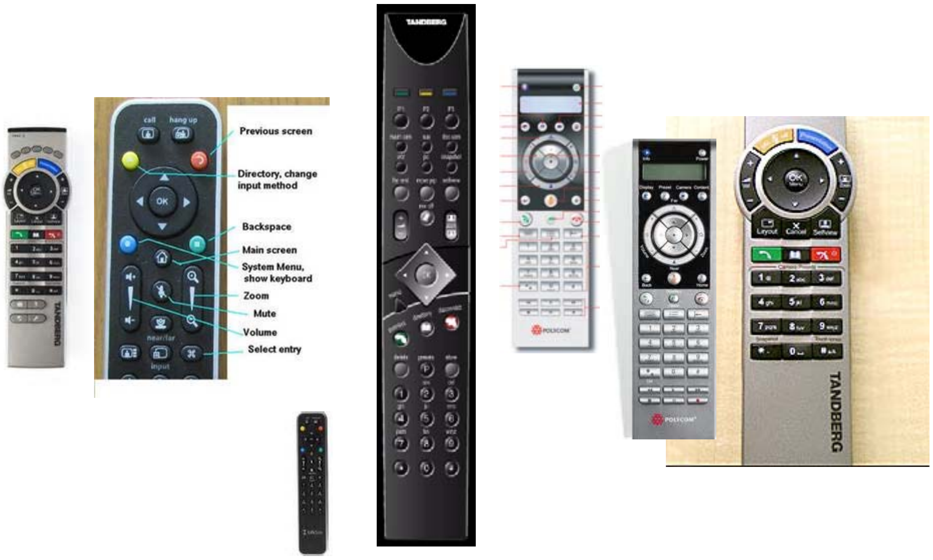
ARIZONA TELEMEDICINE PROGRAM

SOUTHWEST TELEHEALTH TRC RESOURCE · CENTER

NE
Mariposa Comm
Health Cente
Nogales, Ari

To be a good telepresenter you must be a good communicator.

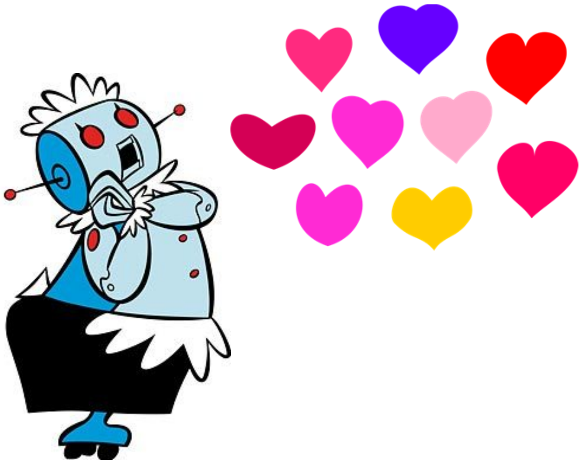
- verbally
- non-verbally


TANDBERG
call
hang up
Previous screen
Directory, change input method
Backspace
Main screen
System Menu, show keyboard
Zoom
Mute
Volume
Select entry
near/far
input
TANDBERG
POLYCOM
POLYCOM
OK
Layout
Cancel
Selfview
TANDBERG

Technology

- Makes the world a smaller place
- Keeps people in their communities

Technology vs Humans



Telehealth Networking

danke
takku
ThankYou
mahalo
kiitos
dekuju
obrigado
gracias
grazie
merci
koszi
dank

ARIZONA
TELEMEDICINE
PROGRAM

jmajor@telemedicine.arizona.edu

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