THE POWER OF TELEHEALTH IN PRIMARY CARE: PRAGMATIC ADOPTION AND INTEGRATION ACROSS THE CARE CONTINUUM
At the conclusion of this webinar, participants will be able to:

- Identify the available technological modalities by which patient care delivery is available and how these may drive quality outcomes and healthcare value.
- Describe the essential components of safe and responsible care by telehealth.
- Discuss how policy influences the adoption and dissemination of care delivery by telehealth.
- Discuss the pragmatic application of telehealth across the primary care continuum and beyond.
TELEHEALTH

- The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities.

  - World Health Organization (WHO)
TELEHEALTH BACKGROUND

1900
- Telephone
- Heart tones by phone

1920
- Telegraph
- Radio
- Two-way visit conceived

1940
- Closed circuit television
- Satellite
- Medical experiment

1960
- Video conference
- Interactive video link
- NASA & astronaut monitoring
- Psych visits at a distance

1980s
- World Wide Web
- Internet
- Expanded connection
- E-mail

2000
- High speed internet
- Extended reach
• Federal Communications Commission is mandated by the Telecommunications Act of 1996 to provide a “high-quality capability that allows users to originate and receive high-quality voice, data, graphics, and video “services.

• **97.9% Americans in urban areas** have access to fixed and mobile broadband.

• **68.8% of Americans in rural areas** have access to fixed and mobile broadband.

• **Need Policy Closing the Digital Divide**
  • Further **financing** is necessary to extend broadband services to rural areas.
GEOGRAPHICALLY ISOLATED AND MEDICALLY UNDERSERVED

Rural America and Urban Clusters

97% Rural/3% Urban

Health Professional Shortage Areas
Primary Care by County
SIMILAR POVERTY PATTERNS IN URBAN AND RURAL AREAS

Siegel (2019)
Urban populations are at risk too but rurality is major risk

<table>
<thead>
<tr>
<th>Rural</th>
<th>Adults (18 y/o +)</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 years</td>
<td>Median age (years)</td>
<td>45 years</td>
</tr>
<tr>
<td>19.5%</td>
<td>Bachelor’s degree +</td>
<td>29.0%</td>
</tr>
<tr>
<td>11.6%</td>
<td>Lives alone</td>
<td>14.3%</td>
</tr>
<tr>
<td>11.7%</td>
<td>Poverty rate</td>
<td>14.0%</td>
</tr>
<tr>
<td>13.6%</td>
<td>Uninsured rate</td>
<td>15.3%</td>
</tr>
<tr>
<td>23.8%</td>
<td>No internet access</td>
<td>17.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rural</th>
<th>Children (&lt;18 y/o)</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.3%</td>
<td>% of total population</td>
<td>23.5%</td>
</tr>
<tr>
<td>18.9%</td>
<td>Poverty rate</td>
<td>22.3%</td>
</tr>
<tr>
<td>7.3%</td>
<td>Uninsured rate</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

MORTALITY RISK IN HIGH AND LOW POVERTY

RURAL-URBAN HEALTH DISPARITIES AND LIFE EXPECTANCY

- Life expectancy is 5 x greater for those living in urban areas over rural compared to 1969
- Life expectancy gap between rural vs. urban living continues to widen
- Higher rural death rates related to:
  - Tobacco related diseases (stroke, heart disease, COPD, lung cancer) diabetes, suicide and unintentional injury
  - Significantly higher tobacco use with increasing rurality
  - Lack of access to health care and providers
  - Hospital closures

HEALTH SERVICES AS DETERMINANTS OF HEALTH

**Barriers**
- Limited access to care, high cost of care, uninsured, limited language access

**Consequences**
- Unmet health needs, delays in receiving appropriate care, inability to receive preventive care, preventable hospitalizations

<table>
<thead>
<tr>
<th>Changes in Healthcare Driving Need for Telehealth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aging population with multiple chronic diseases</td>
</tr>
<tr>
<td>Healthcare workforce shortage</td>
</tr>
<tr>
<td>Dissemination of technology</td>
</tr>
<tr>
<td>Cost containment</td>
</tr>
</tbody>
</table>
SHIFT TOWARDS PROVISION OF HIGH-IMPACT AND QUALITY CARE

Fee for Service
- Services unbundled
- Paid separately
- Financial incentives for **quantity of care**

Pay for Performance
- Services bundled
- Paid based on expected costs
- Financial incentives for **quality of care**
TELEHEALTH CAN ACCOMMODATE GOALS OF QUALITY HEALTH CARE

(Institute of Medicine, 2001)
TELEHEALTH TAXONOMY: “HOME IS WHERE THE PATIENT IS”

**Originating Site** – where the patient is

**Distant Site** – where the provider is
EVOLUTION AND INNOVATION OF CARE DELIVERY OPTIONS

- mHealth (mobile health)
- Live (synchronous) video
- e-home care (remote patient monitoring)
- Telephonic
- Interprofessional e-Consult
- Store and forward (asynchronous)
CAPTURING HEALTH RELATED DATA WITH TECHNOLOGY

Home monitoring equipment        Tablet        Digital peripheral equipment
Chronic Care Management (CCM) codes for non-face-to-face consultation

Since added reimbursement for complex CCM

FQHCs and RHCs are allowed to bill for CCM

Separate reimbursement for time spent on collection and interpretation of health data generated remotely

CCM reimbursement not contingent to HPSA or other originating site designation
PROJECT ECHO
(EXTENSION FOR COMMUNITY HEALTHCARE OUTCOMES)

- Concept developed at the University of New Mexico Health Sciences Center
- Vision to educate health care professionals in underserved communities
- Emphasis on chronic complex disease management
- Case based
- Improving effective, efficient, and timely care at a cost savings for all
- Support under-resourced health care professionals in remote areas
Policy and Practice Limitations

Originating Site – where the patient is

Distant Site – where the provider is
POLICY AND INCONSISTENT COVERAGE OF CARE DELIVERY BY TELEHEALTH
BARRIERS FOR PATIENTS AND PROVIDERS IN ADOPTING TELEHEALTH

- Technology knowledge gaps
- Lack of confidence in technology
- Patient and provider anxiety and ambivalence in using telehealth
- Inexperience with care delivery by telehealth modality
MAJOR FEDERAL, STATE, AND REGULATORY BARRIERS TO ADVANCING TELEHEALTH

- Lack of payment parity for in-person vs. telehealth services
- Limited reimbursement for telehealth services
- Limited interstate licensing
DOMINATING INFLUENCERS IN THE ADVANCEMENT OF TELEHEALTH

- Centers for Medicare and Medicaid Services
- Private Payers
- State Medicaid
- State Policy
- Federal Policy
- Professional Regulating Bodies
- Providers of Health Care
NATIONAL TELEHEALTH CHAMPIONS

Federal Communications Commission
- Govt. agency regulates interstate and international communications including broadband access
- Implements and enforces US communications laws and regulations
- COVID-19 Telehealth Communications Program. $200M funding for telecommunications equipment for qualifying health care providers delivering critical services

Congressional Telehealth Caucus
- Bipartisan Congressional committee who are tasked with advancing telehealth
- 2017 – Present priorities: Expand access to telehealth and remote monitoring, especially in rural and otherwise underserved communities
- Improving health outcomes by expanding access to care including specialty

Office for the Advancement of Telehealth
- Was under the Health Resources and Services Administration
- Now under the Office of the Health and Human Services
- Work to increase and improve the use of telehealth to meet the needs of underserved people, including those living in rural and remote areas, those who are low-income and uninsured or enrolled in Medicaid.
CONGRESSIONAL TELEHEALTH CAUCUS IS PRIORITIZING TELEHEALTH CONNECT FOR HEALTH ACT OF 2019

Creating Opportunities Now for Necessary and Effective Care Technologies (CONNECT) for Health Act

**Proposed Legislation**

- Bill expands coverage of telehealth services under Medicare
- Waiver to lift certain restrictions
- Home would be allowed as originating site for mental health services
- Geographic requirement lifted for medical emergency in a critical access hospital, a hospital or skilled nursing facility.
- FQHCs and RHCs would be an eligible originating site regardless of whether it is located in a rural area.
- Lift requirement for a facility of the Indian Health Services to be an originating site
- **All telehealth requirements in 1834(m) of the Social Security Act would be waived in the instance of a national emergency.**
- Study impact and cost
VETERANS HEALTH AFFAIRS AS PROACTIVE ADOPTERS

- Anywhere-to-Anywhere Rule
  - 25% of Veterans live in rural America
  - Launched in 2018
  - Lifted state licensing restrictions within VA health system
- Veterans may be seen via
  - Online through a VA website
  - Video Connect smart phone application
- 900,000 telehealth visits in 2019 (↑17% from 2018)
- Plan to make ALL PCP and mental health providers available for telemedicine visits in 2020

https://www.modernhealthcare.com/information-technology/telemedicine-growth-follows-anywhere-anywhere-rule-va
COVID-19 PANDEMIC AND ACCELERATION OF TELEHEALTH
HR 748
CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITY ACT

- Location of the patient expanded - geographic and site restrictions lifted (HPSA, facility vs. home)
- Eligible services expanded – synchronous, store & forward, telephonic
- Eligible providers – temporary add FQHCs/RHCs
- Modality of telehealth services expanded
- Flexibility in out of pocket costs – provider directed
- Prior existing r/t to provide care via telehealth revised
- ESRD, home dialysis, nursing homes, hospice required visits relaxed
- Frequency limitations for inpatient, outpatient & home health services removed
- Billing - may use POS code and telehealth “95” modifier
- Licensure allowed across state lines
- HIPAA penalties lifted for good faith provisions
TELEHEALTH EXPANSION DURING PUBLIC HEALTH EMERGENCY

- mHealth (mobile health)
- Live (synchronous) video
- e-home care (remote patient monitoring)
- Telephonic
- Interprofessional e-Consult
- Store and forward (asynchronous)
THE EMERGENT SKYROCKET OF TELEHEALTH

- COVID-19 transforms health care through telemedicine: evidence from the field
- New York University, New York City
- 6-week retrospective analysis of system wide telehealth expansion
- 4,345% increase in non-urgent care post expansion
- 135% increase in urgent care

(Mann et al., 2020)
Telehealth augments but does not replace the hands-on, comprehensive nature of health care

- Needs to match patient need
- More sophisticated needs depending on the patient
CLINICAL SETTING AND MULTIDISCIPLINARY TEAM

- Tertiary–quaternary medical center
- Thoracic surgery practice
- 5 surgeons
- 2 pulmonologists
- 4 nurse practitioners
- 2 nurses
- 1 medical assistant
- 5 schedulers
AS THE CROW FLIES

- 70 miles each way
- Ferry wait and crossing
- Expenses:
  - Gas
  - Ferry
  - Parking

- 8-10 hour round trip
- $60-80
Lung Cancer Screening Eligibility Confirmed

- 62 year old female
- 35 pack year hx of smoking
- Quit 12 years ago
- Exposure to asbestos—played in furnaces as a child
TELELUNG/TELETOBACCO CLINICS
BASELINE SCREENING LOW DOSE CT SCAN
YEAR #1 ANNUAL FOLLOW-UP LOW DOSE CT SCAN
6 & 12 MONTH FOLLOW-UP AFTER YEAR #1 LOW DOSE CT SCAN

February

October
Multidisciplinary team review

Transthoracic Needle Biopsy

FINAL DIAGNOSIS:
- Lung, right upper lobe, CT-guided core biopsy: Pulmonary adenocarcinoma with lepidic growth pattern
PROCEDURES AND OUTCOMES

• Procedure: VATS wedge resection
• Hospital Stay: 1 night
• Cancer: Adenocarcinoma in Situ
• Tumor size: 1.0 x 0.7 x 0.7 cm
• Margin: 1 cm
• Stage: pT1a, pN0
• Treatment: Surgery considered curative. No chemotherapy or radiation needed
• One year follow up in 2016, no recurrence and no new findings
TELELUNG: SURGICAL MANAGEMENT BY TELEHEALTH

- 50 y/o male
- 50 pack-year hx smoking
- Recently disabled from advanced COPD
- Airlifted to medical center for spontaneous pneumothorax
- Living with elderly parents
- Lung volume reduction surgery #1
- Spontaneous contralateral collapse
- Lung volume reduction surgery #2
- Discharged to home following each hospitalization and surgery
- Post-operative care by telehealth
- Back to work 6 months following #2 surgery
Tobacco Cessation by Telehealth

- 50 pack-year history, currently smoking 2 packs/day
- 10/10 motivated to quit
  - Motivation to quit: “I want to see my children grow up”
- 2/10 confident that he can quit
- Telephonic intake
  - Treatment plan prescribed
- Audio-video and telephonic follow-up at time of pre and post surgical follow-up and cessation only visits (audio-visual and telephonic)
- Successful sustained cessation
EXPANDING ESSENTIAL PUBLIC HEALTH SERVICES VIA TELEHEALTH

- **Core Functions of Public Health**
  - Assessment
  - Policy development
  - Assurance

- **Purpose of Public Health**
  - Prevent epidemics and spread of disease
  - Protect against environmental hazards
  - Prevent injuries
  - Promote and encourage healthy behaviors
  - Respond to disasters and assist communities in recovery
  - Assure the quality and accessibility of services

TELEDENTISTRY BY SCAN BOX
PREVENTIVE AND SCREENING TELEOPHTHALMOLOGY
TELEHEALTH: INCREASED DEMAND AND MEETING THE NEED
TELETRANSLATOR INTEGRAL IN TELEHEALTH REACH
Privacy and Security

- Identify both parties in telehealth visit
- Good faith provision of telehealth during pandemic
- May use apps:
  - Apple FaceTime • WhatsApp • Facebook Messenger video chat
  - Google Hangouts video 4 • Email • Provider portal messaging
  - Skype
- Avoid using public facing applications
  - Facebook Live • Twitch • TikTok
- Recommended HIPAA compliant platforms
  - Skype for Business • Updox • VSee • Zoom for Healthcare • Doxy.me • Google G Suite Hangouts Meet

Informed Consent

- Varies by state policy and health plans
- Institutional policies may also apply
- Basic informed consent for care may suffice
  - May or may not have a telehealth statement in it
**Minimum documentation required**

- Documentation requirements for telehealth services are the same as those for documenting in-person care and, at a minimum, should also include:
  - Date of the service, including start and stop time or duration of service
  - The names of all participants in the encounter, including other patients and providers involved
  - The location of the client and a note of any medical personnel with the client, as well as location of the provider
  - That the encounter was conducted via telehealth, which telehealth platform was used, and whether it is HIPAA compliant
  - If a physical exam is conducted, whether vital signs and exam findings are self-reported or obtained under direction
  - If applicable, documentation that the patient consented and mode of consent (written vs. verbal vs. electronic, unless documented elsewhere).

**Telehealth Statement**

- This synchronous, live, secure patient encounter was conducted by HIPAA compliant and encrypted audio-video functionality (telehealth). Patient location/originating site: ____________________________, other family members, caregivers, etc with patient at time of visit: ____________________________ ________.

- Provider location/distant site: ____________________________ .
ADDRESSING EDUCATION, DEPLOYMENT, RETENTION, AND PERFORMANCE OF HEALTH CARE WORKFORCE

- Patient and provider needs
- Advancement of technology
- Education of new workforce
- Adoption by providers
  Facilitate clinical experience in rural & urban areas
Enhancing APRN Workforce Competencies: Combatting the Opioid Crisis in Rural and Underserved WA State Correctional Facilities

- TelePsychiatry Training with Psychiatric Mental Health Nurse Practitioner
DIDACTIC LEARNING AND SIMULATION

Tobacco Use Disorder Counseling and Treatment

Standardized Patient Telehealth Visit Simulation
TELEHEALTH RESOURCES

- Center for connected health policy
  https://www.cchpca.org/national-telehealth-policy

- National consortium of telehealth resource centers
  https://www.telehealthresourcecenter.org/

- National telehealth technology assessment resource center (TTAC)
  http://telehealthtechnology.org/

- American telemedicine association
  https://www.americantelemed.org/
PROVIDER AND PATIENT RESOURCES (HTTPS://TELEHEALTH.HHS.GOV/)

Telehealth: Health care from the safety of our homes.
During the COVID-19 Public Health Emergency, we don't have to choose between medical care and social distancing. When patients can get health care through telehealth — and doctors can provide it — we protect ourselves and our communities.

Learn more about telehealth

For patients
Find out what telehealth is, what you'll need (not much!), and what to expect from a visit. You can also check out our tips on finding telehealth options.

For providers
Get information to help you integrate telehealth, get up to speed on recent COVID-19 related policies, and learn what patients will need to use telehealth.
“Expanded access to telemedicine should continue after the coronavirus pandemic recedes…officials are examining ways to act without waiting for legislation from Congress”

- Seema Verma, Administrator, Centers for Medicare and Medicaid Services
COVID-19 RESPONSE: WE CANNOT UNSEE TELEHEALTH!

- Expedient evolution and implementation of telehealth in public health emergency period
- Next chapter is about to be written
- Senate Health, Education, Labor and Pensions (HELP) Committee
- FULL COMMITTEE HEARING Telehealth: Lessons from the COVID-19 Pandemic
NOW IT’S UP TO US……..LET’S GET TO WORK!

- Research: Produce the evidence of success for the future
- Translate evidence to clinical care
- Build high fidelity and functioning programs
- Deliver comprehensive quality care through effective collaboration and coordination
- Advance best practice care delivery models
- Transform health care
MOVING MOUNTAINS TO IMPACT CHANGE

- Wide spread adoption depends on functional health policy
- State Medicaid plans will need to amend and align with federal telehealth laws in order to protect telehealth benefits before Federal laws revert after the public health emergency.
ADVOCACY AND ACTION: YES WE CAN AND YES WE WILL!

- Organize with other stakeholders
- Transition care by telehealth from reactive to proactive
- Strive to promote adoption of telehealth through action
- Contribute to development of health policy
- Track legislation in your state, advocate and insert your expert voice!
KEY TAKEAWAYS

1. Strive to promote, adapt, and adopt clinical care delivery by telehealth
2. Transition care by telehealth from reactive to proactive
3. Evaluate effectiveness of telehealth by monitoring and measuring outcomes
4. Leverage the resources to train our future workforce in telehealth
5. Develop and sustain a culture of “yes we can” and “yes we will”