Telehealth
Current Trends and Opportunities

Patricia Carroll, RN MS
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Objectives

• Utah Telehealth Network
• Overview of telehealth
• Care delivery transformation
• Future trends
• Lessons Learned
• Challenges & issues
• Resources
Disclaimer

- The resources presented on this presentation are provided for informational purposes only.
- The images and information is not intended to promote any device, vendor or organization.
Established in 1996
Managed by the University of Utah
Governed by the UETN Advisory Board
Advisory Council with state-wide representation
Funded by the state, UUHC, members & users
“Open” to any Utah health care provider
- 50+ member sites; 500+ endpoints & user accounts
Members and Partners

- Rural Hospitals/Clinics
- Local Health Departments
- Association for Utah Community Health (AUCH)
- Utah Department of Health
- Intermountain Healthcare
- Four Corners Telehealth Consortium
- Northwest Region Telehealth Resource Center
Mission

Expand access to health care services and resources through the innovative use of technology to Utah and the Intermountain West.
Services
- Telehealth Development
- Network
  - High speed broadband network for healthcare
  - Network management – 24x7 support
- Security management
  - HIPAA compliant: firewalls, secure remote access,
  - Proactive monitoring: intrusion detection system, vulnerability scanning
- Interactive Videoconferencing
  - Web-based videoconferencing
  - Live streaming
  - Recording
  - Video-on-demand
Telemedicine

• Derived from the Greek word for ‘afar’
• Diagnose and treat patients remotely
• Purpose - right care to the right person at the right place and at the right time
Telehealth or telemedicine
Types of telehealth

• Interactive videoconferencing (IVC) – synchronous
• Store and Forward – asynchronous
• Remote patient monitoring (RPM)
• mHealth (Mobile Health)
• Patient Portals
  Allow patients to interact and communicate with their healthcare providers that are integrated with EMRs.
Interactive videoconferencing (IVC)

Live, two-way interaction using audiovisual telecommunications technology.
IVC – Care Management

- HCH & IHC - Cancer Treatment Planning conferences
- UUHC Project ECHO (Enhancing Community Health Outcomes)
Telemedicine Applications in Utah – Real Time IVC

- Stroke
- Burn
- Adult Speech Therapy
- Mental Health
- Neuropsychology – Alzheimer Clinic
- Wound Care
- Pharmacy
- Interpretive Services

- ENT
- Ortho
- OB
- Dermatology
- Hepatitis
- Cardiology
- Neurosurgery
- Neurology
Healthcare education - IVC

• UU College of Nursing PhD Programs
• UU Medical Students & Residents
• USU Nursing direct to rural hospitals & clinics
• UU Grand Rounds
• UDOH – Asthma Grand Rounds
Store and Forward

Transmission of recorded health history through an electronic communications system to a practitioner, usually a specialist, who uses the information to evaluate the case or render a service outside of a real-time or live interaction.

- Teleradiology (ubiquitous)
- DM Retinopathy screening
- Teledermatology
- Echocardiography
Remote Patient Monitoring (RPM)

Personal health and medical data collection from an individual in one location via electronic communication technologies, which is transmitted to a provider in a different location for use in care and related support.
Goals - Home Telehealth

• Patient education & engagement → better outcomes
• Improved access → better outcomes
• Lower costs
  • Reduce
    • Health care utilization
    • ED admissions
    • Hospital length of stay
    • Hospital re-admission
Questions?
Care delivery transformation

• 171 million chronic care patients in US in 2030
• Shortage of healthcare providers
• High costs
• Transition of care to family & caregivers
Triple Aim

• **Better Care** will improve Patient Experience
• Providing the right services will improve **Population Health**
• Better Health will lead to **Lower Cost**
Future Trends

Blockbuster → Red Box → Netflix → Smart TV

Hospital → Clinic → Kiosk → Home → Anywhere
Future Trends

- Democratization of health care with patient engagement
- mHealth expansion
- Consumer apps
  - DIY (do it yourself)
  - Point of care diagnostics (UA, Strep, Otoscope)

“The Patient Will See You Now: by Eric Topol
Future Trends

- Medical apps
  - FDA approved
  - Certification of apps to prescribe

- Integration of mobile apps with EMR
  - Epic Systems is set to open its own app store
  - Cerner, free iTunes app
Future Trends

• Direct to Consumer Models

  • ATA estimates that this year over 800,000 consultations will be provided to consumers via online sites.
  • Services are delivered using a combination of modes
    • synchronous (live, two-way) technologies such as web cams and telephones
    • asynchronous (store-and-forward) technologies such as online questionnaires and secure emails.
Future Trends

New generation of private telemedicine kiosks are popping up at Kaiser Permanente, Rite Aid pharmacies, and Mayo Clinics.
Future Trends

• Virtual Clinics
  • **Payers** like Aetna, Anthem, and Cigna are embracing telemedicine too.
  • **Walgreens** patients see a doctor and get a prescription without leaving home
  • **Target** partners with Kaiser
  • **Qualcomm** encouraging staff to use mobile care, including phone calls and video conferencing, instead of only in-person visits, to discuss care options with healthcare professionals.
  • **Rent-A-Center** claims to have *slashed its healthcare spending by about $1.3 million in 24 months* since enabling its employees to speak with practitioners over the phone and the Internet.
  • **Penske Truck Leasing** said it *saved over $300,000 in 12 months* after doing the same.
  • **Boeing** in 2011 alone, 30% of those who used telemedicine for a second opinion saw a diagnosis change, and 59% experienced a change in treatment

UTN’s new videoconferencing platform

• Internet access, only
• Browser based
• Simply send a url link
• Desktop, Mobile Devices and High-end Videoconferencing Units
Questions?
Telemedicine Challenges & Opportunities

• Technology
• Patient Confidentiality and Security (HIPAA Compliance)
• Reimbursement
• Cross state licensure
• Credentialing and Privileging
• Data management
Technology Challenges & Opportunities

• Proliferation technology
  • Better quality, more affordable, increased mobility
  • More choices

• Consumer-based technologies (Skype, FaceTime, & Apps)

• Plug & Play – ease of use

• Connectivity
  • Bandwidth
  • Cellular service
  • Browser based
Reimbursement

• Medicare
  • 1997, 2000 – structurally unchanged with a few added sites and services
  • eligibility requirement
    • Geography
    • Patient location
    • Services
    • Providers
  • shift away from the traditional fee-for-service model and towards accountable care organizations (ACOs), risk-based payment

• Medicaid

• Utah Third party Payers
Utah Medicaid – Telemedicine

Provider Manual - Telemedicine (Added 1/1/15)

• Utah Medicaid covers physician and nurse practitioner services delivered via telemedicine to Medicaid members when provided by an authorized provider. The services delivered must be covered by Medicaid.

• Covered Services Utah Medicaid covers medically necessary physician and nurse practitioner services delivered via telemedicine.

Credentialing & Licensure Portability

Credentialing

• CMS requires facilities receiving telehealth specialty consults to credential all providers

Licensure Portability

• Physicians must be licensed in the state where the patient is for the consult.
Purpose: This Standard provides a uniform standard of billing claims/encounters for health care delivered via telehealth.

CMS 1500 box requirements:
- Box 24D – Procedures, Services or Supplies and appropriate modifiers
- For Procedures, Services or Supplies and appropriate modifiers, use standard HCPCS/CPT codes.
- Two modifiers will be used to identify what types of telehealth services were given.
  - GT – Via interactive audio and video telecommunication systems (interactive)
  - GQ – Via a-synchronous telecommunication systems (batch)
Potential Legislation

*need input and support from rural hospitals*

• Representative Ken Ivory
• Telehealth Workgroup
• HB Draft
Questions?
Lesson Learned
Telehealth Services - Department of Veterans Affairs

Home Telehealth Savings
• $1,999 per annum per patient

Reductions in Utilization FY 2013
• Home Telehealth - reduces bed days of care - 59%
• Home Telehealth - reduces hospital admissions - 35%
• Clinical Video Telehealth - reduces bed days of care 38% for mental health care

Adam Darkins, Chief Consultant for Telehealth Services
http://www.ihealthbeat.org/articles/2014/6/20/va-study-shows-telehealth-cuts-costs-boosts-care-for-veterans
Telehealth Services - VA

**Travel Reduction Savings**

- Clinical Video Telehealth – $34.45 per consultation
- Store and Forward Telehealth - $38.81 per consultation

**Patient Satisfaction**

- Home Telehealth - 84% mean score
- Store-and-Forward Telehealth - 95% mean score
- Clinical Video Telehealth - 94% mean score

Adam Darkins, Chief Consultant for Telehealth Services
http://www.ihealthbeat.org/articles/2014/6/20/va-study-shows-telehealth-cuts-costs-boosts-care-for-veterans
Outcomes of successful programs

• reduced readmissions by 20 percent.
• reduction of cost equal to 11 percent per patient per month
• 71.2 percent of the patients participating in the program had their blood pressure well-controlled after 12 months versus 52.8 percent of the control group.
• reduce HbA1c levels by a mean of 1.8 points.
• reduced all-cause 30-day hospital readmissions for high-risk patients by 20 percent

Outcomes of successful programs

• Remote patient monitoring reduced readmissions by 20 percent. One fifth of the patients who would have been readmitted were not—because continuous patient knowledge enabled potential health issues to be addressed before they became serious or life threatening.

• Population Health Management, December 2014: Geisinger Health Plan significantly reduced hospital readmissions and cost of care for patients with heart failure, and delivered a 3.3 ROI—for every $1 spent to implement this program, Geisinger saved $3.30. This translated to a reduction of cost equal to 11 percent per patient per month between 2008 and 2012.

• Journal of The American Medical Association, July 2013: When HealthPartners of Minnesota added telehealth and pharmacist management to their usual care for hypertension, 71.2 percent of the patients participating in the program had their blood pressure well-controlled after 12 months versus 52.8 percent of the control group.

• Journal of Managed Care Medicine, November 2012: New York City Health & Hospitals Corporation combined personalized case management and real-time patient management solutions to enable Medicaid patients with poorly controlled Type 2 diabetes to reduce HbA1c levels by a mean of 1.8 points.

• Medical Care, January 2012: Geisinger Health Plan reduced all-cause 30-day hospital readmissions for high-risk patients by 20 percent, by adding interactive voice response calls to its care management outreach.

VIDANT HEALTH

- 66% reduction in bed days, admissions and costs
- $4.4M net savings for Vidant CHF, COPD program in North Carolina, based on a 700 patient program

CAREMORE

- 47% reduction in hospital admissions for CHF patients
- 45% decrease in hospital days for CHF patients
- 48% reduction in hospital admissions for COPD patients

FLAGSTAFF MEDICAL CENTER

- 44% reduction in hospital admissions CHF patients
- 64% decrease in bed days
- 72% reduction in total costs of care for CHF patients

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Questions?
Resources

• Utah Telehealth Network – [www.utn.org](http://www.utn.org)
• Telehealth Resource Centers - [www.telehealthresourcecenter.org/](http://www.telehealthresourcecenter.org/)
• American Telemedicine Association - [www.americantelemed.org/home](http://www.americantelemed.org/home)
• Center for Telemedicine and e-Health Law - [ctel.org/](http://ctel.org/)
• Utah Reimbursement – [www.utn.org/support/development/reimbursement.shtml](http://www.utn.org/support/development/reimbursement.shtml)
Resources

• Utah Medicaid Home Health -

• UT Medicaid Telemedicine (page 13, sec.34)