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NM STTC

Current Status and Future of Telemedicine and e-Health in New Mexico

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• Past President, American Telemedicine
  Association
So What is Telemedicine/Telehealth?

- The use of advanced telecommunications technologies to exchange health information and provide healthcare services across geographic, time, social and cultural barriers (J. Reid)

- Telehealth is more than just video-conferencing and encompasses health information exchange and a spectrum of health information technologies

- It is simply the delivery of health services at a distance (A. Darkins)
So What is e-Health?

- Healthcare practice supported by electronic processes and communication
- Includes Electronic Health Records (EHR), Computerized Physician Order Entry, and e-Prescribing
- Health Information Exchange (HIE)
How is Telehealth & e-Health used?

- **Clinical (“Telemedicine”)**: Consultation, Direct patient Care, Case Reviews

- **Educational**: Providers, Students, and Patients

- **Research**: Community-based Participatory, Outcomes driven

- **Administrative**: Strategic planning, Operations

- **Sharing Health Information/Health Information Exchange (HIE)**

- **Enhanced Disaster Response**
“Back to the Future”
Involving the Patient
Major Public Health Issues Impacting our Rural Communities and their Economic Development

Gaps in Access to Health Services in Rural New Mexico

- Hepatitis C
- Behavioral Health
- Diabetes
- Asthma
- Cancer
- Oral Health
- Cardiac and Stroke Care
Telehealth and Health Information Technologies are Part of the Solution in Transforming our Health System and Improving Access to Care
Direct Patient Care

Maternal Fetal Medicine-High Risk Pregnancy
“Store and Forward”

- Capturing an image and **storing** it to then be **forwarded** for review by a medical specialists
- Examples include teleradiology, tele-pathology, tele-dermatology, and tele-ophthalmology (retinal scans)
Diabetic Retinopathy
Retinal Scans:
Video Phone/Computer-based video
Family Visitation
School Based Health Centers
Child Ready Project
Tele-Neurology
44% Transfer Avoidance
27% Management Recommendation Changes

CMS “ACCESS” Innovation Grant

- Access to Critical Cerebral Emergency Support Services
- PI: Dr. Howard Yonas, Chair Neurosurgery, UNM HSC
- $15 Million
- Telehealth Connections to 30 NM hospitals
- Collaboration between UNM HSC and Net Med Xpress
Smart Phones

Desktop IP Based (H.323)

Small Conference Room
IP Based (H.323)

Cloud-based Video Conferencing (Vidyo, Zoom, etc.)

Skype
“Google Glass”

Rafael Grossmann, MD, FACS at Google Glass's first surgical appearance

Tele-mentoring, Tele-Supervision, Teaching & Training
The New Mexico Telehealth Alliance

Telehealth Alliance
“Networks of Networks”

- Represents a consortium of public and private health care stakeholders: “Neutral Territory” (501c3)
- Reflects the diversity of our health care delivery system in New Mexico
- Actively facilitates collaboration
New Mexico Telehealth Act
Passed and Signed into Law 2004

Introduced by:
Rep. Danice Picraux (D)

Supported by
Sen. Susan Wilson-Beffort (R)

HOUSE BILL 581
46TH LEGISLATURE - STATE OF NEW MEXICO

Insurance Coverage for Telemedicine Services
Passed and Signed into Law 2013

Introduced by:
Sen. Jerry Ortiz y Pino (D) and
Rep. Stephen Easley (D)

SENATE BILL 69
HOUSE BILL 171
Reimbursement Legislation and Regulation

- Commercial payers (NM SB 69)
- Medicaid Rules 2014
NM SB 69 2013

- Mandates use and reimbursement for covered benefits by commercial payers
- Reimbursement consistent with in-person encounters
- No rural requirement
- Covers “Store and Forward”
- Removed rural HPSA Non-MSA requirement
- No “telepresenter” required
- Covers “Store and Forward”
Survey Results: Critical issues

- NM suffers from a critical shortage of healthcare providers, especially in rural and tribal areas.
- Shortage of health care providers results in lack of access to quality care.
- Addition of 170,000 NM residents to Medicaid has created increasing pressure on an already over stressed system.
Survey Results: Telemedicine

- Rural population sees telemedicine as the only potential for improving healthcare
- 79% of patients who used telemedicine believed it was as good as in-person
- 38% believed they would have had to travel over 40 miles for in-person service
- Currently there are organizations that wish to provide telemedicine services to those in need but lack technical expertise and need for coordination
Survey Results: Broadband Gaps

- Telehealth requires quality, adequate, and affordable broadband to provide services.
- With the exception of Albuquerque and some of the larger healthcare provider organizations, most healthcare providers are operating with a minimum amount of bandwidth.
- Barriers: 1) cost of connectivity, 2) Facility readiness, 3) Resistance of healthcare providers due to lack of experience, 4) Reimbursement challenges.
Southwest Telehealth Access Grid (SWTAG)

$15.4 Million from FCC but gaps remain
The NMTHA assists other healthcare facilities in participation in the next phases of the Southwest Telehealth Access Grid and adequate connectivity through the FCC programs; Healthcare Connect Fund and “Urban Rate/Rural Discount”

Develop a network of networks for telehealth and HIE
Telemedicine and e-Health: Health Information Exchange (HIE)

- Telemedicine creates the “virtual” consultation and provision of service between providers and patients = access to care

- HIE creates the consolidated “virtual” medical record about the patient from a variety of electronic health records and sources = access to the patient’s health information
Core HIE Functions

Provides access to a current patient summary from a variety of sources (From Where and When):

- Problem List/Diagnosis
- Medications
- Immunizations
- Allergies
- Procedures
- Lab Data
- Radiology Data
- Encounter Summaries
How the NMHIC HIE Works

Gathers and associates records with the right patient
Value/Benefits of the HIE

- Access to each patient’s health information with patient consent
- The patient doesn’t have to keep remembering and repeating their health history
- Improved awareness of the patient’s overall health, use of health systems, and better coordination of care
- Better evaluation capability and improved efficiency in making diagnosis and management plans
- Decrease unnecessary duplication of tests and procedures
Conclusions

Together we have opportunities to integrate Telehealth and HIE in a manner that can provide platforms for greater continuity in collaborative efforts within our state

- Clinical service and consultation
- Public Health
- Education and training
- Research
Recommendations

- Designate the NM Telehealth Alliance as the central coordinating agency for telehealth within the state:
  - Streamline coordination
  - Share collaboration and funding opportunities
  - Create data warehouse on telehealth and HIE services, utilization, and impact
  - Create and manage a matching funds pool for FCC and other Federal agency funding programs
Anticipated Outcomes: (RBA)

- Improved access to clinical care
- Improved health outcomes
- Decreased costs
- Reduced duplication of services
- Increased federal funding contributions
- Improved education and training capabilities
- Successful optimization of coordination across NM telehealth stakeholders
Suggested Resource Requirements

$ 500,000 for first year:

- $100,000 for NMTHA administration and management
- $400,000 for a matching funds pool (FCC, USDA, etc.)
Questions?
Case Reviews or Consultation
# ECHO: Treatment Outcomes

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SVR = sustained viral response

Remote Monitoring

The “Smart Band-Aid”

Digital Plaster
- Gauze
- Antenna
- Thin Battery Layer
- Sensium

Wireless Body Area Network
- Breathing Activity
- ECG Heartbeat
- Insulin Pump
- Blood pH
- Temperature
- Glucose
- Carbon Dioxide
The StarTrek Tricorder: Is it Here?