

October 28, 2014

NM STTC

NEW MEXICO
TeleHealth Alliance



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

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University of New Mexico**
- **CMIO, LCF Research/NM Health
Information Collaborative**
- **Chairman; NM Telehealth Alliance**
- **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**

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RADIO NEWS

REG. U.S. PAT. OFF.

25 Cents

April

1924

Over 200 Illustrations

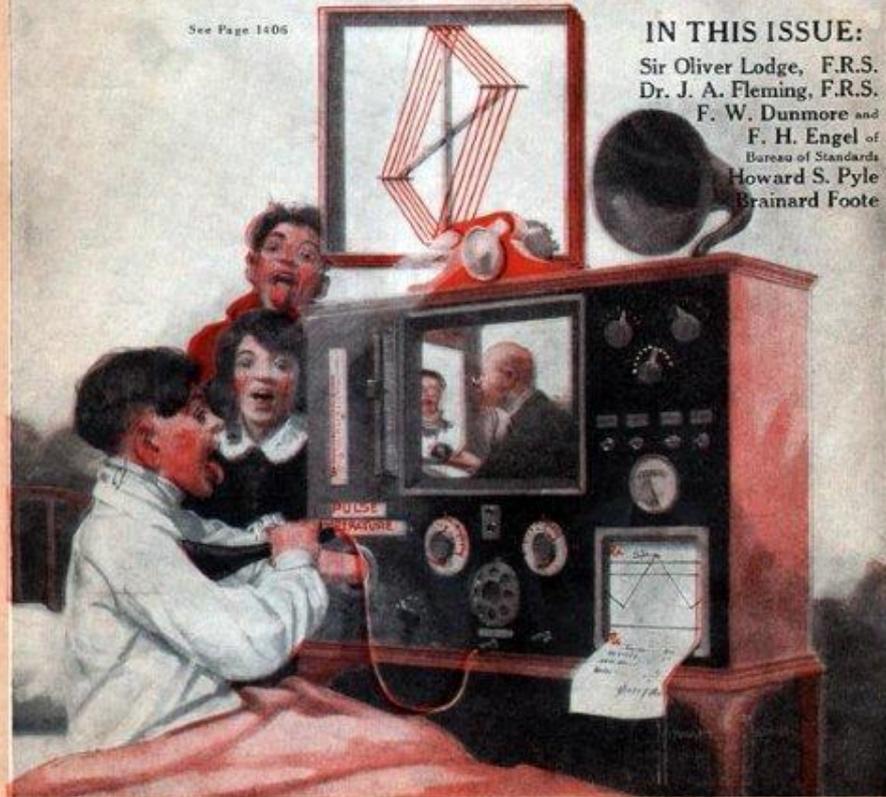
Edited by H. GERNSBACK

THE RADIO DOCTOR—*Maybe!*

See Page 1405

IN THIS ISSUE:

Sir Oliver Lodge, F.R.S.
Dr. J. A. Fleming, F.R.S.
F. W. Dunmore and
F. H. Engel of
Bureau of Standards
Howard S. Pyle
Brainard Foote



THE 100% RADIO MAGAZINE

CIRCULATION LARGER THAN ANY OTHER RADIO PUBLICATION

“Back to
the Future”

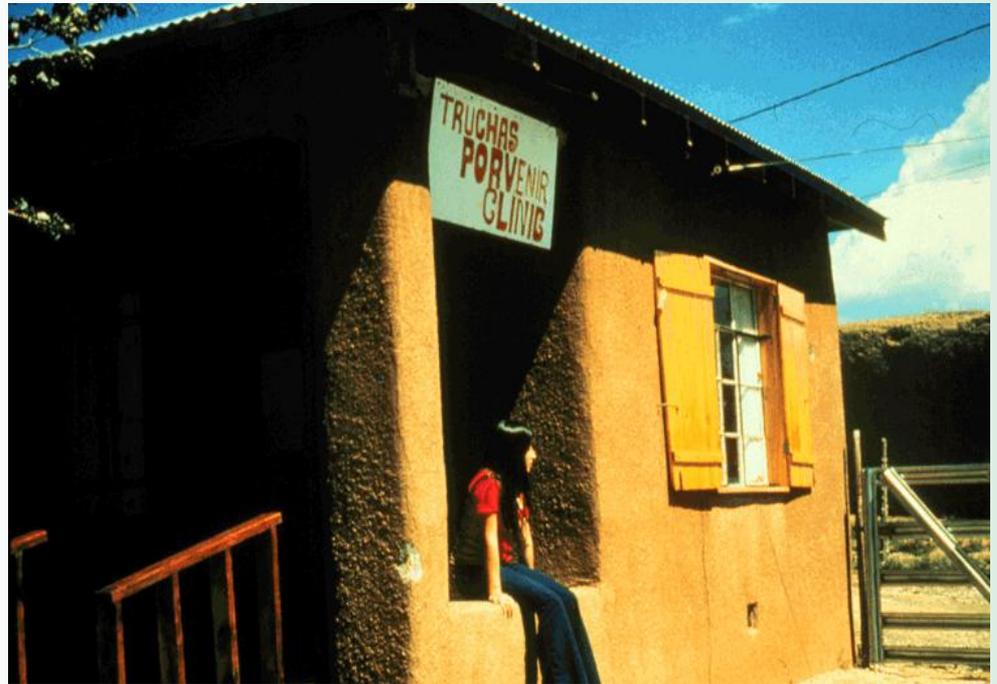
Involving the Patient



Major Public Health Issues Impacting our Rural Communities and their Economic Development

Gaps in Access to Health Services **in Rural New Mexico**

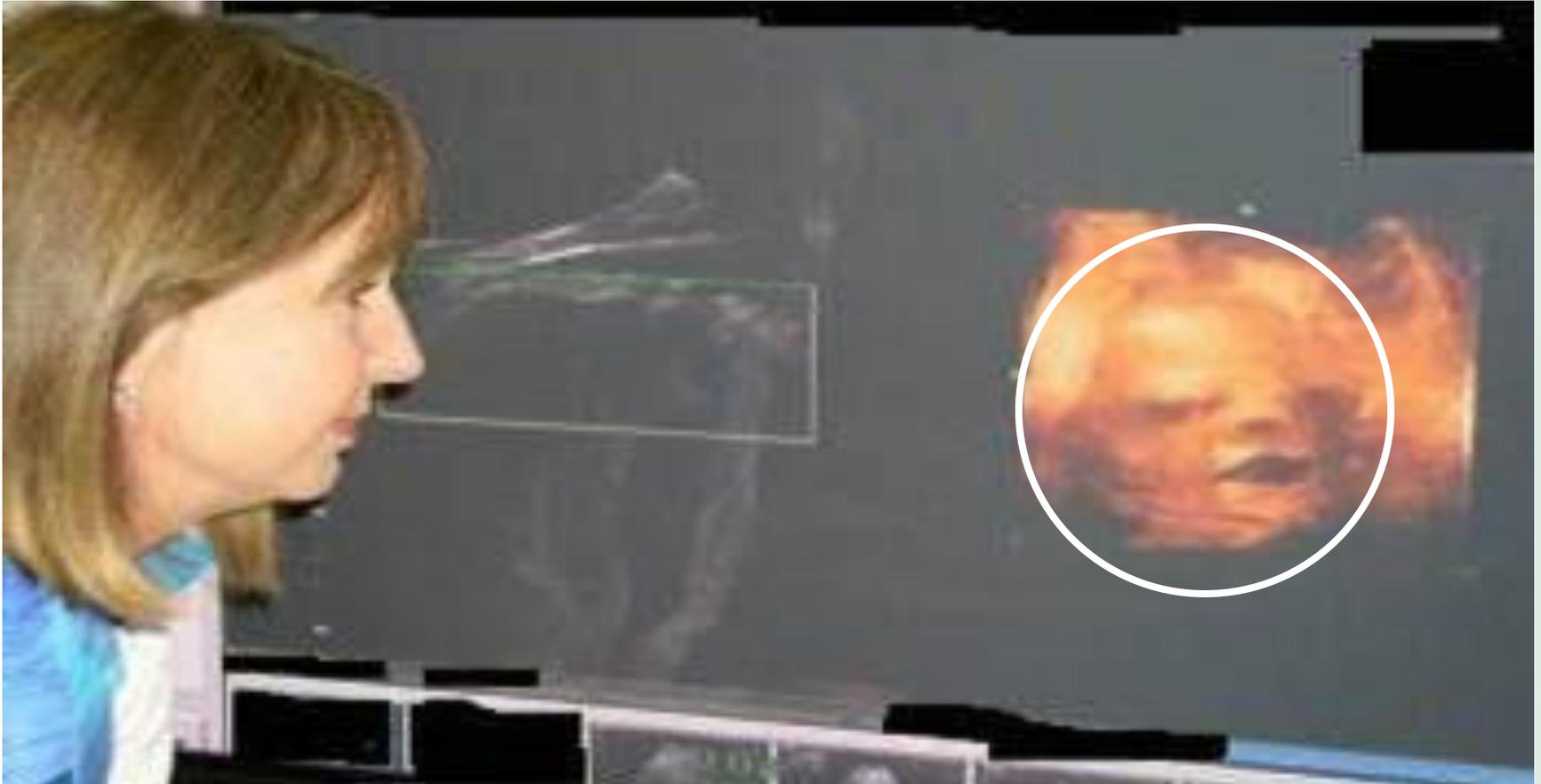
- **Hepatitis C**
- **Behavioral Health**
- **Diabetes**
- **Asthma**
- **Cancer**
- **Oral Health**
- **Cardiac and Stroke Care**



Telehealth and Health Information Technologies are Part of the Solution in Transforming our Health System and Improving Access to Care



Direct Patient Care



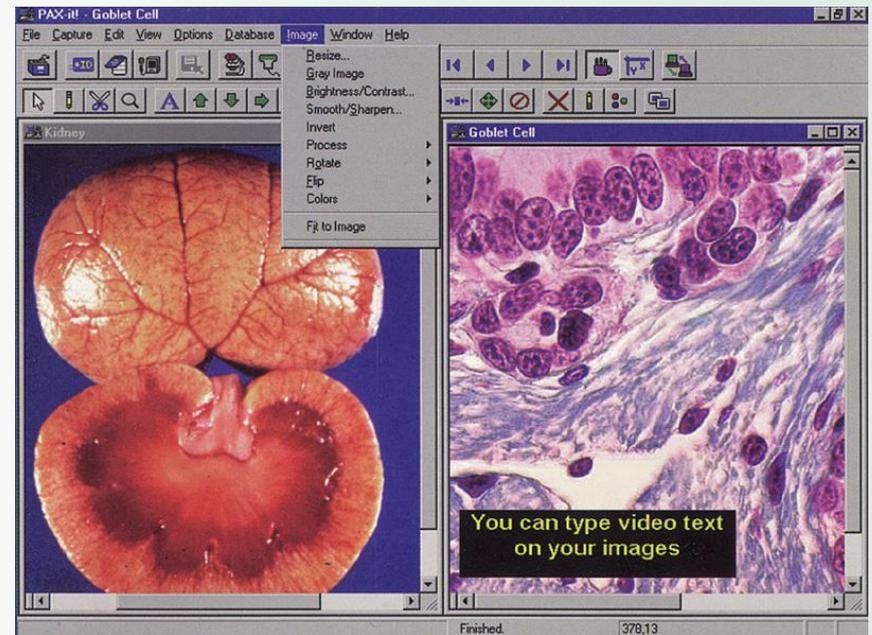
Maternal Fetal Medicine-High Risk Pregnancy

“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)



Teleradiology and Image Transfer



Web-Based Portals

Diabetic Retinopathy Retinal Scans:



Video Phone/Computer-based video Family Visitation



School Based Health Centers



Child Ready Project



Tele-Neurology



Tele-Stroke



Trauma Triage

Online Medical Consultant System - Diagnose Case - 2007-20UNMHSC - Microsoft Internet Explorer

File Edit View Favorites Tools Help



Address <https://www.imedcon.com/Library/UNM%20Health%20Sciences%20Center/Gallup%20Indian%20Medical%20Center/MORRIS%2C%20HARRISON%2C%20200599/2007-20I> Go Links >>

Google G Go Bookmarks 30 blocked Check AutoLink AutoFill Send to Settings SnagIt

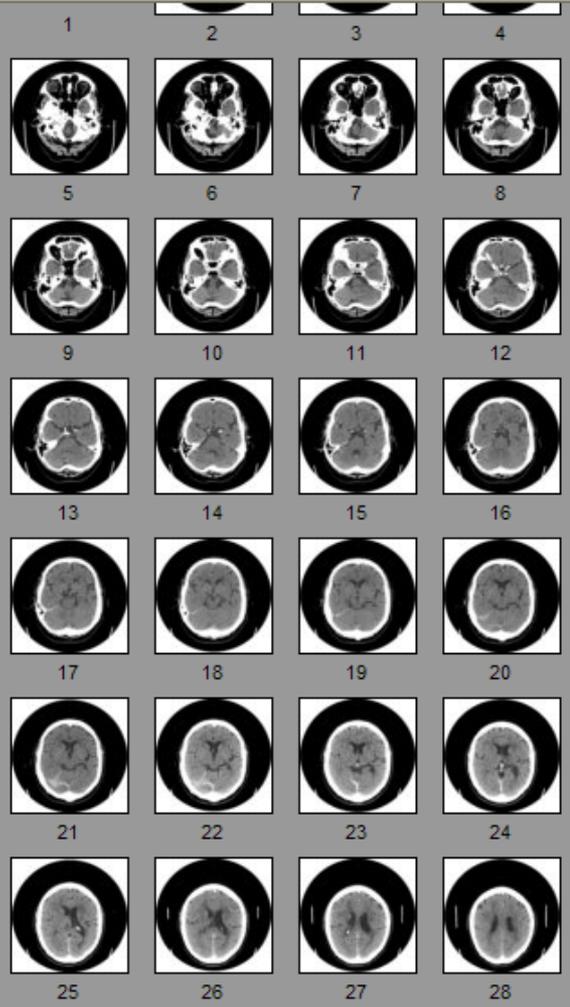
Division:
UNM Health Sciences ...

Facility:
Gallup Indian Medical
Center

**44% Transfer
Avoidance**

**27% Management
Recommendation
Changes**

**Moya M, Valdez J,
Yonas H, Alverson
DC. The Impact of
a Telehealth Web-
based Solution on
and Consultation.
Telemedicine and
eHealth, 2010;
16:945-949**



References

N/A

Consulting Questions

Step A: Before reviewing the case with the supporting information

Question 1: Based on your current knowledge would you have accepted this patient for transport?

Answer: Yes No

Step B: After reviewing the case with the supporting information

Question 2: Did you accept the patient for transport?

Answer: Yes No

Question 3: Did your management recommendations change?

Answer: Yes No

Comments:

Ready to submit advice?

Submit Advice

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

Telehealth Toolkit



Smart Phones



Desktop IP Based (H.323)



Small Conference Room
IP Based (H.323)

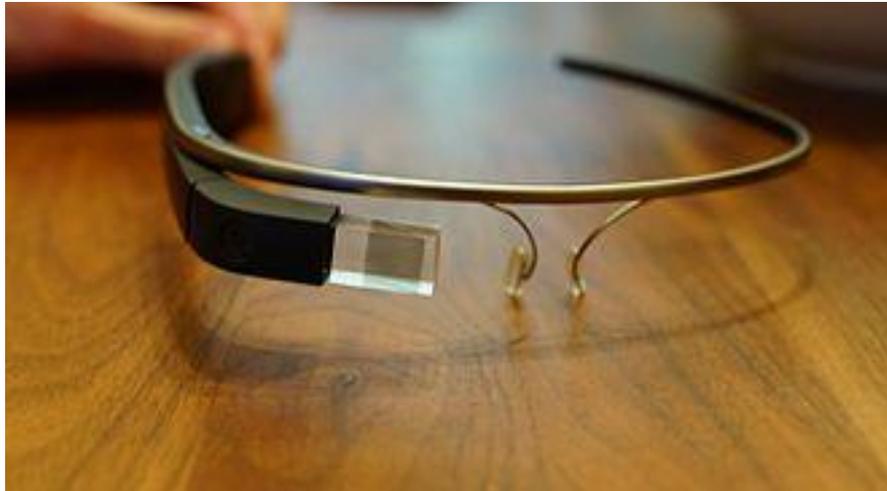


Cloud-based
Video
Conferencing
(Vidyo, Zoom,
etc.)



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

- ✓ Providers
- ✓ Consumers
- ✓ Telehealth Expertise
- ✓ Communication Networks
- ✓ Social Networks



**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”

NM Medicaid Rule January 2014

- Removed rural HPSA Non-MSA requirement
- No “telepresenter” required
- Covers “Store and Forward”

DoIT Broadband Gaps Analysis

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

DoIT Broadband Gaps Analysis

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

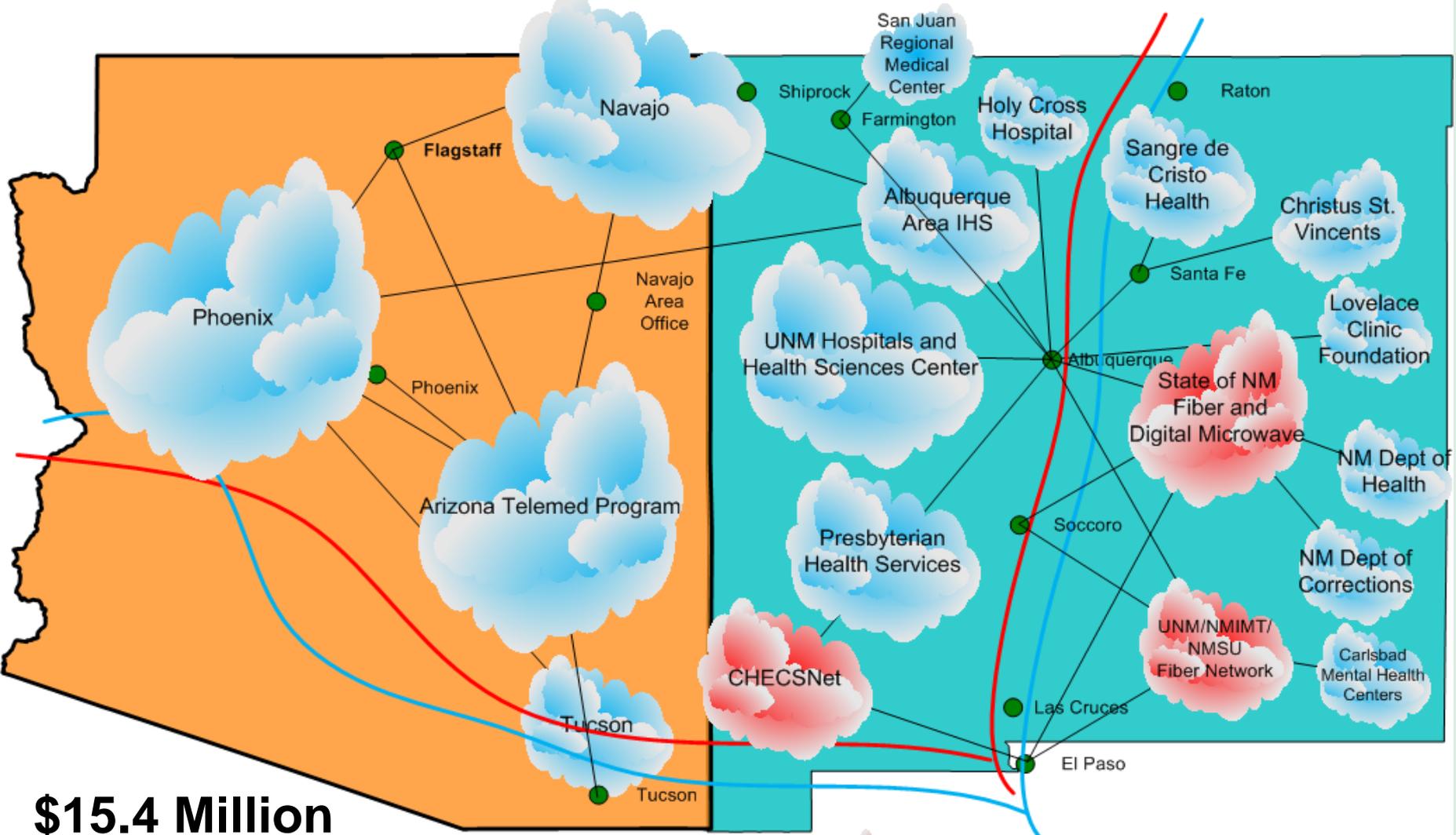
DoIT Broadband Gaps Analysis

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)

Southwest Telehealth Access Grid
Conceptual Network Map



\$15.4 Million from FCC but gaps remain

Internet 2
National Lambda Rail

Regional Backbone Providers
Telehealth Service Providers Networks

SWTAG future steps

- 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

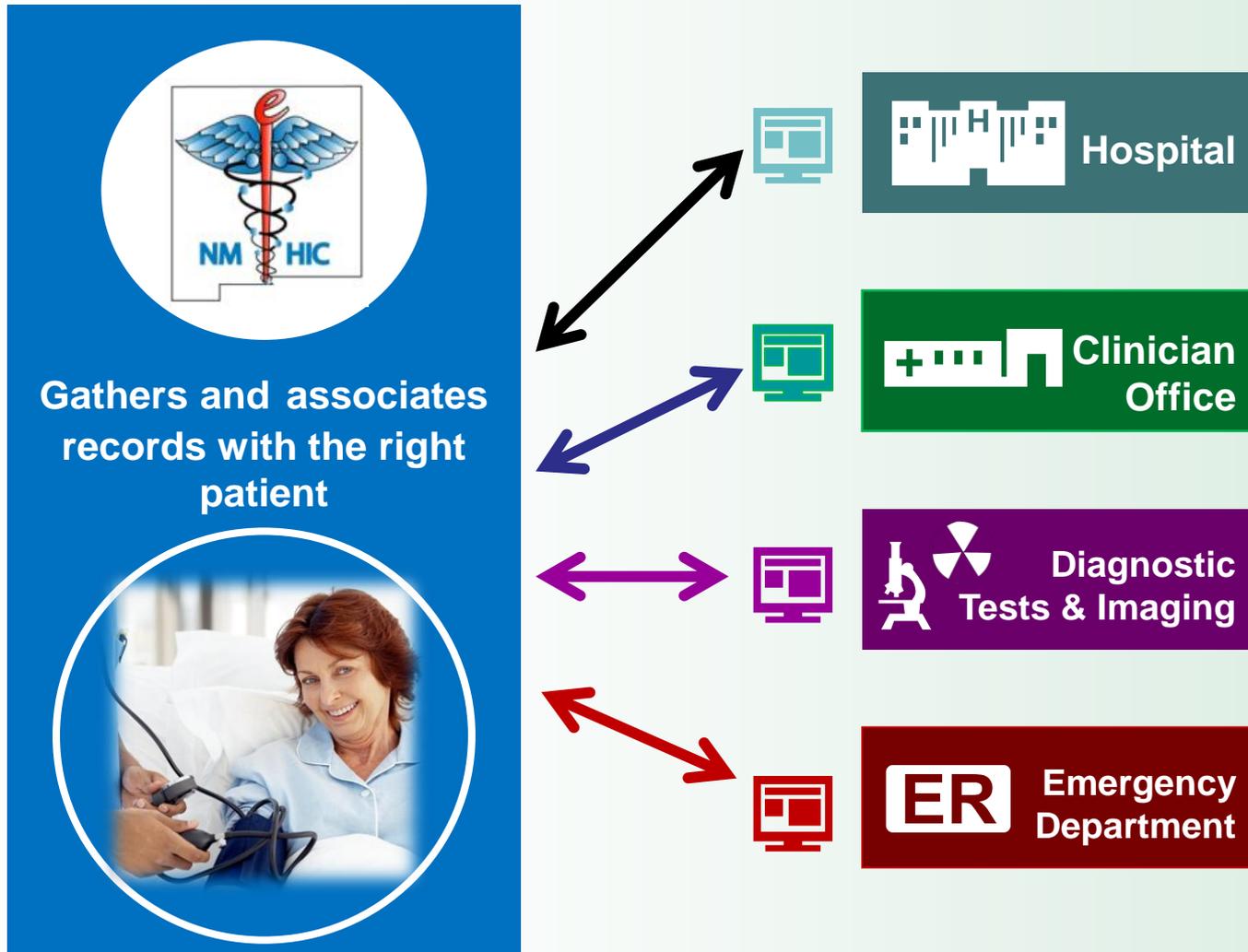
Core HIE Functions

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



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 Whale



PCA Espanola



Baton Rouge



Pecos Valley MC



DOH Las Cruces



SBRT-First Choice South Va



Memorial HDX7000



LAS VEGAS ECFH

ECHO: Treatment Outcomes

Outcome	ECHO	UNMH	P-value
	N=261	N=146	
Minority	68%	49%	P<0.01
SVR (Cure) Genotype 1/4	50%	46%	NS
SVR (Cure) Genotype 2/3	70%	71%	NS

SVR=sustained viral response

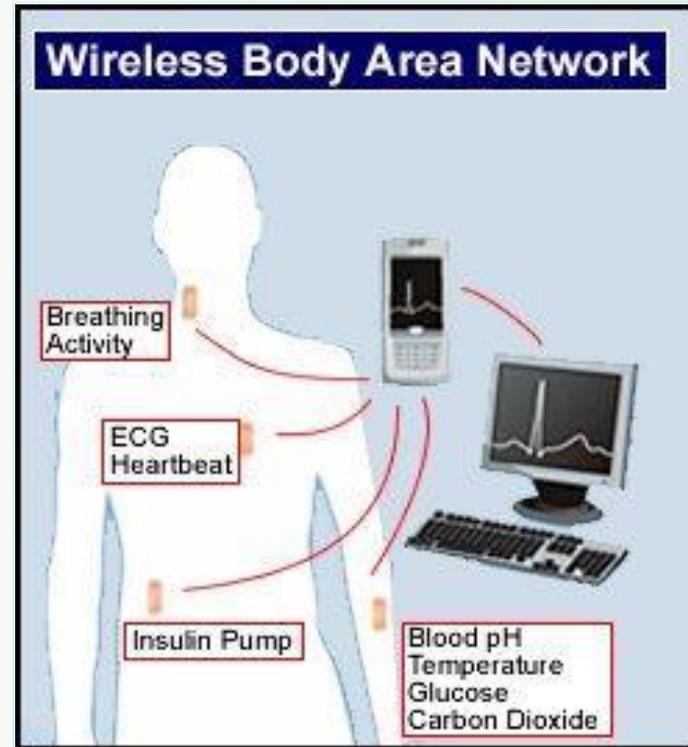
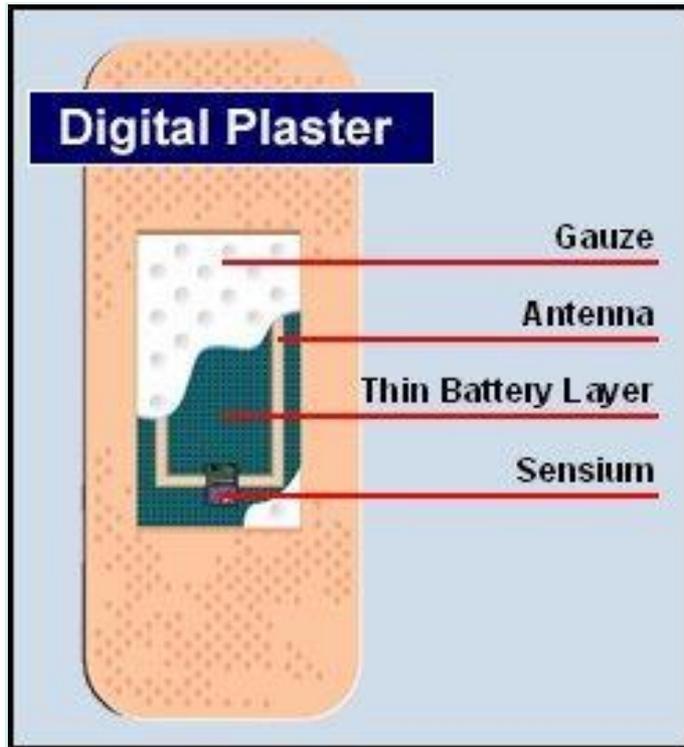
NEJM : 364: 23, June 9-2011, Arora S, Thornton K, Murata G, et.al.



Remote Monitoring



The "Smart Band-Aid"



The StarTrek Tricorder: Is it Here?

