Evolving HIT: Tele-health Technologies and the Medical Home: 
*TeleHealth in a Perfect Storm*

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Health Care Reform
Economic Downturn
Need for more Access to Care
Baby Boomers
Critical Shortage of Healthcare Providers
EHR Adoption/HIE
Emerging Enabling Information Communication Technologies

A Time for Telemedicine

**PERFECT STORM**

Patient-Centered Medical Home

- A Patient-Centered Medical Home is a team-based model of care usually led by a personal physician who provides, *comprehensive, continuous and coordinated care* throughout a patient's lifetime to maximize health outcomes.
The “Team” can consist of a spectrum of health care providers that are addressing the patient’s health care needs: Community Health Workers, Mid-Levels, Counselors, Therapists, Pharmacists, Oral Health providers, Behavioral Health Providers, Primary Care Providers, Specialists.

Telehealth, Health Information Exchange and Remote Monitoring can all be integrated into this concept of a Patient-Centered Medical Home to provide improved continuity of care and coordination through secure sharing of healthcare information, diagnosis, treatment and care management.

Not only can care be better coordinated, but Telemedicine and e-Health can incorporate evidence-based best practices, decision support, earlier detection of a problem, and earlier intervention.

- Improving Access
- Improving Outcomes
- Reducing Costs
Patient-Centered Medical Home

- Decreasing unnecessary variations in Care: The Need to Test the Patient-Centered Medical Home.
  Michael Barr, JAMA, August 20, 2008—Vol 300, No. 7

- The Cost Conundrum: What a Texas town can teach us about health care.
  by Atul Gawande, The New Yorker, June 1, 2009

Telehealth and Health Information Technologies are Part of the Solution in Bridging the Gaps

Case Reviews or Consultation
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, telepathology and teledermatology

Video Phone or “VOIP” with video
Family Visitation
Remote Monitoring

The "Smart Band-Aid"

Center for Telehealth and Cybermedicine Research

The Center for Telehealth at UNM Health Sciences Center:
Developing New Programs

Center for Telehealth

UNM HSC  VP for Health Sciences
Office for Community Health  VP for Community Health
Center for Telehealth and Cybermedicine Research

Point of Contact for UNM Telehealth Services
• Health services (What, When, Where)
• Program Links
• Needs Response
• Data Base

Telehealth Program Development
Customized Technical, Operational, Business, and Evaluation plans

Telehealth Research and Evaluation
• Technology
• New Health Applications
• Outcome Analysis
• Grants & Projects
• National & International Collaboration
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
- Enables collaboration

The Four Corners Telehealth Consortium

The Four Corners Telehealth Consortium was formed between Arizona, Colorado, New Mexico, and Utah to serve as a model for regional telehealth collaboration in the United States based on geographic or jurisdictional bases. Representatives of the telehealth and health information stakeholders in the four states have been developing specific collaborative initiatives including establishment of an inter-state telemedicine program, coordination of a virtual “E-Health University” for distance learning, coordination of provision of telehealth clinical services representing best practice, and a protocol for inter-state disaster response.

The 4 “C’s”
Cooperation
Coordination
Collaboration
Communication
SWTAG is a "Network of Networks"

http://www.americantelemed.org

American Telemedicine Association
http://www.americantelemed.org
Telehealth Nationally

- Using Information, Communication Technologies to:
  - Allow more Efficient Distribution of Limited Resources
  - Increase Access
  - Better Continuity of Care; Creating the Medical Home
  - Share knowledge, experience and best practices
  - Improve health and wellness: Results driven
  - Decrease costs

National Trends in Telehealth

- Integration of Health Information Exchange (HIE)
- Developing a Nationwide Health Information Network (NHIN) and Public Health Information Network (PHIN)
- Forming Collaborative Alliances and a Network of Networks; Infrastructure & Providers
- Reimbursement; CMS and other Third Party Payers (UHG, BCBS, Kaiser etc.)
- Urban vs. Rural; Removing “Non-metropolitan” CMS requirement

- Interstate Licensure Portability
- Credentialing and Privileging by “Proxy”
- Security - HIPAA
- Shifting to the Consumer; PCHR
- Virtual Travel – Save money, time and improve efficiency, avoid travel risks, achieve Carbon Credits
- Sustainability/Business Plans
The Future of Telecommunications and Telehealth Technology

- Ubiquitous Wireless
- Hand-held devices; e.g. Mobile Phones
- More Affordable Broadband
- Bringing to the home, work, school
- Remote Monitoring

The Future of Telecommunications and Telehealth Technology

- High Definition Video
- Virtual Presence and 3-D Holograms
- International Collaboration and Connectivity

Telehealth
Going International
International Telemedicine and eHealth: Transforming Systems of Care in the Global Community

Reasons to do International Telehealth

Most health issues are global!

THE EARTH IS BUT ONE COUNTRY
And Mankind Its Citizens

John Hubbleston

[Image of a global map and a photo of individuals engaged in activities]

[Image of a globe]
Distributed Medical Intelligence

- Knowledge Sharing Networks/Just in Time/On Demand
- Best Practices
- Evidence based

Connecting to Nepal
Implementing Phases

- Pilot Phase (2002)

Putting up a Grid Antenna

Different Relay Towers
Chhukung Relay at 5,100 m

Mustang Network

Proposed Outline of the Nepal Telemedicine and E-health Network

- 2 National nodes, 512 Kbps connection
- 3 Regional nodes, 256 Kbps
- 8 Central nodes, 256 Kbps
La Lancha Medica en la Amazonia
Different cultures with unique health issues
Exchange of Students and Faculty

IRAN
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