Telehealth in Minnesota: At a Crossroads

- Stuart Speedie, Ph.D., Health Informatics, University of Minnesota and the Fairview – University of Minnesota Telemedicine Network
- Karen Welle, M.A.P.A., Office of Rural Health & Primary Care, MN Dept of Health

September 6, 2006
The Basics of Telehealth

Telecommunications Link

Geographic Distance
Telehealth and Telemedicine:

**Telemedicine**: Use of ICT to provide **clinical services** when participants are at different locations.

**Telehealth**: A broader application of ICT to distance education, consumer outreach, etc.
Current Telehealth Areas

- Specialty consultation
- Direct patient care
- Grand rounds
- Staff training and education
- K-12 and postsecondary health care education
- Patient education
- Correctional health
Telehealth Examples

- Telemental health
- Telepsychiatry
- Home telehealth
- Teledermatology
- Teleradiology
- Telepharmacy
- School health
- Patient Education

- Teledentistry
- Emergency consults
- Cardiology
- e-ICU care
- Long term care
- Telerehabilitation
- Corrections
- Staff Education
Live, Interactive Telehealth
Videoconference Equipment
Digital Stethoscope
Home Telehealth
TelePharmacy

Satellite model

- Hospital or retail audio/video connection to satellite location; pharmacy technician dispenses drugs under pharmacist supervision

Remote site model

- Prepacked meds released by main pharmacy from cabinet at remote site
Benefits

- High patient satisfaction
- Patients remain in the community
- Employers see fewer lost work hours
- Easier access to specialty care
- Better medical outcomes
- Practitioner support – primary to specialty
- Reduced travel time and costs
Patient Outcomes:

Admissions to a higher level of care

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TeleHomeCare</td>
<td>17%</td>
</tr>
<tr>
<td>Control</td>
<td>42%</td>
</tr>
</tbody>
</table>
What’s going on in Minnesota?
New Connections for Community Mental Health

Partners:
- Blue Cross & Blue Shield of Minnesota
- United Behavioral Health
- Tele-Community Development/DHS
Telepharmacy: Wilderness Healthcare Coalition

St. Luke’s Duluth and
- Mercy Hospital, Moose Lake
- Riverwood Healthcare Center, Aitkin
- Community Memorial Hospital, Cloquet
- Lakeview Memorial Hospital, Two Harbors
- Cook Hospital, Cook
- Deer River Health Center, Deer River
- Big Fork Valley Hospital, Big Fork
- Ely-Bloomenson Hospital, Ely
Recently added additional members
More telehealth in Minnesota

- Good Samaritan, numerous others –
  - home telehealth
- VA –
  - telemedicine, home telehealth
- Gillette Children’s Hospital
- Sister Kenny Institute
  - telerehabilitation
- Other Regional Initiatives
  - South Country Health Alliance
    - 9-county Local Public Health initiatives
  - South Central (Blue Earth) 30+ organizations
    - Mental health
  - Southwest Mental Health Initiative
Minnesota e-Health Initiative

- Advisory Committee - Private-public collaboration meeting since October 2005

- Vision: Accelerate use of HIT to:
  - Improve health care quality
  - Increase patient safety
  - Reduce health care costs
  - Enable individuals and communities to make best possible health decisions
MN e-Health Initiative

- Empower consumers to make informed health and medical decisions
  - Focus: Personal Health Records
- Interconnect providers and communities
  - Focus: Secure Health Information Exchange/Electronic Health Records
- Protect communities
  - Focus: MN-PHIN – prevention resources, rapid disease detection and response
- Enhance infrastructure
  - Focus: Broad, includes supporting rural and underserved communities and Telehealth
MN Critical Access Hospital (CAH) 2006 HIT Survey

MN CAHs using Teleradiology

<table>
<thead>
<tr>
<th>Responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>41</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
</tr>
</tbody>
</table>

Total 52 100%  

N=52
Provider Reimbursement

- Live, Interactive Consults
  - Largely covered at face-to-face rates
- Teleradiology
  - Complete coverage
- Other Store and Forward
  - Some coverage for specific areas
- Home telehealth
  - Allowed but not specifically and separate reimbursed.
- Technology Costs
  - Small “originating site” fee allowed
Reimbursement Specifics

- **Private Insurance**
  - Almost universal for specialty consultations

- **Medicare**
  - Restricts payment to patients seen in hospitals/clinics, but not long-term care
  - Home telehealth: allowed but not reimbursed

- **Medical Assistance**
  - Home telehealth: will pay for skilled nurse with real-time audio-visual connection
  - Some counties: small fixed monthly payment

- **Corrections telehealth**: done on contract basis

- **Other**: provider or grant-funded
Why it’s important for rural?

- Health workforce shortages
  - Mental health providers
  - Specialty care providers
  - Pharmacists
  - Nurses
- Long distances
  - Costly “windshield time” for providers
  - Travel expense and time for patients
  - Lost employee work time
Challenges and barriers

- Isolated, uncoordinated efforts
- Referral patterns and existing business arrangements
- Provider indifference
- Integration with EHR systems
- Equipment and user costs
- Technical support
- Concerns about quality of care
- Broadband network availability
- Security
- Practitioner reimbursement
- The business case
Why talk about this now?
The Drivers

- Broadband infrastructure expansion
- Electronic Health Records expansion
- Reimbursements improving
- Universal Service Fund assistance
- Government and foundation funding
- Declining equipment costs
- Patient needs for medical care
What’s missing?

- State level strategies and leadership
- Mechanisms for collaboration and coordination
- Accessible resources for networking, support, training
- Integration with HIT initiatives
- An inventory of telehealth services and providers
- Consistent coverage policies
DISCUSSION
TELEHEALTH in OTHER STATES
Kentucky TeleHealth Network

- Active since 1994
- Initial funding sources: OAT, ARC, and local foundation.
- Network legislatively mandated in 2000
- $292K/year state funding for operations
- $1,000 stipend for certain network members for communication line charges.
**Kentucky TeleHealth Network**

- University of Kentucky and University of Louisville +
- 3 regional interconnected hubs, with connections to:
  - Rural hospitals and primary care clinics
  - Public school health clinics
  - Public health departments
  - Community mental health centers (over 70 sites)
  - State psychiatric hospital connected to several community mental health centers
- All sites pay to be part of the network
- Features online scheduling
Nebraska Statewide Telehealth Network

FUNDING

- 2004 $70,000 Nebraska DHHS grant to Nebraska Hospital Association (NHA) to begin coordinating resources
- $500,000 Nebraska DHHS grant funding for equipment and support
- Other funding: Office for the Advancement of Telehealth and the Central and Northern Nebraska Area Health Education Center
- $900,000/year Nebraska Public Service Commission: Universal Service Fund covers over 80% of the annual transmission costs
- $100/month by participating rural hospitals
- Hub sites receive total reimbursement for leadership and facilitation
**Nebraska Statewide Telehealth Network**

- 68 rural hospitals
- 8 regional referral hospitals
- 7 Omaha metropolitan hospitals
- 19 public health departments
- 3 mental health centers + 1 hospital
- 6 bioterrorism labs
- Pending: prison acute care hospital, Indian Health Services, and rural health clinics
Nebraska Statewide Telehealth Network

- Nebraska Hospital Association
- University of Nebraska Medical Center
- Nebraska Information Network
- Public health departments
- Nebraska AHECs
- State of Nebraska Health & Human Services, Education, Public Service Commission
- Telecommunication providers

*A formal decision making or governing body is being researched*
Nebraska Statewide Telehealth Network

Phase 1 – Nearly completed
- Connection of individual facilities to statewide network.

Phase II - Starting
- Address operations and governance
- Web-based system for scheduling and training
Arizona Telemedicine Program

- University-based
  - telemedicine services
  - distance learning
  - informatics training
  - technology assessment

- Customers: rural communities, Indian tribes, and rural prisons

- Starting 1996, $1.2 million state funding
Arizona Telemedicine Program

- Real-time and store-and-forward technologies in 20 communities
- Continuing education in 34 communities
- Home health care
- Pediatric occupational/physical therapy
- Telenursing services in Phoenix schools.
Arizona Telemedicine Program: *Project Nightingale*

- Dedicated broadband healthcare infrastructure that functions as a telecommunications collaborative.
- Provides access to T-1/ATM telecommunications on a private network throughout the state on a cost-sharing basis.
Alaska
Collaboration of federal agencies formed in 1994.

- Department of Veteran's Affairs (VA)
- Department of Defense (DoD)
- Department of Homeland Security (U.S. Coast Guard - USCG)
- Indian Health Service (IHS)
- Alaska Native Tribal Health Consortium (ANTHC)
Alaska Federal Health Care Access Network

- Began 1998
- Statewide satellite-based IP network reaching to nearly 200 sites
- 42 connected servers throughout Alaska
- Store and forward technology
- Tech support and training
- "AFHCAN Carts" at remote sites
Established 1999
Provides forum for collaboration and communication between organizations involved in telehealth initiatives
ATAC members include:
- State of Alaska
- Alaska Native Tribal Health Cooperation
- University of Alaska
- Telecommunication companies
- Hospitals
- Health care organizations
- Federal agencies
- Payers
Co-chaired by Commissioner of the Department of Health and Social Services and Chief Tribal Officer of the Alaska Native Tribal Health Consortium.
Alaska DHSS: Telehealth

- Advocates for the development of telehealth
- Collects and disseminates program information
- Liaison between federal, state or private organizations
- Identifies laws, regulation and reimbursement practices that serve as barriers
- Identifies gaps in services and helps develop solutions
- Partners with Medicaid services to increase billing for T/H services
- Assesses impact of telehealth initiatives on access to health care
1994, public-private partnership
82 sites in 40 counties
Network funded with federal, state, and institutional dollars + support from all sites
Semi-private network using IP over T-1 for:
- audio/visual clinical encounters
- data transfer for teleradiology
- store and forward
Any site can connect directly with another
Missouri Telehealth Network

Advancing health care through telecommunications

- 33 Hospitals
- 11 Mental Health Clinics
- 1 Mental Health Hospital
- 2 Rehab Hospitals
- 24 Federally Qualified Health Care Centers
- 1 Urgent Care Clinic
- 1 Home Health Agency

- 2 Schools of Medicine
- 1 School of Nursing
- 1 School of Health Related Professions
- 1 Outpatient Cancer Ctr
- 1 Army Hospital
- 1 Nursing Home
- 1 State Habilitation Ctr
Missouri Telehealth Resource Center

- Housed at University of Missouri
- Funded by one-time $3.4 million state appropriation from tobacco settlement $$
- Formal training center and curriculum
- Any site receiving state funding required to attend formal training on legal, regulatory, administrative and operational issues
- Ongoing funding: ???
California

- **1994**: Launch of California Telehealth/Telemedicine Coordination Project

- **1996 recommendation**: Need for statewide resource center to facilitate and promote the development of Telemedicine programs and networks
California Telemedicine & eHealth Center

- Established July 1997
- Three years start-up funding provided by 2 local foundations
- March 1999, $5 million grant from The California Endowment; 34 mini-grants were funded.
1999, Telemedicine Learning Center (TLC) established.

Partnership with University of California, Davis Medical Center

Provides professional training in telemedicine protocol, implementation, and technique.
2003, 5-year $9 million grant from The California Endowment to:
- develop, expand and support networks
- provide training and technical support for rural providers

2005-6, $630,000 from the California HealthCare Foundation and $1,020,530 Match from Blue Shield of California Foundation
Program Focus:
- Develop, sustain and expand regional delivery networks
- Support the expansion of rural Telemedicine and eHealth sites
- Expand professional eHealth training and mentoring
- Provide technical assistance to current and future Telemedicine and eHealth sites
Maintain statewide eHealth Inventory on eHealth
Create a comprehensive catalog of CTEC resources
Identify opportunities for policy changes to enhance reimbursements and expand access in rural regions
Serve as key resource for advanced integration of technologies into health care organizations
Build a solid business organization and infrastructure