Objectives

- Participants will be:
  - Aware of the efficacy of using telehealth technology to reach those who are unable to access necessary services in-person due to transportation issues and lack of availability of local providers
  - Aware of the various forms of technology available for reaching families in rural parts of the state
  - Able to describe the components of successful telehealth systems
  - Evaluate the usefulness of using telehealth technology in their practice area to serve Iowa residents located in rural/remote parts of the state

A Look Ahead

- A crash-course on all things telehealth
- Benefits & barriers of telehealth
- Putting telehealth to use at CHSC
- Video demonstration of telehealth nutrition sessions
- Getting started & lessons learned
- Resources

Who are Child Health Specialty Clinics (CHSC)

CHSC funded by:
- Title V, Maternal and Child Health Block Grant
- Iowa Department of Public Health
- Iowa Department of Education
- Iowa Department of Human Services
- Other community, state and federal projects
- Program income
Telemedicine
"seeks to improve a patient’s health by permitting two-way, real-time interactive communication between the patient, and the physician or practitioner at the distant site. This electronic communication means the use of interactive telecommunications equipment that includes, at a minimum, audio and video equipment."

Telehealth
"the use of telecommunications and information technology to provide access to health assessment, diagnosis, intervention, consultation, supervision and information across distance."

Telehealth is different from telemedicine because it refers to a broader scope of remote healthcare services than telemedicine.

While telemedicine refers specifically to remote clinical services, telehealth can refer to remote non-clinical services:
• Provider training,
• Administrative meetings, and
• Continuing medical education, in addition to clinical services.

Telehealth can include video conferencing, phone calls, emails, faxes, and texts.

Eligible Providers:
• Physician (MD/DO)
• Nurse practitioner
• Physician assistant
• Nurse midwife
• Clinical nurse specialist
• Clinical psychologist
• Clinical social worker
• Registered dietitian

Eligible Sites
• Physician/Practitioner Office
• Critical Access Hospital (CAH)
• Federally Qualified Health Center (FQHC)
• Hospital
• Rural Health Clinic
• Hospital-based or CAH-based Renal Dialysis Center (including satellites)
• Skilled Nursing Facility
• Community Mental Health Center
A crash-course on all things telehealth

• The first video form of telehealth was used in what decade?
  a. 1950s
  b. 1970s
  c. 1990s

A crash-course on all things telehealth

• Which agency was key to the development of telehealth?
  a. The University of Iowa
  b. NASA
  c. The US Military

A crash-course on all things telehealth

• In 1991, which was the first state to develop a statewide telehealth program?
  a. New York
  b. Georgia
  c. New Mexico

A crash-course on all things telehealth

• Created in 1998, the Office for the Advancement of Telehealth does all of the following except:
  a. Provides grants to states for telehealth development
  b. Assists with telehealth program implementation
  c. Monitors usage of telehealth activities for adherence to national policies

Coverage

• Medicaid states telemedicine is a cost-effective alternative compared to more traditional face-to-face ways of providing medical care

• States can choose to cover telemedicine under Medicaid

• Federal Medicaid does not recognize telemedicine as a distinct service
Coverage

Source: http://www.ncsl.org/research/health/state-coverage-for-telehealth-services.aspx

Iowa Telehealth Coverage

- Legislature conducted telemedicine pilot study between 1997 - 2000 to determine efficacy of its use
- Iowa Medicaid does not cover telemedicine components (e.g. hardware, software, line charges, etc)
- Iowa Medicaid will pay for otherwise covered medical services if rendered via telemedicine, if the standard in the medical community would support rendering those services via telemedicine

Telehealth Research

- Two categories of telehealth research:
  - Study of the modality of telehealth to deliver services
  - Study of practice where telehealth is the only mode of care
- Meta-analysis examined differences between telehealth and face-to-face encounters (Currell, 2000)
  - Outcome results were inconclusive
  - Technological elements were found to be reliable, and patients were highly accepting of the technology
- Still a lack of research in this area, but evidence points to high family satisfaction and moderate-high clinician satisfaction

Benefits & Barriers of Using Telehealth

Benefits of Telehealth

- Cost savings
  - Reduced need for travel
  - Reduced clinical space
  - Evaluation of need for further medical consultations
  - Promotes earlier initiation of effective treatment

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Source: Kelso, 2009

- Increases access to rural communities (Marcin, 2009)
  - Rural populations have poorer access to healthcare & face significant health disparities compared to urban populations
  - Higher rates of obesity, heart disease, and diabetes compared to their urban counterparts
  - Unique challenges faced by rural healthcare providers
- Also improves access to families who may be home-bound

Source: Kelso, 2009
**Benefits of Telehealth**

- **Pediatric Weight Management**
  - 80.6% treated by the weight management specialist through telehealth showed improvements in their diet, activity level, or weight while in treatment.
  - Weight management “outreach clinics” could be replaced with telemedicine clinics.
  - Families could decrease the amount of travel to tertiary care facilities.

  *Source: Shaikah, 2008*

- **Specific medical care benefits:**
  - Family remains close to their natural support system of family and friends.
  - Health care expenditures in the local community.
  - Improved care coordination among multiple health care providers.
  - Reassure family about a new behavior.
  - Determining whether new symptom or change in condition warrants further evaluation in the office setting.

**Benefits of Telehealth**

- **Specific therapy benefits:**
  - Can see individual in their natural environment.
  - Families enjoy receiving guidance that is immediate but not invasive.
  - Family appreciate having access to recorded therapy sessions to reinforce & hone skills.

  *McCulough, 2009*

- **Family training & behavioral treatment benefits:**
  - Family appreciate having access to recorded therapy sessions to reinforce & hone skills.

  *Kelso, 2009*

**Benefits of Telehealth**

- **Benefits to clinicians:**
  - Opportunities for urban medical centers to partner with community providers for enhanced clinical and research endeavors.
  - Increased consultation opportunities to rural health care providers.
  - Connect rural health care facilities to educational sessions.
  - Reduces travel for participants.
  - Widens the potential audience for activities.

- **Areas of Application:**
  - Radiology
  - Mental Health
  - Dermatology
  - Cardiology
  - Emergency & Transport Services
  - Hospital Care & Family Communication
  - Pathology
  - Child Abuse
  - Patient Education
  - School Health
  - Home health

  *Source: Spooner, 2004*

- **Barriers to Telehealth**
  - Absence of consistent, comprehensive reimbursement policies.
  - No telehealth program for clinical care can have long-term sustainability without a multi-model reimbursement mechanism.
  - Restrictions on practicing.
  - Licensure & Credentialing/Privileging.
  - Anti-Kickback Rules.
  - Potential need for trained professionals at the in-person site to guide families through the appointment.

**Source:**

Shaikah, 2008

Additional text: 3/28/2014
**Recommendations for Starting Telehealth Practice**

- Explore state regulatory and legislative situation related to telehealth
- Lobby & collaborate at a state & institutional level
- Develop relationships with interested community sites to launch telehealth programs
- Define scope of services & expectations
- Determine which subset of families would best benefit from telehealth encounters
- Identify outcomes

**CHSC Timeline - Telehealth**

- 2004-2007
- 2009
- 2010
- 2011
- 2012
- 2013
- Today

**Telehealth then/Telehealth Now**

**Sequence 1**
Video Presentation – Sample Telehealth

Sequence 1 – Audio-visual testing
  • Audio/Visual issues
  • Connectivity problems
  • Creating a back-up plan
  • IT knowledge and support

Sequence 2 – Security Verification
  • Network Security
    • CHSC’s webcams and AEA Polycoms – Secure Networks
    • Skype and Facetime – Non-secure networks
    • Security statement or waiver

“Family was seen today by telehealth and was informed that no internet connection can be completely secure. Family agreed to proceed with the telehealth visit.”

Sequence 3 – Environment
  • Child’s movement in own space
  • Communication with caregiver
  • Unpredictable circumstances

Sequence 4 – Discipline-Specific Observations
  • Body composition, size, muscle tone, eating skills, response to intervention
  • Child’s energy level, balance and gait
  • How child interacts/responds to parent cues
**Sequence 4**

**Sequence 5**

**Video Presentation – Sample Telehealth**

Sequence 5 – Utilizing Visual-Aide Components
- Transition & documentation
- Sharing information – handouts, growth charts, resources, etc.
- Making recommendations and wrap-up

**Specific Needs & Tasks for Telehealth**
- Staff: Secretary or IT professional
  - Obtain signed release
  - Contact family to schedule visit
  - Explain how visits are provided via telehealth
  - Ask caregiver about telehealth capability
  - Determine the telehealth contact:
    - Family
    - Service Coordinator or other service provider
- Professional
  - Call to confirm appointment & obtain telehealth contact
  - Secure room, audio, visual and documentation needs
  - Dial the telehealth contact
  - Address “telehealth security”
Specific Needs & Tasks for Telehealth

- Equipment:
  - Web-camera and screen
  - Desktop/ laptop/ tablet with microphone & camera
  - Phone access near the telehealth equipment
- Connection:
  - Video Conferencing
  - Internet access
  - Smart phone technology
- Audio-visual programs:
  - Skype
  - FaceTime
  - Google Hangout

Lessons Learned

- Maintain log of technology issues
- Utilize support staff
- Test connection prior to scheduled date
- Address security concerns with family
- Have a back-up plan
- Be flexible & know when to adjust

Resources

Health Information Technology and Quality Improvement

- Medicaid reimbursement
- Medicaid definitions
- Quality control
- Getting started

American Telemedicine Association

- Sample telemedicine outcomes
- Standards & guidelines
- Case studies
- Telemedicine news

Center for Telehealth & e-Health Law

- Privacy & Security
- Reimbursement
- Licensure/ Privileging
Great Plains Telehealth Resource & Assistance Center • Telehealth success stories • Monthly webinars • Funding opportunities • Toolkit

Take-away Messages
• Telehealth adds value, strengthens relationships, builds competency, stretches budgets & expands services
• Figure out what makes sense for your organization
• Take a step…even a small one
  - Become familiar with state policies and regulations
  - Advocate for telehealth services
  - Seek out successful telehealth programs in your area of service

Presentation Sources
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