The Michigan Telemedicine Demonstration Project for Children and Youth with Epilepsy

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Objectives:

- 1. Identify effective methods for the practical application of concepts related to improving the delivery of services for persons with developmental disabilities
- 2. Identify advances in clinical assessment and management of selected healthcare issues related to persons with developmental disabilities

Notes:

The Michigan Telemedicine Demonstration Project for CYE

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Disclosure

- No Commercial Interests or Financial Relationships to Disclose
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Learning Objectives

At the completion of this presentation, the learners will:

- 1. Utilize telemedicine to improve access to care for children and youth children and youth with epilepsy (CYE).
- 2. Achieve cost savings through the use of telemedicine for CYE.

Identified Needs for CYE in Michigan

- Improved access to care for CYE
- Paucity of pediatric specialty care available for CYE in 57 of the 83 counties in Michigan
- Lack of a comprehensive strategy to provide coordinated and comprehensive care for CYE
- Interoperable and sustainable telemedicine network for CYE and associated co-morbid conditions

Medical Home Framework

- A family-centered medical home is an approach to providing comprehensive primary care.
- In a family-centered medical home the pediatric care team works in partnership with a child and a child's family to assure that all of the medical and non-medical needs of the patient are met.
- Through this partnership the pediatric care team can help the family/patient
 access, coordinate, and understand specialty care, educational services, out-ofhome care, family support, and other public and private community services that
 are important for the overall health of the child and family.
- The American Academy of Pediatrics (AAP) developed the medical home model for delivering primary care that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective to all children and youth, including children and youth with special health care needs. (National Center for Medical Home Implementation is a cooperative agreement between the Maternal and Child Health Bureau (MCHB) and the American Academy of Pediatrics (AAP) with a mission to ensure that every child and youth has access to a medical home. Funded by the US Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA).)

Definition of Telemedicine

For purposes of the Centers for Medicaid and Medicare (CMS), 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.

Telemedicine Network Development

- Rural and /or medically underserved areas
- Identified by Children's Special Health Care Services data
- Three children's hospital epilepsy centers as distant sites in cooperative demonstration project
- Interoperability supported by University of Michigan Medical Center Information Technology
- Originating sites embedded in federally qualified health centers (7) and identified pediatric practices (4)
- Lead pediatric neurologist Sucheta Joshi, MD, University of Michigan



Medical Home Telemedicine

Polycom Standard Cart



- Polycom HDX 7000 w/ 1080 option HD Videoconferencing system
 - Polycom Eagle Eye 1080 camera
- Polycom 3-year warranty
- NEC X461S 46" professional LCD
- Avteq RPS-500S LCD cart w/ 6 inch Heavy-Duty casters Avteq PSM-200 Speakers with shelf



Demographics

- N = 81 CYE
- Average age = 11 years old
 - 60% = Male
 - 40% = Female
- 80% Medicaid/Children's Special Health Care Services (Title V)
- 20% Commercial Insurance/ Children's Special Health Care Services (519 program)
- Ethnicity/Race
 - 70% Caucasian
 - 15% African American
 - 10% Hispanic
 - 5% Native American

Key Data Points

- Improved access to care using telemedicine services
 - 11 sites operational in 24 months
 - Wait time decreased from 6 months to one month
 - No technical difficulties
- Primary care provider education
- Satisfaction with Telemedicine Services
 - 100 % Family/Patient satisfaction
 - 97% provider satisfaction
- Care Coordination
 - 100% Care Coordination Plans of Care
 - 97% Updated Epilepsy Action Plan

Key Data Points

- Cost savings
 - Medicaid reimbursement rates identical= cost neutral
 - Missed days of school avoided = 243
 - Missed days of work avoided = 243
 - Transportation mileage dollars saved = \$12,051
 - Lodging dollars saved = \$9,210
 - Physician travels costs saved = \$18,225

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Telemedicine Barriers

- Commercial reimbursement
- Inability to address co-morbid medical and behavioral conditions due to initial grant FOA and work plan
- Transition hand off
- Youth involvement

Impact on Clinical Care and Practice

- Telemedicine improves access to care for CYE
- Telemedicine improves care coordination for CYE
- Telemedicine produces cost savings

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