

Bridging the Gap in Rural Communities: Accessing Behavioral Health Services Through Telehealth

Federal Interagency Rural Behavioral Health Workgroup
Technical Assistance Partnership

National Center for Mental Health Promotion and Youth Violence Prevention

Friday, May 30, 2008

Presenters:

- Steve Trout, *Executive Director*, The Southern Consortium for Children
- Brian O. Phillips, *Chief Information Officer*, Ohio University College of Osteopathic Medicine; *Executive Director*, OhIONE Network
- Eve-Lynn Nelson, *Assistant Director*, Research, KUCTT; *Assistant Professor*, Pediatrics

Facilitator:

- Joyce Sebian, *Senior Policy Associate*, National Technical Assistance Center for Children's Mental Health at Georgetown University; *Coordinator*, SAMHSA National Rural Behavioral Health Initiative

Welcome to Today's Webinar

Audio Information:

Dial Into: 877-326-2337

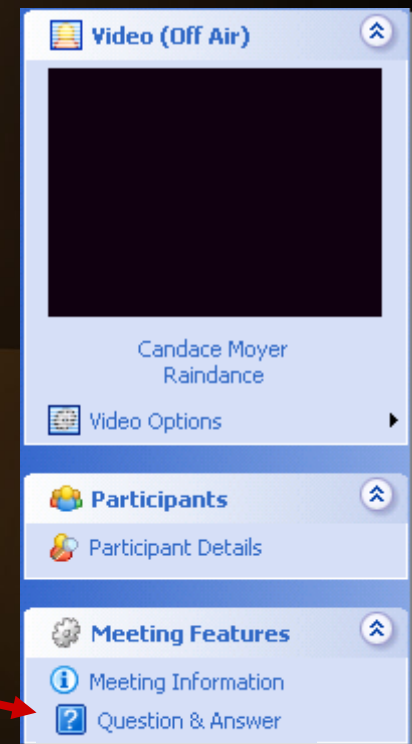
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Using Technology to Expand Service and Supports for Rural Children and Families

THE SOUTHERN CONSORTIUM FOR CHILDREN: *CASE STUDY*

Steve Trout, Executive Director
strout@scchildren.com
www.scchildren.com / www.teenlineohio.org

Brian O. Phillips, Chief Information Officer
Ohio University College of Osteopathic Medicine
Executive Director, Ohione Network
phillips@ohio.edu

Southern Ohio Telecommunications Network

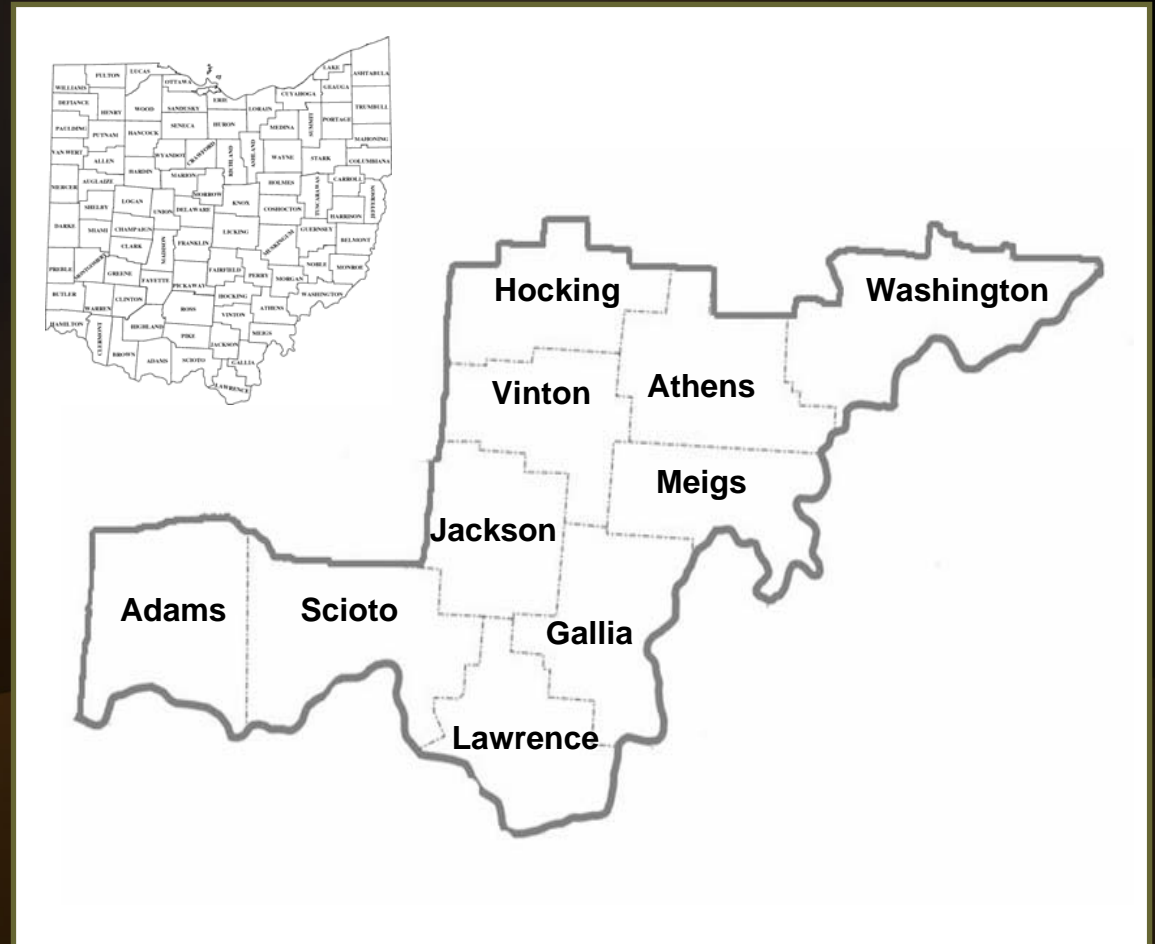
SOUTHERN CONSORTIUM FOR CHILDREN

Regional Council of Governments

- **Athens-Hocking-Vinton 317 Board**
- **Gallia-Jackson-Meigs Board of ADAMHS**
- **ADAMHS Board of Adams-Lawrence-Scioto Counties**
- **Washington County Mental Health and Addiction Recovery Board**

Regional Service Area

- Adams
- Athens
- Gallia
- Hocking
- Jackson
- Lawrence
- Meigs
- Scioto
- Vinton
- Washington



The geographical service area is slightly larger than the state of Connecticut.

Regional Issues

- **Declining state and federal funding**
- **Isolation of medical information**
- **Isolation between institutions**
- **Isolation between disciplines**
- **Socioeconomic profile**
- **Difficulty in recruiting and retaining Masters level clinicians, psychiatrists, primary health physicians, and healthcare professionals in general**

The Vision

Quality behavioral health services and training delivered at the right time, at the right place, and supported by communication technology.

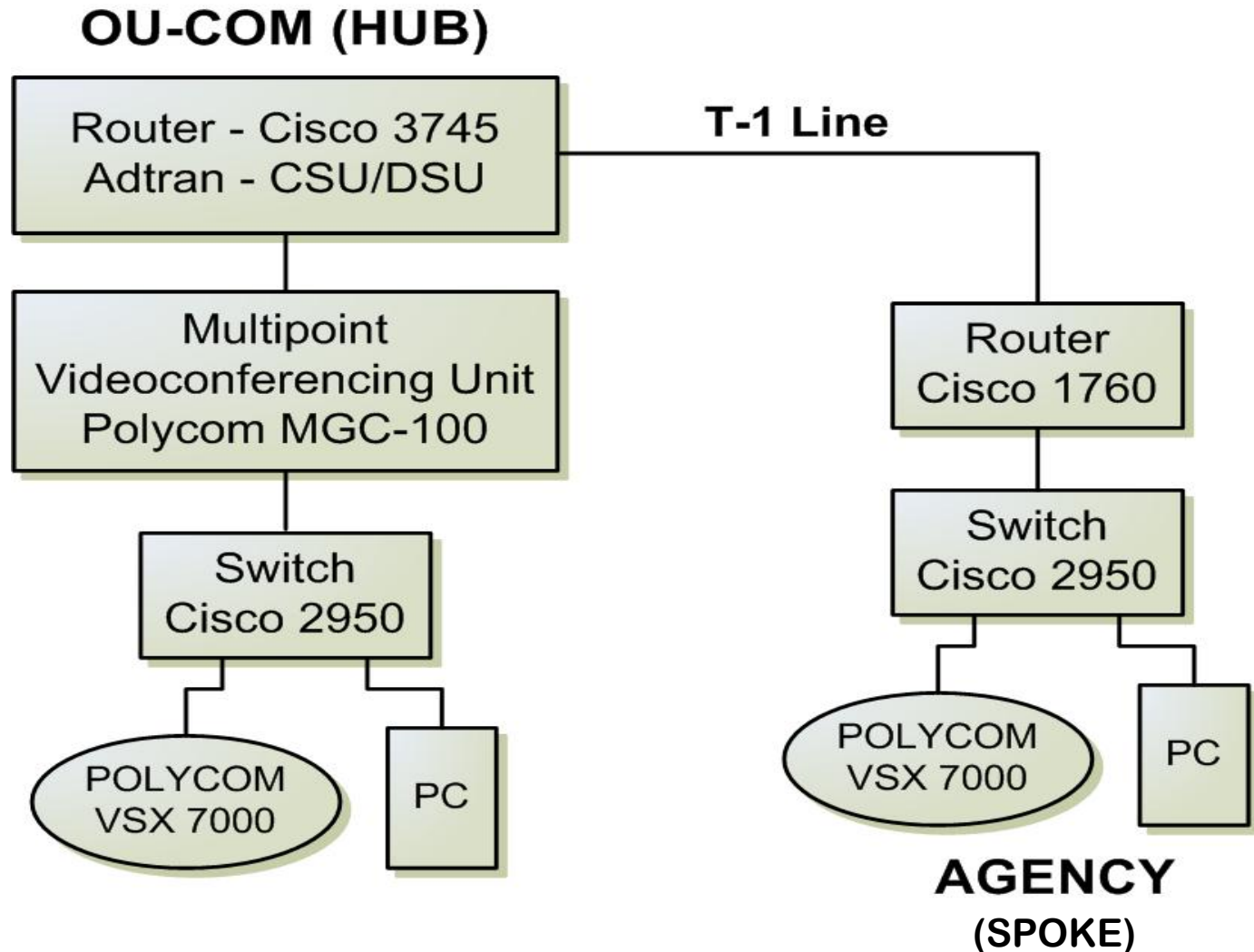
Definition: Telemedicine and Telehealth

Telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve patients' health status. Closely associated with telemedicine is "telehealth," which is used to encompass a broader definition to remote healthcare that does not always involve clinical services.

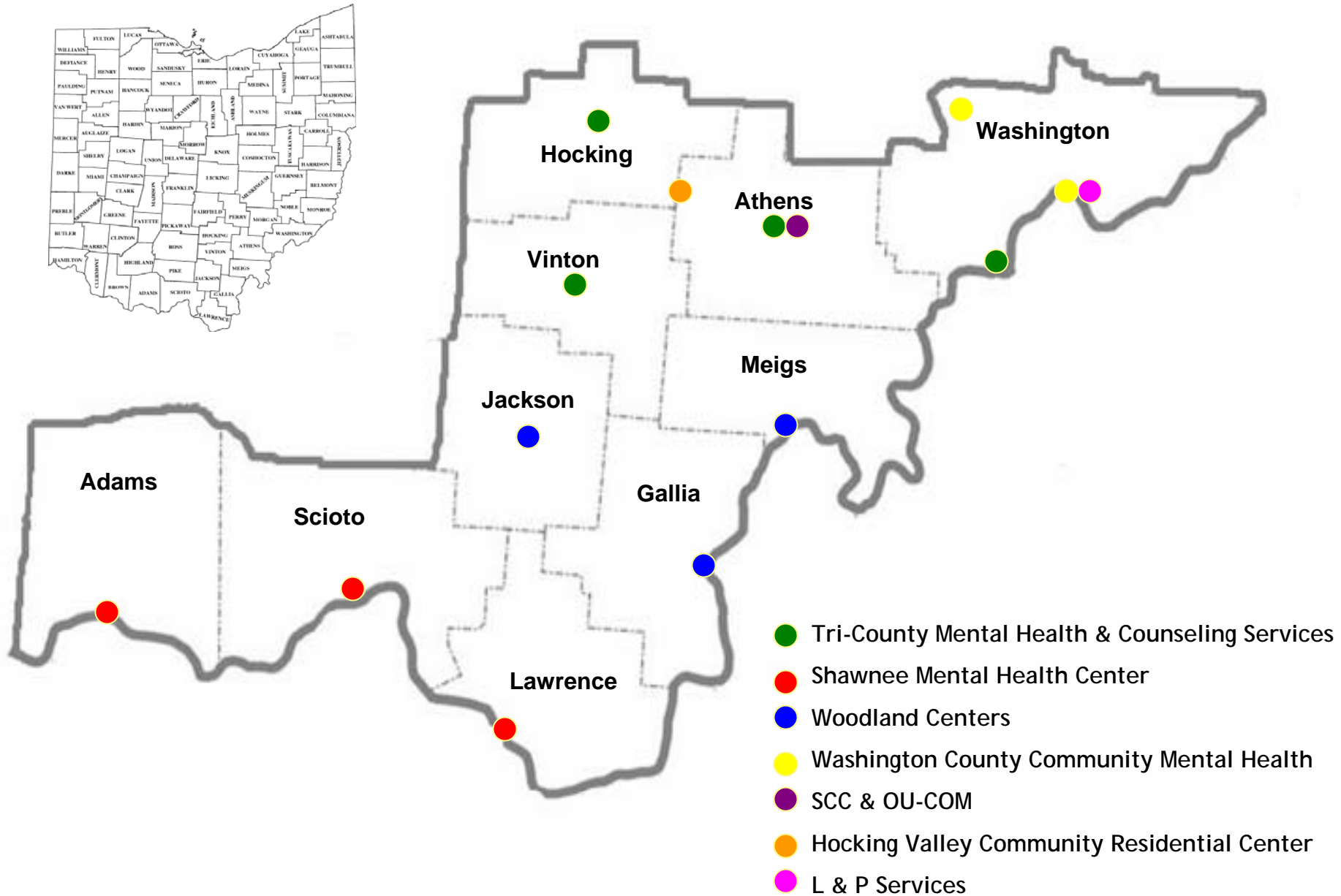
SCC Technology Timeline

- 1997** Collaboration with the Ohio University College of Osteopathic Medicine (OU-COM)
- 1998** Advanced Practice Nursing and Videoconferencing Connectivity
- 1998** Behavioral Pediatric Case Seminars begins
- 2000** Children's Community Support Training begins
- 2001** SCC website (www.scchildren.com) created
- 2002** Streaming video website (www.cbhed.com) created
- 2003** Telepsychiatry and enhanced distance learning
- 2005** Administrative Code rules adopted allowing for Medicaid reimbursement for telepsychiatry and telepsychotherapy
- 2006** Teenlineohio.org, a website designed by and devoted to the region's youth

Hub and Spoke Connectivity



Southern Ohio Telepsychiatry Network



Current Cost of Videoconferencing

Per Site

Video Camera with Audio	\$4,200
Monitor	\$350
Cart	\$1,000
Router	\$2,500
Switch(es)	\$700
Installation	\$1,500
	<hr/>
<i>Total</i>	\$10,250
<i>T1 Line Ongoing Monthly Cost</i>	\$400

Distance Learning

1998 to Present

- Attention Deficit-Hyperactivity Disorder (ADHD)
- Anxiety Disorders
- Asperger's Disorder
- Attachment Disorder
- Attention Deficit Disorders
- Autistic Disorder
- Bipolar Disorder
- Bipolar Disorder in Children
- Borderline Personality Disorder
- Bulimia
- Children Who Refuse Medication
- Conduct Disorders
- Conversion Disorder
- Depression in Child and Adolescents
- Distinguishing ADHD from Bipolar Disorder
- Distinguishing Between ADHD, Bipolar and Conduct Disorders
- Dual Diagnosis in Children
- Dual Diagnosis: Substance Abuse and Mental Illness
- Early Childhood Mental Health
- Eating Disorders
- Emerging Disorders in Adolescents
- Genetics of Childhood Psychiatric Disorders
- Major Depression
- Normal Childhood Sexual Behaviors
- Obsessive Compulsive Disorders
- Oppositional Defiant Disorder
- Personality Disorders
- Play Therapy
- Posttraumatic Stress Disorder/ Sexual Abuse
- Psychopharmacology Update
- Psychopharmacology: Managing Side Effects
- Psychopharmacology: Philosophy and Practical Issues
- Psychosis in Childhood
- Psychotic Disorders
- Tourette's Disorder
- Treatment Issues in Schools
- Treatment of Dual Diagnosis in Adolescent

- Adolescent Drug Use Today
- Adolescent Suicide
- All Cracked Up and Cocaine Enslaved
- Anger Management I & II
- Assessment and Treatment of ADHD
- Attachment Disorder in Children
- Autism Spectrum Disorder
- Behavior Plans for Aggressive Children
- Behavioral Teratology and the Developing Child
- Bipolar Disorder
- Bullying
- Case Management
- Child Sexual Abuse
- Childhood Aggression
- Childhood Trauma
- Children and Internet Safety
- Conduct Disorder Treatment
- Crisis Intervention
- Cultural Competence
- Culture of Poverty
- Developmental Individual Difference Relationship Based Model
- Difficult Behaviors in Children Under Five
- Disruptive Behavior Disorders
- Documentation in the Clinical Record
- Domestic Violence – The Effect of Infants & Toddlers
- Eating Disorders
- Effects of Child Abuse on the Developing Child
- Ethical Dilemmas and Appalachian Culture
- Ethics: The Stepping Stone to Ethical Practice
- Evaluating Sexually Offending Teens
- Expressive Intervention with Youth
- Eye Movement, Desensitization, & Reprocessing
- Family Violence
- Fetal Alcohol Syndrome
- Gangs, Cults, and Goth
- Genograms and Eco Maps
- “Hi-Fi” - High Intensity Family Intervention
- How to be a Credible Witness
- How to Testify in Court
- Impact Therapy
- Juvenile Sex Offenders
- Kids on the Move
- Lesbian, Gay, Bisexual, and Transgender Youth
- Managing Difficult Behaviors in Children Under Five
- Marijuana – It’s Only Weed, Right?!
- Medication Review / Ohio Scales
- Meth Abuse in Ohio
- Myers-Briggs Assessment
- Obsessive Compulsive Disorders
- Parenting the Parent / Parenting Styles
- Parenting, Setting Limits, Setting Boundaries
- Play Therapy
- Poverty
- Preventing and Treating Childhood Aggression
- Prescription Drug Abuse
- Psychological Evaluation
- Psychopharmacology Update
- PTSD and Parenting
- Recovery Model
- Risk & Resiliency Among Children
- Self Injurious Behavior
- Severely Traumatized Children
- Sexually Inappropriate Behaviors
- Sexually Reactive Children
- Specific Treatment Intervention
- Teens and Self Esteem
- Threat Assessment
- Understanding Self Mutilating Behaviors
- Working with Hostile Families & Youth
- Wrap Around Services

Training Network

Over 6,000 Attendees

**Generating Over 10,500 Hours of
Continuing Education Credit and
Continuing Medical Education Credit**

Evaluation

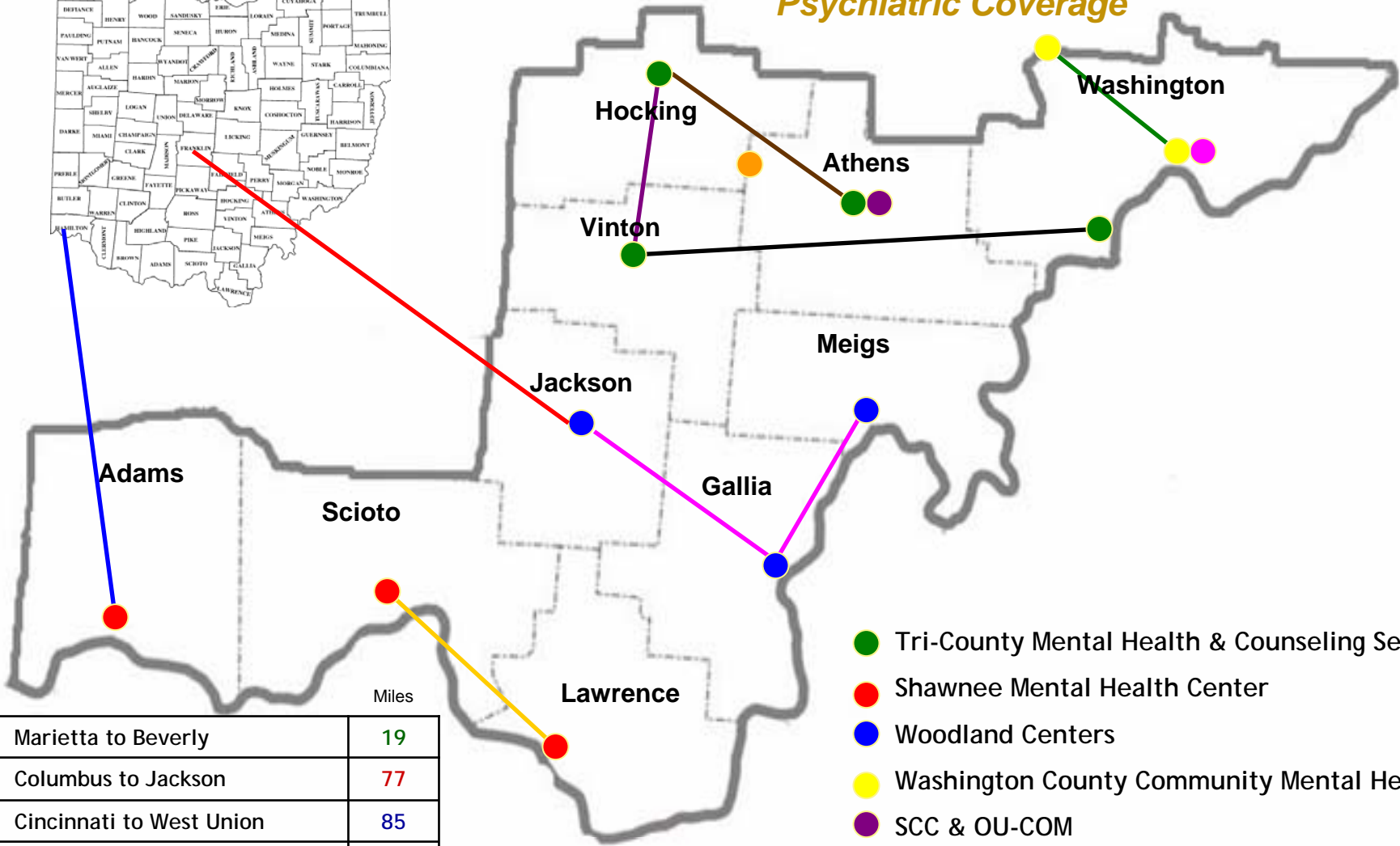
Satisfaction surveys of distance learning events (N=3,299) indicate strong acceptance and satisfaction of learning through interactive videoconferencing.

Telepsychiatry and Telepsychotherapy 2007



Southern Ohio Telepsychiatry Network

Psychiatric Coverage



Miles

	Marietta to Beverly	19
	Columbus to Jackson	77
	Cincinnati to West Union	85
	Portsmouth to Coal Grove	29
	Athens to Logan	29
	Logan to McArthur	23
	Gallipolis to Pomeroy/Jackson	19/32
	Belpre to McArthur	63

- Tri-County Mental Health & Counseling Services
- Shawnee Mental Health Center
- Woodland Centers
- Washington County Community Mental Health
- SCC & OU-COM
- Hocking Valley Community Residential Center
- L & P Services

Telemedicine's Challenges

- **Licensure and credentialing**
- **Liability**
- **Cost of equipment and transmission**
- **Reimbursement**
- **Patient/physician acceptance**

Telemedicine's Benefits

EFFICIENCY

ACCESS

QUALITY



Telepsychiatric Encounters

February 2004 to April 2008

**1,478 Telepsychiatric
Encounters**

Southern Consortium for Children Cost Savings Report
Videoconferencing Technology Investment
(Nov. 2003 - Apr. 2006)

Savings from Investment

Travel Expenses Forgone		\$ 76,001.77
Gained Productivity		
Shawnee Centers	\$ 14,008.39	
Tri-County Centers	\$ 10,587.70	
SCC Centers	\$ 1,164.03	
Woodland Centers	\$ 9,014.23	
Washington Centers	\$ 1,140.88	
Total Gained Productivity		\$ 35,915.21
Internet		\$ 5,655.00
Phone Service		\$ 725.00
Total Savings		\$118,296.98

Cost of Investment

Equipment (Cameras, TVs, Stands,.....)		\$ 34,406.76
T1 line		
Installation	\$ 1,500.00	
Maintenance (OU-Com)	\$ 10,065.42	
Monthly fees	\$ 7,733.33	
Total T1 Added Costs		\$ 19,298.75
Total Added Costs		\$ 53,705.51

Total Cost Savings		\$ 64,591.47
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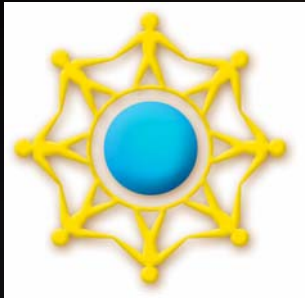
Estimated Future Cost Savings

\$26,748.91 per year*

**Future annual savings was found by eliminating fixed costs (installation fees) from cost savings and annualizing that figure.*

Assumptions

1. **Videoconferencing allows workers to be more productive** via not traveling. However, we did not consider wages paid during traveling a cost saving because employees would not work extra hours when they did travel. (The only cost saving here is decreased productivity, you cannot also count extra wages paid.)
2. Medicaid rates used in calculating gains in productivity were given to us by Barb. A **50% productivity rate** was assumed for all centers.
3. Equipment was depreciated based on a **6 year life span**. (Only partial equipment costs are shown here. Total equipment cost currently is \$87,208.33.)
4. Travel expenses forgone were calculated using Jackson as the city one would travel to were videoconferencing not in place. **\$0.37/mile** was the travel reimbursement rate used.



Teenline Ohio

www.teenlineohio.org

return home

Teenline Ohio

www.teenlineohio.org

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Your Gallery

[Music](#) [Poetry](#) [Art](#)

What are your friends creating?
Submit your songs, writing & art.

Focus on Health

Medicine Cabinet Drugs

Being involved with drugs is a lot like playing Russian Roulette. So little is under your control. Hanging with friends who do drugs. Driving with someone who is high. Depending on people who put drugs ahead of their families and friends.

[\[read more\]](#)

Mini Poll

How often to you feel unwanted physical contact (pushing, shoving, bullying) happens at school?

A lot
 Sometimes
 Rarely
 Never

[Vote](#)

Total votes: 15 [View results](#)

Feeling the urge to run?

Need a safe place to think things through?

Click here to visit the **Time Out: Host Home Network**

They'll set you up with everything you need.

Find a Number Fast

Pick your county or school from a list for instant access to hotlines!



Questions?

Please press *7 on your phone to unmute your line.

When you are finished, please press *6 to remute.

Bridging the Gap in Kansas: Telemedicine and Behavioral Health



Eve-Lynn Nelson, PhD
Assistant Director, Research,
Kansas University Center for
Telemedicine & Telehealth
Assistant Professor, Pediatrics
enelson2@kumc.edu

Kansas University Center for Telemedicine & Telehealth (KUCTT) Background

- Began in 1991 with a single connection to a community in western Kansas
- The Kansas telehealth network has grown to more than 50 sites across the state
- During that time, over 28,000 clinical consultations have been conducted across 50 specialties
- KUCTT is one of the most active outpatient telemedicine programs in the world

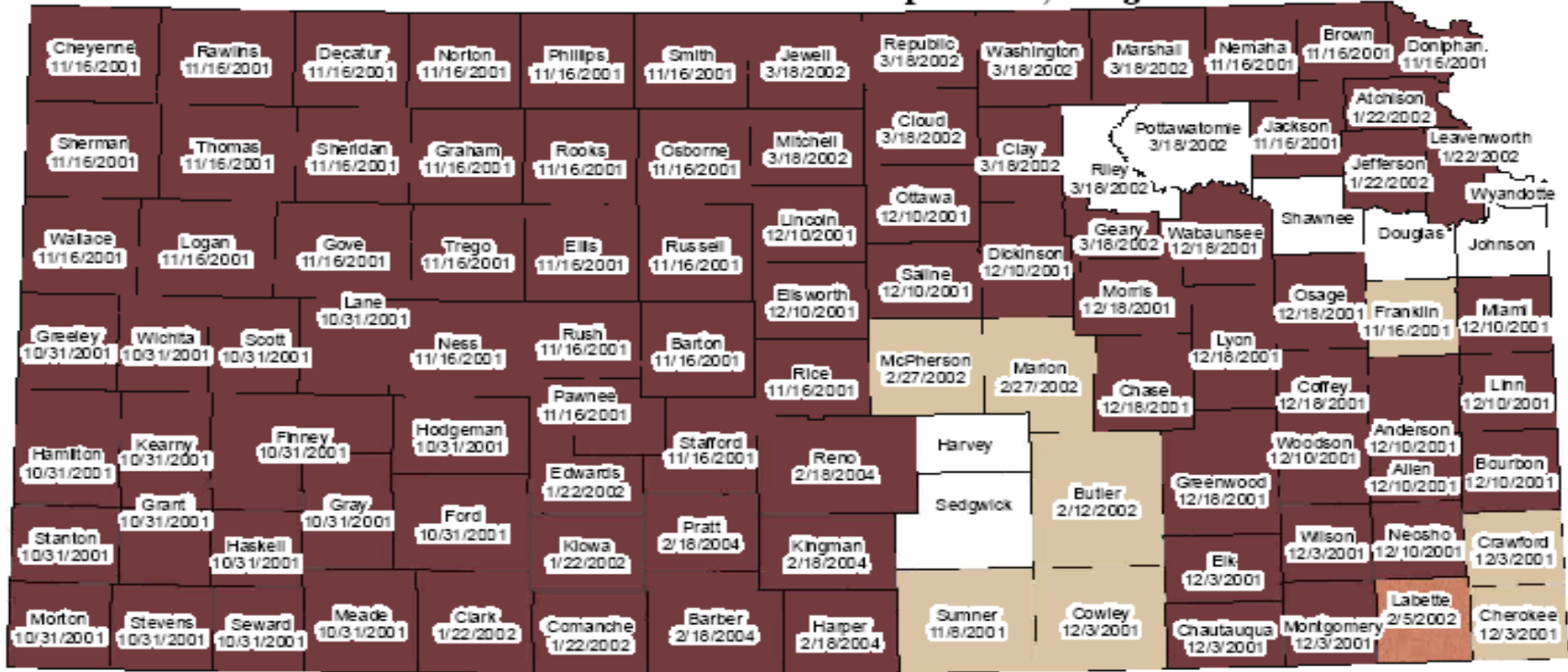


Why telemental health?

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

OFFICE OF LOCAL AND RURAL HEALTH

Mental Health HPSAs: September, 2005



Geographic (Catchment Area) HPSA

Not Eligible for Designation

Geographic (Single County HPSA)

Low-Income Population HPSA

Telemental health rationale

- Access concerns—20/20 rule
 - *“The burden of suffering experienced by children with mental health needs and their families has created a health crisis in this country. Growing numbers of children are suffering needlessly because their emotional, behavioral, and developmental needs are not being met by those very institutions which were explicitly created to take care of them.”* Surgeon General, 2000
 - Insurance barriers, Shortages with all mental health specialists, inequities to access
- Many treatment advances
 - New medications
 - Empirically supported psychotherapy
- Expensive peripherals not necessary

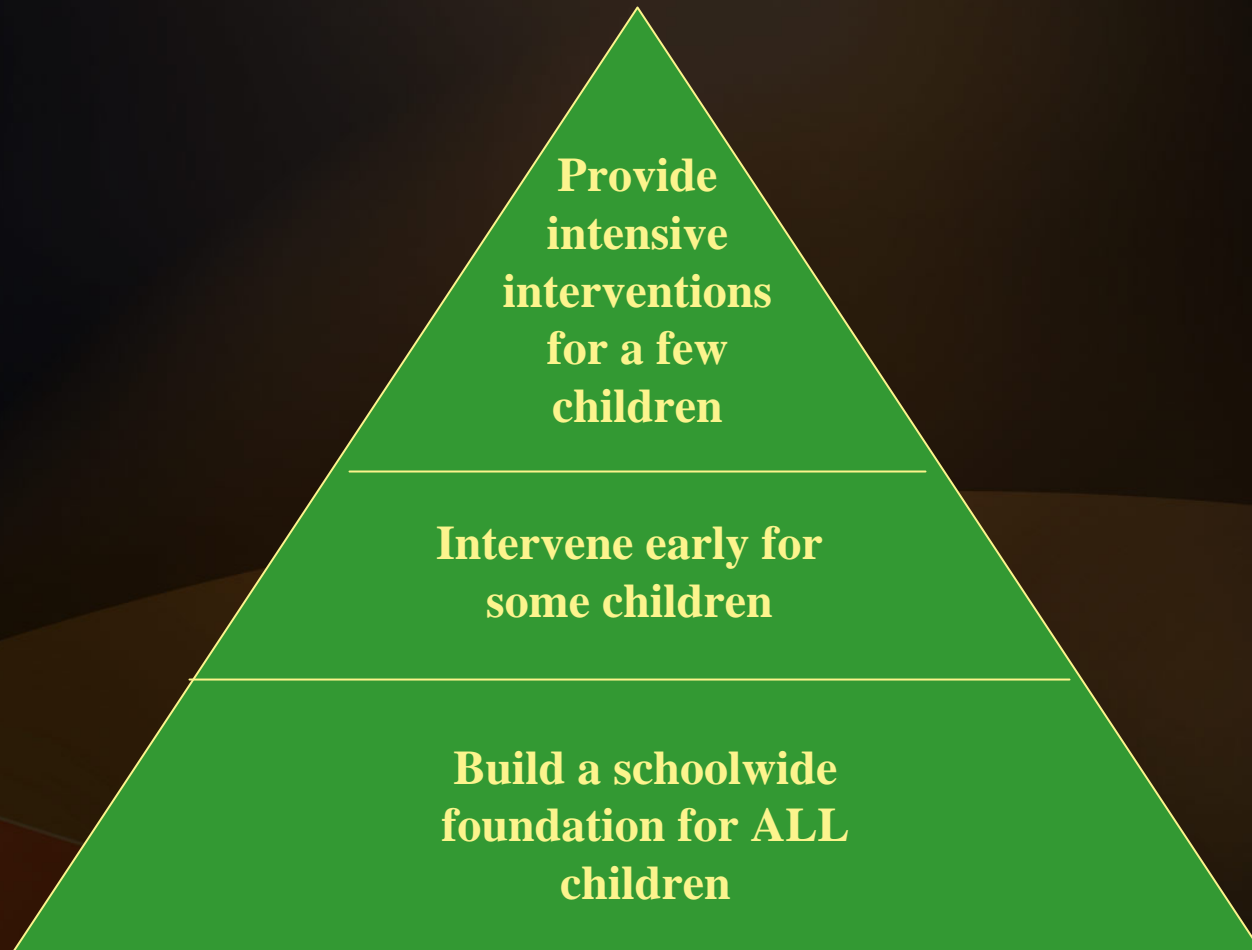
RURAL

**Rural
Underpinnings for
Resiliency
And
Linkages**



Safe Schools / Healthy Students Initiative

Three Level Continuum of Mental Health Prevention/Intervention



Safe Schools/Health Students in Hays, Kansas (1999-2002)

Linkages for Systems Coordination and Capacity

- Increased coordination of school and community generated referrals for assessment, consultation, and services for children/youth
- Enhanced referral and triage by student support teams in schools and community interdisciplinary teams
- Increased coordinated communications among referral agencies and service providers
- Utilized options of providers for child/youth screening, assessment, and services
 - Schools
 - Public mental health partner
 - Area Health Education Centers, including telehealth
 - other community providers

Safe Schools/Health Students in Hays, Kansas (1999-2002)

Linkages with Parents, Families and Community

- Increased parent and community awareness of mental health/behavioral health service options
- Increased child/family access to and utilization of services
- Assisted in connecting families to child- and family-focused services and supports
 - School-based services and supports
 - Public mental health agency services
 - Private behavioral health provider services
 - Primary care physicians
 - AHEC psychological and psychiatric consultation and telehealth services

Individual Telemental Health Clinics

- Approximately 1,000 telemental health consults/year; 300-500 school-based consults/year
- Psychiatry: child psychiatrists and fellows, both academic and community psychiatrists
 - Schools
 - Community Mental Health Center
 - Urban Daycare
 - Many other sites
- Psychology: psychologists, grad students, post docs
 - Schools
 - Area Health Education Centers
 - Rural health clinics
 - Many other sites
- Other—health psychology/prevention topics as example

Joint Clinics

- TeleHelp Youth Depression Clinic—child psychiatry and child psychology in schools
 - School-based telemedicine services
 - School training in youth depression
 - Connected Kansas Kids resources
- Attention Deficit/Hyperactivity Disorder (ADHD)—child psychology and developmental pediatrics
 - Comprehensive evaluations
 - Many challenges transitioning back to medical home in both urban and rural settings
- Autism/Autism Spectrum Disorder—child development center team

Costs and Funding

- **Equipment Costs**
 - Have transitioned from room videoconferencing unit with PC/cart at \$8000 to smaller desktop units (from \$180+) when possible
 - Transition from ISDN to IP, utilize state network (KAN-ED; costs range from \$60 to \$800/month with IP
- **Provider time—grant, contractual, billing**
- **Management costs—KUCTT and distant sites**
- **State funding**
 - General office support
 - Project-specific support
- **Federal funding—e.g., Office for the Advancement of Telehealth (OAT)**
- **Foundation funding**
 - National (e.g., Robert Wood Johnson Foundation)
 - Local (e.g., Health Care Foundation of Greater Kansas City)
- **Internal funding for research**



TeleKidcare[®] (TKC)



- Why schools?
 - The purpose of TeleKidcare is to “bring the provider to the school” using technology
 - Keeps kids in school and prevents parents from having to leave work
 - Provides many families a point of entry into health care system
- Schools
 - Began in 1998 with 4 urban schools
 - Today 12 urban and 4 rural schools
 - Over 4,000 TKC consults since 1998, with 300-500 consults/year
- Demographics
 - Ethnicity: 55% Caucasian, 20% African American, 20% Hispanic, 5% other ethnicity
 - 40% female, 60% male
 - 76% of the student population participated in the federal Free and Reduced Lunch program. This is substantially higher than the state average of just below 39%.
 - Approximately 50% uninsured, 44% Medicaid/SCHIP, 6% other

School Specific Issues

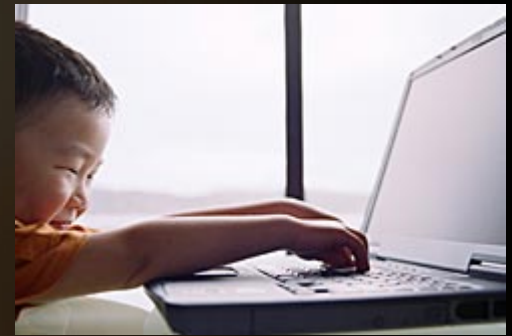
- School environment
 - Advantages
 - Decrease stigma
 - TEAM approach with child, family, and school on "same page"
 - Believe enhances evaluation and outcome through increased adherence to recommendations
 - Challenges
 - Managing volume of information
 - New to technology
 - Mix of two very large systems, each with own cultures and focus
 - Clearly define role ahead of time
 - Training tool for KUMC trainees
- Connected Kansas Kids adjunct services, school presentations and website for school needs of children with chronic illness (www.connectedkansaskids.com)



Early Lessons Magnified

- Presenter/champion is key
- Administrative buy-in across schools and provider departments
- Importance of program management and centralized scheduling
- Ongoing needs assessment
- Ongoing training for new and returning school presenters
 - Technology
 - Protocols
 - Mental health specific information
 - Peer-support

Standard of care



- Private physical space to accommodate group
- Paperwork is #1 reported complaint; overall still reach 99% overall parent satisfaction
 - Forms across language needs
 - History form, across clinics
 - Questionnaires (e.g., Behavioral Assessment System for Children (BASC), Conners, Vanderbilt, etc.)
 - Qualitative form
 - Consent(s)
 - HIPAA and internal patient registration
 - Record of Consult (ROC)
- Rapport and interviewing skills
- Same presentations as typical behavioral telemedicine clinics
 - ADHD, mood concerns, adjustment reactions
 - KUCTT experience, Myers et al. (2004)



Session

- Shorter sessions than face-to-face?
- Input from multiple informants
 - Push and pull across interested parties
- Implementation of recommendations
 - Health literacy—thermometer to pill swallowing
 - Adherence
 - Daily note example
- Backup plans
 - Technology
 - Safety
 - Attendance
- Teaching benefit
 - About technology
 - About underserved populations
 - Unique advantages of the technology



Evolving Work with Providers

- Challenges recruiting providers to fit need
- TIME and WORKFLOW
- Brings process elements to the foreground
 - Licensure
 - Liability/malpractice insurance
 - Credentialing
- Changing providers one of biggest presenter/family complaints
- Underserved patients have multiply stressed lives and often co-morbid health concerns and psychosocial issues
 - Example—parent referral resources extremely limited
- Competency
 - With technology
 - Within a particular community urban/rural; language (Spanish); other (Native American)



Evolving toward reimbursement

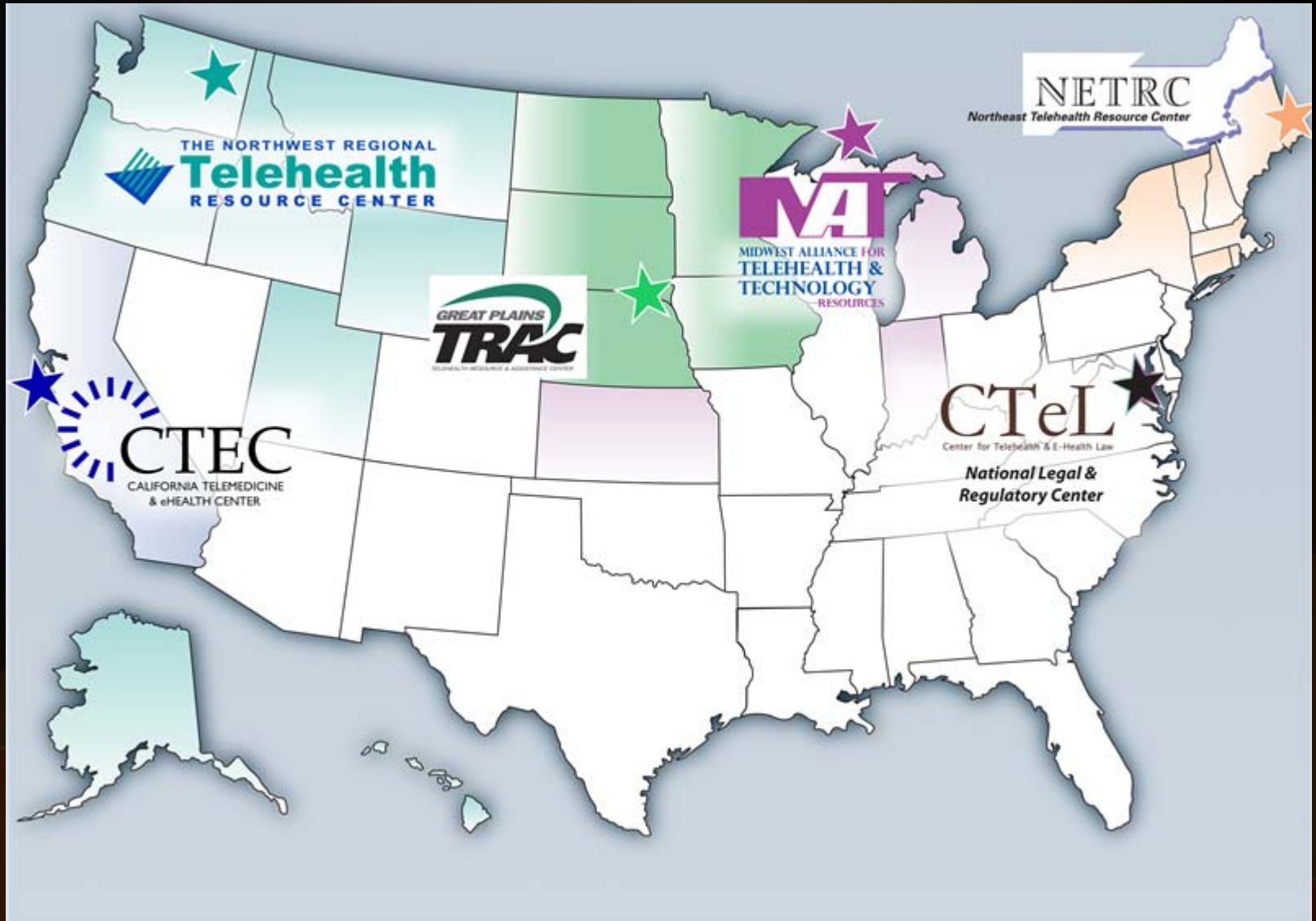
- Research related to cost-benefit
 - The more you do over time, the more cost effective
 - Balance cost with benefit, high satisfaction
- Perception that is “free” service
- Reimbursement
 - Long process, Kansas Medicaid, 2004-present
 - About 23 states have Medicaid policies for telemedicine
 - 5 states in the U.S. that have mandatory insurance coverage laws
 - Other insurers developing policies
 - Same Current Procedural Terminology (CPT) codes with “GT” modifier; gaps state dependent
 - Legislative impact study
 - Still gaps
- School challenges with site fees
- Reimbursement does not necessarily mean sustainability without other sources of support
- Reimbursement does not necessarily increase utilization (Spaulding and Timmerberg, 2008)

FUTURE

- *Where's the outcome?*
 - Process, RWJF study example
 - Patient outcome, depression example
 - Provider outcome, ADHD example
 - School outcome, Whitten example
- Guidelines likely in the next year from American Telemedicine Association (ATA) and American Academy of Child and Adolescent Psychiatry (AACAP)
- Needs assessment—ONGOING and not fit every need
- Integration of technologies—electronic health record (EHR), home telehealth, etc.
- HRSA Telehealth Resource Centers, see <http://www.cteconline.org/TRC.html>



Telehealth Resource Centers



Questions?

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 - *Assistant Professor, Pediatrics*
 - enelson2@kumc.edu