Show- Me ECHO- Extension for Community Healthcare Outcomes: Increasing Specialty Capacity in Rural Missouri

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Showmeecho.com

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I have no disclosures.
Project ECHO’s mission is to democratize medical knowledge and get best practice care to underserved people all over the world.

Missouri Telehealth Network exists to develop, study, and use telehealth solutions that improve access by providing high-value, patient-centered health care and medical education in Missouri and beyond.
Missouri Telehealth Network
University of Missouri- School of Medicine

Started in 1994

We educate and train people interested in starting their own telehealth program.

We hold training conferences and meetings.

We have technical, clinical, operational, legal & regulatory expertise in telehealth.

We have state funding, grant funding, and membership funding.
We are a HRSA funded Regional Telehealth Resource Center

KANSAS - MISSOURI - OKLAHOMA

Website: Heartlandtrc.org
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Our Team

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Rachel Mutrux, Director
Karen Edison, Medical Director
Telehealth in Missouri

- We’ve been doing telemedicine since 1994.
- Telemedicine is great!
- It increases access, by providing services that might not be available otherwise.
- It reduces need for travel.
- But, it has it’s limitations...
Limits of 1:1 Telehealth

A telehealth specialty outpatient visit allows one patient at a time to be seen.

Telehealth increases access to care for the patient, who might not have been able to see a specialist otherwise, but it does not increase capacity.
Creation of Show-Me ECHO

2013
MO Delegation to New Mexico

2014
$1.5M for Show-Me ECHO vetoed by Governor
Show-Me ECHO in statute
Started 2 ECHO pilots

2015
$1.5M reintroduced in HB3
Passed by both House & Senate
Signed by Governor
MTN begins 6 ECHO projects

2016
Legislature funds Show-Me ECHO at $3.0M
$1.7M restricted
$1.3M funded
MTN became an ECHO Superhub

2017
Show-Me ECHO at $1.5M
MTN included in state level response to Opioid epidemic for 2 ECHO projects
**ECHO** is **E**xtension for **C**ommunity **H**ealthcare **O**utcomes

**ECHO** Moves Knowledge, Not Patients

Telementoring project that creates communities of learning.
“Expanding the Definition of Underserved Population”

Project ECHO’s mission is to democratize medical knowledge and get best practice care to underserved people all over the world.
Dr. Sanjeev Arora M.D., Hepatologist

- University of New Mexico
- Developed Project ECHO for Hep C in 2003
- 10 month wait to see him in the Hep C clinic
- Put together Interdisciplinary team
- Recruited willing Primary Care Providers
- Video Technology
- Published study showed...
  - Reduced wait times
  - Increase number of Hep C pts treated
  - Outcomes of PCPs equal to specialists
Hub & Spokes

Show-Me ECHO
**ECHO Ingredients**

- Expert Hub team that wants to share knowledge
- Spokes that want to learn and share
- Operations team
- Technology—video, database, storage
- Database to track outcomes

**Project ECHO**

- Increased capacity
- Increased access
- Reduced costs

*Show-Me ECHO*
4 Points (tenets) of ECHO

1. Use **technology** (multipoint videoconferencing and Internet).
2. Disease Management Model that **reduces variation** in processes of care and sharing “best practices”.
3. **Case based learning**: Co-management of patients with specialists (learning by doing).
4. **Monitor outcomes**.
ECHO CYCLE

Specialists share knowledge, partner and mentor community PCPs

PCPs care for own patients with chronic conditions

Communities have capacity to care for citizens
Who is doing ECHO?

There are currently ECHOs in more than 40 subject areas with more than 100 entities worldwide:

DOD, VA, Ireland, University of Washington, India, University of Chicago, MD Anderson, Univ of Utah, Billings Clinic, Univ of Wyoming, Uruguay, etc!

Subjects: Bone Health, Cardiology, Oncology, Palliative Care, Opioid Addiction Treatment, Rheumatology, Reproductive Health, Dementia Care, Epilepsy, Behavioral Health, Sickle Cell, Gerontology, and more!
Show-Me ECHO Clinics

- Impact Asthma ECHO
- ECHO Autism
- Chronic Pain Management ECHO
- Derm ECHO
- ENDO ECHO
- Hep C ECHO
- Child Psych ECHO
- SUD ECHO
- Healthcare Ethics
ECHO Benefits PCPs

• No-cost CMEs
• Professional interaction with colleagues with similar interest
• A mix of work and learning
• Access to specialists
• Increased confidence about the subject
Patient Care Access & Quality

• Keeping knowledge current – “I’m prescribing better for my chronic pain patients” “I’m more confident I’m doing the right thing”

• Learning new things – “I get in a rut with my practice habits” “I have better talking points for my patient relationships”

• Keeping diagnostic and treatment skills sharp – “He challenged what I thought I was doing right and showed me what I could do better”

• Knowing what specialists need – “I don’t know how to work up a Hep C patient”

• Wishing specialists understood – “It would be nice for the specialist to have the perspective I have”

• Building relationships with specialists and peers – “Collegial stimulation”
ECHO Benefits the Health System by:

1. Reducing Variations in Care
2. Increasing Access for Rural and Underserved Patients
3. Providing Workforce Training and Force Multiplier
4. De-Monopolizing Knowledge
5. Improving Professional Satisfaction/Retention
6. Supporting the Health Home Model
7. Reducing Excessive Testing and Travel
8. Improving Quality and Safety
9. Providing Rapid Learning
10. Best-Practice Dissemination
Challenges of ECHO projects:

1. Funding
2. Recruiting participants
3. Organizational support- from hub and spoke sites
4. Mind-shift to recognize need for life-long learning
5. Time commitment
Lessons Learned
ECHO projects:

1. When possible, have ECHO as part of a multi-pronged approach to solve the health care problem
2. It’s okay to build virtual teams
3. It is essential to build widespread support
4. Budget for recruitment and evaluation
Building ECHO teams from around the state
Virtual team!

**Asthma**- school nurse- Springfield
environmental specialist- Cape Girardeau
peds pulmonology- St. Louis
social work and asthma specialist- Columbia

**Chronic Pain Mgt ECHO**- partnership with Missouri Primary Care Association, here is Jefferson City

**Hep C ECHO**- Hepatologist and Infectious Disease- St. Louis
Nurse, Psychologist, and Pharmacist- Columbia

**Child Psych ECHO**- Columbia, St. Louis, Jefferson City, and more
<table>
<thead>
<tr>
<th>Show-Me ECHO Clinic</th>
<th>Day of Week</th>
<th>Time</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact Asthma ECHO</td>
<td>Tuesday</td>
<td>12 to 1:30 p.m.</td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sept., Oct., Jan., Feb., May, June</td>
</tr>
<tr>
<td>ECHO Autism</td>
<td>Wednesday</td>
<td>11:45 a.m. to 1:15 p.m.</td>
<td>1st and 3rd weeks Year-round</td>
</tr>
<tr>
<td>Chronic Pain Management ECHO</td>
<td>Thursday</td>
<td>12 to 1 p.m.</td>
<td>Every other week</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sept.-Dec. and Jan.-June</td>
</tr>
<tr>
<td>Derm ECHO</td>
<td>Friday</td>
<td>12 to 1 p.m.</td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Year-round</td>
</tr>
<tr>
<td>Hep C ECHO</td>
<td>Friday</td>
<td>12 to 1 p.m.</td>
<td>Year-round beg. Dec. 2016</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1st and 3rd weeks</td>
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</table>
SHOW-ME ECHO
Increasing access to specialty care

Hub and Spoke Provider Key
Square = hub (expert team members)
circle = spoke (participants)
- Autism
- Chronic Pain Management
- Dermatology
- Asthma
- Child Psych
- Hepatitis C

Missouri Telehealth Network
University of Missouri Health
The ‘O’ is for Outcomes
Evaluation and Data

• MO HealthNet (Missouri Medicaid) Claims Data
• Subject matter knowledge
• Self-efficacy *
• CME surveys
• Demographics
• Practice patterns

*Self-efficacy refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977, 1986, 1997)
MO HealthNet (Missouri Medicaid) Claims Data

- University of Missouri houses the MO HealthNet Claims Data
- Show-Me ECHO has gotten IRB approval when needed to mine and analyze the data

Our objective is to educate rural health clinicians in a specific disease state in order to fill considerable gaps in expertise, and expand access to specialty care for rural Missourians.

**Goal of evaluation is to test:**
- Provider behavior change (prescription patterns),
- Change in patient specific type (diagnoses),
- Change in patient behavior (ED visits, hospitalizations, outpatient visits)

*What would we be hoping that the data shows?*
Asthma ECHO Preliminary Data

<table>
<thead>
<tr>
<th>29 counties with ECHO participants in MO</th>
<th>FY15 visit/days</th>
<th>FY16 visit/days</th>
<th>reduction in number of visits/days</th>
<th>average cost per day/visit**</th>
<th>Reduction in cost</th>
<th>% reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>in-patient hospital days</td>
<td>3392</td>
<td>1982</td>
<td>1410</td>
<td>$2,440</td>
<td>$3,440,400</td>
<td>42%</td>
</tr>
<tr>
<td>emergency department visits</td>
<td>7552</td>
<td>6407</td>
<td>1145</td>
<td>$629</td>
<td>$720,205</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Year 1 cost reduction $4,160,605**

**average cost data provided by MO HealthNet

**DISCLAIMER: These are PRELIMINARY numbers only. More robust analyses are underway and will be forwarded when complete. Additional analyses with more rigorous methodological design are necessary to better delineate the impact of the project.**

MO HealthNet claims data accessed through the MU MO HealthNet Data Project, a collaboration of MO HealthNet, the Center for Health Policy, and the Office of Social and Economic Data Analysis at the University of Missouri. Data analyzed by project staff and the Missouri Telehealth Network.
Self-Efficacy Surveys

How did we do it?
• Created customized surveys for each topic area
• Issued surveys to all registered participants prior to ECHO starting
• Re-surveyed participants after a period of time

Results
• Very high self-efficacy in the pre-survey in some cases
• Marked decrease in self-efficacy in post-survey in some cases

Lesson
Knowing what you don’t know is more important than knowing what you think you know!!!
CME Surveys

In order to get CME, the participant must complete a short on-line survey after each ECHO session. Survey is on a 5-point Likert scale.

We follow standard CME wording with adjustments to ECHO specific terminology.

2 very useful outcomes of these surveys:
1. Suggestions for topics/curriculum changes
2. Comments from the providers

“You guys are my lifeline.”  “I thought I was the only one...”

“We changed our practice based on the derm ECHOs [...] and couple of weeks ago found an “ugly duckling”. I just thought I’d say thanks!”
What makes Show-Me ECHO different?

- Focus on recruitment and outreach, 1 FTE
- Focus on Health Literacy - represented on each Hub team
- Full-time evaluator
- Show-Me ECHO Advisory Committee

List of Show-Me ECHO stakeholders and partners:

- Missouri Primary Care Association
- Missouri Association of Osteopathic Physicians
- Missouri Nurses Association
- Missouri Association of Rural Health Clinics
- Missouri Department of Mental Health
- MO Dept of Social Services
- MO Dept of Health & Senior Services
- Missouri Hospital Association
- St. Louis University
- University of Missouri - Kansas City
- U of MO, St. Louis
- Washington University
- Mercy Health
- Compass Health
- Managed Medicaid companies
- NAMI
- AAP
- School nurses
- Hep C Alliance
- West Virginia
- Asthma Ready Communities
- State Legislators
- 17 FQHCs
- Area agencies on Aging
- Million Hearts
- SSM Health
- Children’s Mercy
- CoxHealth
- and more
Possible future ECHOs in MO

- Community Health Worker
- High Risk OB
- Post-Acute Care/ Care Transitions
- Resistant Hypertension/ CHF
- Parkinson’s & Movement Disorders
- Pediatric Sleep Disorders
- Antibiotic Stewardship
- Geriatrics
Questions?