Project ECHO: *Enhancing Health Outcomes Through “Democratization of Knowledge”*

MeHAF Advancing Rural Health Transformation Conference
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Session Objectives

1. Describe the Project ECHO® model
2. Review benefits and challenges from multiple perspectives (patients/families, providers)
3. Gather stakeholder input regarding applicability and focus of ECHO® to address rural health issues in Maine
Key Health Challenges for Rural Mainers

Maine Rural Health Profiles – A Statewide View of Rural Health
Maine Health Access Foundation – September, 2016

- More than one in five residents of Piscataquis, Washington and Aroostook counties are living with a disability.
- Maine’s rural residents are more likely to report multiple chronic conditions.
- Maine’s rural residents are more likely to report they are in fair or poor health.
- Diabetes prevalence is higher in rural areas of ME.
- Maine’s rural residents are less likely to report they are receiving treatment for mental health despite reporting rates of depression comparable to urban counterparts.
- Maine’s rural residents have higher rates of hospitalizations and emergency room visits for ambulatory sensitive conditions than urban residents.

“The poor health of Maine’s rural communities strains rural health systems that have limited resources in terms of finances, infrastructure and clinical workforce”.

“The health care workforce is concentrated in the urban counties, particularly Cumberland, Penobscot and Androscoggin. Cumberland County has 50% more health workers per 1,000 residents than the state average…”.

One solution: Project ECHO®

The mission of Project ECHO® is to: Expand capacity to provide best practice care for common and complex diseases in rural and underserved areas and to monitor outcomes.

Goal: To touch the lives of 1 billion people by 2025

Supported by New Mexico Department of Health, Agency for Health Research and Quality, New Mexico Legislature, the Robert Wood Johnson Foundation and the GE Foundation.
Extension for Community Health Care Outcomes (ECHO) is a guided practice model utilizing disruptive innovation technologies.

Guided practice: Practicing new learning under direct supervision (hear/see/do)\(^1\)

Disruptive innovation technologies: using complicated products and services (telehealth) in a new, simpler way (telementoring)\(^2\)

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\(^1\) Dr. Madeline Hunter’s model of mastery learning

Methods of Project ECHO®

• Use Technology (multipoint videoconferencing and Internet)
• Disease Management Model focused on reducing variation in processes of care and sharing “best practices”
• Case based learning: Co-management of patients
• HIPAA compliant web-based database to monitor outcomes

Arora (2013); Supported by N.M. Dept. of Health, Agency for Health Research and Quality HIT Grant 1 UC1 HS015135-04, New Mexico Legislature, and the Robert Wood Johnson Foundation.
In 2004 less than 5% of patients with HCV in New Mexico had been treated

- Estimated 28,000 people with HCV in New Mexico
- No Primary Care Physicians treating HCV in New Mexico

**Good** news …
- Curable in 70% of cases

**Bad** news …
- Severe side effects:
  - anemia (100%)
  - neutropenia >35%
  - depression >25%
Project ECHO® HCV Outcomes

Sustained Viral Response (SVR): no detectable virus 6 months after completion of treatment

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<th>Outcome</th>
<th>ECHO</th>
<th>UNMH</th>
<th>P-value</th>
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<tr>
<td>Minority</td>
<td>68%</td>
<td>49%</td>
<td>P&lt;0.01</td>
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<tr>
<td>SVR* (Cure) Genotype 1</td>
<td>50%</td>
<td>46%</td>
<td>NS</td>
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<tr>
<td>SVR* (Cure) Genotype 2/3</td>
<td>70%</td>
<td>71%</td>
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# Project ECHO® in New Mexico

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<th>Time</th>
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<th>Tuesday</th>
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<th>Thursday</th>
<th>Friday</th>
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<td>8-10 a.m.</td>
<td>Hepatitis C</td>
<td>Diabetes &amp; Endocrinology</td>
<td>Geriatrics/Dementia</td>
<td>Palliative Care</td>
<td>Neale</td>
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<td>10-12 a.m.</td>
<td>Rheumatology</td>
<td>Chronic Pain</td>
<td>Integrated Addictions &amp; Psychiatry</td>
<td>Complex Care</td>
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<td>2-4 p.m.</td>
<td>HIV</td>
<td>Prison Peer Educator Training</td>
<td>Women’s Health &amp; Genomics</td>
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[Image: Cumulative 2006 to 2014 map of Project ECHO in New Mexico]
Project ECHO® Poised to Become a National Telehealth Model

healthintelligence.com/news/project-echo-poised-to-become-a-national-telehealth-model
There are now 87 Project ECHO™ hubs worldwide – including 57 in the U.S. and 30 in 13 other countries – covering more than 45 complex conditions.

http://echo.unm.edu/locations/
Benefits of ECHO®

Increased access to specialty care for patients in rural and underserved areas

Movement of knowledge, not patients, allows for better health outcomes and increased community-based care

Increased Patient Satisfaction and Improved Outcomes:
- Reduced travel time and costs
- Shorter wait times/timelier access
- Fewer avoidable complications and/or hospitalizations

Increased Provider Satisfaction:
- Primary Care Providers enhance knowledge and competencies and their patients have better outcomes - “re-establishing the joy in practice”
- Specialists share expertise, playing a vital role in improving the quality and impact of local primary care; increased diversity in patient caseload

Cost savings in care delivery:
- Improved continuity of care and case management
- Increased appropriateness of specialty referrals
- Reduced use of ED/institutional care

More rapid understanding and adherence to changing clinical guidelines among providers = improved care for patients
Potential Benefits to Health Systems

- Increase Quality and Safety
- Rapid Learning and Best Practice Dissemination
- Reduce Variations
- Access for Rural and Underserved Patients; reduced disparities
- Workforce Training and Force Multiplier
- De-monopolize Knowledge
- Improving Professional Satisfaction/Retention
- Cost Effective Care - Avoid Excessive Testing and Travel
- Prevent Cost of Untreated Disease
- Integration of Public Health into Treatment Paradigm

Preservation of Rural Health Systems!
Challenges

Start-up costs and connection fees – although low

Availability of broadband or other

Requires commitment at all levels to succeed:
  • Practice owners
  • Administrators
  • Providers (specialists and primary care)
  • Support Staff

No Consistent Revenue Model - YET!
Conclusions

- ECHO® model is a robust method to safely and effectively treat common and complex diseases in underserved areas and to monitor outcomes
- Replication and expansion to other complex health issues is underway
- Sustainability
ECHO in Maine?

• Are you aware of ECHO model in Maine?  
  (Known use for Chronic Pain Management)
• How best to implement ECHO model in Maine?
• Extension of ECHO – practice teams, community supports, learning support?
  • Would your organization be interested in partnering/participating?
• If so, which health issues do you feel we should prioritize?
Save the Date!

Taking Telehealth Mainstream

Northeast Regional Telehealth Conference

May 23-24, 2017
Amherst, MA

Join us for hands-on workshops, nationally recognized plenary speakers, a variety of breakout sessions featuring regional programs, and lots of networking opportunities!

For more info: www.netrc.org/conference
Questions? Contact Us

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