“Project ECHO®

*Extension for Community Healthcare Outcomes*

is a movement to de-monopolize knowledge and amplify the capacity to provide best practice care for underserved people all over the world.”

[https://echo.unm.edu/about-echo/ourstory](https://echo.unm.edu/about-echo/ourstory)
History and Development

New Mexico had only two clinics in the entire state that treated Hepatitis C. Thousands of New Mexicans with Hepatitis C lived in areas without specialist and therefore were unable to get treatment where they lived.

https://echo.unm.edu/about-echo/ourstory
History and Development

Sanjeev Arora, M.D.
Department of Internal Medicine
University of New Mexico
Liver Disease Specialist
History and Development

All patients in need of treatment should receive it. Created the ECHO model allowing clinicians to treat Hepatitis C in their own communities.

https://echo.unm.edu/about-echo/ourstory
History and Development

TeleECHO™ clinics put local clinicians together with specialist teams through video conferencing to share knowledge and expand treatment capacity.

The result: better care for more people.

https://echo.unm.edu/about-echo/ourstory
ECHO vs. Telemedicine

Traditional Telemedicine

Specialist manages patient remotely

Solves the issue of access but not capacity.
ECHO vs. Telemedicine

TeleECHO™ Clinic
- Expert hub team

ECHO supports community based primary care teams
- Learners at spoke site

Patients reached with specialty knowledge and expertise

Traditional Telemedicine
- Specialist manages patient remotely

Resource: https://www.echoindia.in/about/
“The ECHO model is not telemedicine where the specialist assumes the care of the patient, but instead a mentoring model where the community provider retains responsibility for managing the patient’s care, operating with increased independence as their skills and self-efficacy grow.”

“ECHO Replication Guide.” March 2015
TeleECHO Structure

1. Brief Planning Huddle
2. Introductions
3. Announcements
4. Brief Didactic
TeleECHO Structure

5. Patient Case Presentation
6. Hub ECHO ask audience for questions
7. Hub asks audience for recommendations and impressions
TeleECHO Structure

8. Hub summarizes recommendations and consensus on diagnosis and treatment plan

9. Close and debrief
ECHO Replication

Partnership Agreements

3-Day Immersion Training

Ongoing Support and Access to Resources
Project ECHO has expanded—across diseases and specialties, across urban and rural locations, across delivery services, and across the globe

https://echo.unm.edu/about-echo/ourstory
Autism ECHO Collaborative
(Quarterly Zoom Meeting)
ECHO Hubs & Programs: Global

Hub Locations

<table>
<thead>
<tr>
<th>ECHO Countries</th>
<th>ECHO Hubs</th>
<th>ECHO Programs</th>
</tr>
</thead>
</table>

Special Children... Special Needs... Special Care
Office for Children with Special Health Care Needs

Project ECHO
Kentucky Rural Healthcare Information Organization

UK College of Medicine
University of Kentucky

© 2019 HERE, © 2019 Microsoft Corporation Terms
ECHO Autism

Ivanora Alexander, B.S. B.M.E.
Assistant Director of Support Services
Office for Children with Special Health Care Needs
Louisville, Kentucky
• Responsible for the well being of Kentucky’s children and youth with special health care needs (CYSHCN)

• Collaborations and programs to support CYSHCN

• Provide pediatric medical specialty clinics
OCSHCN Pediatric Specialty Clinics

- Autism Spectrum Disorders (ASD)
- Cardiology
- Cerebral Palsy
- Cleft Lip and Palate
- Craniofacial Anomalies

- Neurology
- Ophthalmology
- Orthopedics
- Otology
- Scoliosis
Autism Spectrum Disorder

• ASD is a developmental disability that can cause significant social, emotional, communication and behavioral challenges

• CDC estimates 1:59 US children are on the spectrum
Autism Spectrum Disorder

• ASD is complicated to diagnose and complicated to treat involving many different types of providers and disciplines

• Treatment needs change overtime as the child grows and enters the school system
# OCSHCN ASD Services

<table>
<thead>
<tr>
<th></th>
<th>Screening</th>
<th>Diagnostic (Onsite)</th>
<th>Medical (Onsite or Telemedicine)</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbourville</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bowling Green</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Corbin</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Hazard</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Owensboro</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Paducah</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Somerset</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
ECHO Autism Immersion Training

A team of physicians and staff participated from:

- Juniper Health
- Office for Children with Special Health Care Needs
- University of Louisville
- University of Kentucky
KY’s ECHO Autism Planning Team

Kentucky Tele-Care
Office for Children with Special Health Care Needs
University of Kentucky
University of Louisville Physicians
University of Missouri Project ECHO
Kentucky’s ECHO Autism Objectives

Increase knowledge and awareness of Primary Care Physicians about . . .

• early detection and intervention
• medical and psychiatric treatments
• resources for families including parental supports and school advocacy
TeleECHO™ Clinic

- Expert hub team

ECHO supports community based primary care teams

Learners at spoke site

- Primary Care Physicians
- Pediatricians
- Family Practitioners
- Advanced Practice Registered Nurses
- Med Peds Physicians
- Psychologists
- Behavioral Analysts

Patients reached with specialty knowledge and expertise

- Children in Kentucky with Autism and Neurodevelopmental Disorders

Specialties in Kentucky:
- Parent Advocate
- Child Psychiatrist
- Developmental Behavioral Pediatrician
- Child Neurologist
- Clinical Psychologist
- Educator
- As needed ABA, Social Worker, Dietician, Speech Therapist, Occupational Therapist
ECHO Autism Expected Outcomes

• Increase ASD screening rates
• Connect to early intervention services at an earlier age
• Decrease average age of ASD diagnosis
• Increase rates of appropriate referrals to ASD services
ECHO Autism Expected Outcomes

• Provide more ASD care by PCPs
• Empower PCPs to care for common ASD behavioral and psychiatric concerns
• Increase the PCP’s confidence when advocating for children with ASD
Kentucky’s ECHO Autism Launch

- Finalize contracts with Kentucky’s hub team
- Initiate 4th quarter of 2019
- Offer CME credits to participants
- Consider ECHO Autism STAT in the future
Ivanora Alexander, Assistant Director of Support Services
310 Whittington Parkway, Suite 200, Louisville, KY 40222
1-800-232-1160    chfs.ky.gov/agencies/ccshcn
Ivy.Alexander@ky.gov
Fighting the Opioid Epidemic with the Project ECHO Model
The Problem

• According to the NIDA, Kentucky is among the top ten states with the highest opioid-related overdose deaths

• Nearly 25% of the counties identified by the CDC as most vulnerable to outbreaks of HIV and Hep C due to IV drug use are located in Kentucky.

• Kentucky providers write significantly more opioid prescriptions than the national average
How Can Project ECHO Help?

• While the ECHO model does not actually provide care to patients, it does provide front-line clinicians, such as primary care providers, with the knowledge and support they need to manage patients with complex conditions, eliminating or reducing the need for referral.
ECHO and the Opioid Epidemic

Project ECHO

- Provider Education
- Resources
- Workforce Capacity Building
- Mentorship
Knowledge Gaps

Pain Management
- Opioid and non-opioid pain medications
- Alternative Pain Management techniques
- Determining specific diagnoses related to pain
- Interpretation of imaging

MAT/Addiction
- Addiction treatment medications
- Interpreting laboratory testing
- General knowledge about addiction
# Opioid Addiction Prevention & Treatment ECHO

## Pain Management
- Appropriate Opioid Prescribing in Primary Care
- Interventional Pain Management
- Psychological Interventions for Pain
- Opioid Tapering While Managing Pain

## Medication Assisted Treatment (MAT)
- MAT Law and Program Guidance
- MAT Medications: An Overview
- Treating OUD and Other Comorbid Conditions
- Withdrawal Management
The Specialist Panels

Pain Management
• Pain Management Specialists
• Physical Therapist
• Pharmacist
• Psychologist

MAT
• Addiction Medicine Specialists
• Addiction Psychiatrist
• Pharmacist
• Case Management Specialist
• Primary Care Provider providing MAT
Participation

- 36 unique providers from 18 clinic locations
- Average attendance of 15 providers per session
- 5 patient cases presented
Post-project Evaluation Results

• 85% of respondents who presented a case implemented recommendations received during ECHO

• 15% of respondents implemented recommendations from cases presented by others

• 57% utilized information from didactic presentations to inform treatment of patients
Post-project Evaluation Results

• 100% of respondents were able to apply concepts presented in sessions to patients with similar problems in their practice
• 85% of respondents were more interested in providing MAT as a result of their participation
Outcomes

• 2 providers are seeking their DATA 2000 waivers as a result of participation
• One provider is taking steps to open her own MAT clinic
Phase II

• Rural Communities Opioid Response Planning Grant
  – 12 additional sessions in 2019-2020

Interested in participating?
Contact Nicole Winkleman at
n.winkleman@krhio.org
Assisting healthcare providers and patients with the use of technology and connectivity to improve the health of our communities.
MODIFIED HCV ECHO FOR KENTUCKY -
CARE-C: COMMUNITY ACCESS, RETENTION IN CARE, AND ENGAGEMENT FOR HEPATITIS C TREATMENT

Jens Rosenau, MD
Associate Professor of Medicine
Acting Director of Hepatology
Division of Digestive Diseases and Nutrition
jens.rosenau@uky.edu Phone 859-533-6951

Tammi Gausepohl, MHA, CIP
Hepatitis C Program Operations Manager
Digestive Health Service Line
tammi.gausepohl@uky.edu Phone 859-257-3383

Courtney Hammill, MS
Grant Program Specialist and ECHO coordinator
Digestive Health Service Line
courtney.hammill@uky.edu Phone 859-323-7942

Information for Community Providers
Estimated Burden of HCV-Related Morbidity and Morbidity w/o expansion of diagnosis and treatment

Rein D, et al. Dig Liver Dis 2010

Year
Acute HCV Disease Burden in Kentucky

Adapted from CDC data reports. Courtesy of Kathy Sanders. Kentucky Department for Public Health.

Provisional data

To date, acute hepatitis C cases reported in NETSS have been unreliable for monitoring the incidence of acute hepatitis C because: no serologic marker is available to diagnose acute hepatitis C, and anti-HCV positive persons may be reported as having acute hepatitis C without the necessary clinical information to confirm acute disease.
HCV Referrals 2010-2015
> 3000 new HCV referrals
Linkage to Care after Screening in ER

Treatment uptake in UK HCV referrals: 16% within 1 year after initial consult 22% over study period of about 2.5 years

Racho et al. DDW 2017
2017 NVHR Update: Reduced Treatment Access for Pts Receiving Care From Non-Specialists

2017 Medicaid FFS Prescriber Restrictions for HCV Treatment

No Restrictions
By or in Consultation w/Specialist
Specialist Must Prescribe
Restrictions Unknown
Arguments for HCV ECHO Summary

- Prevalence and Incidence of Hepatitis C in KY are high
- HCV Treatment
  - is highly effective
  - prevents complications and transmission
  - is cost-effective, even cost-saving
- Access to HCV care is limited
  - lack of specialty providers in rural counties
  - high attrition rates in care cascade
  - need for HCV prescribing by or in consultation with specialist
Multiple Models for Supporting Nonspecialists in Expanding HCV Treatment Provision

- **Project ECHO**: virtual networks link interdisciplinary specialist teams with primary care clinician teams

- **Cotreatment**: specialist sees the pt, makes suggestions for a treatment regimen and the primary care provider/nonspecialist prescribes and follows the pt

- **Telemedicine**: specialist manages pt remotely

- **CME programs** to provide education for nonspecialty HCV treatment

- **Fellowships/preceptorships**
Project ECHO – Are You Part of the ECHO?
Project ECHO: Extension for Community Healthcare Outcomes

Weekly tele-ECHO Clinics

40 min case presentations

20 min didactic presentations

Information from https://echo.unm.edu/
Multiple Models for Supporting Nonspecialists in Expanding HCV Treatment Provision

- **Project ECHO:** videoconferences link interdisciplinary specialist teams with community provider team, case based and didactic learning loop

- **Cotreatment:** specialist sees the pt, makes suggestions for a treatment regimen and the primary care provider/nonspecialist prescribes and follows the pt

**Modified ECHO:** videoconferences link interdisciplinary specialist teams with community provider team, case based and didactic learning loop, specialist team sees patient one time and provides support for local management

Slide credit: clinicaloptions.com
Project ECHO: Extension for Community Healthcare Outcomes

- Addresses critical gap in availability of specialty care for pts with complex health conditions in rural and underserved settings

https://echo.unm.edu/about-echo/

Slide credit: clinicaloptions.com
Modified ECHO: CARE-C Program

- Patient Navigator
- Social Worker

Community-based primary care teams are the “spokes”

Trained primary care providers deliver specialty care services

Multiple Patient Visits

Pts receive specialty care services where they need them

Support Tools for Provider
- Specialty Pharmacist
- Transient Elastography
- Database

Hub provides training in specialty care services

Learning loop

Expert team constitutes the “hub”

Support for Patient:
- Patient Navigator
- Social Worker

One Patient Visit
Community Provider
- Primary Care
- Addiction Specialist
- OB Gyn

University of Kentucky Interdisciplinary Team
- Hepatologist
- Addiction Specialist
- Specialty Pharmacist
- Social Worker
- Patient Navigator
Community Provider
- Primary Care
- Addiction Specialist
- OB Gyn

University of Kentucky Interdisciplinary Team
- Hepatologist
- Addiction Specialist
- Specialty Pharmacist
- Patient Navigator
- Social Worker

ECHO Coordinator

One Visit
Partnership Benefits: Education and Training

- **Education and Training for Hepatitis C management including treatment**
  - access to weekly teleECHO clinics
    - access to interdisciplinary specialty team (including hepatologist, addiction specialist)
    - contact with other community providers
  - weekly case presentations with case based learning
  - weekly 15 minute didactic presentations
  - Free CME Credits

- **Preferred fast access to UK appointment within 2 weeks**
Partnership Benefits:
Management Support

Comprehensive support package to provide high quality care with minimal effort

- **Specialty Pharmacy Support**
  - Review therapy options
  - Drug-Drug interaction assessment
  - Prior-Authorization and appeals
  - Treatment education
  - Monitor Tx adherence

- **Social Worker Support**
  - initial patient readiness assessment (PREP-C), UK will provide report
  - continuous support to overcome treatment barriers
  - support with transportation to UK appointment

- **Patient Navigator Support**
  - continuous support with retention in care

- **Fibroscan Report**
  - UK will perform Fibroscan and provide report

- **Access to database and management tools**
  - database will track treatment uptake and outcomes, helps to manage patients with minimal effort,
  - access to information materials
Map of Partners
Modified Hepatitis C ECHO
HCV Treatment Uptake
Modified ECHO vs Standard of Care

One Minus Survival Functions

Arm
- 1.00
- 2.00
- 3.00
- 1.00-censored
- 2.00-censored
- 3.00-censored

One Minus Cum Survival vs Months
Steps to join ECHO

1. Contact Tammi Gausepohl @ 859-257-3383 or tammi.gausepohl@uky.edu

2. We will:
   ✓ Send you an ECHO partner agreement
   ✓ Schedule training with you
   ✓ Send you any materials you need to get started

3. Begin participation in ECHO sessions on Thursdays 12:30-1:30