





“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>



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



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



“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



Resource: <http://ruralhealthquarterly.com/home/2017/07/28/an-introduction-to-project-echo/>



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



ECHO Expansion

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>



ECHO Hubs & Programs: Global

Hub Locations



Autism ECHO Collaborative

(Quarterly Zoom Meeting)

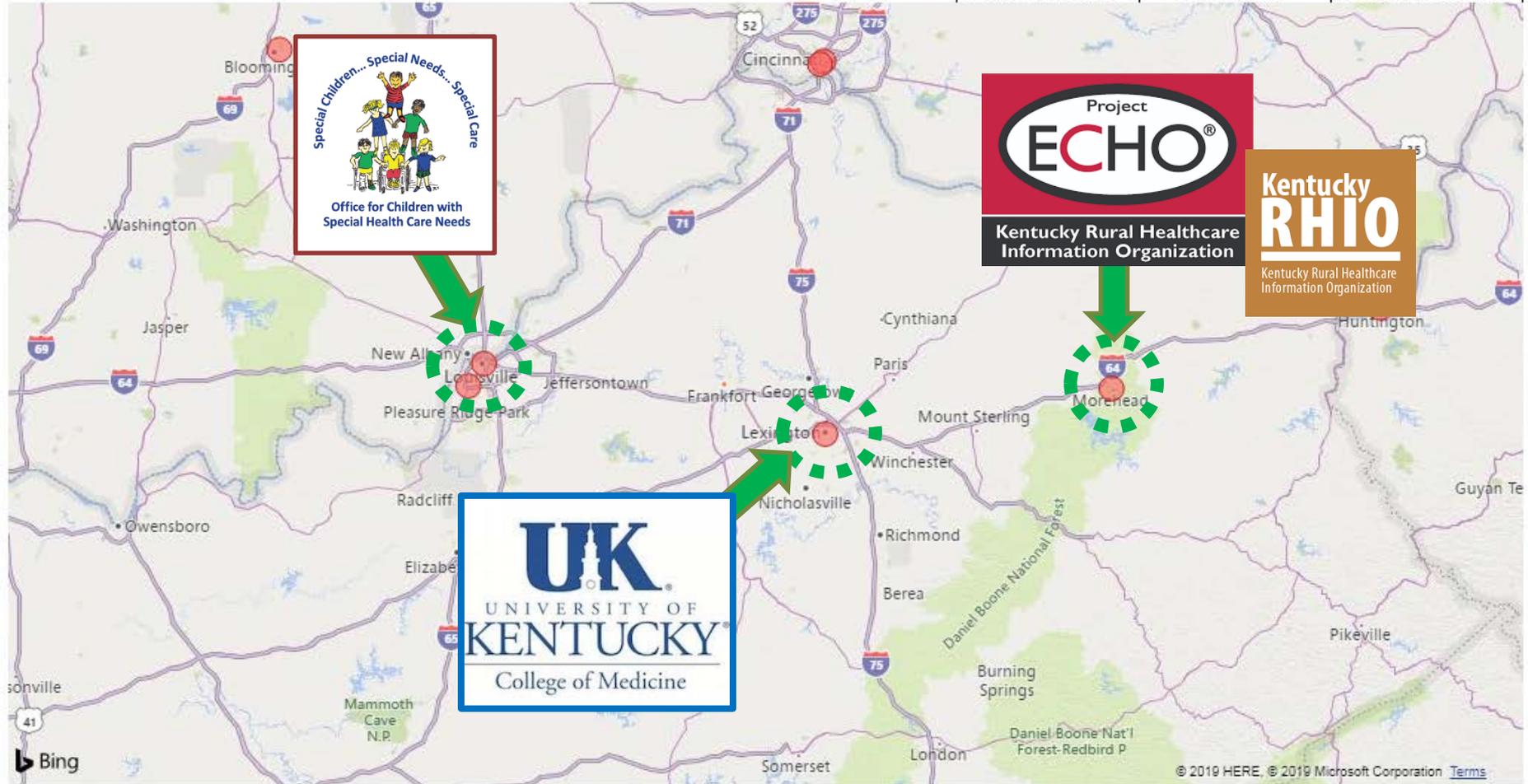




ECHO Hubs & Programs: Global

Hub Locations

| ECHO Countries | ECHO Hubs | ECHO Programs |
|----------------|-----------|---------------|
|----------------|-----------|---------------|



CHFS
Cabinet for Health and Family Services



Office for Children with
Special Health Care Needs

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

| | Screening | Diagnostic (Onsite) | Medical (Onsite or Telemedicine) | Collaboration |
|---------------|-----------|------------------------|--|---------------|
| Barbourville | ✓ | | | |
| Bowling Green | ✓ | | ✓ | |
| Corbin | | | | ✓ |
| Hazard | | | | ✓ |
| Owensboro | ✓ | | ✓ | |
| Paducah | ✓ | | ✓ | |
| Somerset | ✓ | ✓ | | |



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

Patients reached with specialty
knowledge and expertise



- Parent Advocate
- Child Psychiatrist
- Developmental Behavioral Pediatrician
- Child Neurologist
- Clinical Psychologist
- Educator
- As needed ABA, Social Worker, Dietician, Speech Therapist, Occupational Therapist

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

Children in Kentucky
with Autism and
Neurodevelopmental
Disorders



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



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

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Kentucky
RHIO

Kentucky Rural Healthcare
Information Organization

**Fighting the Opioid
Epidemic with the
Project ECHO Model**



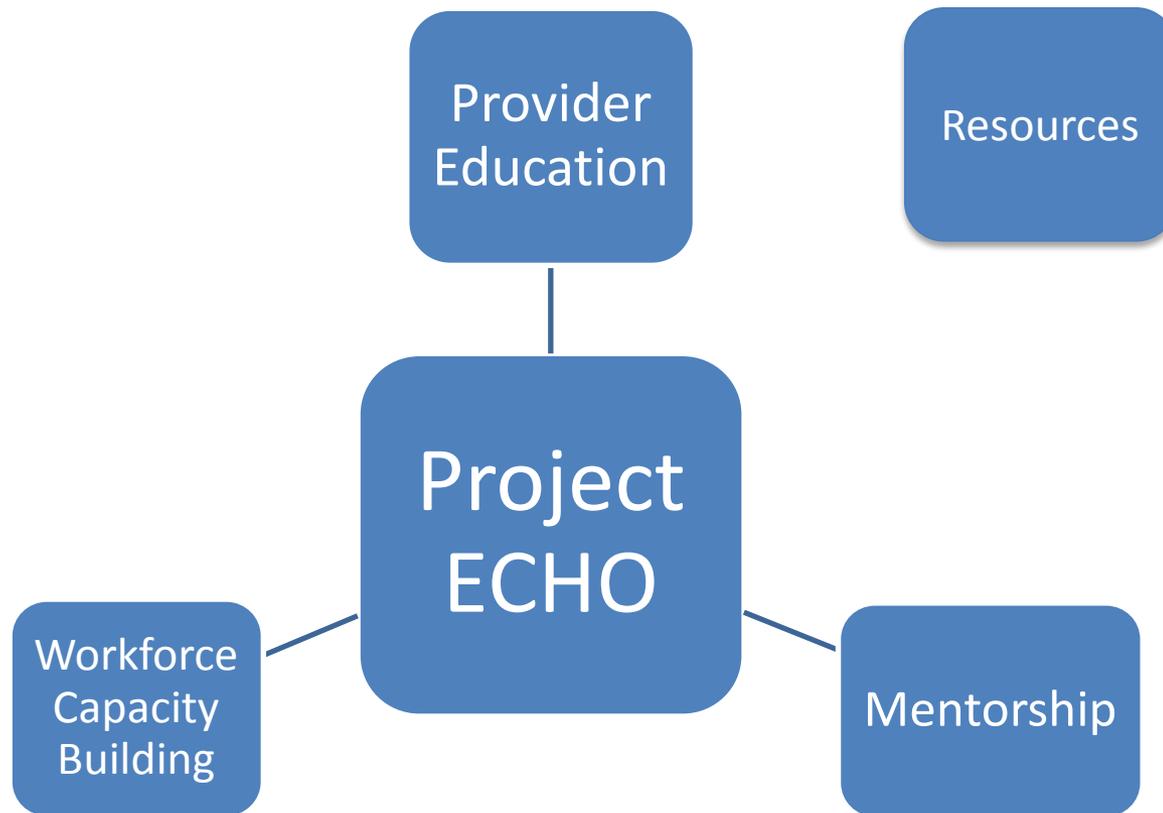
The Problem

- 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



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

- Medication treatment
- 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

A top-down view of a wooden desk with various items: a blood pressure cuff and gauge on the left, a stethoscope on the top right, a smartphone on the bottom left, a laptop in the center, and a notebook with a pen on the bottom right. The text 'KRHIO' is centered in large white letters, with a horizontal line underneath it.

KRHIO

Kentucky Rural Healthcare
Information Organization

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

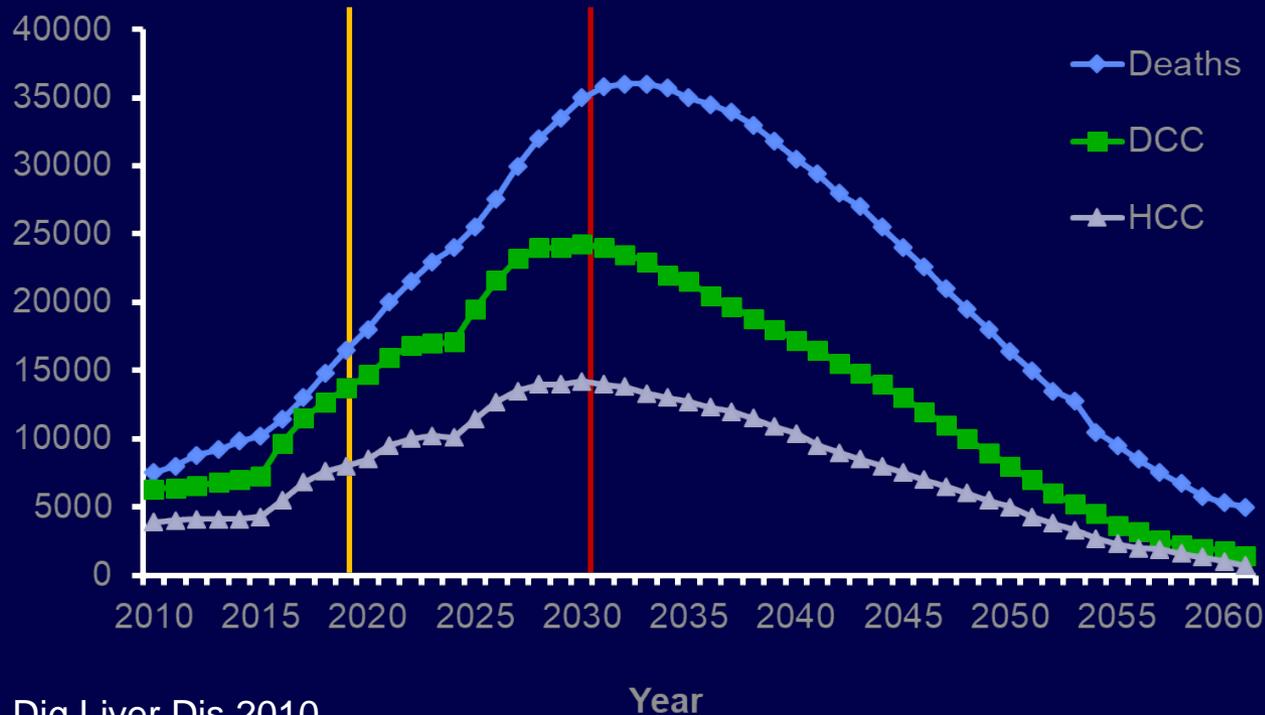
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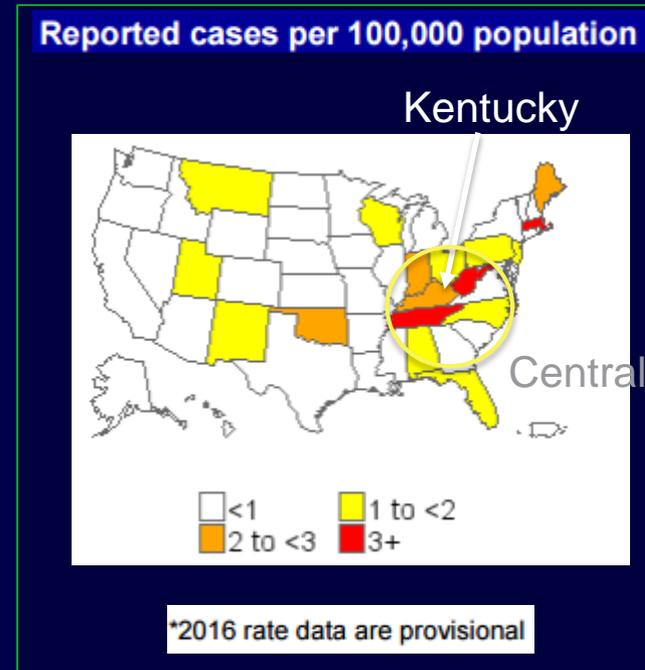
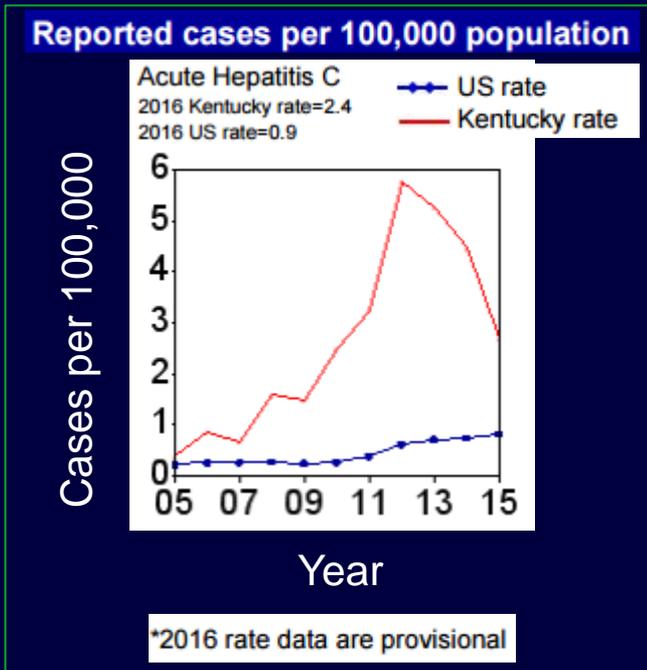
Information for
Community Providers

Estimated Burden of HCV-Related Morbidity and Mortality w/o expansion of diagnosis and treatment



Rein D, et al. Dig Liver Dis 2010

Acute HCV Disease Burden in Kentucky

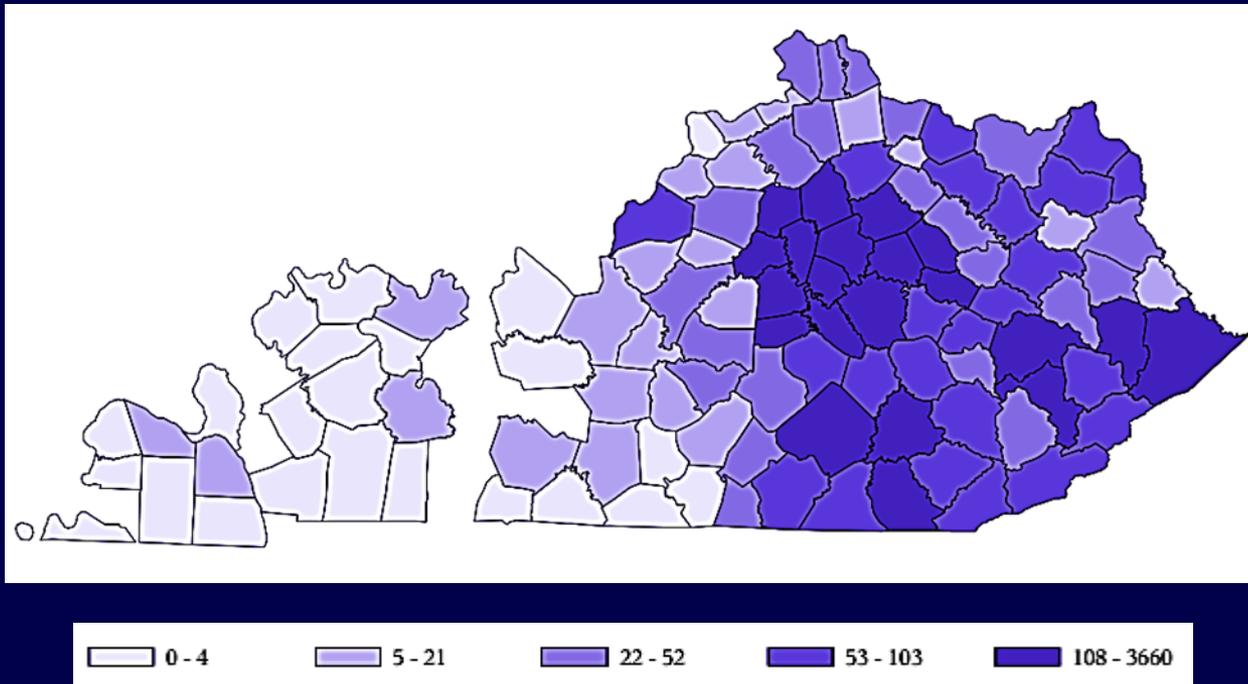


* provisional data
 **To date, acute hepatitis C cases reported in NETSS have been unreliable for monitoring the incidence of acute hepatitis C because: no serologic marker is available to diagnose acute hepatitis C, and anti-HCV positive persons may be reported as having acute hepatitis C without the necessary clinical information to confirm acute disease.

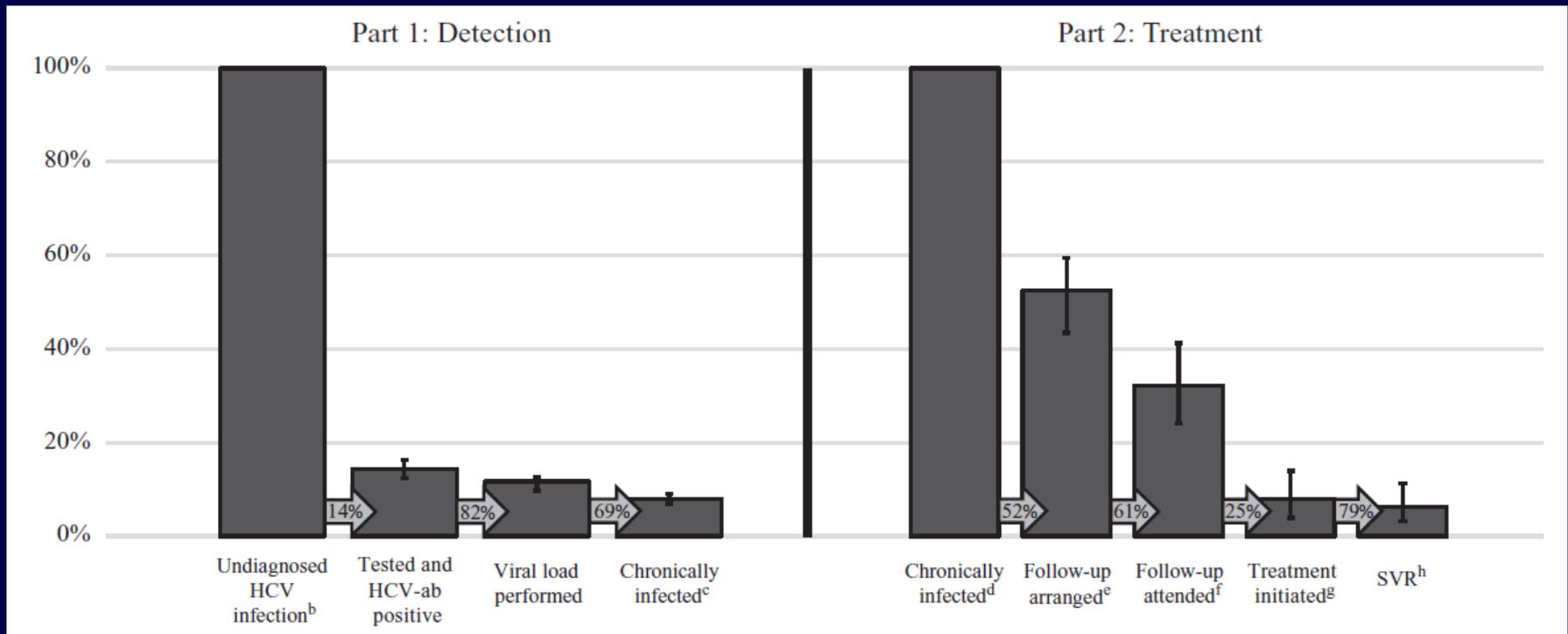
Adapted from CDC data reports. Courtesy of Kathy Sanders. Kentucky Department for Public Health.

HCV Referrals 2010-2015

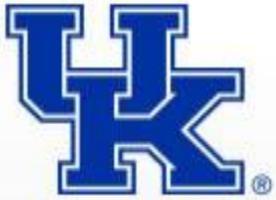
> 3000 new HCV referrals



Linkage to Care after Screening in ER

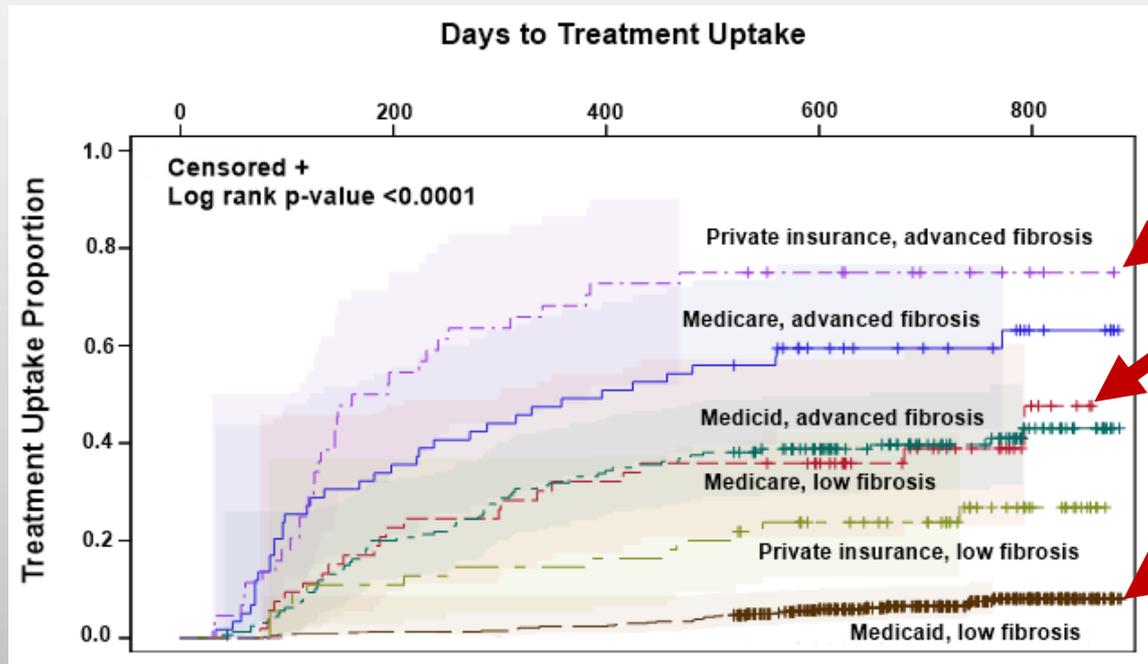


Anderson et al. Clinical Infectious Diseases 2017.



Treatment uptake in UK HCV referrals:

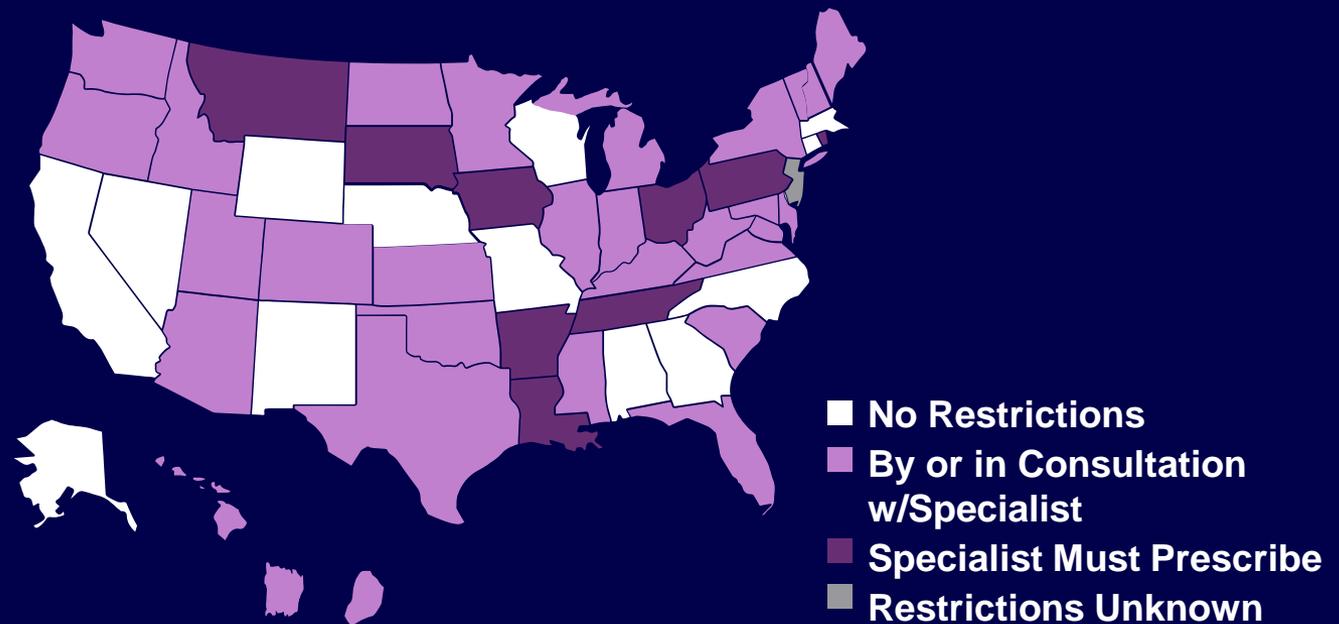
16% within 1 year after initial consult
22% over study period of about 2.5 years



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



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



ECHO Whale



PCA Española



Baton Rouge



Pecos Valley MC



DOH Las Cruces



SBRT-First Choice South Vc



Memorial HDX7000



LAS VEGAS- ECCH

40 min case presentations

20 min didactic presentations

Information from <https://echo.uconn.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



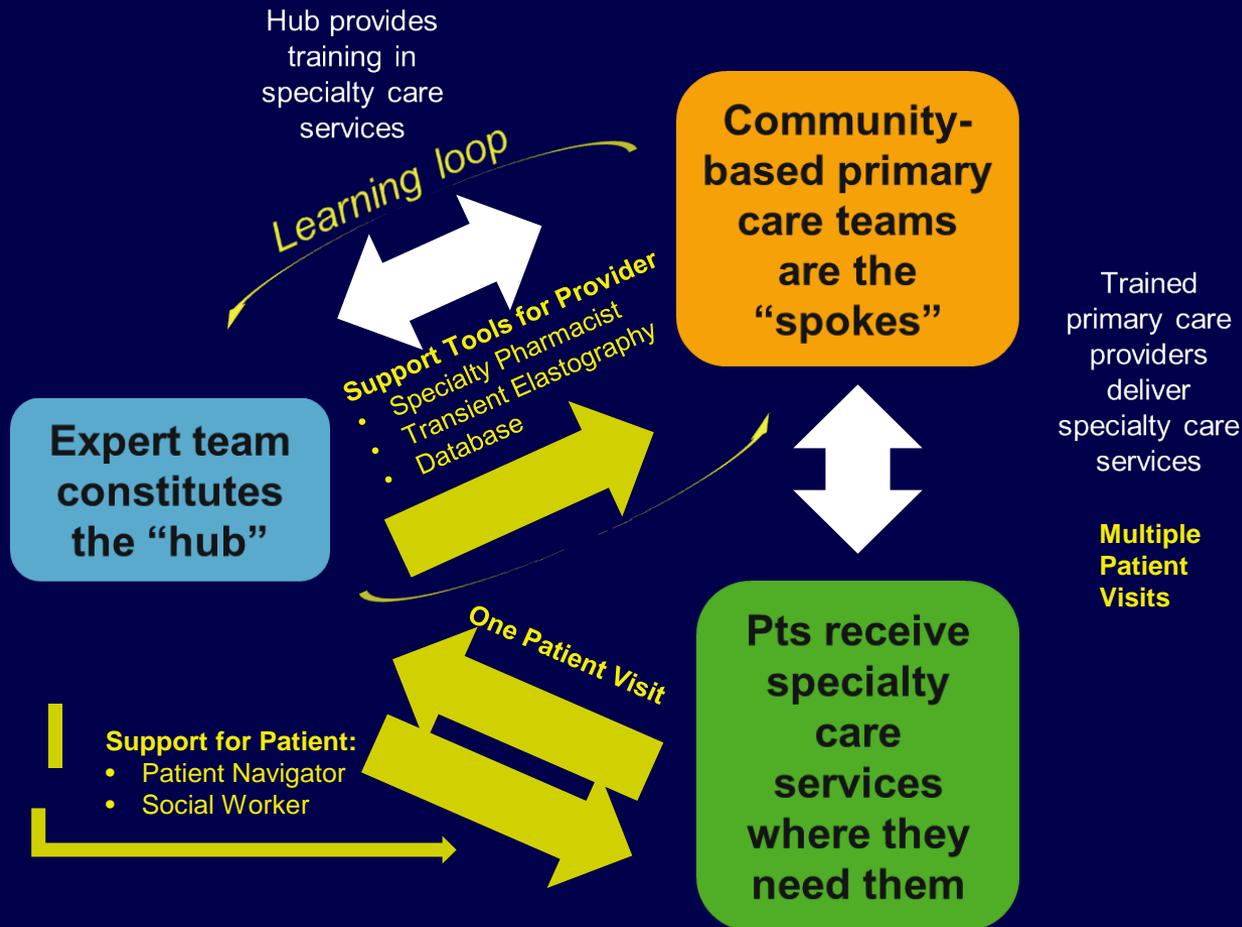
Modified ECHO: videoconferences link interdisciplinary specialist teams with community provider team, case based and didactic learning loop, specialist team sees patient one time and provides support for local management

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



Modified ECHO: CARE-C Program



Community Provider



- Primary Care
- Addiction Specialist
- OB Gyn



ECHO
Coordinator

University of Kentucky Interdisciplinary Team



Hepatologist

Addiction
Specialist

Specialty
Pharmacist

Social
Worker

Patient
Navigator

Community Provider



- Primary Care
- Addiction Specialist
- OB Gyn



ECHO Coordinator



University of Kentucky Interdisciplinary Team

One Visit



Hepatologist

Addiction Specialist

Specialty Pharmacist

Patient Navigator

Social Worker





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

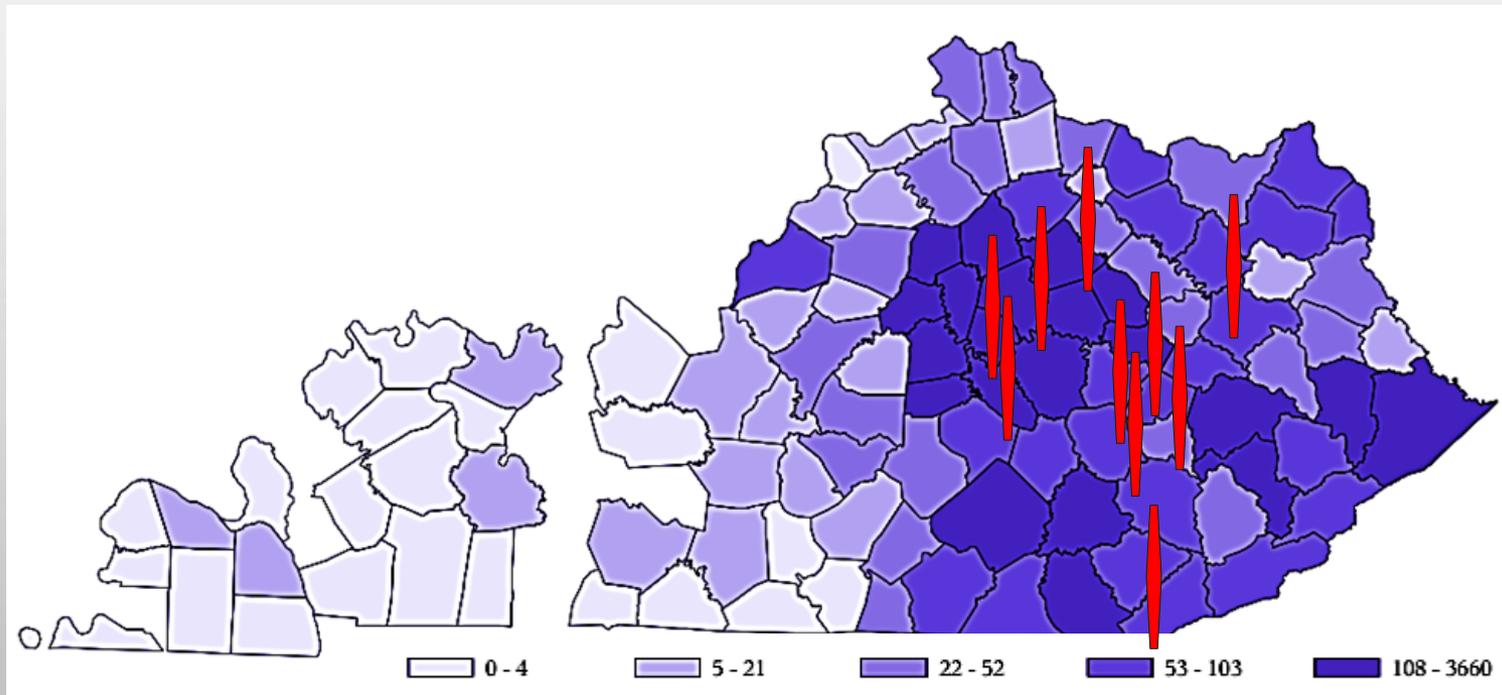
– **Access to database and management tools**

- database will track treatment uptake and outcomes, helps to manage patients with minimal effort,
- access to information materials



Map of Partners

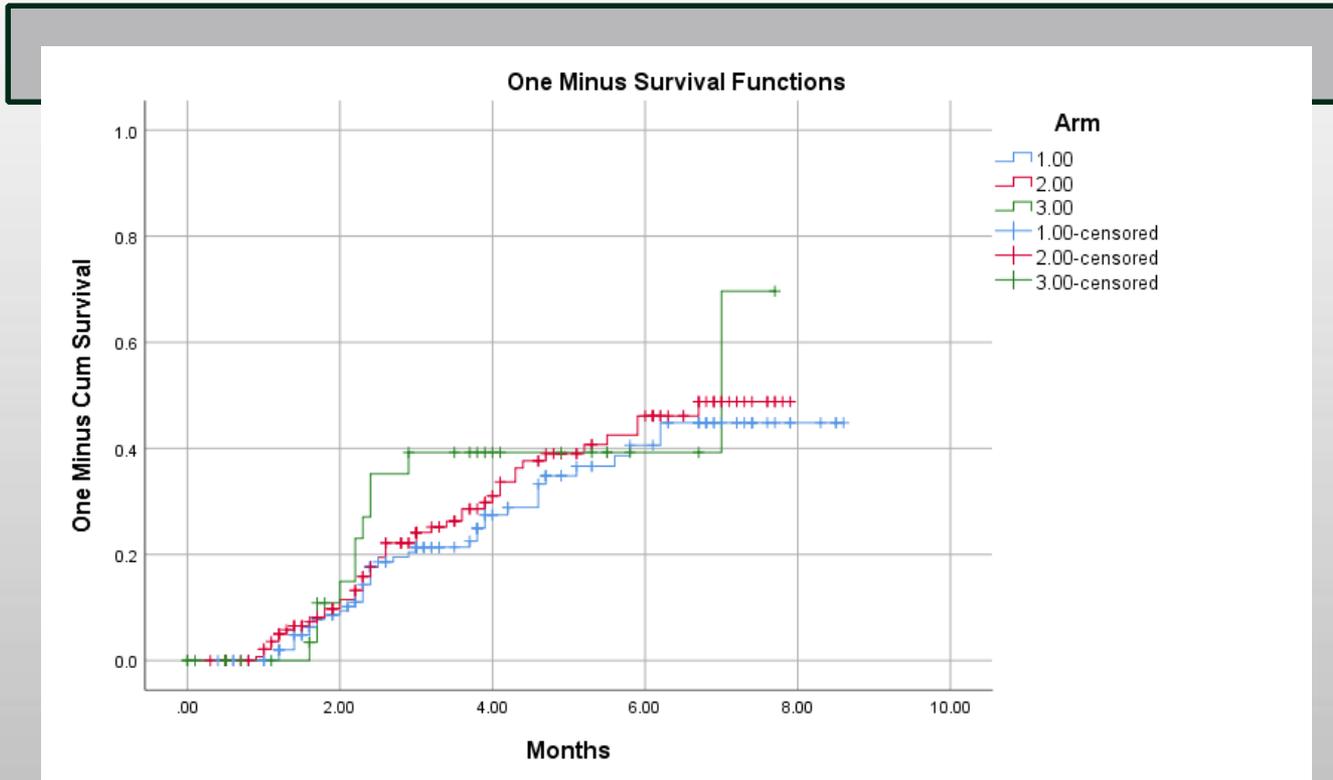
Modified Hepatitis C ECHO





HCV Treatment Uptake

Modified ECHO vs Standard of Care





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**