

## Medicaid and Viral Hepatitis Treatment in Kentucky

Kentucky 5th Annual Viral Hepatitis Conference  
Ending the Epidemic: The Role of Professionals in Hepatitis Elimination

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## Disclosure

Jens Rosenau has received funds for research support by Gilead Sciences

## To be covered

- HCV Treatment
  - Treatment Evolution
  - Treatment Benefits
- University of Kentucky: Barriers to Treatment
- The Path to HCV Elimination
- University of Kentucky: Modified ECHO for Kentucky

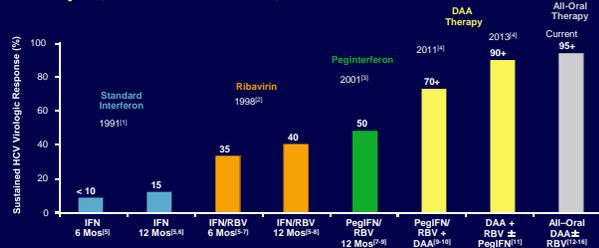
## WHO: Elimination of HCV as a Public Health Threat

- Defined as achievement of measurable global targets in relation to infection and burden of disease
- WHO targets for global HCV elimination as public health threat
  - 2030 Targets**
  - 90%** Diagnosed
  - 80%** Treated
  - 65%** Reduced Mortality
- Intensity of interventions required will vary by setting
  - Setting-specific model required to determine what is necessary to achieve the impact targets

WHO. Global health sector strategy on viral hepatitis 2016-2021. 2016.

Slide credit: [clinicaloptions.com](http://clinicaloptions.com)

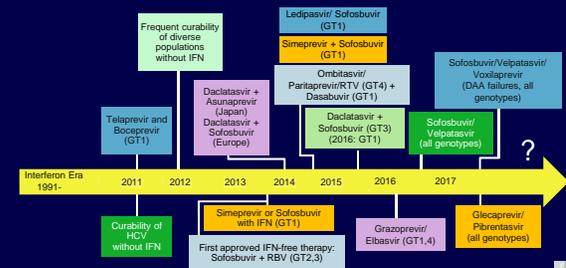
## Current All-Oral Therapies Highly Effective, Simple, Well Tolerated, and Short



References in sliidenotes.

Slide credit: [clinicaloptions.com](http://clinicaloptions.com)

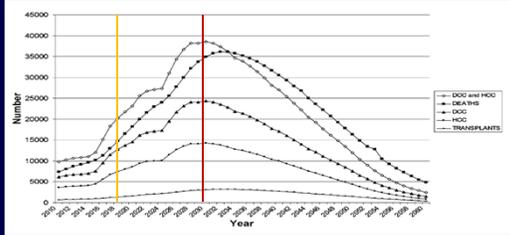
## The Evolution of HCV Therapy



References in sliidenotes.

Slide credit: [clinicaloptions.com](http://clinicaloptions.com)

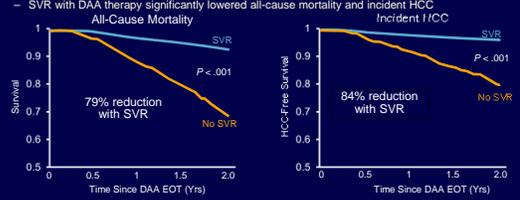
## Background: Projected HCV Complications



Razavi et al, Hepatology 2014

## SVR With DAA Therapy: Mortality and HCC Risk

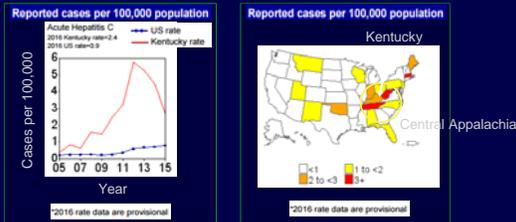
- Patients with HCV infection, FIB-4 > 3.25 in VA HCV Clinical Case Registry (N = 15,059)



Backus LJ, et al. Hepatology, 2017; [Epub ahead of print].

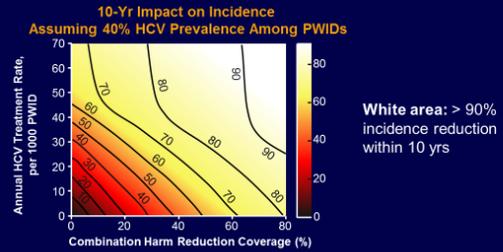
Slide credit: [clinicaloptions.com](http://clinicaloptions.com)

## Acute HCV Disease Burden in Kentucky



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

## Modeling: Elimination Among PWIDs Achievable With Combination Treatment and Prevention



Martin NK, et al. Clin Infect Dis. 2013;57(suppl 2):S338-S45.

Slide credit: [clinicaloptions.com](http://clinicaloptions.com)



University of Kentucky  
Treatment Data:

Identifying Barriers to  
Treatment



## Patient Characteristics

Characteristics of cohort: n=881 new referrals with chronic Hepatitis C to UK outpatient clinic from 7/2014 to 6/2015, followed until 12/2016

- Avg age 43 +/- 12
- Born after 1965 (64%), Born 1945-1965 (36%)
- Male (53%)
- White (93%)
- Genotype 1 (68%)
- Low fibrosis (F0-F2) (64%)
- Medicaid insurance (73%)
- Lifetime injection drug use (73%)



### Overall HCV Treatment Initiation Rate

Not Treated	Treated	Total
685 (78%)	196 (22%)	881

- 16% started treatment within 12 months of initial visit
- Overall treatment initiation rate over the 17-29 month follow-up period was 22%



### Patient Follow-up

Follow-up (1-year)	Total
No	324 (37%)
Yes	557 (63%)

- 37% lost to follow-up at 1-year



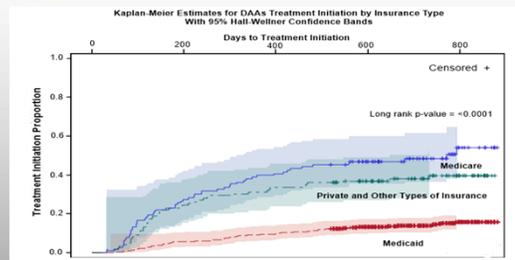
### Treatment Initiation Rates in Medicaid Patients

Insurance Type	Not Treated	Treated	Total
Total	685 (78%)	196 (22%)	881
Medicare	57 (50%)	56 (50%)	113 (13%)
Medicaid	553 (86%)	93 (14%)	646 (73%)
Private	75 (61%)	47 (39%)	122 (14%)

- Patients with Medicaid:
  - 73% of cohort
  - 14% of patients initiated treatment



### Impact of Insurance Type on Treatment Initiation



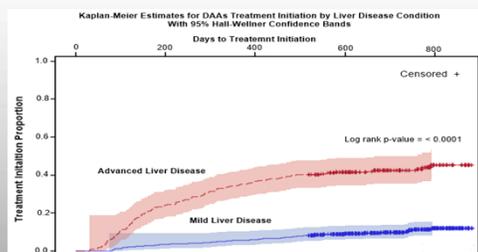
### Fibrosis Stage and Treatment Initiation

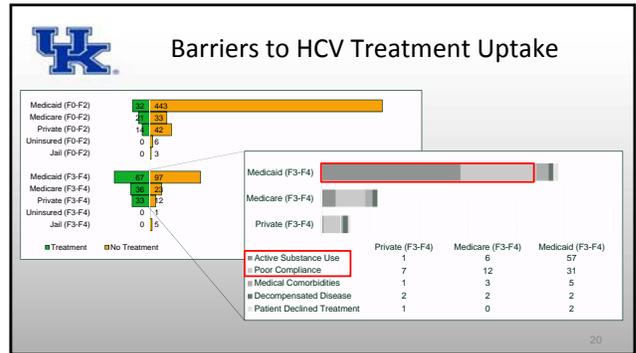
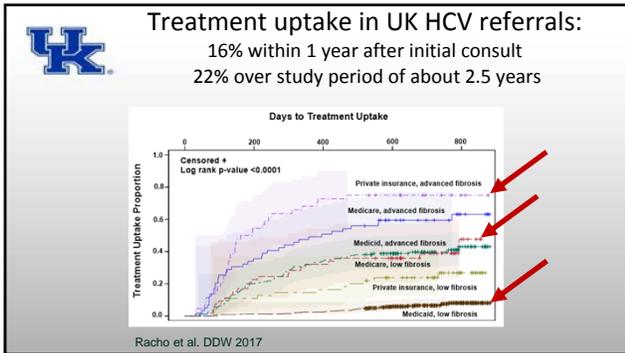
Fibrosis Stage	Not Treated	Treated	Total
	685 (78%)	196 (22%)	881
Low (F0-2)	503 (90%)	58 (10%)	561 (64%)
*Advanced (F3+F4)	182 (57%)	138 (43%)	320 (36%)

- 43% of patients with advanced fibrosis and cirrhosis started treatment
- 10% of patients with low fibrosis started treatment



### Impact of Fibrosis Stage on Treatment Initiation Rates





- ### Conclusions
- Treatment uptake was overall low
    - only 16% started treated within 12 months
    - only 22% started treatment within observation period of up to 2.5 years
  - Treatment uptake in advanced fibrosis/cirrhosis group was unsatisfactory
    - only 43% of patients with stage 3-4 fibrosis initiated treatment
    - about 1/3 had ongoing substance use, another 1/3 was lost to follow up
    - Key Barrier: Medicaid - Illicit Drug Use Restrictions, Patient related - Compliance
  - Treatment uptake in low fibrosis group with Medicaid insurances was sporadic
    - only about 3% within 12 months
    - Key Barrier: Medicaid - Fibrosis Stage Restrictions

### Medicaid Managed Care Members with no Hepatitis C Drug Claims

intake period April 1, 2015-March 31, 2016

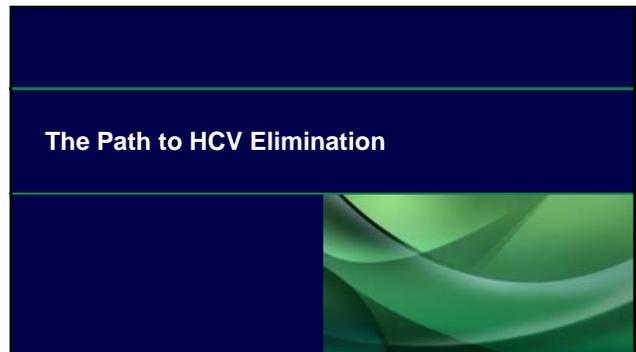
Demographic Factors	Members with No Hepatitis C Drug Treatment	
	n (Column %)	n (Row %)
<b>Birth cohort</b>		
Born after 1965	6,829 (65.2%)	6,644 (97.3%)*
Born 1945-1965	3,626 (34.8%)	3,479 (96.2%)
Born before 1945	36 (0.3%)	35 (100%)
<b>Sex</b>		
Male	4,947 (47.2%)	4,770 (96.4%)*
Female	5,544 (52.9%)	5,389 (97.2%)
<b>Race/Ethnicity</b>		
Black	504 (4.8%)	493 (97.8%)
White	6,616 (63.1%)	6,388 (96.6%)
Other	97 (0.9%)	93 (96.5%)
Unknown	3,314 (31.6%)	3,223 (97.3%)
<b>County type/residence</b>		
Appalachian	4,090 (39.0%)	4,549 (96.8%)
Non-Appalachian rural	1,180 (11.3%)	1,151 (96.9%)
Non-Appalachian urban	4,584 (43.7%)	4,438 (96.8%)
Unknown	21 (0.2%)	21 (100%)

Factors	Total Members with Chronic Hepatitis C: n = 20,491	Members with No Hepatitis C Drug Treatment: n = 10,159
TOTAL Kentucky MMC adult population with chronic Hepatitis C by outcome	1.8%	96.8%
<b>MCO</b>		
Active Better Health of Kentucky	1,847 (17.6%)	1,785 (96.6%)*
Arthem (CBS) Medicaid	744 (7.1%)	706 (94.9%)
Humana CareSource	1,335 (12.7%)	1,264 (94.7%)
Passport Health Plan	2,385 (22.7%)	2,273 (95.3%)
WellCare of Kentucky	4,180 (39.8%)	4,111 (98.8%)

Source: Focused Study: Risk Factors for Lack of Access to Pharmaceutical Treatment for Chronic Hepatitis C Infection Report 4/2017 prepared on behalf of the Commonwealth of Kentucky, Department for Medicaid Services, Division of Program Quality and Outcomes

- ### MMC Members with no Hepatitis C Drug Claims
- #### Multiple Logistic Regression
- Demographic factors
    - Birth cohort born after 1965 (relative to birth cohort both between 1945 and 1965): odds ratio (OR) = 1.4; 95% confidence interval (CI) = 1.1, 1.8
    - Black race/ethnicity (relative white race/ethnicity): OR = 2.4; 95% CI = 1.3, 4.6
    - Race/ethnicity not reported (relative to white race/ethnicity): OR = 1.5; 95% CI = 1.1, 1.9
    - Rural county of residence (relative to Appalachian county of residence): OR = 1.5; 95% CI = 1.0, 2.2
    - Urban county of residence (relative to Appalachian county of residence): OR = 1.6; 95% CI = 1.2, 2.1
  - Clinical factors
    - SUD: OR = 1.3; 95% CI = 1.0, 1.7
    - Alcohol abuse: OR = 1.4; 95% CI = 1.0, 1.9
  - Health care access-related factors
    - MCO (relative to the MCO with the lowest hepatitis C drug non-receipt rate), with ORs ranging from 1.6 (95% CI = 1.1, 2.2) to 5.1 (95% CI = 3.4, 7.4)
    - Without any outpatient liver-related specialist visit: OR = 2.4; 95% CI = 1.8, 3.2
- Focus Report 4/2017 prepared on behalf of the Commonwealth of Kentucky Department for Medicaid Services, Division of Program Quality and Outcomes



## Major Barriers to HCV Elimination in Kentucky - Perspective of the treating provider

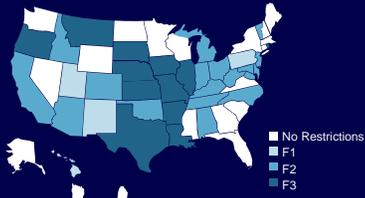
- Structural barriers in reimbursement requirements
  - Fibrosis stage, substance use disorders
- Patient-level barriers
- Lack of access to clinician who is prepared to provide comprehensive management

## Major Barriers to HCV Elimination in Kentucky

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## 2017 NVHR Update: Reduced Treatment Access in Many Settings for Pts With Mild Liver Disease

2017 Medicaid FFS Liver Damage Restrictions for HCV Treatment

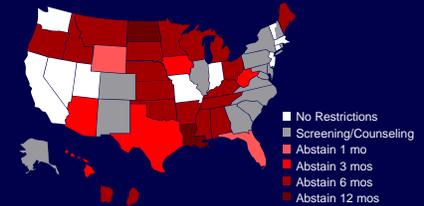


NVHR State of Hepatitis C State of Medicaid Access Report, Oct 23, 2017, <https://stateofhepc.org/>

Slide credit: [clinicaloptions.com](http://clinicaloptions.com)

## 2017 NVHR Update: Drug/Alcohol Use Leads to Reduced Treatment Access in Some Settings

2017 Medicaid FFS Sobriety Restrictions for HCV Treatment

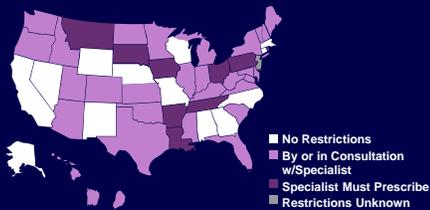


NVHR State of Hepatitis C State of Medicaid Access Report, Oct 23, 2017, <https://stateofhepc.org/>

Slide credit: [clinicaloptions.com](http://clinicaloptions.com)

## 2017 NVHR Update: Reduced Treatment Access for Pts Receiving Care From Non-Specialists

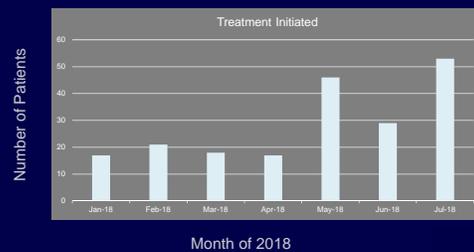
2017 Medicaid FFS Prescriber Restrictions for HCV Treatment



NVHR State of Hepatitis C State of Medicaid Access Report, Oct 23, 2017, <https://stateofhepc.org/>

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## Treatment initiations UK Hepatology January 2018 to July 2018



## Major Barriers to HCV Elimination in Kentucky

- Structural barriers in reimbursement requirements
  - Fibrosis stage, substance use disorders
- Patient-level barriers
- Lack of access to clinician who is prepared to provide comprehensive management

## Psychosocial Readiness Evaluation and Preparation for Hepatitis C Treatment: PREP-C

- **Motivation:** Reasons client wants to begin HCV treatment, concerns about treatment, and importance of treatment.
- **Information:** Knowledge about HCV treatment and one's own HCV disease status.
- **Medication Adherence:** Current prescribed medications and adherence to them in prior month.
- **Self-Efficacy:** Self-confidence about adhering to HCV treatment.
- **Social Support and Stability:** Stability of financial, housing, and social support resources.
- **Alcohol and Substance Use:** Alcohol and substance use behaviors and current treatment.
- **Psychiatric Stability:** Current psychiatric status, previous and current treatment.
- **Energy Level:** Sleep and fatigue.
- **Cognitive Functioning:** Perceived difficulty with communication in health care setting, problem-solving ability, and memory.



## Major Barriers to HCV Elimination in Kentucky

- Structural barriers in reimbursement requirements
  - Fibrosis stage, substance use disorders
- Patient-level barriers
- Lack of access to clinician who is prepared to provide comprehensive management

## 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**

Slide credit: [clinicaloptics.com](http://clinicaloptics.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: [clinicaloptics.com](http://clinicaloptics.com)

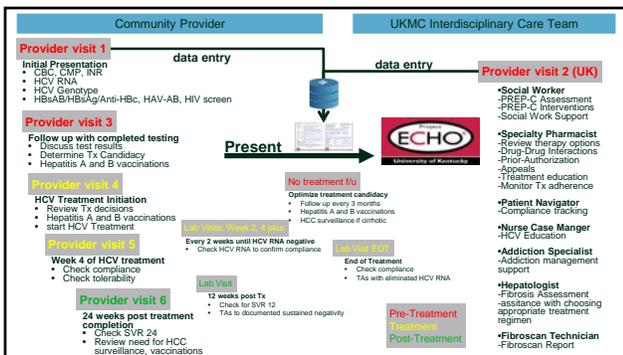
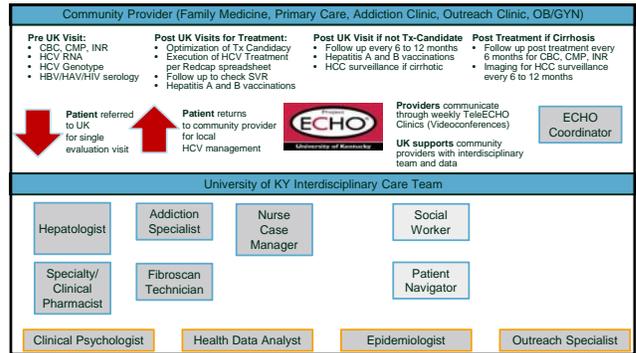
## Project ECHO: Extension for Community Healthcare Outcomes





## University of Kentucky: Modified ECHO for Kentucky

CARE-C Study: Community Access, Retention in Care, and Engagement in Hepatitis C Treatment



**HealthCare Treatment Surveillance Database**

	Tx start	TW 4	EOT	SVR 12	SVR 24
PV1	1/15/18	2/12/18	3/12/18	4/12/18	5/12/18
PV2 (UK)	1/15/18	2/12/18	3/12/18	4/12/18	5/12/18
PV3	1/15/18	2/12/18	3/12/18	4/12/18	5/12/18
PV4	1/15/18	2/12/18	3/12/18	4/12/18	5/12/18
PV5	1/15/18	2/12/18	3/12/18	4/12/18	5/12/18
PV6	1/15/18	2/12/18	3/12/18	4/12/18	5/12/18

Pre-Treatment, Treatment, Post-Treatment

**Case Presentations**

**HealthCare Case Presentation Form**

Form containing fields for patient information, clinical history, and treatment details.

**Didactic Presentations**

**Learning Objectives**

1. Identify the patient's clinical history.
2. Identify the patient's clinical presentation.
3. Identify the patient's clinical presentation.
4. Identify the patient's clinical presentation.

**Case Presentation**

1. Patient history

2. Physical examination

3. Laboratory and imaging studies

4. Differential diagnosis

5. Management plan

6. Outcome

7. Summary

8. Key takeaways



## Fibrosis Assessment: Fibroscan




Disease	F0-F1	F2	F3	F4
HCV	≤ 7.0	> 7.0	≤ 9.5	≤ 12.0




## Partnership Benefits (1)



- **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 (2)



- **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



## ECHO Partnership Benefits





## Modified HCV ECHO for Kentucky -

### CARE-C: Community Access, Retention in Care, and Engagement for Hepatitis C Treatment

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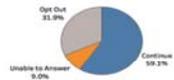


## UK HealthCare ED Adult Universal HCV Screening and Linkage to Care

- Universal screening began 7/16/18
- All adult patients are screened with hard-stops built into nursing triage notes
- Opt-out methodology
- HCV Ab and reflex RNA are ordered if other blood work was obtained as part of routine ED care
- **NOT** age cohort or risk targeted screening
- ED Linkage to Care team follow up results minimizing ED workflow interruptions

## Results

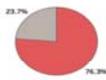
Screening



HCV Ab+



HCV RNA+



772 Ab tests performed  
96 Antibody Positive (12.4 %)  
Of those Ab +, 76% RNA positive



**UK HealthCare ED's likely encounter  
~7200 HCV Ab + patients annually\***

\*60,000 annual ED patients with a seroprevalence of 12%

Source: Daniel Moore MD, FACEP, UK EM