Community Collaboration around HCV Elimination

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Project ECHO: Transforming Delivery of Care

- ECHO acronym: Extension for Community Healthcare Outcomes
- Started at the University of New Mexico – Albuquerque
- Build capacity & improve access
- Community members develop knowledge and expertise through didactic sessions and case presentations
- Move knowledge rather than patients

The ECHO Team

Faculty	Role or Primary Affiliation
Diane Spielbauer	Project coordinator
Jesse Powell, PA	Project lead, Gastroenterology
Brenda Bauch, NP	Addiction Medicine
George Froehle, PA	Infectious Disease
Amanda Noska, MD	Infectious Disease
Jessica Oswald, MD	Infectious Disease

Questions? Diane.spielbauer@hcmed.org

Respect Private Health Information

- To protect patient privacy, please only display or say information that doesn't identify a patient or that cannot be linked to a patient.
- Names: Please do not refer to a patient's first/middle/last name or use any initials, etc.
- Dates: Please do not use any dates (like birthdates, etc.) that are linked to a patient. Instead, please use only the patient's age (unless > 89).
- Employment: Please do not identify a patient's employer, work location or occupation.
- Other Common Identifiers: Patient's family members, friends, co-workers, phone numbers, e-mails, etc.

ZOOM session Etiquette

- ❑REMEMBER NO PHI
- ❑Sign on early
- ❑Join by video preferred
- ❑If we haven’t started, please announce yourself and your agency
- ❑Mute yourself by clicking Mic icon in lower left corner
- ❑Remember to unmute when you speak
- ❑Raise your hand to be recognized
- ❑Avoid multi-tasking
- ❑You may use chat to ask for help or to ask a question

Why is this work important?

HCV prevalence among PWID 50-90% (Falade-Nwulia et al. 2020)

The incidence rate of acute hepatitis C has **doubled** since 2013 (124% increase), and during 2020 increased **15%** from 2019.(CDC)

Treatment uptake in PWID 20% (Tsui et al. 2019)

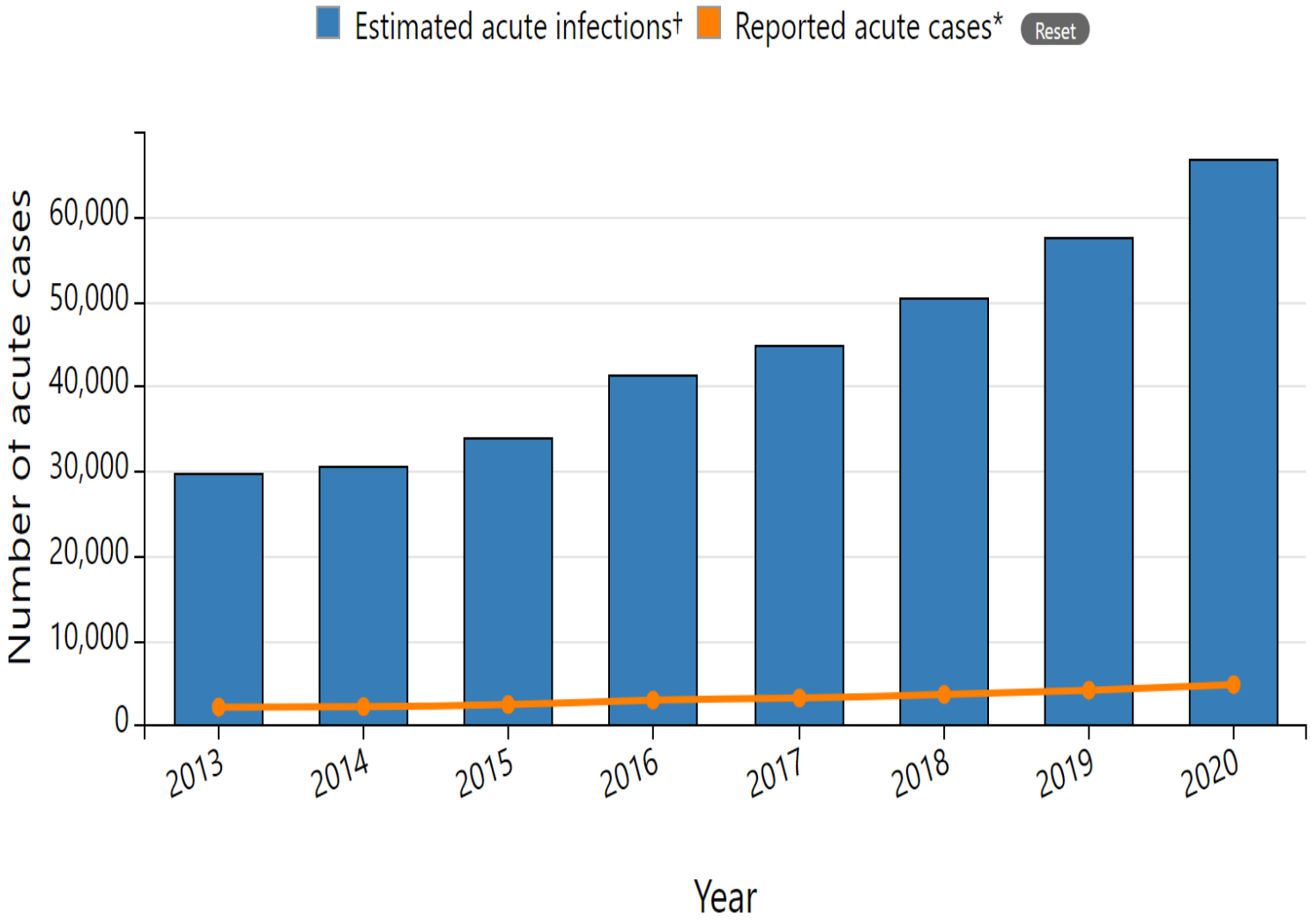


Table 3.3

Reported risk behaviors or exposures among reported cases* of acute hepatitis C virus infection United States, 2020

Risk behaviors/exposures†	Risk identified	No risk identified	Risk data missing
Injection drug use	1,017	523	3,258
Multiple sexual partners	167	352	4,279
Surgery	142	713	3,942
Sexual contact§	83	336	4,379
Needlestick	64	706	4,028
Men who have sex with men¶	44	258	2,803
Household contact (nonsexual)§	17	402	4,379
Dialysis patient	69	964	3,765
Occupational	9	923	3,866
Transfusion	1	885	3,912

* Reported confirmed cases. For the case definition, see https://ndc.services.cdc.gov/conditions/hepatitis-c-acute/.

† Reported cases may include more than one risk behavior/exposure. Case reports with at least one of the following risk behaviors/exposures reported 6 weeks to 6 months prior to symptom onset or documented seroconversion if asymptomatic: 1) injection drug use; 2) multiple sexual partners; 3) underwent surgery; 4) men who have sex with men; 5) sexual contact with suspected/confirmed hepatitis C case; 6) sustained a percutaneous injury; 7) household contact with suspected/confirmed hepatitis C case; 8) occupational exposure to blood; 9) dialysis; and 10) transfusion.

§ Cases with more than one type of contact reported were categorized according to a hierarchy: (1) sexual contact; (2) household contact (nonsexual).

¶ A total of 2,989 acute hepatitis C cases were reported among males in 2020.

Source: CDC, National Notifiable Diseases Surveillance System.

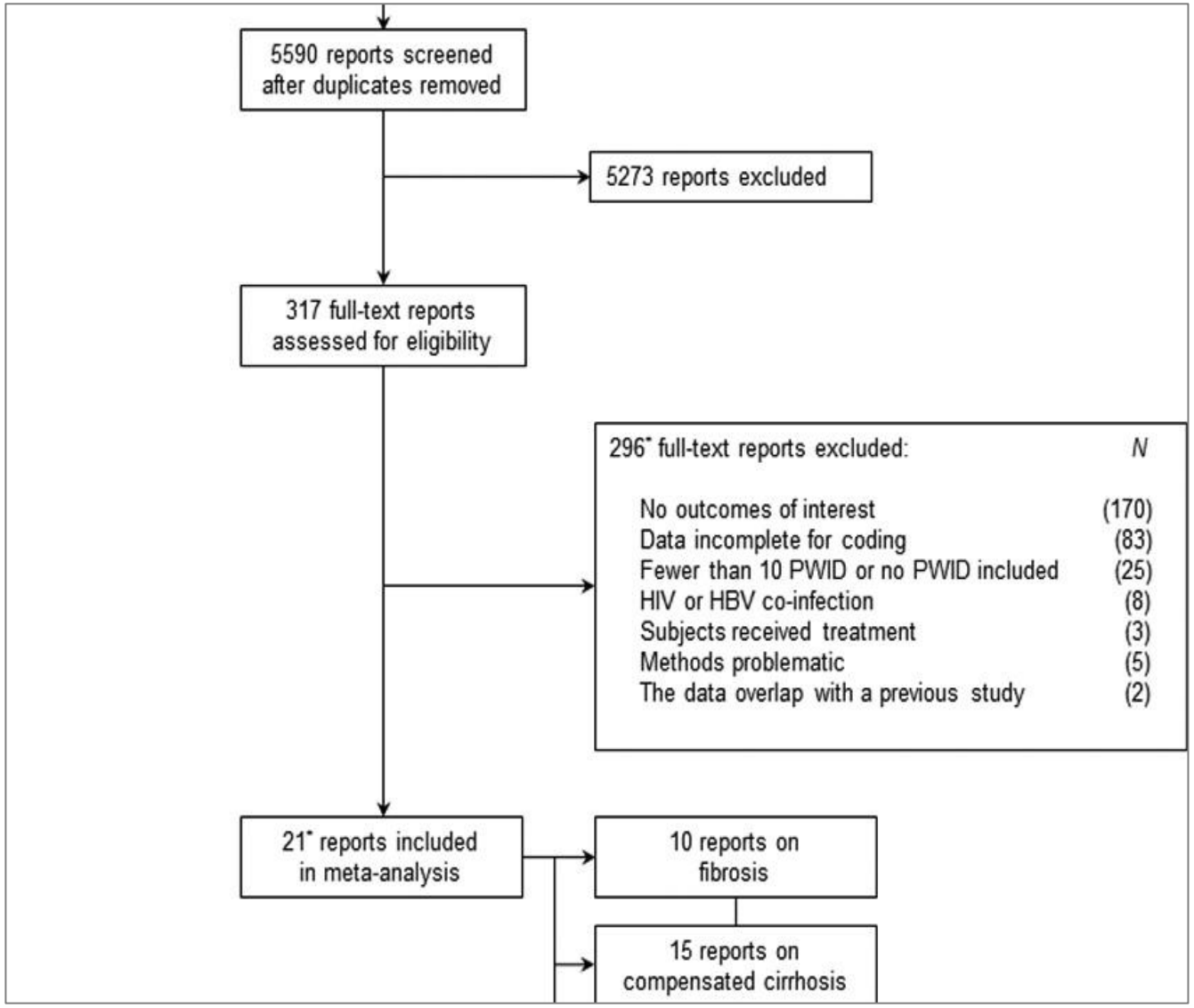
Centers for Disease Control and Prevention. Viral Hepatitis Surveillance Report – United States, 2020. https://www.cdc.gov/hepatitis/statistics/2020surveillance/index.htm. Published September 2022.

Stigma in Healthcare and the need for "nontraditional" access to care

- 78.1% reported at least one stigmatizing event during a prior healthcare experience.
- 71.9% reported some form of enacted drug use stigma including, but not limited to, discrimination (i.e., being treated negatively as a reaction to injection drug use status), and dismissive attitudes of providers at hospitals and clinics.
- 59.4% expressed some form of fear of being stigmatized or discriminated against as a result of the PWID label.
- 62.5% reported positive (i.e., non-stigmatizing, comfortable, and accessible) experiences in terms of medical care at SSPs.

Muncan, B., Walters, S.M., Ezell, J. *et al.*

Why it's important to be innovative in how we provide access to HCV treatment

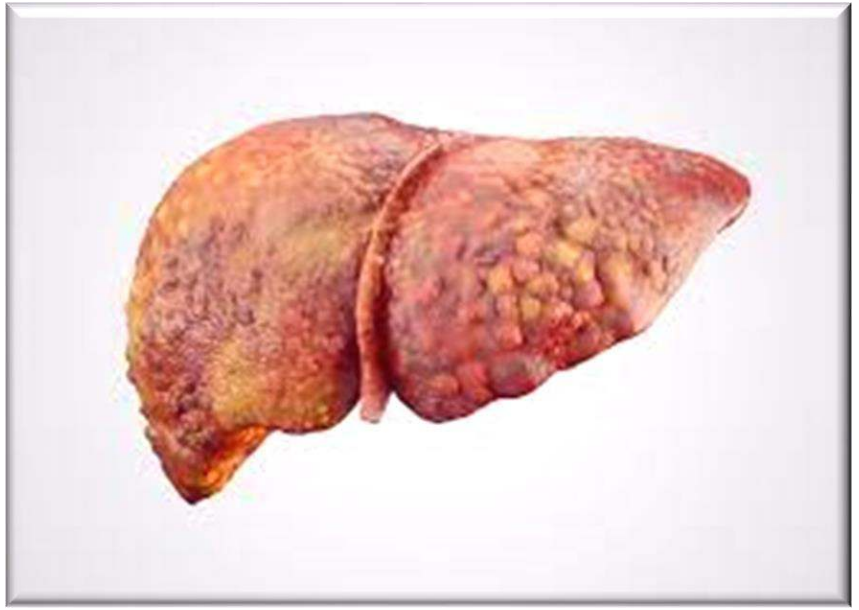


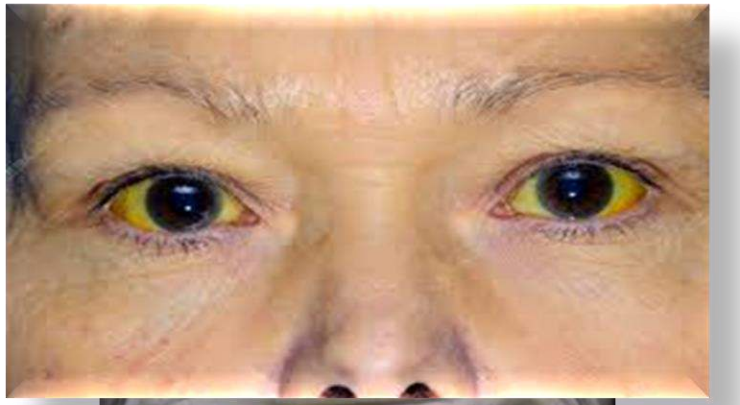
- Average age at time of infection 20.7 years
- Average duration of infection 15.2 years
- Estimated time to advanced fibrosis (F3) 26 years
- Estimated time to develop cirrhosis 34 years
- HCC incidence rate was 0.3 per 1000 person years

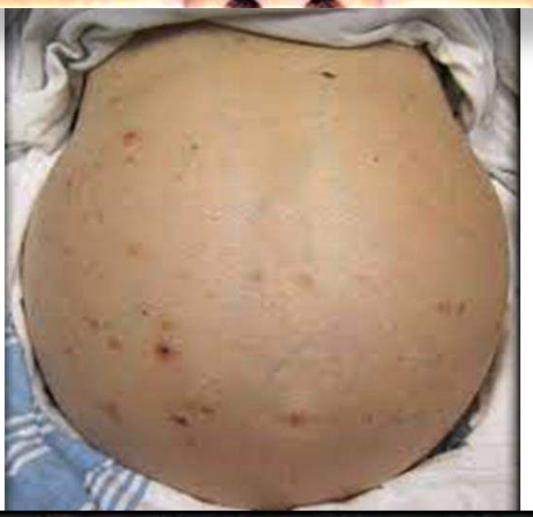
Smith DJ et al.

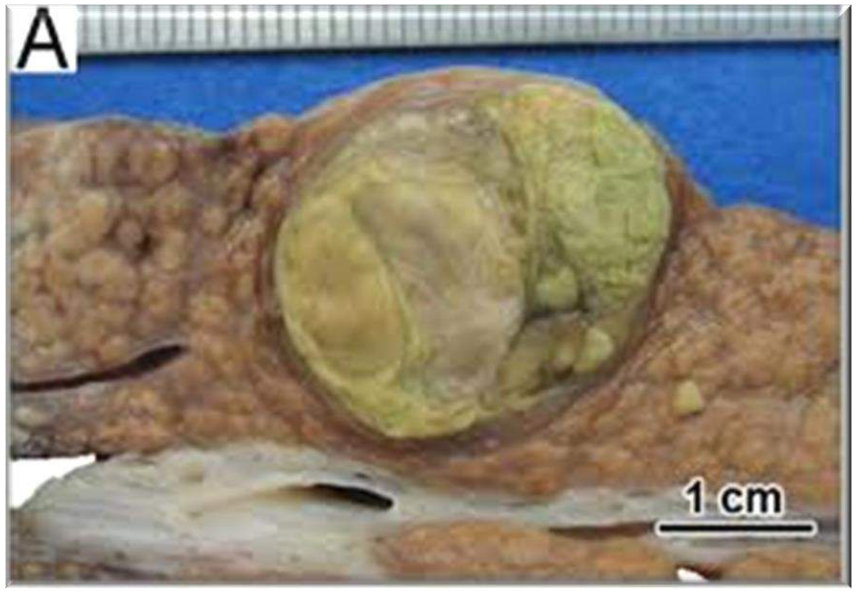
Complications of Untreated HCV

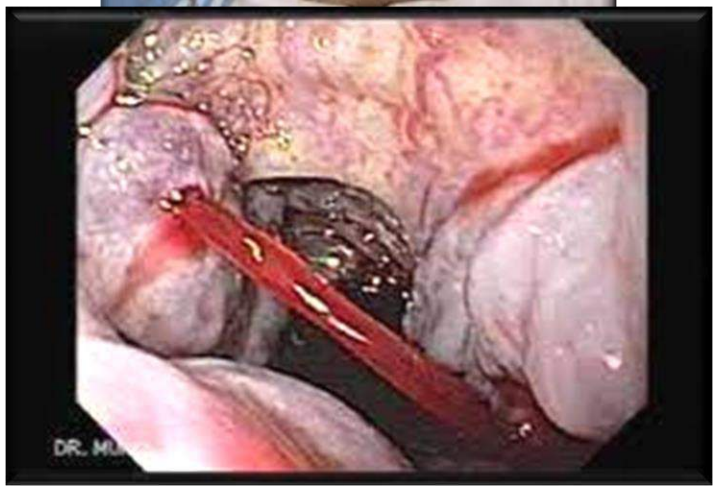
- Cirrhosis
- Liver cancer
- Ascites
- Esophageal varices
- Jaundice
- Hepatic encephalopathy
- Liver transplant
- Diabetes
- Lymphomas
- Kidney disease
- Skin disorders
- Hyperlipidemia
- Hepatic steatosis



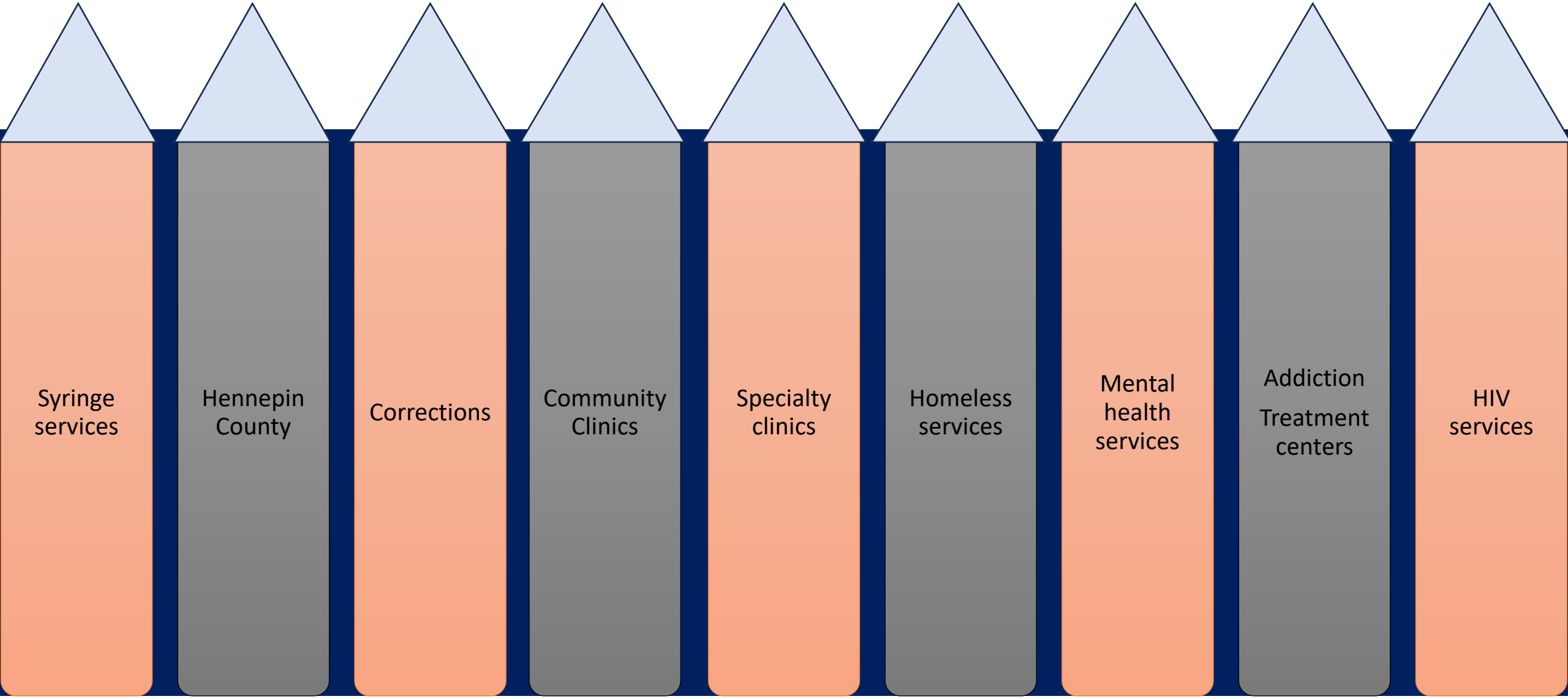


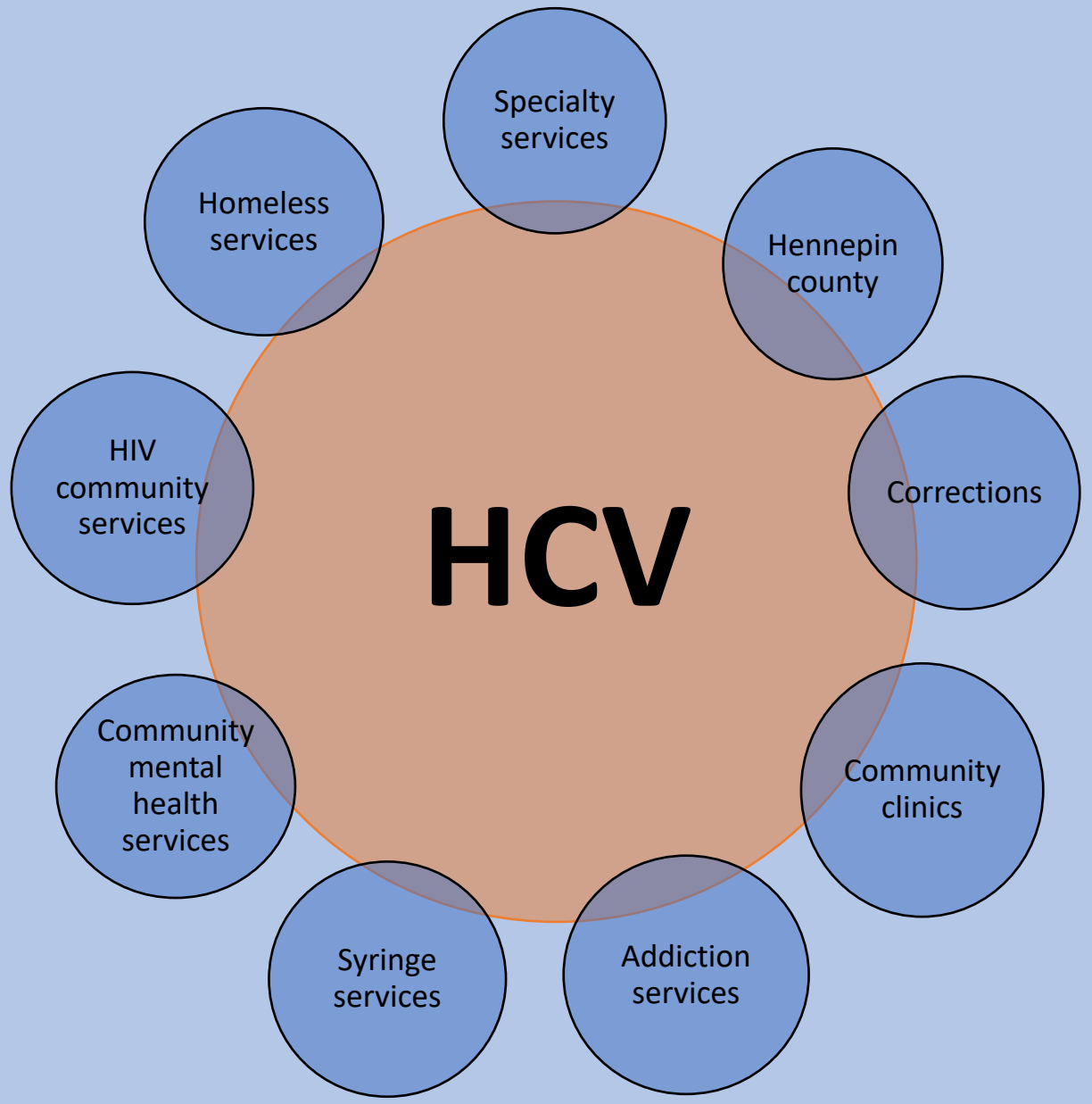




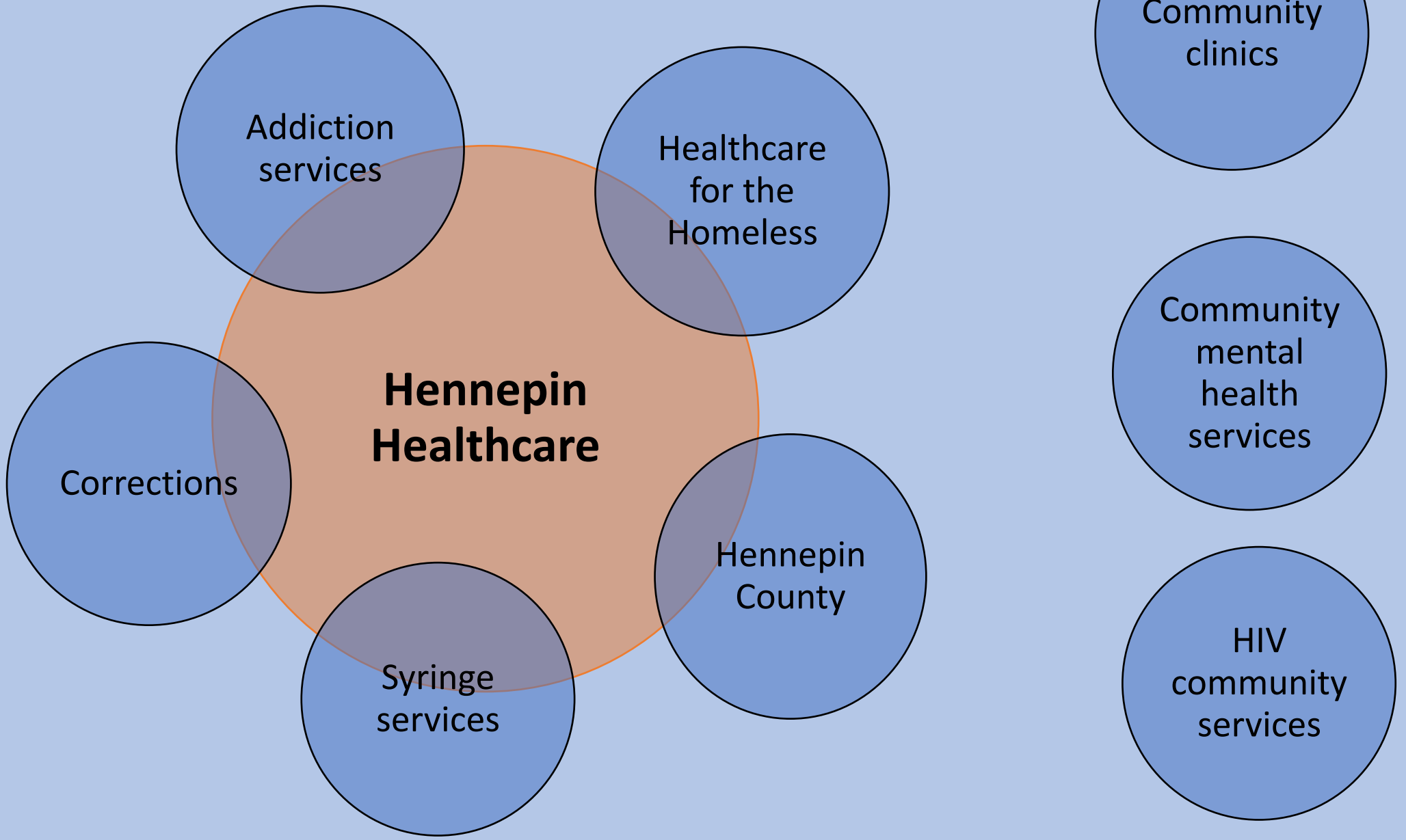


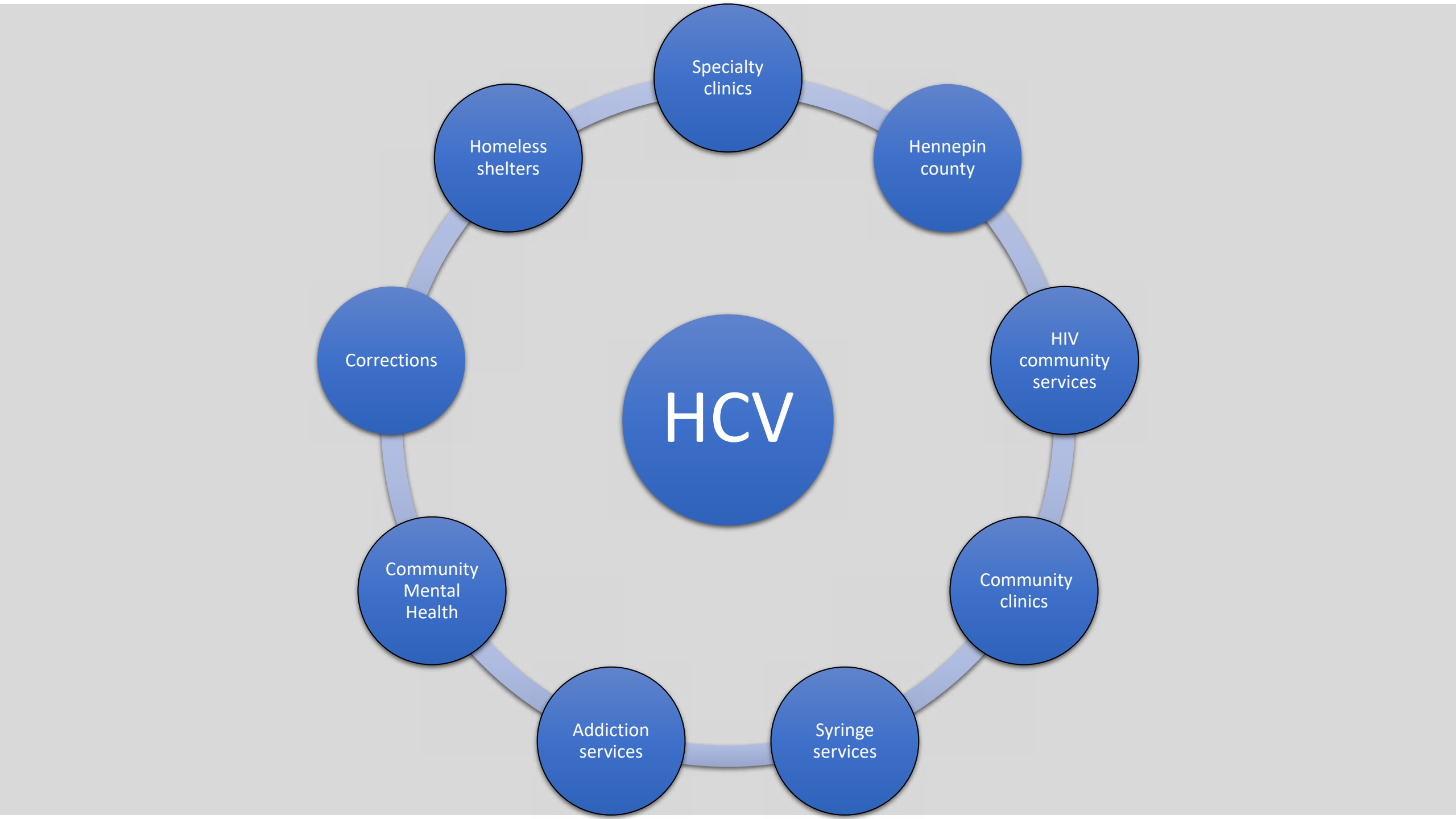
Who is involved with persons infected with or at risk for HCV?




Specialty services
Homeless services
Hennepin county
HIV community services
HCV
Corrections
Community mental health services
Community clinics
Syringe services
Addiction services

Hennepin Healthcare Experience




HCV
Specialty clinics
Hennepin county
HIV community services
Community clinics
Syringe services
Addiction services
Community Mental Health
Corrections
Homeless shelters

What are the barriers to collaboration?

- I don’t know!
- Time
- Need for a champion
- Understanding of the problem
- Organization
  - Central contact
  - Repository for resources

What are the barriers to treatment?

- Previous work with healthcare for the homeless
- Stakeholder perspective
- Patient perceptions of barriers and facilitators

Recommendations for Implementing Hepatitis C Virus Care in Homeless Shelters: The Stakeholder Perspective

Fokuo, J. Konadu; Masson, Carmen L.; Anderson, August; Powell, Jesse; Bush, Dylan; Ricco, Margaret; Zevin, Barry; Ayala, Claudia; Khalili, Mandana*

Author Information

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Themes from those conversations

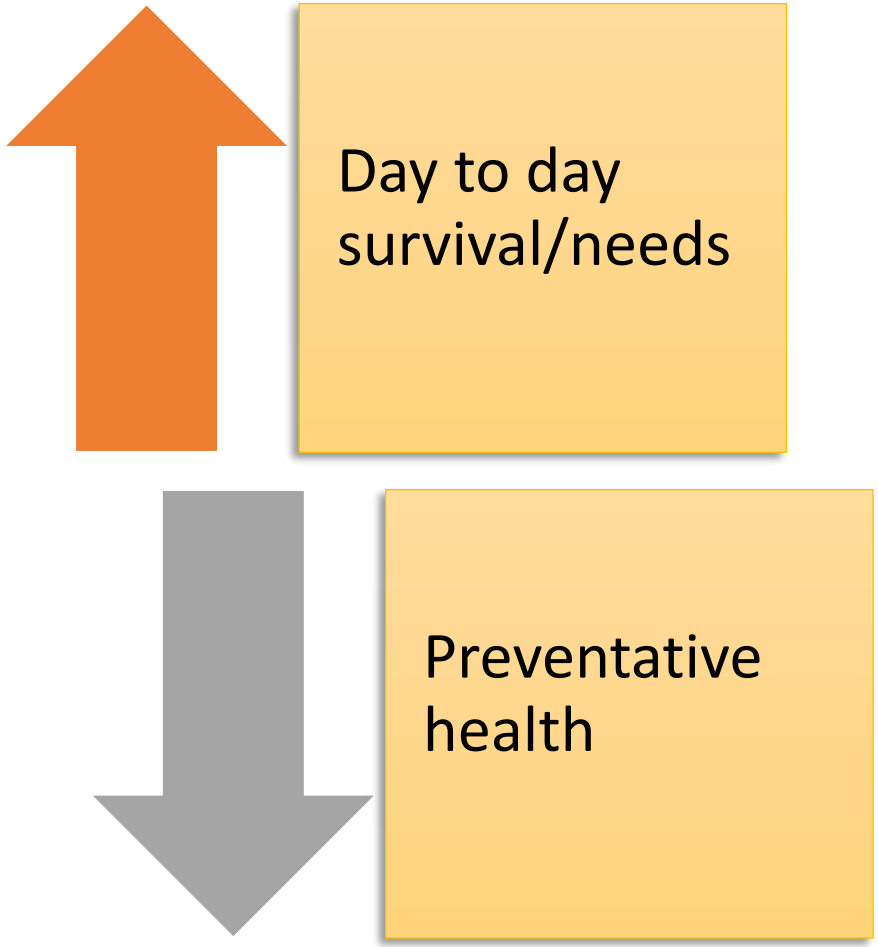
Social Determinants of Health

- **Societal-Level Barriers**
  - Health insurance access
  - Polices on medication approval (drug and alcohol use)
  - Excessive paperwork around prior authorizations
- **Societal-Level Facilitators**
  - None!!!!!!

I can do <u>anything</u> but not <u>everything</u>!!!

- **System level barriers**
  - Workforce constraints/limited infrastructure
  - No onsite labs or pharmacy
  - HCV treatment narrative
  - Low HCV treatment knowledge
  - Shelter policies
- **System level facilitators**
  - High acceptability and buy-in
  - Linkage with social service providers and outreach workers

Opposing needs



- **Individual level barriers**
  - Competing priorities
  - Behavioral health
- **Individual level facilitators**
  - Health attitudes
  - Prescriber attitudes about HCV treatment among active injection drug users

Words from shelter providers and staff

There are a lot of caveats from insurance companies

In the past medications would get delivered to the wrong site…

It’s a misconception to think that homeless don’t care about their health; they do. They just need help to manage it.

The collaboration and the relationship building that we do across agencies is really important because no matter where this person sort of gets pushed, or falls into, they will arrive somewhere else and then we will be able to link them again.

There needs to be education around new treatments available now

Integrating HCV treatment in the shelter will go a long way for people to access care

It’s a very chaotic world and there's competing priorities. I gotta eat, I gotta find some shoes.

Clients' perceptions of barriers and facilitators to implementing hepatitis C virus care in homeless shelters

Carmen L. Masson[1*], J. Konadu Fokuo[1], August Anderson[2], Jesse Powell[3], Barry Zevin[4], Dylan Bush[5] and Mandana Khalili[2]

Individual level barriers and facilitators

Barriers

- Limited knowledge and misconceptions regarding HCV
- Mistrust of health care providers
- Active substance use
- Mental illness
- Chronic health conditions

Facilitators

- Prevent transmission
- Prevent progression

System level barriers and facilitators

Barriers

- Limited advocacy for HCV services
- Shelter policies

Facilitators

- Incentives

Societal barriers and facilitators

Barriers

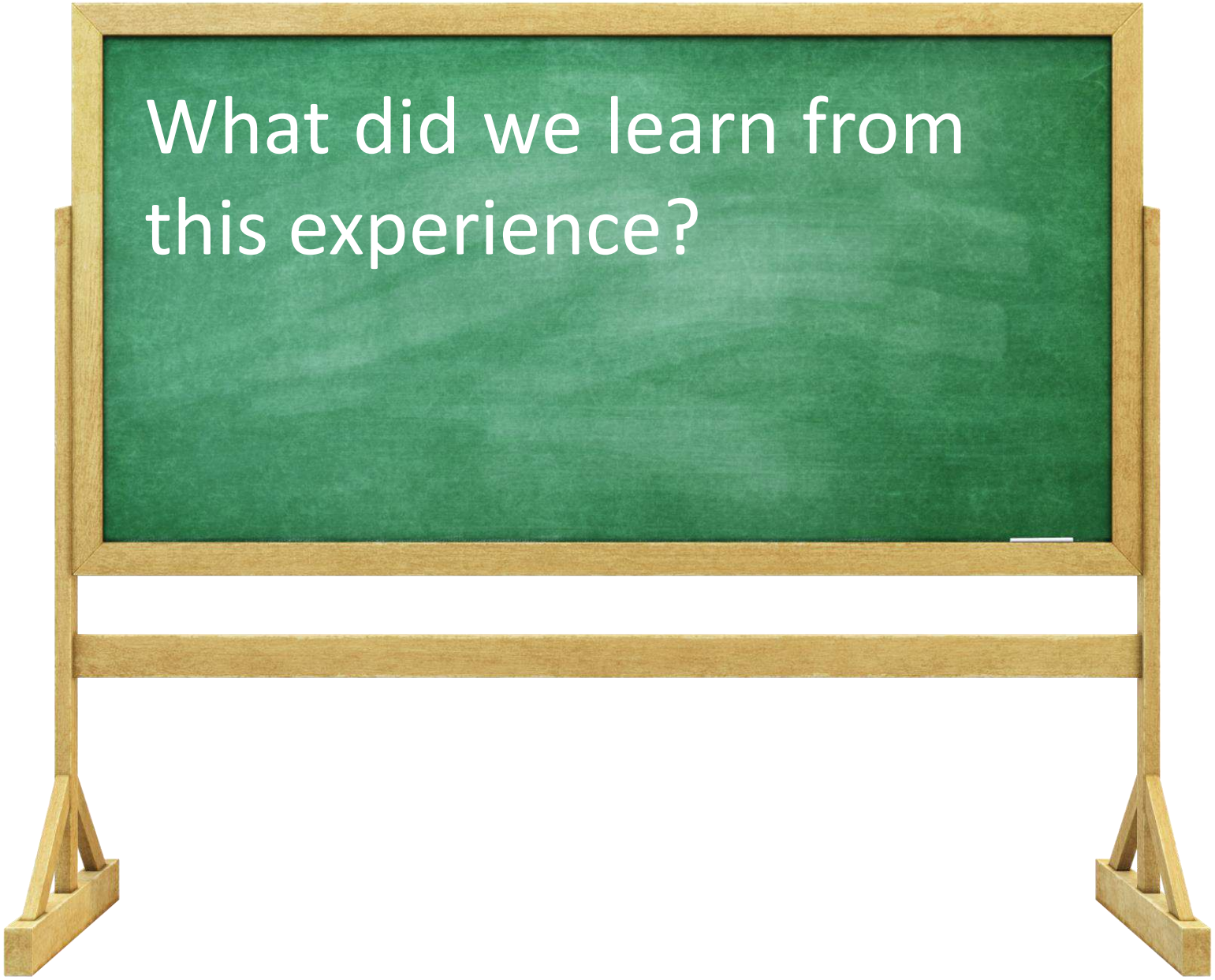
- Social stigma against homeless individuals

Facilitators

- Prior experience with rapid HCV testing
- Public assistance programs and resources to pay for DAA treatment

Patients own words

- “It can be transmitted through fecal matter”
- “[HCV can also be transmitted]if someone doesn’t wash their hands in a restaurant”.
- “Is there a cure for HCV?”
- “My view of most doctors …, they are mostly pharmaceutical sales reps instead of doctors.”
- “They’re making you a guinea pig. I don’t trust [them].”
- “Some people are stuck in addiction. They’re not even caring about it”
- “mental health issues. There are some people with [mental illness], they don’t care that they have any disease or not”.
- “You will hear the word no so many times in one day”
- “What motived me to get tested is, so it doesn’t spread”
- “I want to be around for my family”
- “They need to know there is a cure”
- “Cost has nothing to do with it. Its usually free. It’s not about cost; its trust”


What did we learn from this experience?

Shelter-Based Integrated Model Is Effective in Scaling Up Hepatitis C Testing and Treatment in Persons Experiencing Homelessness

Mandana Khalili [#1,2,3], Jesse Powell [#4], Helen H Park [1,2,5], Dylan Bush [1,2], Jessica Naugle [6], Margaret Ricco [4], Catherine Magee [2], Grace Braimoh [4], Barry Zevin [6], J Konadu Fokuo [7], Carmen L Masson [7]

Formal Hepatitis C Education Increases Willingness to Receive Therapy in an On-site Shelter-Based HCV Model of Care in Persons Experiencing Homelessness

Diana Partida [1], Jesse Powell [2], Margaret Ricco [2], Jessica Naugle [3], Catherine Magee [4], Barry Zevin [3], Carmen L Masson [5], J Konadu Fokuo [5], Daniel Gonzalez [6,7], Mandana Khalili [6,7]

Adherence to Hepatitis C Therapy in a Shelter-Based Education and Treatment Model Among Persons Experiencing Homelessness

Jesse Powell [1], Margaret Ricco [1], Jessica Naugle [2], Catherine Magee [3], Hayat Hassan [1], Carmen Masson [4], Grace Braimoh [1], Barry Zevin [2], Mandana Khalili [3,5]

Patient-reported experiences with direct acting antiviral therapy in an integrated model of hepatitis C care in homeless shelters

Stephanie Kim [1,2], Jesse Powell [3], Jessica Naugle [4], Margaret Ricco [3], Catherine Magee [2], Carmen Masson [5], Barry Zevin [4], Dylan Bush [1,2], Mandana Khalili [1,2]

Shelter-Based Integrated Hepatitis C Testing and Care Model in Persons Experiencing Homeless in Two Geographical Locations

HCV Testing and Prevalence

Total of 766 clients were tested for HCV

↓

162 (21.1%) were HCV antibody positive

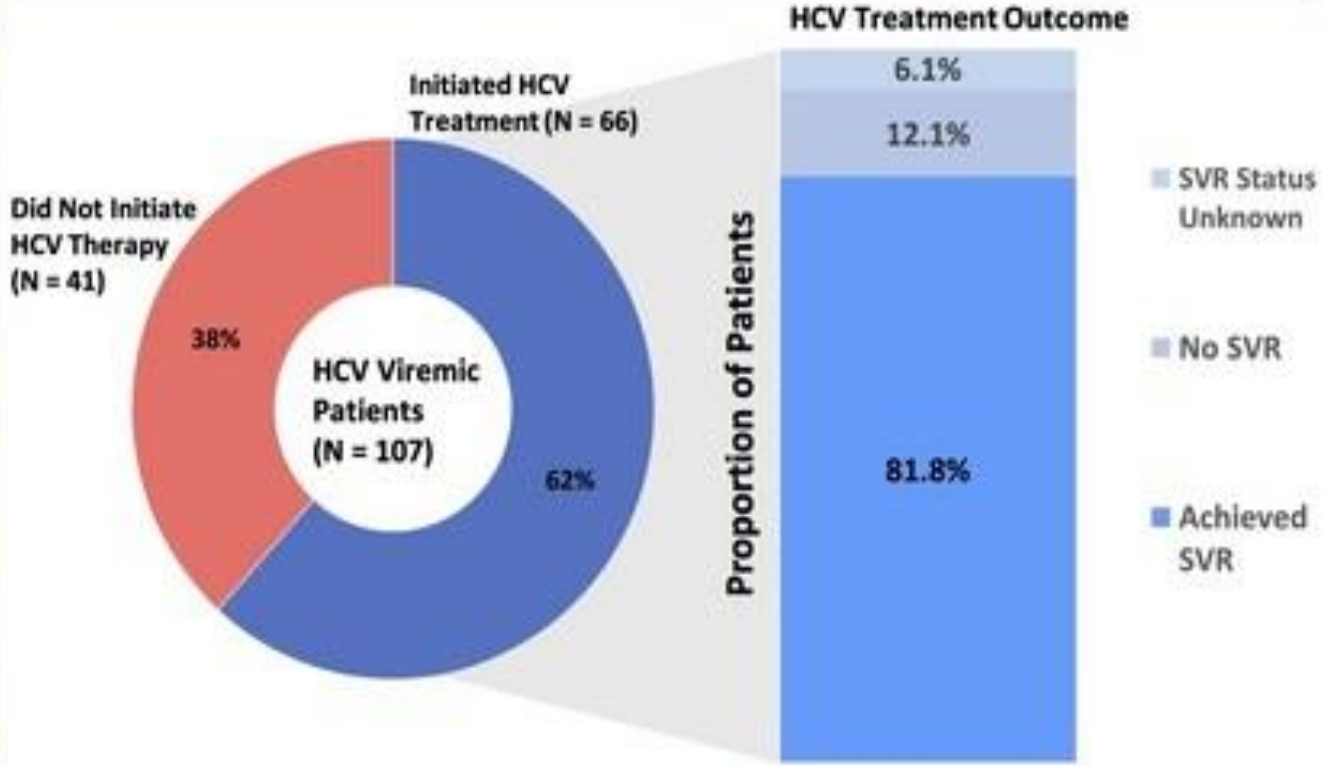
↓

107 (66.0%) had detectable HCV RNA

↓

66 (61.7%) with detectable HCV RNA initiated HCV therapy

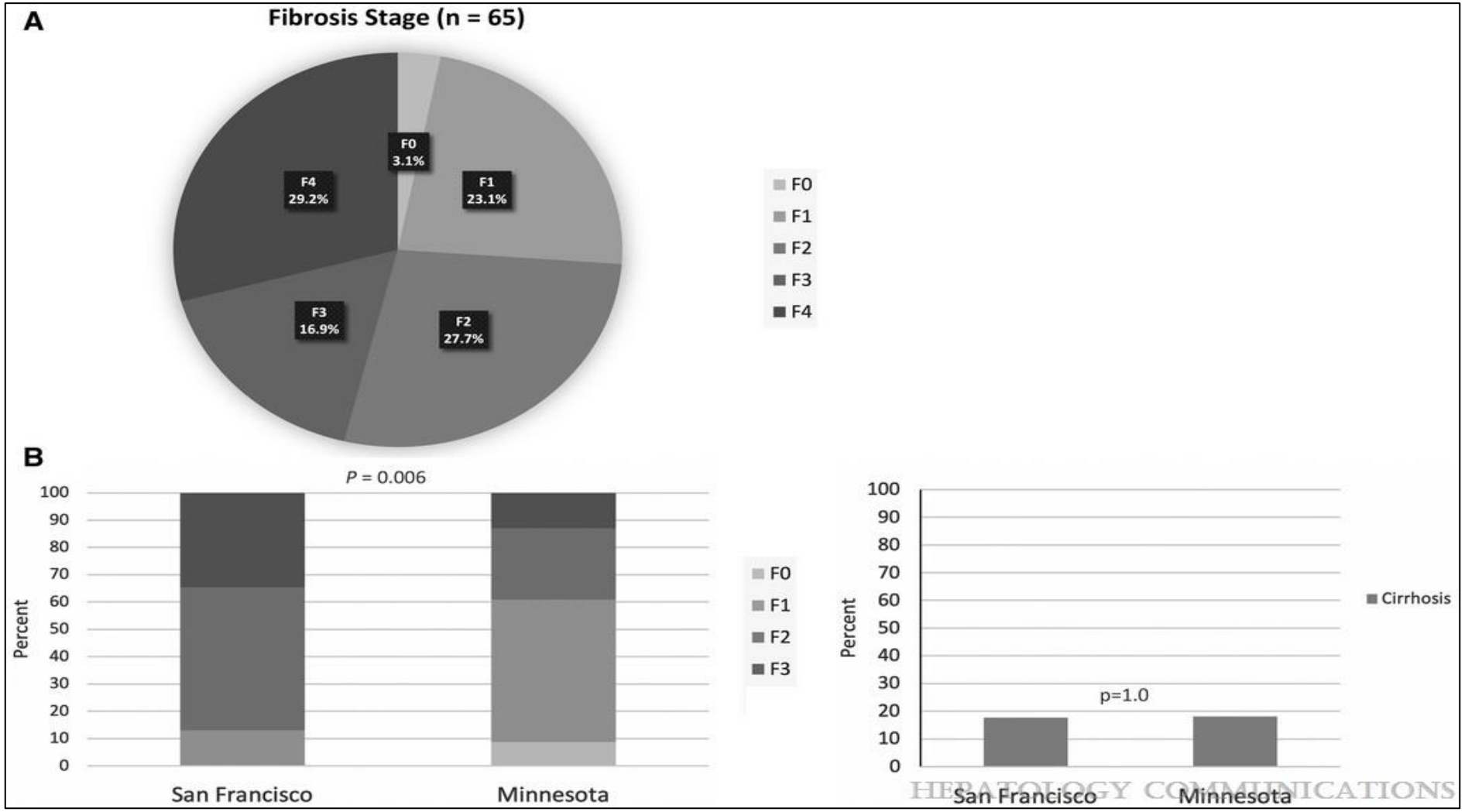
HCV Treatment Outcomes



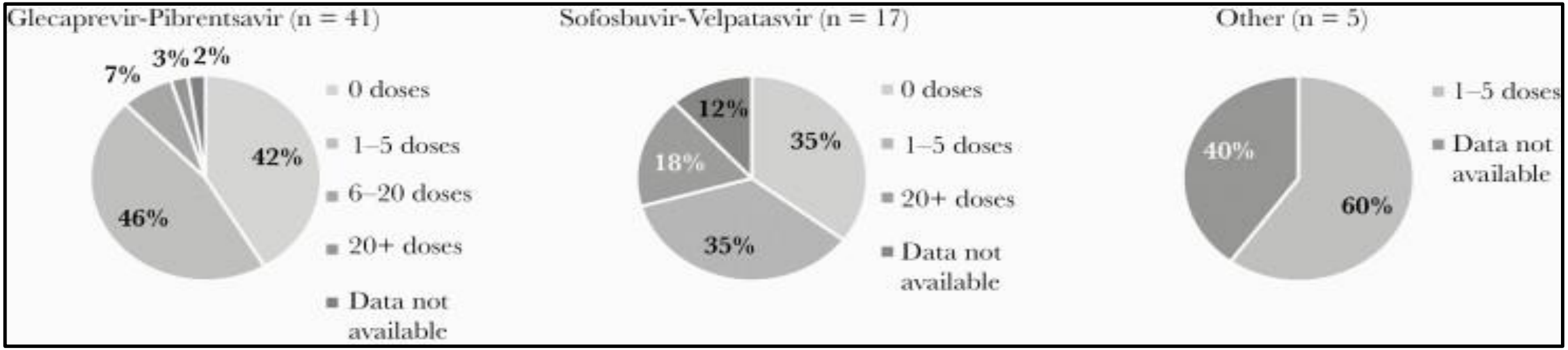
Khalili M., et al. *Hepatol Commun*, 2021.

HEPATOLOGY COMMUNICATIONS

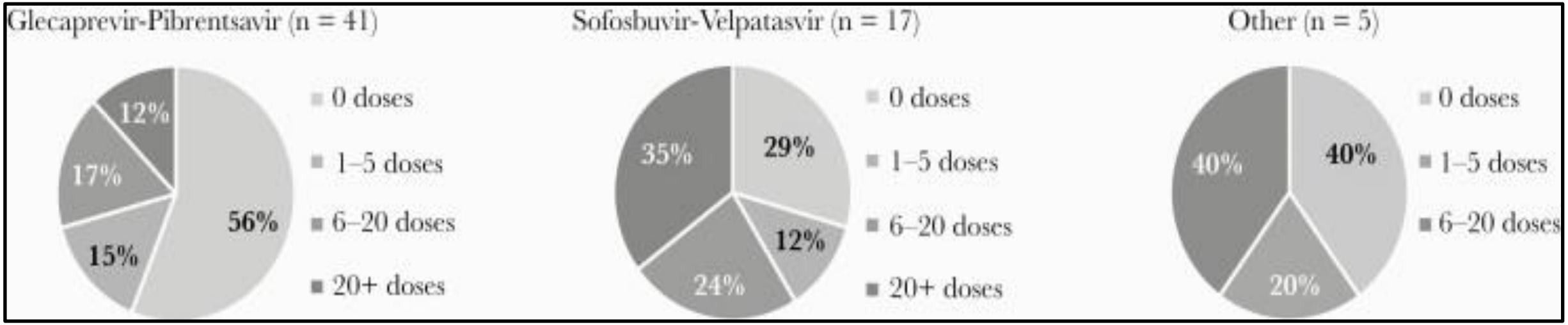
Distribution of fibrosis stage and cirrhosis



Patient reported missed doses



Provider reported missed doses



Knowledge, Beliefs, and Barrier Scores Before and After Education

	Pre-education		Posteducation		Mean Change		*P* Value
	No.	Mean ± SD	No.	Mean ± SD	No.	Mean ± SD	
Domain 1: Knowledge	150	12.4 ± 4.7	146	16.9 ± 3.4	141	4.4 ± 4.4	**<.001**
Domain 2: Beliefs about HCV infection							
(a) Perceived severity	152	3.7 ± 1.3	134	4.6 ± 0.6	130	0.9 ± 1.3	**<.001**
(b) Stigma	152	2.9 ± 1.5	148	2.6 ± 1.5	145	0.0 ± 1.3	1.0
(c) Treatment efficacy	154	0.7 ± 0.5	150	0.9 ± 0.3	148	0.2 ± 0.5	**<.001**
(d) Perceived susceptibility to disease risk	154	2.6 ± 0.8	145	2.9 ± 0.3	143	0.3 ± 0.8	**<.001**
Domain 3: Barriers to HCV treatment	151	4.6 ± 6.3	146	3.6 ± 5.7	142	–0.8 ± 5.2	**.001**

End-of-treatment questionnaire items used to assess patient-reported experiences categorized by achieving sustained virologic response (SVR) with HCV therapy.

Questionnaire Domain and item	Questionnaire response N=41	Achieved SVR N=31	Did NOT achieve SVR or SVR status unknown N=10	P value
Stigma **My doctor (nurse, staff) seems warm and non-judgmental**	Strongly disagree Disagree Agree Strongly agree Does not apply	0 (0.0) 0 (0.0) 5 (50.0) 5 (50.0) 0 (0.0)	0 (0.0) 0 (0.0) 12 (38.7) 19 (61.3) 0 (0.0)	0.7
Support from healthcare providers **My doctor (nurse, staff) seem to care about me**	Strongly disagree Disagree Agree Strongly agree Does not apply	0 (0.0) 0 (0.0) 3 (30.0) 7 (70.0) 0 (0.0)	0 (0.0) 0 (0.0) 9 (29.0) 21 (67.7) 1 (3.2)	1.0
Support from personal networks **People I am close to have been, or are, supportive of me receiving this care and treatment**	Strongly disagree Disagree Agree Strongly agree Does not apply	0 (0.0) 0 (0.0) 6 (60.0) 4 (40.0) 0 (0.0)	0 (0.0) 0 (0.0) 13 (41.9) 17 (54.8) 1 (3.2)	0.6
Satisfaction **I am satisfied with the HCV treatment services that I received**	Strongly disagree Disagree Agree Strongly agree Does not apply	0 (0.0) 0 (0.0) 3 (30.0) 7 (70.0) 0 (0.0)	0 (0.0) 0 (0.0) 8 (25.8) 23 (74.2) 0 (0.0)	1.0

The most meaningful outcome from this project

- Developing a partnership with healthcare for the homeless

Preliminary work on this project

- **What is going well in the community?**

  We are doing great with screening!

- **There are several partnerships already developed**

Where we can improve

Education

Stigma

Transmission

Treatment regimens

Treatment side effects

Who qualifies for treatment

Vaccination

Where to we go from here?

- **Meet regularly**
  - Build relationships and connections
  - We want to hear from the community
  - Panel discussions to showcase your work
    - Discuss individual successes and how to translate that to the group
    - Identify common barriers and work as a group to problem solve
- **Coordinate screening/education events**
  - Bring multiple groups together
- **Improve linkage to care**
  - Facilitating communication between community workers and clinics
    - Lower barrier access to clinics
- **Advocation**

Why me/Hennepin?

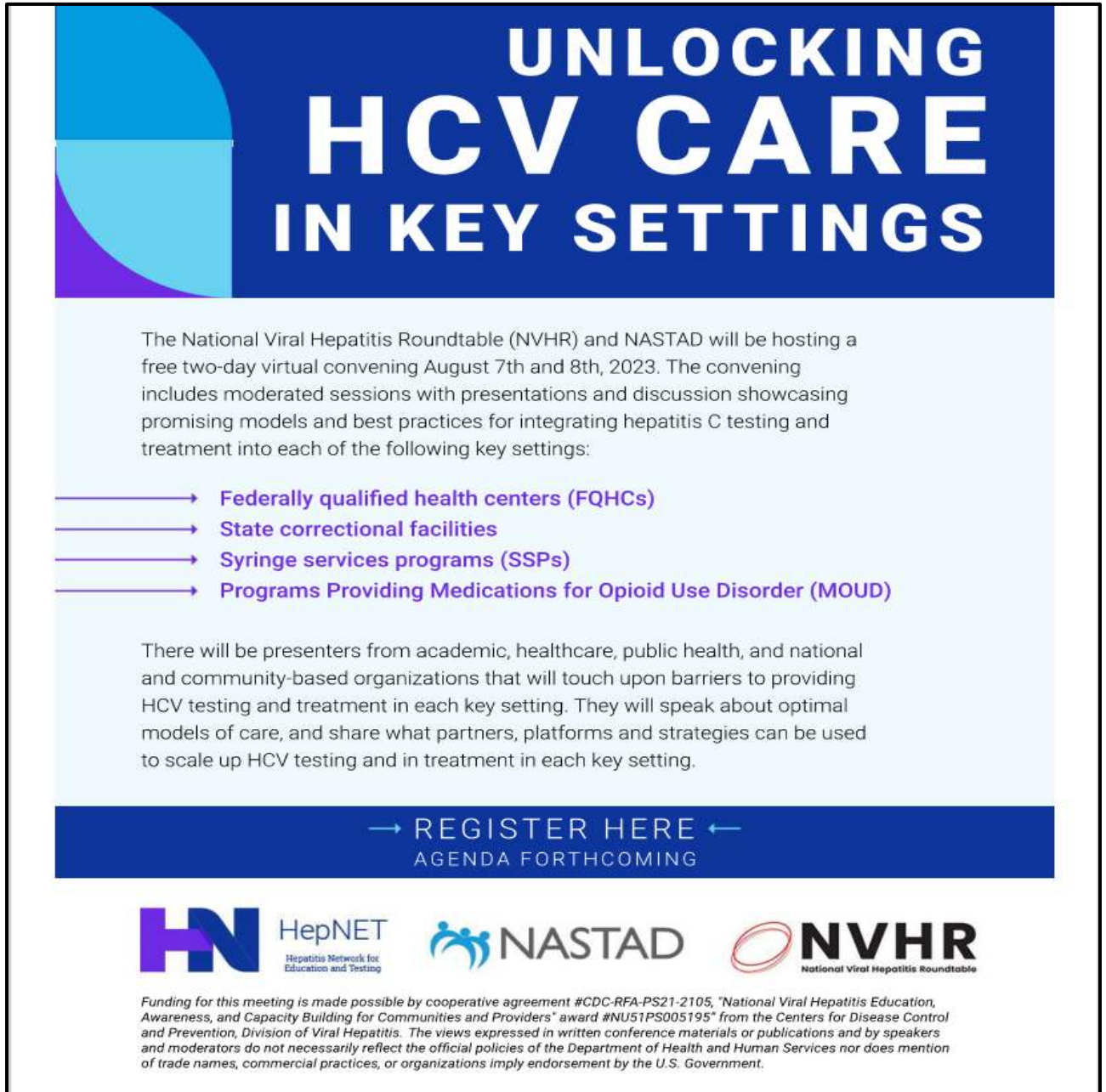
- **Our Mission**
  - We partner with our community, our patients, and their families to ensure access to outstanding care for everyone while improving health and wellness through teaching, patient and community education, and research.

- **Our Vision**
  - Transforming the health of our community – exceptional care without exception.

- **Experience**

- **Resources**

National Viral Hepatitis Roundtable



references

- Falade-Nwulia O, Sacamano P, McCormick SD, Yang C, Kirk G, Thomas D, Sulkowski M, Latkin C, Mehta SH. Individual and network factors associated with HCV treatment uptake among people who inject drugs. Int J Drug Policy. 2020 Apr;78:102714. doi: 10.1016/j.drugpo.2020.102714. Epub 2020 Mar 2. PMID: 32135398; PMCID: PMC7367433.
- Tsui JI, Miller CM, Scott JD, Corcorran MA, Dombrowski JC, Glick SN. Hepatitis C continuum of care and utilization of healthcare and harm reduction services among persons who inject drugs in Seattle. Drug Alcohol Depend. 2019 Feb 1;195:114-120. doi: 10.1016/j.drugalcdep.2018.11.026. Epub 2018 Dec 26. PMID: 30611979; PMCID: PMC6440747.
- Smith DJ, Combellick J, Jordan AE, Hagan H. Hepatitis C virus (HCV) disease progression in people who inject drugs (PWID): A systematic review and meta-analysis. Int J Drug Policy. 2015 Oct;26(10):911-21. doi: 10.1016/j.drugpo.2015.07.004. Epub 2015 Jul 26. PMID: 26298331; PMCID: PMC4577462.
- Muncan, B., Walters, S.M., Ezell, J. *et al.* “They look at us like junkies”: influences of drug use stigma on the healthcare engagement of people who inject drugs in New York City. *Harm Reduct J* **17**, 53 (2020). https://doi.org/10.1186/s12954-020-00399-8