NATIONAL LGBTQIA+ HEALTH EDUCATION CENTER

A PROGRAM OF THE FENWAY INSTITUTE

NATIONAL NURSE-LED CARE CONSORTIUM

a PHMC affiliate

Coordinating Hepatitis C (HCV) and HIV Treatment in Primary Care

May 3rd, 2021

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About the National Nurse-Led Care Consortium

The **National Nurse-Led Care Consortium (NNCC)** is a membership organization that supports nurse-led care and nurses at the front lines of care.

NNCC provides expertise to support comprehensive, community-based primary care.

- Policy research and advocacy
- Technical assistance and support
- Direct, nurse-led healthcare services

NATIONAL NURSE-LED CARE CONSORTIUM
a PHMC affiliate

About the National LGBTQIA+ Health Education Center

We offer educational programs, resources, and consultation to health care organizations to facilitate affirmative, high quality, cost-effective health care for lesbian, gay, bisexual, transgender, queer and intersex (LGBTQIA+) people.

- Training and Technical Assistance
- Grand Rounds
- Online Learning
  - Webinars, Learning Modules
  - CE and HEI Credit
- ECHO Programs
- Resources and Publications

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- Alternatively, e-mail us at education@fenwayhealth.org for less urgent questions.

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- Choose “I will call in.”
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When the webinar concludes:

- Close the browser, and an evaluation will automatically open for you to complete.
- We very much appreciate receiving feedback from all participants.
- Completing the evaluation is required to obtain a CME/CEU certificates.

CME/CEU Information

This activity has been reviewed and is acceptable for up to 1.0 Prescribed credits by the American Academy of Family Physicians. Participants should claim only the credit commensurate with the extent of their participation in this activity.

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Other HealthProfessionals	Confirm equivalency of credits with relevant licensing body.

Learning objectives

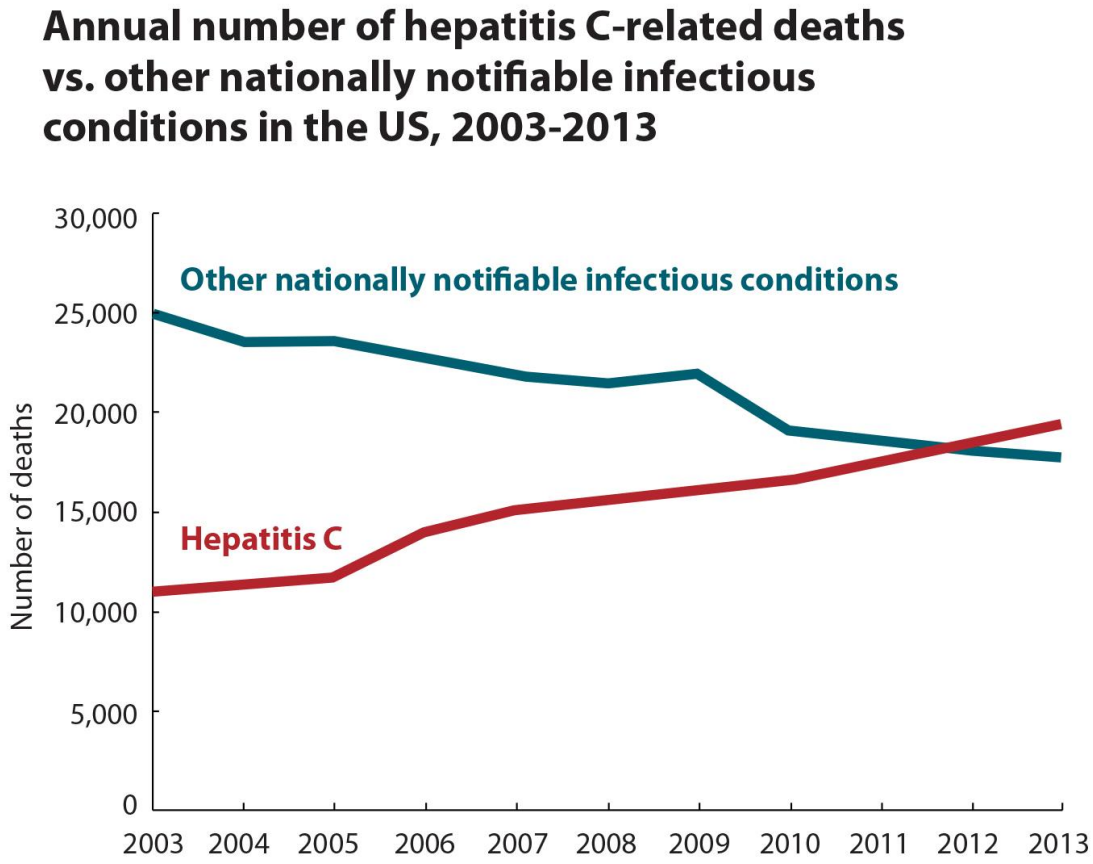
- Describe the overlapping epidemiology of HIV and hepatitis C.
- Recognize the importance of coordinating HIV and hepatitis C treatment and prevention.
- Discover strategies for creating inclusive and welcoming environments for patients in need of HIV and hepatitis C screening, prevention and treatment.

Overlapping epidemics

- HIV and HCV are both chronic viral infections with long asymptomatic phases and the potential to cause severe illness and death.
- HIV and HCV can be transmitted in similar ways:
  - Percutaneous exposure
  - Sexual exposure (HIV >>> HCV)
- 21% of people (and up to 80% of people who inject drugs) with HIV have evidence of current or prior HCV.
- Co-infection with HIV accelerates liver damage from HCV.

People coinfected with HIV and viral hepatitis. Centers for Disease Control and Prevention. 2020.

HCV kills more people in the U.S. than HIV.



Source: Centers for Disease Control and Prevention

Case

- A 32-year-old man with HIV who presents for routine follow-up
- Doing well on antiretroviral therapy (ART) (emtricitabine/tenofovir alafenamide and dolutegravir)
- Laboratory testing shows:
  - HIV RNA not detected
  - CD4 count 572
  - ALT 143, AST 120
- Additional testing:
  - HCV antibody positive
  - HCV RNA 3,894,200

Image from Scientific American

Case, continued

- He is shocked and does not know how he could have acquired HCV.
- 5 glasses wine/week; no injection drug use ever; no other drug use
- Condomless receptive anal sex with multiple men; occasionally fisting and rimming
- Additional testing:
  - HCV genotype 1a
  - No evidence of hepatic fibrosis

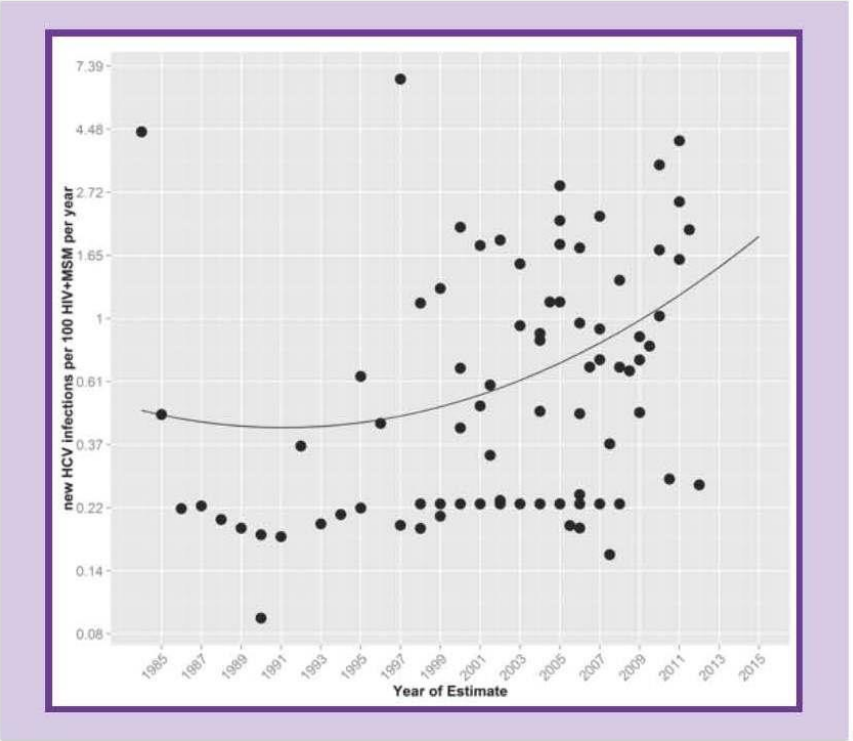
Questions raised by this case

1. What is the epidemiology of HCV among men who have sex with men (MSM) with or at risk for HIV?
2. What are the recommended approaches to screening for HCV among MSM with or at risk for HIV?
3. What are important considerations for HCV treatment in the setting of HIV co-infection?
4. How can clinical settings be welcoming to sexual and gender minority people at risk for HCV?

HCV incidence has been rising among MSM with HIV.

Associated with:

- Condomless anal sex
- Sexual practices causing rectal trauma/bleeding
- Methamphetamines



Hagan H, 2015

High incidence of HCV infection in HIV-negative MSM using pre-exposure prophylaxis in Amsterdam: Results from a demonstration project

H-TEAM

N = 350 HIV-negative MSM on PrEP
Person-years = 654

8 primary HCV infections

7 HCV re-infections in 6 participants

14 persons had at least one incident HCV infection

HCV incidence rate:

Overall: 2.3/100 py
Primary infection: 1.27/100 py
Re-infection: 27.8/100 py

Risk factors for HCV infection:
- **Receptive condomless anal sex with casual partners**
- **Recent anal STI**
- **Sharing straws when snorting drugs**
- **Recent IDU**

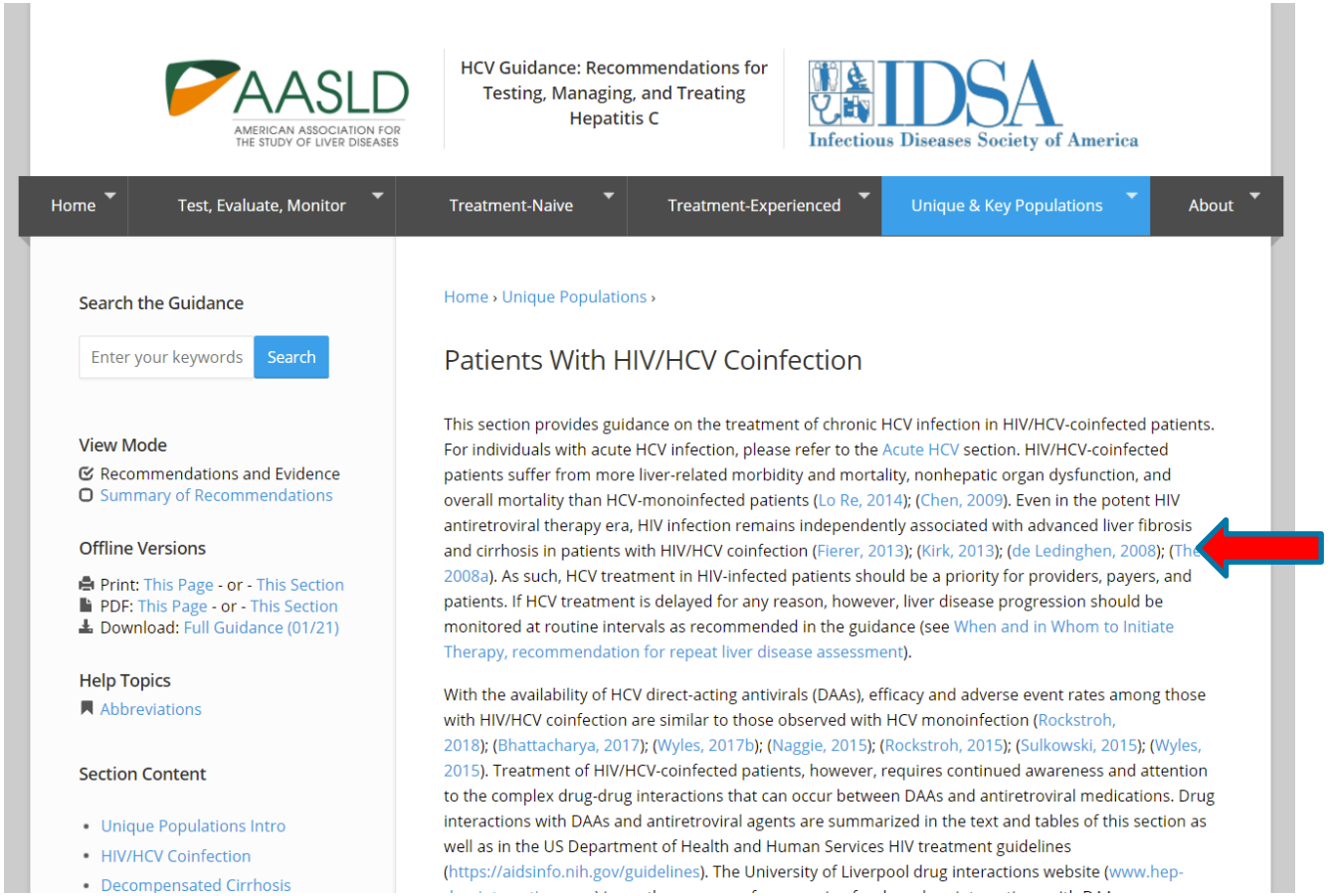
27/29 (93.1%) HCV-strains of HIV-negative MSM on PrEP were part of MSM-specific clusters also containing HIV-positive MSM

Hoornenborg E, 2020

HCV screening among people with or at risk for HIV

- All people over age 18 years and older
- Upon initiation of HIV care, and yearly thereafter for MSM with HIV
- Upon initiation of HIV pre-exposure prophylaxis (PrEP)
- Screening strategy
  - HCV antibody
  - HCV RNA if antibody is positive

Schillie S, 2020; Thompson MA, 2020; Workowski KA, 2015; CDC PrEP Guidelines 2018



HCV treatment is effective among those with HIV, but clinicians must consider drug interactions.

		Ledipasvir/ Sofosbuvir (LDV/SOF)	Sofosbuvir/ Velpatasvir (SOF/VEL)	Elbasvir/ Grazoprevir (ELB/GRZ)	Glecaprevir/ Pibrentasvir (GLE/PIB)	Sofosbuvir/ Velpatasvir/ Voxilaprevir (SOF/VEL/VOX)
Protease Inhibitors	Boosted Atazanavir	A	A			
	Boosted Darunavir	A	A			
	Boosted Lopinavir	ND, A	A			ND
NNRTIs	Doravirine		ND		ND	ND
	Efavirenz				ND	ND
	Rilpivirine					
	Etravirine	ND	ND	ND	ND	ND
Integrase Inhibitors	Bictegravir			ND	ND	
	Cobicistat-boosted elvitegravir	C	C			C
	Dolutegravir					ND
	Raltegravir					ND
	Maraviroc	ND	ND	ND	ND	ND
NRTIs	Abacavir		ND	ND		ND
	Emtricitabine					
	Lamivudine		ND	ND		ND
	Tenofovir disoproxil fumarate	B, C	B, C			C, D
	Tenofovir alafenamide	D	D	ND		D

Green indicates coadministration is safe; yellow indicates a dose change or additional monitoring is warranted; and red indicates the combination should be avoided.

www.hcvguidelines.org

Case, continued

HCV treatment pathway

- Standardized baseline testing for all newly diagnosed infections
- Clinician selects regimen and discusses with patient
- Nurse completes prior authorization requests, if needed

- Treated with 8 weeks glecaprevir/pibrentasvir
- Achieved sustained virologic response
- No evidence of reinfection over 2 years

Creating welcoming environments for sexual and gender minority people

1. Ask about affirmed names and pronouns and use them consistently.
2. Display LGBTQIA+ friendly imagery in the clinic.
3. Ensure policies and procedures are inclusive of all sexual orientations and gender identities.
4. Routinely collected sexual orientation and gender identity (SOGI) information.
5. During the clinical encounter, avoid assumptions about sexual orientation and gender identity when asking about home life, partners, anatomy, and sexual behavior.

Pointers for discussing sexual behavior and risk reduction

- SOGI data do not indicate if a patient is at risk for HCV.
  - Identity as LGBTQIA+ is not the same thing as behavior.
  - More than 50% of MSM identify as straight/heterosexual.

- Ask open-ended questions; avoid leading questions.

- Provide information, avoid judgement, and be sex-positive.

- Understand that patients may prioritize intimacy and connection over minimizing infectious risks.

Xu F, 2020

Summary

- HIV and HCV share risk factors; many people with or at risk for HIV are also at risk for HCV.
- Screen for HCV upon initiation of HIV care or PrEP; screen MSM with HIV at least yearly.
- HCV treatment is compatible with ART for HIV and PrEP, but be mindful of drug interactions.

Maggie Beiser, NP

Director, Hepatitis C Services
Boston Health Care for the Homeless Program

Case

- A is a 42 yo male who stays on the street or in shelter
  - Homeless x 5 years, interspersed with residential treatment for substance use disorder (SUD) and incarceration
  - SUDs: History of opioid and stimulant use x ~5-7 years
    - Injects and smokes
    - Multiple ED admissions for overdose and skin or soft tissue infections in the past year
    - Not currently on medication for addiction treatment (MAT)
    - Ambivalent about cutting down or stopping use
  - A's greatest priority is obtaining housing

Case, continued

- A is seen frequently by BHCHP providers for episodic care in multiple sites
  - Outpatient clinic
  - Shelter-based clinics
  - Street outreach teams
- Hepatitis C (HCV) diagnosis identified in outreach setting by HIV Prevention and Screening team (HIVCT)
  - Labs show genotype 1a, VL 3,250,000
  - Fibrosis-4 Index (FIB-4) calculation is reassuring for absence of advanced liver fibrosis
  - HIV negative
  - Declining PrEP upon first offer
  - Declining SUDs treatment and MAT

Questions raised by this case

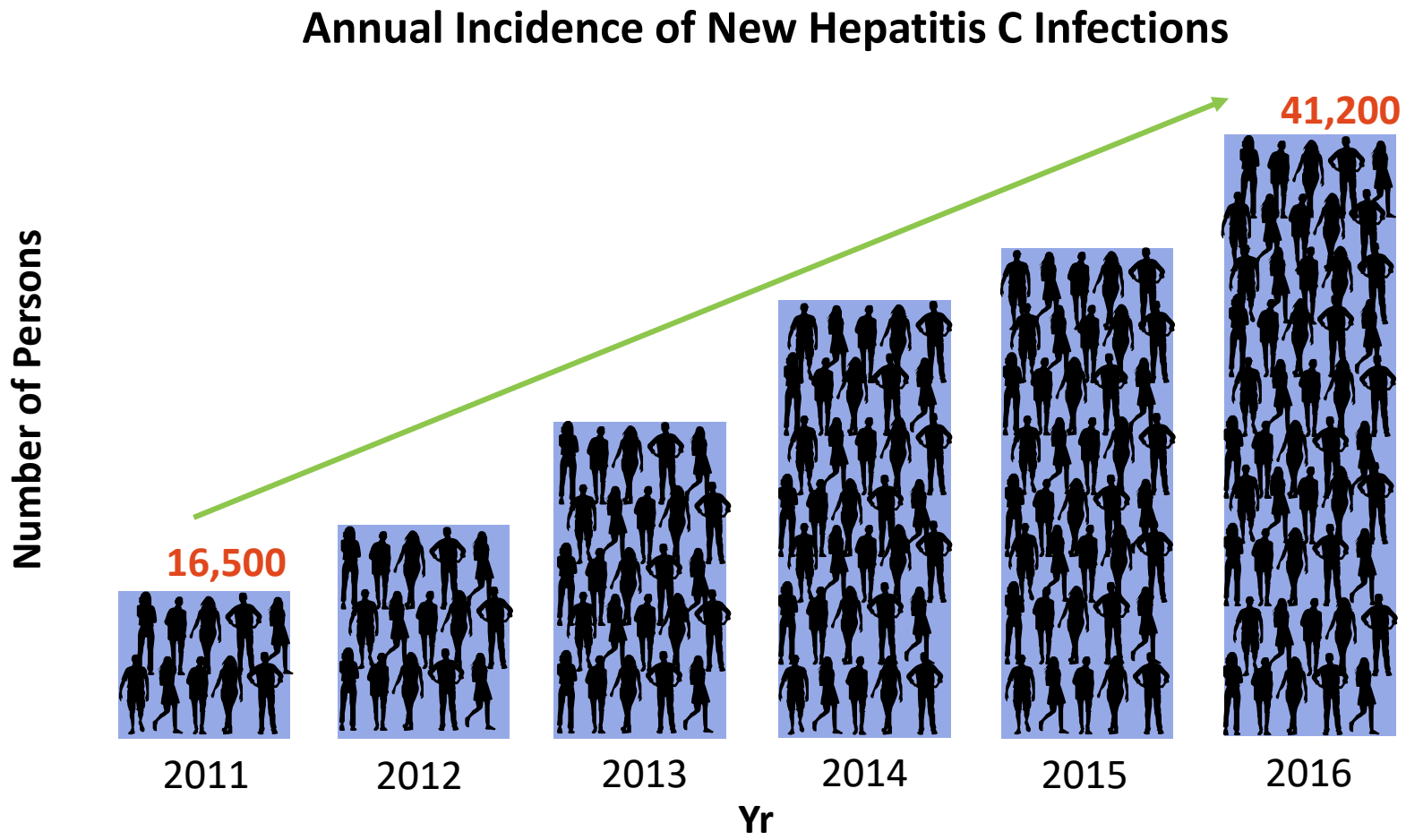
1. What is the epidemiology of HCV among people who inject drugs (PWIDs)?
2. What are the recommended approaches to screening and treatment for HCV among PWIDs?
3. What are important considerations for HIV prevention in the setting of HCV treatment?
4. How can clinical settings be welcoming to people who inject drugs?

Stark disparities in HCV prevalence in the US

Population Studied	Prevalence
NHANES Household based survey[1]	1%
PWIDs in 8 US Cities[2]	55.2%
People experiencing homeless in 7 US Cities[3]	31%
Homeless and IDU[3]	55.6%-81.8%
People with Medicaid seen at BHCHP 2010	23%

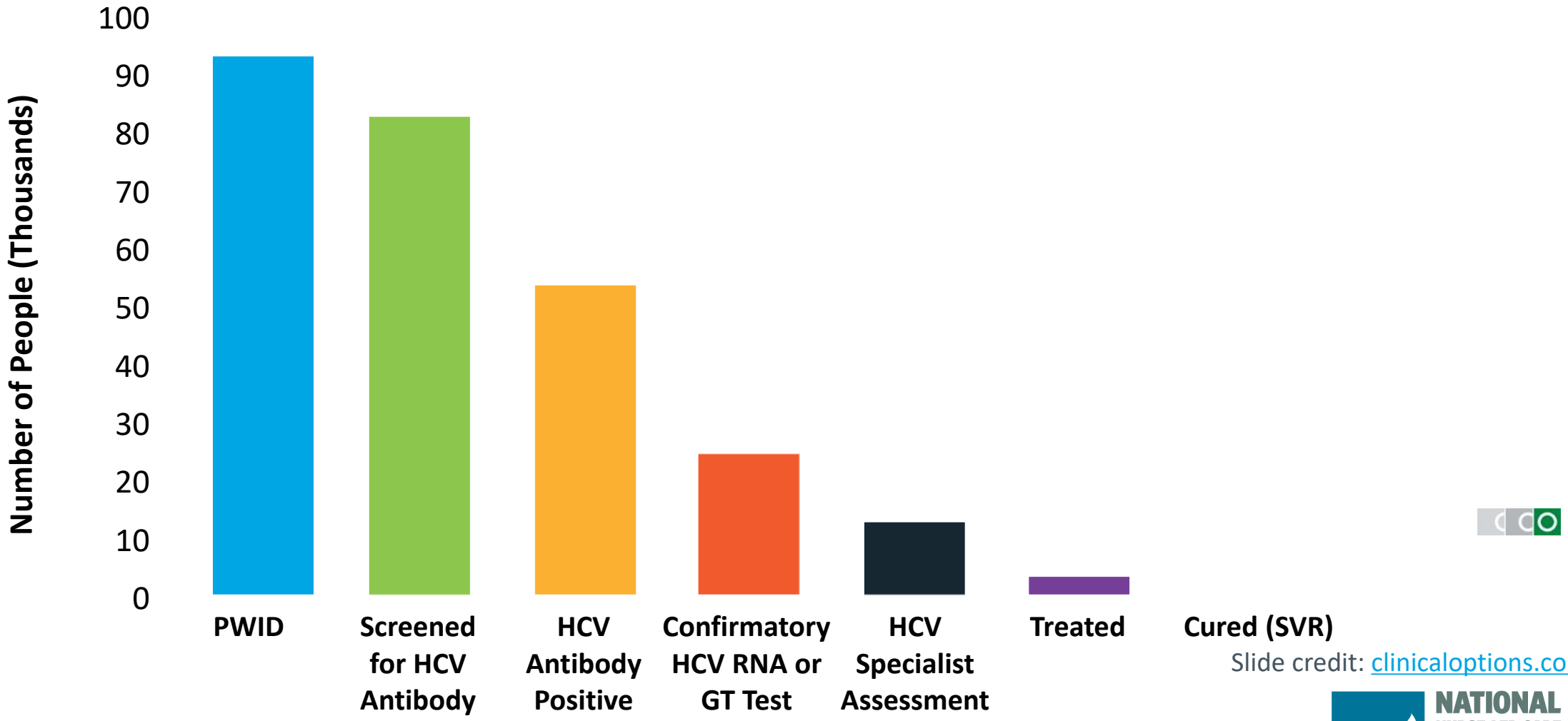
1. Hofmeister MG, Rosenthal EM, Barker LK, et al. Estimating Prevalence of Hepatitis C Virus Infection in the United States, 2013-2016. *Hepatology.* 2019;69(3):1020-1031.
2. Abara WE, Trujillo L, Broz D, et al. Age-Related Differences in Past or Present Hepatitis C Virus Infection Among People Who Inject Drugs: National Human Immunodeficiency Virus Behavioral Surveillance, 8 US Cities, 2015. *J Infect Dis*. 07 2019;220(3):377-385.
3. Strehlow AJ, Robertson MJ, Zerger S, et al. Hepatitis C among clients of health care for the homeless primary care clinics. *J Health Care Poor Underserved.* 2012;23(2):811-833.
4. Bharel M, Lin WC, Zhang J, O'Connell E, Taube R, Clark RE. Health care utilization patterns of homeless individuals in Boston: preparing for Medicaid expansion under the Affordable Care Act. *Am J Public Health.* 2013;103 Suppl 2:S311-317.

In the Shadow of the Opioid Crisis, New Hepatitis C Infections Have Increased



CDC Newsroom. https://www.cdc.gov/nchhstp/newsroom/images/2018/vh/HCV-infections-increase-highres.jpg.

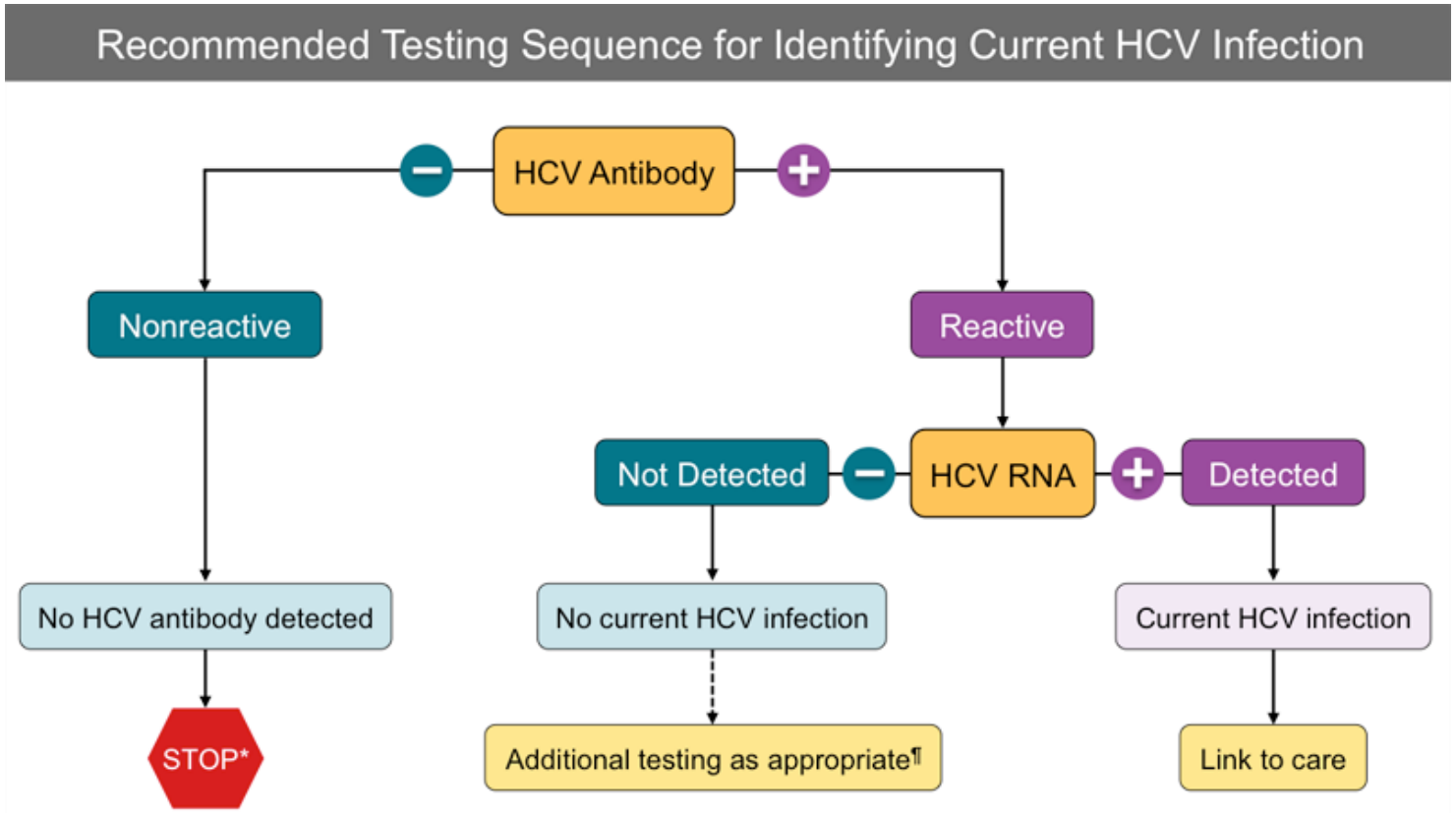
HCV Care Cascade Among PWID (Global)



Slide credit: clinicaloptions.com

Grebely. Nat Rev Gastroenterol Hepatol. 2017;14:641. Iversen. Int J Drug Policy. 2017;47:77.

HCV Screening and Diagnosis



Population	Recommendation	Grade
Adults aged 18 to 79 years	The USPSTF recommends screening for hepatitis C virus (HCV) infection in adults aged 18 to 79 years.	B

HCV treatment among people who inject drugs

- 2018 meta-analysis: PWID achieve HCV cure at high rates
  - ~87% SVR among recent and ongoing PWID
  - ~90% SVR among individuals on opioid substitution tx

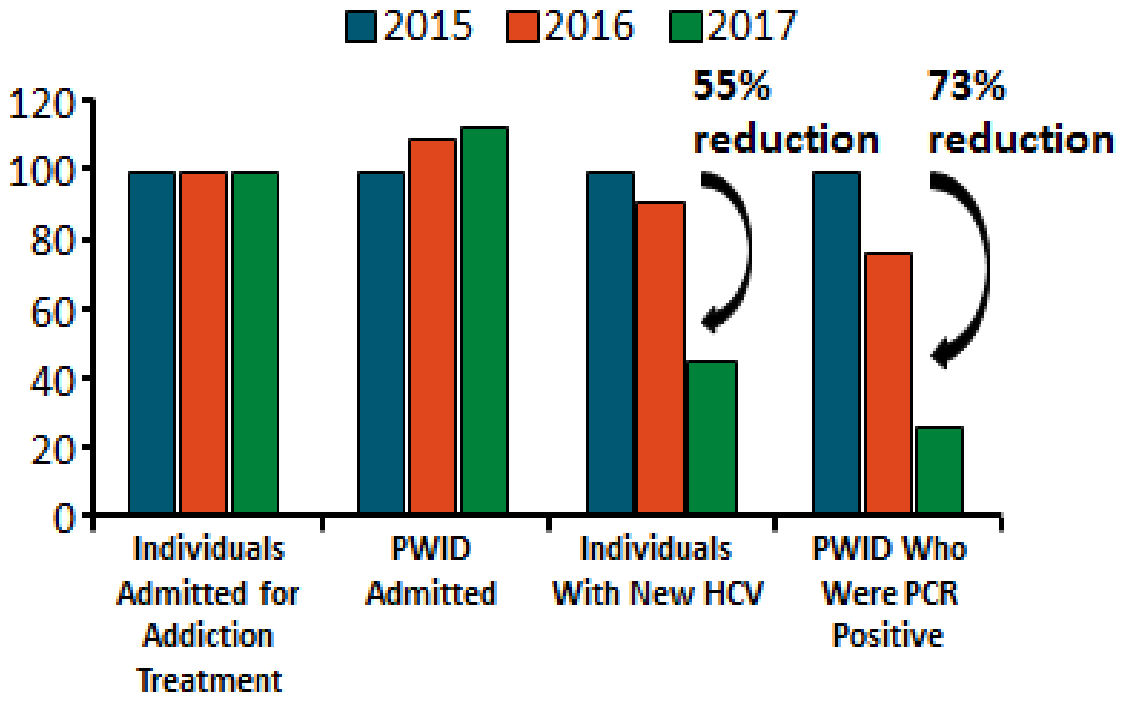
	Number of studies or substudies	Number of participants	Treatment completion (95% CI)	I^2	ITT SVR (95% CI)	I^2	mITT SVR (95% CI)	I^2	Loss to follow-up (95% CI)	I^2
Exclusive study population/subpopulation										
Recent IDU, with or without OST	8	670	96·9% (95·6–98·2)	0·0%	87·4% (82·0–92·8)	80·8%	91·7% (87·9–95·4)	66·1%	2·8% (0·5–5·2)	74·8%
OST, with or without recent IDU/non-IDU	25	2331	97·5% (96·5–98·5)	49·9%	92·6% (90·2–94·9)	79·5%	95·3% (93·6–97·0)	72·5%	3·0% (1·7–4·3)	65·5%
Other	10	633	96·5% (94·5–98·5)	45·7%	86·7% (80·2–93·2)	87·0%	93·8% (90·3–97·2)	76·3%	7·3% (2·6–11·9)	88·1%
Study design										
Observational	28	2483	96·9% (95·9–98·0)	51·6%	88·8% (85·8–91·9)	87·1%	93·4% (91·3–95·5)	80·2%	4·6% (2·9–6·3)	84·1%
Clinical trial	10	1151	98·2% (97·4–99·0)	0·0%	93·9% (92·5–95·3)	7·2%	96·2% (94·6–97·8)	52·4%	2·5% (1·2–3·8)	51·1%

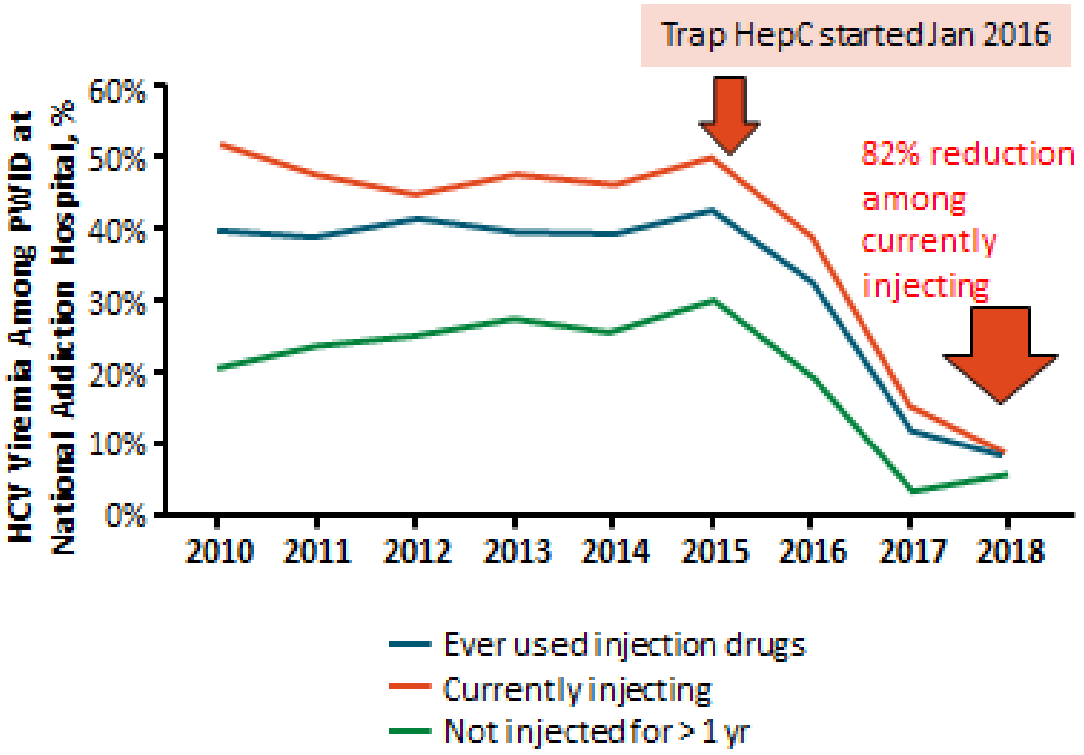
IDU=injecting drug use. ITT=intention to treat. mITT=modified intention to treat. non-IDU=non-injecting drug use. OST=opioid substitution therapy. SVR=sustained virological response.

Table 3: Pooled estimates of treatment completion, SVR and loss to follow-up, by study population and study design

Hajarizadeh B, Cunningham EB, Reid H, Law M, Dore GJ, Grebely J. Direct-acting antiviral treatment for hepatitis C among people who use or inject drugs: a systematic review and meta-analysis. *Lancet Gastroenterol Hepatol*. 11 2018;3(11):754-767.

TraP Hep C: HCV "treatment as prevention" reduced incidence in Iceland over 2 years





- Major scale up with reasonable cure rates
  - Overall SVR: 89%; SVR for patients who completed treatment: 95%
- Dramatic reduction in community viral load and HCV incidence

Runarsdottir. AASLD/EASL HCV Special Conference 2019. Slide credit clinicaloptions.com

How do you reconcile HCV treatment guidelines with your patient's real-life situation?

Goal of Treatment	
RECOMMENDED	RATING
The goal of treatment of HCV-infected persons is to reduce all-cause mortality and liver-related health adverse consequences, including end-stage liver disease and hepatocellular carcinoma, by the achievement of virologic cure as evidenced by a sustained virologic response.	I, A

Recommendation for When and in Whom to Initiate Treatment	
RECOMMENDED	RATING
Treatment is recommended for all patients with chronic HCV infection, except those with a short life expectancy that cannot be remediated by HCV therapy, liver transplantation, or another directed therapy. Patients with a short life expectancy owing to liver disease should be managed in consultation with an expert.	I, A

- Potential challenges to engagement
  - Competing priorities can impact adherence
    - Comorbidities
    - Work
    - Family obligations
    - Substance use
    - Unstable housing/homelessness
  - Logistics
    - Transportation
    - Medication storage
    - Phone
  - Threat of incarceration
  - Stigma

https://www.hcvguidelines.org/evaluate/when-whom

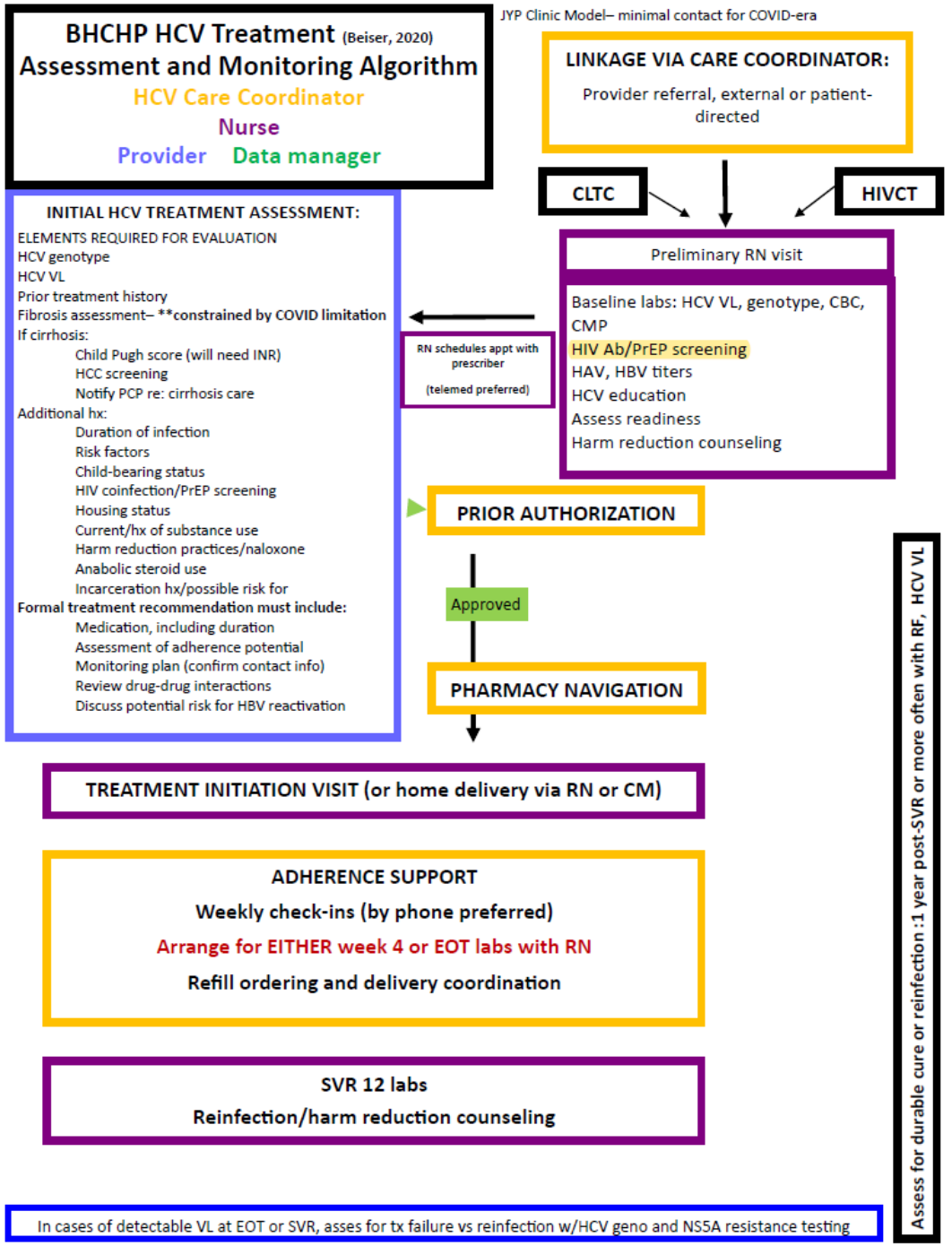
BHCHP

- FQHC serving ~10,000 homeless-experienced patients/year
- High prevalence of syndemic conditions
  - 23% HCV
  - 6% HIV
  - 60% any SUD
  - 48% BH dx and SUD

HCV Team

- PCPs with HCV (and HIV) expertise
- Care coordinators and RN are central to team
- Low-threshold tx access
- High-touch adherence support
- Acceptance of < than perfection
- Co-location with linked services
- Leverage existing patient engagement/relationships (HIV team, HIV Counseling and Testing team (HIVCT) Office Based Addiction Treatment (OBAT), homeless engagement center, Syringe Service Program (SSP)

Bharel M, Lin WC, Zhang J, O'Connell E, Taube R, Clark RE. Health care utilization patterns of homeless individuals in Boston: preparing for Medicaid expansion under the Affordable Care Act. *Am J Public Health.* 2013;103 Suppl 2:S311-317.

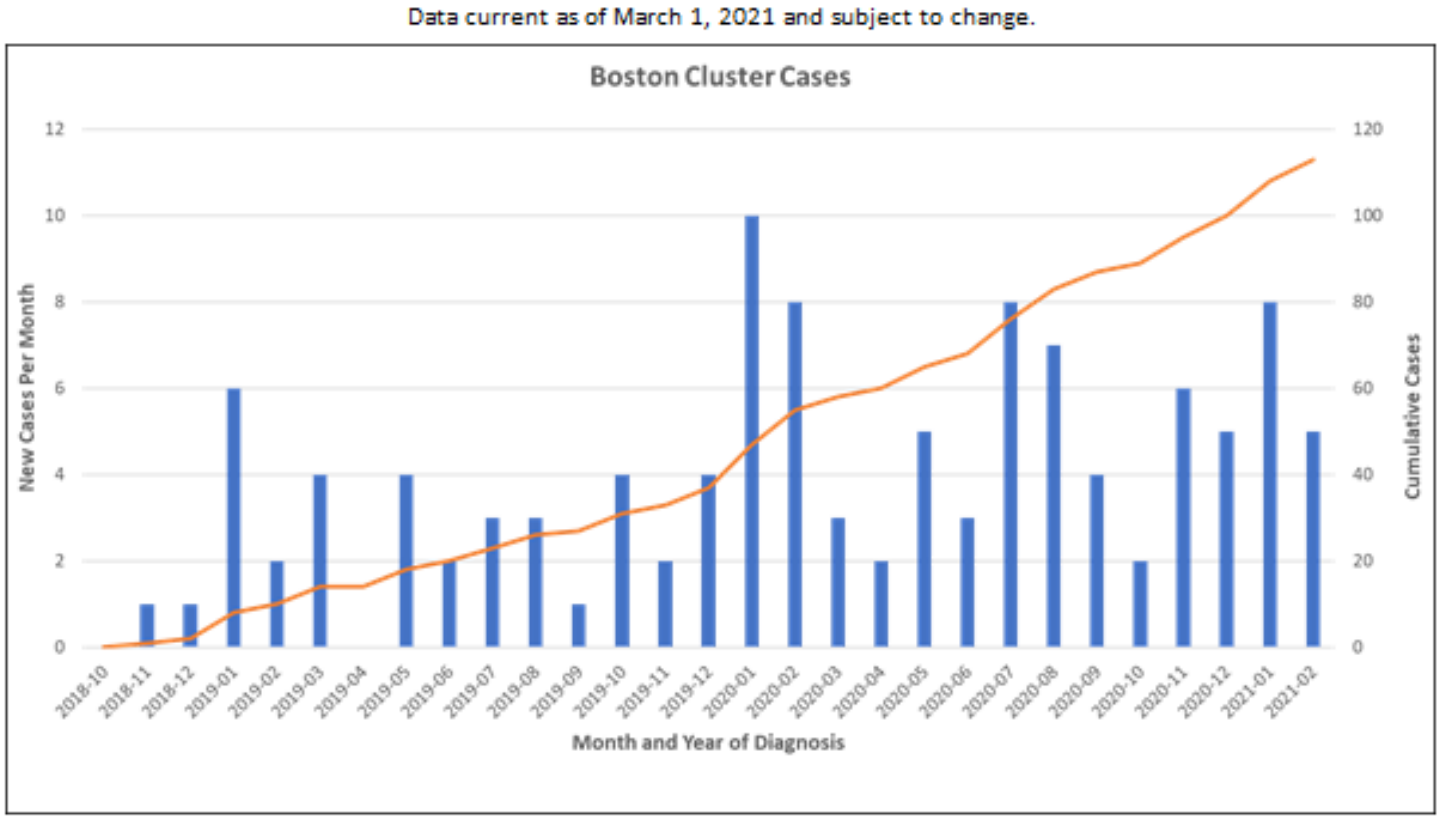


Case, continued

- A was motivated for HCV treatment
  - Adhered to 2 appointments for labs, assessment, and treatment planning
  - Treated with glecaprevir/pibrentasvir x 8 weeks
    - Meds given weekly, remainder held by clinic
  - SVR achieved
- In context of HCV tx, able to:
  - Support access to MAT, referred and started on methadone
  - Address other SUDs-related care
    - I+D and antibiotics for abscess (avoiding need for ED)
    - Overdose prevention, naloxone Rx
    - Harm reduction education, counseling
  - Further education and counseling re: PrEP, amenable to starting
    - Medication storage of PrEP at outreach clinical site
  - Addressing routine health maintenance (RHM) needs a bit at a time
  - Connect to primary care
  - Develop trust

Important considerations for HIV prevention in the context of HCV

- Overlapping risk factors
  - HCV more readily transmitted
- HCV care is an opportunity
  - HIV screening
  - Harm reduction and PrEP counseling
- 113 new HIV diagnoses in Boston among PWIDs since Oct 2018
  - Nearly all also have HCV



https://www.mass.gov/lists/hiv-treatment-guidelines-and-clinical-advisories

Case, continued

- A has remained engaged in care, despite ongoing instability
  - Is reinfected with HCV, unfortunately, but was HCV free for 2 years
    - He will be retreated, but he prefers to wait for now
  - Engaging in regular HIV screening q1-2 months
  - Has been off PrEP at times, but mostly adherent and remains HIV negative

How can clinical settings be welcoming to people who use drugs?

- Train and educate all staff about SUDs
  - Strive to promote a work environment free from stigma at all levels of care and interaction
  - Become comfortable with harm reduction principles
- Offer MAT on-demand, with minimum barriers
  - Support staff to obtain x-waiver for buprenorphine
  - Develop protocols and support structures for SUDs programming
- In care of patients with SUDs:
  - Demonstrate respectful and judgment-free care
  - Utilize trauma-informed care principles
  - Be flexible

MAT

Medication for Addiction Treatment (MAT), such as buprenorphine and naltrexone, is provided by individual waivered clinicians and by a centralized team, with services coordinated by nurse care managers and therapists, in collaboration with physicians.

ACCESS TEAM

The Addiction Collaborative and Expedited Support Services (ACCESS) team provides expedited primary care, MAT, and individual and group therapy for those at highest risk of overdose.

CAREZONE

The CareZONE health van provides accessible, high quality primary care and addiction services to individuals in Boston's overdose "hotspots" who are not already well connected to health care or addiction treatment.

SPOT

The Supportive Place for Observation and Treatment (SPOT) actively engages people who inject drugs, and provides medical monitoring of oversedation, harm reduction services, and linkages to treatment.

NALOXONE

BHCHP offers overdose education and naloxone trainings to all patients and staff We also distribute naloxone rescue kits to all those at risk of experiencing or witnessing an overdose.

THERAPY ON-DEMAND

Through our "Open Access" system, patients are able to access same-day therapy appointments with licensed clinicians, eliminating wait times and supporting patients in times of crisis.

QUALITY IMPROVEMENT

Program wide, we strive to improve outcomes across the opioid use disorder cascade of care—that is, at each stage of care, from initial diagnosis to achievement of sustained recovery.

SUD GROUPS

Peer support and group therapy is incredibly helpful to our patients, and is offered daily, including at the Barbara McInnis House, where patients receive 24/7 respite care.

INTEGRATED BEHAVIORAL HEALTH

Behavioral Health clinicians work side by side with primary care teams and help to manage co-occurring PTSD, depression, anxiety, and other mental illnesses.

BATHROOM MONITORING

To respond to the almost daily overdoses happening in our public bathrooms, we use close monitoring and have installed reverse motion detectors, alerting us when someone has not moved in 3 minutes.