Reducing barriers to access and engagement in hepatitis C care through integration

PRESENTED BY

Amanda Giacomazzo, Moderator
Dr. Shruti Mehta
Rachael Edwards
Matthew Bonn

December 5th, 2019

CATIE
Canada's source for HIV and hepatitis C information

Webinar Agenda (1.5 hours)

- Welcome and speaker introductions

Amanda Giacomazzo, 5 minutes

- Identifying and overcoming barriers to hepatitis C care for people who use drugs; integrating/co-locating services

Dr. Shruti Mehta, 30 minutes

- Canadian front line program experience with hepatitis C testing and treatment integration

Rachael Edwards, 15minutes

Matthew Bonn, 15 minutes

- Questions

All, approximately 30 minutes

Dr. Shruti Mehta

Shruti Mehta is a Professor and the Deputy Chair of the Department of Epidemiology at the Johns Hopkins Bloomberg School of Public Health.

Her research focuses on HIV and hepatitis C virus (HCV) infection among people who inject drugs (PWID) in the US and in India with a particular interest and focus on identifying and overcoming barriers to access care and treatment for HIV and HCV.

Reducing barriers to access and engagement in hepatitis C care through integration

Shruti H. Mehta
Department of Epidemiology
Johns Hopkins Bloomberg School of Public Health

December 5, 2019

There are numerous, layered barriers to optimal engagement in HCV care/treatment…

Government / Health care system issues

- Limited accessibility of HCV care locations
- Insufficient funds allocated for HCV
- Overburdened health systems
- Cost of medications/testing/staging
- Segregated service delivery
- Insufficient # providers, case managers, social workers

Social context

- Poverty
- Criminalization of drug use
- Stigma / Discrimination

STRUCTURAL

Provider barriers

- Knowledge (misconceptions about who to screen, progression risk and treatment)
- Perceptions (concerns about non-adherence, drug use, relapse, risk of re-infection)
- Overburdened with dealing with competing health issues (primary care)

PROVIDER

General barriers

- General health care access (primary care provider, insurance, health literacy, patient provider-relationship)
- Competing health priorities (mental health, comorbidities)
- Stability factors (substance use, employment, income housing, drug treatment, social support

HCV-specific barriers

- Poor knowledge
- Lack of symptoms
- Residual fears about treatment related to interferon

INDIVIDUAL

…and Service integration / co-location addresses many of these barriers

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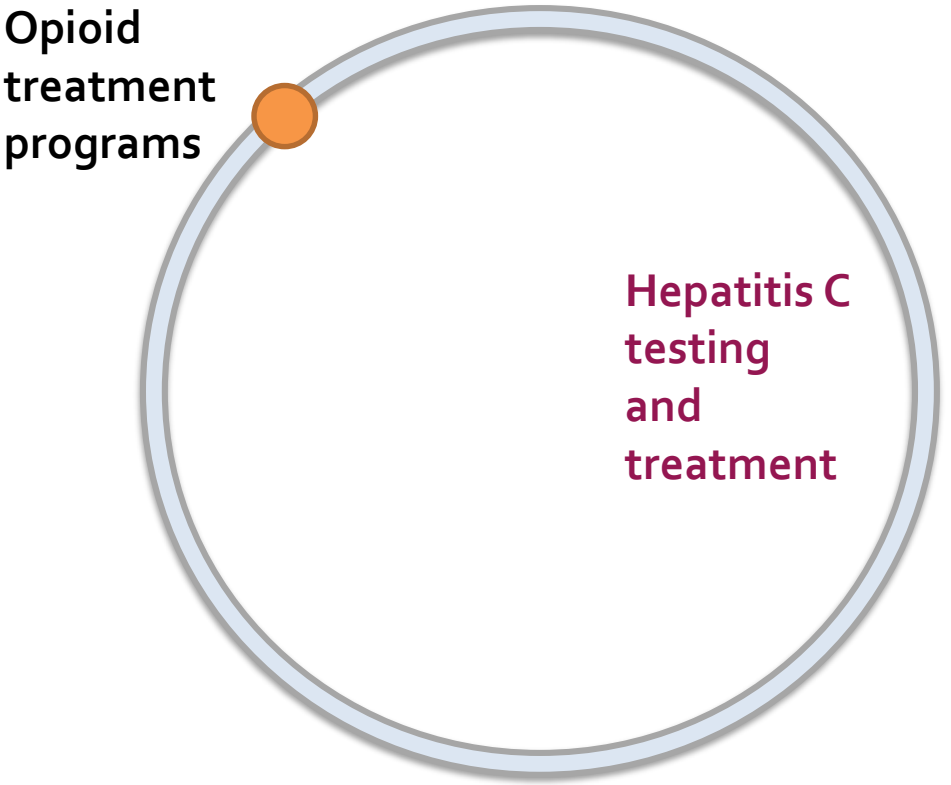
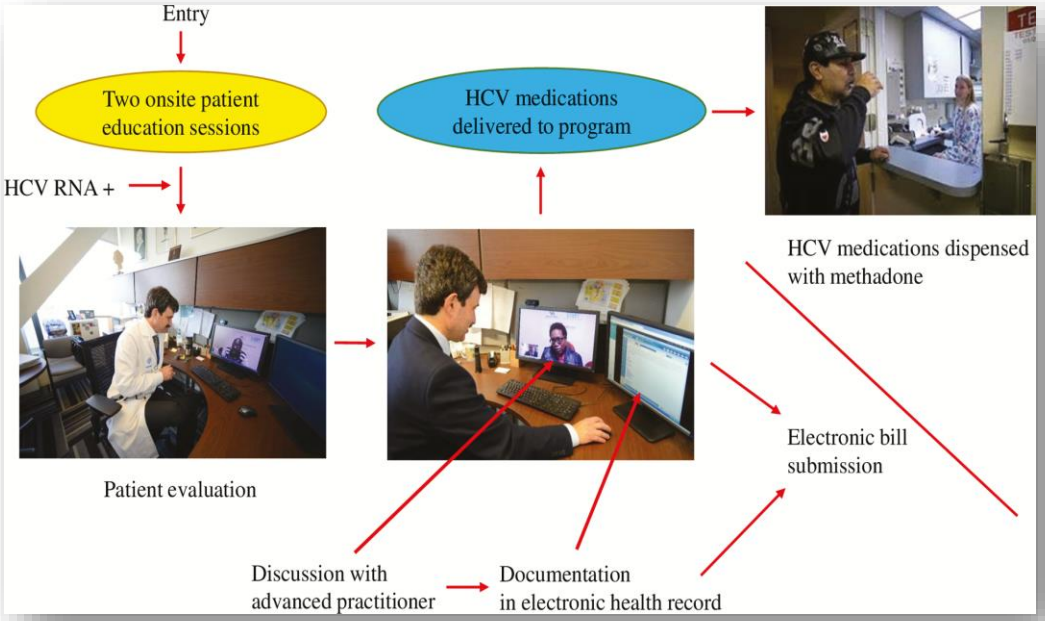
INDIVIDUAL

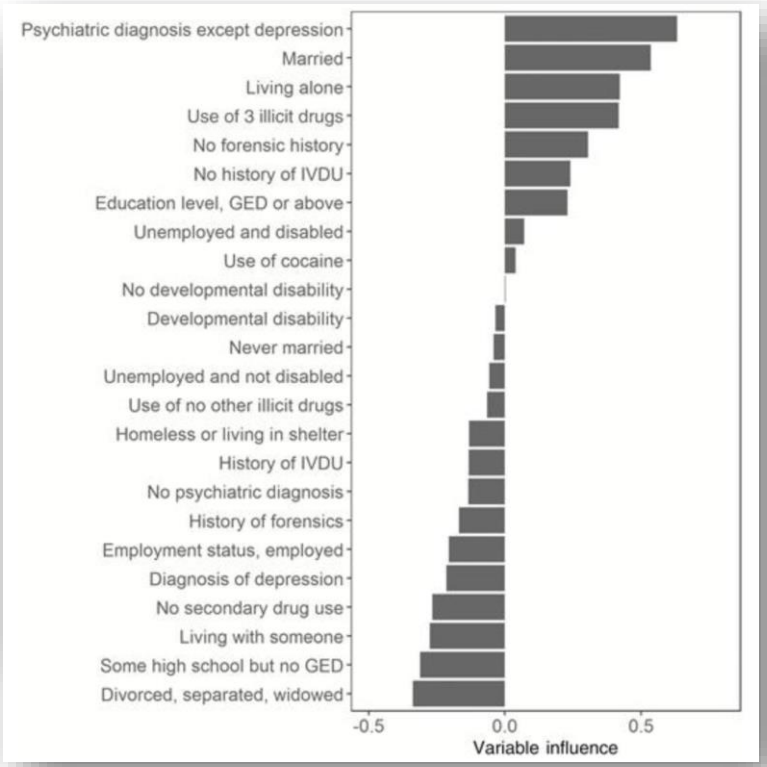
Integrating / co-locating services will be critical to optimal engagement in HCV care

- **Advantages**
  - Minimal direct expense to patient
  - Treatment can be paired with daily delivery of OAT
  - Demonstrated high SVR rates among persons receiving OAT
  - Other services often offered
- **Challenges**
  - OTP providers may not see HCV treatment as part of their core business



Integrated, co-located telemedicine-based HCV treatment for patients on methadone (New York)



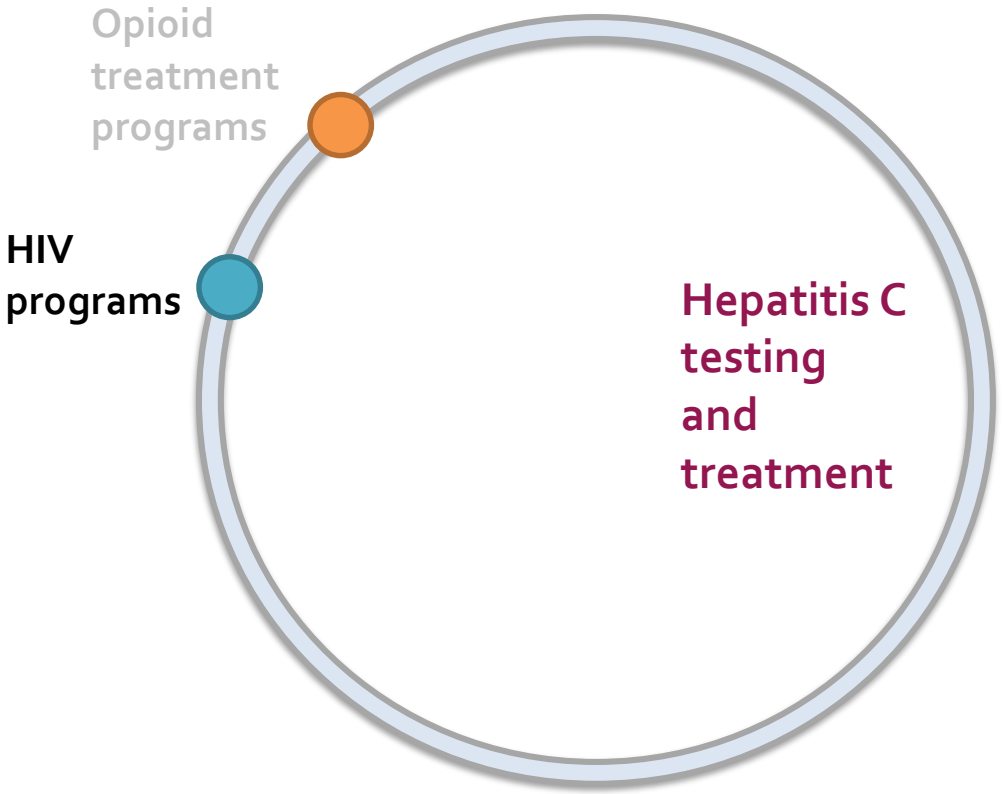


62 patients evaluated, 45 initiated treatment, 93% SVR

Talal AH et al *Clin Infect Dise 2018*

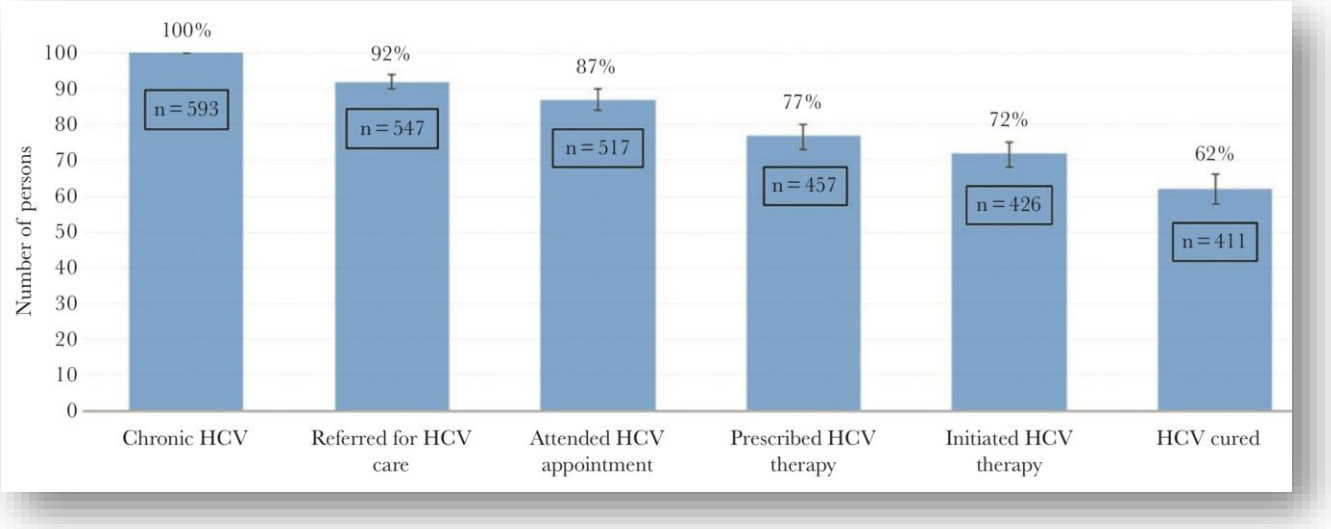
Integrating / co-locating services will be critical to optimal engagement in HCV care

- **Advantages**
  - Limited barriers to engagement
  - Supports continuity of care (particularly post-treatment)
  - Often have wrap around services (mental health, social services)
- **Challenges**
  - More effective with provision of MOUD but not the norm



Co-located HIV and HCV care (Baltimore, MD)

- **Comprehensive care** including testing, evaluation, treatment, pharmacy prior authorization, support for patient assistance
- Care delivered through **multidisciplinary team**: clinicians, nurses, social workers



Falade-Nwulia O et al *Open Forum Infect Dis* 2019

- **Stop light protocol for adherence support**
  - **Green:** minimal
  - **Yellow:** moderate
  - **Red:** intensive support with mandatory nursing visit and follow-up calls/visit with nurse

Integration with community HIV programs (Ukraine)

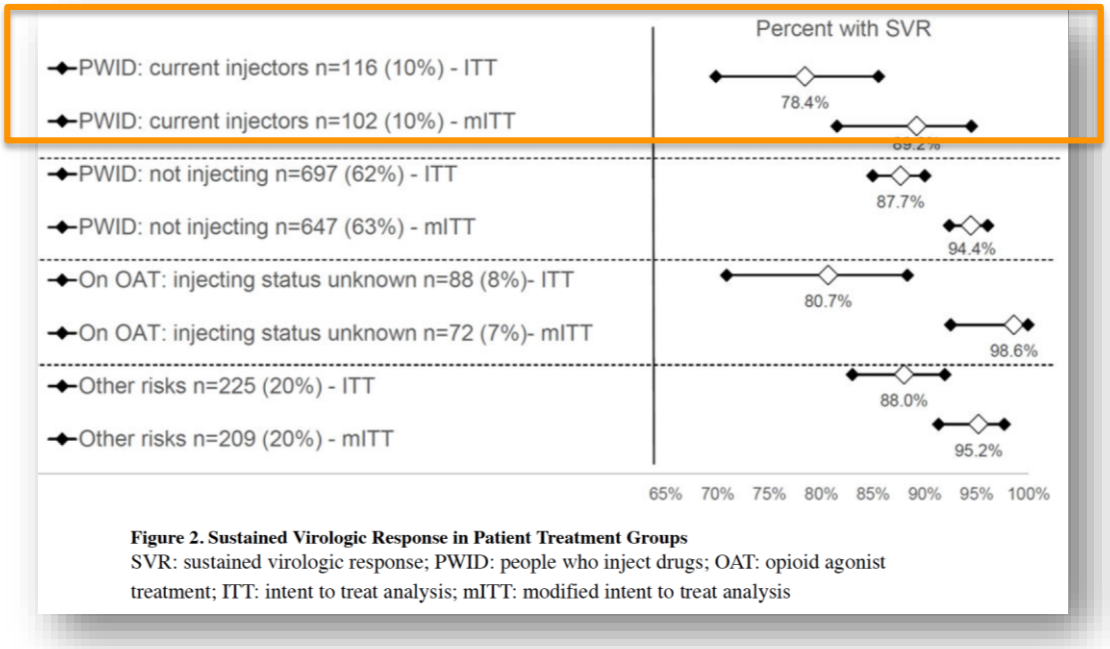


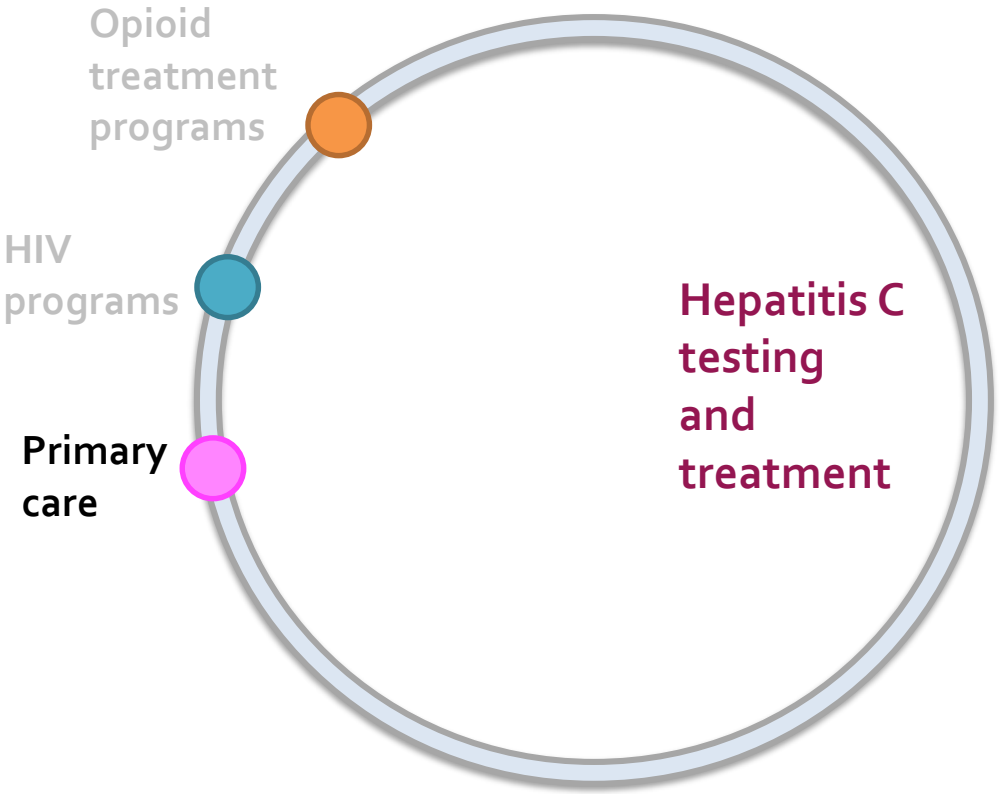
Figure 2. Sustained Virologic Response in Patient Treatment Groups
SVR: sustained virologic response; PWID: people who inject drugs; OAT: opioid agonist treatment; ITT: intent to treat analysis; mITT: modified intent to treat analysis

- HCV treatment scaled up in 16 locations primarily through **NGOs delivering HIV care/treatment**
- **Community-based** approach
- **Multidisciplinary team** delivering care: physicians, nurses, social workers
- Program **did not** reach many **active injectors**

Mazhnaya et al *Int J Drug Policy* 2017

Integrating / co-locating services will be critical to optimal engagement in HCV care

- **Advantages**
  - Lowers threshold for entry into care
  - Enhances continuity of care
  - PCPs can obtain waiver for buprenorphine/naloxone prescription
  - Potential for facilitated linkage with other services
  - Particularly relevant for rural areas
- **Challenges**
  - Heavy burden on PCPs already



Task shifting to primary care providers is effective

- Phase 4, prospective observational study in **federally qualified health centers** in Washington DC
- **Task-shifting** of DAA-based HCV therapy to **non-specialist** providers
- **Comparable SVR** among non-specialist providers

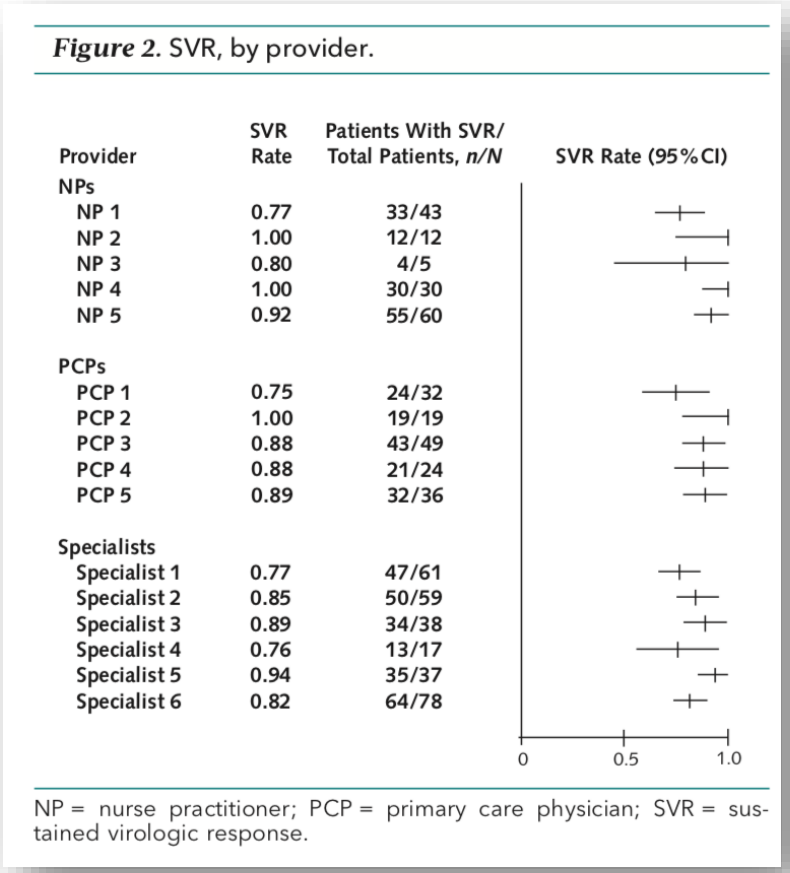


Figure 2. SVR, by provider.

Provider	SVR Rate	Patients With SVR/ Total Patients, *n/N*
NPs		
NP 1	0.77	33/43
NP 2	1.00	12/12
NP 3	0.80	4/5
NP 4	1.00	30/30
NP 5	0.92	55/60
PCPs		
PCP 1	0.75	24/32
PCP 2	1.00	19/19
PCP 3	0.88	43/49
PCP 4	0.88	21/24
PCP 5	0.89	32/36
Specialists		
Specialist 1	0.77	47/61
Specialist 2	0.85	50/59
Specialist 3	0.89	34/38
Specialist 4	0.76	13/17
Specialist 5	0.94	35/37
Specialist 6	0.82	64/78

NP = nurse practitioner; PCP = primary care physician; SVR = sustained virologic response.

Kattakuzhy S et al *Ann Intern Med* 2017

Support for HCV treatment in primary care through telemedicine (Punjab, India)

- 94 PCPs trained, 4-hour workshop
- Telehealth consultation every 2 weeks
- WhatsApp group to solve case-based discussions in real time (hub and spoke model)

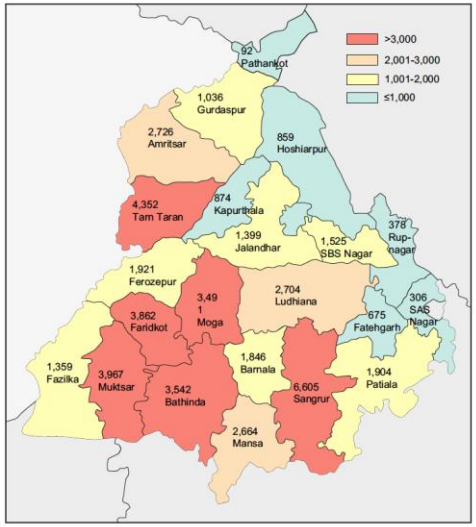
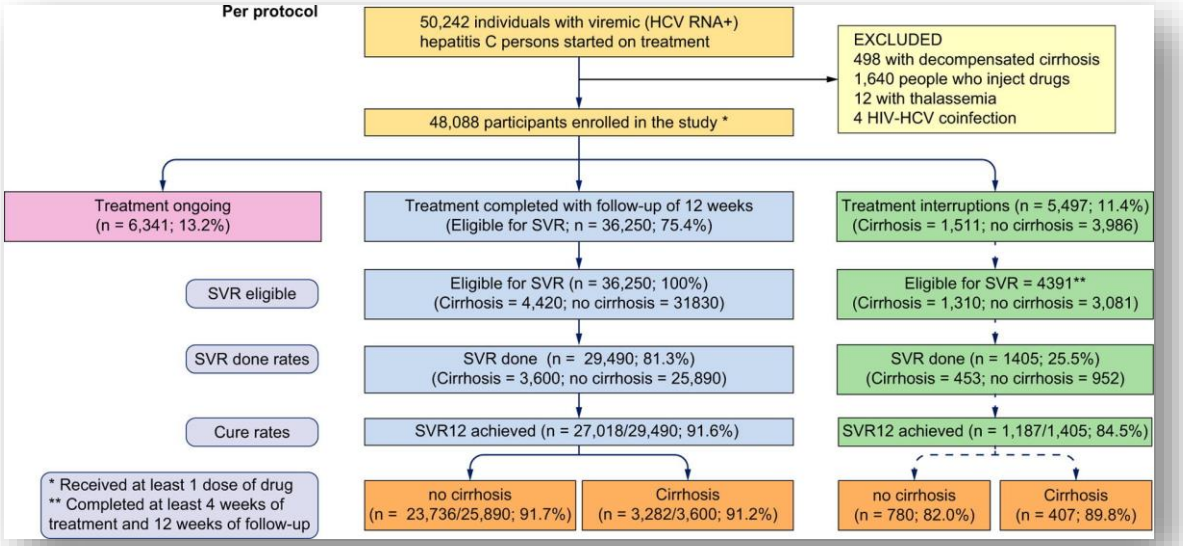


Fig. 1. Disease burden and cure rates across the 25 treatment sites in Punjab (This figure appears in colour on the web.)

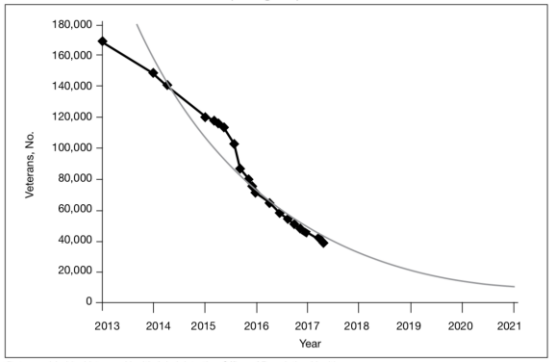


50,242 started on treatment, SVR = 92%

Dhiman RK et al *j Hepatology* 2019

Optimizing HCV treatment within primary care (US Veterans Affairs)

FIGURE 1 Number of Veterans Requiring Hepatitis C Treatment[a,b]



[a]Data provided by Veterans Health Administration Office of Population Health.
[b]As of October 1 of each year.

TABLE Increases in Birth Cohort Testing and SVR12 by HIT[a]

	FY 2014	FY 2015		FY 2016		FY 2017	
Goals	**Baseline**	**Goal**	**Achieved**	**Goal**	**Achieved**	**Goal**	**Achieved**
Birth cohort tested, %	65.8	69.0	68.8	73.0	73.9	80.0	80.1
Tested for SVR12, %	n/a	n/a	55.4	80.0	84.1	90.0	87.6

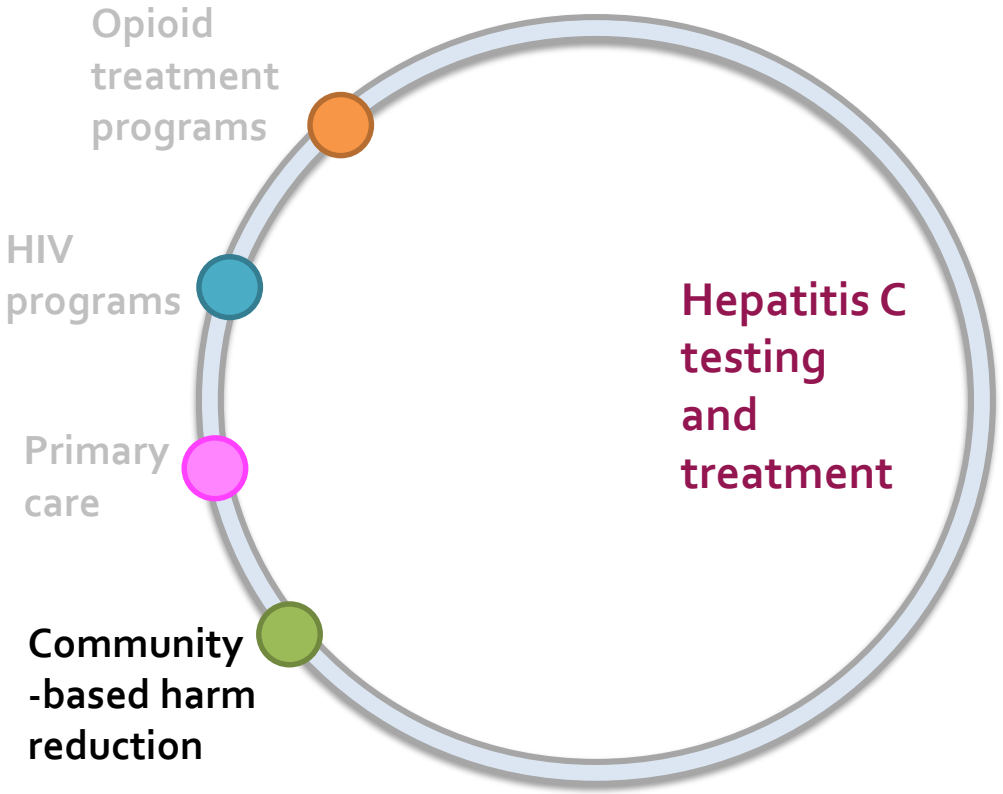
Abbreviations: FY, fiscal year; HIT, Hepatitis Innovation Team; SVR12, sustained virologic response 12 weeks after treatment.
[a]Data are provided by Veteran Health Administration Population Health Services.

- **Multidisciplinary Hepatitis Innovation Team (HIT):** physicians, nurse practitioners, nurses, pharmacists, physician assistants, social workers, mental health and substance use providers, peer support specialists, administrators, information technology experts and systems redesign professionals
- Also created a Veterans Integrated Service Network (VISN) to **facilitate communication** and process improvement
- **Lean process improvement framework focused on eliminating waste and** maximizing value

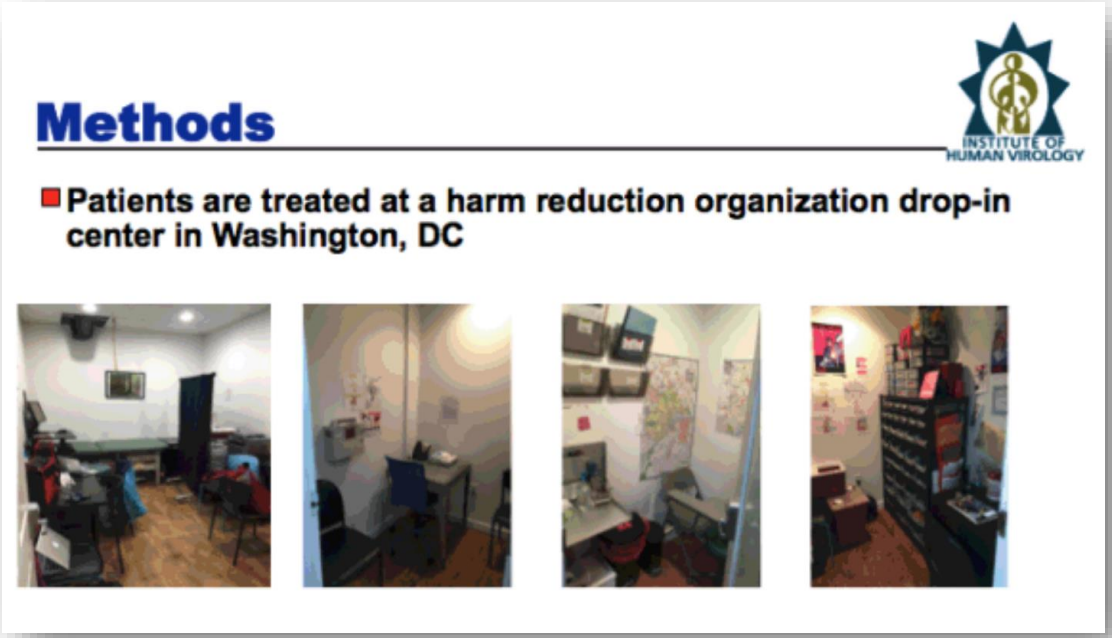
Park A et al *Federal Practitioner* 2018

Integrating / co-locating services will be critical to optimal engagement in HCV care

- **Advantages**
  - SSPs reach those that may not be accessing care in the formal health care system
  - Can serve as a 'one-stop shop' for health services including HCV and HIV care
  - Provide linkage to MOUD
- **Challenges**
  - Most programs do not provide wrap around services



HCV treatment integrated into community-based harm reduction center (Washington, DC)



- Patients with opioid use disorder who had **injected in the prior 3 months**
- Offered **simultaneous buprenorphine, PrEP** as needed
- Treated with 12 weeks of SOF/VEL
- Adherence assessments every 4 weeks

Kattakuzhy S et al *AASLD 2018*

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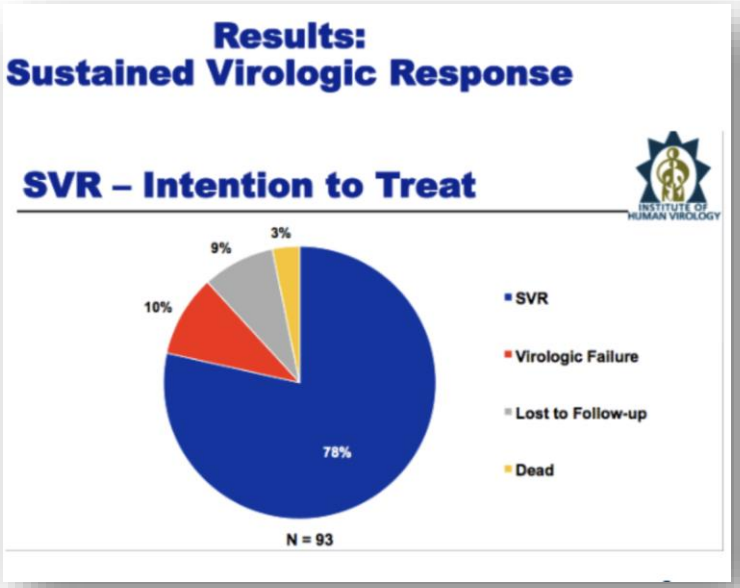

SVR: Baseline Factors

INSTITUTE OF HUMAN VIROLOGY

Baseline factor (n = 93)	Impact SVR	P- value
Injecting daily or more	No	PP = 0.73 ITT = 1.00
Not being on MAT at baseline	No	PP = 0.48 ITT = 0.43
Unstable housing	No	PP = 0.73 ITT = 0.21
Hazardous drinking	No	PP = 0.47 ITT = 1.00

Kattakuzhy S et al *AASLD 2018*

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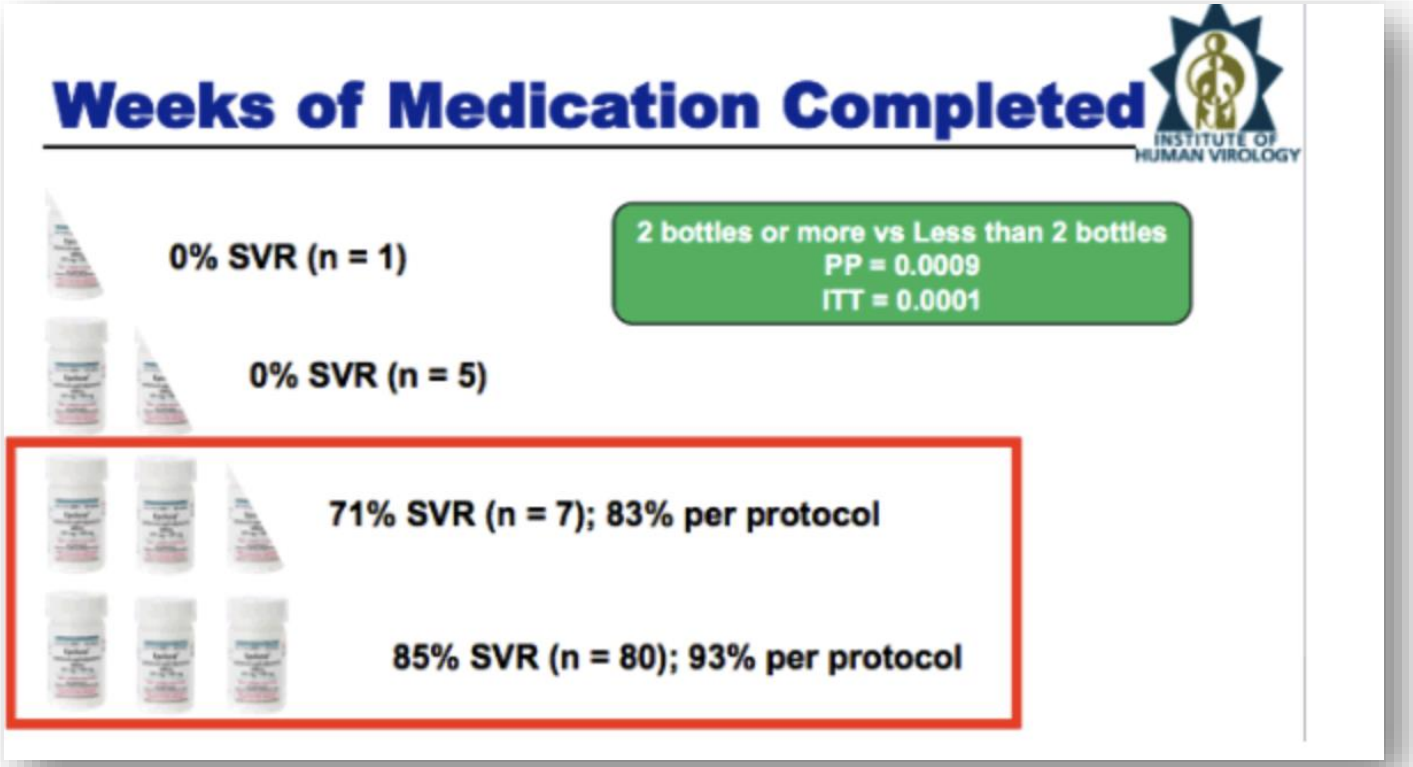


Kattakuzhy S et al *AASLD 2018*

Integration of HCV testing with community-based OTP and other HIV prevention/ treatment services (India)

TB Testing & Treatment
Symptom screen and sputum collection on-site; Testing and treatment from DMC/DOTS centers

General medical care: Glucose screening, blood pressure monitoring, doctor available for general health problems

HCT: rapid testing performed on-site; positive results confirmed at govt center

ART: delivered through a link model (ARVs provided by government but peer health worker picks up meds so clients can receive directly from ICC)

Syringe services
Field-based & on-site

STI syndromic management
Government sponsored

Condoms

Counseling: Individual & group/ substance use, alcohol, adherence, couples, family etc

HCV testing: Rapid on-site HCV testing

Integrated care centers (ICCs) in India

OAT nurse (Imphal)

General nurse (Imphal)

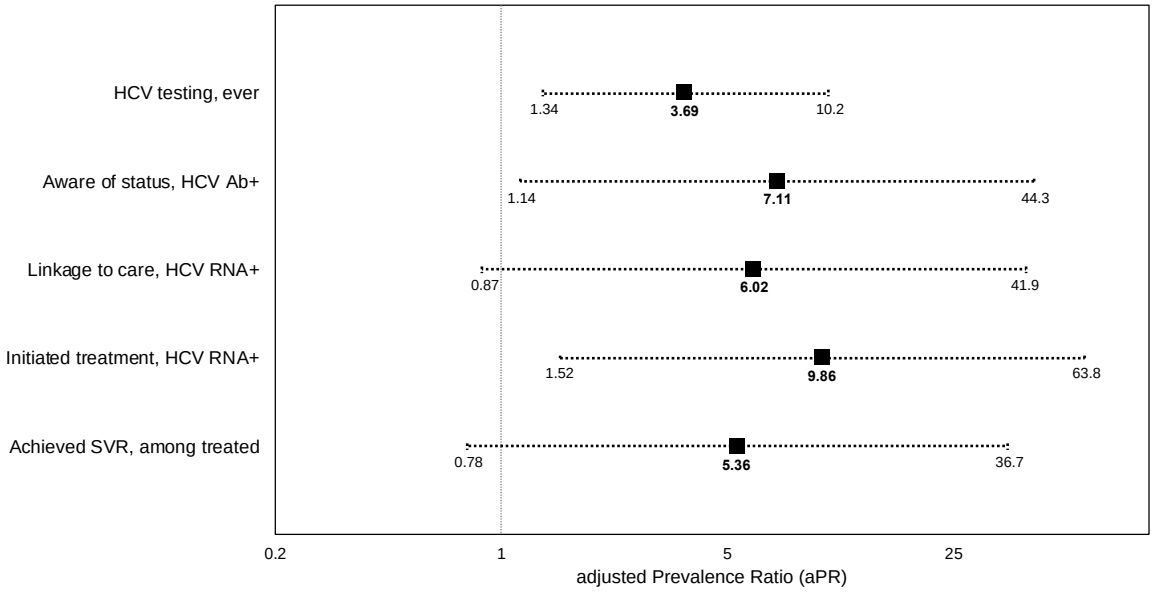
OAT clients (Ludhiana)

Counselor (Imphal)

Clinical exam (Imphal)

OAT Nurse (Ludhiana)

Integration of HCV testing improves 1st step of the care continuum (awareness)



- **Significant impact** on community HCV testing and **awareness**
- **Modest** impact on **linkage** to HCV care, **treatment uptake, cure**
- Need **on-site** HCV treatment, other strategies (**peers, incentives**) for linkage

Solomon SS et al *J Hepatology* 2019

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HCV testing and treatment:
Rapid on-site HCV testing with immediate HCV RNA confirmation and treatment with tailored adherence support (2020)

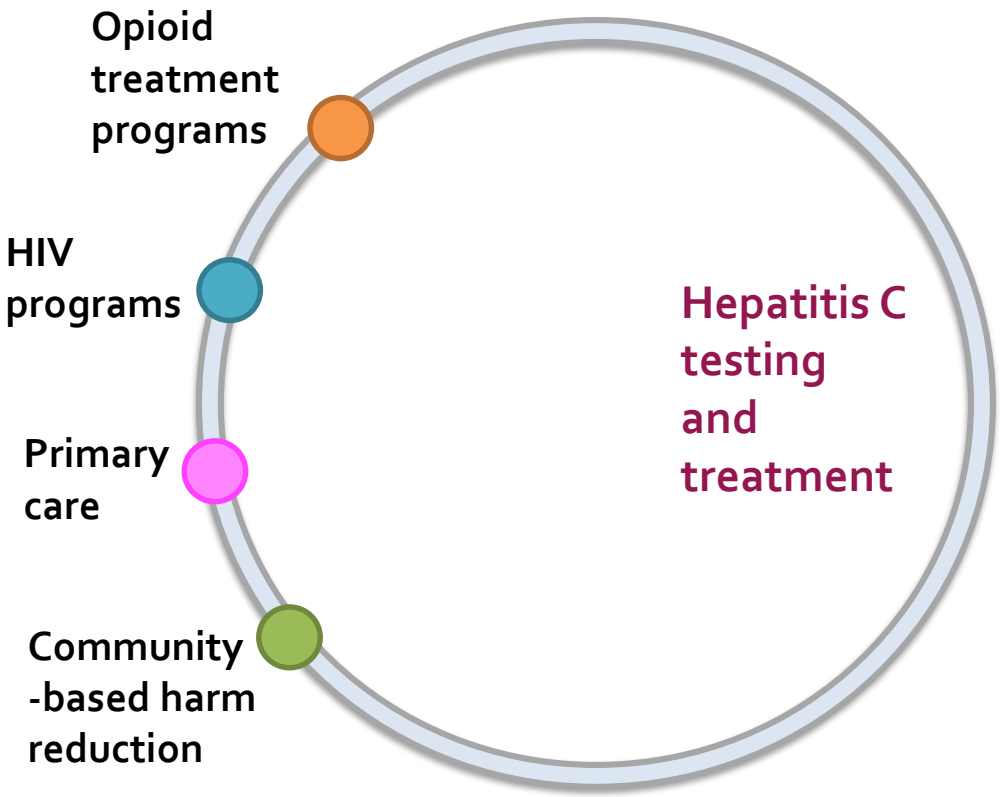
Integrating / co-locating services will be critical to optimal engagement in HCV care

Common themes

- Benefits of a **multidisciplinary team** with **task shifting** to improve efficiencies
- Important role for **telemedicine**
- **Integration** of multiple services desired

Future directions

- **Other venues** that need to be considered?
- How much **infrastructure** is really needed?



If you build it, will they come? *Is integration alone enough???*

Government / Health care system issues

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INDIVIDUAL

Should additional support be provided?

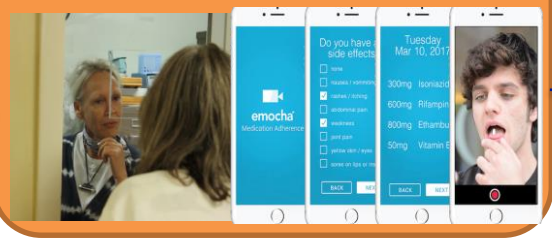
ELIGIBILITY

- Drug injection in prior 3 months
- DAA-treatment naïve
- Genotype 1-6
- With and without HIV

HCV tx integrated into OTP programs

HCV tx integrated into community health centers

A: mDOT



B: Patient Navigation

CHECK HEP C NEW YORK CITY

Tx Initiation → EOT → SVR 12

Tx Initiation → EOT → SVR 12

Arm A: 1) OTP = 150; 2) CHC = 150

Arm B: 1) OTP = 150; 2) CHC = 150

Consent | Baseline | Week 0 | Week 12 | Week 24

Monthly follow up

Quarterly follow up

Up to 12 weeks to initiate treatment

12 weeks sof/vel

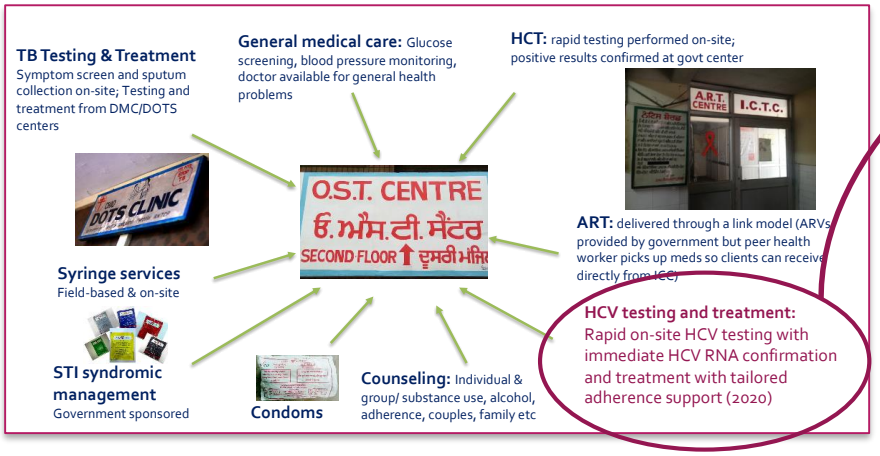
Week 120

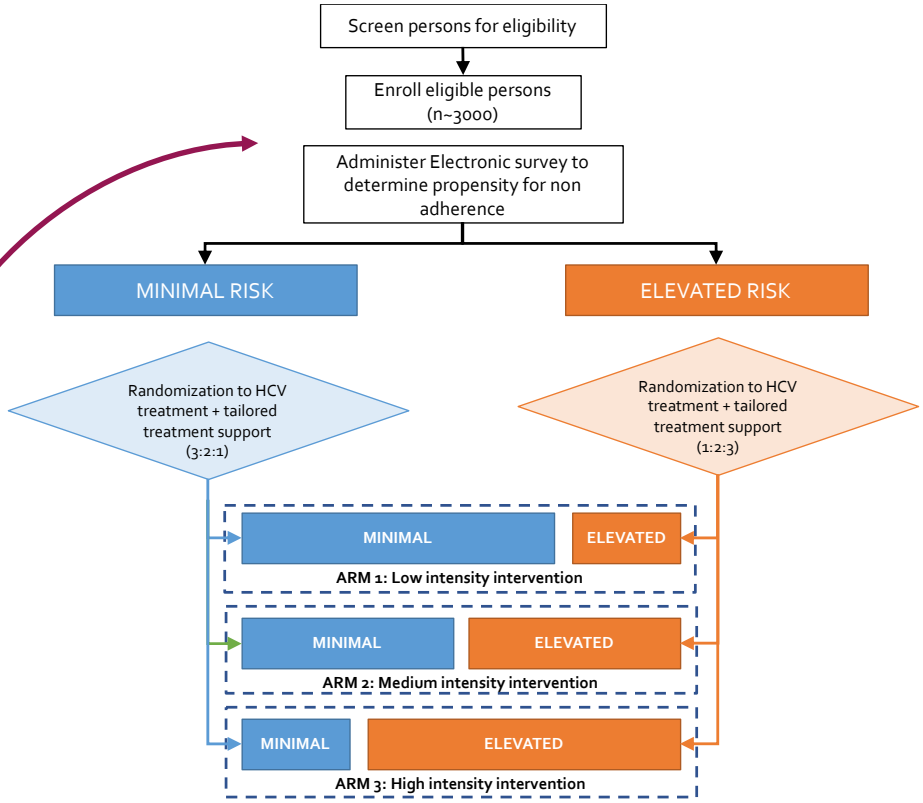
HERO

1890 screened, 961 eligible, 754 enrolled and randomized, 622 initiated treatment

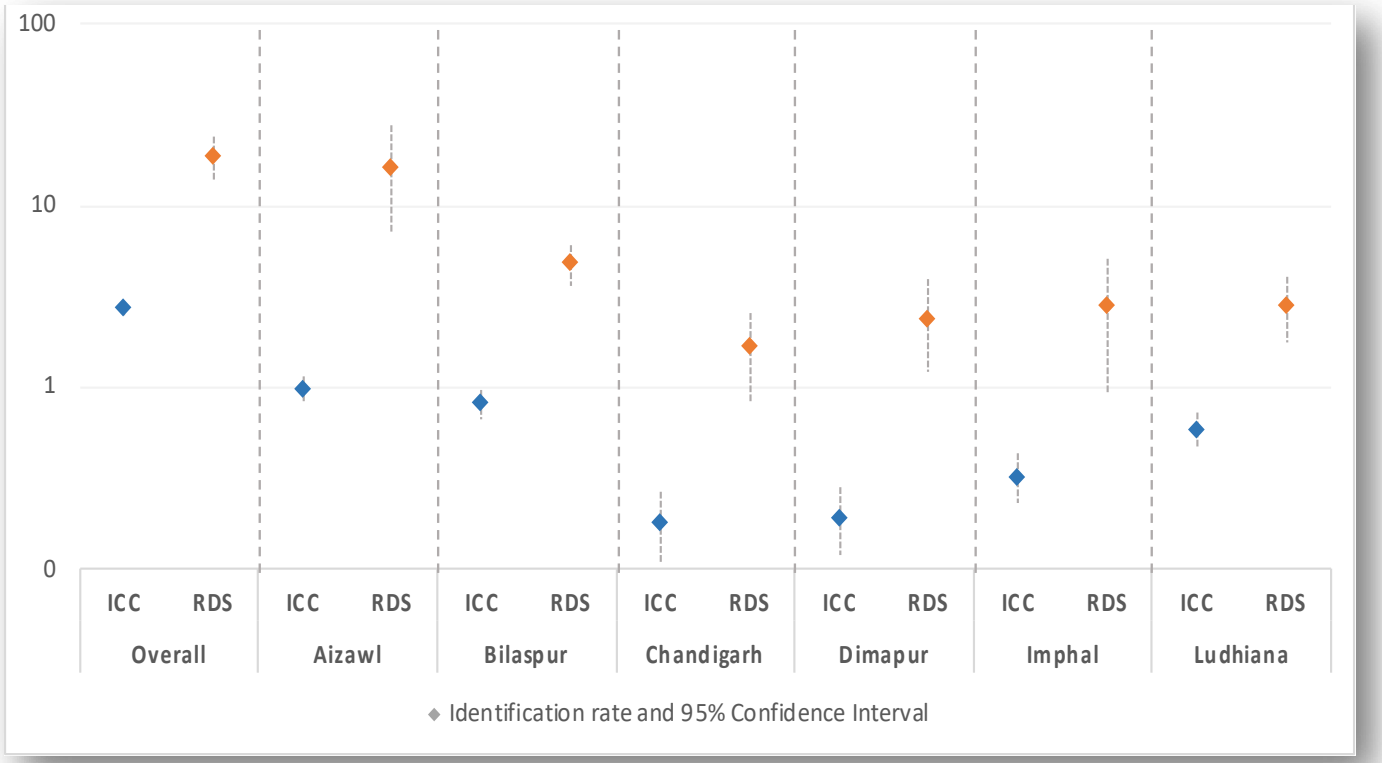
Can we tailor support to individual need?

Maximize impact, promote efficiency





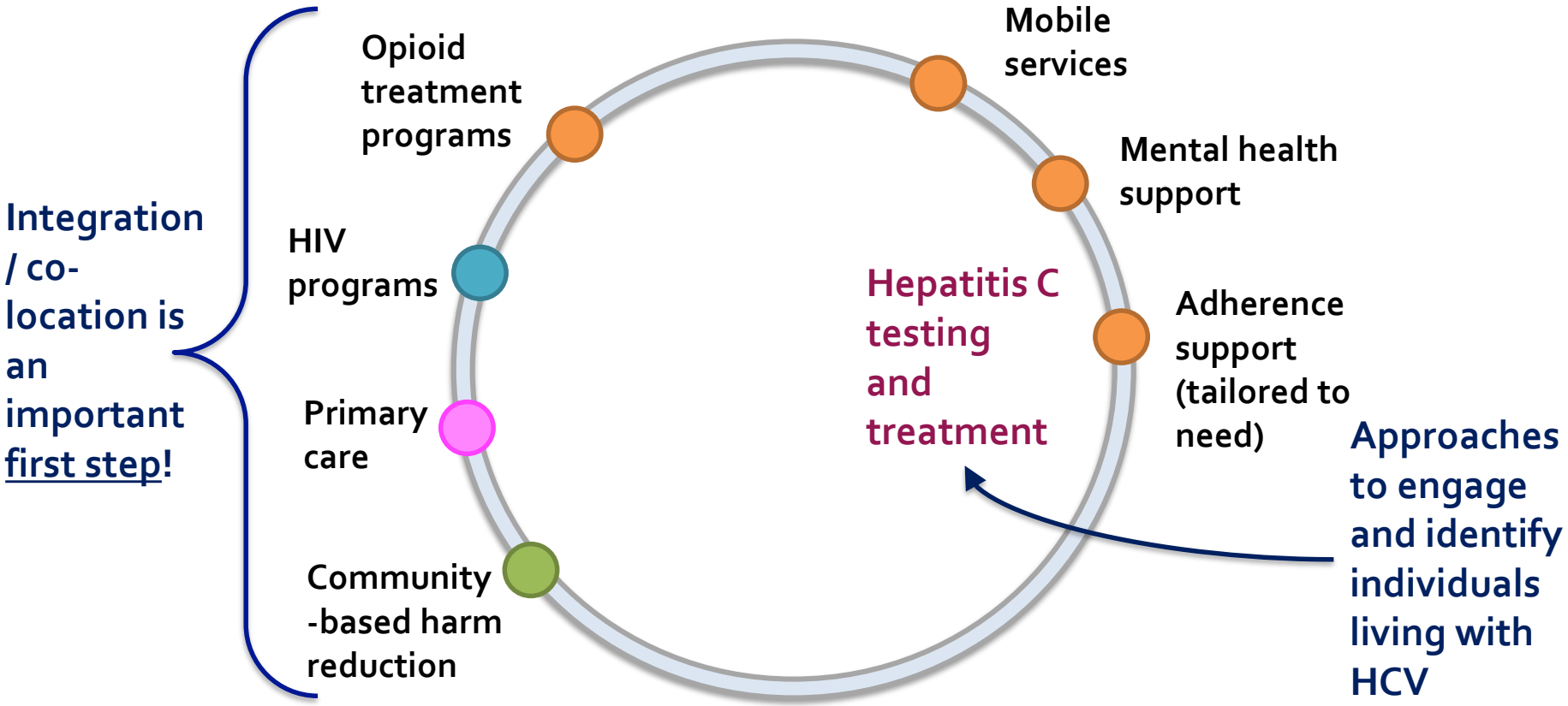
Will integrated care approaches reach the populations we need to reach?



- **Network-based referral strategy** (◆□) with modest compensation **more efficient** at identifying PWID unaware of status than integrated care strategy (◆□)
- **Highest risk, disengaged** PWID more often reached by network-based strategy

McFall AM et al IAS 2018

Combination approaches will be needed



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  - Aylur K Srikrishnan, S Anand, CK Vasudevan, Pradeep Amrose
- HERO Study team
- National AIDS Control Organisation, India
- Funding sources:
  - NIDA, NIAID (National Institutes of Health)
  - Elton Johns AIDS Foundation
- Study staff and participants

Rachael Edwards

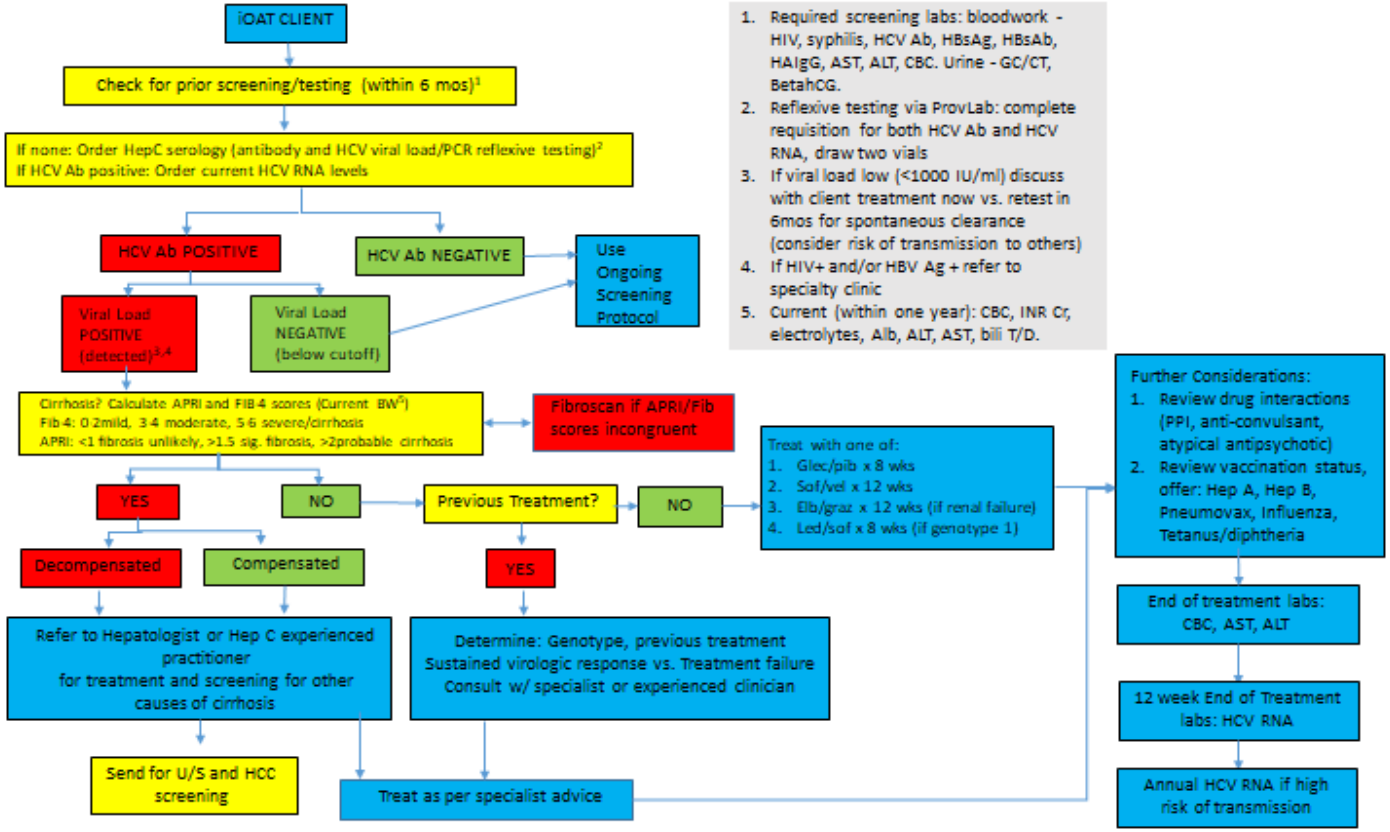
Rachael Edwards has spent the last 13 years working exclusively with vulnerable and marginalized populations through the Harm Reduction lens. She has extensive experience in program development, clinical teaching, and community engagement. She was integral in the development and implementation of end-of-life care programming for vulnerable populations through the Calgary Allied Mobile Palliative Program (CAMPP).

Rachael is a tireless advocate for low-threshold service provision, in the hopes of eliminating barriers for people who traditionally experience difficulty accessing health and social care. Through her six-year employment at the CUPS Liver Clinic, Rachael specialized in advocacy, education, screening, counselling and treatment of hepatitis C—this experience culminated in Rachael developing a strategic model for onsite and outreach liver clinics.

Reducing barriers to access and engagement through integration Calgary AB

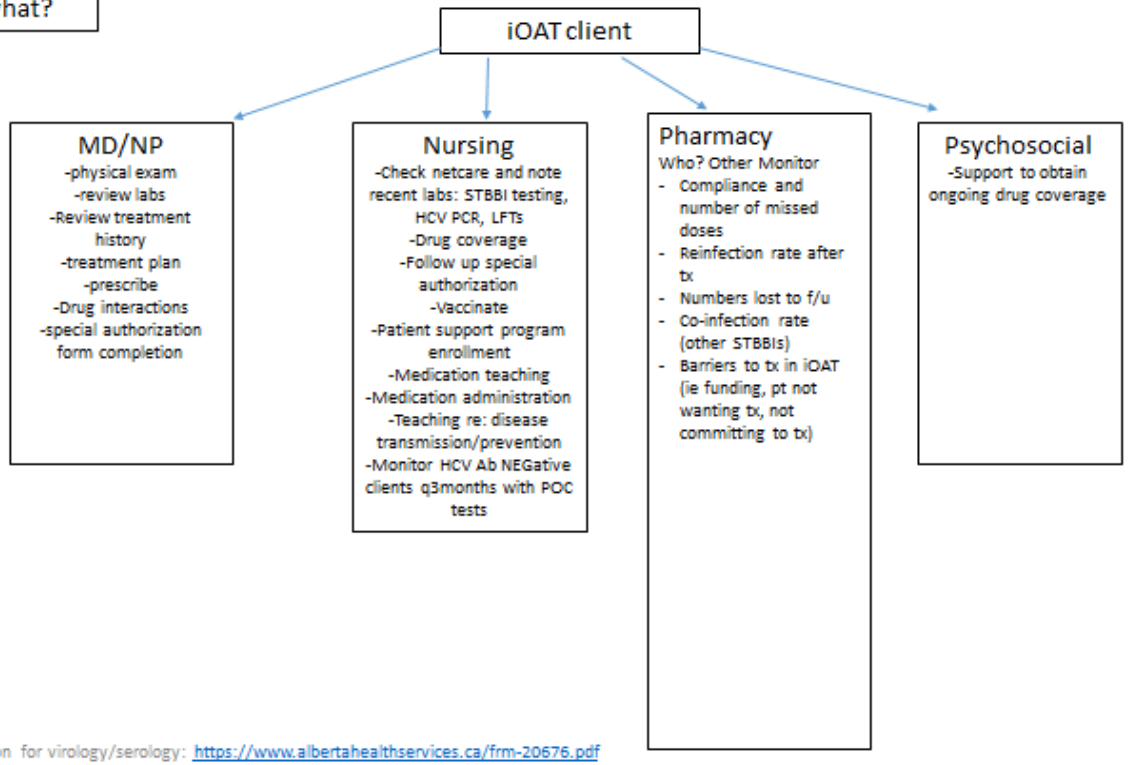
Rachael Edwards, RN BN
Hailey Mawer, RN BScN

What's Happening in Calgary?

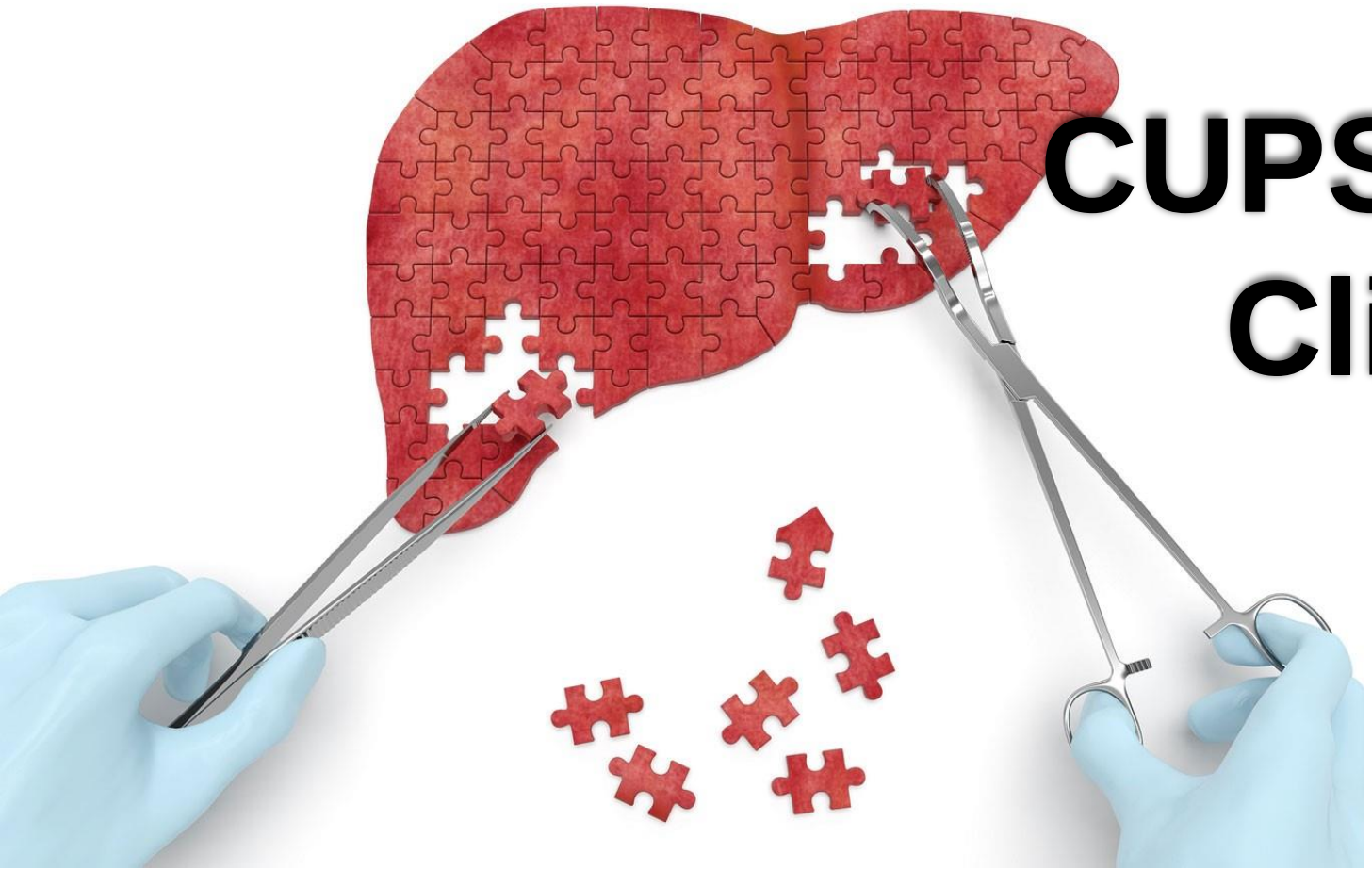


1. Required screening labs: bloodwork - HIV, syphilis, HCV Ab, HBsAg, HBsAb, HAIgG, AST, ALT, CBC. Urine - GC/CT, BetahCG.
2. Reflexive testing via ProvLab: complete requisition for both HCV Ab and HCV RNA, draw two vials
3. If viral load low (<1000 IU/ml) discuss with client treatment now vs. retest in 6mos for spontaneous clearance (consider risk of transmission to others)
4. If HIV+ and/or HBV Ag + refer to specialty clinic
5. Current (within one year): CBC, INR Cr, electrolytes, Alb, ALT, AST, bili T/D.

Who does what?



Resources:
Lab requisition for virology/serology: https://www.albertahealthservices.ca/frm-20676.pdf



CUPS Liver Clinic

Supervised Consumption service (SCS)

Safeworks – Calgary, AB

Supervised consumption services are a place where people can **use substances in a safe, hygienic environment** to reduce harm from substance use while offering additional services such as **STBBI testing including HIV and Hepatitis C** from select RNs

Treatment is more than just medication

“Management and care of a person [during] the combating of disease or disorder”

Dorland’s Medical Dictionary

Opportunities for improving access

Engage with people where they are accessing care

Westside Harm Reduction

Drug Policy & Education

info@westsideharmreduction.com

Matthew Bonn

Matthew Bonn is a Harm Reduction Advocate & Consultant. He is a member of the Halifax Area Network of Drug Using People (HANDUP) & Lead Peer with Peers Assisting & Lending Support (PALS). He is one of many of the co-Founders of the HaliFIX Overdose Prevention Society, which has implemented Atlantic Canada's first Overdose Prevention Site.

Matthew has lived experience with IV substance use, long term dependency on OAT, treatment for hepatitis C and being an ex-offender. He recently became a National Board member of the Canadian Students for Sensible Drug Policy.

PEER LED HCV ELIMINATION

By Matthew Bonn

FB: HANDUPhalifax
Twitter: @HANDUPhfx
IG: @HANDUPhfx

FB: HaliFIX902
Twitter: @halifix902
IG: @halifix902

FB: Mainline Needle Exchange
Twitter: @needleexchange2
IG: @mainlineneedleexchange902

Our services are located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq.

Local Context

In Nova Scotia there are approximately 60 Overdose related deaths each year, 300 new diagnoses of HCV & our HIV rates doubled from 2017-2018 reaching a confirmed 29 new diagnoses in 2018 up from 15 the year before.

In the Central Halifax Zone we have two Needle Exchange Services *Mainline Needle Exchange* has two locations, one in Halifax (1992) & one in Dartmouth (2019). There is two Needle Exchanges in the rest of Nova Scotia, *Northern Healthy Connections Society* in Truro & *The Ally Centre of Cape Breton in Sydney, Cape Breton.*

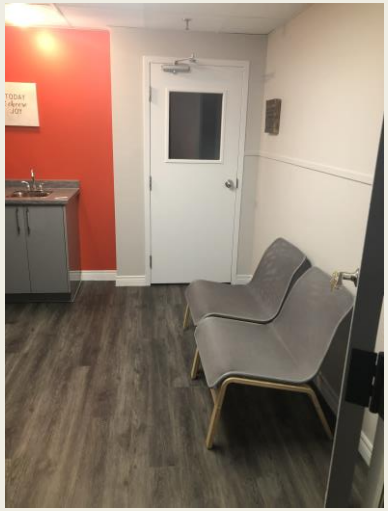
There is one Overdose Prevention Site in all of Atlantic Canada, *HaliFIX Overdose Prevention Society* has a 'Urgent Public Health Need Site' in the North End of Halifax.

Reducing Barriers to Access and Engagement in Hepatitis C Care through Integration in Halifax Nova Scotia

Direction 180 is a community-based, opioid treatment program located in the North End of Halifax, Nova Scotia. This non-profit organization has been running since 2001 as a program of the Mi'kmaw Native Friendship Center…

Direction 180 is the home of the HANDUP, PALS & the OPS.


2151
DIRECTION 180




HaliFix
Overdose Prevention Society

Peers Assisting & Lending Support
Mission

To reduce risky behaviors that could lead to HIV/HCV for 75-100 former or current substance users leaving CNSCF by up to 25%

By Providing:

Harm Reduction Supplies
Condoms/Lubrication
Naloxone
Hygiene Products

Additional Support includes Housing Referrals, Emergency Food Support, NS Government Identification, etc.


MAINLINE


Direction 180

Peer Led POCT Events

Six Monthly Events starting in January

Led by HANDUP members

Engage 10 Guests at the OPS to be Tested

Focus Group with participants with Healthy Snacks

Creating a Concept Paper “For Users by Users” on HCV Elimination

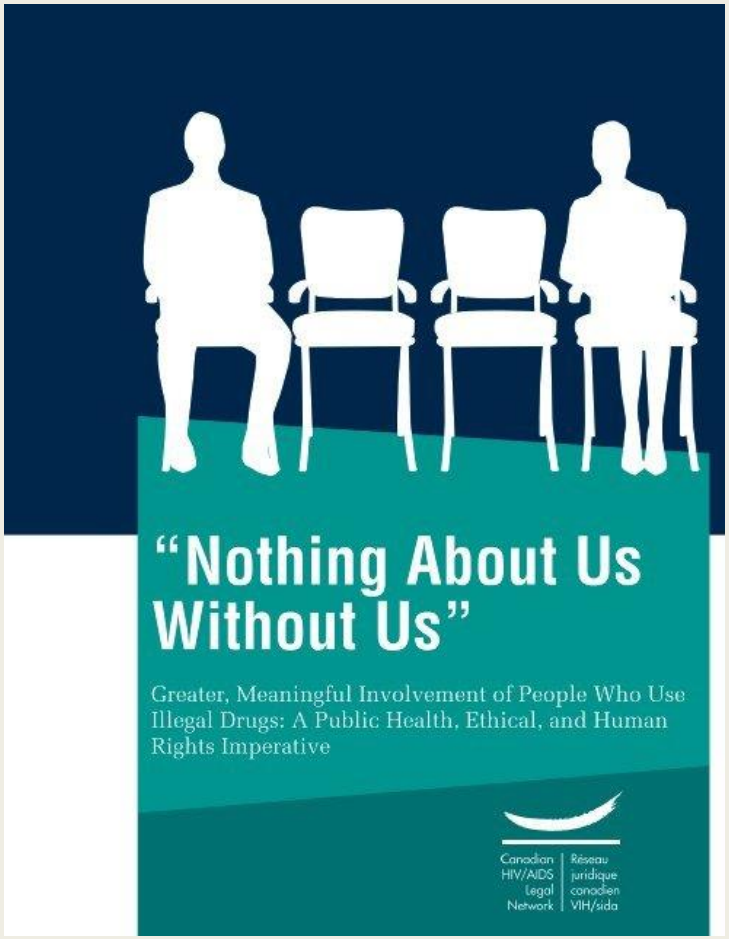
Local Hepatitis C Services

The Hepatitis Outreach Society of NS

HepNS is a charitable organization that reduces the impact of hepatitis through support, information and education. They have a “Travel Program” that will help get you to appointments related to Hepatitis C.

Hep C Program w/Dr. Lisa Barrett

This program has a ‘Self-Referral’ Line which allows patients to call directly to set up an appointment. The number is (902) 473-5594.



Thank you!

Matthew Bonn

Twitter: @m_bonnxx
IG: @mb0nnxx
FB: Matt Bonn

Audience questions?

Please type your question or comment into the chat box.

Thank you

Please complete the webinar evaluation that will be provided following this webinar.

PRESENTED BY

Amanda Giacomazzo, Moderator
Dr. Shruti Mehta
Rachael Edwards
Matthew Bonn

December 5th, 2019

CATIE
Canada's source for HIV and hepatitis C information