

Treating Hepatitis C Among People Who Use Drugs

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Disclosures

No conflicts of interest or relationships to disclose.

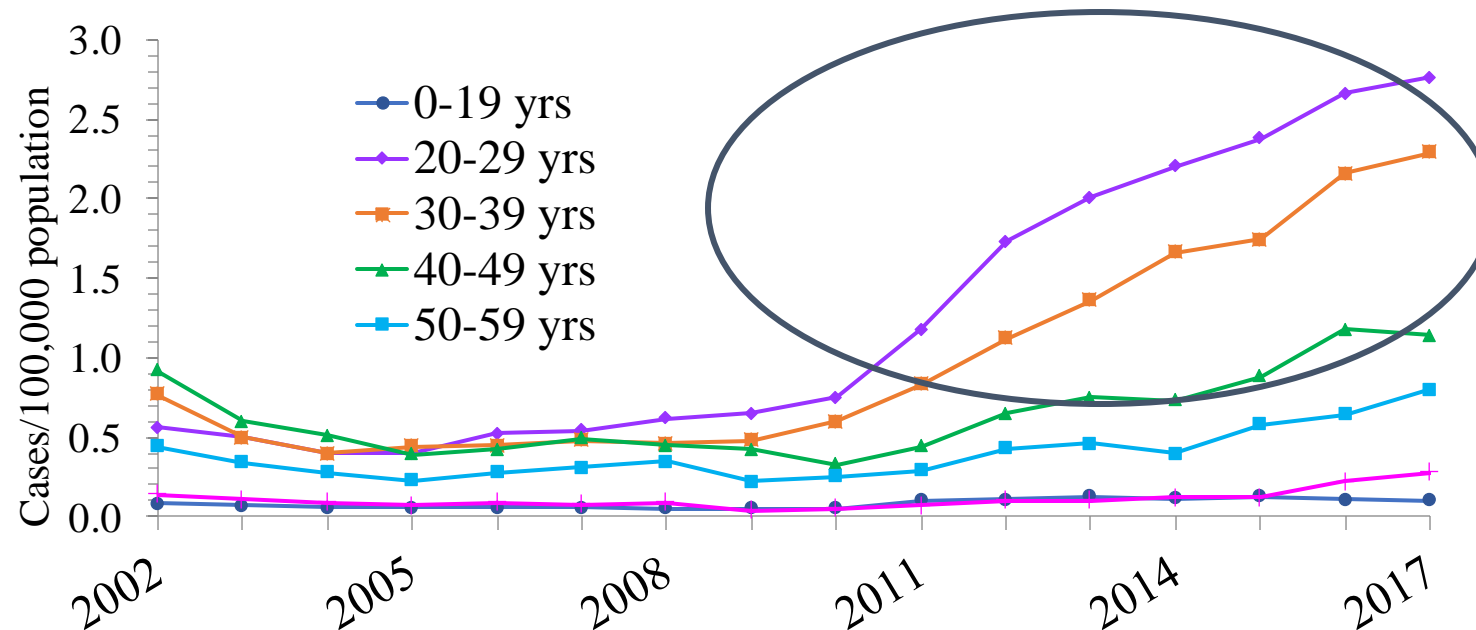
Some of the following slides come from a talk that was developed in collaboration with Judith Tsui, MD, and in partnership with the Washington Department of Health.

Objectives

- Epidemiology of hepatitis C (HCV) among people who use drugs (PWUD)
- Treatment as prevention among PWUD
- Countering myths about HCV treatment among PWUD
- Special considerations about HCV treatment among PWUD

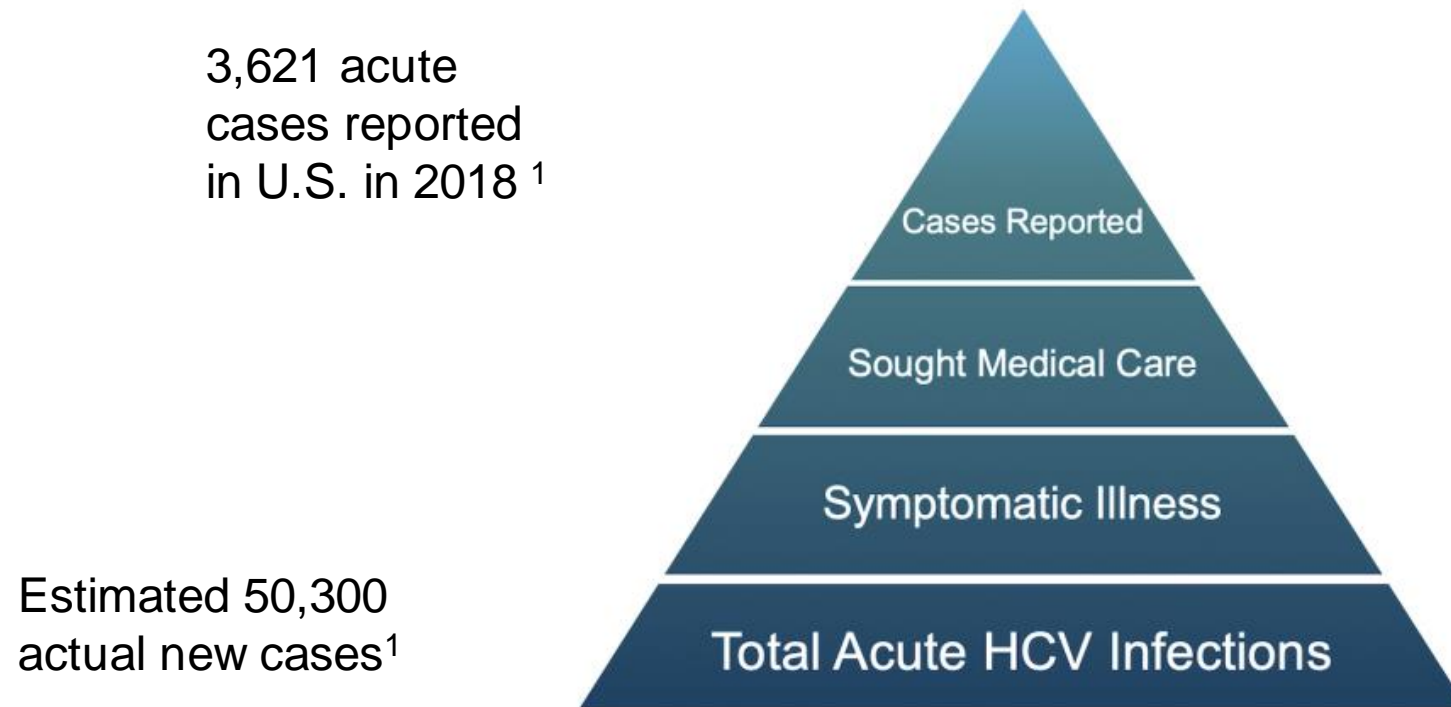
Opioid Epidemic and HCV

- **Emerging epidemic** of HCV among young people who inject drugs (PWID)
- Closely related to opioid epidemic



Opioid Epidemic and HCV

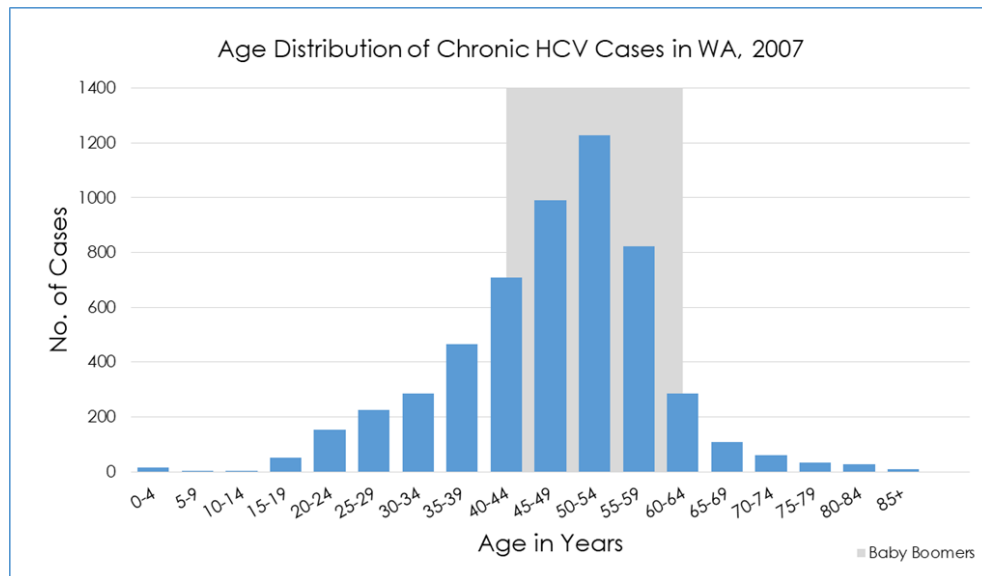
- **Reported acute infections are only the “tip of the iceberg”**



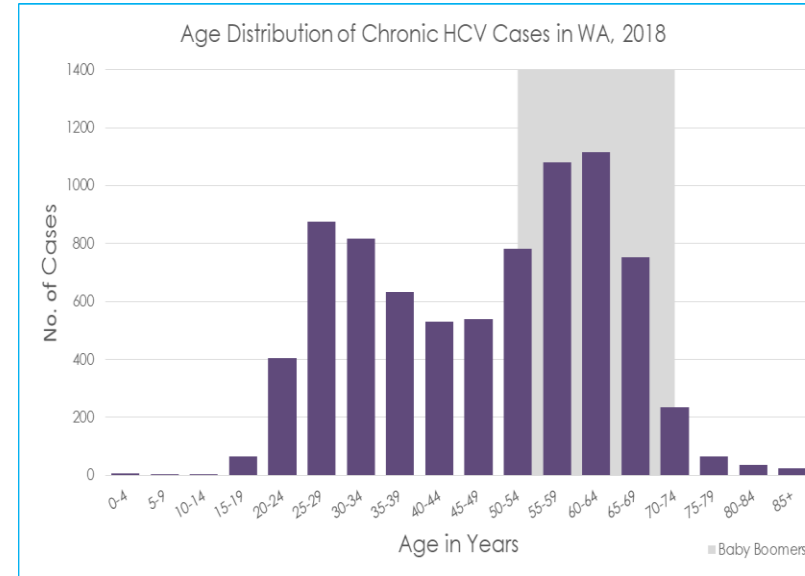
What about in Washington State?

- As throughout US, there are now **two epidemics: baby boomers and young people who inject drugs**

Chronic HCV in WA State



2007



2018

Source: WA State
Dept of Health

Treatment as Prevention for HCV among PWID

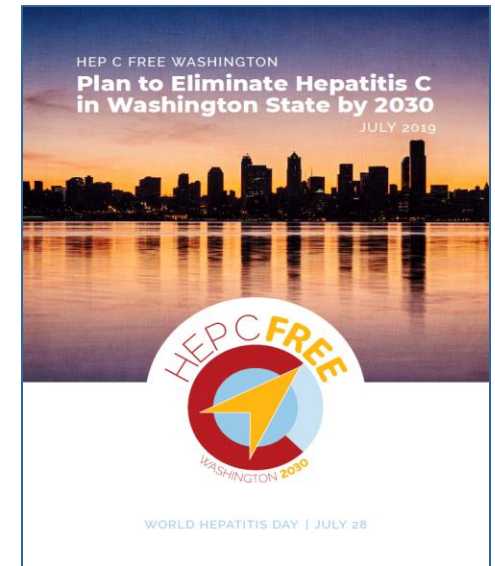
Treating populations that actively transmit HCV



Reduces new infections



Reduces prevalence over time



*Hep C Free Washington initiative identifies **PWID as a priority population for treatment**

Myths

#1 People who use substances can't be effectively treated / cured

#2 People who use substances are likely to get reinfected anyway

Though previously assumed true and incorporated into guidelines and coverage requirements, **these myths have been debunked...**

Countering Myth #1

- Studies from various settings show **good adherence** and **high cure rates** among people who use drugs, including those with injection drug use
- There are **NO data to support pretreatment screening** for illicit drug or alcohol use to select a population more likely to be successful with hepatitis C treatment

Elbasvir–Grazoprevir to Treat Hepatitis C Virus Infection in Persons Receiving Opioid Agonist Therapy

A Randomized Trial

Gregory J. Dore, MD; Frederick Altice, MD; Alain H. Litwin, MD; Olav Dalgard, MD; Edward J. Gane, MD; Oren Shibolet, MD; Anne Luetkemeyer, MD; Ronald Nahass, MD; Cheng-Yuan Peng, MD; Brian Conway, MD; Jason Grebely, PhD; Anita Y.M. Howe, PhD; Isaias N. Gendrano, MPH; Erluo Chen, MPH; Hsueh-Cheng Huang, PhD; Frank J. Dutko, PhD; David C. Nickle, PhD; Bach-Yen Nguyen, MD; Janice Wahl, MD; Eliav Barr, MD; Michael N. Robertson, MD; and Heather L. Platt, MD; on behalf of the C-EDGE CO-STAR Study Group*

- Randomized, double-blind, placebo-controlled trial of elbasvir/grazoprevir for treatment-naïve patients¹ enrolled in opioid agonist treatment
- Participants had to be at least 80% adherent to OAT visits
- Primary outcome: proportion of patients with SVR 12
- Results:
 - 301 patients, 76% men, 80% white, >46% with positive urine screens
 - **91.5% had SVR 12**

¹Genotypes 1, 4, 6

Sofosbuvir and velpatasvir for hepatitis C virus infection in people with recent injection drug use (SIMPLIFY)

- Open-label international trial of sofosbuvir/velpatasvir among people with HCV¹ and injection drug use within 6 months
- Therapy was given in one-week electronic blister packs
- Primary outcome: proportion of patients with SVR 12
- Results:
 - 103 patients, mostly male, 59% receiving opioid agonist treatment, 74% had injected in last month
 - 97% completed treatment, **94% had SVR 12**, drug use did not affect SVR

Countering Myth #2

- *Rate of reinfection among people who use drugs is low...*
 - And substantially lower than rates of first infection^{1,2}
 - Hepatitis C treatment has been associated with reduced opioid injecting/sharing³
- Rate of reinfection is *decreased...*
 - When people receive **medications for opioid use disorder**¹
 - When people use **syringe service programs**
- **Some degree of reinfection suggests you are treating the right population**

¹Hajaridazeh, J Hepatol 2020; ²Morris, Clin Infect Disease 2017; ³Artenie, Clin Infect Disease 2020

Meta-analysis of rate of HCV reinfection

- Studied reinfection among 1) people who recently used drugs, and 2) those on opioid agonist treatment
- 36 studies with 6,311 person-years follow up



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Research Article

Hepatitis C reinfection after successful antiviral treatment among people who inject drugs: A meta-analysis

Behzad Hajarizadeh¹, Evan B. Cunningham¹, Heather Valerio¹, Marianne Martinello¹, Matthew Law¹, Naveed Z. Janjua^{2,3}, Håvard Midgard⁴, Olav Dalgard⁵, John Dillon⁶, Matthew Hickman⁷, Julie Bruneau⁸, Gregory J. Dore¹, Jason Grebely¹

Population	# Studies	Person-years f/u	Rates of reinfection per 100 person-years
Injecting or non-injecting drug use	33	5,061	5.9 (95% CI 4.1-8.5)
Injecting drug use	31	4,648	6.2 (95% CI 4.3-9.0)
Opioid agonist treatment	25	2,507	3.8 (95% CI 2.5-5.8)

Key Points about Reinfection

Cured patients remain vulnerable to reinfection

Screen those with risk factors with HCV RNA

Try to minimize shame around reinfection

Reinfection risk is reduced by use of NSPs and medications for OUD

Offer harm reduction services, encourage meds for OUD

Some degree of reinfection is a sign that you are treating the right population

Don't let reinfection risk be a barrier to treatment

Psychosocial Benefits of Cure of HCV

- Improved self-efficacy and empowerment
- Relief from stigma and from illness-related uncertainty, stress¹
- Positive impacts on substance use
 - *“Clearing HCV will help in defeating the bigger problems, because it’s like trying to get up when you’ve got 100 bricks on ya. But then if I took half the bricks off from the Hep C, then now I’ve got a bit more movement and I can start taking the bricks off.”*¹
 - *“Everything changed. I stopped drug use. I stopped everything because I said if I beat the Hep C, I could beat that too. Praise God up to today, I feel so good.”*²

Interest in HCV Treatment is High Among PWID

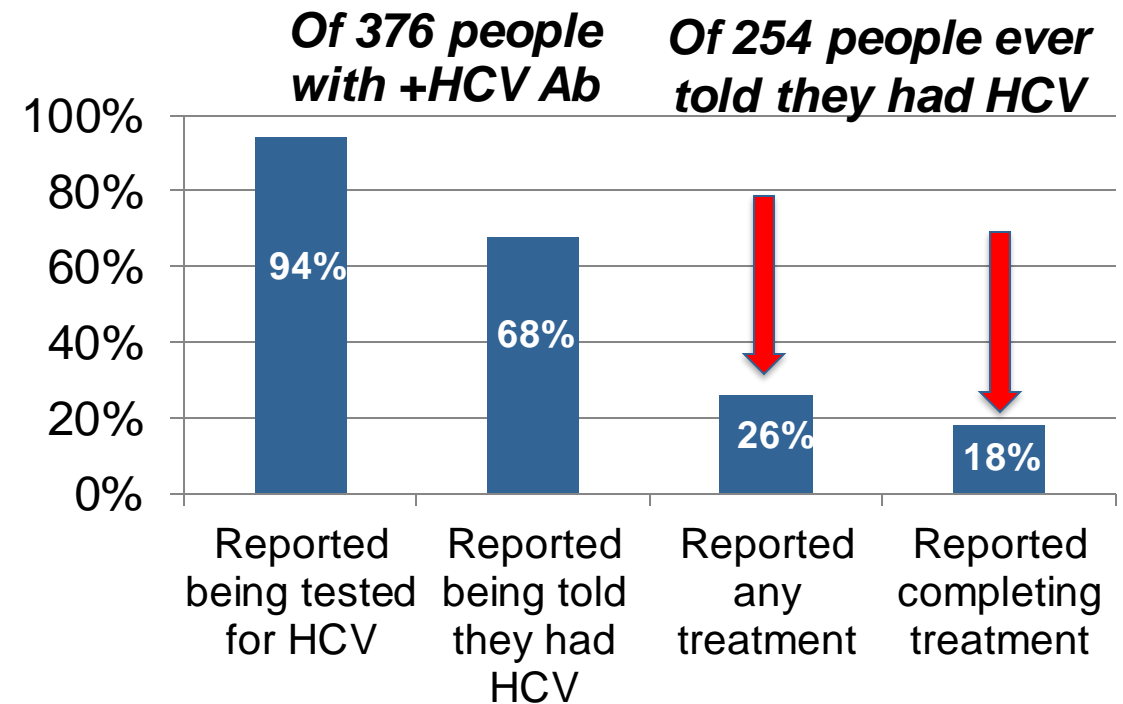
- **58%** of respondents to a state syringe exchange survey from 2019 **reported HCV testing** in the last year
- Of those diagnosed with HCV,
 - 28% had received any treatment
 - **68% reported interest in treatment**



Photo: Hepatitis Education Project

But...Ongoing Treatment Gaps Require Work

- Study of PWID in Seattle area found that only 26% of those who knew they had HCV reported any treatment
- **Urgent need to**
 - **connect people diagnosed with HCV to “rapid start” of treatment**
 - **offer treatment in settings in which PWID are seen**



HCV Care Continuum among Seattle PWID, National HIV Behavioral Surveillance Survey, 2018

Special Considerations for HCV Treatment Among PWUD

- Benefits of treatment at individual level may extend to improved control over substance use, decreased psychosocial stress, increased self-efficacy
- There are public health benefits when PWUD are cured
- Treating HCV among PWUD may help combat stigma on part of both providers and patients
- Treating HCV provides opportunities to engage patient in
 - Harm reduction counseling
 - Assessment and treatment of other substance use (alcohol, opioids, tobacco, etc.)
 - General medical care (screening, immunizations), improved patient-provider relationships

Special Considerations for HCV Treatment Among PWUD

- **Quick start to treatment** may be particularly important among PWUD
 - Care transitions/disruptions are particularly common
- **Low-barrier treatment** is important in setting of competing priorities (SUD care, housing, other medical problems) and frequent distrust/distaste for medical interactions
- Provide HCV care in other settings where PWUD are seen
- Keep in mind that DAA's are forgiving of imperfect adherence

Conclusions

- Treating HCV among PWUD is critical to combatting current epidemic of HCV infection
- PWUD want HCV treatment and have high rates of cure, but most have still not been offered treatment
- HCV treatment among PWUD should be offered promptly and in settings in which this population is seen
- Reinfection after HCV treatment is low, especially when people receive medications for opioid use disorder and use syringe service programs

Thank you!

- Questions/discussion

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