

# Treating Hepatitis C Among People Who Use Drugs

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# Disclosures

No conflicts of interest or relationships to disclose.

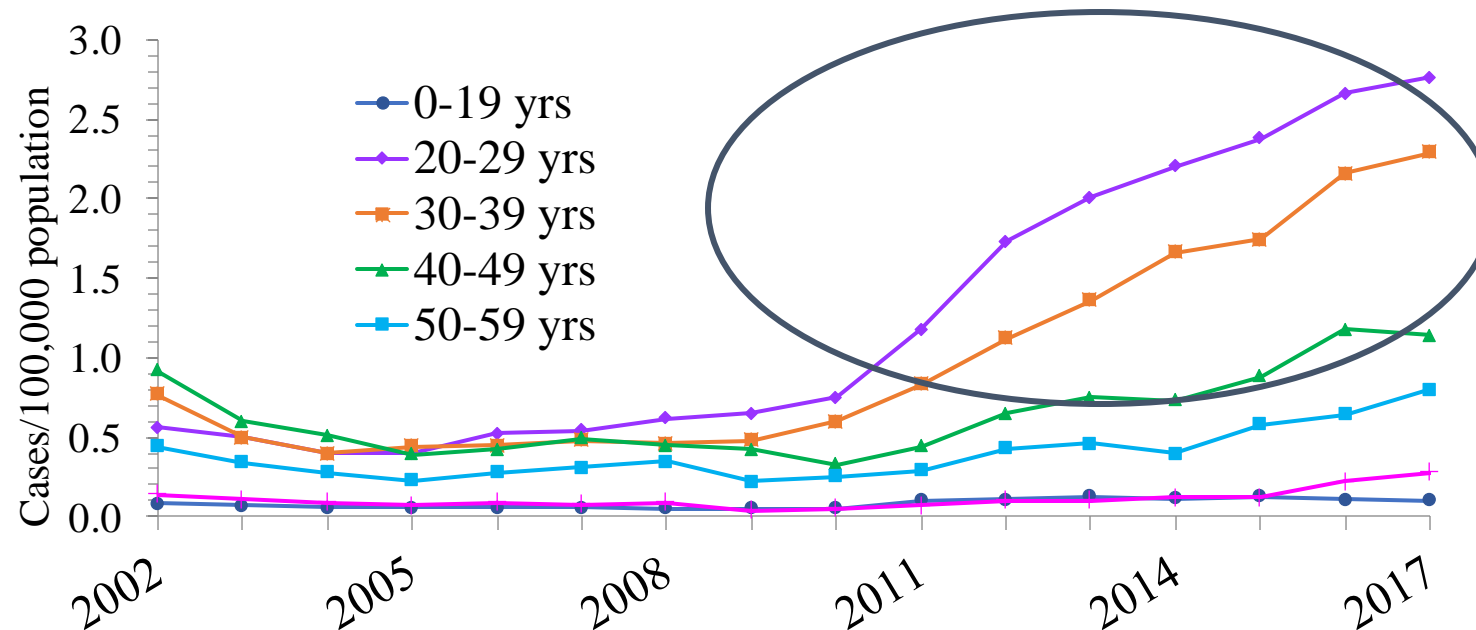
Some of the following slides come from a talk that was developed in collaboration with Judith Tsui, MD, and in partnership with the Washington Department of Health.

# 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

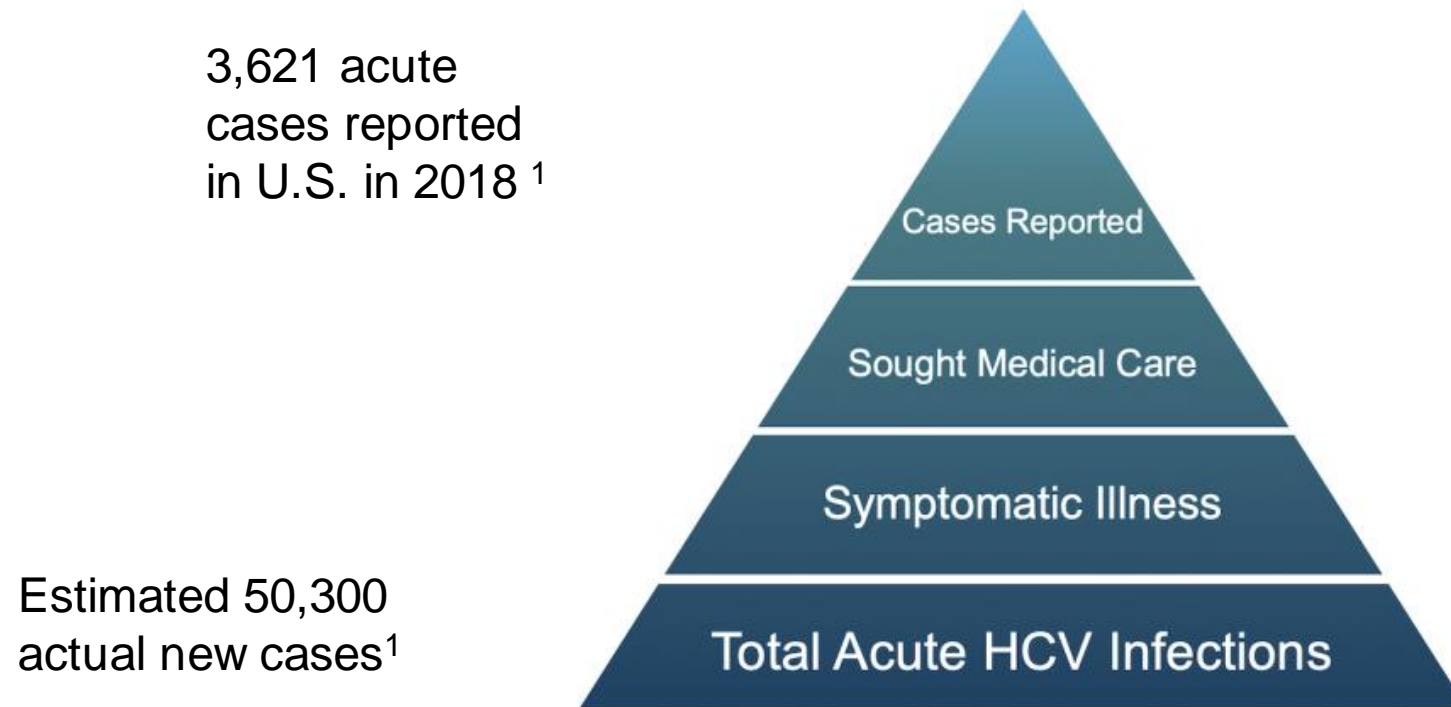
# Opioid Epidemic and HCV

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



# Opioid Epidemic and HCV

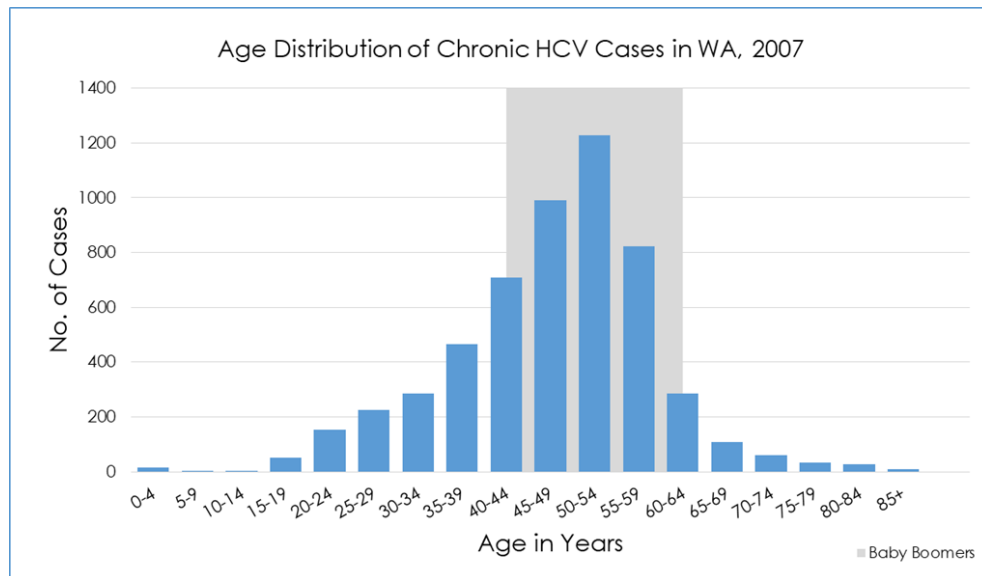
- **Reported acute infections are only the “tip of the iceberg”**



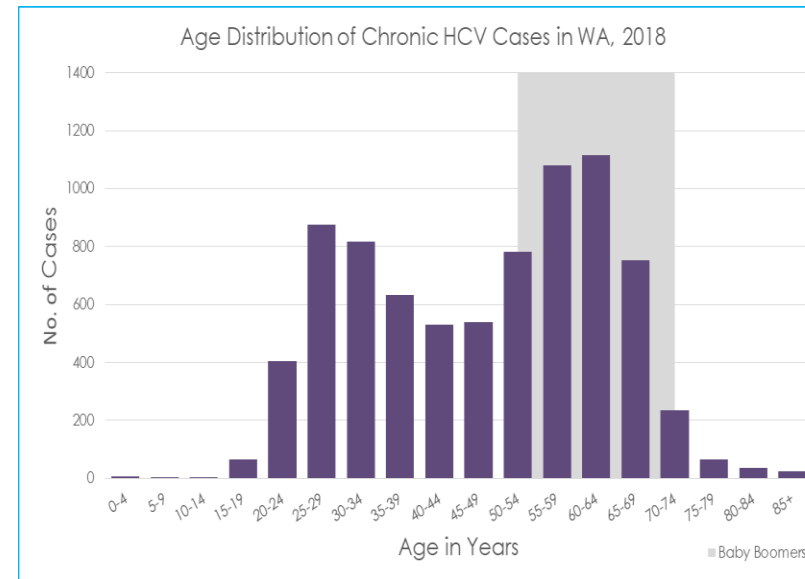
# What about in Washington State?

- 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

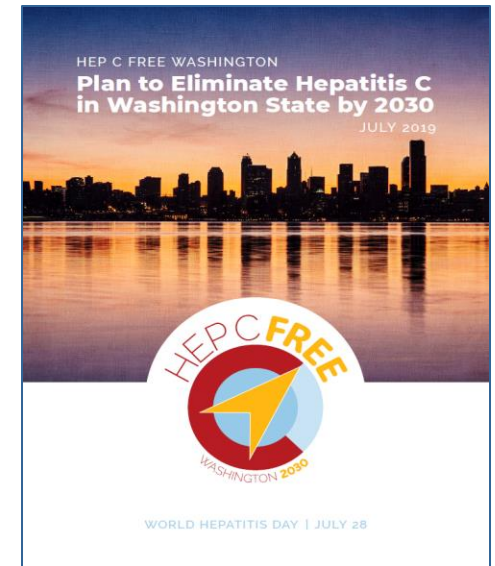
Treating populations that actively transmit HCV



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 patients<sup>1</sup> 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**

<sup>1</sup>Genotypes 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 HCV<sup>1</sup> 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<sup>1,2</sup>
  - Hepatitis C treatment has been associated with reduced opioid injecting/sharing<sup>3</sup>
- Rate of reinfection is *decreased...*
  - When people receive **medications for opioid use disorder**<sup>1</sup>
  - When people use **syringe service programs**
- **Some degree of reinfection suggests you are treating the right population**

<sup>1</sup>Hajaridazeh, J Hepatol 2020; <sup>2</sup>Morris, Clin Infect Disease 2017; <sup>3</sup>Artenie, 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 Hajarizadeh<sup>1</sup>, Evan B. Cunningham<sup>1</sup>, Heather Valerio<sup>1</sup>, Marianne Martinello<sup>1</sup>, Matthew Law<sup>1</sup>, Naveed Z. Janjua<sup>2,3</sup>, Håvard Midgard<sup>4</sup>, Olav Dalgard<sup>5</sup>, John Dillon<sup>6</sup>, Matthew Hickman<sup>7</sup>, Julie Bruneau<sup>8</sup>, Gregory J. Dore<sup>1</sup>, Jason Grebely<sup>1</sup>

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, stress<sup>1</sup>
- 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.”*<sup>1</sup>
  - *“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.”*<sup>2</sup>

# 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

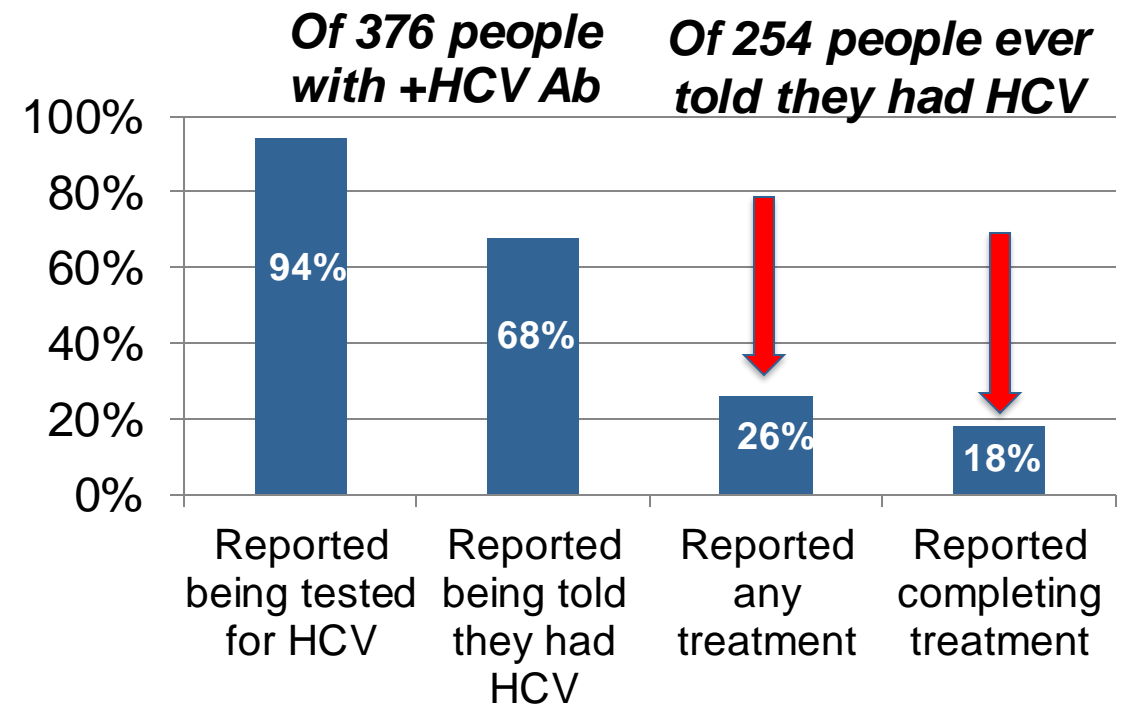


Photo: Hepatitis Education Project



# 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

# Acknowledgment

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