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Northwest



**Thank you for joining us! The webinar will begin shortly.**

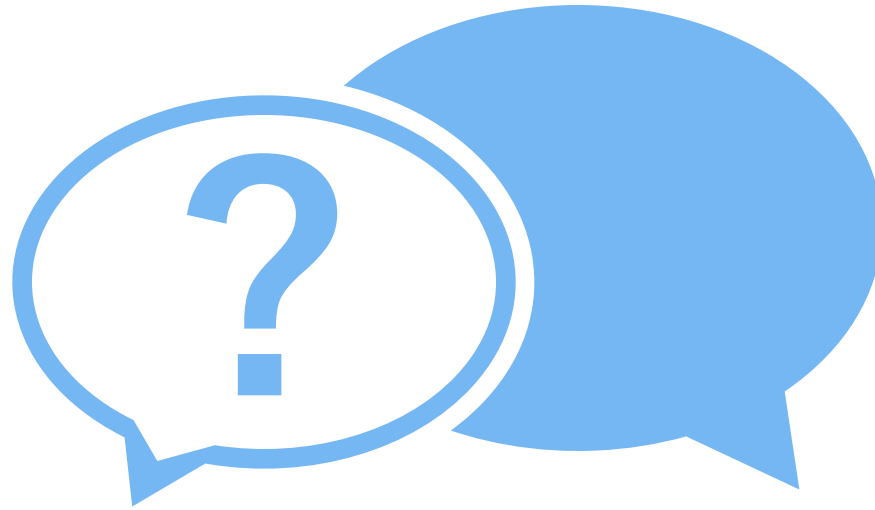
Northwest ATTC presents:

## **Syndemic Care for People Struggling with Substance Use Disorder (SUD) – Leveraging Direct to Inject (DTI) Strategies to Improve Care Integration**

- **Participants are automatically muted during this presentation**
- **Got questions?** Type them into the chat box at any time and they will be answered at the end of the presentation.
- An ADA-compliant recording of this presentation will be made available on our website at: <http://attcnetwork.org/northwest>

## Questions?

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# Today's Presenter



**Chris Bosis, MD, AAHIVS**  
**Clinical Director**

**UCSF National Clinician Consultation Center (NCCC)**

Chris Bosis, MD, AAHIVS, is the Clinical Director of the National Clinician Consultation Center (NCCC) and a family physician experienced in working with communities that have suffered disproportionately from the overlapping infectious disease and substance use disorder syndemic. He is a graduate of the Yale School of Medicine and did his family medicine residency at Brown University/Memorial Hospital of Rhode Island. In addition to his work at NCCC, he works at San Francisco General Hospital's Ward 86 and Bridge clinics, where he cares for people with HIV and substance use disorder, and is currently a Professor of Family and Community Medicine at the University of California, San Francisco (UCSF).



# Syndemic care for people struggling with substance use disorder (SUD) – leveraging direct to inject (DTI) strategies to improve care integration

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May 20, 2026

[www.nccc.ucsf.edu](http://www.nccc.ucsf.edu)



# Acknowledgement

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# Disclaimer

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# Goals and objectives

- Define what we mean by the SUD/HIV syndemic
- Describe the impact of SUD on HIV incidence and other key HIV-related outcomes
- Describe 2 common DTI strategies for initiating people on buprenorphine for SUD treatment, and how such strategies can inform the application of long-acting HIV prevention and treatment options to provide low barrier, integrated care for this community



# Background & Epidemiology

# What do we mean by “the HIV/SUD syndemic”?

- What is a syndemic?<sup>1</sup>
  - Clustering of 2 or more diseases/health conditions within a population, often due to social and/or structural factors, resulting in excess disease burden; arise when:
    - Two (or more) diseases or health conditions cluster and interact within a population;
    - Social and structural factors allow for diseases or health conditions to cluster; and
    - The clustering of disease or health conditions results in disease interaction, either biologic or social or behavioral, leading to an excess burden of disease and continuing health disparities.

**1** <https://www.hiv.gov/blog/defining-the-term-syndemic>

# The interplay between HIV and SUDs – key trends

**HIV care continuum**

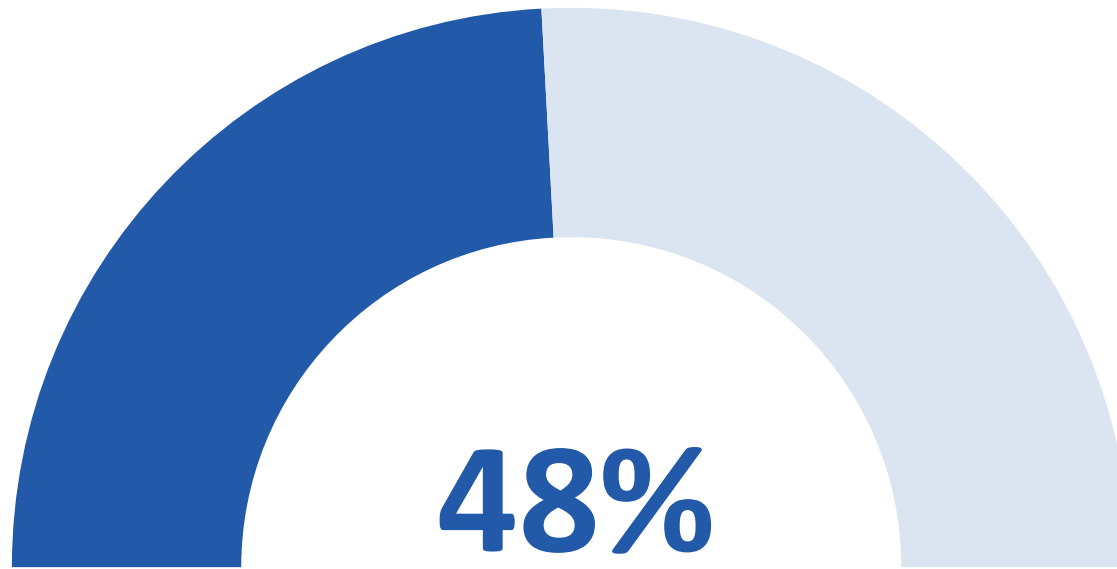
Mortality data

PrEP knowledge and use

# HIV care continuum among PWID

- **Testing and diagnosis**
- Linkage and retention in care
- Treatment and viral suppression

# HIV testing among persons who inject drugs is low.



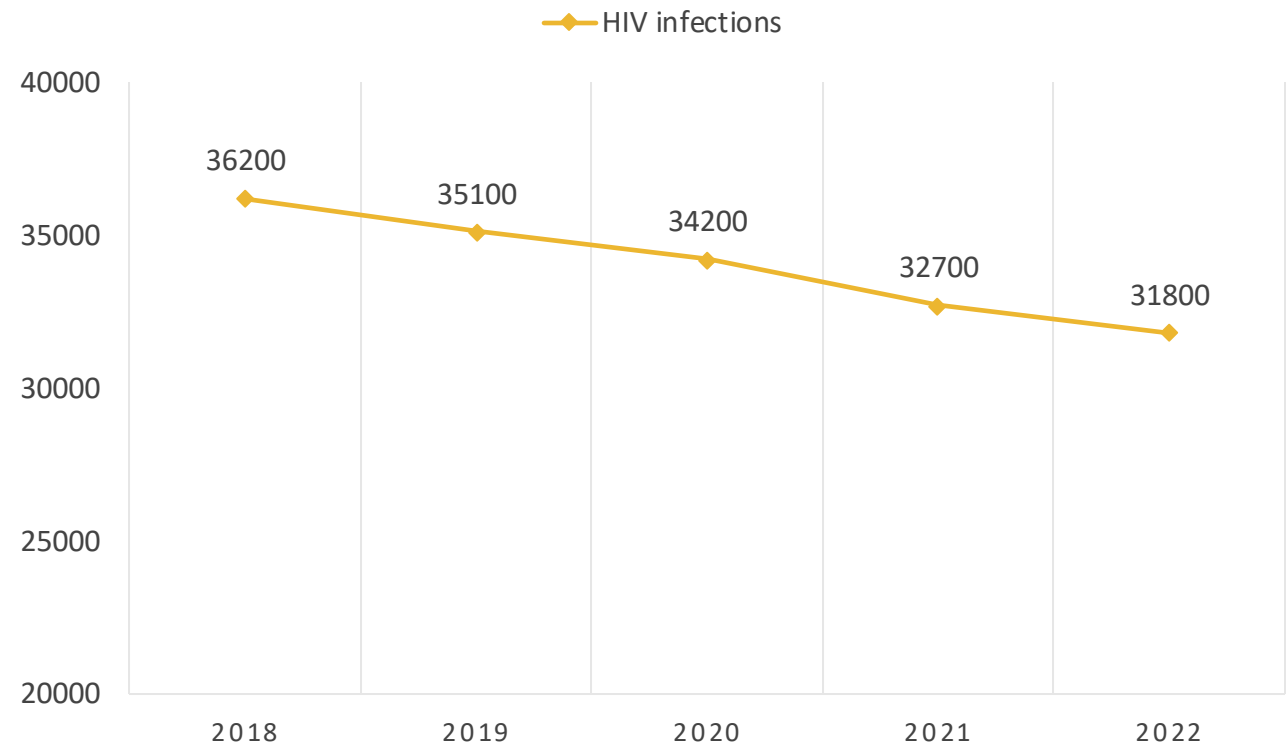
tested for HIV, past 12 months



# New HIV infections in the US as a whole are declining, but....

- New clusters and outbreaks PWID continue to emerge
- Since 2015, outbreaks in:
  - Scott County, IN
  - Miami, FL
  - Northeast MA
  - Boston, MA
  - Hennepin & Ramsey Counties, MN
  - Multnomah County, OR
  - Philadelphia, PA
  - Seattle, WA
  - Cabell County, WV
  - Alaska
  - Bangor, ME

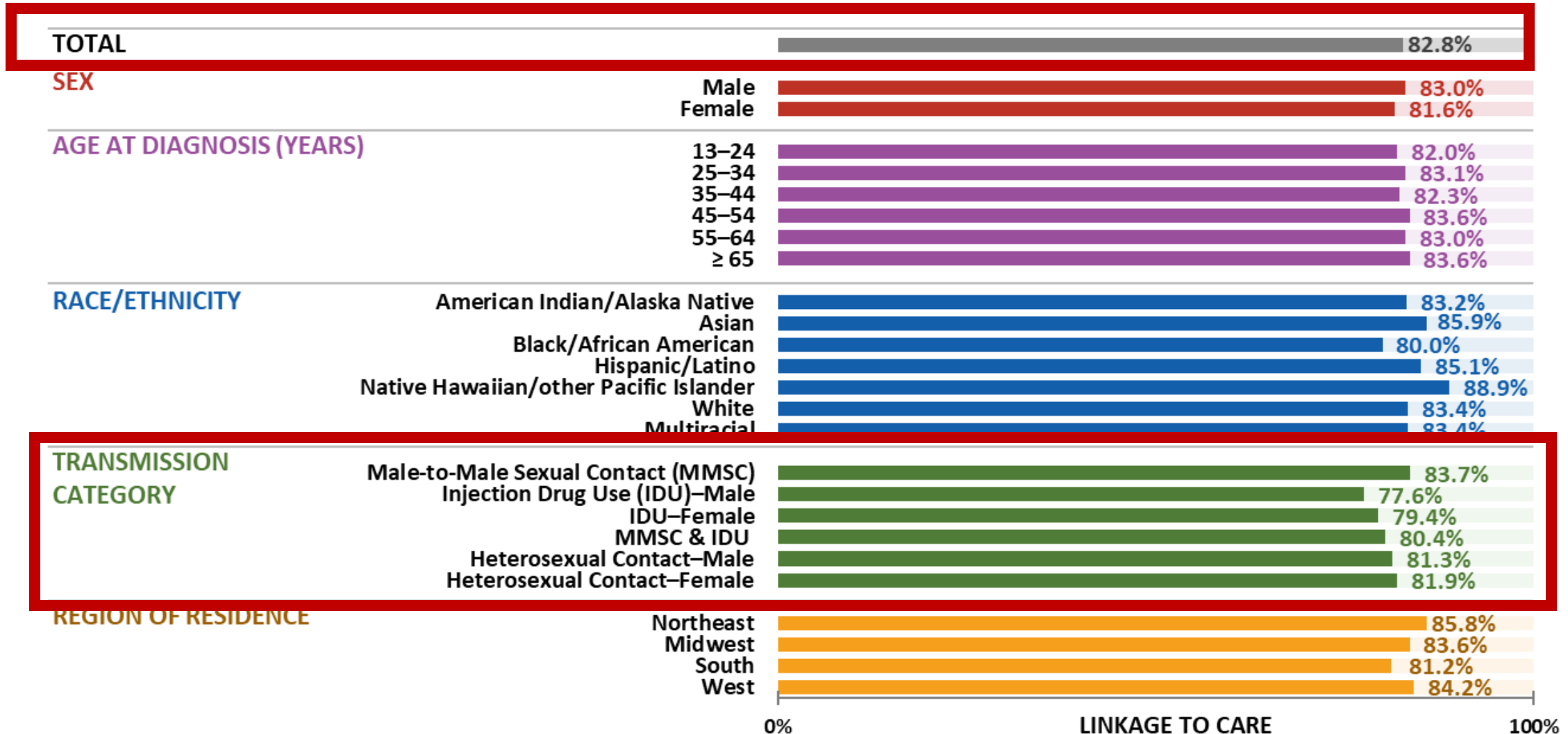
## ESTIMATED NEW HIV INFECTIONS, US



# HIV care continuum among PWID

- Testing and diagnosis
- **Linkage and retention in care**
- Treatment and viral suppression

# Linkage to HIV medical care within 1 month of HIV diagnosis, by selected characteristics, 2023—United States



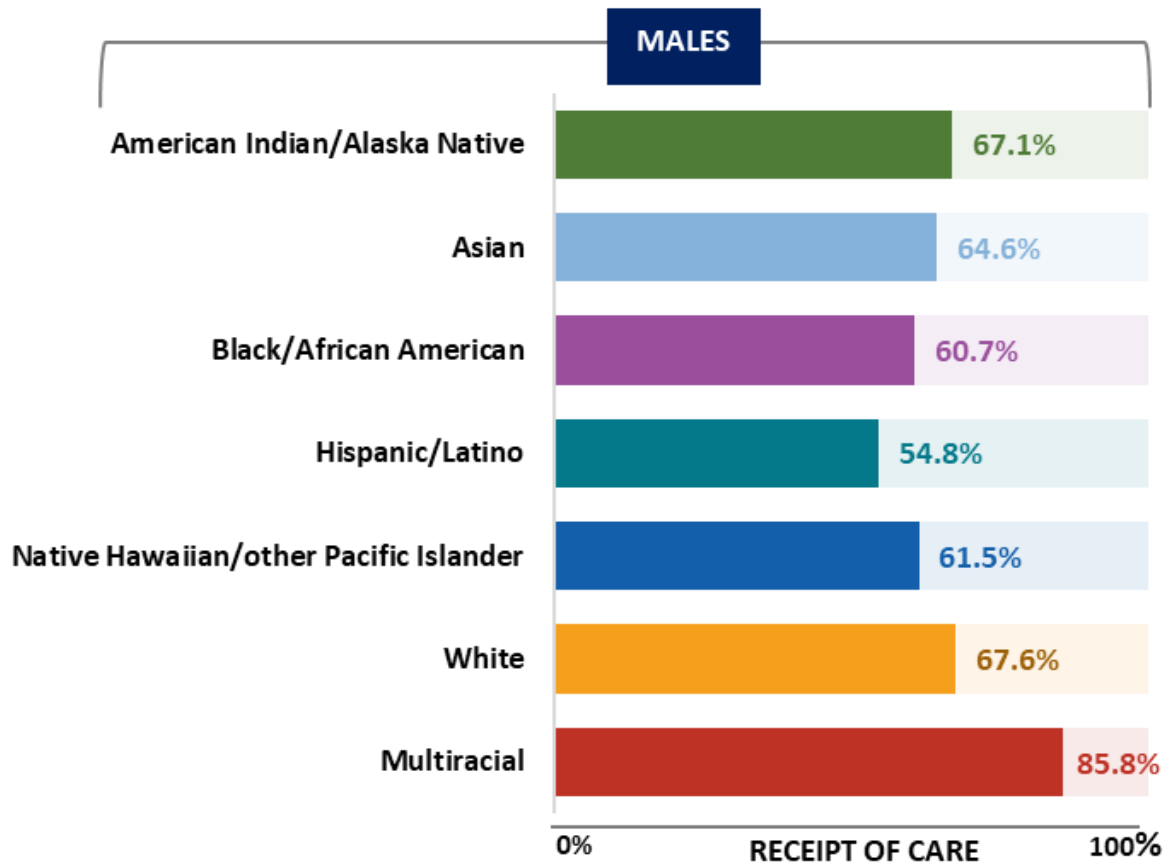
Note. Data are presented for persons aged ≥ 13 years at diagnosis. Hispanic/Latino persons can be of any race.



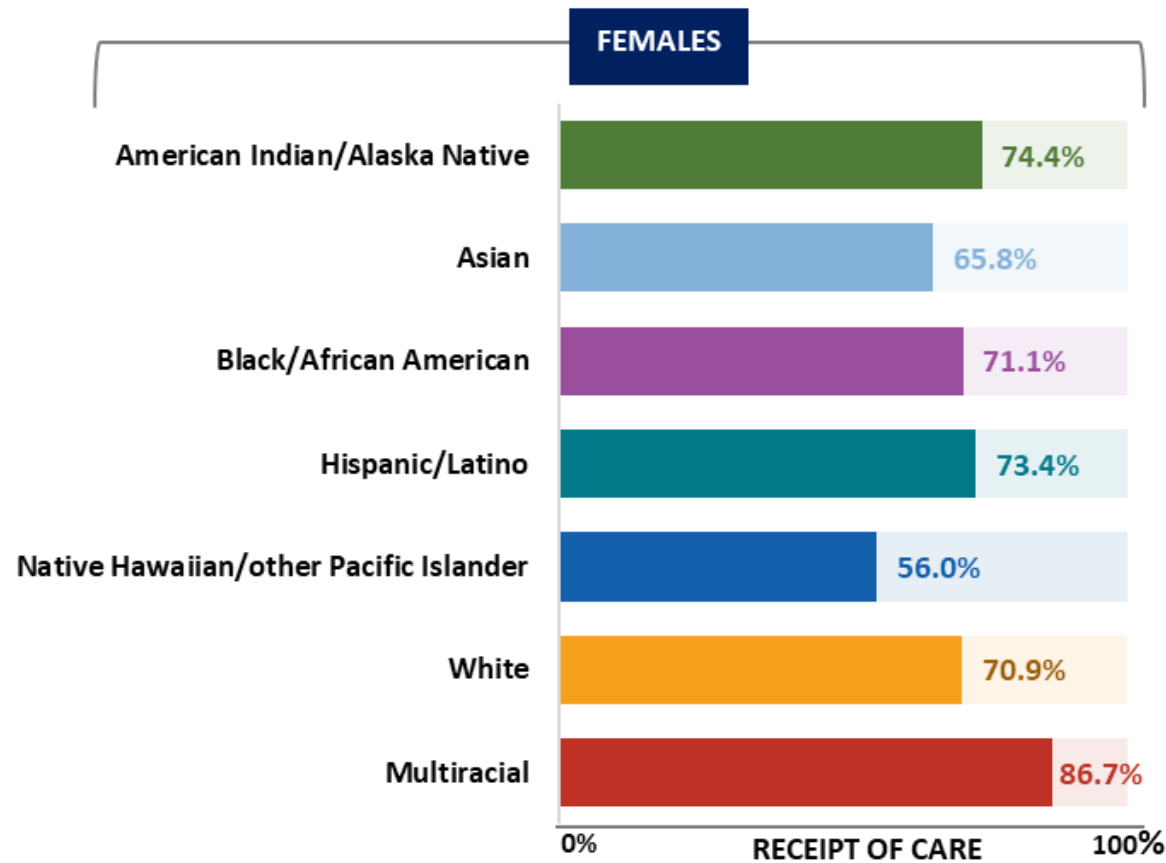
# Receipt of HIV medical care during 2023 among persons with HIV attributed to injection drug use, by sex and race/ethnicity—United States

Compared to 76% for all people with HIV in the US

Total Percentage = 61.5%



Total Percentage = 72.5%



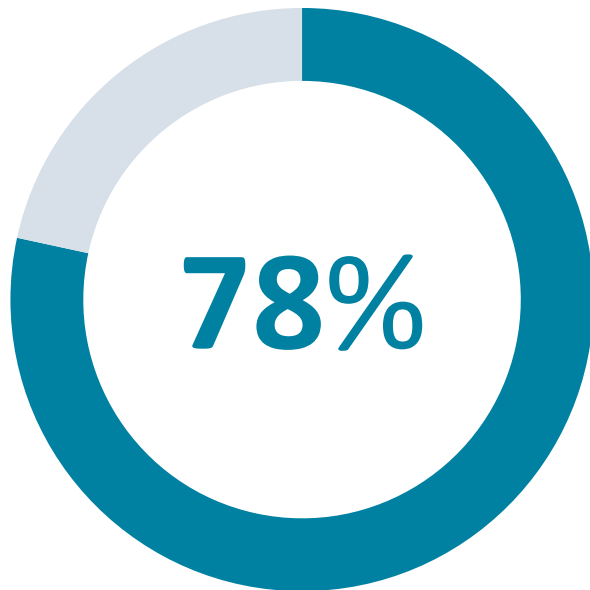
Note. Data are presented for persons aged ≥ 13 years by year-end 2023. Hispanic/Latino persons can be of any race.



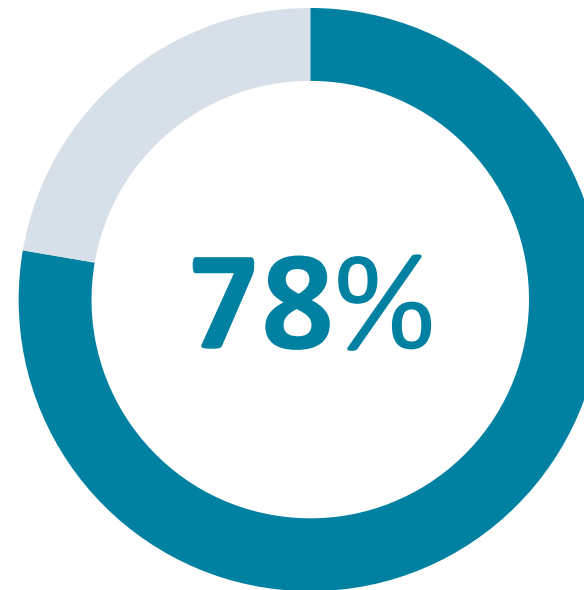
# HIV care continuum among PWID

- Testing and diagnosis
- Linkage and retention in care
- **Treatment and viral suppression**

# HIV care is suboptimal among persons who inject drugs and are living with HIV.



**Visited HIV provider,  
past 6 months**



**Currently taking  
antiretrovirals (ART)**

Data include participants who reported having ever received an HIV-positive test result regardless of NHBS HIV test result.

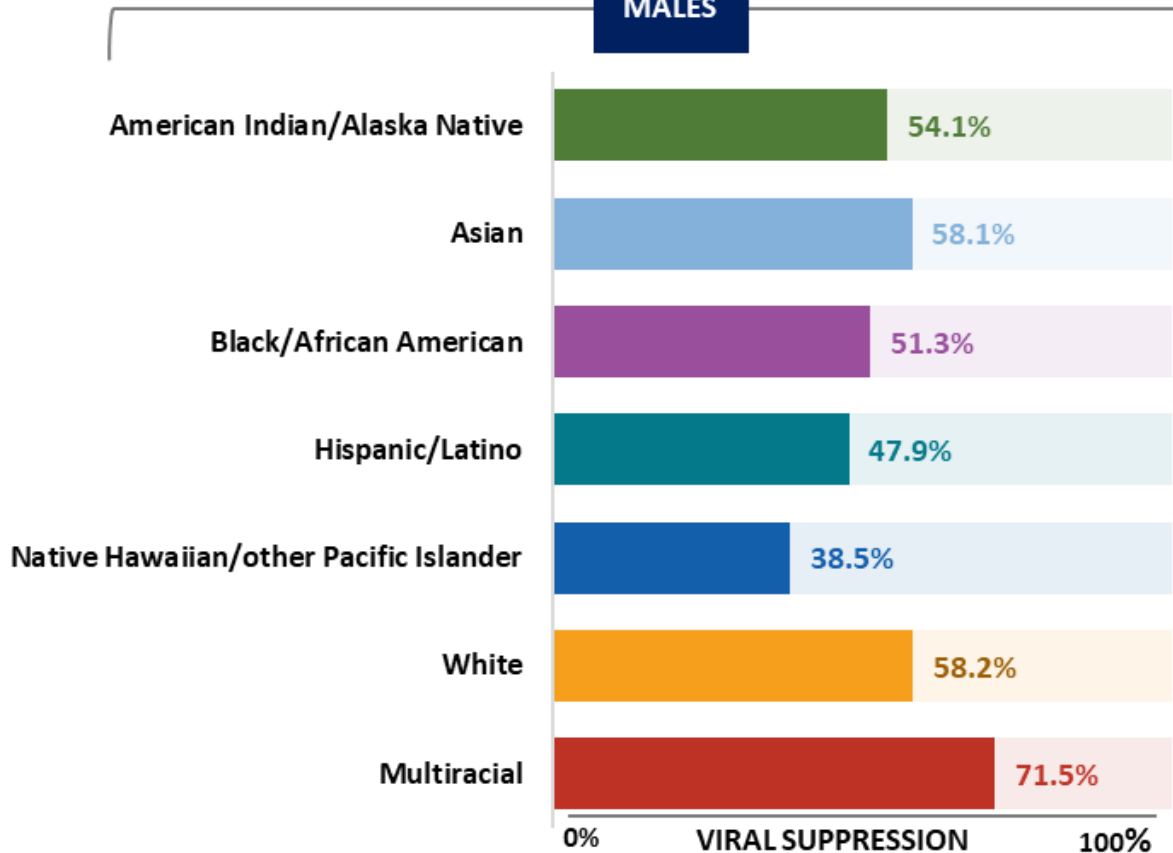


# Viral suppression during 2023 among persons with HIV attributed to injection drug use, by sex and race/ethnicity—United States

Compared to 67% for all people with HIV in US

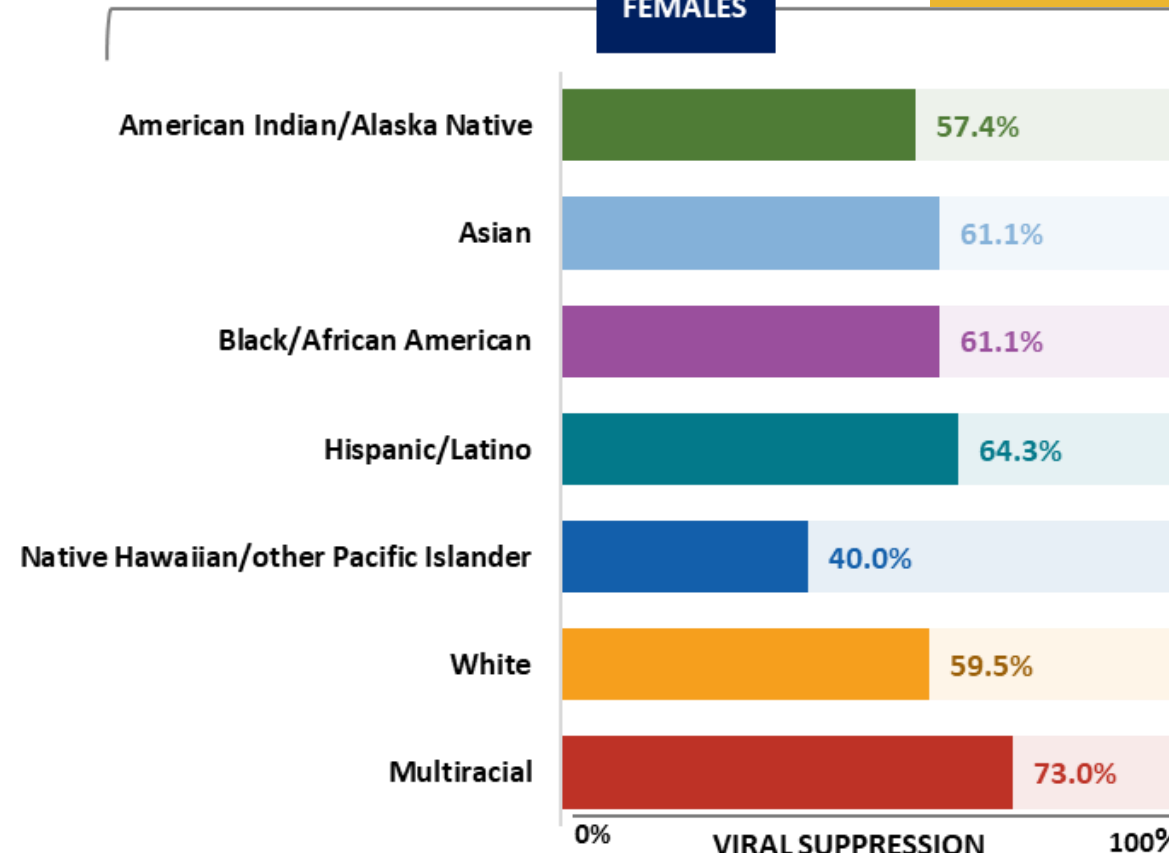
Total Percentage = 52.7%

MALES



Total Percentage = 62.0%

FEMALES



Note. Data are presented for persons aged ≥ 13 years by year-end 2023. Hispanic/Latino persons can be of any race.

# The interplay between HIV and SUDs – key trends

**HIV care continuum**

**Mortality data**

**PrEP knowledge and use**

# HIV and SUD: impact on mortality

- Deaths among PWH (2011-15):
  - Overall risk of death **decreased** by 10%
  - Overdose deaths **increased** by 43%
- HIV & Overdose:
  - Risk of fatal overdose **increased** ~ 75% among PWH
  - Higher risk of sudden cardiac death in PWH → 34% due to occult drug OD among PWH (vs. 13% in HIV-uninfected)

Green TC et al. AIDS. 2012 Feb 20;26(4):403-17

Bosh KA et al. CROI 2019, Abstract 149

Tseng ZH et al. N Engl J Med 2021; 384:2306-2316

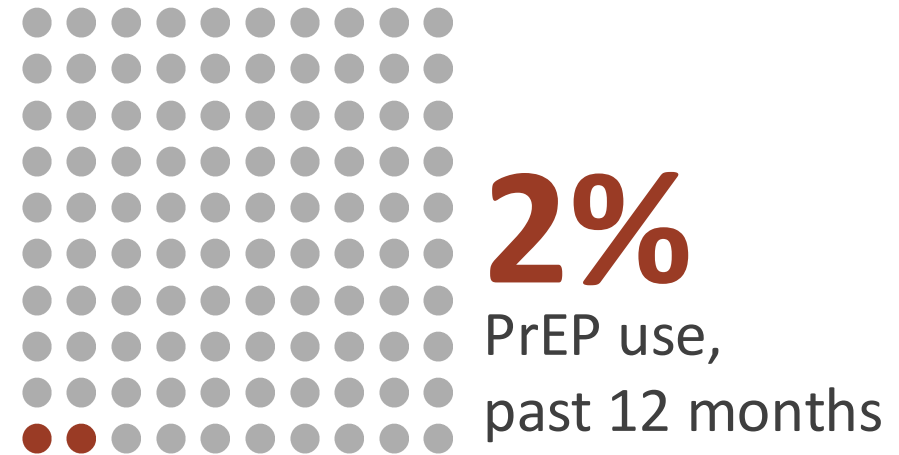
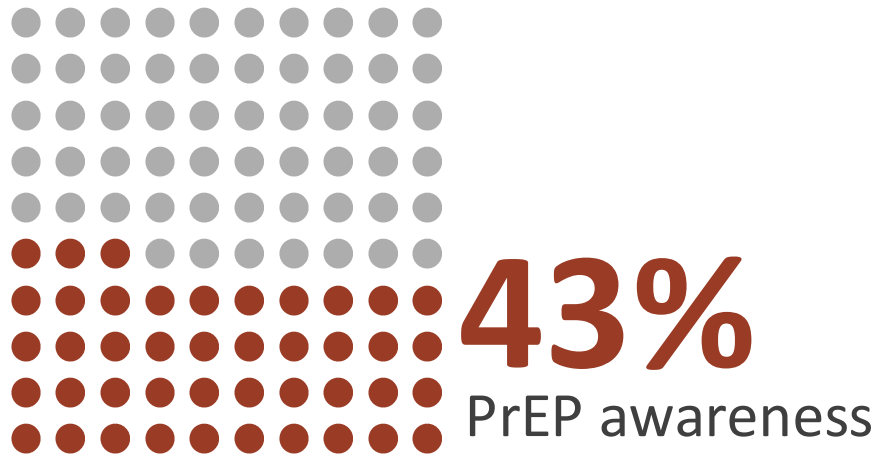
# The interplay between HIV and SUDs – key trends

**HIV care continuum**

**Mortality data**

**PrEP knowledge and use**

# Pre-exposure prophylaxis (PrEP) among persons who inject drugs is low.



Data include participants with a negative NHBS HIV test result who did not self-report a previous HIV-positive test result.



# Moving the needle....

## People impacted by a syndemic need syndemic care

- What is syndemic care?
  - Integrated – care for the syndemic conditions occurs in the same place, at the same time
  - Wholistic – addresses the personal, social, and systems-level/structural barriers to care
  - *The care that people need, when they need it, where they're at*
  - *“Integration stands to improve both opioid use disorder and infectious disease outcomes, as it allows for a more seamless delivery of services between illnesses that overlap.”<sup>1</sup>*

**1 National Academies of Sciences, Engineering, and Medicine 2020. <https://doi.org/10.17226/25626>**

# Care integration in practice

- Common features of programs with integrated care models<sup>1</sup>:
  - SUD treatment
  - Treatment of HIV/HCV
  - Behavioral health services
  - Access to PrEP
  - Additional harm reduction services (SSP, naloxone, etc.)
- Not every integrated program will look the same
  - Local population, needs
  - Local resources
  - Clinic program/structure
  - Staff and clinician training/experience

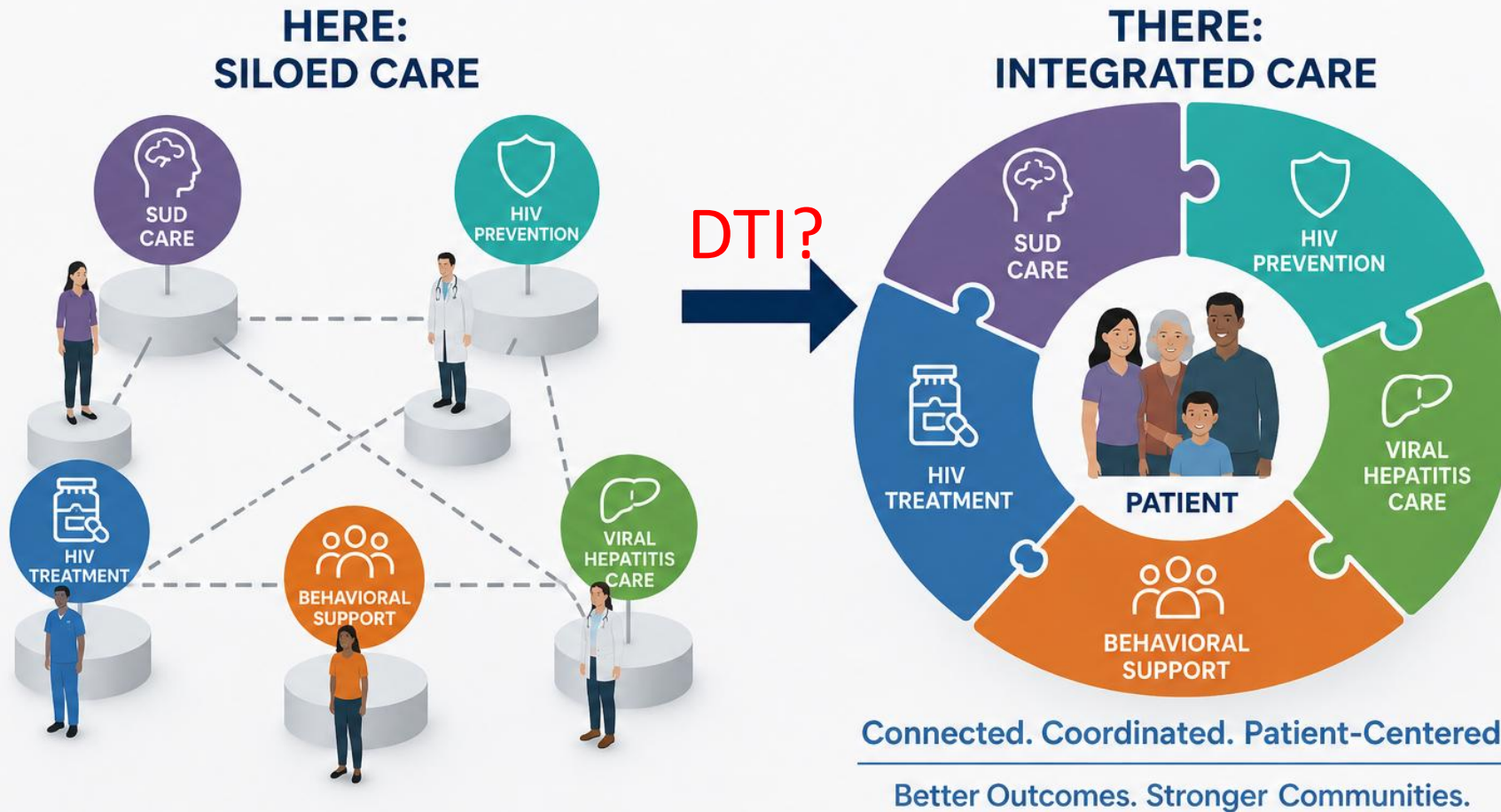
# Common challenges to care integration

## NASEM report on Integrating Responses to a Dual Epidemic

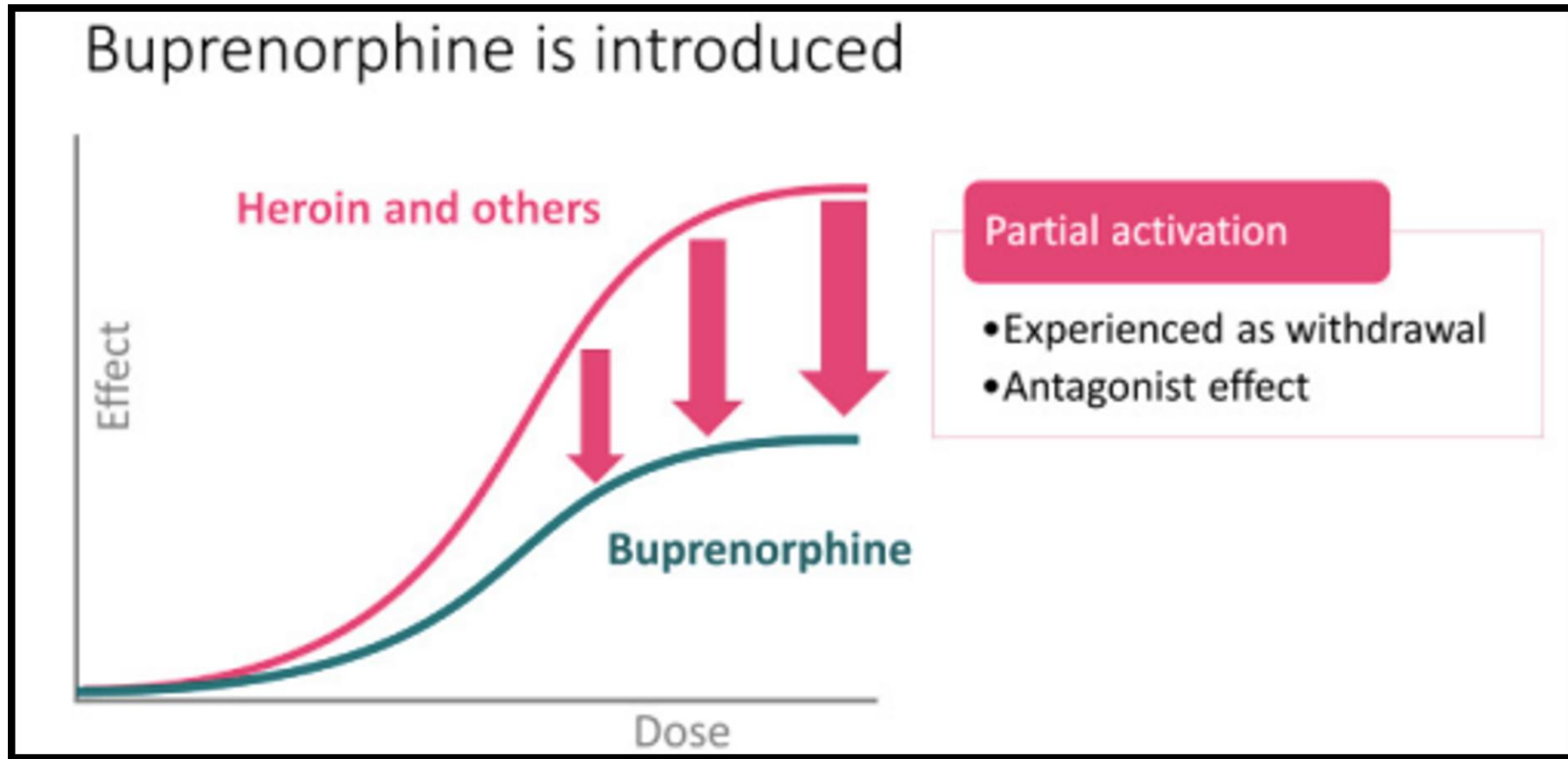
- Prior Authorization Policies
- Inadequate Workforce and Training
- Stigma
- Payment and Financing Limitations
- Same-Day Billing Restrictions

**National Academies of Sciences, Engineering, and  
Medicine 2020. <https://doi.org/10.17226/25626>**

# How do we get there from here?



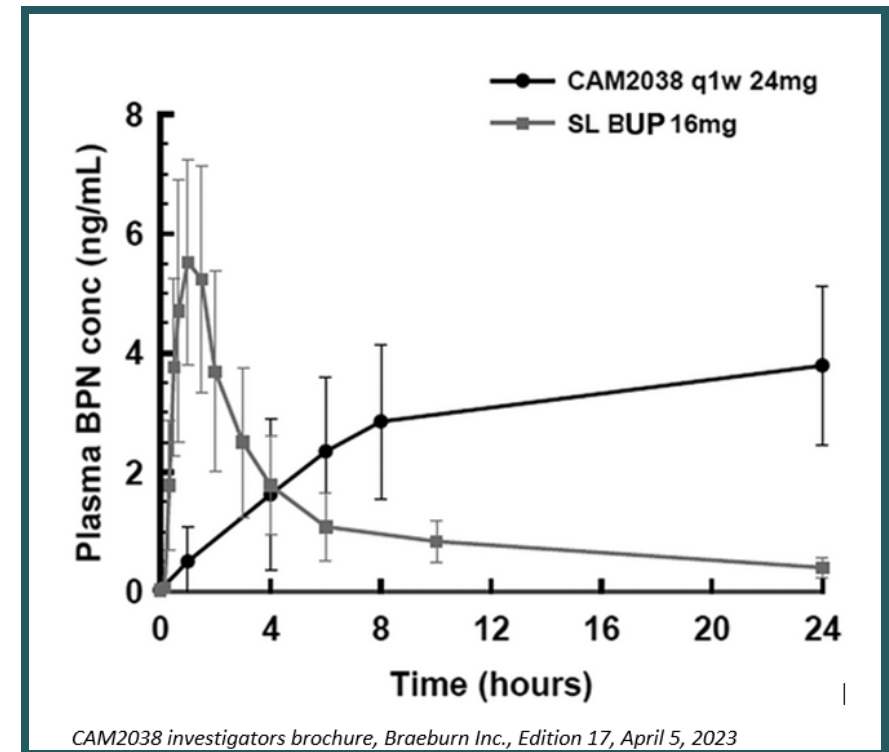
# Starting buprenorphine is hard



Original slide created by Dr. Sarah Roswnwohl-Mack  
Figure from Sonwani, 2024

# Direct to inject (DTI) buprenorphine

- DTI: initiation of bup via weekly long-acting injectable buprenorphine without prior SL test dose
- Serum levels peak at 24 hours
- Decreased risk of precipitated withdrawal



# 2-injection DTI



**Day 1:** When COWS 4+ and 6-12 hours since last use, give weekly bup

- if heroin: typically 16mg
- if fentanyl: typically 24mg

**Day 2:** Give monthly bup 24+ hours after weekly dose of 16mg or greater

- ok to give monthly injection up to 4 days after 16mg, or up to 7 days after 24 or 32mg dose

**Counseling:** try adjuncts for withdrawal sx first, if person is going to use fentanyl/heroin, try to wait 6 hours after injection

**Pros:** 2 days only

**Cons:** Waiting for mild withdrawal to start

# 3-injection DTI



**Day 1:** Weekly LAI-bup 8mg (no minimum COWS or time since last use)

**Day 2:** Weekly LAI-bup 16mg (24 hours after day 1)

**Day 3:** monthly injection

**Counseling:** most people continue to use fentanyl/heroin during the first few days

**Pros:** no minimum time since last use or withdrawal to start

**Cons:** 3 injections prolongs process and requires more complicated schedule

# Why all the fuss about injectable buprenorphine?

## And how does it relate to syndemic care?

- Provides a **low-barrier, same-day option** to start treatment for people who seek care
- Provides **expanded choices** for people that take into account their **preferences** and **circumstances**
- **Addresses** multiple **potential barriers to care** that can occur with oral medication:
  - Going to the pharmacy to get the medication
  - Remembering to take it once you have it
  - Finding a safe place to keep it
  - Dealing with the self-stigma that many people experience when taking daily medication
- In-clinic injections provide another “touch point” with people to address their other medical, social and supportive care needs

*The care that people need, when they need it, where they're at*

# Does DTI work?

## Early data are promising

- Recent SFDPH DTI data<sup>1</sup>
  - 30-day retention: 68%
  - 90-day retention: 43%
  
- Recent SFDPH low-dose sublingual (“microdose”) overlap data<sup>2</sup>
  - 28-day retention (4-day): 21%
  - 28-day retention (7-day): 18%

**1 Drug Alcohol Depend. 2026 Jan 1;278:113011**

**2 JAMA Netw Open. 2025 Jan 2;8(1):e2456253**

**Slide courtesy of Dr. Sarah Rosenwohl-Mack**

Ok....so how does this relate to HIV prevention and care?

What are key features of DTI that we can apply to HIV prevention/care?

- **Low-barrier, same-day options** → Rapid pre-exposure prophylaxis (PrEP), rapid antiretroviral therapy (ART) starts
- **Expanded choices that take into account their preferences and circumstances** → LAI PrEP and ART, including for people with viremia
- **Potential barriers to care with oral medication** → LAI PrEP and ART
  - Going to the pharmacy to get the medication
  - Remembering to take it once you have it
  - Finding a safe place to keep it
  - Dealing with the self-stigma that many people experience when taking daily medication

*The care that people need, when they need it, where they're at*

# Rapid PrEP/ART starts

- Rapid PrEP –
  - *Low barrier, same day option*
  - Can be done for either oral or injectable forms or PrEP
  - Potential limitations related to syndemic care:
    - Need baseline HIV test (point of care or lab-based)
- Rapid ART –
  - *Low barrier, same day option*
  - Potential limitations related to syndemic care:
    - Requires additional lab-based testing be sent, though not resulted
    - Only certain oral regimens are options with this approach (i.e., *limited choices*)

# LAI-PrEP: Cabotegravir

- Like LAI bup, provides an additional choice that takes into account people's preferences and circumstances
  - Similarly, addresses potential barriers to care with oral medication
- Some key clinical characteristics (and limitations) to know about:
  - Intramuscular injections given monthly x 2, then every 2 months after that
  - Current guidelines recommend getting a HIV viral load (VL) prior to starting
    - CDC guidelines also currently recommend VL at follow up injections
  - Highly effective BUT rare breakthrough infections have occurred
    - When this happens, resistance to CAB and other similar ART agents (e.g., bictegravir) highly likely
  - Very long “tail” – i.e., stays in the system for a long time after the last dose
    - If ongoing exposures without continued dosing, can be problematic

# LAI-PrEP: Lenacapavir

- Like LAI bup, provides an additional choice that takes into account people's preferences and circumstances
  - Similarly, addresses potential barriers to care with oral medication
- Some key clinical characteristics (and limitations) to know about:
  - Subcutaneous injections every 6 months
    - Oral loading dose on day of and day after first injection
  - Current guidelines recommend getting a HIV viral load (VL) prior to starting
    - VLs at follow up not required
  - Highly effective BUT rare breakthrough infections have occurred
    - When this happens, resistance to LEN highly likely
  - Very long “tail” – i.e., stays in the system for a long time after the last dose
    - If ongoing exposures without continued dosing, can be problematic

# LAI-ART: Cabotegravir+Rilpivirine

- Like LAI bup, provides an additional choice that takes into account people's preferences and circumstances
  - Similarly, addresses potential barriers to care with oral medication
- Some key clinical characteristics (and limitations) to know about:
  - 2 medications given IM every month or every other month
  - Currently FDA approved only as a “switch” strategy for people already on medication with virologic suppression
    - **BUT has been used for people with challenges to adherence** with oral medication who have a detectable viral load
  - Does require pre-treatment genotype, so **same day start not an option**

# Strategies to promote syndemic care – HIV prevention/treatment

## Key similarities and differences with LAI-bup

- Same day starts can be done
  - For all forms of PrEP
  - With oral forms of ART only
- Expanded options that take into account people’s preferences and circumstances exist: LAI-PrEP and LAI-ART
  - Testing, monitoring may be “higher-barrier” than what we see with LAI-bup
  - LAI-ART currently FDA-approved only as a switch strategy
    - More research is needed to determine when and how it can be started in people that have not yet received ART

# Putting it all together

## How DTI buprenorphine can promote care integration

- Provides the system and structure in which integrated care can occur
- Addresses most of the challenges noted by the NASEM report:
  - **Prior Authorization Policies**
  - Inadequate Workforce and Training
  - **Stigma**
  - **Payment and Financing Limitations**
  - **Same-Day Billing Restrictions**
- Can help shift mindset from one that requires people to complete a checklist of requirements in order to receive care, to one that facilitates their health care goals by providing:
  - Multi-disciplinary care
  - Wrap around support
  - Collaborations with community partners

*The care that people need, when they need it, where they're at*



Questions about DTI bup? PrEP? LAI-ART?

NCCC can help!

[www.nccc.ucsf.org](http://www.nccc.ucsf.org)

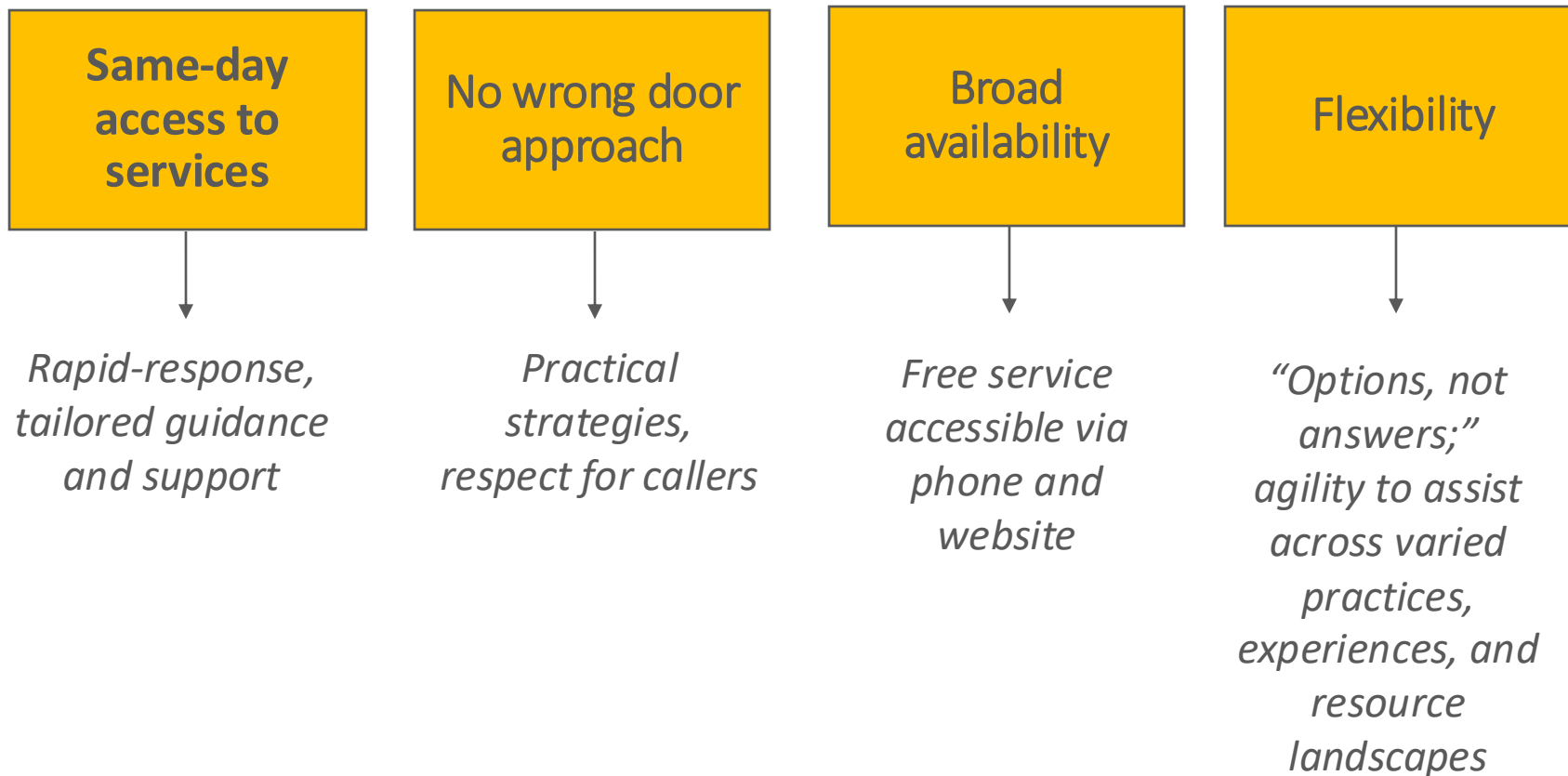


Established in 1993 as national service/component of the HRSA Ryan White HIV/AIDS Program. Early operationalization and scale-up of a low barrier, distance-based clinical consultation service and capacity-building resource (“Warmline”). Scope broadened to include viral hepatitis and substance use.





## Our guiding principle & model: “low-barrier” support



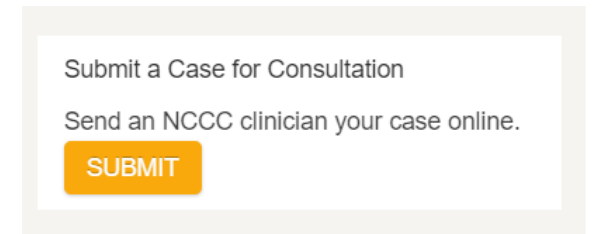


## How to reach us, what to expect

<u>Clinicians don't need to</u>	<u>What we provide</u>
<ul style="list-style-type: none"><li>• Download any apps or special technology</li><li>• Clear their clinic schedules</li><li>• Memorize a patient's history</li><li>• Limit inquiries to complex scenarios or patient-specific questions: general questions welcome!</li></ul> <p><b><u>PHI is never collected</u></b></p>	<ul style="list-style-type: none"><li>• Evidence-based, practical guidance from professional subject matter experts</li><li>• Confidential, individualized support</li><li>• “Wrap-around” access to multi-disciplinary subspecialists</li><li>• Happy to receive follow-up calls; can send resources by email – protocols, articles</li></ul>

## Who can call the NCCC?

- Any health care provider, including clinicians working in:
  - Primary care/ambulatory settings
  - Medical specialty settings
  - Substance use programs
  - Emergency rooms
  - Hospitals
  - Urgent care centers
- *For providers who prefer to submit a consultation request electronically, they can visit our website and submit a case via the appropriate portal*



Submit a Case for Consultation  
Send an NCCC clinician your case online.  
**SUBMIT**





NATIONAL  
CLINICIAN  
CONSULTATION  
CENTER

Translating science into care

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To reach our team: 844-ASK-NCCC (844-275-6222)  
Submit your clinical inquiry online: [nccc.ucsf.edu](http://nccc.ucsf.edu)

### HIV/AIDS Warmline

HIV treatment, ARV management, complications, and co-morbidities

### Perinatal HIV Hotline

Pregnancy, infant feeding, and HIV

### Hepatitis C Warmline

HCV testing, staging, monitoring, and treatment

### Substance Use Warmline

Substance use evaluation and management

### PrEPline

HIV pre-exposure prophylaxis options and monitoring

### PEPline

Bloodborne pathogen (HIV, HBV, HCV) exposure management

A program of the



*The National Clinician Consultation Center is part of the AIDS Education and Training Center (AETC) Program and is located at the University of California, San Francisco (UCSF) / San Francisco General Hospital. It is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$2,527,777 with 0% financed with non-governmental sources.*



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