

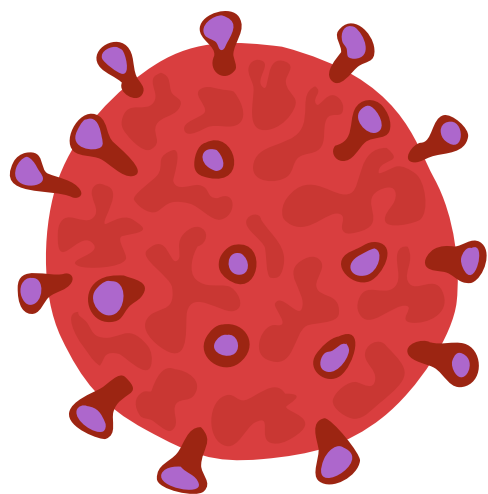
Addressing the Intersection: HIV, Substance Use Disorders, and Evidence-Based Approaches to Care

CCSME January 24, 2025

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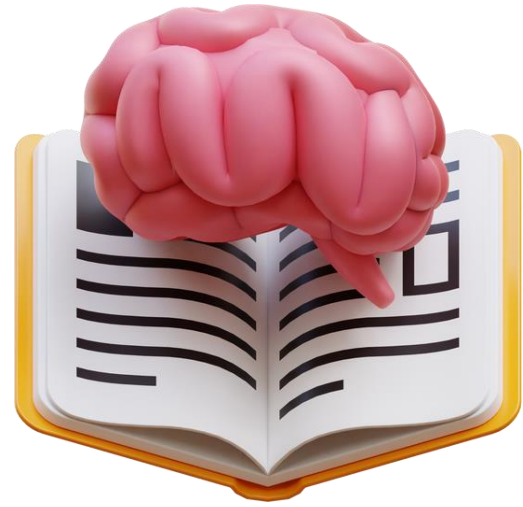


Disclosures

- I have no financial disclosures or conflicts of interest pertinent to this talk

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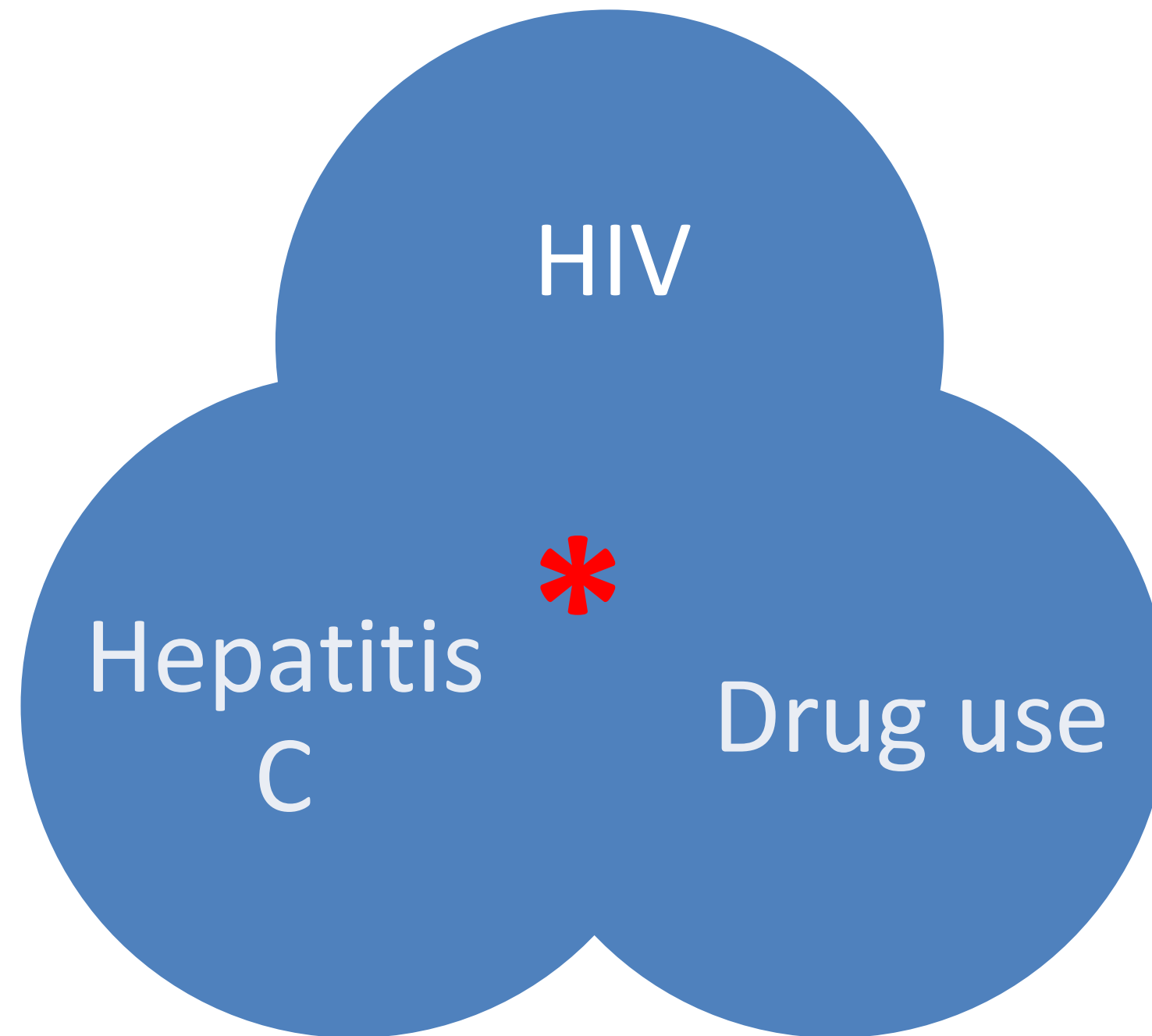
Will briefly discuss off-label use of lenacapavir



Learning Objectives

- Recognize the **impact of stigma** on people living with HIV
- Review local **epidemiology** of substance use disorders (SUD), HIV, and related services for people who use drugs (PWUD)
- Understand **morbidity and mortality** associated with SUD, HIV, and other co-morbidities
- **Explore prevention and treatment services** for patients with SUD and HIV

People who are Medically Underserved



Outline

- Stigma
- Epidemiology
- HIV disease progression
- HCV Co-infection
- HIV treatment and prevention
- Substance use treatment
- Overdose prevention/harm reduction

CASE

- 43 yo woman with HIV (CD4 281 (20%), viral load 100 copies in July 2024
- Comorbidities: HCV, ?seizures, opioid use disorder, stimulant use (meth), depression
- Housing instability, transportation barriers
- Meds: emtricitabine/tenofovir disoproxil fumarate + extended-release raltegravir, oxcarbazepine, injectable buprenorphine

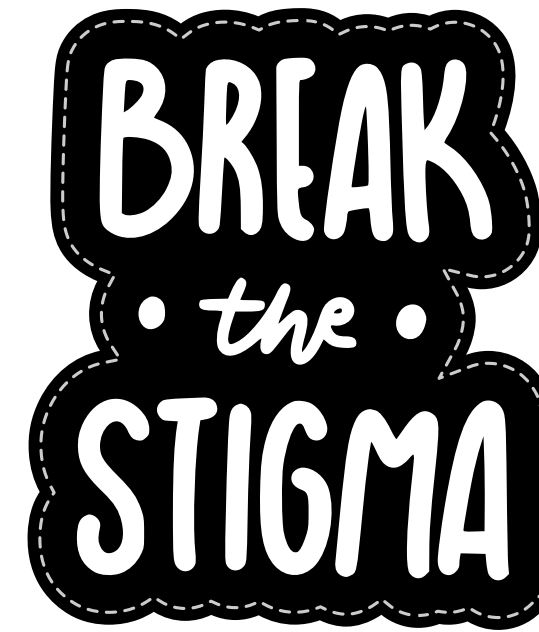
You are contacted because her most recent viral load is now 200,000.

- *How should you proceed? Would you treat her hepatitis C?*

Stigma

- Stigma
- Epidemiology
- HIV acquisition and disease progression
- HCV Co-infection
- HIV treatment and prevention
- Substance use treatment
- Overdose

Substance use & Stigma



TERMS TO AVOID	RECOMMENDED TERMS
Substance abuse	Substance use
Addicts	People who inject/use drugs
Clean/dirty urine	Positive/negative urine
Medication assisted treatment (MAT)	Medication for Opioid Use disorder (MOUD), Medication for Addiction Treatment (MAT), Medication
Against medical advice	Patient-directed discharge/left early
Relapse	Recurrence/setback



How HIV Stigma Affects People With HIV (PWH)

- Can lead to the concealment of one's HIV status for fear of being shunned (stigmatized) by others
 - Fear of disclosure can prevent accessing care and treatment (ex: patients may be unwilling to take medications where they can be seen by others)
- Concealment of HIV status leads to social isolation and internalized feelings of self-loathing and cycle of hopelessness

HIV Stigma in Healthcare

Reducing the stigma surrounding HIV is paramount to ending the epidemic.

- We want to **encourage** people to get tested, and into treatment if positive.
- We want to **encourage** people in treatment to stay in care because Undetectable equals **Untransmittable (U=U)**.

Negative experiences in healthcare either currently or in the past, can determine whether patients get tested, seek treatment or stay in treatment



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HIV screening test laws as an example of HIV “exceptionalism”

§19203-A. Voluntary informed consent required

1. **Individual tested.** Except as provided in this section and section 19203, subsections 4 and 5, an HIV test must be voluntary and undertaken only with a patient's knowledge and understanding that an HIV test is planned. A patient must be informed orally or in writing that an HIV test will be performed unless the patient declines. Oral or written information required to be given to a patient under this subsection must include an explanation of what an HIV infection involves and the meaning of positive and negative test results. A patient must be provided the opportunity to ask questions, either orally or in writing. Informed consent is not required for repeated HIV testing by health care providers to monitor the course of established infection.

[PL 2007, c. 93, §1 (AMD).]

Addressing stigma: no clear cut answer, but some thoughts

- Advocacy
- Multipronged approach
- Low barrier care

> [Int J Drug Policy](#). 2022 Apr;102:103600. doi: 10.1016/j.drugpo.2022.103600. Epub 2022 Feb 5.

Stigma and ART initiation among people with HIV and a lifetime history of illicit drug use in Saint-Petersburg, Russia—A prospective cohort analysis

[Marina Vetrova](#)¹, [Sara Lodi](#)², [Lindsey Rateau](#)², [Gregory Patts](#)², [Elena Blokhina](#)³, [Vladimir Palatkin](#)³, [Tatiana Yaroslavtseva](#)³, [Olga Toussova](#)³, [Natalia Bushara](#)³, [Sally Bendiks](#)⁴, [Natalia Gnatienko](#)⁴, [Evgeny Krupitsky](#)⁵, [Dmitry Lioznov](#)⁶, [Jeffrey H Samet](#)⁷, [Karsten Lunze](#)⁸

► [Lancet Reg Health Eur](#). 2023 Mar 20;28:100611. doi: [10.1016/j.lanepe.2023.100611](#) [↗](#)

An acceptance-based, intersectional stigma coping intervention for people with HIV who inject drugs—a randomized clinical trial

[Jason B Luoma](#)^a, [Sarah L Rossi](#)^b, [Yuliia Sereda](#)^c, [Nikolai Pavlov](#)^d, [Olga Toussova](#)^e, [Marina Vetrova](#)^e, [Sally Bendiks](#)^b, [Tetiana Kiriazova](#)^c, [Evgeny Krupitsky](#)^{e,f}, [Dmitry Lioznov](#)^{e,g}, [Elena Blokhina](#)^e, [Sara Lodi](#)^h, [Karsten Lunze](#)^{b,i,*}

Measuring and Addressing Stigma Within HIV Interventions for People Who Use Drugs: a Scoping Review of Recent Research

[Kathryn E Lancaster](#)¹, [Stacy Endres-Dighe](#)¹, [Ana D Sucaldito](#)¹, [Hannah Piscalko](#)¹, [Aarti Madhu](#)², [Kiriazova](#)³, [Abigail W Batchelder](#)^{2,4}

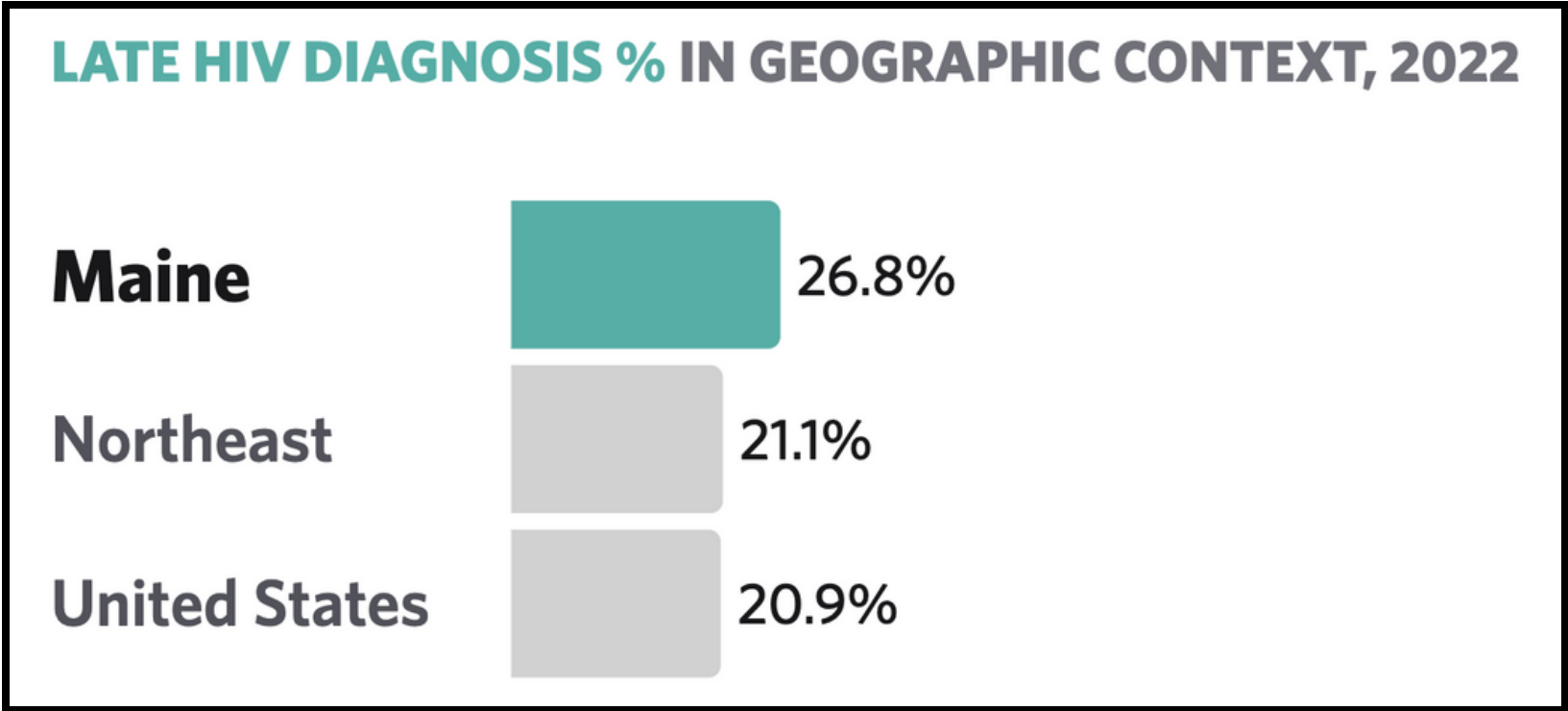
Epidemiology

- Stigma
- Epidemiology
- HIV disease progression
- HCV Co-infection
- HIV treatment and prevention
- Substance use treatment and harm reduction

Landscape of HIV in Maine

Maine as a whole

- 1,970 people living with HIV as of 2023
- Average of 30.6 new diagnoses per year, range of 16–42 (2019–2023)

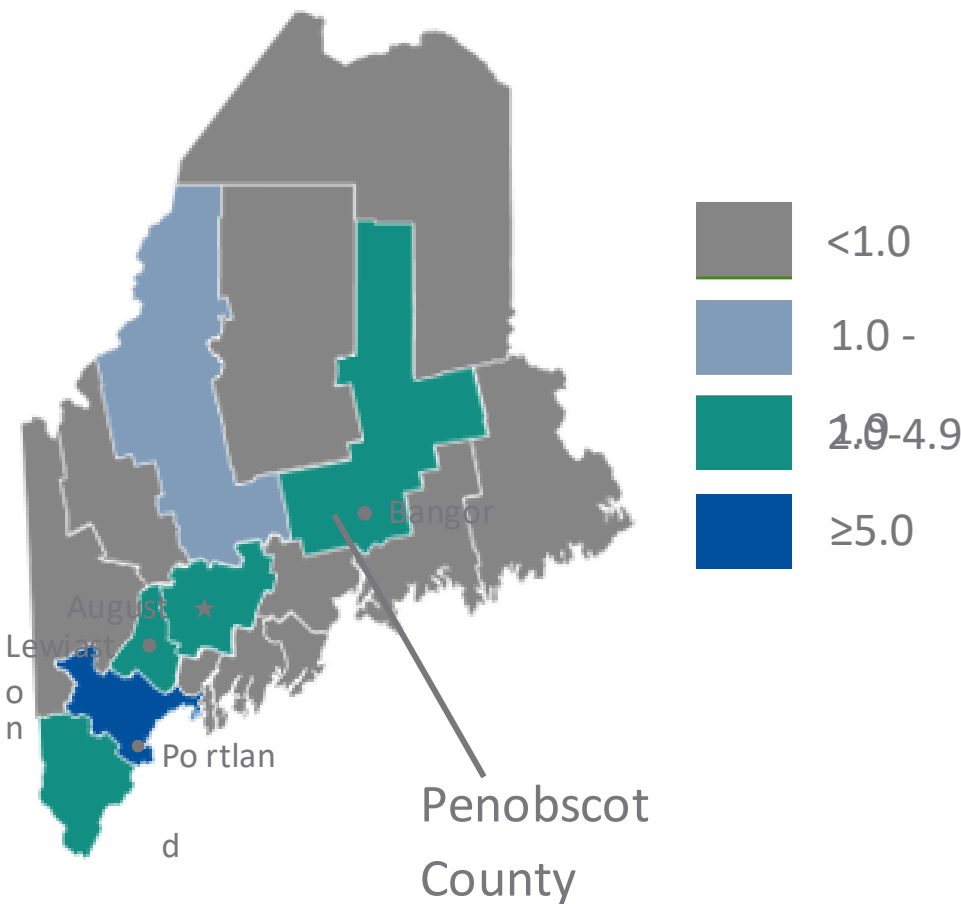


AIDSVu

Penobscot County

- 137 people living with HIV as of 2023
- Average of 2 new diagnoses per year overall, 1 new diagnosis per year in a person who injects drugs (2019–2023)

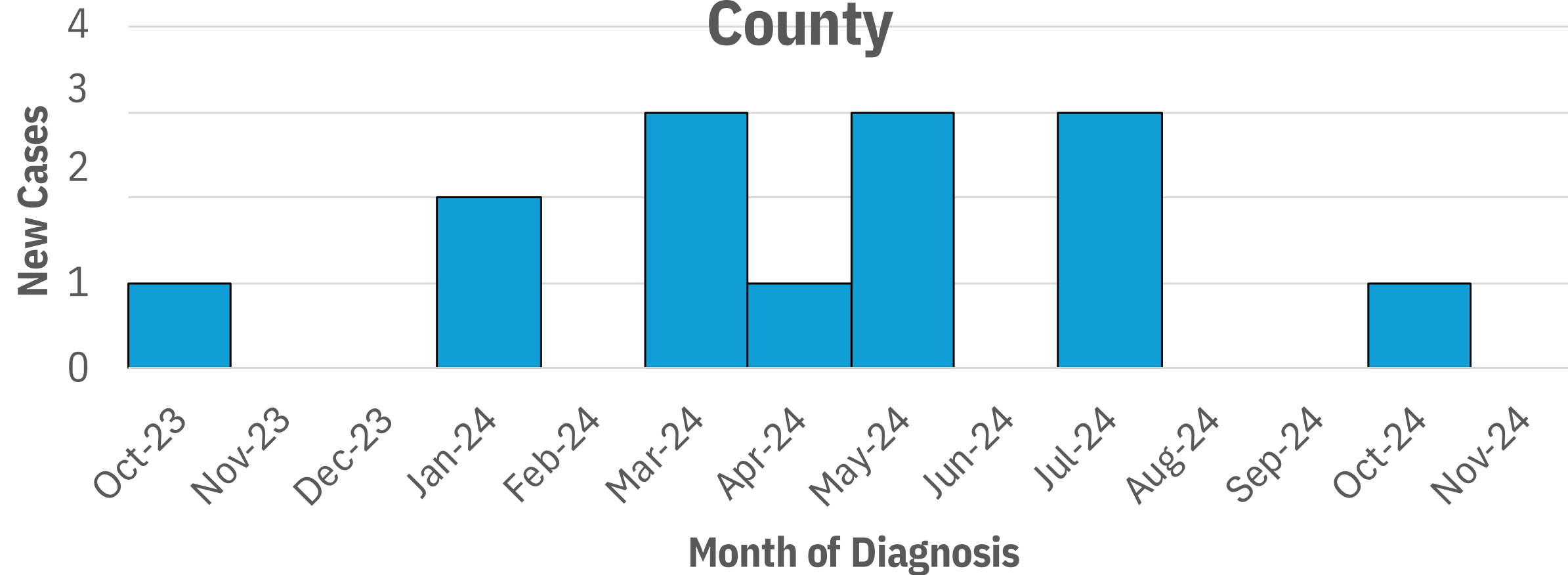
New HIV Diagnoses per Year, 2019–2023



Maine Department of Health and Human Services

HIV Outbreak, Penobscot County, 2023–2024

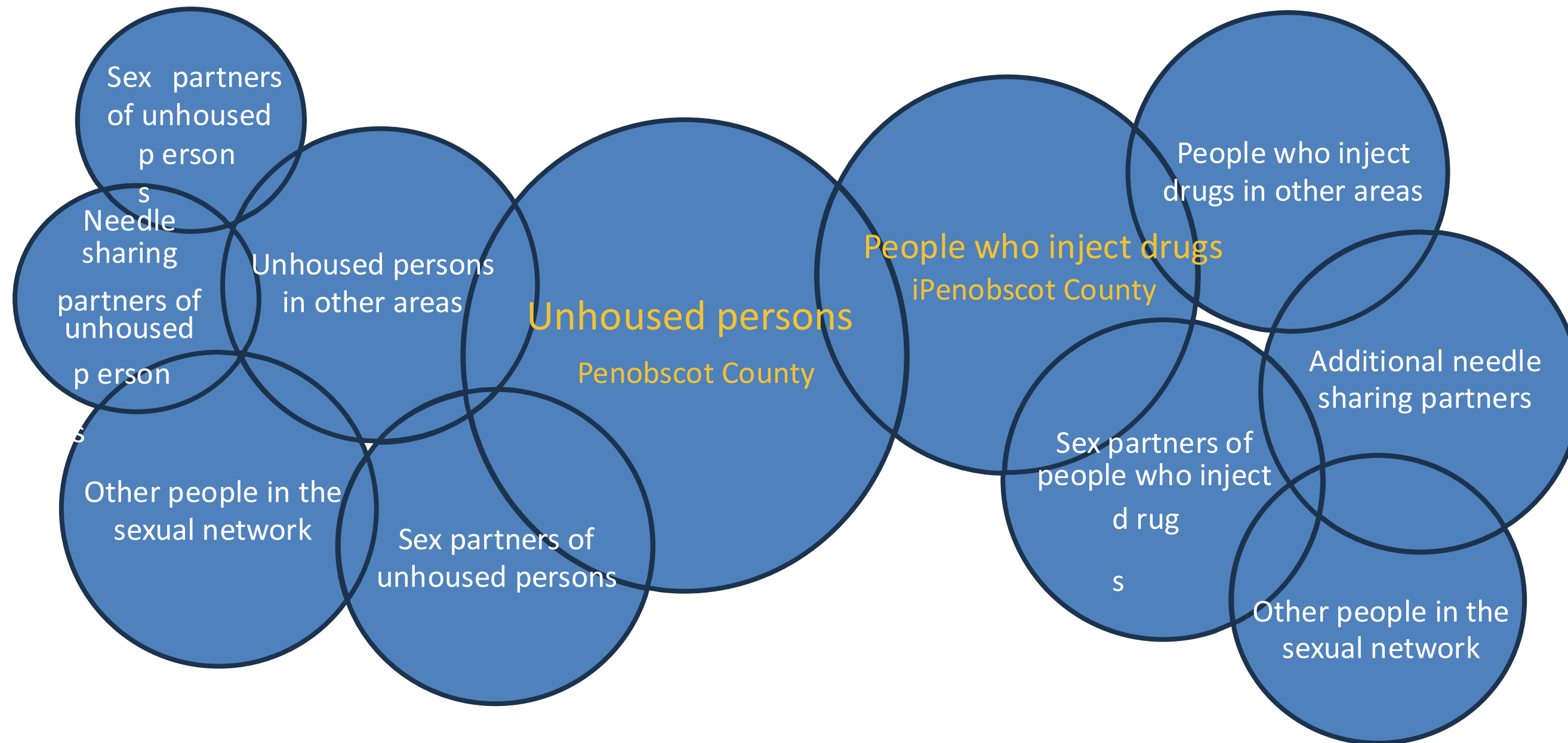
HIV Outbreak in Penobscot County



- 57% linked to care within 30 days of diagnosis
- 46% virally suppressed

Maine Department of Health and Human
Services

Establishing Connections, Identifying Risks



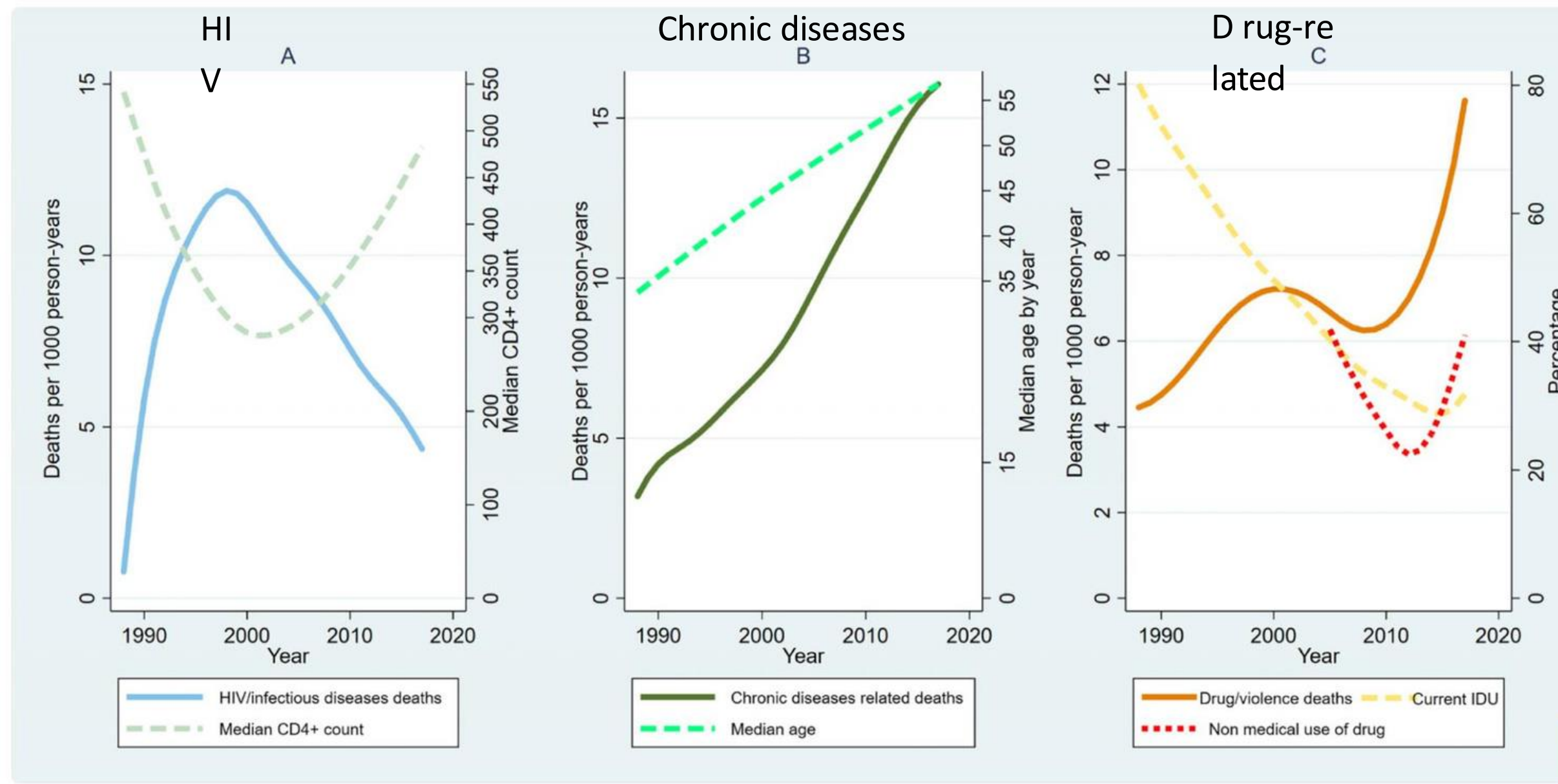
Drug Use Increases Risk of Acquiring HIV

- Drug use can increase risk of acquiring HIV through sex or sharing drug equipment
- Sex workers at risk for HIV, other sexually transmitted infections
- Prevalence of other drugs in the community
 - GHB or “G”, Ketamine or “K”, Meth, Ecstasy or “E”, stimulants

HIV disease progression

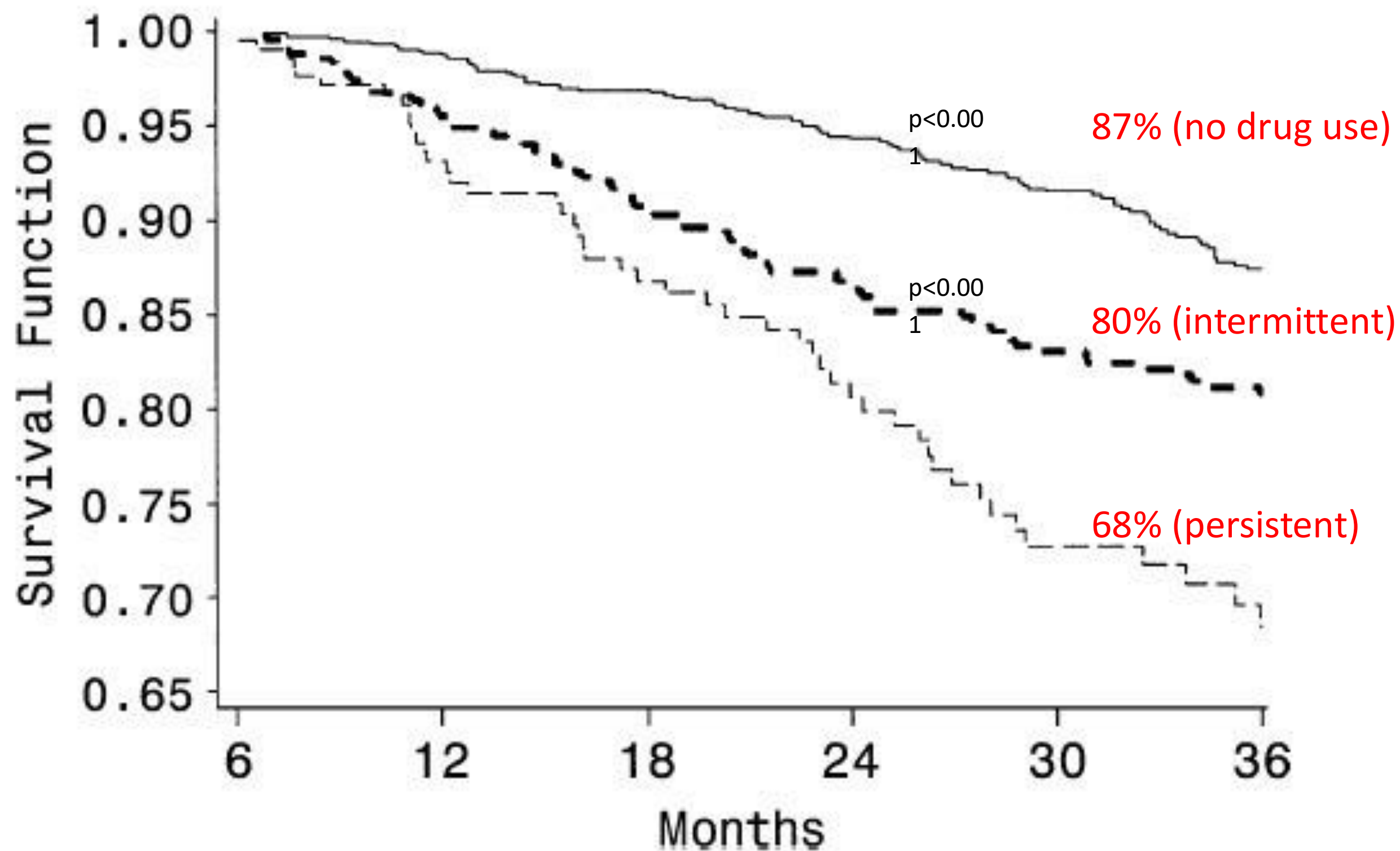
- Stigma
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Drug-related & other chronic disease mortality among PWH is increasing*



*burden of HIV/infectious disease deaths still disproportionately high among female or Black individuals

Drug Use and Mortality

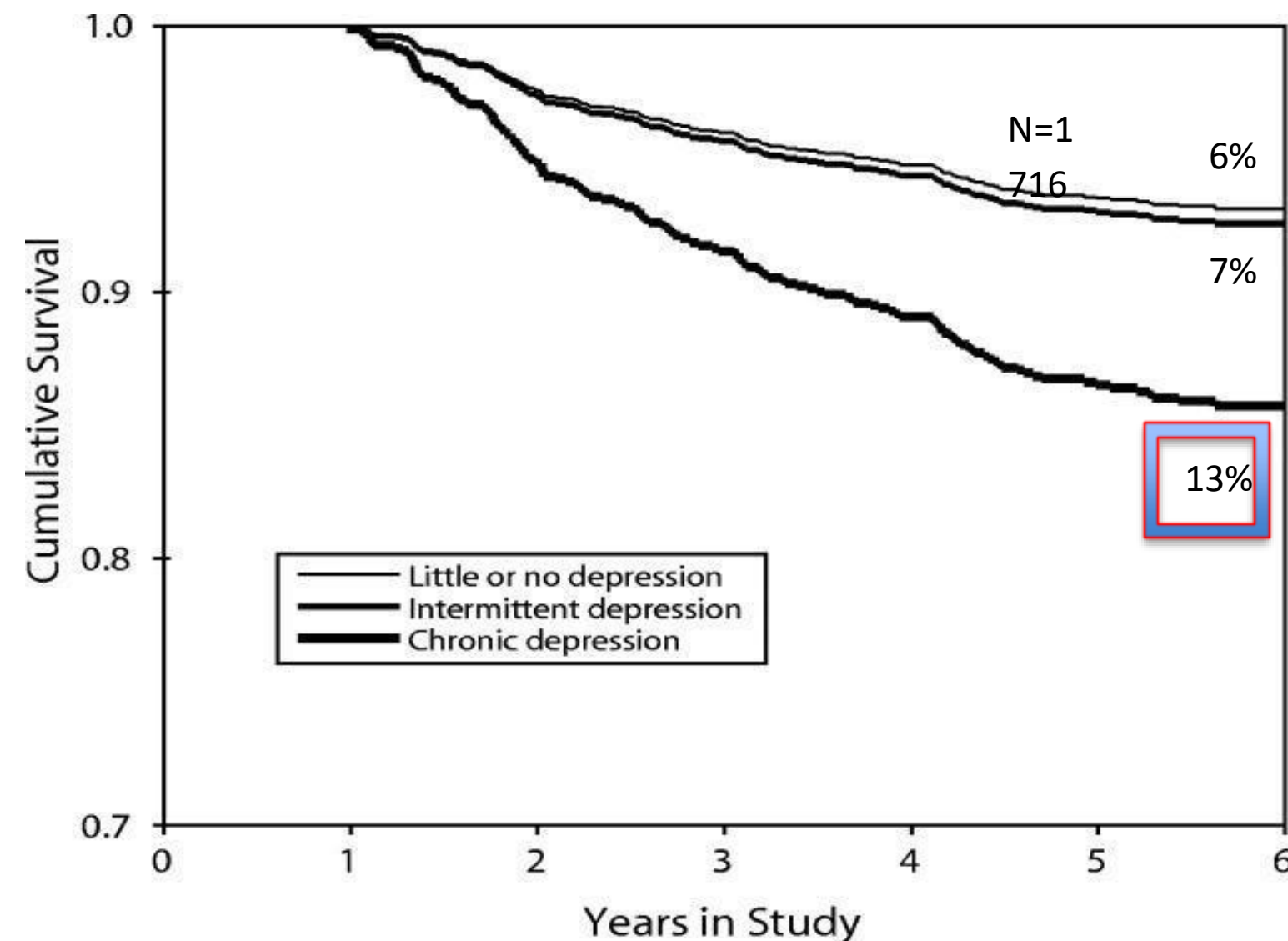


Drug Use and HIV Disease Progression

- Cocaine use associated with worse HIV outcomes:
 - $CD4 \leq 200$ cells/ml (OR 2.14, CI 95%: 1.08 – 4.25)
- Heroin and cocaine use associated with increased risk of opportunistic infections:
 - ***Intermittent*** drug use OR 2.3 (1.5 – 2.0),
Persistent drug use OR 2.1 (1.4 – 3.1)

Depression

- Most common psychiatric illness in PWH
- High prevalence among PWH who use drugs (~70%)
- Associated with HIV disease progression, AIDS-defining illnesses, delayed ART initiation, unsafe sex, drug use, **mortality**



Pence BW, et al AIDS 2012

Berger-Greenstein JA, et al AIDS Pt Care STDs 2007

Fairfield KM, et al. J Gen Intern Med 1999

Cook JA et al. AJP 2004

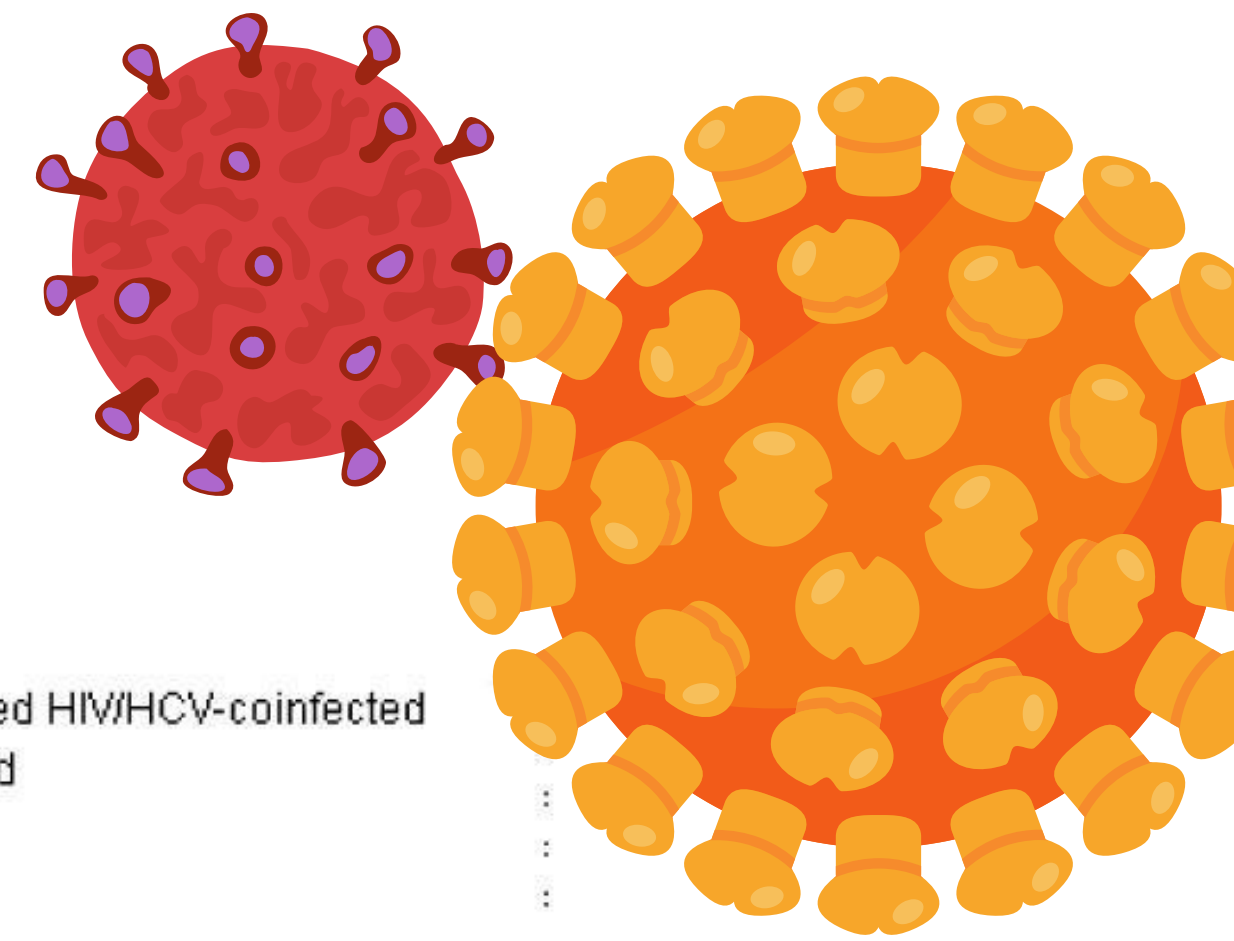
Depression among PWH who inject drugs

- Worsening depression scale:
 - uncontrolled viral load, homelessness, poor self-efficacy, active drug use
- **Improved** depression scale:
 - Housing, higher self-efficacy, increase in CD4 counts and ART adherence, lack of drug use
- In Cook et al's study, mental health treatment services **reduced mortality-**
OR 2.2 (1.6, 2.9)

HIV/Hepatitis C (HCV) Co-infection

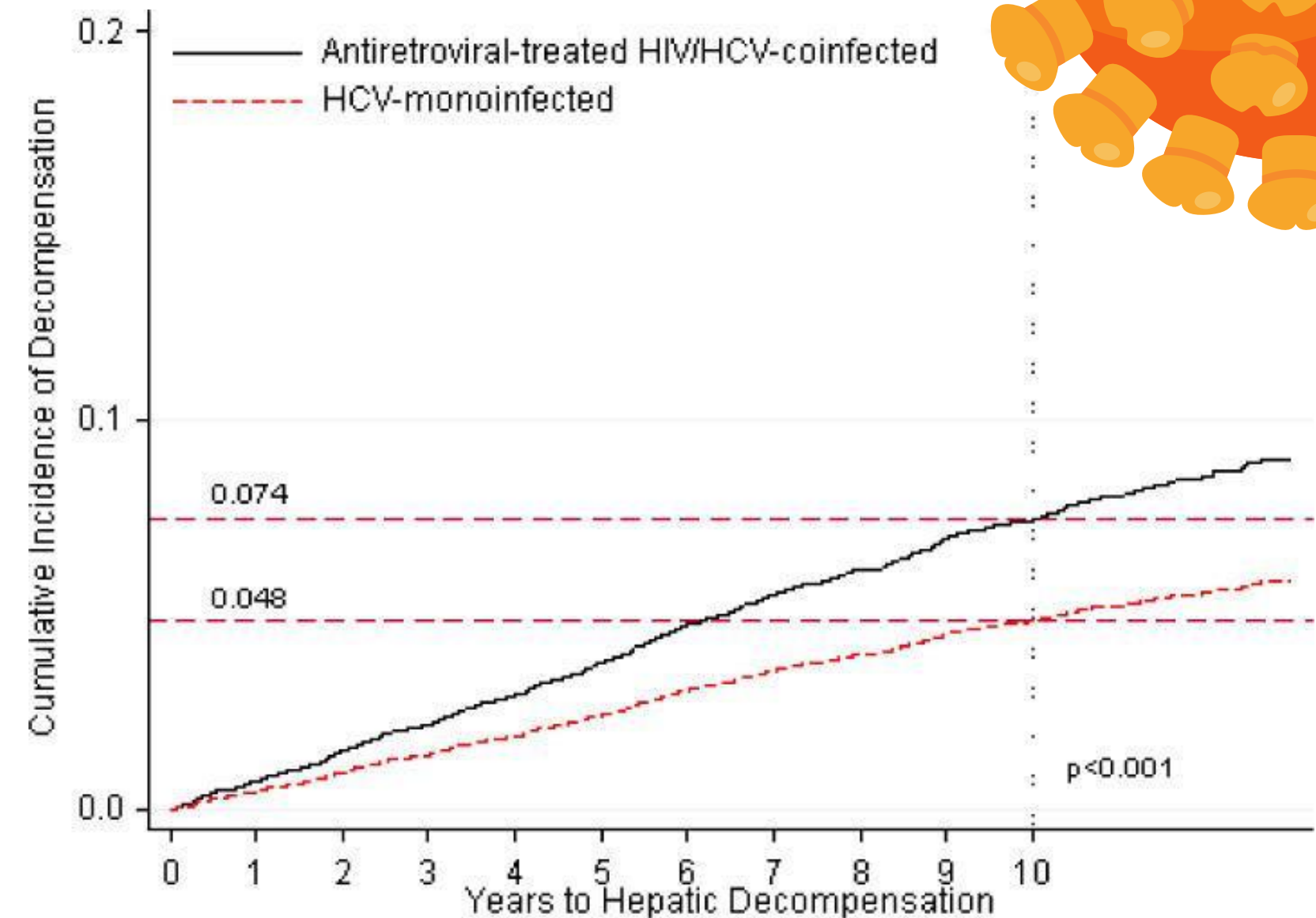
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HIV/HCV co-infection



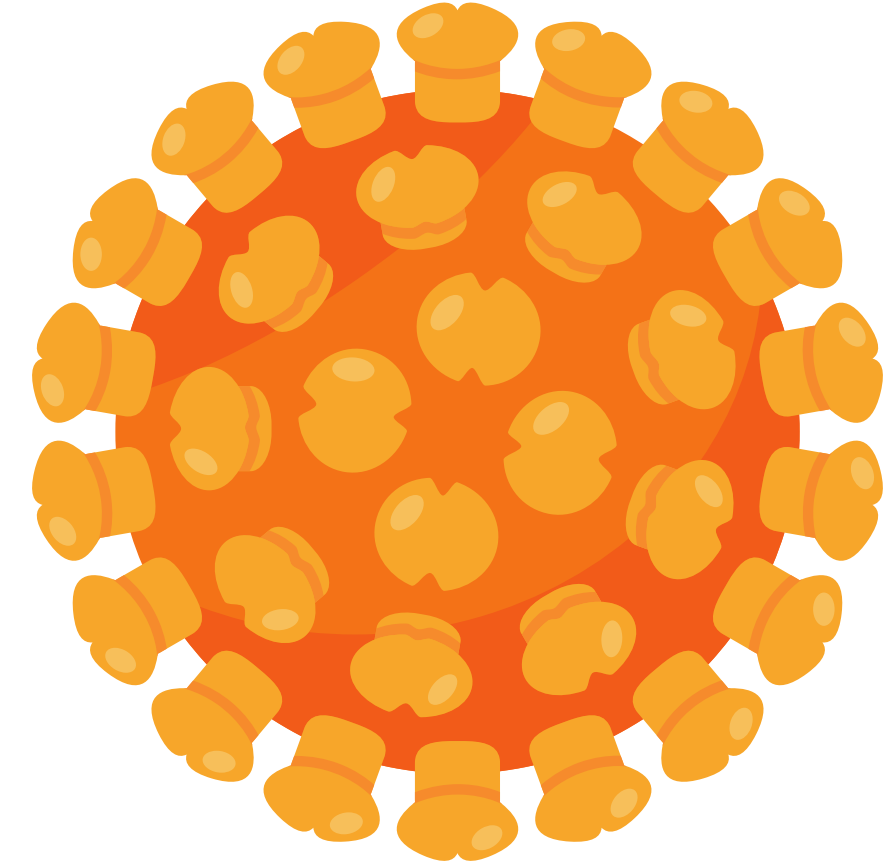
Compared to HIV or HCV monoinfection:

- More **aggressive** liver disease progression
- More likely to develop **steatosis and fibrosis**
- High **mortality** rates



HCV treatment

- Screen for **hepatitis A & B** (vaccinate if not immune)
- Direct acting antivirals (DAA's)
 - Glecapravir/Pibrentasvir
 - Sofosbuvir/Velpatasvir



HEP Drug Interactions

UNIVERSITY OF LIVERPOOL

TherEx
Centre for Experimental Therapeutics

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Interaction Checker

Access our free, comprehensive and user-friendly drug interaction charts

HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C

 **IDSA**
Infectious Diseases Society of America

Treatment-Naive ▼ | Treatment-Experienced ▼ | **Unique & Key Populations ▼**

[Home](#) > [Unique Populations](#) >

Patients With HIV/HCV Coinfection

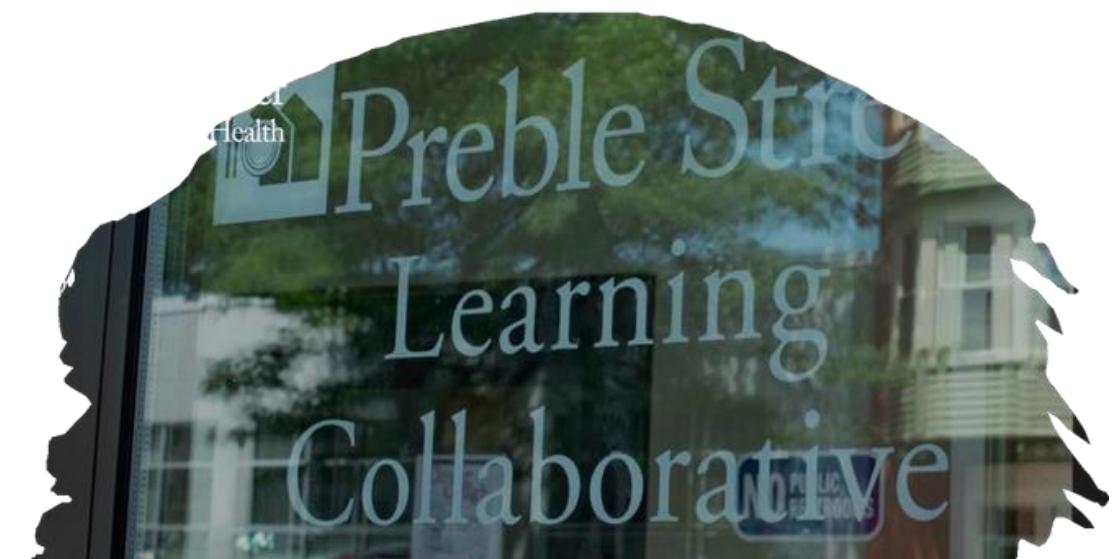
HCV treatment

- **No sobriety requirement** for individuals with Mainecare
- Treatment outcomes with HIV/HCV coinfection are **similar** to those observed with HCV monoinfection
- **Co-located, low-barrier** care



Under One Roof – An Integrated Clinic for Substance Use Disorder and Viral Hepatitis/HIV Treatment

Sarah Hipkens, MD¹, Emily Caron, BA², Wendy Craig, PhD³, Kinna Thakarar, DO, MPH⁴



HIV Treatment & Prevention

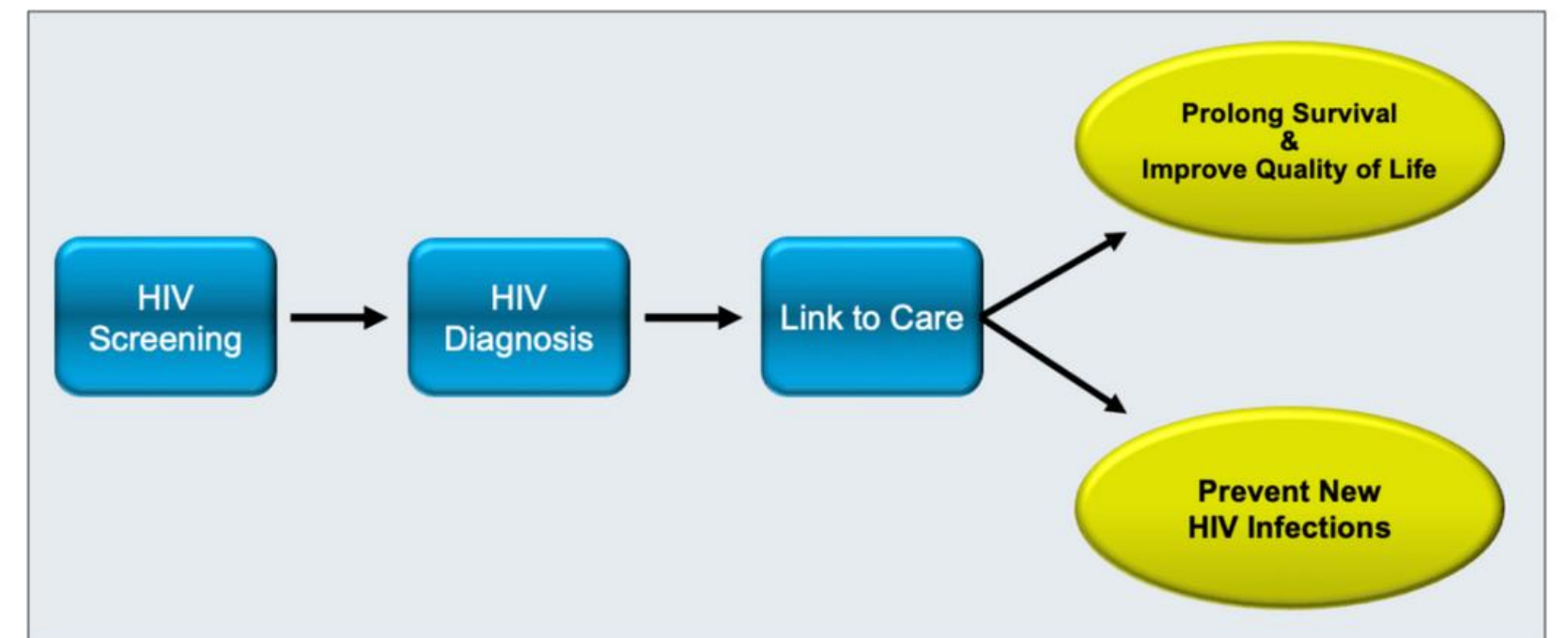
- Stigma
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- Overdose

Drug Use and Linkage to HIV Care

- PWH (n=1,133), 12% had **no** HIV medical care and were:

- ◆ **Less** likely to have case manager, use mental health services, have lower mental health status scores

- ◆ **More** likely to have unmet support service needs



National HIV Curriculum

Figure 2. Linkage to HIV Care: Main Goals

Co-located care

- Co-located HIV care
 - Outreach workers, social work (income, food, housing, etc)
 - Realistic plans to safely put someone into setting where they can feel safe & warm
 - As low barrier as possible
 - Building trust
 - Allow patients to be open about what substances they're using
 - Progress, not perfection – keep refining the process



Persisting in HIV Care: Considerations for People With Substance Use Disorders

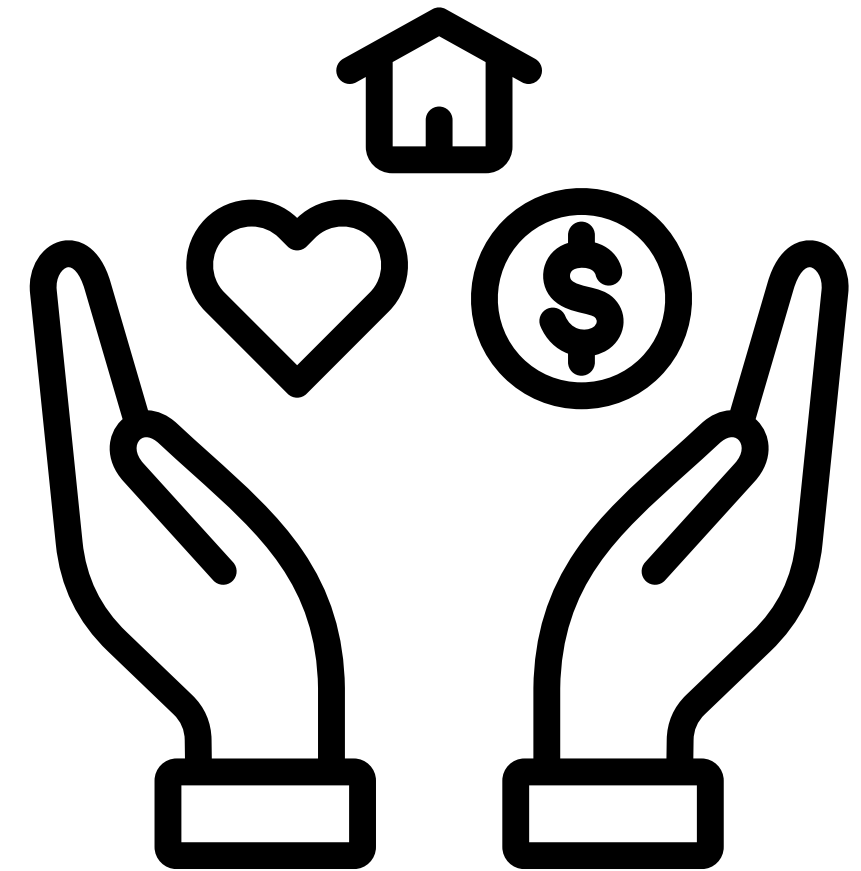
Released: September 13, 2024 | Expiration: September 12, 2025



Alexander Wong, MD, FRCPC

Priority pieces that should be addressed in a timely & sustainable way

- Housing
- Food
- Income insecurities
- Coexisting SUD/mental health needs



First line oral HIV treatment

Table 6a. Recommended Initial Regimens for Most People With HIV

Recommended regimens are those with demonstrated durable virologic efficacy, favorable tolerability and toxicity profiles, and ease of use. Choice of ART during pregnancy should be guided by recommendations from the [Perinatal Guidelines](#).

For people who do not have a history of using CAB-LA as PrEP, one of the following regimens is recommended^a:

- BIC/TAF/FTC (AI)
- DTG plus (TAF or TDF)^b plus (FTC or 3TC) (AI)
- DTG/3TC (AI), except for individuals with HIV RNA >500,000 copies/mL, HBV coinfection, or in whom ART is to be started before the results of HIV genotypic resistance testing for reverse transcriptase or HBV testing are available.



Long-Acting Cabotegravir + Rilpivirine (LA CAB + RPV)

- Approved as monthly IM injections: January 2021
- Approved as Q2M IM injections: February 2022
- Challenges
 - Frequency of in-clinic injections
 - Concerns about elevated BMI
 - Logistics and operationalizing rollout and uptake

Contraindications

- Prior INSTI or NNRTI resistance (except K103N)
- Chronic HBV infection (active or occult)



Slide credit: clinicaloptions.com

Guidance on Use of LA CAB + RPV in PWH who use drugs

- “Studies utilizing LA CAB/RPV have included individuals with good adherence before starting the LA ART, **but this should not exclude people with SUDs** who are struggling with adherence from being considered for LA CAB/RPV”

Long acting ART can be effective in PWH who use drugs

Implementation of injectable cabotegravir/rilpivirine for treatment of HIV in patients with substance use disorders at a syringe exchange clinic

Perez et al, 2024 | *Open Forum Infectious Diseases*



Background

The purpose of this case series was to demonstrate success with initiating long-acting cabotegravir + rilpivirine (CAB+RPV-LA) for the management of HIV in patients with opioid use disorder (OUD) at a syringe exchange clinic.

Methods

A retrospective case series was completed on the 15 PWH with OUD who were initiated on CAB+RPV-LA from January 2022 to January 2024 at the Sana Clinic.

Study Population

Of the 15 patients, 93% were actively injecting drugs and 66% had housing instability. Four patients had a detectable viral load prior to initiation of CAB+RPV-LA.



Results



100% of patients achieved and maintained an HIV viral load < 200 after initiation of CAB+RPV-LA



100% of patients were retained in care with no missed doses.



100% of patients maintained a CD4+ count > 200

Conclusion

Overall, the use of CAB+RPV-LA for PWH with OUD is effective in supporting this population to achieve and maintain viral suppression. Additionally, our study demonstrated success in retaining 100% of patients in care with no missed doses of CAB+RPV-LA.

Open Forum Infectious Diseases Perez A, Nieves S, Meisner J. Open Forum Infect Dis. 2024.



Open Forum Infect Dis, Volume 11, Issue 11, November 2024, ofae640, <https://doi.org/10.1093/ofid/ofae640>

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Back to the Case

- 43 yo woman with HIV (CD4 281 (20%), viral load 100 copies in July 2024)
- **Comorbidities** include: HCV, ?seizures, opioid use disorder, stimulant use (meth), depression
- **Housing instability, transportation barriers**
- **Meds** include: emtricitabine/tenofovir disoproxil fumarate + extended-release raltegravir, oxcarbazepine, injectable buprenorphine

You are contacted because her most recent viral load is now 200,000.

- *How should you proceed? Would you treat her hepatitis C?*

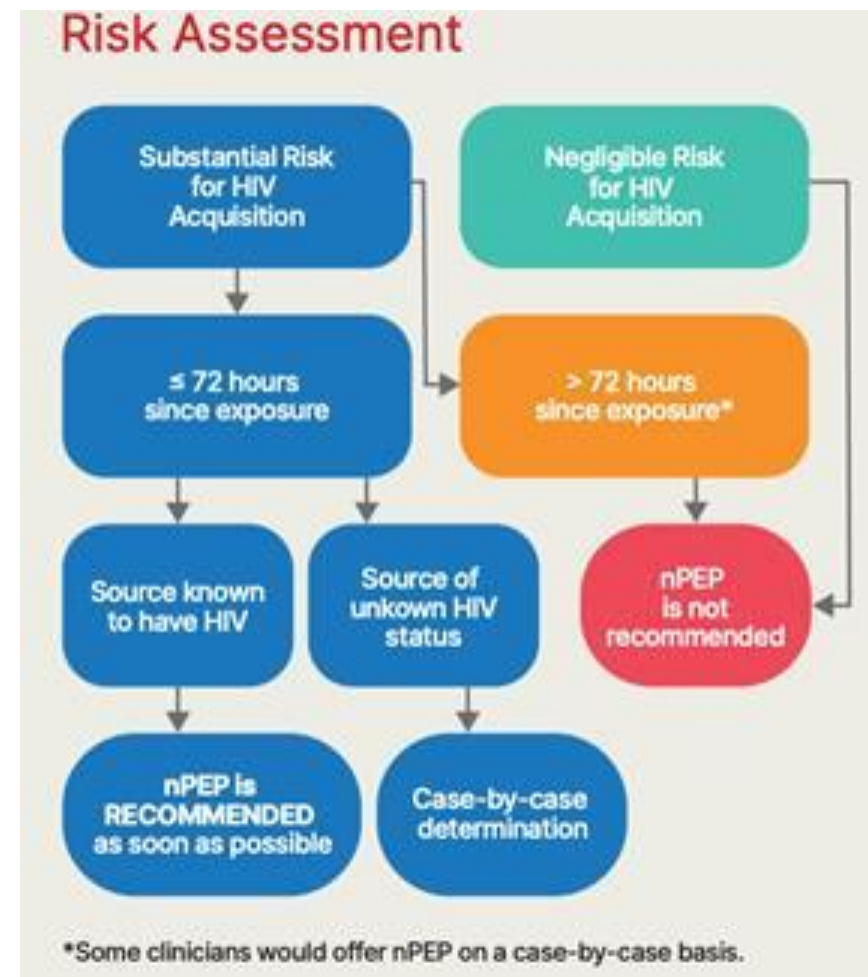


What about PEP/PrEP?

CDC guidelines state that people who use drugs are likely to benefit from **any FDA-approved medication for PrEP with or without a sexual risk indication.**

Risk assessment: PEP/PrEP for HIV prevention

PEP

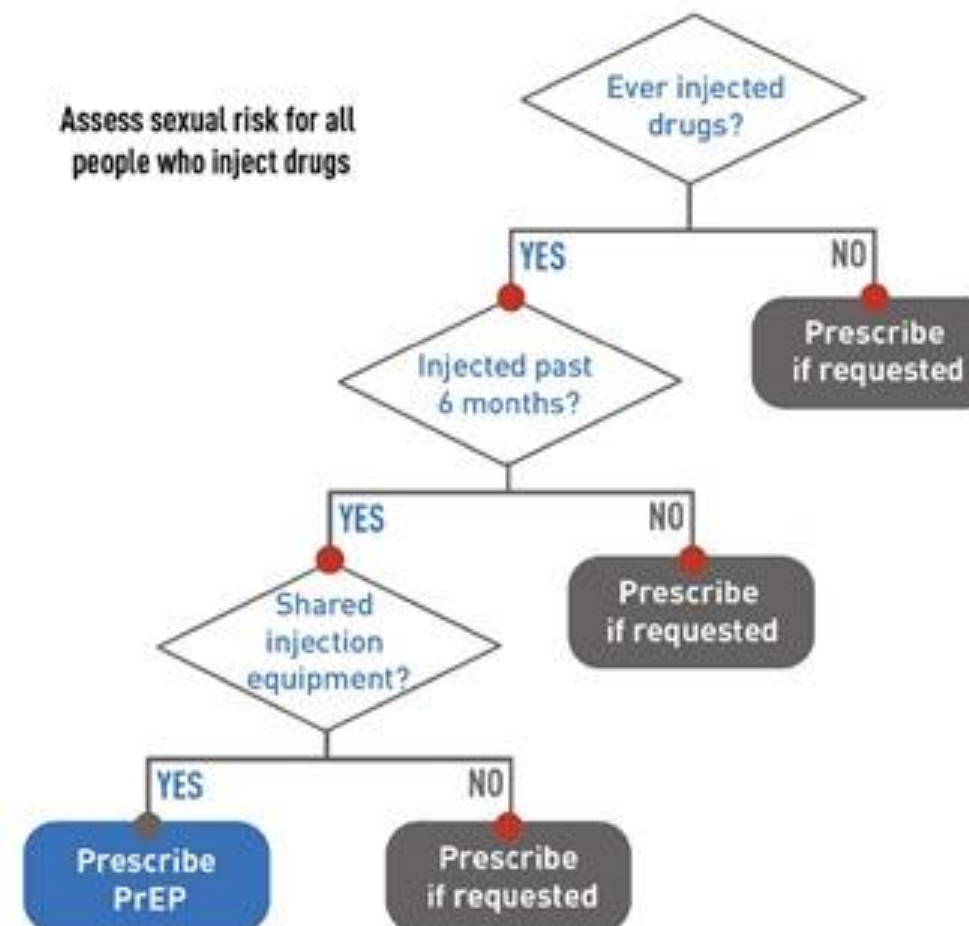


Preferred (current) PEP Rx:

emtricitabine/tenofovir disoproxil fumarate + dolutegravir

PrEP

Assessing Patients Who Inject Drugs



? Have you ever injected drugs that were not prescribed for you?

If YES:

? When did you last inject drugs?

? Do you ever inject using works that were used by another person?

Oral PrEP – Key Points

- The approved medication is a combination of nucleos(t)ide reverse transcriptase inhibitors (NRTIs)
 - emtricitabine 200 mg (FTC) & tenofovir disoproxil fumarate 300 mg (TDF)
 - FDA approved for **men & women** in 2004 to treat HIV and in 2012 for PrEP
 - emtricitabine 200 mg & tenofovir alafenamide 25 mg (F/TAF)
 - FDA approved for **men and transgender women*** who have sex with men in 2019
- Both work by inhibiting HIV from replicating when it enters the body
- This keeps HIV from establishing itself in the body permanently



**F-TAF not (currently) approved for women or people who can get HIV through vaginal sex - but likely due to research participants not taking medication, not due to biological differences*

Image credit: <http://www.wallstreetotc.com/hiv-prevention-drug-TDF/FTC/220671/>

Image credit: <https://www.pan.org.au/blog/2018/11/23/describing-prEP>

New injectable PrEP options

- Long-acting Cabotegravir (CAB-LA, “Apretude”)
 - Approved by FDA December 2021
 - Injectable medication from HIV integrase-inhibitor class Well tolerated,
 - only one drug (as opposed to 2 in F/TDF or F/TAF)
 - Injection is **every 2 months after loading (2 injections in 1st month)**
- Concerns
 - **Detectable drug levels up to 12 months** after single injection
 - Concerning for development of INSTI-resistant HIV in someone who stops getting Apretude injections
 - Cost (covered by MaineCare), other insurers in various stages of approval
 - Increased clinic work-load (scheduling injections, follow up)

CAB-LA con't.

- HIV Ab/Ag test with clinical visit **every 2 months**
(ideally, combine the visit for injection with visit for labs)
- Other labs can be every 4-6 months
- Some wiggle room if patients get injection +/- week from goal
- Patient needs to **take oral PrEP** for ~12 months after stopping CAB-LA unless they have no HIV risk

Lenacapavir for HIV PrEP

- EU approved Aug 2022 – “Sunlenca”
- Novel mechanism of action: prevents uncoating of viral capsid
- **q6mo injection**; twice-yearly PrEP (off-label)

Lenacapavir was 100% effective, with zero cases of HIV

0 out of 2134 women
taking **lenacapavir**
got HIV

0 cases

per 100 person-years

39 out of 2136
women taking **F/TAF**
got HIV

2.02 cases

per 100 person-years

16 out of 1068
women taking **F/TDF**
got HIV

1.69 cases

per 100 person-years

Background HIV
rate in
8094 women

2.41 cases

per 100 person-years



Lenacapavir prevented 100% of women from acquiring HIV (**zero cases**), when compared with the background HIV rate. Most people were able to take lenacapavir as prescribed.



> 90% of lenacapavir and placebo injections were given on time

PrEP options and monitoring

Injectable: Cabotegravir (CAB) 600mg injection*, Lenacapavir (off label)

Oral: Emtricitabine (F) 200mg combined with tenofovir disoproxil fumarate (TDF) 300mg or tenofovir alafenamide (TAF) 25mg

Baseline labs: HIV, kidney function, hepatitis B and other STI testing

At least every 3 months:

- Repeat HIV testing and assess for signs or symptoms of acute infection
- Provide a prescription or refill authorization of daily oral PrEP medication for ≤90 days
- Assess and provide support for medication adherence and risk-reduction behaviors
- Test sexually active patients with signs or symptoms of STIs and screen asymptomatic men who have sex with men and are at high risk for recurrent bacterial STIs
- Provide access to sterile needles/syringes and substance use disorder treatment services for people who inject drugs
- Respond to questions and provide new information

At least every 6 months:

- Monitor eCrCl for patients who are ≥50 years or had an eCrCl <90 mL/min when they started oral PrEP
 - Monitor more frequently or perform additional tests if there are other threats to kidney safety
- Screen sexually active people for STIs:
 - Syphilis for all PrEP users
 - Gonorrhea for all PrEP users
 - Chlamydia for men who have sex with men and transgender women, even if asymptomatic
- Assess interest in continuing or discontinuing PrEP

At least every 12 months:

- Monitor eCrCl for all patients continuing on PrEP medication
- For patients using F/TAF, monitor triglyceride and cholesterol levels and weight
- Screen heterosexually active people for chlamydia, even if asymptomatic

**HIV test recommended every 2 months (not 3 months) for injectable PrEP*

Case Study

- 27 year old cisgender woman with opioid and methamphetamine use disorders, untreated HCV
- Medications: buprenorphine/naloxone
- Unhoused
- Referred to you for HCV treatment

What else would you discuss with her?

Provider Bias May Affect Clinical Judgement Regarding PrEP in PWID

- Survey of US primary and HIV care providers: N = 370
 - Review 1 medical record of fictional male seeking PrEP, make series of clinical judgments about the individual (eg, anticipated adherence, safety consciousness, intention to prescribe PrEP), complete measures of explicit racial, sexual, and injection drug use prejudice and implicit racial prejudice
- Providers who expressed low to moderate sexual prejudice judged MSM to be more likely to adhere to PrEP vs MSW
- Providers judged men with injection drug use to be at higher risk, less likely to adhere, less safety conscious, and less responsible vs MSM and MSW
- **Adverse judgments regarding adherence and responsibility were associated with lower intent to prescribe PrEP**

Patient-level factors that may impact PrEP willingness

Factors that Influence Perception of HIV Risk and Willingness to Use Pre-Exposure Prophylaxis in People Who Inject Drugs

Daria Egorova,¹ Anny Fenton, PhD,² Kinna Thakarar, DO, MPH³

¹Tufts University School of Medicine, Boston MA, ²Dana Farber/Harvard Cancer Center, Boston MA, ³Maine Medical Center, Portland, ME

- Perception of low HIV risk
- Co-occurring unsafe injection /sex
- Less education

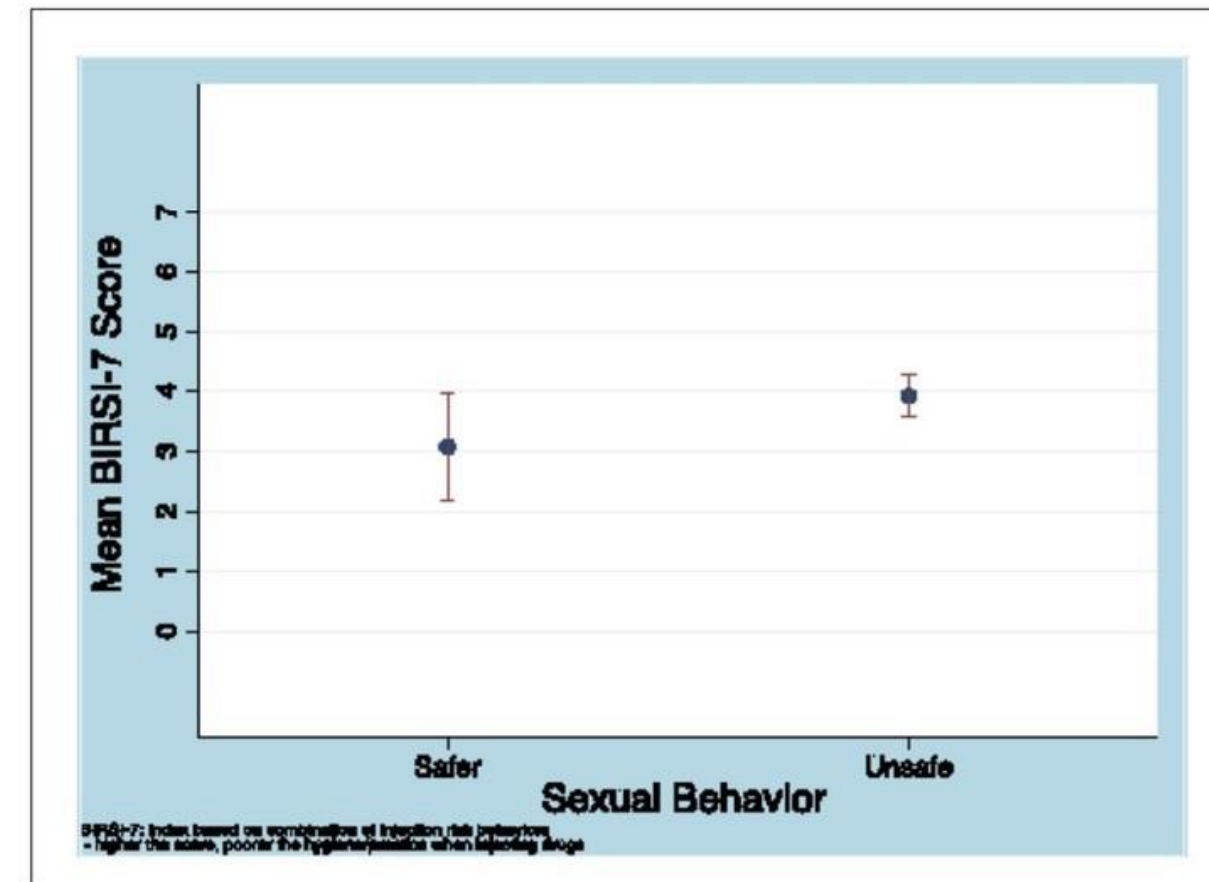


Figure 1. Co-occurrence of Injection and Sexual-Related Risk Behavior in PWID (N=101). Abbreviations: BIRSI-7, Bacterial Infections Risk Scale for Injectors

Supporting PrEP Uptake and Adherence for PWUD

- Integrating PrEP services that PWUD are already aware of and/or connected to
- Tailoring PrEP prescribing practices and interventions
- Staffing PrEP programs with individuals **trusted by PWUD** and providing safe environments

Project SHE: Integrating PrEP With Community-Based Syringe Services for Women Who Inject Drugs

- PrEP demonstration project integrated within SSP
- Women who inject drugs ≥ 18 yr of age offered education and 24 wk of daily oral PrEP
 - N = 136 recruited; n = 95 included in final sample; n = 63 accepted PrEP prescription at Wk 1
 - Uptake associated with greater SSP use, inconsistent condom use, experience of sexual assault
- 42 of 95 (44.2%) women retained at Wk 24
 - Higher retention with more frequent SSP use at baseline
- Adherence high by self-report but discordant with urine testing of TDF
- 2 HIV seroconversions occurred during follow-up and 1 pregnancy
- High PrEP acceptability/satisfaction reported with good tolerability

LA CAB PrEP in Primary Care Clinics: Investigators' Conclusions

- In public health network with **high rates** of mental health diagnosis, substance use, unstable housing, **high retention and on-time injection rate seen with LA CAB** in rapid start model and multidisciplinary management approach
 - **On time injections: 85% 6-mo retention:**
 - **83% (95% CI: 75% to 91%)**
- Mental health diagnosis associated with late injections and discontinuation;
substance use associated with discontinuation
 - **Housing instability** associated with **neither late injections nor discontinuation**
- Program leaders to consider making **viral load test optional** for on-time follow-ups due to high rate of false-positive results and data from HPTN 083

Tailoring PrEP Services for PWID

- Tailored PrEP services have been able to reach PWID effectively
- **Engage PWID in implementing any response strategy**
 - Per interviews with PWID, engagement is limited by stigmatizing environments, lack of transportation, restricted hours
- **Co-locate services** such as HIV/HCV screening, HAV/HBV vaccination, initiation of medication for OUD, behavioral health services
 - Transportation assistance to service locations
 - Mobile vans or street-based healthcare professionals
- Use **same-day PrEP initiation**, which may increase PrEP uptake and engagement
- **Offer both oral and long-acting injectable PrEP** so people can choose which modality they prefer

Back to the Case

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- Referred to you for HCV treatment

What else would you discuss with her?

Back to the Case

- Offer the PrEP **that is going to work the best for the patients** as they share what they think is going to work best for them
- Discuss harm reduction when providing PrEP (eg, provide naloxone along with PrEP, safer use, etc)

PrEP Key Take-home Points

- CDC guidelines recommend that all sexually active persons receive information about PrEP; this includes PWID
- Harm reduction and substance use disorder providers are well positioned to offer HIV screening/testing and prevention services, including PrEP
 - Integrated, low-barrier care models can help promote person-centered services
- Long-acting injectable PrEP may offer opportunities to design new systems and processes that are particularly acceptable to PWID
 - Equitable access is key

Substance use treatment/Harm Reduction

- Stigma
- Epidemiology
- HIV acquisition and disease progression
- HCV Co-infection
- HIV treatment and prevention
- Substance use treatment/harm reduction

Integrated Primary HIV Care and Addiction treatment associated with engagement in care

- 64% engaged in an addiction treatment program integrated into primary care
- 60% treated with BPN/NLX within 6 months of joining program
 - BPN/NLX assoc. with engagement in care
- Self-reported depression common & assoc. with persistent substance dependence

Patient Perspectives on integrated HIV/SUD care (FAST-PATH program)

- *“The process of coordinating with other health care providers is great. Many medical tests are done...all my needs are met.”*

HIV & Overdose

- Meta-analysis: **HIV was associated with an increased risk of overdose mortality**
 - (pooled risk ratio 1.74, 95% confidence interval 1.45, 2.09), although the effect was heterogeneous ($Q=80.3, P<0.01, I^2=71\%$).
- Among 9,180 PWH, Compared to those who died from other causes, those who died of overdose were significantly **younger** (median age [Q, Q3]: 46 years [42, 52] vs. 54 years [48, 63]); had an indication of **chronic pain** (35.9% vs. 27.1%) **and hepatitis C virus** (64.8% vs. 50.4%),

Project DHARMA



**Distribution of Harm reduction Access in Rural
Maine Areas**

A collaborative and
multi-disciplinary
approach to harm
reduction

*In honor of:
Jessi Gilbert, Kari Morissette*

Advocacy

- Partner with community organizations & professional societies
(ex: ME-RAPAMERSA, IDSA, NNESAM, MMA)
- ME-RAP training sessions
- Provide testimony to support:
 - SSP funding and outreach work
 - Overdose Prevention Centers
 - Decriminalization
 - Safe supply
 - Housing support
 - Involuntary displacement
- Meet with representatives
- Letters to the Editor



Take-Home Points

- High burden of substance use among PWH
- Drug use & other co-morbidities are associated with HIV disease progression/mortality
- Integration of substance use services with HIV/HCV can enhance care
- Offer harm reduction/**low barrier** substance use disorder treatment
- Be an Advocate!

PrEP Help Lines

For **PrEP** advice and inquiries, please call
the PrEP line:

(855) 448-7737

or

(855) HIV-PrEP

Monday through Friday, 9 a.m. – 6 p.m.
EST

Provides free, expert advice about PrEP to
clinicians across the country

LOCAL: 207-553-PREP

Acknowledgements

- Slides
 - Jeffrey Samet
 - Clinical Care Options
 - Courtney Pladsen

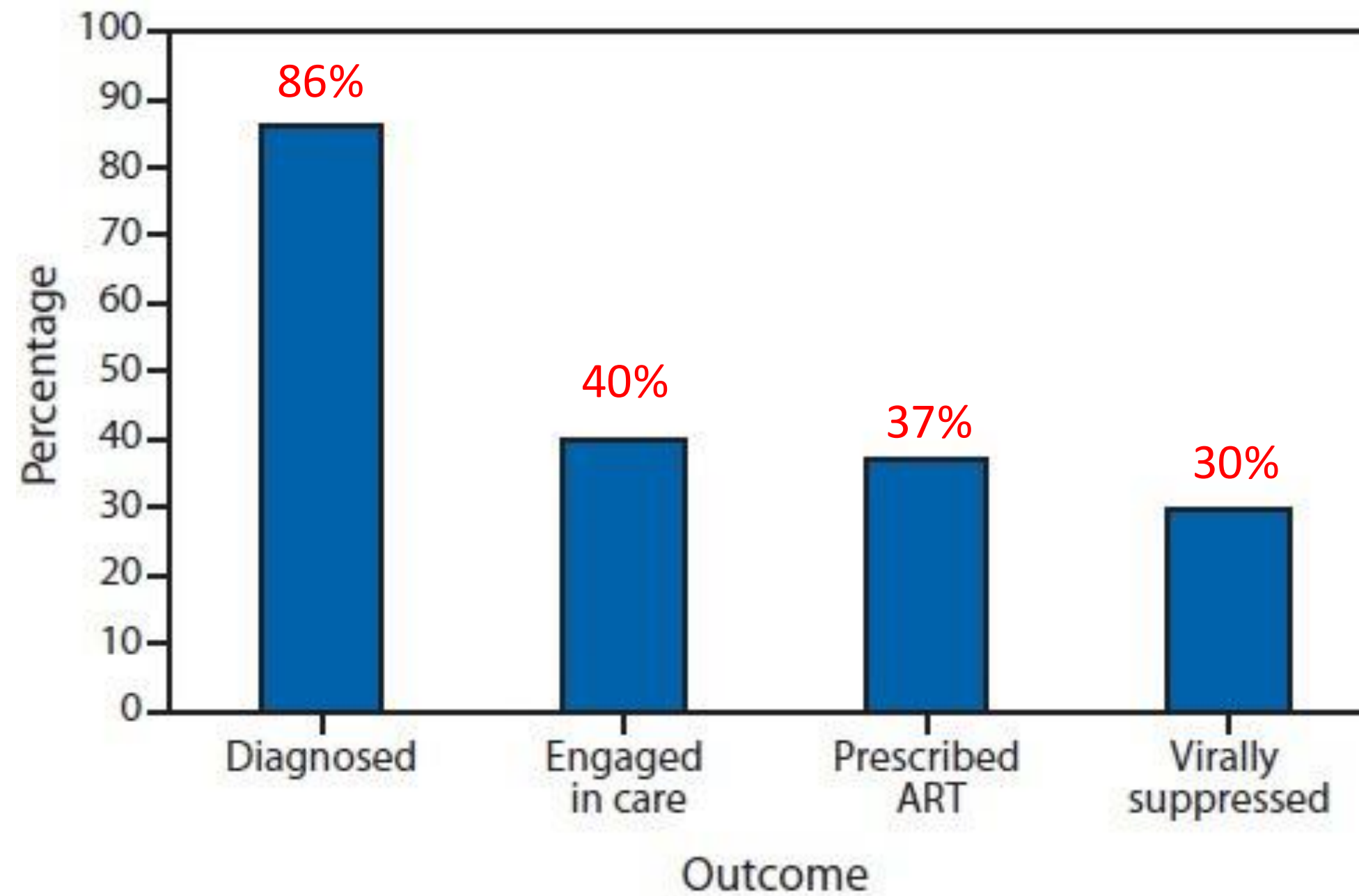


Supplemental

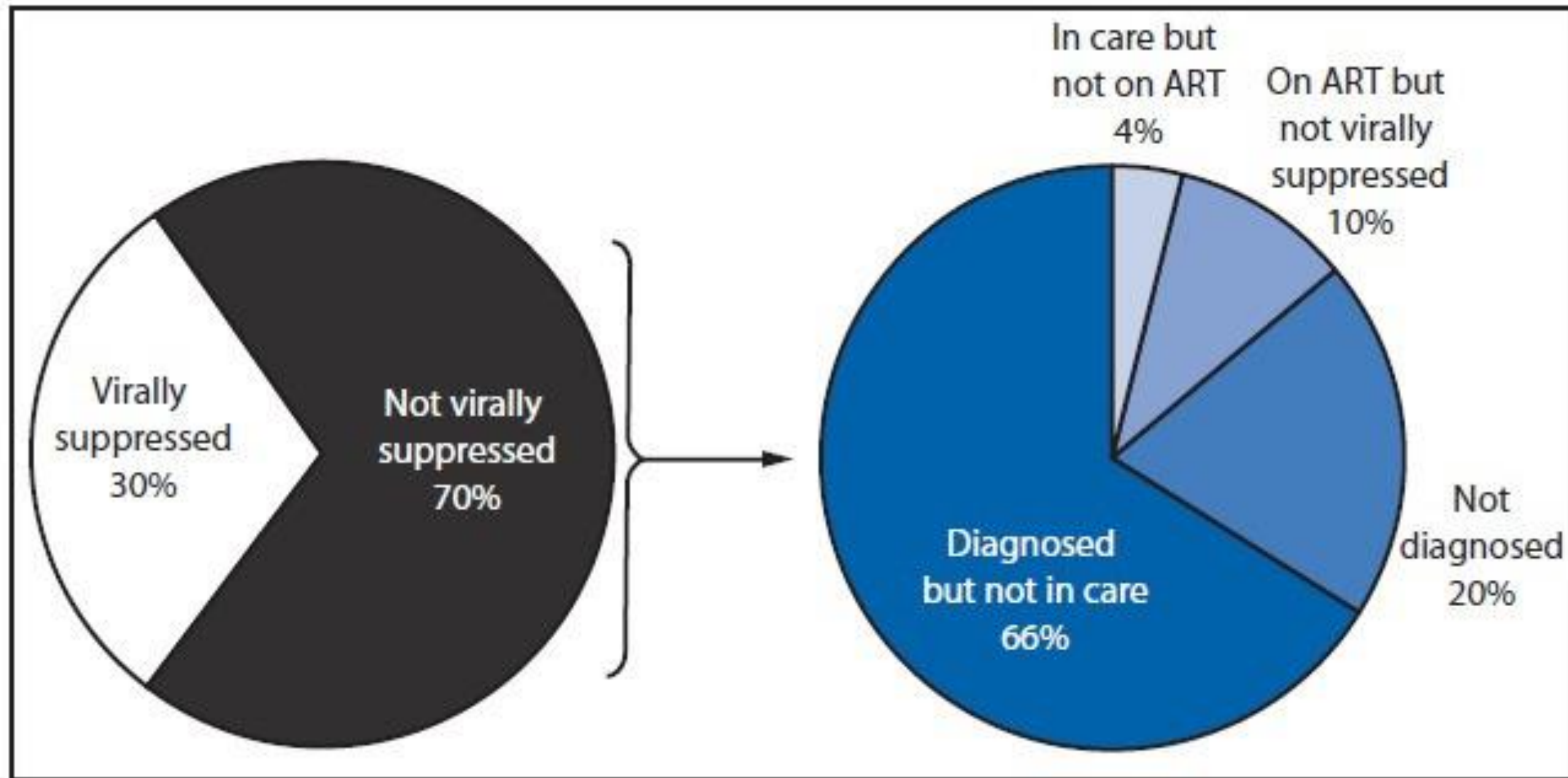
Drug Use and Mortality

- HIV-LIVE: short-term mortality associated with:
 - Homelessness (HR 2.9, 95% CI 1.3 – 6.4) Heroin
 - or cocaine use (HR 2.4, 95% CI 1.1 – 5.3)
- Antiretroviral Cohort Collaboration: mortality associated with:
 - Intravenous drug use (RR 2.08 95% CI 1.91 – 2.26)

HIV Continuum of Care



Not Virally Suppressed



Pre-Exposure Prophylaxis (PrEP) for HIV Prevention

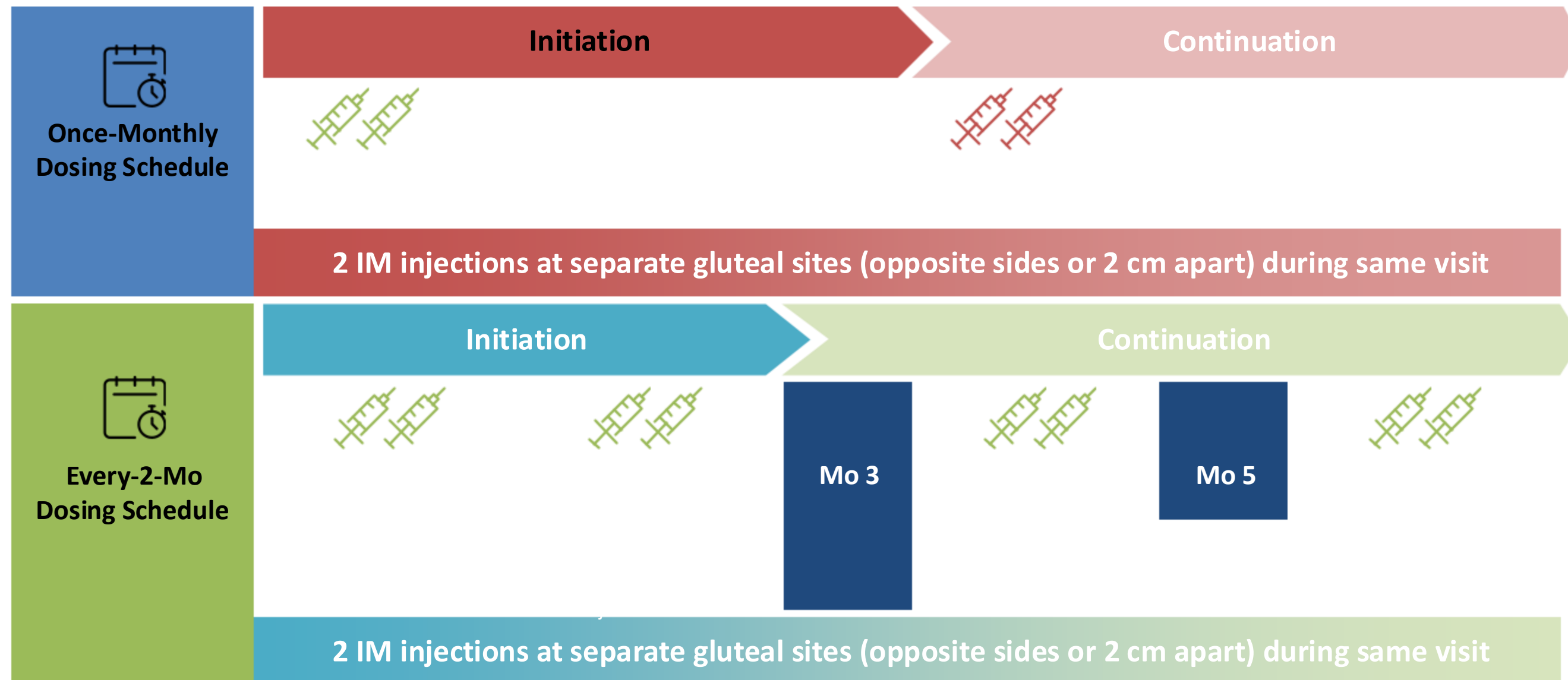
Morbidity and Mortality Weekly Report (MMWR)

- CDC recommends that PrEP be consider as one of several prevention options for people at high risk for HIV acquisition through injection drug use

Other Preventive Services for people who inject drugs

- STI screening includes annual (if not more frequent, q3 mo HIV + MSM)*:
 - HIV, HCV, syphilis, gonococcal and chlamydia testing, +/- trichomonas
- Vaccinations: Hepatitis A & B, Tdap (PCV 13 and 23 if concurrent tobacco or alcohol use)

LA CAB + RPV Initiation and Continuation Schedules



Practical Considerations for LA CAB + RPV Initiation

Admin

- Recommended to be administered only by HCP
 - Optional oral CAB + RPV lead-in dosing for ~1 mo to assess tolerability; initiate injections on last day of oral lead-in period
 - Initiate **Q1M** injections with loading dose (CAB 600 mg/3 mL + RPV 900 mg/3 mL) followed by monthly continuation doses (CAB 400 mg/2 mL + RPV 600 mg/2 mL) For **Q2M** dosing schedule: Initiate injections of CAB 600 mg and RPV 900 mg monthly for first 2 mo and then every 2 mo thereafter
 - 23-gauge, 1.5-inch intramuscular
- Idelson, et al. Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents Living with HIV.

Supporting Candidates for Long-Acting ART

- **Primary populations:** those wanting or needing long-acting ART

Virologically Suppressed Patients Desiring ART Switch (Current FDA-Approved Indication)	Patients With Suboptimal Adherence to Oral Therapy LATITUDE (ACTG A5359)¹
<i>Strategies to Monitor and Circumvent Barriers to Long-Acting ART</i>	
▪ Shot clinics in clinical programs ▪ Pharmacies administer shots ▪ Supply an oral ART regimen for bridging²	▪ Incentives ▪ Mobile vans

- **Additional population:** those needing injectable therapy because they are unable to take oral medications, studied under compassionate use³

1. NCT03635788. 2. Cabotegravir extended-release injectable suspension; rilpivirine extended-release injectable suspension PI.

3. D'Amico. IAS 2020. AbstrPEB0263.

TDF PrEP Prevents HIV Acquisition in PWID:

The Bangkok Tenofovir Study

- 2413 PWID without HIV (20% women) randomized to TDF or placebo
- 48.9% ($P = .01$) relative reduction in HIV incidence with TDF (mITT)
- Tenofovir detected in two thirds (100/151) of participants in TDF group
- powered to assess efficacy by subgroup

HIV Incidence	TDF	Placebo	Efficacy, % (95% CI)	<i>P</i> Value
Overall				
New infections, n	17	33		
Incidence per 100 PY	0.35	0.68	48.9 (9.6-72.2)	.01
Men				
New infections, n	15	24		
Incidence per 100 PY	0.39	0.63	37.6 (-17.8 to 67.9)	.15
Women				
New infections, n	2	9		
Incidence per 100 PY	0.20	0.92	78.6 (16.8-96.7)	.03

Bangkok TDF Study: a Closer Look

- Incident HIV infections did not differ between arms until after 3 yr
- Risk behavior decreased as trial progressed
- Syringe exchange not offered to participants
- Syringe sharing 18% at baseline, down to 2% by Mo 12

