Thanks to WHO, this webinar offers simultaneous Ukrainian translation How do People Who Use/Inject Drugs Intersect with **PrEP Research and Service Delivery?** 

> September 6, Wednesday, 2023 9:00 AM - 10:30 AM Eastern

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HIV prevention research – a new forum for advocacy on the latest

## Привіт нашим друзям з України.

Hello to our friends from Ukraine.







HIV prevention research - a new forum for advocacy on the latest

# DoxyPEP Implementation All Systems Go?



October 5, 2023 9 to 10:30 AM Eastern

Register tinyurl.com/doxygo

You're invited to this webinar.





## Today's agenda

**John Kimani** Kenya Network of People Who Use Drugs

**Dr. Sunil Solomon** Johns Hopkins University

**Dr. Tetiana Kaleeva** Provider, Odessa [no slides]



How do People Who Use/Inject Drugs Intersect with PrEP Research and Service Delivery?



How do People Who Use/Inject Drugs Intersect with PrEP Research and Service Delivery?

#### Presenter

John Kimani - Program Coordinator and ED

#### Organization

Kenya Network of People Who Use Drugs (KeNPUD)

Date: Sept-6-2023



## Who are KeNPUD?

- KeNPUD is the national network of people who use drugs in Kenya.
  - County networks
  - Grass root groups
  - CBOs affiliates
- Founded in 2012.
- KeNPUD is dedicated to advocating for access to HIV prevention interventions including harm reduction services for all drug users in Kenya.
- Our work is community led, involving different:
  - Maskani officers (hotspots representatives),
  - Peer educators and navigators
  - Outreach workers.
- Our work is donor dependent



## What guides us?

#### VISION

→Empowered drug user and just society.

#### MISSION

 $\rightarrow$  Improve the health and well-being of people who use drugs through grass root organization of people who use drugs.



## HIV prevention among PWUID in Kenya

#### Research

- high HIV prevalence of over 18%
- high levels of risky injection practices, sharing injecting equipment
- Low perception of HIV risk
- Lack of specific data on young PWID and WWID
- Poor access to HIV prevention services because of discrimination, violence, harassment, unable to negotiate for safer sex, and stigma.
- PrEP uptake among PWUID is low
- Needles and syringes and other harm reduction interventions are prioritized.
- Unsupportive laws that criminalize drug use in Kenya.
- Intersectionality among PWID that increases need.



## PrEP for PWUID in Kenya

- Kenya AIDs Strategic Framework 2 (2021-24) and HIV Prevention Revolution Roadmap-in Kenya (2030).
  - Recommends PrEP for PWID and other key populations
  - Recommends differentiated service delivery for HIV prevention interventions
- However;
  - High concerns among PWUID on effect of using many medications and poly-drug use to vital organs like kidney and liver functions.
  - Community knowledge of PrEP, HIV risk, needs and preferences or interest for PrEP is low.
  - Low demand of PrEP among PWUID
  - Many PWID are socially not available and remain in hiding and marginalized.



## What we have done so far?

- Continued implementing a maskani model from grass roots
- Continued advocating for Harm reduction services access
- Take advantage of devolved systems continue empowering PWUID leadership at grass root to occupy decision making spaces around harm reduction interventions
- Continued collaborating with KPs, Gov't agencies and development partners in advocating for PWUID's rights to access to life saving services.



## Challenges facing us!

- Funding gaps to support continued advocacy work.
- Limited access to needles and syringes by PWUDs in some counties.
- Unaffordable travel costs and long distance to access HIV prevention services, including Harm reduction interventions
- Stigma and discrimination is still high and needs continuous addressing.
- Inadequate research and minimal involvement of PWUID in designing suitable community interventions to improve reach.



 $\sim$  Thank you so much  $\sim$ 

## Partners



WORK

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## For more work and support

## Check our

- •Website → <u>www.kenpud.or.ke</u>
- Twitter  $\rightarrow$  @kenpud1
- •Telephone → +254 728 459 113



# Your <u>questions</u> and <u>thoughts</u> are most welcome.



## Prep in pwid/pwud

Sunil S Solomon, MBBS PhD MPH Professor of Medicine and Epidemiology, Johns Hopkins University, USA

**The Choice Agenda** 





## Disclosures

- Grants, products and honoraria from Gilead Sciences
- Grants, products and honoraria from Abbott Laboratories

## Why People who Inject Drugs?

#### The New York Times

#### Overdose Deaths Reached Record High as the Pandemic Spread

More than 100,000 Americans died from drug overdoses in the yearlong period ending in April, government researchers said.

Give this article



A memorial service in Baltimore last year for a man who died of an overdose.

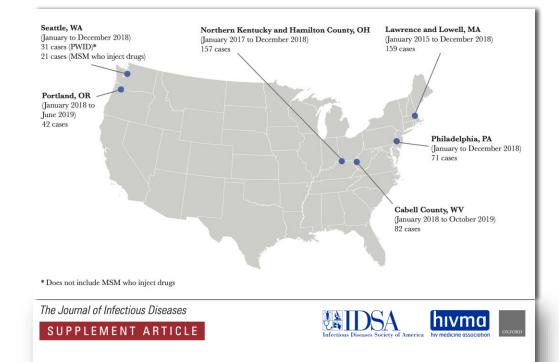
Clinical Infectious Diseases





#### Estimated Number of People Who Inject Drugs in the United States

Heather Bradley,<sup>1</sup> Eric W. Hall,<sup>2</sup> Alice Asher,<sup>3</sup> Nathan W. Furukawa,<sup>3</sup> Christopher M. Jones,<sup>4</sup> Jalissa Shealey,<sup>1</sup> Kate Buchacz,<sup>3</sup> Senad Handanagic,<sup>3</sup> Nicole Crepaz,<sup>3</sup> and Eli S. Rosenberg<sup>5,6</sup>

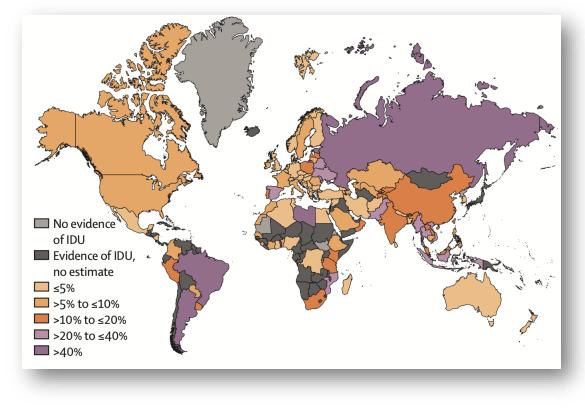


Responding to Outbreaks of Human Immunodeficiency Virus Among Persons Who Inject Drugs—United States, 2016–2019: Perspectives on Recent Experience and Lessons Learned Sheryl B. Lyss,<sup>12</sup>Kate Buchacz,<sup>1</sup> R. Paul McClung,<sup>12</sup> Alice Asher,<sup>2</sup> and Alexandra M. Oster<sup>12</sup>

## And not just in the US...

### HIV incidence in a community-based cohort in New Delhi (2017-2020)

Number HIV negative	Person years of	Number of incident	Incidence rate
with ≥1 follow-up	follow-up	infections	(95% CI)
782	747	159	21.3 (18.2 – 24.9)



#### Prevalence Estimates:

- South Africa (21% 35%)
- Kenya (15 21%)
- Tanzania (34%)

Clipman, Sci Adv 2022; McFall, CROI 2023; Degenhardt, Lancet Glob Health 2023; Scheibe, Harm Red J 20119; Zanoni, PLoS One 2023; Kurth, JAIDS 2015; Kawambwa, BMC Pun Health 2020

JAMA | US Preventive Services Task Force | RECOMMENDATION STATEMENT

**Preexposure Prophylaxis to Prevent Acquisition of HIV** US Preventive Services Task Force Recommendation Statement

US Preventive Services Task Force

Population	Recommendation	Grade
Adolescents and adults at increased risk of HIV	The USPSTF recommends that clinicians prescribe preexposure prophylaxis using effective antiretroviral therapy to persons at increased risk of HIV acquisition to decrease the risk of acquiring HIV. See the Practice Considerations section for more information about identification of persons at increased risk and about effective antiretroviral therapy.	A

 No PrEP medications have FDA approval for the indication of reducing the risk of acquiring HIV via injection drug use, but Centers for Disease Control and Prevention (CDC) guidelines note that persons who inject drugs are likely to benefit from PrEP with any FDA-approved PrEP medication.

## All time greatest prevention studies!!

#### The NEW ENGLAND JOURNAL of MEDICINE

#### ORIGINAL ARTICLE

#### Cabotegravir for HIV Prevention in Cisgender Men and Transgender Women

R.J. Landovitz, D. Donnell, M.E. Clement, B. Hanscom, L. Cottle, L. Coelho,
R. Cabello, S. Chariyalertsak, E.F. Dunne, I. Frank, J.A. Gallardo-Cartagena,
A.H. Gaur, P. Gonzales, H.V. Tran, J.C. Hinojosa, E.G. Kallas, C.F. Kelley,
M.H. Losso, J.V. Madruga, K. Middelkoop, N. Phanuphak, B. Santos, O. Sued,
J. Valencia Huamaní, E.T. Overton, S. Swaminathan, C. del Rio, R.M. Gulick,
P. Richardson, P. Sullivan, E. Piwowar-Manning, M. Marzinke, C. Hendrix, M. Li,
Z. Wang, J. Marrazzo, E. Daar, A. Asmelash, T.T. Brown, P. Anderson, S.H. Eshleman,
M. Bryan, C. Blanchette, J. Lucas, C. Psaros, S. Safren, J. Sugarman, H. Scott, J.J. Eron,
S.D. Fields, N.D. Sista, K. Gomez-Feliciano, A. Jennings, R.M. Kofron, T.H. Holtz,
K. Shin, J.F. Rooney, K.Y. Smith, W. Spreen, D. Margolis, A. Rinehart, A. Adeyeye,
M.S. Cohen, M. McCauley, and B. Grinsztejn, for the HPTN 083 Study Team\*

minute.<sup>16</sup> Cisgender MSM and transgender women who have sex with men who were recruited for the trial were at high risk for HIV infection, as defined in the protocol. Key exclusion criteria were the use of illicit intravenous drugs within 90 days before enrollment, previous participation in the active treatment group of an HIV vaccine trial, coagulopathy, buttock implants or fillers, a

#### The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

AUGUST 11, 2011

VOL. 365 NO. 6

#### Prevention of HIV-1 Infection with Early Antiretroviral Therapy

Myron S. Cohen, M.D., Ying Q. Chen, Ph.D., Marybeth McCauley, M.P.H., Theresa Gamble, Ph.D., Mina C. Hosseinipour, M.D., Nagalingeswaran Kumarasamy, M.B., B.S., James G. Hakim, M.D., Johnstone Kumwenda, F.R.C.P., Beatriz Grinsztejn, M.D., Jose H.S. Pilotto, M.D., Sheela V. Godbole, M.D., Sanjay Mehendale, M.D., Suwat Chariyalertsak, M.D., Breno R. Santos, M.D., Kenneth H. Mayer, M.D., Irving F. Hoffman, P.A., Susan H. Eshleman, M.D., Estelle Piwowar-Manning, M.T., Lei Wang, Ph.D., Joseph Makhema, F.R.C.P., Lisa A. Mills, M.D., Guy de Bruyn, M.B., B.Ch., Ian Sanne, M.B., B.Ch., Joseph Eron, M.D., Joel Gallant, M.D., Diane Havlir, M.D., Susan Swindells, M.B., B.S., Heather Ribaudo, Ph.D., Vanessa Elharrar, M.D., David Burns, M.D., Taha E. Taha, M.B., B.S., Karin Nielsen-Saines, M.D., David Celentano, Sc.D., Max Essex, D.V.M., and Thomas R. Fleming, Ph.D., for the HPTN 052 Study Team\*

#### HPTN 052 Study Exclusion Criteria

Couple	Index Case (HIV-infected)
Reports a history of injection drug use within the last five years. Previous and/or current participant in an HIV vaccine study.	<ul> <li>Current or previous AIDS-defining illness</li> <li>Current or previous use of any ART drugs (some exceptions apply)</li> </ul>
Any condition that, in the opinion of the site investigator, would make participation in the study unsafe, complicate interpretation of study outcome data, or otherwise interfere with achieving the study objectives. Incarceration in a correctional facility, prison, or jail; and involuntary incarceration in a medical facility for psychiatric or physical ( <i>e.g.</i> infectious disease) illness	<ul> <li>Documented or suspected acute hepatitis within 30 days prior to enrollment, irrespective of AST (SGOT) and ALT (SGPT) values.</li> <li>Acute therapy for serious medical illnesses, in the opinion of the site investigator, within 14 days prior to enrollment. Candidates with chronic, acute, or recurrent infections that are serious, in the opinion of the site investigator, who must continue with chronic (maintenance) therapy (<i>e.g.</i>, TB), must have completed at least 14 days of therapy prior to study entry and be clinically stable.</li> </ul>

## How do we prevent HIV in PWID/PWUD?



## PrEP: What do we need to know?

#### **Efficacy = potency X adherence/compliance**

- Potency = Ability of agent to prevent transmission
- Adherence/compliance = Ability of population to adhere/comply with medication

#### **Effectiveness = efficacy x uptake**

## **Oral PrEP uptake in PWID**

#### Ideal population for PrEP

- Low viral suppression
- High incidence



Original Investigation | Public Health Prevalence of HIV Preexposure Prophylaxis Prescribing Among Persons With Commercial Insurance and Likely Injection Drug Use

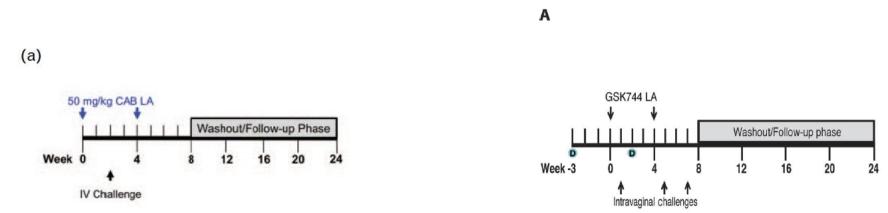
Carl G. Streed Jr, MD, MPH; Jake R. Morgan, PhD; Mam Jarra Gai, MPH; Marc R. Larochelle, MD, MPH; Michael K. Paasche-Orlow, MD, MPH; Jessica L. Taylor, MD

"...Receipt of PrEP increased from 0.00 to 0.295 per 100 person-years between 2010 and 2019 among PWID...."





## **Potency of LA PrEP in PWID**



**Results:** CAB long acting was highly protective with 21 of the 24 CAB long-actingtreated macaques remaining aviremic, resulting in 88% protection. The plasma CAB concentration at the time of virus challenge appeared to be more important for protection than sustaining therapeutic plasma concentrations with the second CAB long acting injection.

**Conclusion:** These results support the clinical investigation of CAB long acting as PrEP in people who inject drugs. Copyright © 2017 Wolters Kluwer Health, Inc. All rights reserved.

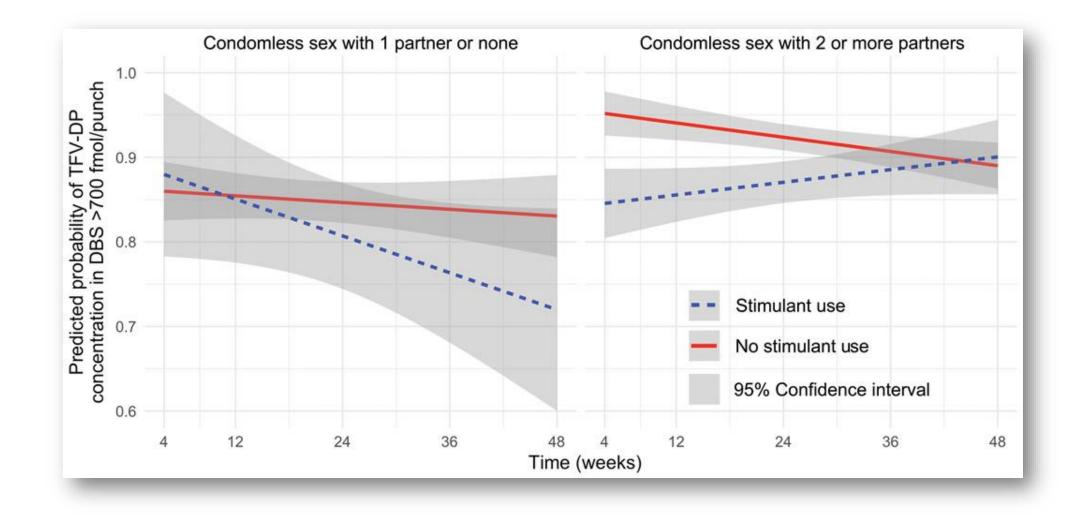
Intravenous Challenge

**Intravaginal Challenge** 

## LA PrEP in PWID: Way forward...

- What is long?
  - One week vs. one month vs. two months vs. six months
- Drug-drug interaction data
  - Commons substances of misuse
  - Medications for opioid use disorder
- Efficacy data in humans
  - Phase III trials (?unbalanced allocation)
    - Incidence still high among PWID in many settings globally
- Delivery of LA PrEP
  - MOUD/OTP centers
  - Field/van based

## **PrEP in PWUD (Stimulant use)**

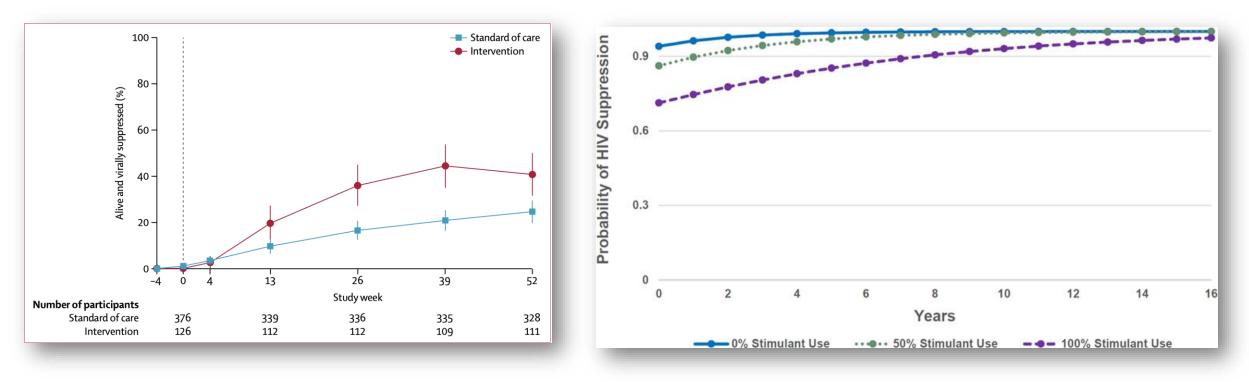


Goodman, AIDS Care 2019; Hojilla, JIAS 2018; Kelley, CID 2015; Nunn, AIDS 2017; Castel, JAIDS 2015

## How do we prevent HIV in PWID/PWUD?



## Viral suppression among PWID/PWUD



#### HPTN 074 Peer navigation + Counseling + ART

**SCOPE Cohort** Prospective cohort in SFO

Miller, Lancet 2018; Carrico, JAIDS 2019

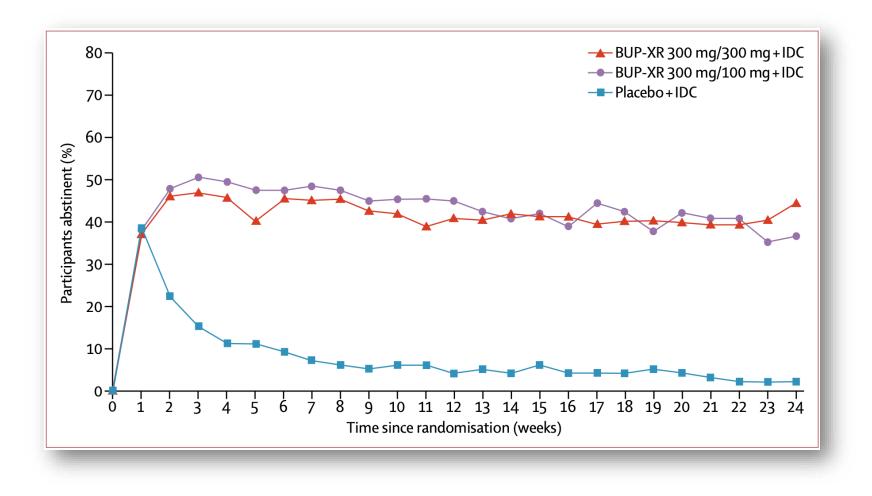
## How do we prevent HIV in PWID/PWUD?



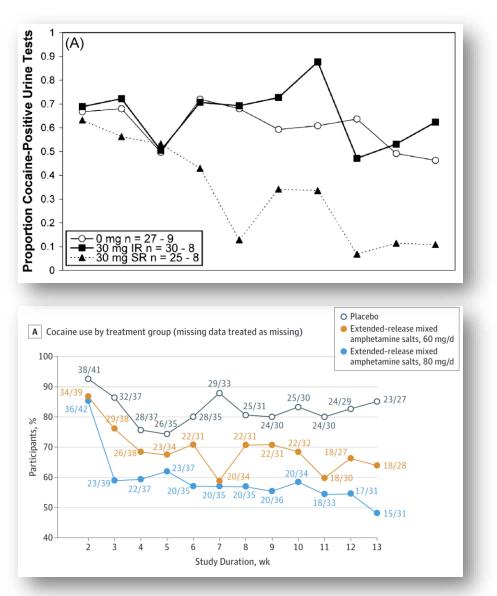
## **Management of substance use**

- Syringe service programs
- Fentanyl test strips
- Access to naloxone (Narcan)
- Medically supervised injection centers/sites
- Cognitive behavioral therapy
- Pharmacotherapy:
  - Buprenorphine
  - Methadone
  - No FDA approved agents for stimulants

## **Long-acting buprenorphine**



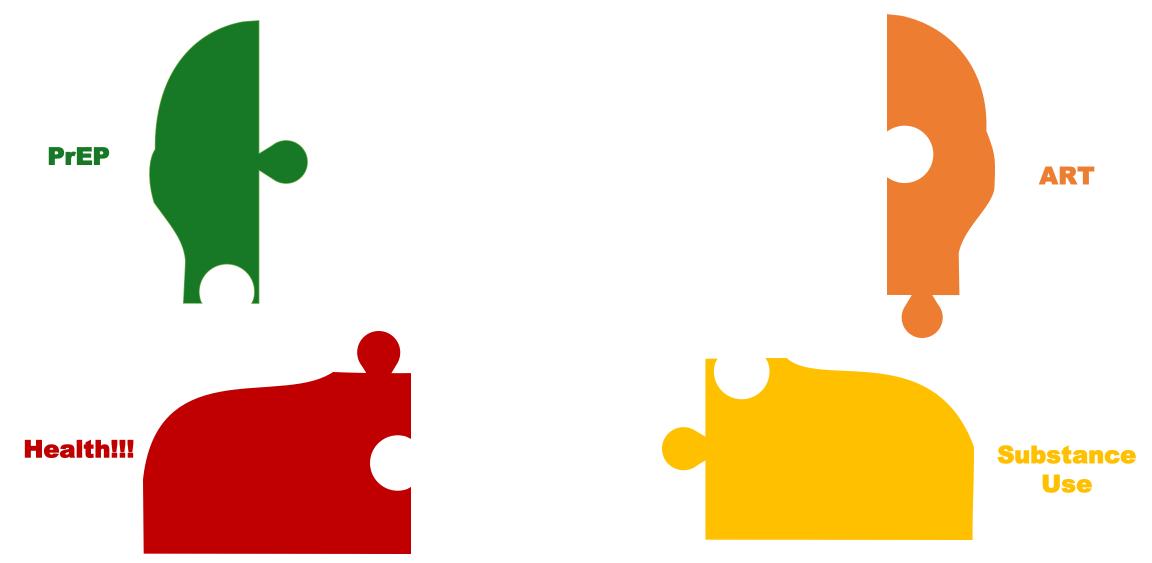
## **Treating stimulants with stimulants?**



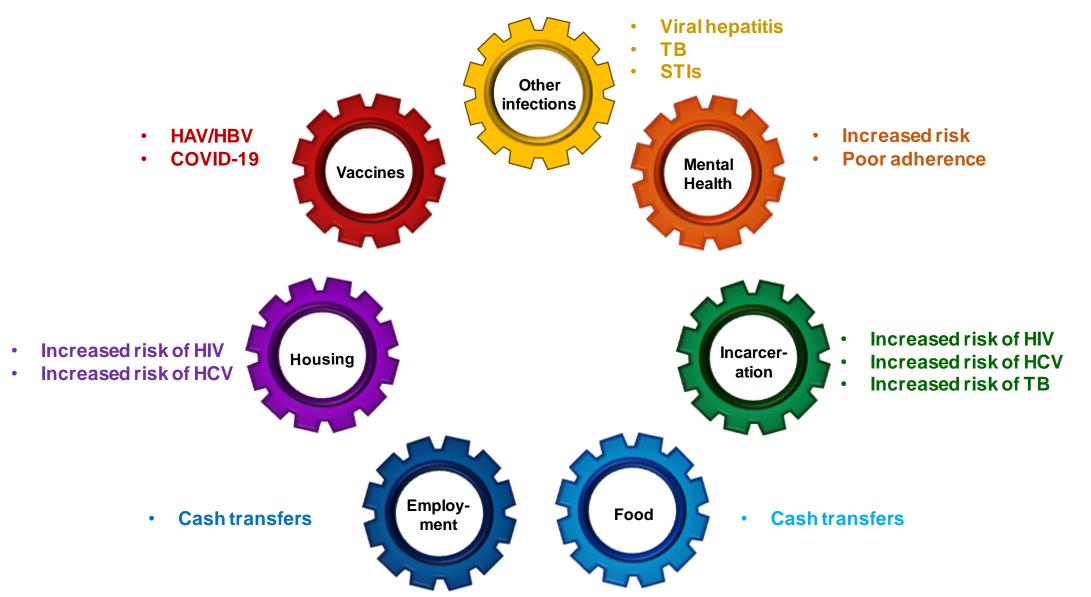
PSYCHOSOCIAL INTERVENTIONS (versus T		1	OR (95% CI) 7.60 (2.03, 28
Contingency Management + Community Reinforcement Approach			2.84 (1.24, 6 3.08 (1.33, 7 3.92 (1.94, 7 3.63 (2.01, 6
Contingency Management + 12-Step Programme			→ 4.84 (0.75, 3 1.82 (0.37, 8 1.99 (0.48, 8 2.47 (0.72, 8 1.97 (0.63, 6.
Community Reinforcement Approach + Non-Contingent Rewards			<ul> <li>3.27 (0.49, 2)</li> <li>1.25 (0.31, 5, 1.23 (0.33, 4, 4.32 (1.47, 12)</li> <li>1.61 (0.63, 4,</li> </ul>
Contingency Management + Cognitive Behavioural Therapy			2.65 (1.56, 4. 2.45 (1.46, 4. 1.25 (0.82, 1. 1.55 (0.94, 2. 1.40 (0.88, 2.
Contingency Management			2.29 (1.62, 3. 2.22 (1.59, 3. 1.10 (0.83, 1. 1.39 (1.09, 1. 1.41 (1.10, 1.
Community Reinforcement Approach			1.77 (0.25, 12 2.10 (0.67, 6. 2.71 (1.12, 6. 1.46 (0.42, 4. 2.77 (1.38, 5.
12-Step Programme + Non-Contingent Rewards			1.77 (0.31, 10 0.70 (0.15, 3, 0.83 (0.22, 3) 1.04 (0.34, 3, 0.79 (0.27, 2.
12-Step Programme	Ξ		1.43 (0.84, 2. 1.35 (0.81, 2. 0.85 (0.57, 1. 0.76 (0.53, 1. 0.81 (0.55, 1.
Meditation Based Therapies			1.36 (0.47, 3. 1.37 (0.48, 3. 1.10 (0.23, 5. 0.86 (0.42, 1. 0.87 (0.42, 1.
Cognitive Behavioural Therapy			1.17 (0.78, 1. 1.17 (0.79, 1. 1.06 (0.75, 1. 1.42 (1.05, 1. 1.47 (1.08, 2.
Non-Contingent Rewards			0.89 (0.53, 1. 0.86 (0.52, 1. 0.59 (0.40, 0. 1.93 (1.27, 2. 1.76 (1.16, 2.
Supportive Psychodynamic Therapy			0.63 (0.24, 1. 1.01 (0.42, 2. 0.89 (0.50, 1. 1.18 (0.69, 2. 1.47 (0.82, 2.
	0.1 0.2 0.5 Favours Treatment As Usual	1 2 5 Favours Intervention	10 Abstinence at 12-weeks Abstinence at the end of treatme Abstinence at the longest follow Dropout at 12-weeks

Mooney, DAD 2009; Levin, JAMA Psych 2015; Brandt, Addiction 2020; Kampman, Sci Adv 2019; De Crescenzo, PLoS Med 2018

## How do we prevent HIV in PWID/PWUD?

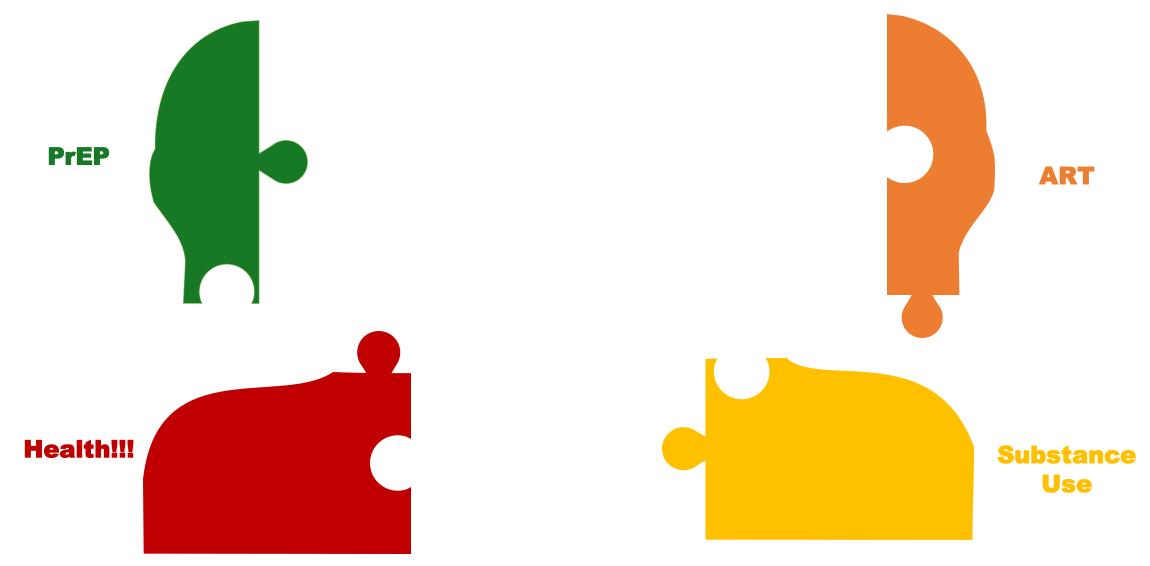


## How do we prevent HIV in PWID/PWUD?

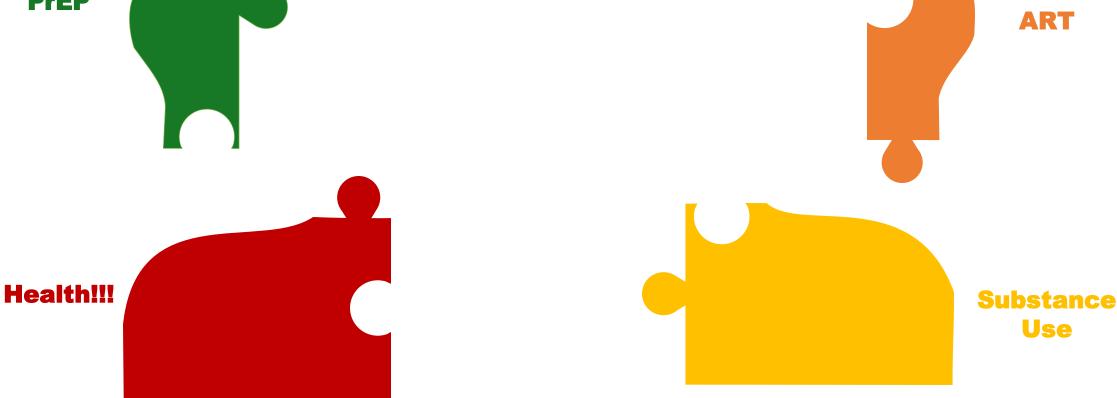


Altice, Lancet 2016; Stone, Lancet Public Health 2022; Richetrman, Nature 2023;

## How do we prevent HIV in PWID?



# "Status-Neutral Whole Person"



## Acknowledgements

- People who graciously participate in research studies globally
- Johns Hopkins University
  - Shruti Mehta, Gregory Lucas, Steven Clipman, Carl Latkin, Allison McFall, David Celentano
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  - NIDA (DP2DA040244, R01DA041736, R01DA032059), NIMH (R01MH089266), NIAID (R01AI145555)
  - Abbott Laboratories
  - Gilead Sciences
  - Elton John AIDS Foundation
  - USAID/PEPFAR

# THANK YOU