



**UIPHP**  
UKRAINIAN INSTITUTE  
ON PUBLIC HEALTH  
POLICY



**BROWN**

T. Kiriazova<sup>1</sup>, O. Makarenko<sup>1</sup>, Y. Sereda<sup>1</sup>, N. Rybak<sup>2</sup>,  
A. Chybisov<sup>3</sup>, F. Gillani<sup>2</sup>, T. Flanighan<sup>2</sup>, J. Samet<sup>4</sup>, K. Lunze<sup>4</sup>

<sup>1</sup>Ukrainian Institute on Public Health Policy, Ukraine; <sup>2</sup>Warren Alpert Medical School, Brown University, USA

<sup>3</sup>School of Public Health, Brown University, USA; <sup>4</sup>Clinical Addiction Research and Education Unit, Boston Medical Center, USA

# Dual stigma among HIV-positive PWID in Ukraine and care integration

# Background

Stigma related to both HIV and substance use affects the key populations of HIV-positive people who inject drugs (PWID) in Ukraine. Ukraine has started offering HIV services at some addiction care clinics. While integration of HIV and substance use treatment improves access to care and care outcomes, its relation with internalized stigma is unknown.

This study assessed the dual HIV stigma and substance use (SU) stigma affecting HIV-positive PWID in addiction treatment, and associations of stigma with care integration in Ukraine.

The study was conducted as a collaboration between Ukrainian Institute of Public Health Policy (UIPHP) and Providence/Boston Center for AIDS Research (Boston Medical Center & Boston University, and Miriam Hospital & Brown University).

# Methods

## Study design and sample

- Cross-sectional survey among HIV-positive PWID receiving opioid agonist treatment (OAT) at 7 health care facilities in 6 regions of Ukraine.
  - 3 facilities providing substance use treatment only (Kyiv - 2 sites, Mykolaiv)
  - 4 integrated facilities providing substance use treatment and HIV treatment (ART) (Dnipro, Lviv, Odessa, Cherkassy)
- Data were collected in August – September 2017



Figure 1. Study sites in Ukraine.

## Independent variable

- Treatment integration

# Methods

## Primary outcomes

- Total HIV stigma score (Berger HIV Stigma Scale), 11 items with subscales for personalized HIV stigma, HIV disclosure, negative self-image, public attitudes
- Total SU stigma scores (Substance Abuse Stigma Scale), comprising 21 items, with subscales for self devaluation, fear of enacted stigma, stigma avoidance, and values disengagement

## Statistical Analyses

- Bivariate analysis of stigma scores by treatment integration
- Binary and multivariate logistic regression
- Models included facilities' user-friendliness, on-site support from civil society organizations (CSOs), accessibility of facility, regular HIV care visits, receipt of ART and OAT, and presence of depressive symptoms as predictors of stigma

# Results

**Table 1. Sample of HIV-positive people PWID**

Participant Characteristics	Overall (N=191)
Male	75%
Mean age	40 years
Mean time in OAT	34 months
Unemployed	59%
Injecting drug use in past month	21%
Receiving HIV services from CSO at OAT site	73%

**Table 2. HIV and substance use stigma scores**

Stigma scores	Overall (N=191)
HIV stigma	24.6 (max score 40)
Substance use stigma	65.2 (max score 105)

# Results

**Table 3. Association of HIV and SU stigma with receipt of integrated care**

Form of Stigma	AOR (95% CI)
HIV Stigma	1.08 (0.59, 1.98)
Substance Use Stigma	1.16 (0.60, 2.25)

**Table 4. Predictors of substance use stigma**

Predictors	AOR (95% CI)
High HIV stigma	3.01 (1.58, 5.91)
Depressive symptoms	2.00 (1.01, 3.97)
Unemployment	2.10 (1.04, 4.32)
Receiving CSO services at facility	0.27 (0.12, 0.59)

Receiving integrated services was not associated with total HIV or SU stigma. SU stigma was the only predictor of HIV stigma among the variables tested. High HIV stigma, depressive symptoms, and being unemployed were associated with high SU stigma. Receiving CSO services on-site was associated with lower SU stigma.

# Limitations

- Non-random sample.
- Low sample size limited a number of predictors in multivariate models.
- Berger HIV Stigma scale and Substance Abuse Stigma scales have not been validated in Ukraine.

# Conclusions

- In this Ukrainian cohort, both substance use and HIV stigma remained high, and treatment integration was not associated with stigma scores.
- Targeted interventions are necessary at integrated and non-integrated care facilities to address both forms of internalized stigma affecting this HIV key population.
- Factors appearing to attenuate stigma, such as CSO support at substance use treatment facilities, including assistance with employment, might help mitigate the highly persistent stigma related to substance use and its potential intersection with HIV stigma in Ukraine.
- Further analyses will explore determinants of intersectional substance use and HIV stigma and associated health and health care outcomes.

*Supported by the National Institute on Drug Abuse K99DA041245 and the Providence/Boston Center for AIDS Research (CFAR) NIH/NIAID P030AI942853*