



## CFAR Substance Use Research Core (SURC) Faculty Publication and New Awards Digest

New research on HIV and substance use by our SURC faculty.

If you have any other publications or awards, please send them to [Natalia Gnatenko](#) to include in the next publication digest!

Please remember to cite CFAR support (P30AI042853) on your future publications!

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webpage**

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### Announcements

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The I-SURC is excited to announce that the first in-person I-SURC meeting will be held in conjunction with the 2024 CROI meeting in Denver, CO. The goals of the meeting are to:

- deepen member engagement in the I-SURC;
- create mentoring and networking opportunities for early stage investigators;
- catalyze new collaborations;
- outline priorities for future research on substance use and HIV.

Attendees will participate in dedicated networking sessions based on their research interests. Lunch will be provided. A limited number of travel awards are available on a rolling basis with priority given to CFAR-affiliated early stage investigators. For full consideration for travel funding please apply by December 15. Please register for the meeting [here](#).

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### Relevant Funding Announcements

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[RFA-DA-25-020](#): Ending the Epidemic: New Models of Integrated HIV/AIDS, Addiction, and Primary Care Services (R34 Clinical Trial Optional)

[RFA-DA-25-019](#): Ending the Epidemic: New Models of Integrated HIV/AIDS, Addiction, and Primary Care Services (R01 Clinical Trial Required)

[RFA-DA-23-061](#): NIDA REI: Reaching Equity at the Intersection of HIV and Substance Use: Novel Approaches to Address HIV Related Health Disparities in Underserved Racial

and/or Ethnic Populations (R01 Clinical Trial Optional)

[RFA-DA-23-062](#): NIDA REI: Reaching Equity at the Intersection of HIV and Substance Use: Novel Approaches to Address HIV Related Health Disparities in Underserved Racial and/or Ethnic Populations (R34 Clinical Trial Optional)

[RFA-DA-25-059](#): Ending the Epidemic: New Models of Integrated HIV/AIDS, Addiction, and Primary Care Services (R34 Clinical Trial Optional)

[RFA-DA-25-021](#): Effect of HIV and Substance Use Comorbidity on the Placenta and Maternal Outcomes (R01 Clinical Trial Optional)

View more NIDA funding opportunities at the intersection of HIV and substance use [here](#).

Please [let us know](#) if you are interested in pursuing these opportunities!

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## New Grants

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### **PrEP and MOUD Rapid Access for Persons who Inject Drugs: the CHORUS+ Study** [1R01DA058367-01](#) (Assoumou, Sabrina) 9/1/2023 – 6/30/2028

The US opioid overdose epidemic has been accompanied by an increase in human immunodeficiency (HIV) among persons who inject drugs. The co-occurrence of HIV and opioid use disorder (OUD) suggests that a comprehensive approach to OUD and its infectious complications has the potential to improve outcomes. HIV pre-exposure prophylaxis (PrEP) and medication for opioid use disorder (MOUD) are evidence-based approaches that are recommended for persons who inject drugs. Unfortunately, these measures have not been widely adopted in real-world settings or accessed by persons at-risk.

**Foundation for the Proposal:** The CHORUS intervention (Comprehensive HIV and Opioid use disorder Response to the Unaddressed Syndemic) is informed by preliminary research, including: (a) quantitative and qualitative research with persons with substance use disorder, (b) a randomized controlled trial of a peer-delivered motivational intervention demonstrating effectiveness in reducing heroin and/or cocaine use, and (c) preliminary studies demonstrating the feasibility and acceptability of peer-delivered motivational interventions in non-traditional settings. During the CHORUS pilot phase, we uncovered that PrEP was initiated late in the intervention. Therefore, we are attempting to accelerate PrEP initiation by providing HIV self-testing (CHORUS+) at baseline. The CHORUS+ intervention includes HIV self-testing, rapid initiation of PrEP and MOUD, and a 6-month peer recovery coach to support adherence to these medications.

**Conceptual Model:** CHORUS+ is a theory-based, peer-delivered, mobile phone-supported intervention focused on enhancing uptake and adherence to HIV PrEP (primary outcome), and receipt of MOUD (secondary outcome) among persons who inject opioids. CHORUS+ aims to improve behavioral skills and self-efficacy while addressing structural barriers.

**Summary:** The current proposal seeks to determine the efficacy of a novel intervention to increase the uptake of evidence-based measures to prevent HIV and treat opioid use disorder. We will compare the CHORUS+ intervention to usual care (passive referral) among persons who inject opioids (aim 1). In addition, we will examine study implementation to facilitate potential future dissemination using a mixed-methods process evaluation of CHORUS+ (aim 2). The study will be performed at Boston Medical Center's Faster Paths clinic, a low-barrier substance use disorder bridge clinic, and through Victory Programs, which utilizes a mobile outreach van. The proposed intervention will recruit from non-traditional settings in order to reach participants who might not be comfortable in office-based clinics. This project specifically addresses NIDA's mission of developing effective socio-behavioral interventions to increase uptake of HIV prevention strategies, and accelerating the adoption of evidence-based interventions to address substance use and its infectious complications.

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Globally, the number of people aged 80 years and over is expected to triple between 2019 and 2050 to 426 million; a positive change largely driven by aging in African countries. This includes 7 million PWH aged over 50 years worldwide of whom 5 million live in sub-Saharan Africa. Geriatric syndromes (e.g., frailty) and discrete diseases of aging (e.g., hypertension) threaten these gains in healthier life expectancy for aging PWH globally. These threats are even more concerning in the setting of co-infections with tuberculosis (TB), to which older people are more susceptible, and behaviors like unhealthy alcohol use whose biomedical and social consequences accumulate over the lifetime. Our understanding of aging with HIV in the context of such synergistic epidemics is limited but can be readily expanded by aging research in Sub-Saharan Africa. PWH in Uganda age with HIV in the context of synergistic epidemics (syndemics): Uganda ranks among the top 10 countries for highest per capita alcohol consumption and top 30 for TB burden; HIV, TB and unhealthy alcohol use interact with social conditions to amplify disease burden of each. The gaps in our understanding of the biomedical and social consequences of aging with HIV in places like Uganda exist because HIV research in sub-Saharan Africa often excludes older people; focuses on discrete diseases of aging and not geriatric syndromes; does not obtain data about social vulnerabilities that aging PWH experience; or limits focus to disease determinants missing opportunities to leverage determinants of health or quality of life in future intervention work. Bridging these gaps will enable us to surmount the next barrier to extending quantity of life and improving quality of life for aging PWH. To bridge these gaps, our long-term goal is to provide appropriate interventions for geriatric syndromes and diseases of aging without over-treating older PWH. The objectives of the current supplement proposal are to: 1) characterize frailty, social vulnerability, and health priorities for older PWH; 2) determine the association of alcohol use with frailty among PWH and how aging and TB modify this relationship; and 3) examine how aging and TB impact social vulnerability. We hypothesize that alcohol use is associated with frailty and that this association is stronger among older people and those with prior TB because they experience more social vulnerability. We propose to recruit 100 PWH aged over 50 years with a range of alcohol use including 50 with and 50 without prior TB. This expands recruitment in an existing ongoing study: The TB, Alcohol and Lung Comorbidities study in Uganda (P01AA029541). Aim 1 will determine the association between lifetime alcohol exposure and frailty and explore whether this association differs by age or TB status. Aim 2 will determine the association between social vulnerability and a) aging; b) TB. Aim 3 will qualitatively elicit health priorities among older PWH with prior TB or unhealthy alcohol use. The knowledge from these Aims will be critical to the design and implementation of differentiated health service delivery for people aging with HIV in the context of syndemic physical and mental health comorbidities globally.

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**Project PACS: Evaluating the Feasibility and Acceptability of a Psilocybin-Aided Smoking Cessation Study (PACS) for People with HIV who Smoke.**  
**Richard B. Salomon Faculty Research Award (Cioe, Patricia)**

Cigarette smoking is more prevalent in people with HIV (PWH), when compared with the general population, and is linked to increased morbidity and mortality. PWH who smoke have increased rates of cardiovascular disease, pulmonary disease, and lung cancers. While most PWH report a strong desire to quit, they are less likely to quit when compared to the general population. PWH often respond poorly to traditional smoking cessation treatments, which may be partly due to their difficulty managing anxiety and depressive symptoms. Psilocybin, a classic psychedelic, has been shown to have potential as a therapeutic treatment for psychiatric symptoms, such as anxiety and depression, and substance use disorders, including tobacco dependence. Our specific aims are to: 1) explore, using qualitative methods, perceptions of psychedelic treatment: perceived benefits and harms, barriers, preferences, and likelihood of engaging in psilocybin-based treatment for smoking cessation; and, 2) examine the acceptability of psilocybin-based treatment for smoking cessation among PWH who smoke. We will enroll 40-60 PWH who smoke cigarettes and will conduct 60-minute in-depth qualitative interviews. The results from this project will provide the foundation for an application to the National Cancer Institute to conduct a pilot randomized clinical trial. Anxiety and depression can be broad

barriers to any behavior change. Administering a cutting-edge treatment, such as psilocybin, to reduce anxiety/depression may help PWH who smoke make a healthy behavior change. This study will be the first to examine the feasibility and acceptability of utilizing psilocybin to improve smoking cessation outcomes among PWH who smoke.

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## New Publications

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### **Healthcare utilization among persons with HIV and unhealthy alcohol use in St.**

**Petersburg, Russia.** [AIDS Behav.](#) 2023 Sep 8. Epub ahead of print.

Biondi BE, Freibott CE, Cheng DM, Blokhina E, Lioznov D, Rateau L, Patts GJ, Bendiks S, Gnatienko N, Tindle HA, Freiberg MS, Krupitsky E, **Samet JH, Stein MD.**

Few studies have examined the association between healthcare utilization and heavy alcohol use in Russia among persons with HIV (PWH), a group with high healthcare needs. This study analyzed the association between unhealthy alcohol use (defined as AUDIT score  $\geq 8$ ) and healthcare utilization among PWH with heavy alcohol use and daily smoking in St. Petersburg, Russia. This secondary analysis used data from a randomized controlled trial addressing alcohol use. The primary outcome was seeing an infectionist for HIV care in the past year. Outcomes were measured at baseline, 6 months, and 12 months. We assessed the association between unhealthy alcohol use and healthcare utilization outcomes with a repeated measures logistic regression model, controlling for relevant covariates. Nearly all (96.0%) participants had unhealthy alcohol use at baseline, and 90.0% had seen an infectionist for HIV care in the past year. In adjusted analyses, unhealthy alcohol use was associated with a 36% decrease in seeing an infectionist for HIV care (aOR = 0.64, 95% CI 0.43-0.95). Participants reported low levels of emergency department visits and hospitalizations. Understanding how to engage this population in alcohol use disorder treatment and HIV care is an important next step for improving health outcomes for this population.

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### **Pilot testing of an mHealth app for tobacco cessation in people living with HIV: protocol for a pilot randomized controlled trial.** [JMIR Res Protoc.](#) 2023 Oct

19;12:e49558. PMCID: PMC10623232.

Brin M, Trujillo P, Jia H, **Cioe P**, Huang MC, Chen H, Qian X, Xu W, Schnall R.

**Background:** An estimated 40% of people living with HIV smoke cigarettes. Although smoking rates in the United States have been declining in recent years, people living with HIV continue to smoke cigarettes at twice the rate of the general population. Mobile health (mHealth) technology is an effective tool for people living with a chronic illness, such as HIV, as currently 84% of households in the United States report that they have a smartphone. Although many studies have used mHealth interventions for smoking cessation, few studies have recruited people living with HIV who smoke.

**Objective:** The objective of the pilot randomized controlled trial (RCT) is to examine the feasibility, acceptability, and preliminary efficacy of the Sense2Quit App as a tool for people living with HIV who are motivated to quit smoking.

**Methods:** The Sense2Quit study is a 2-arm RCT for people living with HIV who smoke cigarettes (n=60). Participants are randomized to either the active intervention condition, which consists of an 8-week supply of nicotine replacement therapy, standard smoking cessation counseling, and access to the Sense2Quit mobile app and smartwatch, or the control condition, which consists of standard smoking cessation counseling and a referral to the New York State Smokers' Quitline. The Sense2Quit app is a mobile app connected through Bluetooth to a smartwatch that tracks smoking gestures and distinguishes them from other everyday hand movements. In the Sense2Quit app, participants can view their smoking trends, which are recorded through their use of the smartwatch, including how often or how much they smoke and the amount of money that they are spending on cigarettes, watch videos with quitting tips, information, and distractions, play games, set reminders, and communicate with a study team member.

**Results:** Enrollment of study participants began in March 2023 and is expected to end in October 2023. All data collection is expected to be completed by the end of January 2024. This RCT will test the difference in outcomes between the control and intervention arms.



The primary outcome will be the percentage of participants with biochemically verified 7-day point prevalence smoking or tobacco abstinence at their 12-week follow-up. Results from this pilot study will be disseminated to the research community following the completion of all data collection.

**Conclusions:** The Sense2Quit study leverages mHealth so that it can help smokers improve their efforts at smoking cessation. Our research has the potential to not only increase quitting rates among people living with HIV who may need a prolonged, tailored intervention but also inform further development of mHealth for people living with HIV. This mHealth study will contribute significant findings to the greater mHealth research community, providing evidence as to how mHealth should be developed and tested among the target population.

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**A study protocol for Project I-Test: a cluster randomized controlled trial of a practice coaching intervention to increase HIV testing in substance use treatment programs.** [Trials](#). 2023 Sep 26;24(1):609. PMID: PMC10521543.

Frimpong JA, Parish CL, Feaster DJ, Gooden LK, Nelson MC, Matheson T, Siegel K, Haynes L, Linas BP, **Assoumou SA**, Tross S, Kyle T, Liguori TK, Toussaint O, Annane D, Metsch LR.

**Background:** People with substance use disorders are vulnerable to acquiring HIV. Testing is fundamental to diagnosis, treatment, and prevention; however, in the past decade, there has been a decline in the number of substance use disorder (SUD) treatment programs offering on-site HIV testing. Fewer than half of SUDs in the USA offer on-site HIV testing. In addition, nearly a quarter of newly diagnosed cases have AIDS at the time of diagnosis. Lack of testing is one of the main reasons that annual HIV incidences have remained constant over time. Integration of HIV testing with testing for HCV, an infection prevalent among persons vulnerable to HIV infection, and in settings where they receive health services, including opioid treatment programs (OTPs), is of great public health importance.

**Methods/design:** In this 3-arm cluster-RCT of opioid use disorders treatment programs, we test the effect of two evidence-based "practice coaching" (PC) interventions on the provision and sustained implementation of on-site HIV testing, on-site HIV/HCV testing, and linkage to care. Using the National Survey of Substance Abuse Treatment Services data available from SAMHSA, 51 sites are randomly assigned to one of the three conditions: practice coach facilitated structured conversations around implementing change, with provision of resources and documents to support the implementation of (1) HIV testing only, or (2) HIV/HCV testing, and (3) a control condition that provides a package with information only. We collect quantitative (e.g., HIV and HCV testing at 6-month-long intervals) and qualitative site data near the time of randomization, and again approximately 7-12 months after randomization.

**Discussion:** Innovative and comprehensive approaches that facilitate and promote the adoption and sustainability of HIV and HCV testing in opioid treatment programs are important for addressing and reducing HIV and HCV infection rates. This study is one of the first to test organizational approaches (practice coaching) to increase HIV and HIV/HCV testing and linkage to care among individuals receiving treatment for opioid use disorder. The study may provide valuable insight and knowledge on the multiple levels of intervention that, if integrated, may better position OTPs to improve and sustain testing practices and improve population health.

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**Integrating long-acting injectable treatment to improve medication adherence among persons living with HIV and opioid use disorder: study protocol.** [Addict Sci Clin Pract](#). 2023 Oct 14;18(1):60. PMID: PMC10576282.

Langdon KJ, Hitch AE, Collins AB, Beckwith CG, Becker S, Tashima K, **Rich JD**.

**Background:** Oral antiretroviral therapy (ART) has been effective at reducing mortality rates of people with HIV. However, despite its effectiveness, people who use drugs face barriers to maintaining ART adherence. Receipt of opioid agonist treatment, in the context of HIV care, is associated with medication adherence and decreased HIV viral loads. Recent pharmacological advancements have led to the development of novel long-acting, injectable, medications for both HIV (cabotegravir co-administered with rilpivirine) and OUD (extended-release buprenorphine). These therapies have the potential to

dramatically improve adherence by eliminating the need for daily pill-taking. Despite the extensive evidence base supporting long-acting injectable medications for both HIV and OUD, and clinical guidelines supporting integrated care provision, currently little is known about how these medications may be optimally delivered to this population. This paper presents the study design for the development of a clinical protocol to guide the delivery of combined treatment for HIV and OUD using long-acting injectable medications.

**Methods:** The study aims are to: (1) develop a clinical protocol to guide the delivery of combined LAI for HIV and OUD by conducting in-depth interviews with prospective patients, clinical content experts, and other key stakeholders; and (2) conduct This single group, open pilot trial protocol to assess feasibility, acceptability, and safety among patients diagnosed with HIV and OUD. Throughout all phases of the study, information on patient-, provider-, and organizational-level variables will be collected to inform future implementation.

**Discussion:** Findings from this study will inform the development of a future study to conduct a fully-powered Hybrid Type 1 Effectiveness-Implementation design.

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**HIV prevalence and HIV screening history among a Veterans Association cohort of people with opioid and alcohol use disorders.** [J Gen Intern Med](#). 2023 Oct 17. Epub ahead of print.

McCann NC, Davenport MJ, Mandavia AD, **Stein MD**, Livingston NA.

**Background:** Veterans face high risk for HIV and substance use, and thus could be disproportionately impacted by the HIV and substance use disorder (SUD) "syndemic." HIV prevalence among veterans with SUD is unknown.

**Objective:** To project HIV prevalence and lifetime HIV screening history among US veterans with alcohol use disorder (AUD), opioid use disorder (OUD), or both.

**Design:** We conducted a retrospective cohort analysis using national Veterans Health Administration (VHA) data.

**Participants:** We selected three cohorts of veterans with SUD: (1) AUD, (2) OUD, and (3) AUD/OUD. Included veterans had ICD codes for AUD/OUD from 2016 to 2022 recorded in VHA electronic medical records, sourced from the VA Corporate Data Warehouse (CDW).

**Main measures:** We estimated HIV prevalence by dividing the number of veterans who met two out of three criteria (codes for HIV diagnosis, antiretroviral therapy, or HIV screening/monitoring) by the total number of veterans in each cohort. We also estimated lifetime HIV screening history (as documented in VHA data) by cohort. We reported HIV prevalence and screening history by cohort and across demographic/clinical subgroups.

**Key results:** Our sample included 669,595 veterans with AUD, 63,787 with OUD, and 57,015 with AUD/OUD. HIV prevalence was highest in the AUD/OUD cohort (3.9%), followed by the OUD (2.1%) and AUD (1.1%) cohorts. Veterans of Black race and Hispanic/Latinx ethnicity, with HCV diagnoses, and aged 50-64 had the highest HIV prevalence in all cohorts. Overall, 12.8%, 29.1%, and 33.1% of the AUD/OUD, OUD, and AUD cohorts did not have history of HIV screening, respectively.

**Conclusions:** HIV prevalence was high in all SUD cohorts, and was highest among veterans with AUD/OUD, with disparities by race/ethnicity and age. A substantial portion of veterans had not received HIV screening in the VHA. Findings highlight room for improvement in HIV prevention and screening services for veterans with SUD.

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**Association of alcohol consumption with CD4 recovery after antiretroviral therapy initiation in St. Petersburg, Russia.** [J Acquir Immune Defic Syndr](#). 2023 Nov 1;94(3):244-252. PMID: PMC10593489.

McLaughlin A, Lin N, Jiang W, Lodi S, Lioznov D, Patts G, Gnatienko N, Blokhina E, Bendiks S, Freiberg MS, Tindle HA, Krupitsky E, Hahn JA, **Samet JH**, **So-Armah K**.

**Background:** Delayed CD4 recovery after initiating antiretroviral therapy (ART) is a novel potential mechanism by which alcohol consumption leads to increased morbidity and mortality in people with HIV. We hypothesized that alcohol consumption at ART initiation is associated with slower CD4 recovery.

**Methods:** We retrospectively analyzed 2 pooled longitudinal alcohol/HIV cohorts (2014-2019) in St. Petersburg, Russia. Eligible participants initiated the first ART during parent studies; had alcohol consumption assessed by the blood biomarker, phosphatidylethanol (PEth), at the last research visit before ART initiation; and had  $\geq 1$  CD4 count

measurement before and after initiating ART. Participants were stratified by low, moderate, and high PEth (<8, 8-80, and >80 ng/mL, respectively). We used random-effects piecewise linear regression models to estimate CD4 recovery, defined as CD4 count change per 30 days after ART initiation, by the alcohol group.

**Results:** Of 60 eligible participants, median age was 34 years and 28% were female. The median pre-ART PEth in the low, moderate, and high PEth groups were <8, 23, and 232 ng/mL, respectively. After starting ART, the CD4 count increased by 13.60 cells/mm<sup>3</sup>/mo (95% CI: 0.33 to 26.87) with low PEth, 0.93 cells/mm<sup>3</sup>/mo (95% CI: -6.18 to 8.04) with moderate PEth, and 2.33 cells/mm<sup>3</sup>/mo (95% CI: -3.44 to 8.09) with high PEth.

**Conclusions:** Among Russians with HIV, we observed faster CD4 recovery after ART initiation in those with low alcohol consumption compared with those with moderate and high alcohol consumption, as assessed by PEth. This analysis provides further evidence for the possible value of alcohol reduction interventions for people with HIV who are initiating ART.

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**Provider-patient experiences and HIV care utilization among people living with HIV who inject drugs in St. Petersburg, Russia.** *Int J Qual Health Care*. 2023 Oct 5;35(4):mzad068.

Raj A, Gnatienko N, Cheng DM, Blokhina E, Dey AK, Wagman JA, Toussova O, Truong V, Rateau L, **Lunze K**, Krupitsky E, **Samet JH**.

Providers' disrespect and abuse of patients is a recognized but understudied issue affecting quality of care and likely affecting healthcare utilization. Little research has examined this issue among people living with HIV (PWH) who inject drugs, despite high stigmatization of this population. No research has examined this issue in the context of Russia. This study assesses patients' reports of disrespect and abuse from providers as a barrier to healthcare and examines the association between these reports and HIV care outcomes. We conducted a cross-sectional analysis of the associations between disrespect/abuse from health providers as a barrier to care and the following HIV care outcomes: (i) anti-retroviral treatment (ART) uptake ever, (ii) past 6-month visit to HIV provider, and (iii) CD4 count. Participants (N = 221) were people living with HIV who injected drugs and were not on ART at enrollment. Two in five participants (42%) reported a history disrespect/abuse from a healthcare provider that they cited as a barrier to care. Those reporting this concern had lower odds of ever use of ART (adjusted odds ratio 0.46 [95% CI 0.22, 0.95]); we found no significant associations for the other HIV outcomes. We additionally found higher representation of women among those reporting prevalence of disrespect/abuse from provider as a barrier to care compared to those not reporting this barrier (58.1% versus 27.3%). Almost half of this sample of PWH who inject drugs report disrespect/abuse from a provider as a barrier to healthcare, and this is associated with lower odds of receipt of ART but not with other HIV outcomes studied. There is need for improved focus on quality of respectful and dignified care from providers for PWH who inject drugs, and such focus may improve ART uptake in Russia.

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**Rapid access to antiretroviral therapy, receipt of naltrexone, and strengths-based case management versus standard of care for HIV viral load suppression in people with HIV who inject drugs in Russia (LINC-II): an open-label, randomised controlled trial.** *Lancet HIV*. 2023 Sep;10(9):e578-e587.

**Samet JH**, Blokhina E, Cheng DM, Rosen S, Lioznov D, **Lunze K**, Truong V, Gnatienko N, Quinn E, Bushara N, Raj A, Krupitsky E.

**Background:** Antiretroviral therapy (ART) coverage in Russia is low for people with HIV who inject drugs. HIV and addiction treatment in Russia are not well integrated. We aimed to evaluate an intervention to link people with HIV in addiction treatment to HIV care to achieve HIV viral load suppression.

**Methods:** LINC-II was a two-arm, open-label, randomised controlled trial at the City Addiction Hospital, Saint Petersburg, Russia. Eligible participants were aged 18 years or older, had a positive HIV status, were not currently on ART, were admitted to a narcology hospital, and had a current diagnosis of opioid use disorder. Participants were randomly assigned (1:1) to a multicomponent intervention (ie, rapid access to ART, naltrexone for opioid use disorder, and strengths-based case management) or standard of care. Blocked randomisation was stratified by history of ART use. The primary outcome was

undetectable HIV viral load at 12 months, defined as less than 40 copies per mL. The trial was conducted and analysed according to the intention-to-treat principle. This trial is registered with ClinicalTrials.gov, [NCT03290391](#).

**Findings:** Between Sept 19, 2018, and Dec 25, 2020, 953 individuals were screened for eligibility, 225 of whom were randomly assigned to the intervention (n=111) or standard of care (n=114). 136 (60%) participants were male and 89 (40%) were female. Participants in the intervention group had higher odds of HIV viral load suppression at 12 months compared with participants in the standard-of-care group (52 [47%] vs 26 [23%]; adjusted odds ratio 3.0 [95% CI 1.4-6.4]; p=0.0039). 21 adverse events (18 in the intervention group and three in the standard-of-care group) and 14 deaths (four in the intervention group and ten in the standard-of-care group) were reported in the study.

**Interpretation:** Given the effectiveness of the LINC-II intervention, scaling up this model could be one strategy to advance the UNAIDS goal of ending the HIV epidemic.

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**Self-medication of pain and discomfort with alcohol and other substances by people with HIV infection and substance use disorder: preliminary findings from a secondary analysis.** [AIDS Care](#). 2023 Nov 1:1-11.

**Stein MD**, Godersky ME, Kim TW, **Walley AY**, Heeren TC, Winter MR, Magane KM, Saitz R.

There is a limited literature regarding factors associated with self-medication of pain and discomfort using alcohol, non-prescription substances or overuse of prescription medications among people living with Human Immunodeficiency Virus (HIV). This cross-sectional analysis used data from the Boston ARCH Cohort among participants with HIV infection and a history of alcohol or other substance use. Among 248 participants, 37% were female, 50% Black, 25% Latinx; 36% reported fair to poor health and 89% had CD4 cell counts >200/mm<sup>3</sup>. Half reported self-medication and of those, 8.8% reported doing so only with alcohol, 48.8% only with other substances and 42.4% with both alcohol and other substances. Those reporting self-medication were significantly (p < .05) younger (mean 47 vs 50 years), less employed (11% vs 21%), and less likely to have HIV viral suppression (60% vs. 80%). Depression, anxiety, and HIV symptoms were associated with significantly greater odds of self-medicating, as were substance dependence, recent injection substance use, heavy alcohol use, cocaine use, opioid use, sedative use, and cannabis use. Self-medication, highly prevalent and associated with worse mental health symptoms, greater substance use, and lesser HIV disease control, should be explored by HIV clinicians caring for people who use substances.