



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 Gnatienko](#) to include in the next publication digest!

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

[Visit the SURC webpage](#)

SURC Updates

PrEP Meeting

The SURC held their second PrEP Research Meeting on October 15, 2020. Dr. Anastasia Kholodnaia presented on her project "PrEP among people who inject drugs in Russia (PrEPare)," and received feedback from other PrEP investigators. Anastasia's presentation was followed by a fruitful discussion in breakout groups about future directions of the group. Thank you to those who attended and participated!

Keep an eye out for information about our next PrEP meeting, which will be taking place in January. To see information from our meetings in July and October, information on presenters and their projects, and other related resources, please access our Google Drive linked [here](#).

I-SURC Meeting

The CFAR SURC has also made progress in establishing the Inter-CFAR Working Group on Substance Use Research, referred to as I-SURC. The I-SURC's vision is a community of substance use and HIV researchers across the CFARs that will enable creation of research synergies, innovations, and new capacities. This group had its first meeting in October and will be meeting again in December to begin formalizing next steps.

New Grants Awarded

Dr. Patricia Cioe received a [Research Excellence Award](#) to fund a project titled, "Using Mindfulness to Reduce Anxiety and Stress in HIV-positive

Smokers to Improve Self-Efficacy for Smoking Cessation and Readiness to Quit."

Co-Investigators: Judson Brewer, MD, PhD; Christopher Kahler, PhD

Stigma, Risk Behaviors and Health Care among HIV-infected Russian People Who Inject Drugs

R00DA041245-05S1 ([K Lunze](#))

9/1/2020-8/31/2021

This NIDA-funded competitive revision will assess the evolving consequences of the COVID-19 pandemic on health risks and risk behaviors of HIV-positive people who inject drugs through qualitative interviews with patients and providers, and explore the pandemic impacts on stigma and human rights in St. Petersburg, Russia.

URBAN ARCH (5/5) Boston Cohort - Alcohol and HIV-Associated Comorbidity and Complications: Frailty, Functional Impairment, Falls, and Fractures (The 4F Study)

3U01AA020784-10S1 ([R Saitz](#))

9/1/2020-8/31/2022

This NIAAA-funded competitive revision will assess the impact of pandemic exposure and secondary stressors on alcohol and other drug use and HIV antiretroviral medication nonadherence among People living with HIV infection (PLWH). PLWH are at an increased risk for COVID-19, substance use, comorbidities, homelessness, frailty, and other symptoms that may be exacerbated by exposure to the pandemic. The direct effects of the pandemic and efforts to mitigate it (like physical isolation) may lead to increased alcohol and drug use exacerbated by stressors (e.g. loneliness) that can result in HIV medication nonadherence and worse health outcomes.

URBAN ARCH (4/5) Russia Cohort – Targeting HIV-comorbidities with Pharmacotherapy to Reduce Alcohol and Tobacco Use in HIV-infected Russians

U01AA020780-10S1 ([J Samet](#), [M Freiberg](#), [H Tindle](#))

9/1/2020-8/31/2022

This NIAAA-funded competitive revision will examine whether COVID19 co-infection among PLWH who drink and smoke increases inflammation (e.g., IL-6), alters the gut microbiome by reducing beneficial butyrate-producing bacteria which protect the gut from microbial translocation, and, by extension, alters the plasma metabolome as reflected in lower plasma butyrate levels.

New Publications

Painful subjects: Treating chronic pain among people living with HIV in the age of opioid risk.

Carroll JJ, Lira MC, [Lunze K](#), Colasanti JA, Del Rio C, [Samet JH](#). [Med Anthropol Q. 2020 Nov 5.](#)

Public narratives often attribute the opioid overdose epidemic in the United States to liberal prescribing practices by health care providers. Consequently, new monitoring guidelines for the management of opioid prescriptions in patients with chronic pain have become recognized as key strategies for slowing this tide of overdose deaths. This article examines the social and ontological terrain of opioid-based pain management in an HIV clinic in the context of today's opioid overdose epidemic. We engage with anthropological analyses of contemporary drug policy and the nonverbal/performative ways patients and clinicians communicate to theorize the social context of the opioid overdose epidemic as a "situation," arguing that the establishment of new monitoring strategies (essentially biomedical audit strategies) trouble patient subjectivity in the HIV clinic—a place where that subjectivity has historically been protected and prioritized in the establishment of care.

E-cigarette perceptions among HIV-positive smokers in a switching study.

[Cioe PA](#), Tidey JW, Mercurio AN, Costantino CC, [Kahler CW](#). [Tobacco Regulatory Science. 2020;6\(6\)384-391.](#)

Cigarette smoking is highly prevalent among persons with HIV (PWH), which is concerning due to their

increased risk of developing smoking-related cancers compared to those without HIV. Smoking cessation rates are substantially lower among PWH compared to the general population and less than half report a goal of total abstinence. Given these factors, a switch to electronic cigarettes (ECs), as a form of tobacco harm reduction, may be a viable approach to decreasing tobacco-related morbidity and mortality in PWH. The US Food and Drug Administration has the authority to implement product standards for cigarettes, including ECs and flavors. Methods: This qualitative study enrolled 19 HIV-positive smokers into an EC switch study. At Week 12, qualitative interviews were conducted to examine EC perceptions and flavor preferences. Results: ECs were viewed as a less harmful, cost-effective method of reducing or eliminating CC smoking, and non-tobacco flavors were an essential part of EC appeal and use. Conclusions: Flavored EC liquid seems to enhance the user experience and may influence the user's ability to make a complete switch. Tobacco harm reduction, as a strategy, will only be effective if current evidence guides tobacco regulatory decisions.

Linking HIV-positive people in addiction care to HIV services in St. Petersburg, Russia - Mixed-methods implementation study of strengths-based case management.

Lunze K, Kiriazova T, Blokhina E, Bushara N, Bridden C, Gnatienco N, Bendiks S, Quinn E, Krupitsky E, Raj A, Samet JH. [Glob Public Health. 2020 Oct 22:1-13.](#)

Access to HIV services for HIV-positive patients in addiction care is challenging in Russia, because both care systems are organised independently from each other. Strengths-based case management is an effective strategy to connect people with HIV (PHIV) to HIV care. This mixed-methods study's objective was to investigate implementation of a case management intervention in St. Petersburg, Russia, designed to connect PHIV who inject drugs to HIV care. We analysed survey data from 118 HIV-positive patients in addiction care and conducted six focus groups (n=38). Quantitative analyses of fidelity and satisfaction outcomes and qualitative text analysis assessed intervention implementation. Participants who linked to HIV services embraced empowerment and motivation resulting from case management as supporting self-efficacy and linkage to services. Among participants who did not link to care, drug use impeded their care engagement. Main levers to implementation were empowerment to cope with challenges of a fragmented health system and persistent stigma. Those who connected to HIV services credited case managers for facilitating linkage; those who did not link attributed it to personal issues. Implementation of case management for HIV care in Russia should focus on effective substance use treatment and empowerment

Examination of using alcohol to cope, depressive symptoms, and perceived social support in persons with HIV and Hepatitis C.

Moitra E, Anderson BJ, Herman DS, Hayaki J, Pinkston MM, Kim HN, Stein MD. [AIDS Care. 2020 Oct;32\(10\):1238-1245.](#)

Depression is common among people living with HIV (PLWH) and some likely turn to alcohol to cope with this emotional distress. Using alcohol to cope is associated with increased alcohol use, persistent longitudinal alcohol use, and alcohol-related problems. This association is particularly concerning among PLWH who are co-infected with Hepatitis C (HCV) because alcohol adds to the damage already caused by HCV. Despite data showing the associated risks of using alcohol to cope, scant research has examined factors that might contribute to coping-based alcohol use in HIV-HCV patients, such as limited social support. Baseline data from a randomized trial of strategies to reduce alcohol use in co-infected HIV and HCV adult patients (n=110) were analyzed. Multiple linear regression models were used to estimate the association between using alcohol to cope, depression, and four aspects of social support, controlling for demographic variables. Results showed that using alcohol to cope was not significantly correlated with social support but was significantly correlated with depressive symptoms. In fact, depressive symptoms and severity of alcohol consumption accounted for nearly 45% of the variance related to coping-based alcohol use. These data highlight the central role of depression in the coping motives-alcohol use relationship among co-infected patients.

Differences in HIV risk and healthcare engagement factors in Filipinx transgender women and cisgender men who have sex with men who reported being HIV negative, HIV positive or HIV unknown.

Restar AJ, Jin H, Ogunbajo A, Adia A, Surace A, Hernandez L, Cu-Uvin S, Operario D. [J Int AIDS Soc. 2020 Aug;23\(8\):e25582.](#)

Introduction: Understanding HIV risk and healthcare engagement of at-risk individuals by HIV status is vital to informing HIV programmes in settings where the HIV epidemic is rapidly expanding like the Philippines. This study examined differences in HIV risk and healthcare engagement factors among Filipinx transgender women and cisgender men who have sex with men (trans-WSM and cis-MSM

respectively) who self-reported being HIV negative, HIV positive or HIV unknown.

Methods: Between 2018 and 2019, we conducted Project #ParaSaAtin, an online cross-sectional survey that examined the structural, social and behavioural factors impacting HIV services among Filipinx trans-WSM and cis-MSM (n = 318). We performed multinomial regression procedures to determine factors associated with HIV status (with HIV-negative referent). Co-variables included participant demographics, experiences of social marginalization, HIV risk, healthcare engagement and alcohol and substance problems.

Results: Self-reported HIV status of the sample was as follows: 38% HIV negative, 34% HIV positive and 28% HIV unknown. Relative to HIV-negative respondents, HIV-positive respondents were more likely to be older (25- to 29-year-old adjusted risk ratio [aRRR]=5.08, 95% Confidence Interval [95% CI] = 1.88 to 13.72; 30- to 34-year-old aRRR = 4.11, 95% CI = 1.34 to 12.58; and 35 + years old aRRR = 8.13, 95% CI = 2.40 to 27.54, vs. 18 to 25 years old respectively), to live in Manila (aRRR = 5.89, 95% CI = 2.20 to 15.72), exhibit hazardous drinking (aRRR = 2.87, 95% CI = 1.37 to 6.00) and problematic drug use (aRRR = 2.90, 95% CI = 1.21 to 7.13). HIV-positive respondents were less likely to identify as straight (aRRR = 0.13, 95% CI = 0.02 to 0.72), and were more likely to avoid HIV services due to lack of anti-lesbian, gay, bisexual and transgender (LGBT) discrimination policies (aRRR = 0.37, 95% CI = 0.14 to 0.90). Relative to HIV-negative respondents, HIV-unknown respondents were less educated (some college aRRR = 0.10, 95% CI = 0.02 to 0.37, beyond college aRRR = 0.31, 95% CI = 0.09 to 0.99, vs. high school or below respectively), had lower HIV knowledge (aRRR = 0.30, 95% CI = 0.20 to 0.71), and were less communicative about safer sex (ARR = 0.29, 95% CI = 0.09 to 0.92). Moreover, HIV-unknown respondents were also more likely to have avoided HIV services due to cost (aRRR = 4.46, 95% CI = 1.73 to 11.52).

Conclusions: This study highlights differences in HIV risks and healthcare engagement by HIV status. These findings show different barriers exist per HIV status group, and underscore the need to address Filipinx trans-WSM and cis-MSM's poor engagement in HIV services in the Philippines.

Hazardous alcohol use, antiretroviral therapy receipt and viral suppression in people living with HIV who inject drugs in the U.S., India, Russia and Vietnam.

Wagman JA, Wynn A, Matsuzaki M, **Gnatienco N**, Metsch LR, Del Rio C, Feaster DJ, Nance RM, Whitney BM, Delaney JAC, Kahana SY, Crane HM, Chandler RK, Elliott JC, Altice F, Lucas GM, Mehta SH, Hirsch-Moverman Y, El-Sadr WM, Vu Q, Thanh BN, Springer SA, Tsui JI, **Samet JH**. [AIDS. 2020 Dec 1;34\(15\):2285-2294.](#)

Objectives: In high-income countries (HIC), hazardous alcohol use is associated with reduced receipt of antiretroviral therapy (ART) and viral suppression among people living with HIV (PLHIV) who inject drugs. These associations are less understood in lower and upper middle-income countries (LMIC and UMIC).

Design: We examined associations between hazardous alcohol use, ART receipt and viral suppression among PLHIV who reported current or former injection drug use. Participants were from nine studies in the U.S. (HIC), India (LMIC), Russia (UMIC), and Vietnam (LMIC).

Methods: Hazardous alcohol use was measured via AUDIT. Outcomes were HIV viral suppression (viral load of < 1,000 RNA copies/ml) and self-reported ART receipt. Logistic regression assessed associations between hazardous alcohol use and both outcome variables, controlling for age and gender, among participants with current and former injection drug use.

Results: Among 2,790 participants, 16% were women, mean age was 37.1 ± 9.5 years. Mean AUDIT scores were 4.6 ± 8.1 (women) and 6.2 ± 8.3 (men); 42% reported ART receipt; 40% had viral suppression. Hazardous alcohol use was significantly associated with reduced ART receipt in India (aOR = 0.59, 95% CI: 0.45-0.77, p < 0.001); and lower rates of viral suppression in Vietnam (aOR = 0.51, 95% CI: 0.31-0.82, p = 0.006).

Conclusions: Associations between hazardous alcohol use, ART receipt and viral suppression varied across settings and were strongest in lower middle-income countries. Addressing hazardous alcohol use holds promise for improving HIV continuum of care outcomes among PLHIV who inject drugs. Specific impact and intervention needs may differ by setting.
