2018 URBAN ARCH ANNUAL MEETING

Uganda Russia Boston Alcohol Network for
Alcohol Research Collaboration on HIV/AIDS

Program Booklet

March 28, 2018

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URBAN ARCH Annual Meeting

801 Massachusetts Ave., Boston, MA 02118

The ***objectives*** of the URBAN ARCH Annual Meeting are to bring together URBAN ARCH investigators, staff, and collaborators to do the following:

- Update the Scientific Advisory Panel and receive feedback on progress and challenges
- Encourage synergy among components
- Generate ideas for collaboration with external investigators using URBAN ARCH data
- Engage trainees in HIV and alcohol research domestically and internationally

WEDNESDAY, MARCH 28 | ROOM 2128

8:30 - 9:00	Continental Breakfast Available	| Room 2117	All attendees
9:15 - 9:30	Welcome & Introductions		Jeffrey Samet
9:30 - 9:45	Next Phase of the NIAAA CHAART Initiative		Kendall Bryant
9:45 - 10:20	Boston ARCH Cohort – 4F Study		Richard Saitz
10:20 - 10:35	BREAK		
10:35 - 11:10	Uganda ARCH Cohort – ADEPTT Trial		Judith Hahn
11:10 - 11:45	Russia ARCH Cohort – St PETER RCT and ZINC		Matthew Freiberg
11:45 - 12:15	*BDM Core - Analytic Methods in Russia ARCH* Per Protocol Analysis of the ZINC Trial: A Causal Inference Approach The Use of Generalized Additive Models to Evaluate the Relationship Between Alcohol Use and Inflammatory Biomarkers		Debbie Cheng Sara Lodi Yicheng Ma
12:15 - 12:30	GROUP PHOTO	| Crosstown lobby	All attendees
12:30	LUNCH		All attendees
1:00 - 2:00	Significance of Chronic Pain in People Living with HIV		Rob Edwards
2:00 - 2:30	*URBAN ARCH Pilot Interventions Addressing Pain* Internet-Based Video-Conferencing to Address Alcohol Use and Pain Among Heavy Drinkers in HIV-Care PETER PAIN - St. PETERsburg Pain and Alcohol Intervention with Naltrexone and Nalmefene		Jeffrey Samet Tibor Palfai Judith Tsui
2:30 - 2:45	Closing Remarks		Jeffrey Samet
2:45 - 3:00	ADJOURN OPEN MEETING / TRANSITION TO CLOSED MEETING		

We will be posting PowerPoint presentations on our website (urbanarch.org) after the meeting.
Don't forget to fill out your evaluation and pass it in to Carly Bridden or Julia Canfield!

Uganda Russia Boston Alcohol Network for
Alcohol Research Collaboration on HIV/AIDS

Contact
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Carly Bridden (Administrative Director):
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2nd funding period (2016 – 2021)

The **U**ganda **R**ussia **B**oston **A**lcohol **N**etwork for **A**lcohol **R**esearch **C**ollaboration on **H**IV/AIDS (URBAN ARCH) Consortium was initially funded by NIAAA in September 2011 to carry out cohort and intervention studies to address gaps in our understanding about HIV and alcohol. The central goal of the URBAN ARCH Consortium is to examine the consequences of alcohol use on comorbidities among people living with HIV, including tuberculosis (TB), cardiovascular disease, and falls so as to increase availability of treatments and improve outcomes. The Consortium studies build upon three existing HIV-infected cohorts from Boston, Uganda, and Russia with distinctive strengths and well-characterized alcohol consumption patterns. The three cohorts are integrated in terms of characteristics and common measures, which has allowed for the evolution of cross-cohort studies. Moreover, samples collected from all three cohorts are stored in a centralized repository for future use.

Administrative Coordinating (Admin) Core – URBAN ARCH Consortium U24AA020778 (JH Samet)
The Administrative Coordinating Core ensures that the scientific and programmatic goals of the URBAN ARCH Consortium are achieved with high quality and timeliness. The Admin Core oversees the data and sample repository and encourages collaboration with investigators within and outside the Consortium.

Biostatistics and Data Management (BDM) Core – URBAN ARCH Consortium U24AA020779 (DM Cheng)
The principal objectives of the Biostatistics and Data Management Core are to provide active statistical collaboration in the design and analysis of each individual study and to develop and maintain an integrated, centralized data management system that may be used by all studies within the URBAN ARCH Consortium.

Uganda Cohort – TB Preventive Therapy for HIV-infected Alcohol Users in Uganda: An Evaluation of Safety, Tolerability, and Adherence U01AA020776 (JA Hahn)
Alcohol **D**rinkers' **E**xposure to **P**reventive **T**herapy for **T**B (ADEPTT) will examine the safety and tolerability of tuberculosis (TB) preventive therapy for HIV-infected drinkers. The study (n=300) will also estimate the level of adherence to TB preventive therapy overall, by month on therapy and by drinking level, and determine whether the clinical benefits of TB preventive therapy outweigh toxicity risks for HIV infected drinkers in resource limited settings.

Russia Cohort – Targeting HIV-Comorbidities with Pharmacotherapy to Reduce Alcohol and Tobacco Use in HIV-infected Russians U01AA020780 (JH Samet/ MS Freiberg/HA Tindle)
The **S**tudying **P**artial-agonists for **E**thanol and **T**obacco **E**limination in **R**ussians with **HIV** (St PETER HIV) study, a randomized controlled trial (n=400), will compare the effects of varenicline, cytisine, and nicotine replacement therapy to reduce alcohol use and craving, smoking, and inflammation and risk for cardiovascular disease among people living with HIV.

Boston Cohort – Alcohol and HIV-associated Comorbidity and Complications: Frailty, Functional Impairment, Falls, and Fractures (The 4F Study) U01AA020784 (R Saitz)
The 4F study (n=400) will test the associations between alcohol (and illicit drugs and polypharmacy), falls, and fractures and whether frailty mediates these associations in people living with HIV infection as well as develop and pilot test the feasibility of a falls prevention intervention.

URBAN ARCH Data Collected in All Cohort Baseline Questionnaires

Measure/Variable
Demographics
Gender
Date of birth or Age
Education
Marital status
Partner HIV status*
Housing
Incarceration
Employment
HIV & HCV
HIV diagnosis date†
HCV testing and treatment†
OI history† ‡
HIV transmission risk categorization‡
HIV symptom index
ART use†
Alcohol Use
Recent alcohol use/TLFB
Recent alcohol use/AUDIT-C*
Alcohol use disorder
Alcohol Consequences‡
Other Substance Use
Drug use history
Tobacco use
Other tobacco/nicotine
Physical Health
VR-12 health survey
Healthcare utilization
TB testing and treatment
Falls
Mental Health
Depressive Symptoms (CES-D) (past week)
Social Support Scale

***Boston ARCH/4F does not collect.**

†Boston ARCH/4F collects from medical record. ‡Uganda ARCH/ADEPTT does not collect.

URBAN ARCH
Uganda Russia Boston Alcohol Network for Alcohol Research Collaboration on HIV/AIDS

URBAN ARCH Clinical Values and Samples Collected at Baseline or Screening Uganda (ADEPTT), Russia (St PETER), and Boston (4F Study)

	ADEPTT	St PETER	4F Study
Tests Conducted			
HIV & Hepatitis			
CD4	x	x	x
Hep B	x		x
HCV Ab		x	x
HIV Antibody or Rapid HIV Test	x	x	x
HIV Viral Load	x	x	x
Heart, Kidney, Liver, & Lung Function			
AST/ALT	x	x	x
Blood Pressure	x	x	
Cholesterol		x	
CO		x	
Confirmatory TB (sputum)	x		
eGFR (creatinine)	x	x	x
HS CRP		x	
Substance Use			
BAC		x	x
Nicotine Metabolites (urine)		x	
PEth	x		
Other Clinical Values			
CBC	x		x
Height	x	x	x
Hemoglobin		x	x
Platelets		x	x
Pregnancy (urine)	x	x	
Weight	x	x	x
Samples for Storage			
Hair	x		
Heparin Plasma and PBMCs		x	
Plasma	x	x	
Saliva			x
Serum		x	
Whole Blood	Dried Blood Spots	Dried Blood Spots 5ml Tube	

Contact
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URBAN ARCH Affiliated Studies Funded in 2017

Recently, six additional grants were awarded by the NIAAA to the **U**ganda **R**ussia **B**oston **A**lcohol **N**etwork for **A**lcohol **R**esearch **C**ollaboration on **H**IV/AIDS (URBAN ARCH) Consortium that will extend the scope of our HIV/alcohol research and allow for new work examining comorbidities such as pain, cardiovascular disease, and TB that are common among people living with HIV. These studies will advance URBAN ARCH's mission to conduct interdisciplinary research aimed at understanding how alcohol use impacts people living with HIV and to develop interventions to reduce alcohol use as well as alcohol and HIV-related consequences in this population.

Mobile Technology to Extend Clinic-Based Counseling For HIV+s in Uganda U01AA024990 (JA Hahn)
4/1/17-3/31/21

This study is a randomized control trial (n=270) which aims to conduct formative work to adapt an existing brief alcohol intervention and develop 2-way tailored mobile phone based messages as booster sessions, with the goal of reducing unhealthy drinking and increasing viral suppression in persons with HIV in Uganda.

1/2 Alcohol Associated Comorbidities and Microbiome Evaluation in HIV (ACME HIV) U01AA026222 (MS Freiberg / SS Barve)
08/1/17-07/31/22

The goal of this study is to determine if alcohol consumption changes the type of bacteria that are present in the gut. It will then determine if these changes in the bacteria of the gut are associated with changes in gut leakiness, levels of inflammation in the blood, and changes in the structure and function of the heart. This study will enroll a subset of St PETER HIV trial participants (n=200). The ACME study team will partner with Dr. Robert Cook, Professor of Epidemiology at the University of Florida, who will lead a similar study in Florida.

St PETER HIV-Alcohol, Protein Biomarkers and Cardiovascular Disease Risk
Alcohol and Tobacco Use in HIV-infected Russians R01AA025859 (JH Samet / MS Freiberg)
09/15/17-08/31/20

This study (n=360) will assess whether heavier alcohol use is associated with increased trimethylamine N-oxide (TMAO), and subsequently whether increased TMAO levels are associated with subclinical measures and biomarkers of heart failure. A subset of St PETER HIV trial participants will be asked to participate.

Internet-Based Video Conferencing to Address Alcohol Use and Pain
Among Heavy Drinkers in HIV-Care UH2AA026192 (T Palfai)
9/15/17-8/31/19

The goal of this study (n=12 in the UH2 phase, n=8 in the UH3 phase) is to develop a novel, integrated behavioral approach to reduce heavy drinking and chronic pain among patients in HIV-care, delivered via internet-based videoconferencing. A subset of Boston ARCH participants will be asked to participate.

Interventions to Reduce Alcohol Use and Increase Adherence to TB Preventive
Therapy Among HIV/TB Co-infected Drinkers (DIPT 1/2) U01AA026223 (JA Hahn)
9/15/17-8/31/22

The goal of this study (n=800) is to test an intervention in the Uganda ARCH cohort in which participants will receive a reward for reduced alcohol intake and for have been adherent to INH treatment, in order to see whether this will reduce alcohol use and increase adherence to TB preventative therapy. This study will be partnered with another U01 grant, led by Dr. Gabriel Chamie, Associate Professor of the University of California San Francisco School of Medicine, that will examine the same intervention in another Uganda cohort.

Pilot Study of Opioid-receptor Antagonists to Reduce Pain and Inflammation
Among HIV-Infected Persons with Alcohol Problems UH2AA026193 (JH Samet / J Tsui)
9/20/17-8/31/19

This study (n=16 in UH2 phase, n=45 in UH3 phase) will pilot test novel pharmacotherapies (opioid receptor antagonists) to improve chronic pain among HIV-infected heavy drinkers, and will explore the hypothesis that the mechanism of action for improving pain is through decreased inflammation. A subset of Russia ARCH participants will be asked to participate.

Contact
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urbanarch.org

Initial funding period (2011 – 2016)

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Biostatistics and Data Management (BDM) Core – URBAN ARCH Consortium U24AA020779 (DM Cheng)
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Impact of Heavy Alcohol Use on Pre-ART HIV Disease – Uganda ARCH Cohort U01AA020776 (JA Hahn)
This is a 484-person prospective cohort study to determine the effect of heavy alcohol consumption (self-report and PEth) on HIV disease progression (i.e., CD4) prior to the start of antiretroviral therapy in Mbarara, Uganda.

Alcohol and Zinc Impact on Inflammatory Markers in HIV Disease - Russia ARCH Cohort U01AA020780 (JH Samet)
The Russia ARCH Cohort will examine a cohort of 400 HIV-infected, ART-naive Russians with a spectrum of alcohol use to determine alcohol's impact on biomarkers reflecting microbial translocation.

Zinc for HIV Disease among Alcohol Users – An RCT in the Russia ARCH Cohort U01AA021989 (MS Freiberg/JH Samet)
This double-blinded randomized controlled trial will assess the efficacy of zinc supplementation vs. placebo on improving markers of mortality, HIV disease progression, acute MI risk, microbial translocation, and inflammation among 250 HIV-infected Russians, who are ART-naïve at enrollment and have a recent history of heavy drinking.

Addressing Alcohol/HIV Consequences in Substance Dependence – Boston ARCH Cohort U01AA020784 (R Saitz)
The Boston ARCH Cohort (n=250) will accurately characterize alcohol use and consequences in people with HIV infection affected by multiple substances and look prospectively at impact on bone health.

Invited Speakers

Kendall Bryant, PhD
Director, HIV/AIDS Research, National Institute on Alcohol Abuse and Alcoholism
Scientific Collaborator, Consortiums for HIV/AIDS and Alcohol Research Translation (CHAART)
kbryant@mail.nih.gov

Dr. Bryant is currently the National Institute on Alcohol Abuse and Alcoholism (NIAAA) Director for Alcohol and HIV/AIDS Research and the Scientific Collaborator for the Consortiums for HIV/AIDS and Alcohol Research Translation (CHAART), within the NIAAA. He coordinates a comprehensive behavioral and biomedical research plan in collaboration with the NIAAA divisions, teams, and individual staff members and with NIH representatives of other institutes and through the Office of AIDS Research. He has contributed to a wide range of publications, reports, and strategic plans on the role of alcohol misuse in HIV infection and treatment, including those by the NIH AIDS Strategic Plan, the AIDS National Plan, and in the Surgeon General's Report. His current research focuses on development and testing of interventions in complex medical decision frameworks for treating patients with comorbid disease. In the past, he was also the Program Director at NIAAA for Psychological and Behavioral Research including Brief Screening and Intervention Research, Behavioral Genetics, and Longitudinal Methodological Research. He has published and edited volumes of research and provided multiple Requests for Applications (RFA, PA) that stress the development of theory-driven preventive interventions delivered to universal, selective, and targeted populations, reflecting the application of new methods in studying the efficacy, effectiveness, and diffusion of existing alcohol and HIV interventions.

Rob Edwards, PhD
Associate Professor of Anaesthesia
Brigham and Women's Hospital
rredwards@partners.org

Dr. Edwards is an Associate Professor of Anesthesiology and a licensed clinical psychologist at Brigham & Women's Hospital (BWH). Dr. Edwards functions in a clinical capacity at the BWH Pain Management Center, where his responsibilities include assessment and treatment of chronic pain patients. He functions as a research mentor to junior faculty members in several departments, has published numerous scientific articles on pain, and serves on the editorial boards of several pain and psychology journals. Dr. Edwards' research focuses on bio-behavioral aspects of acute and chronic pain. Specifically, he studies psychosocial processes, and the mechanisms by which cognitive and emotional factors shape pain-related outcomes. Some of his current NIH-funded work focuses on conducting mechanism-oriented randomized, controlled trials of non-pharmacologic interventions for chronic pain, as well as evaluating the impact of individual differences in central nervous system pain processing. In addition, his research group is working in the area of predicting and preventing misuse of opioids by patients with persistent pain.

Special URBAN ARCH Presenters

Tibor Palfai, PhD
Professor, Department of Psychological & Brain Sciences
Clinical Program Director (Director of Clinical Training)
Boston University
palfai@bu.edu

Dr. Palfai is a Professor of Psychological & Brain Sciences at Boston University and the Clinical Psychology Program Director. He completed his PhD in Clinical Psychology from Yale University and a postdoctoral fellowship at the Center for Alcohol and Addiction Studies at Brown University. Dr. Palfai's primary research interests are: (1) understanding the psychological processes that underlie health risk behaviors among those who use alcohol, and (2) evaluating brief interventions for alcohol and substance use for patients in medical settings. His research projects include studies that examine: (1) the influence of alcohol on sexual decision making among MSM, (2) the use of web-and text-based components in interventions for hazardous drinking and cannabis use, and (3) the use of video-conferencing to reduce pain and hazardous drinking among heavy drinking patients in HIV care.

Judy Tsui, MD, MPH
Associate Professor of Medicine
University of Washington Department of Medicine
Harborview Medical Center
tsuij@u.washington.edu

Judith Tsui, MD, MPH is an Associate Professor in General Internal Medicine at the University of Washington, based at Harborview Medical Center in Seattle, and an Addiction Medicine clinician certified through the American Board of Addiction Medicine since 2013. As a mid-career clinician investigator, her research is focused on the intersections of substance use and related co-morbidities, particularly chronic viral infections and pain. Her NIH/NIDA-funded research includes a prior career development award on viral infections and pain among persons with opioid use disorders (K23DA027367) and a current study to develop and test a mobile health technology for video-based directly observed therapy for buprenorphine treatment (R44DA044053). In addition, she is the site PI for an 8-site PCORI-funded pragmatic trial comparing models of care for HCV treatment among persons who inject drugs, and a local co-investigator on NIDA clinical trials network studies (CTN-0069 and CTN-0074). Prior to joining the University of Washington, she was a faculty member at Boston University's School of Medicine and Boston Medical Center (BMC).

URBAN ARCH Scientific Advisory Panel

Kenneth Freedberg, MD, MSc
Director, Medical Practice Evaluation Center
Massachusetts General Hospital
Director, Program in Epidemiology and Outcomes Research
Harvard University Center for AIDS Research
Professor of Medicine, Harvard Medical School
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Kenneth A. Freedberg is Professor of Medicine at Harvard Medical School and Massachusetts General Hospital (MGH) and Director of the Medical Practice Evaluation Center at MGH. He also directs the Program in Epidemiology and Outcomes Research at the Harvard University Center for AIDS Research. His research interests focus on HIV and TB, as well as other chronic diseases (including substance use disorders, cardiovascular disease, and genomics and precision medicine). His focus is on clinical outcomes and health policy, using the methods of cost-effectiveness analysis, clinical epidemiology, and implementation science. His current research efforts are in the United States, as well as in India, France, Spain, Estonia, Brazil, South Africa, Côte d'Ivoire, Zimbabwe, Botswana, and Mozambique, as well as with multiple clinical trials groups. His NIH-funded research examines clinical policies for antiretroviral use, HIV testing, laboratory management, PrEP, and HIV/TB co-infection. His group has a particular interest in informing guidelines in individual countries and across regions in both well-resourced and more resource-limited settings.

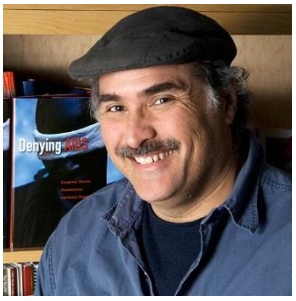
Victor Hesselbrock, PhD
Professor of Psychiatry and Vice Chair of Department of Psychiatry
Endowed Chair in Addiction Studies, Health Net, Inc.
Senior Associate Dean of Research, UCONN School of Medicine
CICATS Associate Director and Chief Scientific Officer
University of Connecticut Health Center
hesselbrock@uchc.edu

Dr. Hesselbrock holds the Physicians' Health Services Endowed Chair in Addiction Studies and is Principal Investigator and Scientific Director of the Department's NIAAA funded Alcohol Research Center. A member of the Department since 1978, Dr. Hesselbrock has developed a program of research focused on the identification of psychological and biological factors that contribute to the susceptibility for developing alcohol problems, including dependence. His current projects include a study of the deviance-proneness model of alcoholism vulnerability, a study of alcohol dependence phenotypes among Alaskan Natives, and two studies related to the genetics of substance dependence. These include being a co-PI for the Collaborative Study on the Genetics of Alcoholism (COGA) and being an investigator in multi-site studies of the genetics of cocaine and opiate dependence. Dr. Hesselbrock also is chairperson of the Scientific Advisory Committee of the Medical School's General Clinical Research Center. He serves as an associate editor for Alcoholism: Clinical & Experimental Research, is an assistant editor for Addiction, and is on the editorial boards of several other addictions journals. He has also served on, and chaired, several NIH study sections and is a former member of the National Advisory Council of the National Institute on Alcoholism and Alcohol Abuse (NIAAA) and the NIH Council of Councils. Dr. Hesselbrock is a past President of the Research Society on Alcoholism (RSA).

Amy Justice, MD, MSc, PhD
Professor of Medicine, Yale School of Medicine
Section Chief, West Haven VA Healthcare System
Amy.justice2@med.va.gov

Amy Justice, MD, PhD is Professor of Medicine and Public Health at Yale University, a Clinical Epidemiologist, and Health Services Researcher. She has developed multiple large scale national cohorts based on data from the Veterans Affairs Healthcare System Electronic Medical Record, strategically enhanced with external data including National Death Index and CMS, patient completed surveys, DNA and tissue repositories, and stored pathology samples. The oldest and best known of her cohorts is the Veterans Aging Cohort Study (VACS), an ongoing, longitudinal study of >150,000 United States veterans with and without HIV infection continuously funded by the NIAAA since 1996. She has developed and validated widely used indices including a prognostic index, the VACS Index, and a patient reported symptom index, the HIV Symptom Index.

Seth Kalichman, PhD
Professor of Psychology
University of Connecticut
Seth.k@uconn.edu



Professor Kalichman dedicates his research to preventing the spread of HIV/AIDS and caring for those affected by the HIV epidemic. His research is focused in the southern United States and South Africa. His work has been continuously and exclusively funded by the National Institutes of Health since 1992. He was previously on the faculties of Loyola University of Chicago, Georgia State University, and the Medical College of Wisconsin where he worked under the direction of Jeffrey A. Kelly to help establish the Center for AIDS Intervention Research (CAIR). He is currently the director of the Southeast HIV and AIDS Research and Evaluation (SHARE) Project, a research program within the AIDS Survival Project in Atlanta, Georgia. His research in South Africa is in collaboration with the Human Sciences Research Council. Professor Kalichman serves on NIH grant review panels, has over 200 peer-reviewed journal articles, and has authored and edited five books in the area of HIV/AIDS prevention and care services, including Positive Prevention, recently published by Springer. He is also the current editor of the bimonthly journal AIDS and Behavior. Professor Kalichman was the recipient of the 1997 Early Career Award in Health Psychology from the American Psychological Association and the 2005 Distinguished Scientist Award from the Society for Behavioral Medicine.

Mimi Kim, ScD
Professor of Epidemiology and Population Health
Albert Einstein School of Medicine
mikim@aecom.yu.edu

Mimi Kim, Sc.D. is Professor and Head of the Division of Biostatistics at the Albert Einstein College of Medicine. She is also Director of the Biostatistics Shared Resource of the Institute of Clinical and Translational Research, and Director of the Center for Quantitative Sciences. Her methodologic research interests include statistical methods for the design and analysis of clinical trials, adjustment for exposure measurement error in epidemiologic and clinical studies, and the analysis of multivariate and interval-censored survival data. She is a Fellow of the American Statistical Association, on the American Statistical Association Council of Chapters Governing Board, and on the Board of Trustees of the National Institute of Statistical Sciences.

URBAN ARCH Principal Investigators

Jeffrey Samet, MD, MA, MPH
Principal Investigator, URBAN ARCH, Russia ARCH Cohort
Chief, Section of General Internal Medicine, Boston Medical Center
John Noble, M.D. Professor in General Internal Medicine and Professor of Community Health Science
Boston University Schools of Medicine and Public Health
jsamet@bu.edu

Jeffrey Samet, MD, MA, MPH is the John Noble, MD Professor in General Internal Medicine and Professor of Public Health at Boston University and a practicing primary care physician at Boston Medical Center, with expertise treating substance use disorders in general healthcare settings and researching the impact of substance use on HIV infection. He is Chief of General Internal Medicine at Boston University School of Medicine/Boston Medical Center and Vice Chair for Public Health in the Department of Medicine. He is Editor of the journal Addiction Science & Clinical Practice. He is Principal Investigator of the NIAAA Alcohol-HIV Consortium, URBAN ARCH, several NIAA and NIDA studies as well as two NIDA R25 grants to advance physician addiction education and research: the Clinical Addiction Research and Education (CARE) program and the Research in Addiction Medicine Scholars (RAMS) program advancing research careers for addiction subspecialty physicians. He is Co-Director of the Providence/Boston Center for AIDS Research (CFAR) Substance Use Research Core. His international HIV work has occurred predominantly in Russia but also in India, Uganda, Ukraine and Vietnam.

Debbie Cheng, ScD
Principal Investigator, Biostatistics and Data Management Core
Professor of Biostatistics
Boston University School of Public Health
dmcheng@bu.edu

Debbie Cheng is a Professor of Biostatistics at the Boston University School of Public Health. Her research interests include longitudinal data analyses and the design and analysis of clinical trials. She collaborates on several clinical trials and observational studies in the areas of substance abuse and HIV research. Dr. Cheng is Principal Investigator of the Biostatistics and Data Management Core for the URBAN ARCH Consortium. She also Co-Directs the Biostatistics Core for the Providence/Boston Center for AIDS Research (CFAR). She has extensive experience working with clinical investigators, trainees, and students on study design, statistical analyses, interpretation of results and the development of manuscripts. Dr. Cheng has been an instructor for courses in the design and conduct of clinical trials as well as statistical computing.

Matthew Freiberg, MD, MSc
Principal Investigator, Russia ARCH Cohort
Director, Vanderbilt Center for Clinical Cardiovascular outcomes REsearch And Trials Evaluation (V-C3REATE)
Professor of Medicine
Vanderbilt University Medical Center
Matthew.S.Freiberg@vanderbilt.edu

Dr. Freiberg is an internal medicine physician and cardiovascular epidemiologist. In 2014, he joined Vanderbilt as an Associate Professor of Medicine in the Division of Cardiovascular Medicine, director of the Vanderbilt Center for Clinical Cardiovascular Outcomes Research and Trials Evaluation (V-C3REATE), and a West End Home Foundation Scholar. He completed postgraduate training as a resident at University of Chicago Hospitals and fellowships at Boston University and with the Framingham Heart Study. His research interests include the impact of HIV, inflammation, altered immunity, and alcohol use on cardiovascular outcomes. He is also an expert in utilizing big data for clinical research initiatives. In addition to being an URBAN ARCH investigator, Dr. Freiberg has been a Veterans Aging Cohort Study (VACS) investigator for nearly 10 years. His current NIH grant portfolio includes two trials in the URBAN ARCH Russia Cohort and four R01s and one R56 in the VACS.

Judith Hahn, PhD, MA
Principal Investigator, Uganda ARCH Cohort
Professor in Residence
University of California, San Francisco
Judy.Hahn@ucsf.edu

Judith Hahn, PhD, MA is a Professor in Residence in the Department of Epidemiology & Biostatistics at the University of California, San Francisco. She is an epidemiologist with extensive experience studying the behavioral and biological intersections of substance use and infectious diseases. Her work focuses on the impact of alcohol use on HIV outcomes in low resource settings, primarily in east Africa. She has led several domestic and international NIH-funded studies, and published over 100 peer-reviewed manuscripts. Dr. Hahn is a pioneer in the use of biological markers as objective measures for alcohol use. She is the PI of the Uganda URBAN ARCH U01 study, a large collaborative study to examine the safety and cost-benefit ratios of using isoniazid to prevent active tuberculosis (TB) among HIV/TB co-infected drinkers. She is also leading studies to examine cost-effective interventions that leverage mobile phones and tablets to reduce the harm associated with heavy alcohol use. She is also the PI of the DIPT study to examine whether incentives can reduce drinking and increase adherence for drinkers co-infected with HIV and TB in Uganda. Dr. Hahn is a committed teacher and mentor, and has an NIH K24 award to support her mentoring.

Hilary Tindle, MD, MPH
Principal Investigator, Russia ARCH Cohort
Associate Professor of Medicine and the William Anderson Spickard, Jr., MD Chair in Medicine
Division of Internal Medicine & Public Health and Vanderbilt Ingram Cancer Center (VICC)
Vanderbilt University School of Medicine
Hilary.Tindle@vanderbilt.edu

Dr. Hilary Tindle is a physician scientist, Associate Professor of Medicine, and William Anderson Spickard, Jr., MD Chair in Medicine at Vanderbilt University Medical Center. Dr. Tindle is the PI or multiple PI of four NIH-sponsored randomized controlled trials for smoking cessation, and has served as a site PI for a 3rd. Clinically, Dr. Tindle directs an inpatient Tobacco Treatment Service (TTS) based on the Ottawa and Massachusetts General Hospital models. She is on the Advisory Board of the North American Quitline Consortium (NAQC) to facilitate eReferrals between health care systems and state quitlines, and serves as a standing member of the NIH Study Section Interventions to Prevent and Treat Addictions. Since 2015 she has contributed to the NCCN Smoking Cessation Guidelines for cancer patients, and in 2014 was a contributing author to the 50th Anniversary Surgeon General's Report, The Health Consequences of Smoking—50 Years of Progress.

Richard Saitz, MD, MPH
Principal Investigator, Boston ARCH Cohort
Chair, Department of Community Health Sciences; Professor of Community Health Sciences and Medicine
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Richard Saitz, MD, MPH, FACP (Fellow, American College of Physicians), DFASAM (Distinguished Fellow, American Society of Addiction Medicine), is a general internist, primary care physician, and addiction medicine specialist. He is associate editor of *JAMA*, Senior Editor of *Journal of Addiction Medicine*, Section Editor and sole author of key chapters in *UpToDate* on unhealthy substance use, an editor of the *ASAM Principles of Addiction Medicine* textbook, Editor Emeritus of *Addiction Science & Clinical Practice*, and author of over two hundred peer-reviewed publications. He was also Director of Boston Medical Center's Clinical Addiction Research and Education (CARE) Unit for over a decade. His primary areas of expertise supported by NIH, RWJF, and SAMHSA, are screening and brief intervention, integrating substance-related and general health care, improving the quality of care for people with unhealthy substance use, particularly in general health settings, and basing care on science.

URBAN ARCH Co-Investigators and Staff

Julian Adong
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Julian Adong is an HIV research clinician at the Mbarara University of Science and Technology (MUST); she has been providing HIV and tuberculosis clinical care at the Immune Suppression Syndrome (ISS) Clinic of Mbarara University since 2010 and is currently also enrolled in the pediatrics residency program at MUST. She has been a junior researcher/investigator with URBAN ARCH since 2012. Her past work has involved a study looking at the interaction between alcohol and HIV disease progression, and she is now currently involved in studies looking at interventions to prevent tuberculosis among HIV positive patients who consume alcohol - all led by Judy Hahn. She contributes to protocol writing and implementation of the studies, as well as dissemination of study results. Her interests are studies that address substance use among adolescents and young people living with HIV in Africa.

Shirish Barve, PhD
Principal Investigator, Russia ACME Study
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Dr. Barve is a Professor of Medicine at the University of Louisville, in the Division of Gastroenterology, Hepatology & Nutrition. His research focuses on understanding alcohol-induced gut microbial dysbiosis/gut-barrier dysfunction and their role in the pathogenic alterations of the gut-liver-brain axis, the contribution of alcohol-induced peripheral endotoxemia and systemic inflammation in the development of neuroinflammation, and the potential of gut-dysbiosis/barrier dysfunction as a target for the development of effective treatment strategies for alcoholic liver disease and neuroinflammation. He and Dr. Matthew Freiberg are multiple PIs for the Alcohol Associated Comorbidities and Microbiome Evaluation in HIV study (ACME HIV).

Elena A. Blokhina, MD, PhD
Co-Investigator, Russia ARCH Cohort
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Elena is the Deputy Director of the Valdman Institute of Pharmacology at First Pavlov State Medical University in St. Petersburg Russia; she is also an addiction psychiatrist at the Pavlov Outpatient Center. She has been coordinating and managing NIH-funded research activities at Pavlov since 2008. Her primary focus is with clinical trials studying new medications for alcoholism, opioid dependence, and behavioral interventions to reduce HIV risky behavior. She currently serves as the Site Coordinator on the NIAAA-funded St. PETER HIV trial; and the NIDA-funded LINC trial (Linking Russian Narcology & HIV Care to Enhance Treatment, Retention & Outcomes – Part II). She works closely with Principal Investigators to develop and implement clinical trials; supervises all intervention, assessment, and data entry staff; communicate with laboratories and clinical sites in Russia and coordinate the exchange of information with co-investigators in the US and Russia via weekly research meetings.

Sally Bendiks, MPH
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Sally Bendiks, MPH is a Research Coordinator in the Clinical Addiction Research and Education (CARE) Unit at Boston Medical Center. She has worked closely with Dr. Samet and Natalia Gnatienko, to coordinate NIH-funded research activities focused on HIV and substance use in St. Petersburg, Russia since 2015. She was the Project Coordinator for the NIAAA-funded Russia Cohort Alcohol & Zinc Impact on Inflammatory Markers in HIV Disease; ZINC for HIV Disease Among Alcohol Users- an RCT in the Russia ARCH Cohort; and NIDA-funded Linking Infectious and Narcology Care (LINC). She now serves as the Research Coordinator on the NIAAA-funded Studying Partial-agonists for Ethanol and Tobacco Elimination in Russians with HIV (St PETER HIV) study; St. PETER HIV-Alcohol, Protein Biomarkers and Cardiovascular Disease Risk (TMAO) study; as well as the newly NIAAA-funded Pilot Study of Opioid-Receptor Antagonists to Reduce Pain and Inflammation Among HIV-Infected Persons with Alcohol Problems (PETER PAIN) and NIDA-funded Linking Infectious and Narcology Care-II (LINC-II) study.

Carly Bridden, MA, MPH
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Carly is the Clinical Research Director in the Clinical Addiction Research and Education (CARE) Unit at Boston Medical Center. She has been coordinating and managing NIH-funded research activities in the CARE Unit since 2003. Her primary focus is with studies that investigate the relationship between HIV infection and substance use domestically and internationally. She currently serves as the Administrative Director of the NIH-funded URBAN ARCH HIV/alcohol research consortium and Core Manager for the Providence/Boston Center for AIDS Research (CFAR) Substance Use Research Core (SURC). She works closely with Principal Investigators to develop and implement clinical trials as well as connect investigators and trainees to each other to facilitate the development of mentoring relationships and collaborative research projects. She is also involved with NIH-funded clinical research training programs for physicians. Carly welcomes you all to the 2018 URBAN ARCH Annual Meeting!

Julia Canfield, MPH
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Julia is a Project Management Specialist in the Clinical Addiction Research and Education (CARE) Unit at Boston Medical Center. She has been providing project and administrative support to URBAN ARCH through the Administrative Coordinating (Admin) Core for over three years. She also manages the Research in Addiction Medicine Scholars (RAMS) Program, which aims to develop skills in addiction medicine research among physicians from ABAM Foundation-accredited addiction medicine and addiction psychiatry fellowship programs. Prior to joining Boston Medical Center, Julia was an Administrative Assistant at Tufts University's John Hancock Research Center on Physical Activity, Nutrition, and Obesity Prevention, and later an intern at the Bisexual Resource Center while she completed her MPH at the Boston University School of Public Health.

Robert Cook, MD, MPH
Professor of Epidemiology
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Robert L. Cook is Professor of Epidemiology and Medicine, and Associate Director of the Florida Center for Medicaid and the Uninsured. He received his MD and MPH in Epidemiology at the University of North Carolina at Chapel Hill in 1991. After completing residency training in Internal Medicine at the University of Virginia, he completed a two-year fellowship in the Robert Wood Johnson Clinical Scholars Program and then joined the Faculty at the University of Pittsburgh, where he has held joint appointments in the Departments of Medicine and Behavioral and Community Health Sciences (1996-2006). Dr. Cook's research has focused primarily on prevention issues involving HIV and other sexually transmitted infections. His NIH-funded research studies include an investigation of the relationship of alcohol and drug use patterns to STD outcomes in young persons, a clinical trial investigating the impact of home screening for gonorrhea and chlamydia, and a study of immune response in persons infected with influenza and the West Nile Virus. He recently received funding to serve as Protocol Chair on a clinical trial to investigate whether screening and treatment of bacterial vaginosis can reduce the incidence of STDs in young women. His current research interests include 1) interventions to prevent sexually transmitted diseases, including those that target substance abuse; 2) clinical and health services research related to HIV infection; and 3) research to address health issues in uninsured and underserved populations.

Peggy Doyle
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Peggy Doyle is an Assistant Professor of Pathology and Laboratory Medicine in the Larner College of Medicine at the University of Vermont. As part of the larger Laboratory for Clinical Biochemistry Research (LCBR), which serves as a repository and core lab for major population studies such as the Multi-Ethnic Study of Atherosclerosis (MESA), Cardiovascular Health Study (CHS), REasons for Geographic And Racial Differences in Stroke (REGARDS), Jackson Heart Study (JHS), and Veterans Aging Cohort Study Biomarker Cohort (VACS), she directs the cellular immunology lab. Her primary research interests are in the role of innate and adaptive immune cells in inflammation and how they affect disease initiation and progression. As a biochemist, she wants to go beyond simple associations and look at mechanisms that may affect cell levels, from circulating proteins (cytokines, chemokines, adipokines), to bacterial and viral infections, to circulating extracellular nucleic acids and finally, modifiable effects such as diet, exercise, sleep and stress.

Nneka Emenyonu, DrPH, MPH
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Nneka Emenyonu has been directing large longitudinal cohort studies in Uganda since 2004, including the BREATH Study (R01 AA018641) and Uganda URBAN ARCH Uganda, (ADEPT) Study (U01 AA020776). From 2004-2010, she lived in Mbarara, where she helped launch the UCSF-Mbarara University of Science and Technology research collaboration. She has a DrPH from UNC Chapel Hill, MPH from Johns Hopkins Bloomberg School of Public Health, and BA in Biology from Oberlin College. Besides public health and Africa, Nneka is passionate about her family, especially her two daughters; Osa (16 years) and Zara (2 years).

Robin Fatch, MPH
Data Manager, Uganda ARCH Cohort
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Robin is a Statistician and Data Manager at the University of California San Francisco, and is currently part of the URBAN ARCH ADEPTT team. She has been working on research studies focused on substance use and infectious diseases since 2009, with a focus on alcohol use and HIV. Robin works closely with local and international team members to ensure quality data collection, and to analyze data for publication and presentation.

Monica Gandhi, MD, MPH
Co-Investigator, Uganda ARCH Cohort
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Monica Gandhi MD, MPH is a Professor of Medicine and Associate Chief in the Division of HIV, Infectious Diseases, and Global Medicine at the University of California, San Francisco (UCSF). She is also the Medical Director of the HIV/AIDS Clinic ("Ward 86") at San Francisco General Hospital. Research efforts have focused on HIV/AIDS in U.S. women and investigating objective methods to measure antiretroviral adherence and exposure in HIV treatment and prevention settings, such as determining drug levels in hair samples. Recent work has expanded to measuring adherence to anti-TB drugs in the context of latent and active TB infection. Dr. Gandhi also has an interest in HIV education and mentorship and is co-director of the UCSF CFAR Mentoring Program at UCSF.

Natalia Gnatienko, MPH
Lead Project Manager, Russia ARCH Cohort
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Natalia manages Dr. Samet's portfolio of Russia studies that address HIV and substance use (Russia ARCH, LINC-II, St PETER, TMAO) and works with internal and external investigators to coordinate NIH grant applications with a focus on studies with international components. She has been a part of the Clinical Addiction Research and Education (CARE) Unit at Boston Medical Center for the last 7.5 years.

Traci C. Green, PhD
Co-Investigator, Boston ARCH Cohort
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Dr. Green is an epidemiologist whose research focuses on drug use, opioid addiction, and drug-related injury. She earned a Master of Science in Epidemiology and Biostatistics from McGill University and a PhD in Epidemiology from Yale University. She helped design the ASI-MV®, a real-time illicit and prescription drug abuse surveillance system developed by Inflexxion, Inc. Currently, she is Deputy Director of the Boston Medical Center Injury Prevention Center, Associate Professor of Emergency Medicine and Community Health Sciences at the Boston University Schools of Medicine and Public Health, and Adjunct Associate Professor at the Warren Alpert School of Medicine at Brown University. Dr. Green helped co-found www.prescribetoprevent.org for prescribers and pharmacists and its companion site www.prevent-protect.org for families, patients, and community organizations. She serves as an advisor to the Rhode Island Governor on addiction and overdose, and consults for the Center for Disease Control and Prevention and the High Intensity Drug Trafficking Areas on public health and public safety opportunities. She is on the Board of Scientific Counselors for the CDC's National Center for Injury Prevention and Control and served the National Academy of Sciences, Engineering, and Medicine on its Committee on Pain Management and Regulatory Strategies to Address Prescription Opioid Abuse. Her research is supported by the CDC, the National Institute on Drug Abuse, the Agency for Healthcare Research and Quality, the Patient Centered Outcomes Research Institute, the Bloomberg American Health Initiative, and the Department of Justice.

Timothy Heeren, PhD
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Timothy Heeren, Ph.D., Professor of Biostatistics earned his Ph.D. in Mathematics (Statistics) from Boston University, and has been on the faculty of the School of Public Health since 1981. Dr. Heeren has developed and taught both introductory and advanced applied biostatistics methods courses at the School of Public Health. Currently, he alternates between teaching the core biostatistics course and the more advanced Statistical Methods in Epidemiology. Dr. Heeren's research interests are in applied biostatistics, observational studies, behavioral trials, regression models and complex survey design. His current applied research includes serving as biostatistician on three longitudinal cohort studies examining: the consequences of in-utero cocaine and other substance exposure on child development through the early adulthood, cognitive functioning of extremely low gestational age infants at age 10, and how factors measured at birth predicted age 10 functioning; and the health consequences of care giving for the elderly. Dr. Heeren is the senior biostatistician for the Boston ARCH Cohort.

Karen Jacobson, MD, MPH
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Dr. Karen Jacobson is an Assistant Professor of Medicine in the Section of Infectious Diseases, Boston University School of Medicine, with a secondary appointment in the Department of Epidemiology, Boston University School of Public Health. Her research focuses on the epidemiology of tuberculosis (TB) and drug resistant TB, including identification of social, biological, and economic determinants of and risk factors for drug resistance and approaches for improving TB outcomes in resource-limited settings. She has established a highly productive collaboration with researchers at Stellenbosch University in Cape Town, South Africa, investigating the drivers of drug resistance in the Western Cape Province of South Africa (both cohort and spatial epi approaches) and working to identify potentially modifiable factors. Dr. Jacobson is the PI of a prospective study investigating the causal mechanisms underlying the deleterious effects of problem alcohol use on TB treatment outcomes, including effects independent of adherence and specifically impact on TB drug levels.

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Theresa W. Kim, MD is an Assistant Professor at the Boston University School of Medicine and general internist at Boston Medical Center. She is also a primary care physician at the Boston Health Care for the Homeless Program providing HIV and shelter-based primary care since 2001. After completing research training in the General Internal Medicine Fellowship Program, she became a faculty member of the Clinical Addiction Research Education (CARE) program at Boston Medical Center. She is also a consultant for the Massachusetts Screening, Brief Intervention, and Referral to Treatment - Training and Technical Assistance. She has received NIH funding for her research on models of integrated addiction and medical care and effects of alcohol and opioids on poor bone health.

Mariana Krueger, MS
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Mariana Krueger is the Project Manager for Boston ARCH, a longitudinal cohort study of people living with HIV, at the Boston University School of Public Health (BUSPH). Mariana has worked in the field of HIV for a decade, both as a health educator and researcher. Prior to joining BUSPH, Mariana worked as a Monitoring and Evaluation Manager at Nama Wellness Community Center in Uganda, and a Research Associate for Family Health Ministries in Haiti, where she implemented CFAR-funded projects in HIV, cervical cancer, and pediatric nutrition.

Evgeny Krupitsky, MD, PhD, DMSci
Co-Investigator for Russia ARCH Cohort Subcontract
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Prof. Evgeny Krupitsky, MD, PhD, DMSci is a Vice-Director for Research and a Chief of the Department of Addictions at St. Petersburg Bekhterev Research Psychoneurological Institute and a Chief of the Laboratory of Clinical Psychopharmacology of Addictions at St. Petersburg State Pavlov Medical University, Russia. Since 2006, he also holds a position of Adjunct Professor of Psychiatry at the Department of Psychiatry, University of Pennsylvania. Dr. Krupitsky received several national and international awards including European College of Neuropsychopharmacology Fellowship Award (1997), Heffter Research Institute Award for Outstanding Research in Hallucinogens (2000), Award of the Government of Russian Federation for Outstanding Research in Medicine (2005), and National Institute Drug Abuse (NIDA) Award for Excellence in International Leadership. Dr. Krupitsky published many papers in international psychiatric journals and is also an author of several chapters in the international manuals and two books on the treatment of alcoholism and addictions published in Russian. Dr. Krupitsky has been a Co-PI on several NIDA and NIAAA grants.

Benjamin P. Linas, MD, MPH
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Dr. Linas is a physician scientist dedicated to improving the health of vulnerable persons living with HIV and HCV infections. He is also an HIV and HCV provider at the Boston Medical Center infectious diseases practice, where he provides primary care and sub-specialty management of HIV, HCV, and HIV/HCV co-infected patients. His research investigates the comparative- and cost-effectiveness of interventions to identify and treat HIV and HCV. He employs methods of simulation modeling, clinical epidemiology, and clinical economics with the aim of maximizing the benefits of evolving therapies in the "real-world," where diagnostics and therapy are rapidly evolving, resources are constrained, and the best methods for managing infected individuals are not certain.

Dmitry Lioznov, MD, PhD, DMSci
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Dmitry Lioznov, MD, PhD, DMSci is the Deputy Director for Research at the Research Institute of Influenza, and Head of Department of Infectious Diseases and Epidemiology at Pavlov First State Medical University, St. Petersburg, Russia. He has been the Principal Investigator or Co-Investigator in numerous international projects supported by the NIH, NIH/Fogarty International Center, World AIDS Foundation, UNICEF, Ford Foundation, the AIDS Foundation East-West (AFEW), and the American Red Cross. He serves on the editorial boards of three infectious disease journals. He is Executive Secretary of the 6th Conference on HIV/AIDS in Eastern Europe and Central Asia (April 18-20, 2018, Moscow, Russia). His academic mission and research efforts focus on the interactions of HIV/AIDS, drug and alcohol use, and co-infections such as viral hepatitis, STIs and tuberculosis. He is also involved in research in other areas of infectious diseases: herpes virus infection, food-borne infections, and respiratory infections including in non-HIV immunocompromised patients.

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Sarah is a Research Program Manager in the Division of Cardiovascular Medicine at Vanderbilt University Medical Center. She has been working on NIH-funded studies with URBAN ARCH PI, Dr. Matt Freiberg, since 2012 focused on understanding the mechanisms of cardiovascular disease. In her current role, she manages operations for the Vanderbilt Center for Clinical Cardiovascular Outcomes Research and Trials Evaluation (V-CREATE). In addition to involvement with studies in the URBAN ARCH Russia Cohort, Sarah is heavily involved with research leveraging Veterans Administration resources, including the Veterans Aging Cohort Study and the VA Birth Cohort. Sarah is responsible for project start-up and management and also works closely with Dr. Freiberg to expand the scope of V-CREATE by providing guidance to interested collaborators on the use of center resources for grant applications and project proposals.

Sara Lodi, MSc, PhD
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Sara Lodi is an Assistant Professor of Biostatistics at the Boston University School of Public Health. She obtained her PhD in Medical Statistics at the London School of Hygiene and Tropical Medicine, UK in 2009. Her research focuses on clinical epidemiology and comparative effectiveness research using routinely collected heath data, particularly in the area of HIV. Methodologically, she focuses on statistical techniques for causal inference to estimate effects of interventions along the HIV continuum of care. She has published many articles on behalf of large international collaborations of HIV cohorts such as CASCADE, COHERE and the HIV-CAUSAL Collaboration.

Karsten Lunze, DrPH, MD, MPH
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Karsten Lunze, Assistant Professor and global health researcher at Boston University and Boston Medical Center, researches individual and structural risks among people with addictions who also have or are at risk of HIV. His NIDA K99 and CFAR Developmental projects in Eastern Europe explore stigma related to substance use, HIV, TB and other conditions among marginalized populations. He has worked on HIV risk projects and human rights mixed-methods studies with Russia ARCH.

Seville Meli, MPH
Director of Research Operations, Boston ARCH Cohort
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Seville Meli is the Director of Research Operations in the Department of Community Health Sciences at the Boston University School of Public Health. She has significant experience implementing large NIAAA- and NIDA-supported research studies in clinical settings and has been working with Drs. Saitz and Samet for over 17 years. Seville has successfully recruited, trained and managed study teams to implement protocols specifically tailored to participants using alcohol and other drugs in clinical settings. Seville's experience includes: a large NIDA- and NIAAA-supported randomized trial in the primary care setting for people with substance dependence, a large cohort of people with HIV infection and alcohol problems, and studies of alcohol and drug use in HIV in Russia, with all teams achieving high rates of follow-up. Seville supports the operations of the Boston ARCH research team by assisting with staff training and quality improvement initiatives. She also supports and oversees development of analyses and reporting of results, including abstract preparation and manuscript development.

Winnie Muyindike, MBChB, MMED
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Director of Immune Suppression Syndrome Clinic
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Dr. Winnie Muyindike is an experienced physician and Lecturer of Medicine and has been the director of the Immune Suppression Syndrome (ISS) Clinic at the Mbarara University of Science and Technology (MUST) Regional Referral Hospital for the past five years. Her experiences as a physician and ISS clinic director have contributed to several NIH-funded research projects on which she has served as co-Investigator. In her capacity as Principal Investigator of the MUST subcontract for the R01 and U01 studies, BREATH and ADEPT respectively, she has made important contributions to study design, protocol development, and questionnaire development. Dr. Muyindike has been working with researchers from UCSF for many years and enjoys a collaborative and rewarding working relationship with Dr. Hahn. Dr. Muyindike could not join us at this year's Annual Meeting but we hope to see her at the Research Society of Alcoholism (RSA) Conference in June.

Kaku So-Armah, PhD
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Kaku So-Armah is a Research Assistant Professor at the Boston University School of Medicine. His training is in epidemiology and his doctoral research focused on the role of co-morbid diseases and immunologic alterations in HIV-related cardiovascular disease (CVD) risk. He is currently studying the intersection of liver injury and CVD among HIV infected and uninfected people thanks to a K01 career development grant from the National Heart Lung and Blood Institute (NHLBI). He previously received a research supplement from the National Institutes of Alcohol Abuse and Alcoholism (NIAAA) to study the impact of liver injury on innate and adaptive immune dysfunction in HIV. Cohorts he works with include the Uganda Russia Boston Alcohol Network Alcohol Research Collaboration on HIV/AIDS (URBAN ARCH) and the Veterans Aging Cohort Study (VACS). His long-term goal is to translate our growing understanding of the mechanisms of excess HIV-related CVD risk into effective, sustainable CVD risk reduction strategies for HIV populations in resource-limited settings.

Michael Stein, MD
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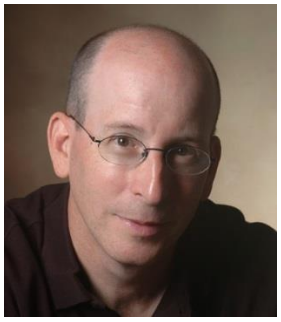

Dr. Stein is a Professor and Chair of the Department of Health Law, Policy, & Management at Boston University School of Public Health. He is also a physician and health services researcher. Over the past two decades, Dr. Stein has worked at the intersection of behavioral medicine and primary care. His outcomes research has moved between substance use disorders and HIV/AIDS, sleep and pain, mental health disorders, and the determinants of risk-taking, and he has published nearly 300 scientific journal articles. Dr. Stein graduated from Harvard College and received his medical degree from Columbia College of Physicians & Surgeons. After medical residency at New England Medical Center, he completed a National Research Service Award Fellowship at Brown University.

Margaret Sullivan, MD
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Dr. Sullivan has been a faculty member in the Section of Infectious Disease at Boston University School of Medicine for greater than 20 years and as a clinician at Boston Medical Center (BMC) providing HIV care with a particular interest in HIV in Women and Reproductive Health. As the current Director of HIV Clinical Services at BMC, she provides medical leadership to programs at BMC funded by the Massachusetts Department of Public Health related to comprehensive HIV prevention efforts, including implementation of novel models of pre-exposure prophylaxis (PrEP) care delivery at BMC. She has served as site PI or a co-investigator in a number of externally funded investigative projects focused on models for successful engagement and retention of HIV positive patients into ongoing medical care with interventions targeted at reducing high risk behaviors that place the subjects at risk for failure of viral suppression. More recently, Dr. Sullivan has broadened her focus to HIV prevention methods, with particular focus on models of reducing risk in HIV serodiscordant partners seeking pregnancy.

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Ve is a project coordinator in the Section of General Internal Medicine at Boston Medical Center. She provides research support to Russia ARCH and has been working with the Clinical Addiction Research and Education (CARE) Unit since 2015. She also coordinates and manages other research studies that focus on smoking, diabetes and HCV.

Alexander Walley, MD, MSc
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Alexander Y. Walley, M.D., M.Sc., is an Associate Professor of Medicine at Boston University School of Medicine and a general internist and addiction medicine specialist at Boston Medical Center. He is the director of the Boston University Addiction Medicine Fellowship program, which trains addiction medicine specialist physicians. He founded the Inpatient Addiction Consult Service in 2015 and is the associate director of the Faster Paths addiction urgent care center at Boston Medical Center. He does clinical and research-related work on the medical complications of substance use, specifically HIV and overdose. He is the medical director for the Massachusetts Department of Public Health's Opioid Overdose Prevention Pilot Program. He is a co-investigator on the HERMITAGE, Boston ARCH, and 4F studies within the URBAN ARCH Consortium.

Michael Winter, MPH
Statistical Programming Manager, Biostatistics and Data Management Core
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Michael Winter is the Associate Director of Statistical Programming of the Data Coordinating Center at the Boston University School of Public Health, and he has over 25 years of experience in data management, statistical programming, and statistical analysis in the area of public health research. In addition, he was a senior statistical analyst in the Data Management and Statistics Core of the NIAAA funded Youth Alcohol Prevention Center at the Boston University School of Public Health from 2004-2006, and Associate Director of the Core from 2006-2010. Mr. Winter has a long history of collaborating as a statistical analyst or data manager with many of the investigators of the URBAN ARCH Consortium.

Tatiana Yaroslavtsea, MD
Site Project Manager, Russia ARCH Cohort
Scientific Secretary, Valdman Institute of Pharmacology, Russia Federation
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Tatiana Yaroslavtseva, MD, holds a position of Scientific Secretary at Valdman Institute of Pharmacology, St. Petersburg Pavlov State Medical University, Russia since 2011. She gained clinician experience in the treatment of patients with drug and alcohol dependence when she was working at the Saint-Petersburg City Addiction Hospital, Intensive Care Department for 5 years as an addiction psychiatrist. She participated in four collaborative studies with Boston University as a researcher and coordinator for "Alcohol Research Collaboration on HIV/AIDS: Russia Cohort". Now she is a project coordinator for the current study "Studying Partial agonists for Ethanol and Tobacco Elimination in Russians with HIV (St PETER HIV)".

Edwin Zvartau, MD, PhD, DMSci
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Dr. Zvartau is a pharmacologist with a strong background in pharmacology of pain and addiction. He also has extensive research experience, having served as PI and Project Director (PD) in conducting preclinical and clinical trials of new medications for alcoholism and addictions and behavioral interventions to reduce HIV risky behavior; and has acted as leading PI and supervisor for FTIH and bioequivalent trials at Pavlov State Medical University. Since 1998, he has collaborated with Dr. Evgeny Krupitsky as PI and PD on projects with NIH Institutes (NIDA, NIAAA, NIAID, NIA) and US universities and hospitals (Penn, Yale, Boston Medical Center, Baylor College of Medicine). Additionally, Dr. Zvartau served as PI for several phase II and III clinical trials of medications for acute and chronic pain syndromes.

URBAN ARCH Grant Submissions & Awards

March 2017 – March 2018

Awarded

Mobile Technology to Extend Clinic-based Counseling for HIV+s in Uganda (Hahn)
U01AA024990 University of California San Francisco Awarded April 2017

St. PETER HIV – Microbiome (So-Armah)
CFAR Developmental Award Boston Medical Center Awarded July 2017

1/2 Alcohol Associated Comorbidities and Microbiome Evaluation in HIV (ACME HIV) (Freiberg/Barve)
U01AA026222 Vanderbilt University Medical Center/University of Louisville Awarded August 2017

Interventions to Reduce Alcohol Use and Increase Adherence to TB Preventive Therapy among HIV/TB Co-infected Drinkers (DIPT 1/2) (Hahn)
U01AA026223 University of California San Francisco Awarded September 2017

Internet-Based Video Conferencing to Address Alcohol Use and Pain among Heavy Drinkers in HIV-Care (Palfai)
UH2AA026192 Boston University Awarded September 2017

Pilot Study of Opioid-receptor Antagonists to Reduce Pain and Inflammation among HIV-infected Persons with Alcohol Problems (Samet/Tsui)
UH2AA026193 Boston Medical Center/University of Washington Awarded September 2017

St PETER HIV – Alcohol Protein Biomarkers and Cardiovascular Disease Risk (Samet/Freiberg/Lioznov)
R01AA025859 BMC/Vanderbilt/First Pavlov State Medical University Awarded September 2017

Under Review

Addressing Stigma as a Barrier to Care for HIV Key Populations in Malaysia (Lunze/Kamarulzaman)
R2112534363 Boston Medical Center/The National University of Malaysia Submitted December 2017

HIV Latent Reservoirs and Immune Dysfunction in HIV-Positive Opioid Users as Assessed by Single-Cell Transcriptomics (Cheng/Henderson)
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URBAN ARCH Conference Presentations: 2017

1. Coleman S, Gnatienko N, Lloyd-Travaglini C, Winter MR, Bridden C, Blokhina E, Lioznov D, Adong J, Samet JH, Liegler T, Hahn J. False HIV positive diagnoses: Lessons from Uganda and Russia research cohorts. 2017; American Public Health Association Annual Meeting; Atlanta, GA.

2. Freiman JM, Muyindike W, Jacobson K, Horsburg CR, Ellner J, Hahn J, Linas B. Does the benefit of IPT for persons with HIV who consume alcohol outweigh the risk? 2017; Conference on Retroviruses and Opportunistic Infections; Seattle, WA.

3. Gnatienko N, Sullivan M, Drainoni M, Hereen TC, Muyindike W, Blokhina E, Ventura AS, Fatch R, Forman L, Bridden C, Tsui JI, Bryant KJ, Hahn J, Bazzi AR. Heavy drinking among HIV-infected women and men in the United States, Russia, and Uganda. 2017; Research Society on Alcoholism Annual Scientific Meeting; Denver, CO.

4. Godersky MG, Walley AY, Heeren TC, Winter MR, Sullivan M, Meli SM, Saitz R. The importance of self-medication with substances in people with HIV infection and substance dependence. 2017; College on Problems of Drug Dependence 79th Annual Scientific Meeting & NIDA International Forum; Montreal, Canada.

5. Idrisov B, Lunze K, Cheng D, Blokhina E, Gnatienko N, Quinn E, Walley AY, Bridden C, Bryant KJ, Lioznov D, Krupitsky E, Samet JH. Opioid craving and HIV care cascade outcomes. 2017; College on Problems of Drug Dependence 79th Annual Scientific Meeting & NIDA International Forum; Montreal, Canada.

6. Kim TW, Ventura AS, Heeren TC, Winter MR, Walley AY, Sullivan M, Saitz R. Alcohol and changes in bone formation and resorption among people with HIV and substance dependence. 2017; Research Society on Alcoholism Annual Scientific Meeting; Denver, CO.

7. Lasser K, Cheng D, Blokhina E, Walley AY, Tindle H, Quinn E, Gnatienko N, Freiberg M, Krupitsky E, Samet JH. Are depressive and anxiety symptoms associated with heavy smoking or higher nicotine dependence among HIV-infected smokers in Russia? 2017; The Society for Research on Nicotine and Tobacco Annual Meeting; Florence, Italy.

8. Saitz R, Ventura AS, Winter MR, Hereen TC, Sullivan M, Walley AY, Patts GJ, Meli SM, Holick, MF, Kim TW, Samet JH. Alcohol consumption not associated with changes in bone mineral density in people living with HIV infection (PLWH): a prospective cohort study. 2017; Research Society on Alcoholism Annual Scientific Meeting; Denver, CO.

9. Samet JH, Bryant KJ, So-Armah K, Eyawo O, Cook R, Kim TW. Symposium - The use of Biomarkers to Advance Alcohol and HIV Research. 2017; Research Society on Alcoholism Annual Scientific Meeting; Denver, CO.

10. So-Armah K, Freiberg M, Cheng D, Patts GJ, Tracy R, Doyle M, Gnatienko N, Bryant KJ, Krupitsky E, Samet JH. Longitudinal association between alcohol use and inflammatory biomarkers. 2017; Research Society on Alcoholism Annual Scientific Meeting; Denver, CO.

11. So-Armah K, Freiberg M, Cheng D, Patts GJ, Tracy R, Doyle M, Gnatienko N, Bryant KJ, Krupitsky E, Samet JH. Longitudinal association between alcohol use and inflammatory biomarkers. 2017; Conference on Retroviruses and Opportunistic Infections; Seattle, WA.

12. Tsui JI, Wagman J, Cheng D, Gnatienko N, Blokhina E, Forman L, Bazzi A, Lioznov D, Samet JH. Opportunities for and awareness of pre-exposure prophylaxis among HIV-infected Russian women and men. 2017; 10th Annual InWomen's Group Conference & NIDA International Forum; Montreal, Canada.

Adong J, Lindan C, Fatch R, Emenyonu NI, Muyindike WR, Ngabirano C, Winter MR, Lloyd-Travaglini C, Samet JH, Cheng DM, Hahn JA. **The relationship between spirituality/religiousness and unhealthy alcohol use among HIV-infected adults in southwestern Uganda.** *AIDS Behav.* 2017. [Epub ahead of print]. PMCID: PMC5708153.

HIV and alcohol use are two serious and co-existing problems in sub-Saharan Africa. We examined the relationship between spirituality and/or religiousness (SR) and unhealthy alcohol use among treatment-naïve HIV-infected adults attending the HIV clinic in Mbarara, Uganda. Unhealthy alcohol was defined as having either an alcohol use disorders identification test-consumption score of ≥4 for men or ≥3 for women, or having a phosphatidylethanol level of ≥50 ng/ml based on analysis of dried bloodspot specimens. Of the 447 participants, 67.8% were female; the median age was 32 years (interquartile range [IQR] 27-40). About half reported being Protestant (49.2%), 35.1% Catholic, and 9.2% Muslim. The median SR score was high (103 [IQR 89-107]); 43.3% drank at unhealthy levels. Higher SR scores were associated with lower odds of unhealthy drinking (adjusted odds ratio [aOR]: 0.83 per standard deviation [SD] increase; 95% confidence interval [CI] 0.66-1.03). The "religious behavior" SR subscale was significantly associated with unhealthy alcohol use (aOR: 0.72 per SD increase; 95% CI 0.58-0.88). Religious institutions, which facilitate expression of religious behavior, may be helpful in promoting and maintaining lower levels of alcohol use.

Asiimwe SB, Fatch R, Patts G, Winter M, Lloyd-Travaglini C, Emenyonu N, Muyindike W, Kekibiina A, Blokhina E, Gnatienko N, Krupitsky E, Cheng DM, Samet JH, Hahn JA. **Alcohol types and HIV disease progression among HIV-infection drinkers not yet on antiretroviral therapy in Russia and Uganda.** *AIDS Behav*. 2017;21(Suppl 2):204-215. PMCID: PMC5660666.

We therefore assessed the association between alcohol type and plasma HIV RNA level (HIV viral load) among HIV-infected drinkers not on antiretroviral therapy (ART) in Russia and Uganda. We analyzed the data of participants from cohorts in Russia and Uganda and assessed their HIV viral load at enrollment by the alcohol type predominantly consumed. We defined predominant alcohol type as the alcohol type contributing >50% of total alcohol consumption in the 1 month (Russia) or 3 months (Uganda) prior to enrollment. Using multiple linear regression, we compared $\log_{10}$ HIV viral load by predominant alcohol type, controlling for age, gender, socioeconomic status, total number of standard drinks, frequency of drinking ≥6 drinks/occasion, and in Russia, history of injection drug use. Most participants (99.2% of 261 in Russia and 98.9% of 352 in Uganda) predominantly drank one alcohol type. In Russia, we did not find evidence for differences in viral load levels between drinkers of fortified wine (n = 5) or hard liquor (n = 49), compared to drinkers of beer/low-ethanol-content cocktails (n = 163); however, wine/high-ethanol-content cocktail drinkers (n = 42) had higher mean $\log_{10}$ viral load than beer/low-ethanol-content cocktail drinkers (β = 0.38, 95% CI 0.07-0.69; p = 0.02). In Uganda, we did not find evidence for differences in viral load levels between drinkers of locally-brewed beer (n = 41), commercially-distilled spirits (n = 38), or locally-distilled spirits (n = 43), compared to drinkers of commercially-made beer (n = 218); however, wine drinkers (n = 8) had lower mean $\log_{10}$ HIV viral load (β = -0.65, 95% CI -1.36 to 0.07, p = 0.08), although this did not reach statistical significance. Among HIV-infected drinkers not yet on ART in Russia and Uganda, we observed an association between the alcohol type predominantly consumed and the HIV viral load level in the Russia sample. These exploratory results suggest that, in addition to total number of drinks and drinking patterns, alcohol type might be a dimension of alcohol use that merits examination in studies of HIV and alcohol related outcomes.

Coleman SM, Gnatienko N, Lloyd-Travaglini CA, Winter MR, Bridden C, Blokhina E, Lioznov D, Adong J, Samet JH, Hahn JA. **False positive HIV diagnoses: Lessons from Ugandan and Russian research cohorts**. *HIV Clin Trials*. 2018;19(1):15-22.

METHODS: Russian participants with documented HIV and ART-naïve status were recruited between 2012 and 2015 from clinical and non-clinical sites in St. Petersburg. Participants in Uganda were recruited from Mbarara Regional Referral Hospital from 2011 to 2014 with documented HIV infection via rapid diagnostic testing and recorded ART-naïve in the clinic database. HIV viral load testing of baseline samples was performed; the lower limit of detection was 500 copies/mL in Russia and 40 in Uganda. Due to an unexpectedly high proportion of participants with undetectable viremia, additional tests were performed: enzyme-linked immunosorbent assay HIV testing and testing for ART.

RESULTS: In Russia, 16% (58/360) had undetectable viremia; 3% (9/360) re-tested HIV-seronegative and 4% (13/360) tested positive for ART. In Uganda 11% (55/482) had undetectable viremia; 5% (26/482) re-tested HIV-seronegative, while <1% (4/482) tested positive for ART.

CONCLUSIONS: In both Russia & Uganda, undetectable viremia was much higher than would be expected for an HIV-infected ART-naïve cohort. Misclassification of study participants was due to misdiagnosis of HIV with rapid diagnostic testing and inaccurate accounting of ART use. Confirmatory HIV testing could improve accuracy of participants meeting entry criteria for HIV infection as might increased scrutiny of medication use in an ART-naïve cohort.

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Edelman EJ, So-Armah K, Cheng D, Doyle M, Coleman S, Bridden C, Gnatienko N, Lioznov D, Blokhina E, Freiberg M, Krupitsky E, Emu B, Samet JH. **Impact of illicit opioid use on T cell subsets among HIV-infected adults**. *PLOS One*. 2017;12(5):e0176617. PMCID: PMC5417591.

METHODS: To assess associations between illicit opioid use and T cell characteristics (CD4/CD8 ratio, memory profiles based on CD45RO and CD28 expression, and senescence based on CD57 expression), we conducted an exploratory cross-sectional analysis of Russia ARCH, a cohort of antiretroviral therapy (ART)-naïve HIV-infected individuals recruited 11/2012 to 10/2014 in St. Petersburg, Russia. The main independent variable was past 30 day illicit opioid use (yes vs. no). Secondary analyses evaluated none (0 days), intermittent (1 to 7 days), and persistent (8 to 30 days) opioid use. Outcomes were determined with flow cytometry. Analyses were conducted using linear regression models.

RESULTS: Among 186 participants, 38% reported any illicit opioid use (18% intermittent and 20% persistent). Any illicit opioid use was not significantly associated with T cell characteristics. Intermittent opioid use appeared to be associated with decreased memory CD8+ T cells proportion (CD45RO+CD45RA- CD8+ T cells: adjusted mean difference [AMD] [95% CI] = -6.15 [-11.50, -0.79], p = 0.02) and borderline significant increased senescent T cells (%CD57+ of total CD28-CD8+ T cells (AMD [95% CI] = 7.70 [-0.06, 15.46], p = 0.05).

CONCLUSIONS: Among ART-naïve HIV-infected Russians, any illicit opioid use was not significantly associated with T cell abnormalities although intermittent illicit opioid use may be associated with CD8 T cell abnormalities. Longitudinal studies are warranted to confirm these findings given increased risk of infections and comorbidities seen among HIV-infected individuals with illicit opioid use.

Edelman EJ, Lunze K, Cheng DM, Lioznov D, Quinn E, Bridden C, Chaisson C, Walley AY, Krupitsky E, Raj A, Samet JH. **HIV-Related stigma and substance use in a Russian cohort of HIV-positive risky drinkers.** *AIDS Behav*. 2017;21(9):2618-2627. PMCID: PMC5856479.

The link between HIV stigma with substance use is understudied. We characterized individuals with high HIV stigma and examined whether HIV stigma contributes to substance use among HIV-positive Russians reporting risky alcohol use. We analyzed data from HERMITAGE, a randomized controlled trial of 700 people living with HIV/AIDS (PLWHA) with past 6-month risky sex and risky alcohol use in St. Petersburg, Russia (2007-2011). Participants who were female and reported depressive symptoms and lower social support were more likely to endorse high HIV stigma (all p's < 0.001). In adjusted models, high HIV stigma was not significantly associated with the primary outcome unhealthy substance use and was not consistently associated with secondary substance use outcomes. Interventions to enhance social and mental health support for PLWHA, particularly women, may reduce stigma, though such reductions may not correspond to substantial decreases in substance use among this population.

Forman LS, Patts GJ, Coleman S, Blokhina E, Lu J, Yaroslavtseva T, Gnatienko N, Krupitsky E, Samet JH, Chaisson CE. **Use of an android phone application for automated text messages in international settings: a case study in an HIV clinical trial in St. Petersburg, Russia**. *Clin Trials*. 2017;15(1):36-43. PMCID: PMC5794610.

METHODS: To gauge technical capabilities for international projects, we developed SMSMessenger, an automated Android application that uses a US server to send medication reminders to participants in a clinical trial in St. Petersburg, Russia (Zinc for HIV disease among alcohol users-a randomized controlled trial in the Russia Alcohol Research Collaboration on HIV/AIDS cohort). The application is downloaded once onto an Android study phone. When it is time for the text message reminders to be sent, study personnel access the application on a local phone, which in turn accesses the existing clinical trial database hosted on a US web server. The application retrieves a list of participants with the following information: phone number, whether a message should be received at that time, and the appropriate text of the message. The application is capable of storing multiple outgoing messages. With a few clicks, text messages are sent to study participants who can reply directly to the message. Study staff can check the local phone for incoming messages. The SMSMessenger application uses an existing clinical trial database and is able to receive real-time updates. All communications between the application and server are encrypted, and phone numbers are stored in a secure database behind a firewall. No sensitive data are stored on the phone, as outgoing messages are sent through the application and not by messaging features on the phone itself. Messages are sent simultaneously to study participants, which reduces the burden on local study staff. Costs and setup are minimal. The only local requirements are an Android phone and data plan.

CONCLUSION: The SMSMessenger technology could be modified to be applied anywhere in the world, in any language, script, or alphabet, and for many different purposes. The novel application of this existing low-cost technology can improve the usefulness of text messaging in advancing the goals of international clinical trials.

Freiman JM, Jacobson KR, Muyindike WR, Horsburgh CR, Ellner JJ, Hahn JA, Linas BP. **Isoniazid preventive therapy for people with HIV who are heavy alcohol drinkers in high TB-/HIV-burden countries: A risk–benefit analysis.** *J Acquir Immune Defic Syndr*. 2018;77(4):405-412. PMCID: PMC5825241.

METHODS: We developed a Markov simulation model to compare ART alone to ART with either 6 or 36 months of IPT for heavy drinking PLHIV enrolling in care in Brazil, India, and Uganda. Outcomes included nonfatal toxicity, fatal toxicity, life expectancy, TB cases, and TB death.

RESULTS: In this simulation, 6 months of IPT + ART (IPT6) extended life expectancy over both ART alone and 36 months of IPT + ART (IPT36) in India and Uganda, but ART alone dominated in Brazil in 51.5% of simulations. Toxicity occurred in 160/1000 persons on IPT6 and 415/1000 persons on IPT36, with fatal toxicity in 8/1000 on IPT6 and 21/1000 on IPT36. Sensitivity analyses favored IPT6 in India and Uganda with high toxicity thresholds.

CONCLUSIONS: The benefits of IPT for heavy drinkers outweighed its risks in India and Uganda when given for a 6-month course. The toxicity/efficacy trade-off was less in Brazil where TB incidence is lower. IPT6 resulted in fatal toxicity in 8/1000 people, whereas even higher toxicities of IPT36 negated its benefits in all countries. Data to better characterize IPT toxicity among HIV-infected drinkers are needed to improve guidance.

Godersky ME, Vercammen LK, Ventura AS, Walley AY, Saitz R. **Identification of non-steroidal anti-inflammatory drug use disorder: A case report.** *Addict Behav.* 2017;70:61-64. PMCID: PMC5370578.

Commonly used for analgesic and anti-inflammatory effects, non-steroidal anti-inflammatory drugs (NSAIDs) are among the most frequently used medications in the world. In spite of their prevalence, reports of NSAID misuse and NSAID use disorder are uncommon. This case report describes a research participant who met criteria for DSM-5 moderate substance use disorder based on her use of prescribed ibuprofen as assessed by the validated Mini International Neuropsychiatric Interview (MINI). This case demonstrates that the DSM-5 criteria within the MINI can be applied to diagnose an NSAID use disorder. Addiction researchers and clinicians should consider medications generally not thought to be addictive, like NSAIDs, when evaluating patients for substance use disorder.

Hahn JA, Cheng DM, Emenyonu NI, Lloyd-Travaglini C, Fatch R, Shade SB, Ngabirano C, Adong J, Bryant K, Muyindike WR, Samet JH. **Alcohol use and HIV disease progression in an antiretroviral naïve cohort**. *J Acquir Immune Defic Syndr*. 2018. 2018 Apr 15;77(5):492-501. PMCID: PMC5844835.

METHODS: We conducted a prospective cohort study of the impact of unhealthy alcohol use on CD4 cell count among HIV-infected persons in southwestern Uganda not yet eligible for antiretroviral treatment (ART). Unhealthy alcohol consumption was 3-month Alcohol Use Disorders Identification Test - Consumption (AUDIT-C) positive (≥3 for women, ≥4 for men) and/or phosphatidylethanol (PEth - an alcohol biomarker) ≥50 ng/ml, modeled as a time-dependent variable in a linear mixed effects model of CD4 count.

RESULTS: At baseline, 43% of the 446 participants were drinking at unhealthy levels and the median CD4 cell count was 550 cells/mm (Interquartile Range [IQR] 416-685). The estimated CD4 cell count decline per year was -14.5 cells/mm (95% Confidence Interval [CI]: -38.6 to 9.5) for unhealthy drinking vs. -24.0 cells/mm (95% CI: -43.6 to -4.5) for refraining from unhealthy drinking, with no significant difference in decline by unhealthy alcohol use (p-value 0.54), adjusting for age, sex, religion, time since HIV diagnosis, and HIV viral load. Additional analyses exploring alternative alcohol measures, participant subgroups, and time-dependent confounding, yielded similar findings.

CONCLUSION: Unhealthy alcohol use had no apparent impact on the short-term rate of CD4 count decline among HIV-infected ART naïve individuals in Uganda, using biological markers to augment self-report and examining disease progression prior to ART initiation to avoid unmeasured confounding due to misclassification of ART adherence.

Idrisov B, Lunze K, Cheng DM, Blokhina E, Gnatienko N, Patts GJ, Bridden C, Kleinman RE, Weiser SD, Krupitsky E, Samet JH**. Food insecurity, HIV disease progression and access to care among HIV-infected Russians not on ART.** *AIDS Behav*. 2017;21(12):3486-3495. PMCID: PMC5705384.

Food insecurity (FI) has been associated with HIV disease progression among people on antiretroviral therapy (ART), presumably a consequence of poor medication adherence. We assessed whether there is a longitudinal association between FI and two primary outcomes reflecting on HIV disease progression (i.e., CD4 count and time to ART initiation) among people not on ART. Analyses used linear mixed effects and Cox models controlling for confounders. In this cohort (n = 310) FI was common (53%). Most (71.3%) reported past month heavy alcohol use and 37.1% reported past month injection drug use. Only 50 participants initiated ART during the study and mean time to ART was 128 days (SD 120). There were no significant differences in CD4 cell count between the groups with mild/moderate FI or severe FI versus those with no FI [adjusted mean difference, mild/moderate insecurity versus no FI -32.5 (95% CI -94.3, 29.3); severe versus no FI -45.5 (95% CI -124.1, 33.0); global p = 0.42]. We found no significant association between FI and longer time to ART initiation (p = 0.36). Food security is a desirable goal for overall health and shown beneficial for those on ART, however it does not appear to be associated with HIV disease progression among those with high prevalence of substance use and not yet on ART.

Idrisov B, Lunze K, Cheng DM, Blokhina E, Gnatienko N, Quinn E, Bridden C, Walley AY, Bryant KJ, Lioznov D, Krupitsky E, Samet JH. **Role of substance use in HIV care cascade outcomes among people who inject drugs in Russia.** *Addict Sci Clin Pract*. 2017;12(1):30. PMCID: PMC5713116.

METHODS: We analyzed data from a cohort (n = 249) of HIV-positive Russians who have been in addiction hospital treatment in the past year and had a lifetime history of injection drug use (IDU). We evaluated the association between unhealthy alcohol use (AUDIT score > 7 [both hazardous drinking and dependence]), past-month injection drug use (IDU), and opioid craving (visual analogue scale from 1 to 100) with HIV care cascade outcomes. The primary outcome was linkage to HIV care within 12 months. Other outcomes were prescription of ART (secondary) and achievement of undetectable HIV viral load (HVL < 500 copies/mL) within 12 months (exploratory); the latter was analyzed on a subset in which HVL was measured (n = 48). We assessed outcomes via medical record review (linkage, ART) and serum tests (HVL). To examine the primary outcome, we used multiple logistic regression models controlling for potential confounders.

RESULTS: Among 249 study participants, unhealthy alcohol use (n = 148 [59%]) and past-month IDU (n = 130 [52%]) were common. The mean opioid craving score was 49 (SD: 38). We were unable to detect significant associations between the independent variables (i.e., unhealthy alcohol use, IDU and opioid craving) and any HIV care cascade outcomes in unadjusted and adjusted analyses.

CONCLUSION: In this cohort of HIV-positive Russians with a history of IDU, individual substance use factors were not significantly associated with achieving HIV care cascade milestones (i.e., linkage to HIV care; prescription for ART; or suppressed viral load). Given no detection of an association of cascade outcomes with recent unhealthy use of alcohol or injection drugs in this cohort, examining systemic factors to understand determinants of HIV care engagement for people with drug use would be important.

Kim TW, Walley AY, Heeren TC, Patts GJ, Ventura AS, Lerner GB, Mauricio N, Saitz R. **Polypharmacy and risk of non-fatal overdose for patients with HIV infection and substance dependence.** *J Subst Abuse Treat*. 2017;81:1–10.

MATERIALS AND METHODS: This was a longitudinal study of adults recruited from two urban, safety-net HIV clinics. Outcomes were i) lifetime and ii) past-year non-fatal OD assessed at baseline and a 12-month follow-up. We used logistic regression to examine the association between each outcome and the number of medications (identified from the electronic medical record) in the following categories: i) overall medications, ii) non-antiretroviral (non-ARV), iii) sedating, iv) non-sedating, as well as any vs no opioid medication and any vs no non-opioid sedating medication. Covariates included demographics, medical comorbidities, depressive and anxiety symptoms, and substance use.

RESULTS: Among 250 participants, 80% were prescribed a sedating medication, 50% were prescribed an opioid; 51% exceeded risky drinking limits. In the past month, 23% reported illicit opioid use and 9% illicit opioid sedative use; 37% reported lifetime non-fatal OD and 7% past-year non-fatal OD. The median number (interquartile range) of total medications was 10 (7, 14) and 2 (1, 3) sedating. The odds of lifetime non-fatal OD were significantly higher with each additional sedating medication (OR 1.26, 95% CI 1.08, 1.46) and any opioid medication (OR 2.31; 95% CI 1.37, 3.90), but not with each overall, non-ARV, or non-sedating medication. The odds of past year non-fatal OD were greater with each additional sedating medication (OR 1.18; 95% CI 1.00, 1.39, p=0.049), each additional non-ARV medication (OR 1.07; 95% CI 1.00, 1.15, p=0.048), and non-significantly for any opioid medication (OR 2.23; 95% CI 0.93, 5.35).

CONCLUSIONS: In this sample of PLWH with substance dependence and/or injection drug use, number of sedating medications and any opioid were associated with non-fatal overdose; sedating medications were prescribed to the majority of patients. Polypharmacy among PLWH and substance dependence warrants further research to determine whether reducing sedating medications, including opioids, lowers overdose risk.

Kim TW, Walley AY, Ventura AS, Patts GJ, Heeren TC, Lerner GB, Mauricio N, Saitz R. **Polypharmacy and risk of falls and fractures for patients with HIV infection and substance dependence.** *AIDS Care.* 2018;30:150-159.
METHODS: We identified the number of medications by electronic medical record review in the following categories: (i) systemically active, (ii) non-antiretroviral (non-ARV), (iii) sedating, (iv) non-sedating as well as any opioid medication and any non-opioid sedating medication. Outcomes were self-reported (1) fall/accident requiring medical attention and (2) fracture in the previous year. Separate logistic regression models were fitted for medications in each category and each outcome.
RESULTS: Among 250 participants, the odds of a fall requiring medical attention were higher with each additional medication overall (odds ratio [OR] 1.12, 95% Confidence Interval [CI] = 1.05, 1.18), each additional non-ARV medication (OR 1.13, 95%CI = 1.06, 1.20), each additional sedating medication (OR 1.36, 95%CI = 1.14, 1.62), and a non-opioid sedating medication (OR 2.89, 95%CI = 1.06, 7.85) but not with an additional non-sedating medication or opioid medication. In receiver operating characteristic (ROC) curve analyses, optimal cutoffs for predicting falls were: ≥8 overall and ≥2 sedating medications. Odds ratios for fracture in the previous year were OR 1.05, 95%CI = 0.97, 1.13 for each additional medication overall and OR 1.11, 95%CI = 0.89, 1.38 for each additional sedating medication.
CONCLUSIONS: In PLWH and substance dependence or ever IDU, a higher number of medications was associated with greater odds of having a fall requiring medical attention. The association appeared to be driven largely by sedating medications. Future studies should determine if reducing such polypharmacy, particularly sedating medications, lowers the risk of falls.

Lasser KE, Lunze K, Cheng DM, Blokhina E, Walley AY, Tindle HA, Quinn E, Gnatienko N, Krupitsky E, Samet JH. **Depression and smoking characteristics among HIV-positive smokers in Russia: A cross-sectional study.** *PLos One.* 2018 6;13(2). PMCID: PMC5800551
METHODS: We performed a cross-sectional secondary data analysis of a cohort of HIV-positive regular smokers with a history of substance use disorders recruited in St. Petersburg, Russia in 2012-2015. The primary outcome was heavy smoking, defined as smoking > 20 cigarettes per day. Nicotine dependence (moderate-very high) was a secondary outcome. The main independent variable was a high level of depressive symptoms in the past 7 days (defined as CES-D > = 24). We used multivariable logistic regression to examine associations between depressive symptoms and the outcomes, controlling for age, sex, education, income, running out of money for housing/food, injection drug use, and alcohol use measured by the AUDIT.
RESULTS: Among 309 regular smokers, 79 participants (25.6%) had high levels of depressive symptoms, and 65 participants (21.0%) were heavy smokers. High levels of depressive symptoms were not significantly associated with heavy smoking (adjusted odds ratio [aOR] 1.50, 95% CI 0.78-2.89) or with moderate-very high levels of nicotine dependence (aOR 1.35, 95% CI 0.75-2.41).
CONCLUSIONS: This study did not detect an association between depressive symptoms and smoking outcomes among HIV-positive regular smokers in Russia.

Lorkiewicz SA, Ventura AS, Heeren TC, Winter MR, Walley AY, Sullivan M, Samet JH, Saitz R**. Lifetime marijuana and alcohol use, and cognitive dysfunction in people with human immunodeficiency virus infection.** *Subst Abus*. 2017;23:1-8.
METHODS: Some 215 HIV-infected adults with Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV) substance dependence or ever injection drug use were studied. In adjusted cross-sectional regression analyses associations were assessed between current marijuana use, current heavy alcohol use, lifetime marijuana use, lifetime alcohol use, duration of heavy alcohol use (the independent variables), and 3 measures of cognitive dysfunction (dependent variables): both the (i) memory and (ii) attention domains from the Montreal Cognitive Assessment (MoCA) and the (iii) 4-item cognitive function scale (CF4) from the Medical Outcomes Study HIV Health Survey (MOS-HIV). Analyses were adjusted for demographics, primary language, depressive symptoms, anxiety, comorbidities, antiretroviral therapy, hepatitis C virus (ever), duration of HIV infection (years), HIV-viral load (log copies/mL), CD4 cell count, lifetime and recent cocaine use, and recent illicit and prescribed opioid use**.**
RESULTS: Current marijuana use was significantly and negatively associated with the MOS-HIV CF4 score (adjusted mean difference = -0.40, P = .01). Current marijuana use was not significantly associated with either MoCA score. Lifetime marijuana use and current heavy and lifetime alcohol use and duration of heavy alcohol use were not associated with any measure of cognitive dysfunction.
CONCLUSION: Current marijuana use was associated with one measure of cognitive dysfunction, but there was not a consistent pattern of association with lifetime marijuana use or alcohol use and measures of cognitive dysfunction. Understanding the mechanism by which marijuana, with and without alcohol, are associated with worse cognition warrants larger, longer studies with more precise and diverse measurements of cognitive function.

Lunze K, Lioznov D, Cheng DM, Nikitin RV, Coleman SM, Bridden C, Blokhina E, Krupitsky E, Samet JH. **HIV stigma and unhealthy alcohol use among people living with HIV in Russia.** *AIDS Behav*. 2017;21(9):2609-2617. PMCID: PMC5709173.
Unhealthy alcohol use, highly prevalent in the Russian Federation (Russia), is associated with HIV risk behaviors among people living with HIV (PLWH). HIV stigma contributes to the HIV risk environment in Russia. To examine HIV stigma among Russian PLWH and to explore its association with unhealthy alcohol use, we conducted a longitudinal analysis of 700 PLWH in St. Petersburg, Russia. We assessed the association between alcohol dependence and HIV stigma measured at baseline and 12 months follow-up. Participants with alcohol dependence (n = 446) reported significantly higher HIV stigma scores over time than those without dependence (n = 254) (adjusted mean difference 0.60, 95% CI 0.03-1.17; p = 0.04). In secondary analyses, we examined recent risky alcohol use and did not detect an association with HIV stigma. Alcohol dependence is associated with high HIV stigma among Russian PLWH but the nature of the association is conjectural. HIV prevention efforts in Russia that address alcohol use disorders hold potential to mitigate HIV-related stigma and its possible adverse effects among PLWH.

Muyindike WR, Lloyd-Travaglini C, Fatch R, Emenyonu NI, Adong J, Ngabirano C, Cheng DM, Winter MR, Samet JH, Hahn JA. **Phosphatidylethanol confirmed alcohol use among ART-naïve HIV-infected persons who denied consumption in rural Uganda.** *AIDS Care.* 2017;29(11):1442-1447. PMCID: PMC5554736.
Under-reporting of alcohol use by HIV-infected patients could adversely impact clinical care. This study examined factors associated with under-reporting of alcohol consumption by patients who denied alcohol use in clinical and research settings using an alcohol biomarker. We enrolled ART-naïve, HIV-infected adults at Mbarara Hospital HIV clinic in Uganda. We conducted baseline interviews on alcohol use, demographics, Spirituality and Religiosity Index (SRI), health and functional status; and tested for breath alcohol content and collected blood for phosphatidylethanol (PEth), a sensitive and specific biomarker of alcohol use. We determined PEth status among participants who denied alcohol consumption to clinic counselors (Group 1, n = 104), and those who denied alcohol use on their research interview (Group 2, n = 198). A positive PEth was defined as ≥8 ng/ml. Multiple logistic regression models were used to examine whether testing PEth-positive varied by demographics, literacy, spirituality, socially desirable reporting and physical health status. Results showed that, among the 104 participants in Group 1, 28.8% were PEth-positive. The odds of being PEth-positive were higher for those reporting prior unhealthy drinking (adjusted odds ratio (AOR): 4.7, 95% confidence interval (CI): 1.8, 12.5). No other factors were statistically significant. Among the 198 participants in Group 2, 13.1% were PEth-positive. The odds of being PEth-positive were higher for those reporting past unhealthy drinking (AOR: 4.6, 95% CI: 1.8, 12.2), the Catholics (AOR: 3.8, 95% CI: 1.3, 11.0) compared to Protestants and lower for the literate participants (AOR: 0.3, 95% CI: 0.1, 0.8). We concluded that under-reporting of alcohol use to HIV clinic staff was substantial, but it was lower in a research setting that conducted testing for breath alcohol and PEth. A report of past unhealthy drinking may highlight current alcohol use among deniers. Strategies to improve alcohol self-report are needed within HIV care settings in Uganda.

Nolan S, Walley AY, Heeren TC, Patts GJ, Ventura AS, Sullivan M, Samet JH, Saitz R. **HIV-infected individuals who use alcohol and drugs and virologic suppression.** *AIDS Care*. 2017;29(9):1129-1136. PMCID: PMC5543330.
Participants were adult PLWH taking ART with either past 12-month DSM-IV substance dependence or past 30-day alcohol or illicit drug use. Substance use factors included number of DSM-IV alcohol or drug dependence criteria and past 30-day specific substance use. Associations with HIV viral load (HVL) (<200 vs. ≥200 copies/mL) were tested using logistic regression models. Multivariable analyses adjusted for age, sex, homelessness and anxiety or depression. Participants (n = 202) were median age 50 years, 66% male, 51% African American and 75% self-reported ≥90% past 30-day ART adherence. Though HVL suppression (HVL <200 copies/mL) was achieved in 78% (158/202), past 30-day substance use was common among this group: 77% cigarette use; 51% heavy alcohol use; 50% marijuana; 27% cocaine; 16% heroin; and 15% illicit prescription opioid use. After adjusting for covariates, specific substance use was not associated with a detectable HVL, however number of past 12-month DSM-IV drug dependence criteria was (adjusted odds ratio = 1.23 for each additional criterion, 95% CI: 1.04-1.46). Three-quarters of a substance-using cohort of PLWH receiving ART had virologic control and ≥90% ART adherence. Substance dependence criteria (particularly drug dependence), not specifically substance use, were associated with lack of virologic control. Optimal HIV outcomes can be achieved by individuals who use alcohol or drugs and addressing symptoms of substance dependence may improve HIV-related outcomes.

Patts GJ, Cheng DM, Emenyonu N, Bridden C, Gnatienko N, Lloyd-Travaglini CA, Ngabirano C, Yaroslavtseva T, Muyindike WR, Weiser SD, Krupitsky EM, Hahn JA, Samet JH. **Alcohol Use and Food Insecurity Among People Living with HIV in Mbarara, Uganda and St. Petersburg, Russia.** *AIDS Behav.* 2017;21(3):724-733. PMCID: PMC5303539

Food insecurity (FI) is a documented problem associated with adverse health outcomes among HIV-infected populations. Little is known about the relationship between alcohol use and FI. We assessed whether heavy alcohol use was associated with FI among HIV-infected, antiretroviral therapy (ART)-naïve cohorts in Uganda and Russia. Inverse probability of treatment weighted logistic regression models were used to evaluate the association using cross-sectional baseline data. FI was experienced by half of the Russia cohort (52 %) and by a large majority of the Uganda cohort (84 %). We did not detect an association between heavy alcohol use and FI in either cohort (Russia: AOR = 0.80, 95 % CI 0.46, 1.40; Uganda: AOR = 1.00, 95 % CI 0.57, 1.74) or based on the overall combined estimate (AOR = 0.89, 95 % CI 0.60, 1.33). Future studies should explore the determinants of FI in HIV-infected populations to inform strategies for its mitigation.

Ventura AS, Winter MR, Heeren TC, Sullivan M, Walley AY, Holick MF, Patts GJ, Meli SM, Samet JH, Saitz R. **Lifetime and recent alcohol use and bone mineral density in adults with HIV infection and substance dependence.** *Medicine: HIV/AIDS*. 2017;96(17):e6759. PMCID: PMC5413268.

We studied adult PLWH with substance dependence. We measured lifetime alcohol use (kg) and recent (i.e., past 30-day) alcohol use (categorized as: abstinent, low risk, or high risk). In adjusted multivariable regression analyses, we tested associations between lifetime and recent alcohol use and (i) mean BMD (g/cm) at the femoral neck, total hip, and lumbar spine and (ii) low BMD diagnosis (i.e., osteopenia or osteoporosis). We also examined associations between 2 measures of past alcohol use (i.e., total consumption [kg] and drinking intensity [kg/year]) and BMD outcome measures during 3 periods of the HIV care continuum: (i) period before first positive HIV test, (ii) period from first positive HIV test to antiretroviral therapy (ART) initiation, and (iii) period following ART initiation. We found no significant associations between lifetime alcohol use and mean femoral neck (β -0.000, P = .62), total hip (β -0.000, P = .83) or lumbar spine (β 0.001, P = .65) BMD (g/cm), or low BMD diagnosis (adjusted odds ratio [aOR] = 0.98, 95% Confidence Interval [CI]: 0.95-1.01). There was no significant correlation between past 30-day alcohol use and mean BMD (g/cm). Past 30-day alcohol use was associated with low BMD diagnosis (P = .04); compared to abstainers, the aOR for high risk alcohol use was 1.94 (95% CI: 0.91-4.12), the aOR for low risk alcohol use was 4.32 (95% CI: 1.30-14.33). Drinking intensity (kg/year) between first positive HIV test and ART initiation was associated with lower mean BMD (g/cm) at the femoral neck (β -0.006, P = .04) and total hip (β -0.007, P = .02) and increased odds of low BMD (aOR = 1.18, 95% CI = 1.03-1.36).In this sample of PLWH, we detected no association between lifetime alcohol use and BMD. However, recent drinking was associated with low BMD diagnosis, as was drinking intensity between first positive HIV test and ART initiation. Longitudinal studies should confirm these associations.

Walley AY, Cheng DM, Quinn EK, Blokhina E, Gnatienko N, Chaisson CE, Krupitsky E, Coffin PO, Samet JH. **Fatal and non-fatal overdose after narcology hospital discharge among Russians living with HIV/AIDS who inject drugs.** *Int J Drug Policy*. 2017;39:114-20. PMCID: PMC5191979.

DESIGN: Prospective cohort study of data collected at baseline, 3 and 6 months from HIV-infected patients with a history of injection drug use who were not treated with anti-retroviral therapy. Participants were recruited between 2012-2014 from a narcology (addiction) hospital in St. Petersburg, Russia.

METHODS: Fatal overdose was determined based on contact reports to study staff in the year after discharge. Non-fatal overdose was self-reported at the 3- and 6-month assessments. The main independent variable for HIV severity was CD4 cell count at the baseline interview (<200cells/mm3≥200cells/mm3). Secondary analyses assessed time since HIV diagnosis and treated with anti-retroviral treatment (ART) prior to enrolment as independent variables. We fit Cox proportional hazards models to assess whether HIV severity is associated with either fatal or non-fatal overdose.

RESULTS: Among 349 narcology patients, 18 participants died from overdose within one year after discharge (8.7%, 95% CI 3.4-14.2 by Kaplan-Meier); an estimated 51% [95% CI 34-68%] reported at least one non-fatal overdose within 6 months of discharge. HIV severity, time since HIV diagnosis and ever ART were not significantly associated with either fatal or non-fatal overdose events.

CONCLUSION: Fatal and nonfatal overdose are common among Russians living with HIV/AIDS who inject drugs after narcology hospital discharge. Overdose prevention interventions are urgently warranted among Russian narcology patients with HIV infection.

Woolf-King SE, Fatch R, Cheng DM, Muyindike W, Ngabirano C, Kekibiina A, Emenyonu N, Hahn JA. **Alcohol use and unprotected sex among HIV-Infected Ugandan adults: Findings from an event-level study.** *Arch Sex Behav.* 2018. [Epub ahead of print].

While alcohol is a known risk factor for HIV infection in sub-Saharan Africa (SSA), studies designed to investigate the temporal relationship between alcohol use and unprotected sex are lacking. The purpose of this study was to determine whether alcohol used at the time of a sexual event is associated with unprotected sex at that same event. Data for this study were collected as part of two longitudinal studies of HIV-infected Ugandan adults. A structured questionnaire was administered at regularly scheduled cohort study visits in order to assess the circumstances (e.g., alcohol use, partner type) of the most recent sexual event (MRSE). Generalized estimating equation logistic regression models were used to examine the association between alcohol use (by the participant, the sexual partner, or both the participant and the partner) and the odds of unprotected sex at the sexual event while controlling for participant gender, age, months since HIV diagnosis, unhealthy alcohol use in the prior 3 months, partner type, and HIV status of partner. A total of 627 sexually active participants (57% women) reported 1817 sexual events. Of these events, 19% involved alcohol use and 53% were unprotected. Alcohol use by one's sexual partner (aOR 1.70; 95% CI 1.14, 2.54) or by both partners (aOR 1.78; 95% CI 1.07, 2.98) during the MRSE significantly increased the odds of unprotected sex at that same event. These results add to the growing event-level literature in SSA and support a temporal association between alcohol used prior to a sexual event and subsequent unprotected sex.

NOTES

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