cira
Center for Interdisciplinary Research on AIDS
at Yale University

CIRA Talk: "Research on the Intersection of HIV and Substance Use"

Join this virtual CIRA Talk for research presentations followed by a discussion and a Q&A session with seminar audience.

Michael Copenhaver, PhD
Department of Allied Health Sciences
University of Connecticut
Speaker

Michael S. Lyons, MD, MPH
Department of Emergency Medicine
Ohio State University
Speaker

Moderator: E. Jennifer Edelman, MD, MHS, Yale School of Medicine

Tuesday, March 7, 2023
11:00 am – 12:00 pm

Register via Zoom:
https://bit.ly/3XUrqZ1

Contact dini.harsono@yale.edu for questions about this event.

Organized by the Center for Interdisciplinary Research on AIDS (CIRA).
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CIRA Talk: *"Research on the Intersection of HIV and Substance Use"*

AGENDA

11:00 am-11:05 am	Welcome and introduction
11:05 am-11:20 am	"A Multiphase Optimization Strategy (MOST) to Optimize HIV Prevention Targeting People on Medication for Opioid Use" - Michael Copenhaver
11:20 am-11:35 am	"HIV and Substance Use Disorder Intervention in the Emergency Department Setting: Topic Overview and Selected Examples" - Michael S. Lyons
11:35 am-11:55 am	Discussion and Q&A with audience facilitated by E. Jennifer Edelman
11:55 am-12:00 pm	Wrap-up and closing

MODERATOR

E. Jennifer Edelman, MD, MHS

Associate Professor of Medicine

Yale School of Medicine, Yale School of Public Health, CIRA

E. Jennifer Edelman, MD, MHS is an Associate Professor of Medicine and Public Health. Certified as an internist, HIV specialist and in Addiction Medicine, she serves as an HIV provider and the physician consultant in the Addiction Medicine Treatment Program at the Yale-New Haven Hospital Nathan Smith HIV Clinic. Her research focuses on optimizing HIV prevention and treatment in the context of substance use, including opioid, alcohol and tobacco use. To this end and applying a range of methodologies, she leads and collaborates on NIH-funded projects to evaluate novel and implement evidence-based addiction treatment in medical settings, especially HIV treatment settings. In addition, her work has focused on understanding harms associated with opioid use among people with HIV. She collaborates with community-based and public health partners to promote HIV prevention, including use of pre-exposure prophylaxis (PrEP). She mentors trainees, including post-doctoral fellows and public health students, and is Associate Director of the Research on Addiction Medicine Scholars (RAMS) Program and co-Director of Education at the Yale Center for Clinical Investigation. She regularly serves on NIH grant review committees and is Associate Editor of Addiction Science and Clinical Practice.

PRESENTATION 1

Michael Copenhaver, PhD

Professor of Health Promotion and Clinical Psychologist

Department of Allied Health Sciences

University of Connecticut

Dr. Copenhaver is a Professor & Licensed Clinical Psychologist in the Department of Allied Health Sciences at the University of Connecticut. He is also a Principal Investigator at the Institute for Collaboration on Health, Intervention, and Policy (InCHIP) with an active NIH-funded program of addiction-related research. Since 2002, Dr. Copenhaver has been continuously funded by NIH grants involving the development and implementation of evidence-based HIV prevention strategies. His work emphasizes tailoring behavioral interventions for optimal use in real world community-based settings. His most recent trials target opioid-dependent adults using a bio-behavioral approach that integrates pre-exposure prophylaxis (PrEP) and an evidence-based behavioral intervention designed to accommodate high-risk opioid-dependent persons with cognitive dysfunction. He teaches research-focused courses at the graduate level and actively mentors a range of students and faculty.

"A Multiphase Optimization Strategy (MOST) to Optimize HIV Prevention Targeting People on Medication for Opioid Use"

Framed by the multiphase optimization strategy (MOST), and building on our prior work in this area, we are conducting a 5-year optimization trial among people who inject drugs (PWID) and newly enrolled on medication for opioid use disorder (MOUD). The goal is to assess the performance of four intervention components (Attention, Executive Functioning, Memory, and Information Processing) aimed at enhancing the ability of PWID on MOUD to process and utilize evidence-based HIV prevention content, leading to improvements in Pre-Exposure Prophylaxis (PrEP) adherence and HIV risk reduction. Existing evidence-based interventions require participants to have at least moderate levels of cognitive functioning but do not acknowledge or accommodate participants with cognitive dysfunction. This is a crucial weakness as cognitive dysfunction is a common feature among PWID, and one that can directly impede their ability to process and utilize intervention content. In fact, our recent studies comparing objective and self-report cognitive assessments (e.g., NIH toolbox) show that ~67% of PWID experience substantial levels of cognitive dysfunction across tasks involving attention, executive function, memory, and information processing that, in turn, disrupt the expected intervention outcomes (e.g., medication adherence, HIV risk reduction). Our recent work also suggests that PWID newly enrolled on MOUD would benefit from an intervention approach that incorporates 'compensatory strategies' to accommodate their cognitive dysfunction. A number of well-established compensatory strategies have been successfully applied to other patient populations (e.g., traumatic brain injury, ADHD, Alzheimer's/dementia) and have been identified by our team as promising intervention components that could enhance evidence-based PrEP-focused primary HIV prevention approaches. To date, however, no studies have examined the potential impact and cost of incorporating such intervention components, either individually or in various combinations, in terms of enhancing PWID's ability to process and utilize HIV prevention content. This innovative trial is the first to use the MOST framework to optimize an evidence-based HIV prevention approach by compensating for cognitive features that are characteristic of PWID on MOUD, and maximizing PrEP adherence outcomes within real world budget constraints.

PRESENTATION 2

Michael S. Lyons, MD, MPH

Professor of Emergency Medicine

Department of Emergency Medicine

Ohio State University

Michael S. Lyons, MD, MPH is a practicing emergency physician, Professor with Tenure, and Director of Population Health and Health Services at the Ohio State University Department of Emergency Medicine. His research focuses on the integration of emergency medicine with public health and other healthcare services, with particular emphasis on primary and secondary prevention of epidemic infectious disease and substance use disorders. He serves as co-investigator for the Ohio Valley Node of the NIDA Clinical Trials Network and routinely collaborates in other multi-center and multi-disciplinary research groups. By working in the Midwest and in multiple different types of emergency departments, Dr. Lyons has been able to facilitate important geographic diversity in development of the national evidence-base. He was honored by the Society of Academic Emergency Medicine as the second recipient of their annual Public Health Leadership Award in 2021.

"HIV and Substance Use Disorder Intervention in the Emergency Department Setting: Topic Overview and Selected Examples"

Emergency Departments (EDs) in the United States provide over 130 million patient visits annually and serve as a primary healthcare safety net for individuals who cannot or choose not to access services elsewhere. Thus, EDs have ready access to all segments of the population, including vulnerable and difficult to reach populations, in a setting where medical intervention is possible and without the expense of resource intensive community outreach. This opportunity for earlier health intervention must be balanced with multiple cultural, operational, and resource barriers inherent to the ED setting. Key among these is the necessity of emergency medicine's primary mission to stabilize acute medical illness and traumatic injury, without mandate, training, or infrastructure to address health promotion, disease prevention, or longitudinal care coordination. EDs are also routinely overwhelmed and assume that addition of any new activity must detract from existing services absent additional resource expansion. Finally, there is no conceptual model to guide which health issues, among the countless possible concerns, should be prioritized. Despite these barriers, emergency medicine has steadily expanded its leadership role in development and implementation of screening and linkage to care and other adjunct interventions over the past twenty years. This presentation will provide overview and selected examples of science in the field to date, ongoing controversies, and important future directions.