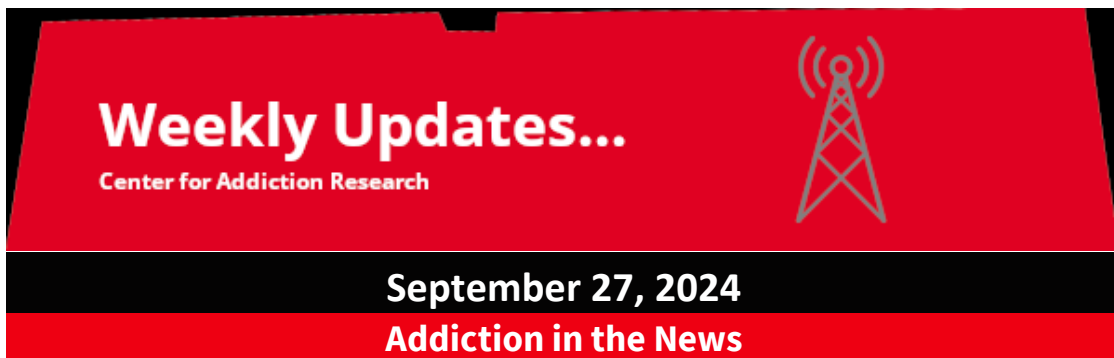


Welcome to the weekly newsletter from the Center for Addiction Research! Each newsletter includes highlights from addiction in the news topics, active funding opportunities offered by NIDA/NIAAA, and information about any new publications from CAR members. Please email Jen Rowe ([roweji@ucmail.uc.edu](mailto:roweji@ucmail.uc.edu)) to change your communication preferences. Thank you.

Thank you for your interest in the Center for Addiction Research - our mission is to accelerate scientific progress in the prevention and treatment of substance use disorders and their consequences by fostering research collaborations across: 1) UC departments, colleges, and centers including Cincinnati Children's Hospital Medical Center; 2) Local, regional, and state community and governmental partners; and 3) Other academic institutions and industry."



### **UC/ Regional News**

#### **Overdose Alert from the Hamilton County Addiction Response Coalition**

Attached you will find an Overdose Alert from the Hamilton County Addiction Response Coalition regarding a recent spike in overdose activity in our community since September 20, 2024. This alert, issued collaboratively by local public health partners and the Hamilton County Addiction Response Coalition, aims to raise awareness of the heightened risks associated with overdose and to provide essential information to mitigate harm. Key points outlined in the attached document include:

- **Increased Overdose Activity:** Statistics indicating a rise in overdose-related deaths.
- **Narcan & Fentanyl Test Strip Accessibility:** Information on the availability of Narcan, safe injection supplies, and fentanyl testing strips.
- **Emergency Response:** Emphasizing the importance of calling 911 in overdose situations, even after administering Narcan.
- **Community Support:** Encouraging those in need to seek treatment, with available resources and helpline contact information provided.

Your attention to this matter is crucial for ensuring the well-being of our community members. We kindly request that you disseminate this information to your networks, adjust response capacities, and implement necessary protective measures promptly.

For any inquiries or additional information, please contact Hamilton County's Director for the Office of Media and Engagement, Bridget Doherty, at [Bridget.Doherty@hamilton-co.org](mailto:Bridget.Doherty@hamilton-co.org).

### **Recovery-Friendly-Hamilton-County Workplaces Panel**

Date/Time: Monday, October 7, 10:00 AM – 1:00 PM in person

Location: CET, 1223 Central Parkway, Cincinnati, OH 45214

Over 60% of Americans ages 18 and older with a substance use disorder (SUD) are part of the workforce (SAMHSA, 2022). Substance use disorder costs U.S. companies an estimated \$442 billion a year in lost productivity, health care costs, and absenteeism. The human and economic toll of SUD is far too great to ignore. The burgeoning Recovery Friendly Workplace (RFW) movement represents a paradigm shift in how employers manage and conceive of substance use disorder among their workforce. Being an RFW is the right thing to do, and it's good for business! Join Recovery Friendly Hamilton County for the filming of our expert panel session to learn how you can begin fostering a recovery friendly work environment.

Featured panelists include:

Jennie H. Hahn, MD/Addiction Psychiatry Specialist with UC Health

Shonda Sullivan, SPHR, MBA/Founder of Advanced HR Services

Matthew A. Rich, ESQ/Employment Lawyer with Katz Teller

Luis Villagrana, CDCA, CEI/Substance Abuse Counselor with The Bluffs

### **Popular diabetes and weight-loss drug associated with lower opioid overdose risk**

Since being deemed a public health emergency in 2017, opioids are responsible for 72% of drug overdose deaths in the United States, according to the National Center for Drug Abuse Statistics. New research from the Case Western Reserve University School of Medicine identifies a potential new approach to address the opioid overdose epidemic—which has devastated families and communities nationally. The study, published in the journal JAMA Network Open, suggests semaglutide is linked to lower opioid overdoses in people with opioid-use disorder (OUD) and type 2 diabetes (T2D). Semaglutide, a glucagon-like peptide receptor (GLP-1R) molecule that decreases hunger and helps regulate blood sugar in...

### **'Instead of incarcerating disease, start treating disease:' Kentuckians in recovery talk solutions**

LOUISVILLE — Kentuckians in recovery say the state needs to better educate youth about addiction, digitize expungement for certain crimes and make harm reduction and community-based services more widely available to combat overdoses. About 30 people gathered at the Women's Healing Place in the West End of Louisville Wednesday as part of a "Public Health is Public Safety" tour aimed at finding solutions to the opioid crisis and raising awareness about what addiction looks like person to person. That tour has made six stops across the state this year — in

Ashland, London, Bowling Green, Hopkinsville, Lexington and, now, Louisville. John Bowman, Kentucky campaign organizer for Dream.Org, which...

### **Local efforts increase to curb surge in overdose deaths among Black Kentuckians**

While overdose deaths in the Commonwealth have declined, deaths among Black Kentuckians have increased by 5%, according to data from the latest Kentucky Overdose Fatality Report. Organizations across the state are working to stem overdose deaths among residents of color. In Bowling Green, the nonprofit HOTEL INC. is focused on harm reduction. Rebecca Troxell, HOTEL INC. lead navigator, explains the group's street teams go into homeless encampments and provide Narcan, fentanyl strips, hygiene packets and medical care. "We have volunteer doctors, EMTs and nurses who go out with us, so we're able to provide medical care on site. We're able to provide educational components with that..."

### **National News**

#### **Mobile-based tool to address heavy drinking in young adults passes pilot phase**

Young adults who drink heavily reported that a specific intervention that provides personalized feedback on daily drinking would be beneficial for people who want to reduce their drinking and would encourage self-reflection among those who are not yet ready to change their drinking habits. The young adults were participants in a pilot study of a first-of-its-kind technology aimed at reducing heavy drinking in young adults through self-selected goal setting and daily personalized feedback based on self-reported behaviors related to drinking. The study is published in Alcohol: Clinical and Experimental Research. This...

#### **Study shows alcohol-dependent men and women have different biochemistries, so may need different treatments**

A new study reveals hormonal and biochemical factors that affect alcohol dependence (also known as Alcohol Use Disorder), suggesting that men and women with alcohol problems may benefit from different treatments. Scientists have known that men and women have different risks related to alcohol misuse and related problems and that alcohol treatments may need to be tailored differently to men and women. However, the biological mechanisms underlying those differences are not well understood. "This is the first large study to confirm that some of the variability in Alcohol Use Disorder (AUD) and related problems..."

#### **Alcohol use may co-occur with victimization in young adult relationships**

Drinking alcohol may predict experiencing physical, psychological, or sexual victimization during or shortly after alcohol use, according to a study published in Alcohol: Clinical and Experimental Research. The study, which collected real-time data from 18- to 25-year-olds in relationships, found that, often, physical and psychological victimization co-occur with alcohol use, and physical and sexual victimization occur within hours after alcohol use. For the study, 170 participants

were prompted at four random times daily to answer questions online about their alcohol use and any psychological, physical, or sexual violence...

### **Study: Referral to hepatology is lower in patients with excessive alcohol use who have mental health disorders**

People with alcohol use disorder (AUD) who are at risk of advanced liver disease are less likely to be referred for liver evaluation and care if they present primarily with alcohol-related mental health issues or a mental health diagnosis, according to a study of referral practices in Virginia's largest health system. The findings point to the possibility of widespread missed opportunities for treating three conditions that commonly co-occur: AUD, mental health disorders, and liver disease. Recent years have seen notable increases in the U.S. in alcohol-related deaths, mental health disorders, and hospital admissions relating to alcohol use...

### **Addressing alcohol misuse in post-pandemic New York City: A call for comprehensive policy reform**

A review conducted by CUNY SPH Ph.D. candidate Think Vu highlights the exacerbation of alcohol misuse in New York City due to the COVID-19 pandemic, especially among minoritized populations who were already facing disproportionate health challenges. As one of the pandemic's epicenters, the city has witnessed a troubling rise in binge drinking and excessive alcohol consumption, driven by factors such as social isolation, psychological distress, and increased alcohol availability. The pandemic's impact has intensified these issues, with many individuals turning to alcohol as a coping mechanism against the various...

### **Millions of Americans want to quit smoking. Critics say drugmakers and the FDA are failing them**

WASHINGTON — Of the roughly 15 million Americans who tried to quit smoking in 2022, 5 in 6 failed. It's a jarring statistic — and an indictment of the treatment options for an addiction that kills 480,000 people in the U.S. each year. The smoking-cessation drugs on the market don't work well for the majority of people, and they come with side effects and reputations that keep some smokers from ever trying them. Despite this, there hasn't been a new class of drug approved for the condition in nearly two decades. It's a situation that in most other areas of medicine would be unacceptable, argued Nora Volkow, the head of the National...

### **Higher doses of buprenorphine may improve treatment outcomes for people with opioid use disorder**

Adults with opioid use disorder who receive a higher daily dose of the opioid addiction treatment medication buprenorphine may have a lower risk of subsequent emergency department visits or use of inpatient services related to behavioral health (such as for mental health and substance use disorders) than adults receiving the recommended dose, according to an analysis funded by the National Institutes of Health (NIH). These findings suggest that higher

buprenorphine doses could be more effective in managing opioid use disorder, which may be particularly relevant for improving treatment for those who...

### **U.S. Will Let More People Take Methadone at Home**

The first big update to U.S. methadone regulations in 20 years is poised to expand access to the life-saving drug starting next month, but experts say the addiction treatment changes could fall flat if state governments and methadone clinics fail to act. For decades, strict rules required most methadone patients to line up at special clinics every morning to sip their daily dose of the liquid medicine while being watched. The rules, built on distrust of people in the grip of opioid addiction, were meant to prevent overdoses and diversion -- the illicit selling or sharing of methadone. The COVID-19 pandemic changed the risk calculation. To prevent...

### **Fewer than half of U.S. jails provide life-saving medications for opioid use disorder**

A new look into addiction treatment availability in the U.S. criminal justice system reveals that fewer than half (43.8%) of 1,028 jails surveyed across the nation offered any form of medication for opioid use disorder, and only 12.8% made these available to anyone with the disorder. With two-thirds of people who are incarcerated in U.S. jails experiencing a substance use disorder – in many cases, an opioid use disorder – the failure to make these medications widely available in criminal justice settings represents a significant missed opportunity to provide life-saving treatments in an environment where people in need...

### **Biden-Harris Administration Announces Historic Investment to Integrate Mental Health and Substance Use Disorder Treatment into Primary Care**

Today, the Health Resources and Services Administration (HRSA), an agency within the U.S. Department of Health and Human Services (HHS), announced \$240 million in awards to launch and expand mental health and substance use disorder services in more than 400 community health centers across the country that care for more than 10 million people. Health centers are trusted community providers and a primary source of care for individuals across the country who are uninsured, underinsured, or enrolled in Medicaid – making them well-positioned to respond to the urgent need for behavioral health services that are...

### **New guideline could enhance treatment access for opioid use disorder in community pharmacies**

Pharmacists now have more guidance for combating the opioid crisis and providing treatment to patients, thanks to new national guidelines developed at the University of Houston College of Pharmacy. The Pharmacy Access to Resources and Medication for Opioid Use Disorder Guideline, released today, addresses critical barriers in the treatment of Opioid Use Disorder across the nation's community pharmacies. The PhARM-OUd Guideline is available on the National Association of

Boards of Pharmacy website. With approximately 2.7 million individuals in the U.S. affected by OUD, the need for effective management...

### **Newborns With Opioid Withdrawal at Higher Risk of Hospital Readmission**

Infants with neonatal opioid withdrawal syndrome (NOWS) had a higher risk of hospital readmission than other newborns, a retrospective cohort study suggested. Among nearly 14 million newborns, the 90-day, all-cause readmission rate was 4.2% for those with NOWS versus 3% for those without NOWS ( $P < 0.001$ ). After risk adjustment, infants with NOWS had higher odds of being readmitted within 90 days for any cause (adjusted odds ratio [AOR] 1.18, 95% CI 1.08-1.29), according to Julie Gaither, PhD, MPH, RN, of Yale School of Medicine in New Haven, Connecticut, and colleagues. Infants with NOWS had significantly higher odds of...

### **States, hospital systems try less punitive drug testing of pregnant women and newborns**

Some states and hospital systems have updated their policies on drug testing for pregnant women and newborns, aiming to better support patients' treatment and recovery from substance use disorder and combat racial disparities in testing and reporting. Under federal law, medical professionals must notify child protective agencies when an infant has been affected by the mother's substance use, including alcohol use. However, the federal rules—which were updated in 2016 in response to the opioid epidemic—emphasize that substance use disorder on its own doesn't constitute child abuse, and require states to develop...

### **Interactive tool tracks opioid abuse and dependence state by state**

FAIR Health has released the Opioid Tracker, a free, interactive tool tracking opioid abuse and dependence state by state. A brief released simultaneously offers a user's guide to the Opioid Tracker. Available on FAIR Health's website, the Opioid Tracker includes a heat map representing the percentage of patients with opioid abuse and dependence diagnoses compared to all patients receiving medical services in 2023 for each state. Clicking on a state displays an infographic for that state. The infographic includes the top five procedure codes by utilization for opioid abuse and dependence, the top five procedure codes by...

### **Drug overdose found to be more likely in patients who leave hospital against medical advice**

People who initiate a premature or "before medically advised" (BMA) hospital discharge have a 10-fold increase in the risk of drug overdose in the following month, according to new research in Canadian Medical Association Journal. Patients leave hospital prematurely for a range of reasons, including improperly treated pain, cravings, stress that accentuates psychiatric issues, conflicts with hospital staff, and restrictions on movement or visitors. Hospital patients who initiate a BMA discharge are up to 3 times more likely to die in the following year than people who undergo routine physician-advised discharge. "Before...

### **Study reveals sources of opioid poisoning among children**

A dog's pain medication, a grandparent's pill organizer, even a discarded tissue: Rutgers Health research reveals they're all potential sources of opioid poisoning for young children. Researchers at the New Jersey Poison Control Center examined 230 cases of opioid exposure in children ages 1 month to 6 years over a five-year period. Their findings in the *Journal of Pediatrics* show how children access these dangerous drugs. "We're seeing this in our clinical practice," said Diane Calello, the medical director of the poison control center and senior author of the study. "I've seen too many kids in my practice at University Hospital who..."

### **Risk of buprenorphine triggering sudden opioid withdrawal is low, researchers find**

Buprenorphine, an evidence-based treatment for opioid use disorder, is currently under prescribed because of concerns that it can cause "precipitated withdrawal," in which the first dose causes sudden, intense pain and anxiety that resolves within a few hours. A new review of the best available evidence has found that the rate of buprenorphine-precipitated withdrawal in adults with opioid use disorder is low and should not be a barrier to use. The review is published in the journal *Addiction*. Lead author Dr. Caroline Gregory, of the University of Ottawa, explains, "There is a lot of speculation that buprenorphine..."

### **Opinion: British Columbia's plan for involuntary addiction treatment is a step back in response to the overdose crisis**

British Columbia Premier David Eby recently announced that his government plans to open highly secure facilities where people struggling with mental health, serious brain injuries and severe addictions will receive involuntary care. The B.C. government describes the move as a new phase of its response to the addiction crisis that includes a promise to change the law to "ensure that people, including youth, can and should receive care when they are unable to seek it themselves." Unregulated drugs kill an average of six British Columbians every day. Since a public health emergency was declared in 2016, more than 15,000 people in...

### **Cognitive deficits from meth and PCP use are generated by a common neurotransmitter switch, neurobiologists show**

The effects of sustained drug abuse can manifest in many ways. Loss of memory and reduced cognitive functions are some of the effects that can persist for years. Neurobiologists at the University of California San Diego have now identified a mechanism in the brain that generates drug-induced cognitive impairments. Scientists in the Department of Neurobiology, School of Biological Sciences, investigated how methamphetamine and phencyclidine (PCP or "angel dust"), which take effect by activating different targets in the brain, induce a similar reduction in cognitive ability. How could the same difficulties...

## **Pink cocaine: The party drug cocktail putting a growing number of lives at risk**

A synthetic drug cocktail known as pink cocaine, has rapidly become a major concern in Spain, the UK and beyond. Earlier this month, Spanish authorities carried out their largest ever synthetic drug bust, seizing a large quantity of pink cocaine alongside more than a million ecstasy pills. The operation targeted drug networks across Ibiza and Malaga. This dangerous substance has been linked to a growing number of drug-related deaths. The unpredictable composition and rising popularity of pink cocaine have sparked calls from European drug harm reduction organizations for urgent action to address the risks...

## **Funding Opportunities**



## **GRANTS & FUNDING**

NIH Central Resource for Grants and Funding Information

[PAR-24-299](#)

[Behavioral and Integrative Treatment Development Program \(R01 Clinical Trial Optional\)](#)

[PAR-24-300](#)

[Behavioral and Integrative Treatment Development Program \(R34 Clinical Trial Optional\)](#)

[PAR-24-298](#)

[Mechanism for Time-Sensitive Substance Use Research \(R21 Clinical Trial Optional\)](#)

[PAR-25-051](#)

[Blueprint Neurotherapeutics Network \(BPN\): Small Molecule Drug Discovery and Development of Disorders of the Nervous System \(UG3/UH3 Clinical Trial Optional\)](#)

[NOT-DA-24-042](#)

[Notice of Question and Answer "Office Hours" with NIH Staff for the Translating Socioenvironmental Influences on Neurocognitive Development and Addiction Risk \(TranSINDA\) Funding Opportunities RFA-DA-25-037, RFA-DA-25-038](#)

[NOT-AA-24-009](#)

[Notice of Participation of the NIAAA in NOSI: Analysis of Existing Linked Datasets to Understand the Relationship between Housing Program Participation and Risk for Chronic Diseases and Other Conditions \(R01-Clinical Trial Not Allowed\).](#)

[NOT-AA-24-010](#)

[Notice of Participation of the NIAAA in RFA-HD-25-003 "Pediatric HIV/AIDS Cohort Study \(PHACS\) \(U19 Clinical Trial Not Allowed\)"](#)

### **UC Foundation Funding Opportunity**

Please contact Carol Russell at (513) 556-6169 or [carol.russell@uc.edu](mailto:carol.russell@uc.edu) **at least 5 business days before the deadline**, prior to applying to the below opportunity, to ensure coordination and to facilitate assistance with approaches.

### **PCORI Funds Clinical Effectiveness Research Designed to Empower Patients**

**Letters of Intent Deadline: October 1, 2024**

The Patient-Centered Outcomes Research Institute (PCORI) invites applications for high-quality patient-centered comparative clinical effectiveness research (CER) projects focused on interventions that improve patient-centered outcomes in U.S. children and youth. The funder will award projects with direct costs up to \$12 million. PCORI is particularly interested in submissions that address prevention and treatment of obesity, addressing social determinants of health/social needs to improve health outcomes, and targeted prevention of substance misuse through identified risk factors. To increase evidence that addresses meaningful decisional dilemmas faced by patients, families, clinicians, and other health and healthcare community members, this opportunity aims to fund CER studies that compare interventions across the care continuum to improve patient-centered outcomes in children and youth. Applications may propose comparative effectiveness studies of prevention, screening, diagnostic, treatment, and management approaches, and pharmacologic, non-pharmacologic, and/or combination therapies, as appropriate. Studies may also focus on improving system-level strategies delivered in hospitals, clinics, or community settings to improve patient-centered outcomes. Applicants may request coverage of patient care costs including medical products, procedures, and care services for potential funding by PCORI. These costs are included as part of the overall direct cost maximum. The funding announcement's standard maximum project period is 60 months. Applications for the conduct of research and management of funding may be submitted by appropriate academic research, private sector research, or study-conducting entities. This may include nonprofit and for-profit research organizations, colleges and universities, and agencies and instrumentalities of the federal government. PCORI, an independent, nonprofit research funding organization, works to empower patients and others with actionable information about their health and healthcare choices.

## **CAR Member New Publications**

### **Effect of fentanyl on HIV expression in peripheral blood mononuclear cells**

Janani Madhuravasal Krishnan, Krishna M. Roskin, Heidi L. Meeds, Jason T. Blackard

*Frontiers in Microbiology*

DOI: <https://doi.org/10.3389/fmicb.2024.1463441>

## ABSTRACT

**Introduction:** Illicit drug use, particularly the synthetic opioid fentanyl, presents a significant global health challenge. Previous studies have shown that fentanyl enhances viral replication; yet, the mechanisms by which it affects HIV pathogenesis remain unclear. This study investigated the impact of fentanyl on HIV replication in CD4+ T lymphocytes.

**Methods:** CD4+ T lymphocytes from HIV-negative donors were activated, infected with HIVNL4-3, and treated with fentanyl. HIV proviral DNA and p24 antigen expression were quantified using real-time PCR and ELISA, respectively. Single-cell RNA libraries were analyzed to identify differentially expressed genes.

**Results:** Results indicated that fentanyl treatment increased HIV p24 expression and proviral DNA levels, and naltrexone mitigated these effects. Single-cell RNAseq analysis identified significantly altered gene expression in CD4+ T lymphocytes.

**Discussion:** The results of our findings suggest that fentanyl promotes HIV replication ex vivo, emphasizing the need for a deeper understanding of opioid-virus interactions to develop better treatment strategies for individuals with HIV and opioid use disorder.

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