

UC CAR Weekly Newsletter 8.16.2024

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/NIAAAA, 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**

#### **Implementation of Mobile Medical Units for the Delivery of Addiction Services in Ohio through the HEALing Communities Study**

Date: August 21, 2024, 12 PM EST via Zoom

Mobile medical units provide an innovative and flexible approach to delivering essential healthcare services directly to communities in need. They can play a vital role in offering accessible and immediate treatment, medical care, and harm reduction services to support individuals struggling with substance use disorders, particularly in underserved areas where traditional healthcare facilities may be scarce or difficult to access. Based on the experiences of the HEALing Communities Study, this webinar will give practical insight from experienced public health professionals on how to assess communities' needs for a mobile medical unit, what features to build into these units, and best practices for partnering with local organizations to host units and reach community members.

This webinar was sponsored by HEAL Connections, an initiative funded by the NIH HEAL Initiative and in partnership with the HEALing Communities Study and Addiction Policy Forum. **(Dr. T. John Winhusen is the Ohio co-Principal Investigator of the HEALing Communities Study and the CAR Director)**

#### **Opioid overdose deaths drop in Trumbull, Mahoning counties**

Fatal drug overdose deaths are trending downward in the Mahoning Valley in 2024. For the first seven months of the year, Trumbull County has 30 confirmed opioid overdose deaths. County health officials are tracking a trend of fewer deaths so far

this year and fewer overdoses overall. "Obviously there are things that are working," Lauren Thorp said, associate director of the Trumbull County Mental Health and Recovery Board. Mahoning County is seeing a similar trend, with 54 deaths. It had a total of 156 in 2023, with a record high hit in 2021 at 161. "We have finally started to turn the tide," Brenda Heidinger said, associate director of Mahoning County Mental and Recovery Board. "We finally have..."

### **New marijuana detection tool may soon arrive for Ohio law enforcement**

The Ohio legislature is debating approving a swab test that law enforcement could use to test for marijuana use for suspected impaired drivers. Supporters say the swab is less intrusive and avoids having to take drivers to hospitals for a blood draw or to police stations for a urine test. State Rep. Cecil Thomas (D-Cincinnati) told Fox 19 he voted in favor of the House version of the bill but does not think the swab test results should be the only determining factor determining impaired driving due to cannabis use, noting marijuana can stay in a person's system and be detectable for up to 30 days after usage. Regardless of if the swab test is approved, the University of Cincinnati's Dan Bebo, MD, told Fox 19 that cannabis...

### **Prices high at the start of Ohio's recreational marijuana sales**

While recreational marijuana is now legal in Ohio, consumers have noticed that prices are higher at Ohio dispensaries compared to other states such as Michigan, WCPO reported. Keshar Ghimire, PhD, an associate professor of economics at the University of Cincinnati Blue Ash College, said it's not surprising that prices in Ohio are higher than elsewhere. "The flower is about five times more expensive in Ohio right now, and edibles are almost double what's available in Michigan," he said. Experts told WCPO that marijuana prices should decrease in Ohio in the future. They cited high demand at the beginning of legal recreational sales and a limited number of sellers at this time for the increased prices.

### **Study demonstrates effective screening and intervention for unhealthy alcohol use in primary care settings**

Between 2015 and 2019, excessive alcohol use resulted in over 140,000 deaths and 3.6 million years of potential life lost annually in the United States, making it the fourth leading cause of preventable death in the country. Despite these staggering numbers, only 4%—approximately 1.4 million people—received treatment for their condition. A new study, recently published in BMC Primary Care, led by Indiana University School of Medicine family medicine faculty could lead to better alcohol use screenings for patients in a primary care setting. "Despite recommendations from the U.S. Preventive Services Task Force, alcohol use screenings occur in only 2.6% of U.S. adult primary care visits," said Diana Summanwar, MD, assistant...

## **The Ohio Deflection Association Summit at the Summit**

HC ARC and the Hamilton County Quick Response Team are honored to host ODA's 4th Annual Ohio Quick Response Team, Deflection, & Outreach Training Summit - January 22 - 24, 2025. Early Bird Pricing for this event ends on October 31.

The summit promises to be an invaluable gathering for stakeholders invested in combating addiction. With a focus on prevention, treatment, interdiction, and harm reduction strategies, the program features a wide range of engaging formats, including plenary sessions, inspiring keynote addresses, interactive breakout sessions, valuable networking opportunities, and a robust exhibition hall.

### **Event Focus Areas:**

- Task Force Teams & Outreach
- Law Enforcement/Fire & EMS/First Responders
- Peer Support/Behavioral Health
- Coalition Building, Public Policy, & Program Management
- HIPAA, Data, Technology, & Innovation
- Harm Reduction & Public Health Strategies

[Call for Presentations](#) is open! This is an excellent opportunity to showcase your knowledge and contribute to the advancement of deflection strategies and practices. Submit your proposal before the deadline, September 6, 2024, to be considered as a speaker or presenter at this year's Summit.

### **OneOhio Updates from Hamilton County Office of Addiction Response**

Considering upcoming funding distribution of approximately ***\$2 million for the OneOhio Local Allocation in early 2025***, please consider participation in the OneOhio Funding Survey. To guide these crucial funding decisions, the Board of County Commissioners and the Office of Addiction Response are seeking community input on which OneOhio Abatement Strategies to prioritize. The survey will remain open until Friday, September 27, the date of the next full Hamilton County Addiction Response Coalition meeting, where a portion of the meeting will be dedicated to community conversations around the results and discussion of service gaps. Please [access and complete the survey here](#).

### **National News**

#### **[Q&A: Marijuana use can worsen outcomes for young adults with psychosis—how can mental health providers help them stop?](#)**

Twelve years after Washington and Colorado became the first states to legalize recreational marijuana, it's safe to say that weed is here to stay. Nearly 30% of Washington adults report using cannabis in the last month, and a majority of Americans believe marijuana products are safe. When it comes to the safety of long-term marijuana use among the general population, the jury's still out. But there are some groups for whom cannabis poses a serious health risk. Among the most

vulnerable are young adults with psychosis, who tend to use cannabis at extremely high rates, and whose symptoms can be exacerbated by long-term marijuana...

### **Heavy Cannabis Use Tied to Increased Head and Neck Cancer Risk**

Excessive use of cannabis was associated with a higher risk of head and neck cancer (HNC), a large multicenter cohort study showed. After matching for demographic characteristics, alcohol-related disorders, and tobacco use, patients with cannabis-related disorder had an increased risk of any HNC compared with those without cannabis-related disorder (relative risk [RR] 3.49, 95% CI 2.78-4.39), reported Niels C. Kokot, MD, of the University of Southern California in Los Angeles, and colleagues. Moreover, a site-specific analysis showed that those with cannabis-related disorder had a higher risk of oral (RR 2.51, 95% CI 1.81-3.47)...

### **Cigarette Smoking Rate in U.S. Ties 80-Year Low**

WASHINGTON, D.C. -- Cigarette smoking in the U.S. is at a low point, according to eight decades of Gallup trends. Currently, 11% of U.S. adults say they have smoked cigarettes in the past week, matching the historical low measured in 2022 (and nearly matched at 12% in 2023). When Gallup first asked about cigarette smoking in 1944, 41% of U.S. adults said they smoked. The current smoking rate is about half as large as it was a decade ago and one-third as large as it was in the late 1980s. The latest results are based on Gallup's annual Consumption Habits poll, conducted July 1-21. Between the initial measurement of...

### **Targeting Teens to Vape**

One of the scariest aspects of vaping is that many teenagers and young adults think it's so much healthier than smoking cigarettes. General Barrye Price, CEO of Community Anti-Drug Coalitions (CADCA), told me this is absolutely not true. "Vaping nicotine and/or marijuana is incredibly dangerous as the pods contain very large concentrations of these substances, which make using them in this manner much more addictive than alternative methods of administration," he said. Price says vaping is causing an epidemic of nicotine use and addiction among adolescents and young adults. Electronic cigarettes (e-cigarettes)...

### **Study reveals how salt-based nicotine and menthol flavors influence e-cigarette use in young adults**

A recent study published in JAMA Network Open examines how salt-based nicotine formulations and menthol flavorings impact nicotine levels and the subjective experience of using e-cigarettes in young adults. Initially, e-cigarettes were marketed as a safer alternative to conventional cigarettes. However, young adults have become the primary consumers of e-cigarette products as compared to those of any other age group, which has led e-cigarettes to be the most commonly used tobacco product among young American adults. In 2021, 20% of young adults were current vapers, whereas 10% of middle and high schoolers reported...

## **NIH launches program to advance research led by Native American communities on substance use and pain**

The National Institutes of Health (NIH) has launched a program that will support Native American communities to lead public health research to address overdose, substance use, and pain, including related factors such as mental health and wellness. Despite the inherent strengths in Tribal communities, and driven in part by social determinants of health, Native American communities face unique health disparities related to the opioid crisis. For instance, in recent years, overdose death rates have been highest among American Indian and Alaska Native people. Research prioritized by Native communities is essential...

## **Combination OUD Treatment Safe During Pregnancy**

For pregnant persons with opioid use disorder (OUD), buprenorphine and naloxone used together were associated with similar or better neonatal and maternal outcomes versus buprenorphine alone, a large nationwide population-based cohort study found. Among Medicaid-insured pregnant persons and their linked infants, researchers led by Loreen Straub, MD, of Brigham and Women's Hospital and Harvard Medical School in Boston, observed lower risks for neonatal abstinence syndrome (NAS), neonatal intensive care unit (NICU) admissions, and small for gestational age for those exposed to the combination...

## **An implantable sensor could reverse opioid overdoses**

In 2023, more than 100,000 Americans died from opioid overdoses. The most effective way to save someone who has overdosed is to administer a drug called naloxone, but a first responder or bystander can't always reach the person who has overdosed in time. Researchers at MIT and Brigham and Women's Hospital have developed a new device that they hope will help to eliminate those delays and potentially save the lives of people who overdose. The device, about the size of a stick of gum, can be implanted under the skin, where it monitors heart rate, breathing rate, and other vital signs. When it determines...

## **Q&A: How opioid treatment can keep newborns out of foster care**

Opioid-exposed newborns were 41% more likely to be discharged home from the hospital with their biological mother when the mothers receive medication for opioid use disorder (OUD) during pregnancy, according to a study published by JAMA Health Forum on July 12. The study—led by researchers from Emory University's Rollins School of Public Health and Vanderbilt University—analyzed the outcomes for all of the reported opioid-exposed infants born at Vanderbilt University Medical Center in Nashville, Tennessee between March 1, 2018, and January 1, 2022, who were a gestational age of at least 35 weeks and without...

## **Early prevention programs for children could help end the opioid crisis**

Can a program for Grade 7 students help end the opioid crisis? The answer is yes, according to compelling research findings on school-based primary prevention

interventions. As noted by the Canadian Centre on Substance Use and Addiction, the opioid crisis is "a complex public health issue devastating the lives of many Canadians and their families who are experiencing accidental overdose or death from opioids." To address this crisis, many of Canada's responses to the opioid crisis still focus downstream on adults, after problems have started or become entrenched. In contrast, primary prevention operates upstream...

### **Racial and economic barriers hinder access to medicine for treating opioid use disorder, study finds**

Patients with a prescription for an opioid use disorder medication may have a tough time getting it filled if their pharmacy is in a community that's racially and economically segregated, according to a new study led by scientists at Oregon State University and Johns Hopkins University. The study is published in the journal *Drug and Alcohol Dependence Reports*. The findings shed additional light on inequities in health care as the U.S.'s overdose crisis continues to accelerate, with fatality rates rising fastest in Black and Hispanic/Latinx communities. "While there have been notable policy changes over the past decade...

### **Hooked on a feeling: Opioids evoke positive feelings through a newly identified brain region**

Opioids, like the commonly prescribed pain reliever oxycodone, are known for being highly addictive. In 2022, nearly 85,000 people died from an opioid overdose in the U.S., according to the Centers for Disease Control. Yet opioids are still being prescribed at alarming rates, particularly in Southern states, because of the lack of effective alternatives. Researchers at MUSC and around the country are studying the brain to understand more fully what makes these drugs so addictive in the hopes of finding better, nonaddictive medicines for pain relief. Alexander Smith, Ph.D., now an assistant professor in the Department of Neuroscience...

### **New insights into brain's reward circuitry could aid addiction treatment**

A research team—co-led by Penn Nursing—has made a significant breakthrough in understanding the complex neural circuitry underlying reward and addiction by identifying 34 distinct subtypes of medium spiny neurons (MSNs) in the nucleus accumbens (NAc), a key brain region involved in pleasure and motivation. The findings, published in the journal *Scientific Reports*, offer insights into the diversity of these neurons and their potential roles in substance use disorders. MSNs are the primary type of neuron in the NAc and have long been classified based on their expression of dopamine receptors. However, this new research...

### **Key factor found in drug-context links, relapse**

Most people wouldn't think twice after seeing sugar spilled on a counter. But for someone with a history of cocaine use, this visual cue could trigger powerful associations with their past drug use and a compulsive urge to seek the drug. Certain circuits within the brain help to form natural associations between one's

experiences and the context in which those experiences occur. These associations play a critical role in the orchestration of adaptive learning. When addictive substances are introduced, this coupling mechanism can be hijacked so that the drug-taking behavior becomes associated with cues, such...

### **Less sleep and later bedtime in childhood linked to future substance use**

A good night's sleep is essential for children's health and development, but childhood sleep patterns may also be linked to future substance use. A new study, led by a team of Penn State researchers, has found that adolescents were more likely to have consumed alcohol or tried marijuana by age 15 if they went to bed later and slept fewer hours during childhood and adolescence. The team has published its findings in *Annals of Epidemiology*. "The study suggests that there might be some critical ages when sleep can be a target for intervention," said Anne-Marie Chang, associate professor of biobehavioral health at Penn State...

### **FDA Rejects MDMA-Assisted Therapy for PTSD**

The FDA declined to approve midomafetamine (MDMA) capsules for post-traumatic stress disorder (PTSD), calling for another trial to evaluate the drug's efficacy and safety, developer Lykos Therapeutics announced on Friday. Lykos said the agency determined that the investigational psychedelic "could not be approved based on data submitted to date" and requested another phase III trial. The company plans to ask FDA to reconsider. Though hotly anticipated, the decision was largely expected after a negative review by an FDA advisory committee in June. In a 9-2 vote, the Psychopharmacologic Drugs Advisory Committee...

## **Funding Opportunities**



## **GRANTS & FUNDING**

NIH Central Resource for Grants and Funding Information

[RFA-DA-26-001](#)

[Single Cell Opioid Responses in the Context of HIV \(SCORCH\) Program: Data Mining and Functional Validation \(R01 Clinical Trial Not Allowed\)](#)

[RFA-DA-26-002](#)

[Single Cell Opioid Responses in the Context of HIV \(SCORCH\) Program: Data Mining and Functional Validation \(R21 Clinical Trial Not Allowed\)](#)

[PAR-24-269](#)

[NIDA Animal Genomics Program \(U01 Clinical Trial Not Allowed\)](#)



[RFA-AT-24-011](#)

[HEAL Initiative: NIH-DOD-VA Pain Management Collaboratory Pragmatic and/or Implementation Science Demonstration Projects \(\(UG3/UH3\) Clinical Trial Required\)](#)

[NOT-NS-24-075](#)

[Notice of Special Interest \(NOSI\): HEAL Initiative: Development and Translation of Diagnostic and Therapeutic Devices via Blueprint MedTech](#)

## CAR Member New Publications

### **Infant Feeding and Weight Trajectories in the Eat, Sleep, Console Trial**

A Secondary Analysis of a Randomized Clinical Trial

Stephanie L. Merhar, MD, MS; Zhuopei Hu, MS; Lori A. Devlin, DO; Songthip T. Ounpraseuth, PhD; Alan E. Simon, MD; P. Brian Smith, MD; Michele C. Walsh, MD; Jeannette Y. Lee, PhD; Abhik Das, PhD; Rosemary D. Higgins, MD; Margaret M. Crawford; Ward Rice, MD, PhD; David A. Paul, MD; Jessie R. Maxwell, MD; Sucheta D. Telang, MD; Camille M. Fung, MD; Tanner Wright, MD; Anne-Marie Reynolds, MD; Devon Hahn, MD; Julie Ross, MD; Jennifer M. McAllister, MD; Moira Crowley, MD; Sophie K. Shaikh, MD; Lori Christ, MD; Jaime Brown, MD; Julie Riccio, MD; Kara Wong Ramsey, MD; Erica F. Braswell, MD; Lauren Tucker, MD; Karen McAlmon, MD; Krishna Dummula, MD; Julie Weiner, DO; Jessica R. White, MD; Meghan P. Howell, MD; Sarah Newman, APRN; Jessica N. Snowden, MD; Leslie W. Young, MD; for the Eunice Kennedy Shriver National Institute of Child Health and Human Development Neonatal Research Network National Institutes of Health Environmental Influences on Child Health Outcomes Program Institutional Development Award States Pediatric Clinical Trials Network

*JAMA Pediatrics*

DOI: <https://doi.org/10.1001/jamapediatrics.2024.2578>

### **ABSTRACT**

**Importance:** Infants with neonatal opioid withdrawal syndrome (NOWS) cared for with the Eat, Sleep, Console (ESC) care approach receive less pharmacologic treatment and have shorter hospital stays compared to usual care with the Finnegan Neonatal Abstinence Scoring Tool, but the effects of these approaches on feeding and weight are unknown.

**Objective:** To evaluate feeding practices and weight trajectories in infants cared for with ESC vs usual care.

**Design, Setting, and Participants:** ESC-NOW is a cluster randomized trial of infants with NOWS born at 36 weeks' gestation or later at 26 US hospitals from September 2020 to March 2022. Each site transitioned from usual care to ESC (the study intervention) at a



randomized time. Feeding was per site practice and not specified by the intervention. Feeding and weight outcomes were assessed at hospital discharge.

**Intervention:** ESC vs usual care.

**Main Outcomes and Measures:** Outcomes include prospectively identified secondary end points related to feeding and weight. z Scores were used for growth to account for corrected gestational age at the time of measurement. All analyses were intention to treat and adjusted for study design. Maternal/infant characteristics were included in adjusted models.

**Results:** The analyses included 1305 infants (702 in usual care and 603 in ESC; mean [SD] gestational age, 38.6 [1.3] weeks; 655 [50.2%] male and 650 [49.8%] female). Baseline demographic characteristics were similar between groups. The proportion of breastfed infants was higher in the ESC group (52.7% vs 41.7%; absolute difference, 11%; 95% CI, 1.0-20.9). A higher proportion of infants cared for with ESC received exclusive breast milk (15.1% vs 6.7%; absolute difference, 8.4%; 95% CI, 0.9-5.8) or any breast milk (38.8% vs 27.4%; absolute difference, 11.4%; 95% CI, 0.2-23.1) and were directly breastfeeding at discharge (35.2% vs 19.5%; absolute difference, 15.7%; 95% CI, 4.1-27.3). There was no difference in proportion of infants with weight loss greater than 10% or maximum percentage weight loss, although infants cared for with ESC had a lower weight z score on day of life 3 (-1.08 vs -1.01; absolute difference, 0.07; 95% CI, 0.02-0.12). When pharmacologic treatment was added into the model, no breastfeeding outcomes were statistically significant.

**Conclusions and Relevance:** In this study, infants cared for with ESC were more likely to initiate and continue breastfeeding and had no difference in percentage weight loss. The improvement in breastfeeding with ESC may be driven by reduction in pharmacologic treatment and provision of effective nonpharmacologic care.

**Trial Registration:** ClinicalTrials.gov Identifier: [NCT04057820](https://clinicaltrials.gov/ct2/show/study/NCT04057820)

## **The Impact of Drugs and Substance Abuse on Viral Pathogenesis—A South African Perspective**

Lufuno Ratshisusu, Omphile E Simani, Jason T Blackard, Selokela G Selabe

*Viruses*

DOI: <https://doi.org/10.3390/v16060971>

### **ABSTRACT**

Illicit drug and alcohol abuse have significant negative consequences for individuals who inject drugs/use drugs (PWID/UDs), including decreased immune system function and increased viral pathogenesis. PWID/UDs are at high risk of contracting or transmitting viral illnesses such as human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV). In South Africa, a dangerous drug-taking method known as “Bluetothing” has emerged among nyaope users, whereby the users of this drug, after injecting, withdraw

blood from their veins and then reinject it into another user. Hence, the transmission of blood-borne viruses (BBVs) is exacerbated by this “Bluetooth” practice among nyaope users. Moreover, several substances of abuse promote HIV, HBV, and HCV replication. With a specific focus on the nyaope drug, viral replication, and transmission, we address the important influence of abused addictive substances and polysubstance use in this review.

**Keywords:** South Africa; illicit drug; HIV; HBV; HCV; immune system.

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