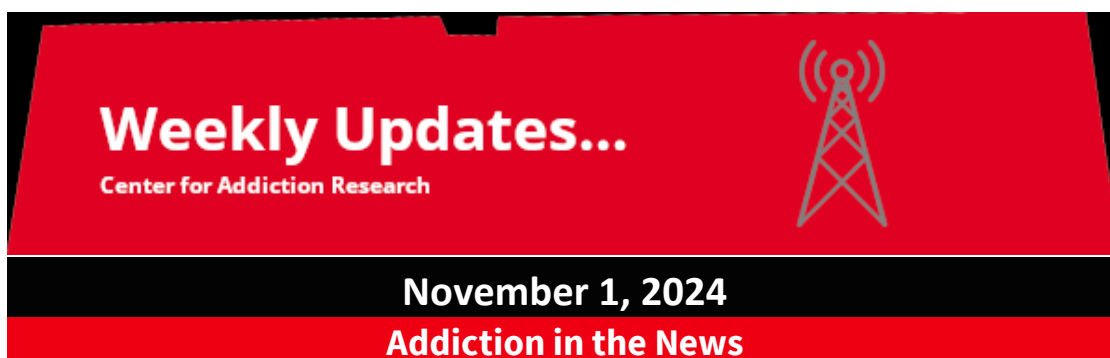


Welcome to the weekly newsletter from the Center for Addiction Research! Each newsletter includes highlights from addiction in the news topics, active funding opportunities offered by NIDA/NIAAA, and information about any new publications from CAR members. Please email Jen Rowe ([roweji@ucmail.uc.edu](mailto:roweji@ucmail.uc.edu))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

### **Prenatal Cannabis Exposure Linked to Poor Executive Function, Aggression in Kids**

Poor executive function and aggressive behavior at age 5 years was observed among children exposed to cannabis during pregnancy, a cohort study suggested. Among 250 children, age-corrected standard scores for attention and inhibitory control on the NIH Toolbox Early Childhood Cognitive Composite were about 0.4 standard deviations lower for those exposed to cannabis compared with those who were unexposed ( $\beta = -6.1$  points, 95% CI -10.8 to -1.4) after propensity score weighting and adjustment for confounders, reported Sarah Keim, PhD, of the Abigail Wexner Research Institute at Nationwide Children's Hospital in Columbus, Ohio, and co-authors. Exposed children were also more likely to show aggressive behavior, such... **(co-author, Dr. Aaron Murnan, CAR Member, see publication below in the newsletter)**

### **Is medical cannabis for children under 18 a good idea?**

Ohio's adult-use cannabis law makes clear that it does not allow anyone under the age of 21 to possess or use the drug. But the law governing the use of medical cannabis in Ohio — just like the medical cannabis law that will take effect in Kentucky in 2025 — does allow doctors to recommend cannabis for patients under 18. While there is generally still more research needed on the use of medical cannabis for children, the University of Cincinnati's Michael Privitera, MD, said Epidiolex, a CBD medication for epilepsy, is currently the only Food and Drug

Administration approved CBD treatment for both adults and children. "Unlike medical marijuana...I write a prescription for Epidiolex, patients go to the...

### **Drug overdose deaths down in Ohio. Fentanyl, opioids remain top killers**

Fewer Ohioans are dying of drug overdoses because of better access to naloxone, opioid treatment and peer support, Gov. Mike DeWine announced Wednesday. The state saw a 9% drop in overdose deaths last year, according to a new Ohio Department of Health report. That marked the second year in a row that deaths decreased. "While we celebrate this accomplishment, we know that our work is far from over," DeWine said during a news conference at the Ohio Statehouse Wednesday. Fentanyl and opioids remain the top killers in Ohio, followed by cocaine and psychostimulants such as methamphetamine, according to the report. In many cases, more than one drug is involved in a fatal overdose. DeWine...

### **Naloxone played a big part in overdose deaths dropping 9% last year in Ohio**

Ohio is outpacing the national average when it comes to decreasing overdose deaths, Gov. Mike DeWine said, with overdose deaths decreasing 9% in 2023 in Ohio compared to the 2% decrease seen nationwide. "We know that opioid use, addiction, overdoses touch every corner of our state, every community and, tragically, too many Ohio families," DeWine said. "That remains true today." In Montgomery County, which has seen large numbers of overdose deaths in past year, there is a 46% drop in overdose deaths in year-to-date comparisons of January through September in 2023 compared to the same time period in 2024, according to the Community Overdose Action Team. There were 239 overdose...

### **Grant, Bracken counties receive cultivator licenses for medical marijuana**

NEWPORT, Ky. —Kentucky's medical marijuana program held its first license lottery, with processors and cultivators finding out Monday if their number was picked from hundreds of hopefuls. Bracken and Grant counties will be welcoming medical marijuana cultivators. At this time, no Northern Kentucky processors made the cut. Monday's drawing was the first medical marijuana lottery. Starting on Jan. 1, medical cannabis will be available for those 18 and older who qualify. The lottery was for businesses that would grow the plant and those that would turn the raw material into usable products. The application process opened in July, with the price to apply a non-refundable \$5,000. The odds for businesses to...

### **COMMUNITY GEMS: Business leader helps those impacted by opioids**

It was Bruce Langos' background in computer science that made him uniquely positioned for his role in battling the opioid crisis. Langos shifted from his former role as the chief operating officer of Teradata to developing the Criminal Intelligence Center for the Montgomery County Sheriff's Department, which captured local drug activity and shared it with 29 law enforcement departments. He was its executive director from 2016 to 2019, but he didn't stop there. "I had the data, and I thought, 'it's a losing battle if we don't do something with what we

know,” said Langos, 70, of Miami Township. So he started the Montgomery County Drug-Free Coalition and helped to launch programs to assist individuals who...

## **National News**

### **Young adults see potential in tech for reducing alcohol harm**

Young adults think electronic interventions might help to reduce the negative consequences of alcohol use if tailored to their personal needs and goals. In a qualitative study, young adults reported that such real-time interventions should be customizable, easy to use, and provide digestible amounts of non-judgmental information. The authors of the study published in *Alcohol: Clinical and Experimental Research* highlight the importance of involving users early in the development process to ensure users find harm reduction applications relevant and engaging. Researchers conducted in-depth interviews...

### **Exercise cuts dependence in those with alcohol use disorder, review finds**

An exercise intervention can effectively reduce alcohol dependence in patients with alcohol use disorder (AUD), according to a review published online Oct. 30 in *PLOS ONE*. Jihai Li, from Xinjiang Normal University in Urumqi, China, and colleagues conducted a systematic literature review to identify the effects of an exercise intervention on alcohol dependence and physical and mental states in patients with AUD. Based on 17 randomized controlled trials (1,905 patients with AUD), the researchers found that the exercise intervention had a significant effect on alcohol dependence, the number of drinks per day and the Alcohol...

### **Echoes of youth: High school binge drinking found to predict midlife alcohol use with women most affected**

The high school party days never really ended for a surprising number of middle-aged adults. A University of Michigan study reveals that adults aged 35 to 60 are drinking at unprecedented rates, with a striking link between high school binge drinking and risky midlife alcohol consumption. Women, in particular, seem to be experiencing a pronounced surge in risky drinking behaviors, according to the research published in *Alcohol: Clinical and Experimental Research*. About 20% to 30% of midlife adults reported binge drinking—with four or more drinks for women, five for men—and 1 in 10 engaged in high-intensity...

### **Drinking is cheaper than it's been in decades. Lobbyists are fighting to keep it that way**

For years, it has been a reliable way to cut back on the consumption of cigarettes and sugary drinks: raise taxes on them. So, it might seem an obvious tactic to apply to alcohol, which contributes to untold injuries, diseases and deaths in the United States each year. That's the thinking of advocates and state legislators across the country, who also see it as a way to pull in more revenue. But at virtually every turn — including in Nebraska, Colorado, Oregon, and New Mexico — efforts to raise taxes

on alcoholic beverages have been thwarted by the alcohol industry, a vast and powerful coalition of corporate conglomerates, mom-and...

### **Nearly 6% of pregnant women report marijuana use**

A new study from the University of Georgia College of Public Health found that about 6% of pregnant women reported using marijuana during the last month, and many did not associate it with health risks. The study highlights the importance of education surrounding marijuana use during pregnancy, said lead researcher Mohammad Rifat Haider. Published in *The American Journal on Addictions*, the study utilized responses from the National Survey on Drug Use and Health. Among 4,338 pregnant mothers, 5.7% reported using marijuana during the last month. Within that group, 70.9% perceived little to no risk associated...

### **Survey data shows dramatic drop in marijuana use among US youth over a decade**

Marijuana has emerged as one of the most commonly used illicit substances among adolescents in the United States. Given the rising number of states legalizing recreational marijuana for adults and the decreasing perception of risk among adolescents, tracking trends in youth marijuana use is more crucial than ever. Researchers from Florida Atlantic University's Schmidt College of Medicine conducted a comprehensive study using data from the Youth Risk Behavior Survey between 2011 and 2021, which surveyed 88,183 adolescents in grades nine through 12. Researchers focused on the overall time trends in use of...

### **Study reports legalization of recreational cannabis increases likelihood of cannabis use among youth**

A study in the *Journal of the American Academy of Child and Adolescent Psychiatry* reports that the legalization of recreational cannabis in various states in the US has resulted in an increased likelihood of cannabis use in the past month among adolescents and young adults. Cannabis use for medical purposes has been legalized in 38 states, while 24 states have legalized cannabis for recreational purposes for those above 21 years of age. Previous meta-analytic studies have shown that legalization of cannabis for medical use did not have a significant effect on the prevalence of cannabis use in youth. However, the results...

### **Study finds no link between prenatal cannabis use and autism**

Prenatal cannabis use is not associated with child autism spectrum disorder (ASD) or with child early developmental delays, according to two studies published online Oct. 18 in *JAMA Network Open*. Lyndsay A. Avalos, Ph.D., M.P.H., from Kaiser Permanente Northern California in Pleasanton, and colleagues examined the association between maternal cannabis use in early pregnancy and ASD in children in a population-based retrospective birth cohort study. The study cohort included 178,948 singleton pregnancies among 146,296 unique pregnant individuals, 4.7 percent of whom screened positive for cannabis use. The researchers...

### **Bridging the digital divide to help rural smokers quit**

Rural adults are more likely to smoke than their urban counterparts. Enhancing digital literacy and improving access to the internet and digital devices may make it easier for rural smokers to quit. These are the findings of a randomized, controlled pilot clinical trial Mayo Clinic researchers published in *Communications Medicine*. Digital tools offer a convenient way for rural residents to access support to quit smoking. However, limited digital literacy and technology access can be obstacles. The study tested a program to equip rural residents to take full advantage of these tools. "Interventions in previous studies had a sole focus...

### **Cancer patients who stop smoking within the first six months of diagnosis see improved longevity, study finds**

Smokers who are diagnosed with cancer now have more incentive to quit, as researchers from The University of Texas MD Anderson Cancer Center have found survival outcomes were optimized when patients quit smoking within six months of their diagnosis. Study results, published in *JAMA Oncology*, found a 22–26% reduction in cancer-related mortality among those who had quit smoking within three months after tobacco cessation treatment began. The best outcomes were observed in patients who started tobacco treatment within six months of a cancer diagnosis and were abstinent from smoking three months...

### **Expert discussed projected decline in drug overdose deaths**

The U.S. Centers for Disease Control and Prevention released preliminary data last week predicting the number of drug overdose deaths nationally fell by a record amount (12.7%) from May 2023 to May 2024. While this steep reversal in trajectory is indeed a cause for optimism, Stephen Patrick, MD, chair of the Department of Health Policy and Management at Emory University's Rollins School of Public Health, explains why it is critical to be cautious when interpreting this data. Why is this reported drop in overdose deaths significant? We saw a record rise in drug overdose deaths during the COVID-19 pandemic...

### **Overdose deaths are rising among Black and Indigenous Americans**

The recent decline in overdose deaths hides a tremendous disparity by race: Deaths have fallen only among white people while continuing to rise among people of color, according to a new Stateline analysis of federal data. Health experts in nonwhite communities say they're finding strategies that work in their areas, but that they still struggle for recognition and funding to address the problems, especially among Black and Native people. In all, nearly 5,000 more people of color died from overdoses in 2023 than in 2021, while deaths among white people dropped by more than 6,000, according to the analysis of provisional...

### **Social network analysis examines how support could be increased for new mothers with opioid use disorder**

Opioid use disorder (OUD) is a growing public health problem among pregnant and parenting people in the U.S. Between 1999 and 2014, the number of pregnant women with OUD increased by more than four times. This trend also coincides with a rise in pregnancy-associated maternal overdose mortality. Researchers at Thomas Jefferson University, led by Meghan Gannon, Ph.D., MSPH, investigated how community-based supports, like doulas, can be integrated into health care for mothers who use opioids. Using a social network analysis, their study published in *Midwifery* examined the support systems and level of resiliency...

### **Atlanta opening jail alternative for those battling mental illness, addiction, homelessness**

ATLANTA, Ga. (Atlanta News First) - On Monday, Atlanta and Fulton County officials came together for a ribbon-cutting ceremony at the new Center for Diversion & Services in downtown Atlanta. "It's about clothing the naked, feeding the hungry and lifting up our neighbors when they are in need," said Atlanta Mayor Andre Dickens. The center is a place where police and the nonprofit PAD can bring people battling mental health concerns, substance abuse issues, homelessness or arrestable, low-level offenses. The facility is intended to take pressure off of Fulton County's jail and court system. "Our mission...

### **For People With Opioid Addiction, Medicaid 'Unwinding' Raises the Stakes**

CITRUS COUNTY, Fla. — It was hard enough for Stephanie to get methadone treatment when she moved to Florida from Indiana last year. The nearest clinic was almost an hour's drive away and she couldn't drive herself. But at least she didn't have to worry about the cost of care. As a parent with young children who was unable to find a job after moving, Stephanie qualified for Medicaid despite Florida's tight eligibility rules. The state insurance program for people with low incomes or disabilities covers the methadone she needs to reduce her opioid cravings and prevent withdrawal sickness. For nearly a decade, methadone has helped...

### **Pregnant women and babies face 'terrifying' threat from xylazine addiction**

PITTSBURGH — Megan Norris, who lives outside Pittsburgh, has battled severe heroin and fentanyl addiction for more than a decade. When she relapsed during her pregnancy earlier this year, Norris knew the opioids she was buying on the street likely contained something new and toxic: xylazine "It was the beginning of my pregnancy," Norris said. "Xylazine is so addictive, so physically addictive, you just can't stop. It's like the flu times a hundred. I was throwing up a lot. I was just in a rotating pit of hell. So I was using." Drug overdoses are already a leading cause of death for pregnant women in the U.S. Research shows as...

### **Everyone's tough on drugs again**

There's a rare point of agreement among Republican and Democratic candidates this election year: America has a drug problem and its fentanyl traffickers' fault. Republicans, including former President Donald Trump, are hammering Democrats over border policies they say have allowed fentanyl to surge into the country. Democrats, including Vice President Kamala Harris, respond that they, too, have cracked down on traffickers and want stricter border enforcement. The consensus reflects the resonance of border control among voters — most of the country's fentanyl comes from Mexico — and a hardening of the nation's attitude...

### **Urine drug test concentrations up for fentanyl, methamphetamine, cocaine**

Absolute concentrations of fentanyl, methamphetamine, and cocaine in urine specimens increased from 2013 to 2023, according to a study published online Oct. 24 in JAMA Network Open. Andrew S. Huhn, Ph.D., from the Johns Hopkins University School of Medicine in Baltimore, and colleagues analyzed urine drug testing (UDT) results to quantify changes in absolute drug exposure concentrations from 2013 to 2023. The analysis included 921,931 unique UDT samples. The researchers found that the adjusted fentanyl concentration in urine specimens was 38.23 ng/mg creatinine in 2023, up from 4.61 ng/mg in 2013. The...

### **Urgent global action needed on gambling harms, international experts say**

The global health impact of commercial gambling is worse than previously understood and stronger regulatory controls are needed, a Lancet Public Health Commission on gambling has found. The commission involved leading international experts in gambling studies, public health, global health policy, risk control and regulatory policy, including Monash University's Associate Professor Charles Livingstone, and those with lived experience of gambling harms. "Gambling poses a threat to public health, the control of which requires a substantial expansion and tightening of gambling industry regulation," the commissioners...

## **Funding Opportunities**



## **GRANTS & FUNDING**

NIH Central Resource for Grants and Funding Information

[RFA-DA-25-069](#)

[Targeting Inflammasomes in HIV and Substance Use \(R01 Clinical Trial Not Allowed\)](#)

[RFA-DA-25-068](#)

[Targeting Inflammasomes in HIV and Substance Use \(R21 Clinical Trial Not Allowed\)](#)

[NOT-DA-25-033](#)

[Notice of Intent to Publish a Funding Opportunity Announcement for Annual Conference in Therapeutics Development for Substance Use Disorders \(U13 Clinical Trial Not Allowed\)](#)

[NOT-DA-25-034](#)

[Notice of Change for RFA-DA-25-056, Establishing a Center for the Advancement of Substance Use Disorder \(SUD\) Pharmacotherapeutics \(U54 Clinical Trials Not Allowed\)](#)

[NOT-AA-24-013](#)

[Notice of Change of Key Date for NOT-AA-24-012 "Request for Information \(RFI\): Harmonization of research metrics on alcohol use, misuse, pathology, and mortality internationally"](#)

[NOT-DA-24-049](#)

[Notice of Intent to Publish a Funding Opportunity for NIDA REI: Racial Equity Visionary Award Program for Research on Substance Use and Racial Equity \(DP1 Clinical Trial Optional\)](#)

[PAR-25-114](#)

[CCRP Initiative: NIH Countermeasures Against Chemical Threats \(CounterACT\) Translational Exploratory/Developmental Research Projects \(R21 Clinical Trial Not Allowed\)](#)

## CAR Member New Publications

### **Prenatal Cannabis Exposure and Executive Function and Aggressive Behavior at Age 5 Years**

Sarah A Keim, Peter Fried, Keith Owen Yeates, Kelly M Boone, Daphne M Vrantzidis, Abigail Dean, Aaron W Murnan, Joseph Rausch, Mark A Klebanoff

*JAMA Pediatrics*

DOI: <https://doi.org/10.1001/jamapediatrics.2024.4352>

#### **ABSTRACT**

**Importance:** Cannabis use during pregnancy is increasingly common in the US and may affect the development and behavior of preschool-aged children.

**Objective:** To prospectively investigate the association of prenatal cannabis exposure with executive function and aggressive behavior at age 5 years.

**Design, setting, participants:** This cohort study was conducted from 2016 through 2020. Data analysis was conducted from 2022 through 2024. Patients aged 16 through 50 years



who were able to communicate in English and intended to deliver at the Ohio State University Wexner Medical Center were enrolled in a pregnancy research repository. Participants (n = 355) who gave consent for future contact and whose child(ren) was presumed to be alive were invited to participate again at child age 5 years (children born May 25, 2010, through February 7, 2016) and 250 children participated (70%).

**Exposure:** Cannabis exposure was measured prospectively by urine toxicology, maternal self-report, and obstetric record abstraction.

**Main outcomes and measures:** Executive function and aggressive behavior, measured via multimodal assessment by staff masked to exposure status. Outcomes were chosen a priori.

**Results:** Of 250 children, 80 were exposed to cannabis (32%). Use of tobacco, other drugs, and alcohol during pregnancy was common (22% to 39% each). Most families were living in poverty. There were 155 children who were Black/African American, non-Hispanic (62%); 11 were Hispanic (4%); 34 indicated more than one race or another race, non-Hispanic (14%); and 50 were White, non-Hispanic (20%). Age-corrected standard scores for children's attention and inhibitory control (National Institutes of Health Toolbox) were about 0.4 SDs lower for those exposed to cannabis compared with unexposed ( $\beta = -6.1$  points; 95% CI, -10.8 to -1.4), following propensity score weighting and adjustment for confounders. Exposed children also exhibited poorer task-based planning ability and more observed aggression. Caregiver ratings of executive function and behavior and laboratory assessments of other aspects of executive functioning showed no differences by exposure status.

**Conclusions and relevance:** Results from this contemporary US cohort where prenatal cannabis exposure was common and indicated that exposed children exhibited some differences in aspects of executive function and behavior relevant to long-term academic success and adaptive functioning. These results may be considered in refining clinical recommendations regarding cannabis use during pregnancy.

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