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) 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

# Ohio is among the national leaders in drug overdose deaths. Now, you can track the data in more detail

COLUMBUS, Ohio—A new state website lays out a litany of information for the public on drug overdoses in Ohio, including trends by county, drug, time period, and treatment medication. The online dashboards, unveiled Tuesday, are aimed at helping local organizations and communities better respond to overdoses as trends change, according to a release from Gov. Mike DeWine's office. Ohio has been one of the states hit hardest by the nationwide opioid epidemic. In 2020, Ohio had the third-highest number of overdose deaths of any state, and the third-highest overdose death rate, according to the U.S. Centers for Disease Control and Prevention. In Ohio, 5,210 people died of a drug overdose...

# Where to begin? Organizations, advocates weigh how to spend opioid settlement money

DELPHOS — Diane Urban remembers the day her sons finally asked for help: how difficult it was to find a doctor who could prescribe suboxone, let alone a long-term treatment center that was accepting new patients for substance-use disorder. "They would keep you (for 15 to 30 days) and then you're just cut loose and on your own," said Urban, who founded the nonprofit Association of People Against Lethal Drugs after her son, Jordan Garmatter, died from fentanyl poisoning in 2019. He was 24. Now that Ohio is starting to distribute the funds it won from historic settlements with the drug makers and pharmacies that started the opioid epidemic, which will bring at least \$1 billion to the state over...

### National News

#### How heavy alcohol consumption increases brain inflammation

For people with alcohol use disorder (AUD), there is a constant, vicious cycle between changes to the brain and changes to behavior. AUD can alter signaling pathways in the brain; in turn, those changes can exacerbate drinking. Now, scientists at Scripps Research have uncovered new details about the immune system's role in this cycle. They reported in the journal Brain, Behavior and Immunity on Feb. 28, 2023, that the immune signaling molecule interleukin 1 $\beta$  (IL-1 $\beta$ ) is present at higher levels in the brains of mice with alcohol dependence. In addition, the IL-1 $\beta$  pathway takes on a...

#### Can certain nutrients protect against the effects of fetal alcohol exposure?

Fetal alcohol exposure at any stage of pregnancy can lead to congenital malformations, as well as cognitive, behavioral, and emotional impairments in offspring. New research conducted in mice and published in The FASEB Journal indicates that even very early embryos exposed to alcohol can experience growth restriction, brain abnormalities, and skeletal delays, but feeding pregnant mothers certain nutrients prior to conception and throughout pregnancy can reduce the incidence and severity of the alcohol-induced defects. The beneficial effects were seen with a combination of...

### Older adults with alcohol use disorder need age-appropriate treatment interventions

Adults with alcohol use disorder (AUD) seeking to moderate their drinking respond differently to interventions depending on their age, a new study suggests. Older adults are experiencing rising rates of hazardous drinking and alcohol use disorder (AUD). A combination of biological changes, established habits, co-occurring health issues, and life-stage events can mask the harms of drinking among older adults; identifying effective outpatient interventions is a valuable public health goal. Motivational interviewing (MI), an evidence-based treatment for AUD that targets motivation and self-efficacy (belief in...

#### **Tough to Swallow: Clinicians Are Neglecting Alcohol Use**

Most American adults drink alcohol, and 45% binge drink -- five or more drinks per occasion for men, 4 or more drinks per occasion for women -- at least monthly. There is evidence that any level of alcohol use is associated with increased relative risk of morbidity and mortality, and the latest estimates indicate one in eight American adult deaths (ages 20 to 64) are attributed to alcohol. In the state of New Mexico, which has the highest rate of alcohol-related mortality nationwide, one in five adult deaths are attributable to alcohol. Importantly, reductions in alcohol consumption -- even without...

# On days when college students feel more impulsive than usual, their alcohol consumption may rise

Fluctuating impulsivity in college students is linked to increased positive thoughts about alcohol, heavier drinking, and more negative consequences, a new study suggests—information that could inform more effective intervention programs to reduce alcohol harm. Almost a third of young adults report binge drinking in the past month, and 16% meet criteria for alcohol use disorder in the past year. Impulsivity, a tendency to act rashly without considering consequences, is known to be associated with heavier drinking. A predictive behavioral model theorizes that impulsive people are...

# Drinking, drug use and driving increased in West Virginia during COVID-19, study finds

One West Virginia trauma center saw an uptick in alcohol and drug use by patients treated for motor vehicle collision injuries during the COVID-19 pandemic, according to a West Virginia University study. More specifically, researchers found patients were using a greater number of drugs, including cannabinoids, opioids and stimulants during the pandemic than prior to its onset. The study was published in Injury Epidemiology, a journal focusing on injury prevention and control. Toni Marie Rudisill, assistant professor in the WVU School of Public Health, led the research team that included pre-med...

#### Ask the pediatrician: Is cannabis harmful for children and teens?

As states across the country vote to legalize cannabis for medical or recreational adult use (or both), some parents feel unsure about what this might mean for their children. Many are asking, if cannabis is legal, does that send kids the message it's safe to use? And if some people use it to try to relieve pain, sleep better or cope with the symptoms of a serious illness, will young people assume it's just another kind of medicine? These are valid questions for us to consider—and they're part of a growing debate about cannabis use and the best ways to regulate it. As a pediatrician and a parent, I am concerned...

#### A history of smoking, and how we're making the same mistakes with vaping

When smoking first became popular we were told it was healthy, it was heavily marketed (including to young people) as being cool, and the time it took for us to learn otherwise was long, and came too late for many. Unfortunately, it seems history is repeating itself with vaping. Before the invention of machines to make cigarettes, they were hand-rolled—with an experienced roller making around 240 cigarettes an hour. When mechanization arrived in the late nineteenth century, early machines could make 12,000 per hour. Eventually, they could churn out 1.2 million an hour. This made smoking...

#### Smokers generally unaware that quitting smoking will reduce risk of dementia

Smokers are being urged to give quitting a go ahead of No Smoking Day (8th March), as research shows those who smoke are more likely to develop dementia. The annual awareness day encourages smokers to make a quit attempt and this year's theme is "stopping smoking protects your brain health." According to Alzheimer's Research UK, dementia is the most feared health condition for people over the age of 55—more than any other life-threatening disease including cancer and diabetes. Yet YouGov data commissioned by Action on Smoking and Health (ASH) revealed just 18% of people who smoke...

### Physical activity and tailored support fails to deliver lasting benefits for smokers not ready to quit

Promoting physical activity and other behavioral support can help people wanting to reduce their smoking to quit in the short-term. However, after nine months, physical activity delivers no noticeable benefits—compared with offering no additional support—in the rates of people stopping smoking, according to the findings of a major national study. The Trial of physical Activity and Reduction of Smoking (TARS) study, led by the University of Plymouth with funding from the National Institute for Health and Care Research, took place across four cities—Plymouth, Nottingham, Oxford and London—before...

#### **Opioids Most Common Substance in Young Children's Fatal Poisonings**

Opioids were the most common substance contributing to fatal poisonings among children age 5 years and younger in recent years, researchers reported. Examination of 731 poisoning-related fatalities from 2005 to 2018 in young kids reported to the National Fatality Review-Case Reporting System (NFR-CRS), showed that opioids were involved in 346 of the fatal cases (47.3%). Additionally, the proportion of fatal cases involving opioids trended upward over the study period, said Christopher Gaw, MD, MBE, of the Children's Hospital of Philadelphia, and colleagues. In 2005, opioids were involved in 24.1% of...

#### As opioid epidemic rages on, US jails may be getting some help from state Medicaid funding

As the country's opioid epidemic kills tens of thousands of Americans each year, some of those most at risk – the incarcerated – may soon be getting some help. States will be allowed to use Medicaid to pay for drug treatments for people in jails and prisons under new federal guidelines announced last month. "We think that it's wonderful news," Maria Morris, a lawyer with the American Civil Liberties Union's National Prison Project, told USA TODAY. "These are medical conditions and they require medical treatment." Only about 10% of people with an opioid use disorder get treatment, according to medical...

# Opioid overdose risk 10 times greater for those recently released from prison, research shows

People recently released from prison in Oregon face a risk for opioid overdose 10 times greater than the general public, according to a new study led by an Oregon State University College of Pharmacy scientist. The research by Dan Hartung of OSU, Elizabeth Needham Waddell of the Oregon Health & Science University-Portland State University School of Public Health and Katherine A. Kempany of the Oregon Department of Corrections underscores the need to help adults formerly in custody stay safe—especially during the first two weeks after release from incarceration when their opioid overdose...

#### Wider Supply of Opioid Antidote Naloxone Won't Encourage Heroin Use: Study

WEDNESDAY, March 8, 2023 (HealthDay News) -- Contrary to concerns, wider availability of naloxone treatment is not increasing heroin use among U.S. teens, new research finds. Naloxone (Narcan) quickly reverses an overdose from opioids like heroin, fentanyl, morphine and oxycodone (OxyContin). There had been some worry that expanding access to naloxone might inadvertently promote high-risk substance use among young people. However, the study of more than 900,000 teens found that is not the case. "Findings from our research do not support the hypothesis that broader availability of naloxone...

#### Community strategy reduced opioid overdose deaths in Pennsylvania counties

The monthly opioid overdose death (ODD) rate fell by 30% in Pennsylvania counties that implemented a novel community-focused strategy developed by University of Pittsburgh researchers, according to a new study published today in the Journal of Studies on Alcohol and Drugs. By analyzing counties that did or didn't implement the Pennsylvania Opioid Overdose Reduction Technical Assistance Center (ORTAC) strategy over time, the researchers estimate that this cost-effective, community-led approach prevented 1,818 opioid-related deaths over two years. "I passionately believe that...

# New evidence on how individuals transition from recreational to compulsive drug use

While substance use disorder (SUD) remains a clinically and socially devastating condition in the U.S. and worldwide, the phenomenon of how individuals transition from recreational to compulsive drug use is yet to be fully understood. Researchers at the Icahn School of Medicine at Mount Sinai have opened the door to a promising new realm of discovery with the identification of a molecule and a previously unsuspected signaling pathway that appear to be pivotal to the pathophysiology of drug addiction. The molecule is known as Retinoid X Receptor Alpha (RXR $\alpha$ ) in the nucleus accumbens, a key brain region for addiction, which appears to dictate in part the sensitivity of individuals to the initially rewarding properties of drug use. The team's findings were reported in the journal Neuron. Specifically, the nucleus accumbens is a region of the brain's reward circuitry that integrates

#### Hair analysis shows child drug use could be twice as high as previously thought

Hair analysis could be the key to understanding adolescent drug usage, as a new study uncovers almost double the number of children were found to be using substances than those who admitted to in a U.S. survey. Published in the journal American Journal of Drug and Alcohol Abuse, the research looking at more than 1,300 children, aged 9 to 13, found a 9% increase in substance use when adding hair analysis results to those of the survey. The paper suggests hair analysis far outweighs the accuracy of assessing drug use compared to survey alone, and experts recommend that future research should...

### 'Other' race/ethnicity linked to higher suicide and overdose risk in military members with mild TBI

Previous studies have reported high rates of death by suicide and drug overdose including opioid overdose—in military service members with a history of mild traumatic brain injury (mTBI). A new study finds that those risks are highest among military members with mTBI who identify their racial/ethnic status as "Other," as opposed to standard racial/ethnic categories. The study is published in the Journal of Head Trauma Rehabilitation. "In our study of military members with mTBI, mortality rates for suicide and drug and opioid overdose were consistently higher among those who self-identified...

### Upward trend in 'deaths of despair' linked to drop in religious participation, economist finds

Over the past 20 years, the death rate from drug poisonings in the U.S. has tripled and suicide and alcoholic liver disease death rates have increased by 30% particularly among middle-aged white Americans, according to studies by the National Center for Health Statistics. Further evidence shows that these dramatic changes in mortality rates within American communities actually began in the late 20th century, but researchers have been unable to pinpoint a cause for these "deaths of despair." To fill that gap in understanding, Daniel Hungerman, professor of economics at the University...

### 'Take Time to Think' gambling warning found to have no impact on betting behavior

Clearer messaging on gambling harm is needed if the industry is to help customers moderate their gambling behavior, experts have warned. Academics have found that the widely used "Take Time to Think" slogan has no impact on people's behavior while gambling, after testing its effectiveness in a virtual casino environment. Take Time to Think is a national campaign managed by the Betting and Gaming Council, which aims to encourage safe and responsible gambling behavior. The "Take Time to Think" slogan is used in gambling advertisements both online and on television, as well as in high-street arcades...

### **Funding Opportunities**



GRANTS & FUNDING NIH Central Resource for Grants and Funding Information

NOT-DA-23-020

Notice of Changes to Application Submission Instructions for RFA-DA-22-040, "High Priority HIV and Substance Use Research (R01 Clinical Trial Optional)"

NOT-DA-23-018 Notice of Intent to Reissue PA-20-208, Substance Use/Substance Use Disorder **Dissertation Research Award** 

NOT-AA-23-003 Notice of Special Interest: Advancing mHealth Interventions for Understanding and Preventing Alcohol-Related Domestic Violence

NOT-AA-23-005 Notice of Intent to Publish a Funding Opportunity Announcement for HIV Prevention and Alcohol (R01 Clinical Trials Optional)

NOT-AA-23-006 Notice of Intent to Publish a Funding Opportunity Announcement for HIV Prevention and Alcohol (R34 Clinical Trials Optional)

**Other Funding Opportunities:** 

#### 2023 BBRF YOUNG INVESTIGATOR GRANT

#### Deadline extended to Friday, March 31, 2023

The Brain & Behavior Research Foundation is the largest non-government, donorsupported organization that distributes funds for psychiatric brain and behavior disorder research. The BBRF Young Investigator Grant program offers up to \$35,000 a year for up to two (2) years to enable promising investigators to either extend their research fellowship training or to begin careers as independent research faculty. All applications must be submitted online. For more information regarding eligibility, guidelines, requirements, or to apply please visit our website: www.bbrfoundation.org/YI.

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