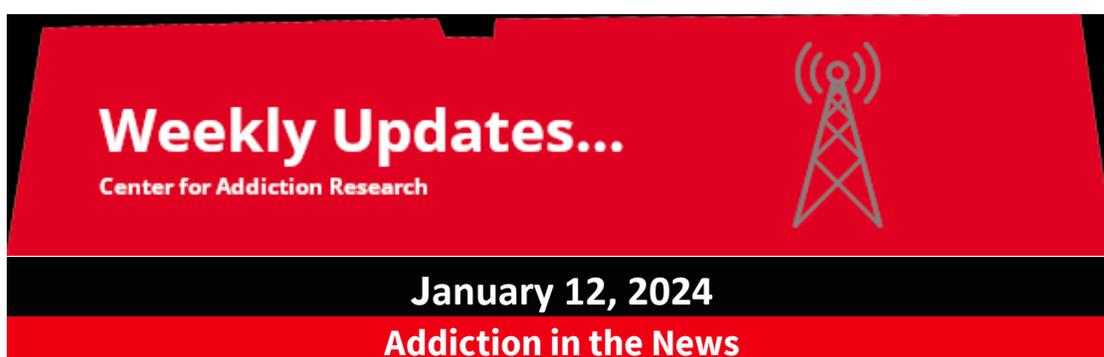


UC CAR Weekly Newsletter 1.12.2024

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. **Please note that the UC CAR Biannual Bulletin will be published on Wednesday, January 17. And, the next weekly newsletter will be published Friday, January 26.** 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**

#### **More women seeking treatment for alcohol abuse, pandemic partly to blame**

CINCINNATI —

While many may be participating in dry January to kick off the new year, for millions of Americans, staying alcohol-free is a constant battle. According to a federal survey, about 30 million people suffered from alcoholism in the past year. "The disease of addiction really isn't about the substance. It's about the brain. It just spirals out of control because the brain disease is still living," said the president and CEO of the Addiction Services Council, Lisa Mertz. Mertz knows the dark tunnels of addiction all too well. After years of abusing IV drugs, she then turned to alcohol — a less invasive but equally if not more deadly substance. "I remember it was easy for me to admit that I was addicted to... **(featuring CAR Member, Dr. Christine Wilder)**

#### **Study: Thirdhand smoke may harm children**

Now, researchers are looking more closely at thirdhand smoke, which is the presence of toxic tobacco by-products that remain on surfaces such as furniture, décor, walls and floors. In a new study, published in the Journal of Exposure Science & Environmental Epidemiology, researchers tested the surfaces in smoking households where children reside and found troubling results, says Ashley Merianos, a tobacco researcher at the University of Cincinnati who led the study. Researchers found nicotine on surfaces in all of the children's homes and detected

the presence of a tobacco-specific carcinogen (called NNK) in nearly half of the homes, she says. The study reported that the NNK levels on surfaces... **(CAR Member, Dr. Ashley Merianos, see publication below in the newsletter)**

### **CoM Office of Research Gallery of Awardees**

The CoM Office of Research publicizes faculty who have been awarded external grants of \$100,000/yr. or more and recently featured **CAR Associate Member, Dr. Joel Sprunger.**

**Joel Sprunger, PhD**, Assistant Professor, Department of Psychiatry and Behavioral Neuroscience

- Award: National Institute on Drug Abuse Award
- Project Title: Improving Buprenorphine Retention with Transcutaneous Auricular Neurostimulation for Patients with Co-occurring Posttraumatic Stress Disorder and Opioid Use Disorder
- Project Period: 9/1/2023-8/31/2024
- Summary: This project is relevant to public health because patients with both opioid use disorder (OUD) and posttraumatic stress disorder (PTSD) are at high risk for dropping out of buprenorphine medication therapy and experiencing overdose. This project will first examine how helpful patients with PTSD and OUD find a device that administers therapeutic electrical stimulation to their vagus and trigeminal nerves through the skin around their ears and then complete FDA pre-submission for using the device with this population more broadly. Finally, researchers will study how effective the device is for helping patients with PTSD and OUD stay in buprenorphine treatment by comparing the results of those who received therapeutic stimulation versus those who believed that they had but, in fact, did not.

### **Recovery Delivered Expands Services to Accept Medicaid in Ohio for Online Suboxone to Treat Opioid Addiction**

DENVER, CO / ACCESSWIRE / January 4, 2024 / Recovery Delivered, the largest online provider of Suboxone in the United States, is pleased to announce that they can now accept Medicaid in Ohio for online Suboxone doctor visits. This expansion marks a significant step in the company's mission to make quality addiction treatment accessible to those who need it most. "We are excited to announce that we can now accept Medicaid in Ohio," says Marcus Hansen, CMO of RecoveryDelivered.com. "We understand that the vast majority of people seeking help with opioid addiction have Medicaid as their insurance. This is why, in 2024, our primary focus will be to expand our ability to accept state...

### **Study finds pod-based e-cigarettes with higher nicotine more likely to cause irregular heartbeat**

With the start of a new year, smokers and vapers may have resolved to quit or cut back on the habit to improve their health. They may want to use caution, however,

if their strategy involves switching from cigarettes to e-cigarettes, considered by some to be a less harmful alternative. A new study from the University of Louisville (UofL) shows the nicotine in certain types of e-cigarettes may be more harmful than others, increasing the risk for irregular heartbeat or heart arrhythmias. A popular claim is that nicotine in e-cigarettes is relatively harmless, whereas additives and combustion products largely account for the harms of traditional cigarettes. The UofL research, which tested the effects...

### **Kentucky could lead the nation in addiction treatment innovation with ibogaine. It should seize it.**

This month brought an unfortunate development in Kentucky's efforts to research innovative solutions to the state's opioid epidemic. W. Bryan Hubbard, head of the Kentucky Opioid Abatement Advisory Commission, was forced to resign after attorney general Russell Coleman requested he "move the commission in a different direction" regarding its proposed \$42 million investment into research on the psychedelic compound ibogaine. Hubbard deserves praise for his leadership on this front. His months-long personal investigation into ibogaine's potential led him to stake his career on the conviction it could provide a "breakthrough opportunity" for Kentucky. And his proposal...

### **Marion County is a 'hotspot' for youth overdose deaths, study finds**

Indiana's most populous county has been named as one of the cities in the United States with the highest levels of a deadly trend: Youth overdoses. New research from the University of California, Los Angeles (UCLA) names Marion County as a 'hotspot' for fatal overdoses among adolescents aged 14 to 18 years old in 2022. That year, 21 minors died from drug overdoses. Researchers found that overdose deaths were not due to an increase in youth drug use. Rather, illicit drug use among minors — except cannabis — had dropped significantly among U.S. 12th graders since 2002, from 21% to 8%. The introduction of fentanyl in street drugs has resulted in narcotics becoming deadlier. The synthetic opioid...

## **National News**

### **Scientists give new insight into a molecular target of alcohol**

Previous studies identified one such molecule, a protein widely expressed in the brain, called the BK channel. Ethanol can directly interact with a component of BK channels, known as the  $\alpha$  subunit, to facilitate their opening. However, scientists at Scripps Research found that this interaction may not drive behaviors related to alcohol abuse as much as previously thought. Their study, appearing in the journal *Molecular Psychiatry* on December 22, 2023, demonstrates that preventing ethanol from interacting with the BK  $\alpha$  subunit does not reduce or increase the motivation to consume alcohol in mice. The relationship...

### **Social anxiety, depression linked to more negative alcohol-related consequences from 'pre-gaming'**

College students with social anxiety may be driven by social motives to "pre-game," meaning drink prior to a party or event. Simultaneously, students with co-occurring social anxiety and depression also experience more negative consequences, like blackouts, from their alcohol use, according to a study published in *Alcohol: Clinical and Experimental Research*. The study authors recommend efforts to help students address mental health issues and their motivations for drinking before social events to prevent the harms associated with pre-gaming. Pre-gaming, sometimes called frontloading or pre-partying...

### **U.S. Has Seen Steady Rise in Role of Alcohol, Drugs in Heart Deaths**

WEDNESDAY, Jan. 10, 2024 (HealthDay News) -- Heart disease deaths linked with alcohol or drug use have been steadily increasing in the United States, a new study has found. Deaths from heart disease in which substance use was cited as contributor rose an average of 4% per year between 1999 and 2019, researchers report. Further, the death rate accelerated in recent years, rising more than 6% from 2012 to 2019, according to findings published in the *Journal of the American Heart Association*. This occurred even though overall deaths from heart disease declined during the same period. "The study results were..."

### **Reddit Posts Show Ozempic, Wegovy Cutting Users' Alcohol Use**

TUESDAY, Jan. 9, 2024 (HealthDay News) -- Social media is abuzz with the possibility that newfangled weight loss drugs can also reduce cravings for alcohol, a new study says. Across a number of Reddit threads, users of weight-loss drugs like Ozempic reported that they felt less need to drink beer, wine and liquor. Threads bearing titles like "Did scientists accidentally invent an anti-addiction drug?" and "I don't know if this is a side effect but ... Mounjaro makes me drink less!!!!!" tout the weight-loss drugs' potential to help folks quit drinking, researchers said. What's more, a small study of social media participants with...

### **Hepatitis linked to alcohol increasingly drives emergency department visits, especially among younger adults: Study**

Hepatitis linked to alcohol, the most severe form of alcohol-associated liver disease, is increasingly prevalent, severe, and likely to involve emergency departments, according to a new analysis. The findings reflect increased drinking and alcohol-linked liver disease in the general population. Rising rates of alcohol-associated hepatitis, including among adults aged 25–44 years, are known to be causing greater disability, mortality, and health care and economic costs. The growing use of emergency departments for alcohol complications, rather than more cost-effective primary care services, further amplifies...

### **Study suggests artificial intelligence can help identify patients in need of alcohol treatment**

An artificial intelligence-based program efficiently and accurately identified patients' risky alcohol use by analyzing their health records, according to a study published in *Alcohol: Clinical and Experimental Research*. The artificial intelligence-based natural language processing algorithm accurately identified three times more patients with risky alcohol use compared to diagnostic codes alone. The study showed artificial intelligence-based strategies may be an effective tool to identify people at risk for alcohol problems and prevent related surgical complications. The researchers believe this is the first...

### **Researchers report dramatic decline in cigarette use among US teens over three decades**

Cigarette smoking remains the leading avoidable cause of premature death in the United States, accounting for approximately 500,000 deaths or 1 in 5 deaths annually. According to the U.S. Department of Health and Human Services, most adults who smoke cigarettes started before age 18, so preventing cigarette smoking in adolescents is important to reducing smoking in adults. In a new study, researchers from Florida Atlantic University's Schmidt College of Medicine and collaborators explored overall trends in cigarette smoking among a large sample of U.S. adolescents in grades nine to 12...

### **Hoping to clear the air in casinos, workers seek to ban tobacco smoke**

The instant Tammy Brady felt the lump in her breast in February 2022, she knew it was cancer. With no known genetic predisposition for breast cancer, she suspects 38 years of working in smoky Atlantic City casinos played a role. "I was just trying to make a living," said Brady, 56, a dealer and supervisor at Borgata in that New Jersey resort city. "You don't think, you know, that you're going to get sick at your job." Some casinos continue to allow indoor smoking even as the share of Americans who smoke fell from about 21% in 2005 to 12% in 2021 and smoking is banned in at least some public spaces in 35...

### **Is it a problem? Here's what you need to know about tobacco-free oral nicotine**

COLUMBUS, Ga. (WRBL) — Tobacco-free oral nicotine pouches are on the rise and many institutions are still figuring out how to handle it. Sales of oral nicotine pouch products in the U.S. increased from just over \$126 million in 2019 to just over \$808 million in 2022. "It's on TikTok, it's on Snapchat, whatever – all social media ... and it's not stigmatized, whereas cigarettes have become kind of taboo," said Dr. Rebecca Toland, who teaches entry-level addiction courses as an assistant professor of Health Sciences at Columbus State University (CSU). While the phenomenon can be observed on a local level, it...

### **Supreme Court declines to review flavored cigarette ban in California**

The Supreme Court on Monday declined to take up a challenge to the flavored cigarette ban in California, meaning the state law will remain in place. Tobacco and cigarette companies argued that states do not have the authority to ban flavored cigarettes under the federal Tobacco Control Act (TCA). California's ban on flavored tobacco products went into effect in December 2022, after 62 percent of the state's voters voted in favor of prohibiting the sale of flavored tobacco products that year. "Under the TCA, states have broad authority to regulate the sale of tobacco products. They can raise the minimum purchase...

### **E-cigarettes found to help more tobacco smokers quit than traditional nicotine replacement**

Nicotine e-cigarettes are more effective in helping people quit smoking than conventional nicotine-replacement therapy (NRT), according to the latest Cochrane review co-led by a University of Massachusetts Amherst public health and health policy researcher. The review of studies published on the Cochrane Database of Systematic Reviews found high certainty evidence that e-cigarettes, which allow users to "vape" nicotine instead of smoke it, lead to better chances of quitting smoking than patches, gums, lozenges or other traditional NRT. "In England, quite different from the rest of the world, e-cigarettes have...

### **Residential addiction treatment for adolescents is scarce and expensive**

Access to residential addiction treatment centers caring for U.S. adolescents under 18 years old in the United States is limited and costly, according to a new study supported by the National Institutes of Health. Researchers found that only about half (54%) of the residential addiction treatment facilities that they contacted had a bed immediately available, and for those that had a waitlist, the average estimated time before a bed opened was 28 days. In addition, the average daily cost per day of treatment was \$878, with close to half (48%) of the facilities that provided information requiring partial or full payment...

### **New research shows mobile methadone units are most impactful in rural areas**

While mobile methadone units make a difference in expanding methadone use for patients with opioid addictions, they are likely to be most impactful in rural areas, according to new research. The research was published in Health Services Research and focused on the impact of adding new treatment services exclusively to rural Louisiana, where like in many other remote parts of the country, there are limited health care infrastructures and barriers to transportation. They compared this data to the impact of adding units statewide, where people have more access to traditional health care facilities. The...

### **Study: About 22 adolescents died weekly from overdoses in 2022, driven by fentanyl-laced prescription pills**

An average of 22 adolescents 14 to 18 years of age died in the U.S. each week in 2022 from drug overdoses, raising the death rate for this group to 5.2 per 100,000—driven by fentanyl in counterfeit pills, new research finds. Adolescent overdoses had more than doubled among this group between 2019 and 2020 and have since intensified to such an extent that the death count equals a high school classroom each week and is now the third largest cause of pediatric deaths behind firearm-related injuries and motor vehicle collisions. The increase is, however, not due to more illicit drug use—which has, in fact, fallen...

### **HHS expands access to naloxone for ND Medicaid members**

North Dakota Health and Human Services (HHS) has issued a standing order making the life-saving drug naloxone available at no cost to North Dakota (ND) Medicaid members. Naloxone is a medication used to block or reverse the effects of an opioid overdose. The statewide standing order allows ND Medicaid enrolled pharmacies to dispense over-the-counter naloxone products at no cost to Medicaid members. The standing order will be used by the enrolled pharmacy to submit a claim for reimbursement to ND Medicaid. Pharmacies are required to comply with counseling requirements and follow...

### **The misguided reason why providers aren't prescribing more buprenorphine for opioid use disorder**

In December 2022, Congress repealed the “X-waiver” requirement, which had limited medical providers’ ability to prescribe buprenorphine-naloxone, one of the three medications approved by the Food and Drug Administration for the treatment of opioid use disorder. Lawmakers knew that the waiver was a major barrier to providing lifesaving medication that halves the risk of overdose to the millions of Americans needing treatment for opioid use disorder. Yet, even with the waiver nixed and increasing recognition of the importance of access to treatment, the number of providers prescribing...

### **Research finds dark web fentanyl-selling operations have grown rapidly, offer steep discounts**

Overdose deaths in North America have skyrocketed, primarily because of the spread of illegally manufactured fentanyl. In a new study, researchers have analyzed an early and prominent fentanyl-selling operation on the dark web. The organization sustained a significant growth rate, which allowed it to offer consumers steep discounts. In light of these findings, the authors conclude that it might be challenging to constrain supply by shuttering individual organizations since remaining organizations could grow rapidly to fill unmet demand. The study was conducted by researchers at Carnegie...

### **Mindfulness-oriented recovery enhancement boosts methadone treatment**

Telehealth-delivered mindfulness-oriented recovery enhancement (MORE) is a feasible and effective adjunct to methadone treatment (MT) for individuals with opioid use disorder (OUD) and pain, according to a study published online Dec. 7 in JAMA Psychiatry. Nina A. Cooperman, Psy.D., from Rutgers Robert Wood Johnson Medical School in Piscataway, New Jersey, and colleagues evaluated the efficacy of MT as usual (usual care) versus telehealth MORE plus usual care among people with an OUD and pain. The analysis included 154 participants. The researchers found that participants receiving MORE...

### **Reduced drug use is a meaningful treatment outcome for people with stimulant use disorders**

Reducing stimulant use was associated with significant improvement in measures of health and recovery among people with stimulant use disorder, even if they did not achieve total abstinence. This finding is according to an analysis of data from 13 randomized clinical trials of treatments for stimulant use disorders involving methamphetamine and cocaine. Historically, total abstinence has been the standard goal of treatment for substance use disorders, however, these findings support the growing recognition that a more nuanced perspective on measuring treatment success may be beneficial. The...

### **Doctors are as vulnerable to addiction as anyone: California grapples with a response**

As addiction and overdose deaths command headlines across the nation, the Medical Board of California, which licenses MDs, is developing a new program to treat and monitor doctors with alcohol and drug problems. But a fault line has appeared over whether those who join the new program without being ordered to by the board should be subject to public disclosure. Patient advocates note that the medical board's primary mission is "to protect health care consumers and prevent harm," which they say trumps physician privacy. The names of those required by the board to undergo treatment...

## **Funding Opportunities**



## **GRANTS & FUNDING**

NIH Central Resource for Grants and Funding Information

[PAR-24-060](#)

[Pilot and Feasibility Studies in Preparation for Substance Use Prevention Trials \(R34 Clinical Trial Optional\)](#)

## CAR Member New Publications

### **Contamination of surfaces in children's homes with nicotine and the potent carcinogenic tobacco-specific nitrosamine NNK**

Ashley L. Merianos, Georg E. Matt, Timothy M. Stone, Roman A. Jandarov, Eunha Hoh, Nathan G. Dodder, Penelope J. E. Quintana, Nicolas Lopez-Galvez, Lara Stone & E. Melinda Mahabee-Gittens

*Journal of Exposure Science & Environmental Epidemiology*

DOI: <https://10.1038/s41370-023-00629-8>

#### **ABSTRACT**

**Background:** Tobacco smoke exposure (TSE) through secondhand and thirdhand smoke is a modifiable risk factor that contributes to childhood morbidity. Limited research has assessed surface TSE pollution in children's environments as a potential source of thirdhand smoke exposure, and none have examined levels of the tobacco-specific nitrosamine 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) on surfaces.

**Objective:** This study measured surface NNK and nicotine in children's homes and associations with sociodemographics and parent-reported TSE behaviors. We assessed correlations of surface NNK and nicotine with dust NNK, dust nicotine, and child cotinine.

**Methods:** Home surface wipe NNK and nicotine data from 84 children who lived with smokers were analyzed. Tobit and simple linear regression analyses were conducted to assess associations of surface NNK and nicotine with child characteristics. Spearman's ( $\rho$ ) correlations assessed the strength of associations between environmental markers and child cotinine.

**Results:** Nearly half (48.8%) of children's home surfaces had detectable NNK and 100% had detectable nicotine. The respective geometric means (GMs) of surface NNK and nicotine loadings were 14.0 ng/m<sup>2</sup> and 16.4  $\mu$ g/m<sup>2</sup>. Surface NNK positively correlated with surface nicotine ( $\rho = 0.54$ ,  $p < 0.001$ ) and dust NNK ( $\rho = 0.30$ ,  $p = 0.020$ ). Surface nicotine positively correlated with dust NNK ( $\rho = 0.42$ ,  $p < 0.001$ ) and dust nicotine ( $\rho = 0.24$ ,  $p = 0.041$ ). Children with household incomes  $\leq$ \$15,000 had higher surface NNK levels (GM = 18.7 ng/m<sup>2</sup>,  $p = 0.017$ ) compared to children with household incomes  $>$ \$15,000 (GM = 7.1 ng/m<sup>2</sup>). Children with no home smoking bans had higher surface NNK (GM = 18.1 ng/m<sup>2</sup>,  $p = 0.020$ ) and surface nicotine (GM = 17.7  $\mu$ g/m<sup>2</sup>,  $p = 0.019$ ) levels compared to children with smoking bans (GM = 7.5 ng/m<sup>2</sup>, 4.8  $\mu$ g/m<sup>2</sup>, respectively).

**Impact:** Although nicotine on surfaces is an established marker of thirdhand smoke pollution, other thirdhand smoke contaminants have not been measured on surfaces in the homes of children living with smokers. We provide evidence that the potent carcinogenic tobacco-specific nitrosamine NNK was detectable on surfaces in nearly half of children's homes, and nicotine was detectable on all surfaces. Surface NNK was positively correlated with surface nicotine and dust NNK. Detectable surface NNK levels were found in homes

with indoor smoking bans, indicating the role of NNK as a persistent thirdhand smoke pollutant accumulating on surfaces as well as in dust.

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