



## VA research on SUBSTANCE USE DISORDERS

VA supports a broad portfolio of research looking at substance abuse prevention, screening, and treatment.

### ABOUT SUBSTANCE USE DISORDERS

• Substance use and misuse, with its associated health consequences, is a major public health problem. SUDs include dependencies on alcohol, illicit and prescription drugs, and nicotine. SUDs have substantial negative consequences on Veterans' mental and physical health, work performance, housing status, and social function.

• SUDs can develop in individuals who use alcohol or other addicting drugs in harmful quantities. According to the [VA/DoD Clinical Practice Guideline for the Management of Substance Use Disorders](#), about 9 percent of Americans over age 18 have a non-tobacco SUD, and about 1 in 4 Americans will develop a non-tobacco SUD over the course of a lifetime. Excessive alcohol use alone leads to about 88,000 premature deaths each year.

• In service members and Veterans, SUD commonly co-occurs with and complicates other conditions or issues. These conditions or issues may be health-related, such as other mental health conditions. They may also be societal, such as homelessness, criminal justice involvement, or unemployment.

### VA RESEARCH ON SUBSTANCE USE DISORDERS: OVERVIEW

• VA researchers are looking at treatment-seeking patterns: why and when Veterans

ask for help—and why many don't. Treatment strategies, including cognitive behavioral strategies and web-based approaches, are also being studied.

• Other researchers are working to identify the most effective therapies for comorbid disorders, such as depression and PTSD, and attempting to determine whether early intervention improves outcomes. Still others are focusing on how readjustment issues relate to substance abuse.

• VA is highly engaged in collaborative activities with other federal research agencies—including the departments of Health and Human Services and Defense—especially focused on research that could lead to advances in reducing SUD in Veterans and related to managing opioid use.

• A Collaborative Research to Enhance and Advance Transformation and Excellence (CREATE) [group](#) is working to promote value and access in VA's SUD services. The group is doing so by validating and refining quality metrics; evaluating and disseminating low-cost, high impact innovations; and promoting patient and provider knowledge about evidence-based treatment for SUDs.

### SELECTED MILESTONES AND MAJOR EVENTS

**1956** – [Linked](#) cigarette smoking with precancerous lesions

**1976** – Completed a comparison [trial](#) of two different types of methadone

**1984** – Developed the [nicotine transdermal patch](#) and other therapies to help smokers quit

**1992** – Published a [study](#) in which the drug Naltrexone was shown to be effective in keeping alcoholics from relapsing into heavy drinking and reduced cravings for alcohol

**2013** – Successfully [tested](#) a vaccine to treat methamphetamine addiction on mice

**2016** – [Developed](#), and tested on rats, a painkiller as strong as morphine that is unlikely to be addictive and has fewer side effects

**2017** – [VA-DoD-NIH Pain Collaboratory](#) created to fund studies on non-opioid pain treatments

### RECENT STUDIES: SELECTED HIGHLIGHTS

• **Smokers are confused about the benefits of lung cancer screening**, according to a VA Seattle-Denver Center of Innovation study. A survey of patients showed that most were mistaken about the benefits of screenings and smoking in general. Patients falsely believed that lung cancer screenings could prevent cancer, and were confused about the health risks

*(Continued on back)*



of smoking. (*Annals of the American Thoracic Society*, September 2018)

**• Researchers are working on a pain medication that could potentially work as well as opioids without being addictive.**

The drug, AT-121, works on the mu opioid receptor, a type of neuron that opioids interact with to block pain. AT-121 also activates the nociception receptor, which blocks the addictive side effects of opioids. Animal studies showed that AT-121 gave the same level of pain relief as opioids without the risk of addiction, but more studies will be needed before it can be tested on humans. (*Science Translational Medicine*, Aug. 29, 2018)

**• Hazardous drinking was linked to higher likelihood of psychiatric symptoms,**

in a Durham VA Health Care System study. Researchers found that hazardous drinkers were more likely to have PTSD, depression, and suicidality, compared with moderate drinkers. Results for moderate drinkers were mixed, with some male moderate drinkers showing lower rates of depression and suicidality than nondrinkers, and women moderate drinkers showing lower rates of PTSD than nondrinkers. (*Journal of Studies on Alcohol and Drugs*, July 2018)

**• Opioid prescribing has declined in VA in recent years,**

found an Iowa City VA Healthcare System study. Opioid prescriptions peaked in 2012 at 21.2 percent of all VA patients receiving

at least one outpatient prescription. The rate then declined annually to 16.1 percent in 2016. The results show that recent VA opioid initiatives may be succeeding in preventing patients from beginning long-term opioid use. (*Journal of General Internal Medicine*, June 2018)

**• Cannabis use disorder may increase Veterans' risk of suicide and non-suicidal self-injury,**

according to a study by Durham VA Medical Center and Central Texas VA Health Care System researchers. Study participants with cannabis use disorder had three times higher odds of any type of self-injury compared to those without the disorder. The odds of non-suicidal self-injury were higher than the odds of suicide attempts for participants with cannabis use disorder. (*Suicide & Life-Threatening Behavior*, April 2018)

**• Stimulant use increases mortality risk for HIV-infected men,**

according to the Veterans Aging Cohort Study. Patients who used stimulants, such as cocaine and methamphetamine, scored five points higher on a mortality risk scale than participants who were cannabis and alcohol users. Participants who used stimulants were also more likely to have unhealthy alcohol and opioid use. (*AIDS and Behavior*, April 2018)

**• A study by VA Minneapolis VA Health Care System researchers found that opioids were not superior**

**to non-opioids** for improving pain-related function over 12 months. In fact, non-opioid medications were more effective than opioids for reducing pain intensity. The results do not support starting opioid therapy for moderate to severe chronic back pain or hip or knee osteoarthritis pain. The study found no advantages to opioids that would outweigh their greater risk of serious harm. (*JAMA*, March 6, 2018)

**• Electronic health record alerts can lower co-prescribing of opioids and benzodiazepines**

in high-risk patients, found a VA Puget Sound Health Care System study. Investigators used VA's electronic health record system to automatically alert care providers prescribing either opioids or benzos when patients had prescriptions for the other drug class. Co-prescribing dropped for high-risk patients with SUD, sleep apnea, and suicide risk. Taking both drugs together greatly increases the risk of overdose death. (*Medical Care*, February 2018)

**For more information on VA studies on substance use disorders and other key topics relating to Veterans' health, please visit [www.research.va.gov/topics](http://www.research.va.gov/topics)**

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