PsychU®
Improving mental health care... together®

# Dual Realities:

## Navigating The Complex Interface Of Mental Illness And Substance Use Disorders

September 2025 US.PSY.D.25.00020

This program is paid for by Otsuka Pharmaceutical Development & Commercialization, Inc. (OPDC).

Speakers are employees and/or paid consultants of Otsuka Pharmaceutical Development & Commercialization, Inc.

# Objectives

Examine the bidirectional relationship between substance use disorders and mental health conditions, with an emphasis on the neurobiological connections between the two

Provide an overview of the co-occurrence of substance use disorders in individuals with mental illness

Review diagnostic challenges, pharmacological and psychotherapeutic treatment options, and payer perspectives on care access



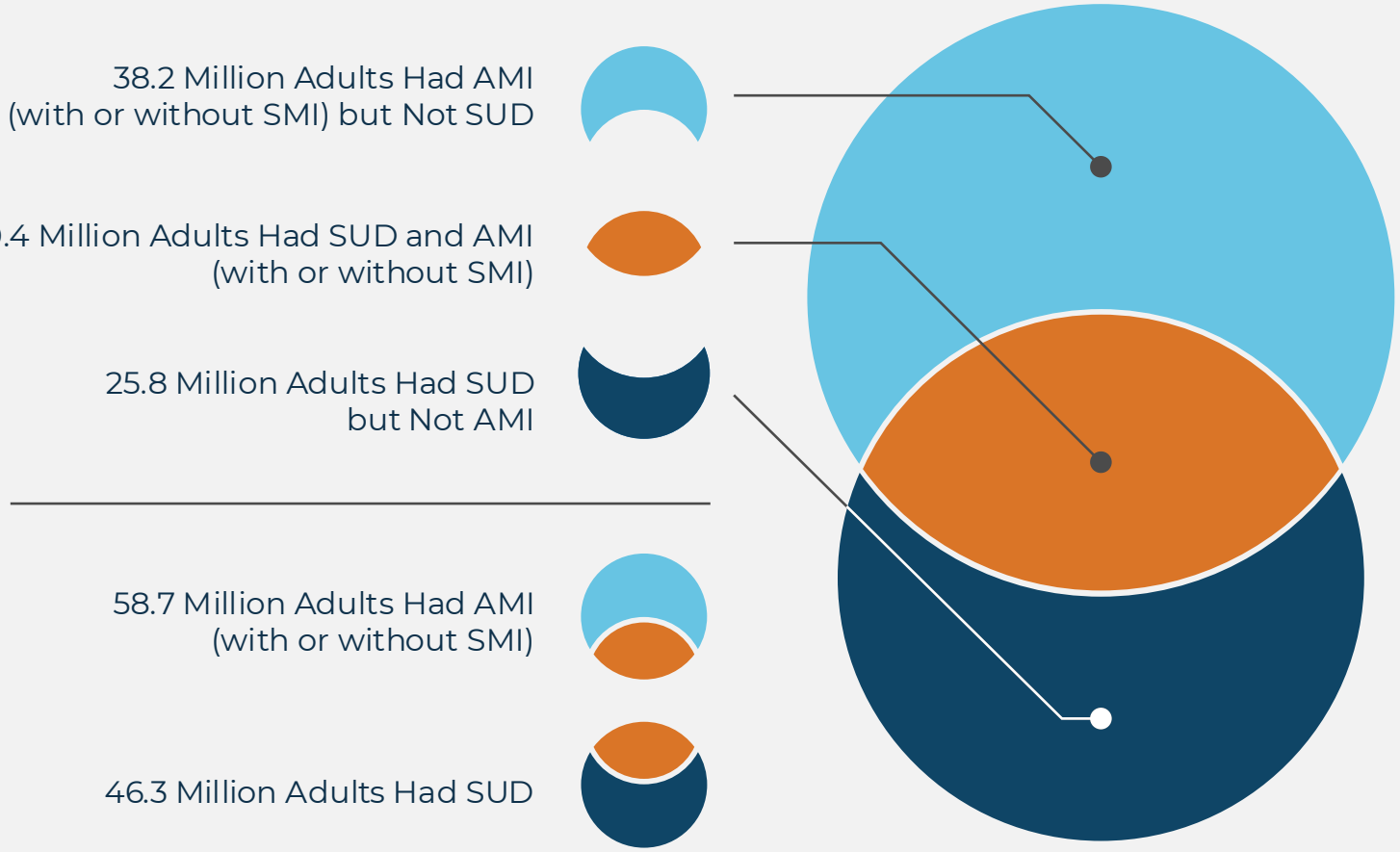


PsychU® Improving mental health care... together®

# Substance Use Disorders And Mental Illness Overview

# Examining the Co-Occurrence Of Mental Illness And Substance Use Disorder (SUD) Among Adults[1]

## Any Mental Disorder (AMI) Or SUD In The Past Year Among Adults* (2023)




**84.5 Million Adults Had Either AMI (with or without SMI) or SUD**

SMI, serious mental illness.
*Adults were considered those of 18 years old or older.

**Reference:**


1. Key substance use and mental health indicators in the United States: results from the 2023 National Survey on Drug Use and Health. SAMHSA. Published July 2024. Accessed May 19, 2025. https://www.samhsa.gov/data/report/2023-nsduh-annual-national-report.






PsychU® Improving mental health care... together®

# Understanding The Prevalence Of SUD In Certain Mental Illnesses

| Mental Illness | Prevalence Of SUD Co-Occurrence |
|---|---|
| ADHD[1*] | 23.1% |
| Bipolar I Disorder[2] | 65% (lifetime prevalence) |
| Bipolar II Disorder[2] | ~37% |
| MDD[3] | 25% |
| Schizophrenia[4] | ~20-65% |

*For both adults and adolescents[1].
ADHD, attention-deficit/hyperactivity disorder; MDD, major depressive disorder; SUD, substance use disorder.

**References:**


1. Srichawla BS, et al. *Cureus*. 2022;14(4):e24068.
2. Bipolar disorder and addiction. American Addition Centers. Updated April 30, 2025. Accessed May 21, 2025. https://americanaddictioncenters.org/co-occurring-disorders/bipolar.
3. Hunt GE, et al. *J Affect Disord*. 2020;266:288-304.
4. Ward HB, et al. *Pers Med in Psych*. 2023;39-40:100106.






PsychU® Improving mental health care... together®

# SUDs And Mental Illnesses Can Independently Develop Due To Common Risk Factors

## Predisposing factors for SUDs and mental illness can include[1]:

- Family history of problem behaviors and family conflict
- Academic failure starting in late elementary school
- Early and persistent antisocial behavior
- Economic deprivation
- Childhood adversity
- Social exclusion

| Genetic Factors | |
|---|---|
| Mental Illness (MI)[2] | SUDs[3] |
| • Common MIs come from a complex interplay of life experiences, environmental factors, and genetic variations which influence gene expression<br>• While most genetic variations don't directly cause MIs, rare gene variants can increase the risk | • Children of those with a SUD are 4x more likely to develop a SUD<br>• The development of SUD is not a straightforward genetic process as relational and social experiences can be a factor |

SUD, substance use disorder.

**References:**

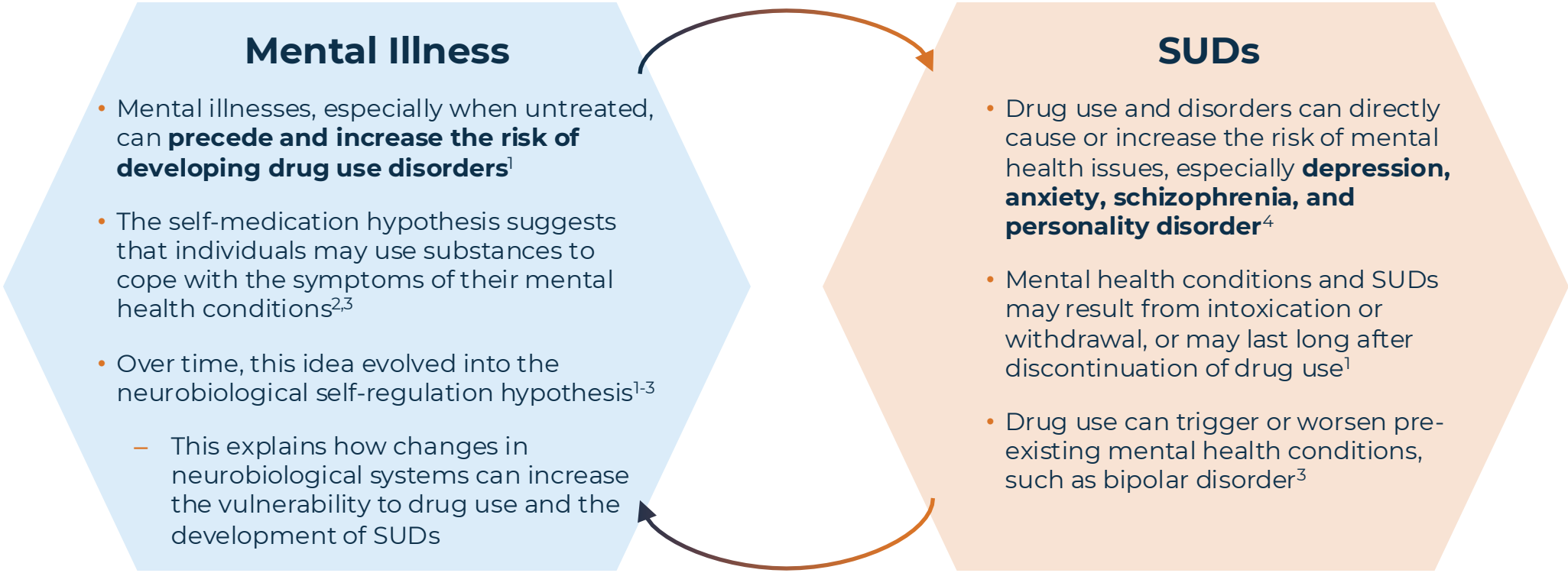

1. Comorbidities in drug use disorders. UNODC. Published March 2022. Accessed May 1, 2025. https://www.unodc.org/documents/drug-prevention-and-treatment/UNODC_Comorbidities_in_drug_use_disorders.pdf.
2. Looking at my genes: what can they tell me about my mental health? NIH. Revised 2024. Accessed May 29, 2025. https://www.nimh.nih.gov/health/publications/looking-at-my-genes#:~:text=How.
3. Keller A, et al. *Addict Sci Clin Pract*. 2024;19(1):57.






PsychU® Improving mental health care... together®

# Bidirectional Relationship Between Mental Illness And SUDs




SUD, substance use disorder.

**References:**


1. Comorbidities in drug use disorders. UNODC. Published March 2022. Accessed May 1, 2025. https://www.unodc.org/documents/drug-prevention-and-treatment/UNODC_Comorbidities_in_drug_use_disorders.pdf.
2. Schimmenti A, et al. *Addict Behav*. 2022;134:107431.
3. Common comorbidities with substance use disorders research report. National Institutes on Drug Abuse (US). Published April 2020. Accessed May 1, 2025. https://www.ncbi.nlm.nih.gov/books/NBK571451.
4. What are co-occurring disorders? SAMHSA. Published April 24, 2023. Accessed May 19, 2025. https://www.samhsa.gov/mental-health/what-is-mental-health/conditions/co-occurring-disorders.

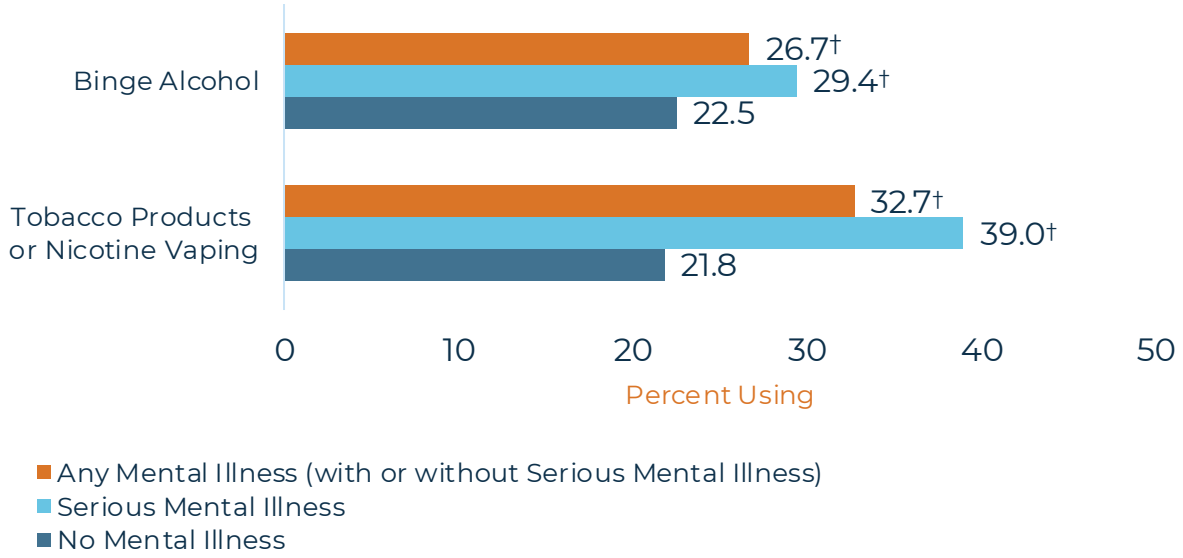





PsychU® Improving mental health care... together®

# Higher Rates of Tobacco, Nicotine, And Alcohol Use Among Adults* With Mental Illness In Past Month (2023)[1]

## Substance Use In Adults* With Or Without Any Mental Illness In The Past Month For 2023




| Period/Substance | 18 Years Or Older | Any Mental Illness | No Mental Illness |
|---|---|---|---|
| | % (SE) | | |
| Tobacco Product Use Or Nicotine Vaping | 24.3 (0.35) | 32.7 (0.71) | 21.8 (0.39) |
| Tobacco Products | 19.2 (0.33) | 24.4 (0.66) | 17.7 (0.37) |
| Cigarettes | 14.9 (0.30) | 20.3 (0.62) | 13.3 (0.33) |
| Nicotine Vaping | 9.6 (0.21) | 17.2 (0.52) | 7.4 (0.20) |
| Alcohol | 51.6 (0.46) | 53.5 (0.78) | 51.1 (0.53) |
| Binge Alcohol Use | 23.5 (0.33) | 26.7 (0.60) | 22.5 (0.38) |
| Heavy Alcohol Use | 6.3 (0.18) | 8.1 (0.37) | 5.8 (0.20) |
| Marijuana | 16.3 (0.30) | 27.0 (0.64) | 13.2 (0.31) |
| Marijuana Vaping | 5.8 (0.15) | 12.1 (0.41) | 3.9 (0.15) |

*Adults were considered those 18 years old or older.

†Difference between this estimate and the estimate for adults* without mental illness is statistically significant at the 0.5 level.

**Reference:**


1. Key substance use and mental health indicators in the United States: results from the 2023 National Survey on Drug Use and Health. SAMHSA. Published July 30, 2024. Accessed May 19, 2025. https://www.samhsa.gov/data/report/2023-nsduh-annual-national-report.

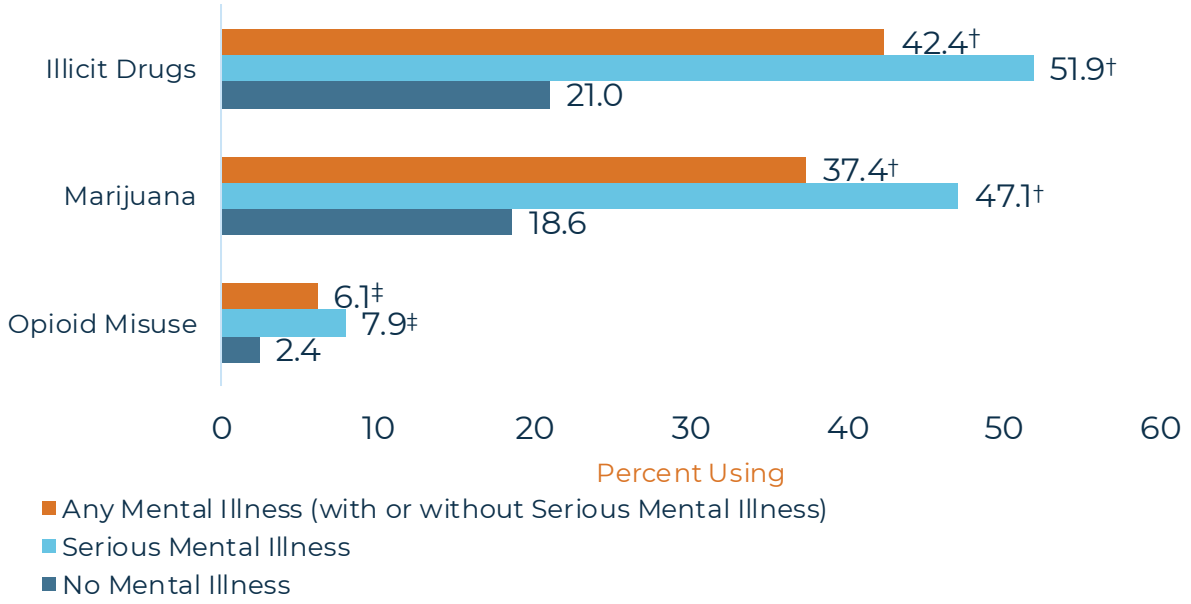





PsychU® Improving mental health care... together®

# Illicit Drug, Marijuana, And Opioid Use Was High Among Adults* With Mental Illness Compared To Those Without In The Past Year (2023)[1]

## Substance Use In Adults* With Or Without Any Mental Illness In The Past Year For 2023




| Period/Substance | 18 Years Or Older | Any Mental Illness | No Mental Illness |
|---|---|---|---|
| | % (SE) | | |
| Illicit Drugs | 25.9 (0.35) | 42.4 (0.70) | 21.0 (0.37) |
| Marijuana | 22.9 (0.34) | 37.4 (0.71) | 18.6 (0.35) |
| Cocaine | 1.9 (0.10) | 4.2 (0.30) | 1.3 (0.09) |
| Heroin | 0.3 (0.03) | 0.5 (0.09) | 0.2 (0.03) |
| Hallucinogens | 3.3 (0.11) | 7.2 (0.33) | 2.1 (0.10) |
| Inhalants | 0.8 (0.06) | 1.7 (0.17) | 0.5 (0.06) |
| Methamphetamine | 1.0 (0.08) | 2.4 (0.24) | 0.6 (0.08) |
| Misuse Of Prescription Psychotherapeutics | 5.3 (0.16) | 11.0 (0.43) | 3.6 (0.16) |
| Pain Relievers | 3.1 (0.13) | 5.9 (0.33) | 2.3 (0.13) |
| Stimulants | 1.4 (0.07) | 3.6 (0.25) | 0.8 (0.06) |
| Tranquilizers Or Sedatives | 1.8 (0.10) | 4.4 (0.30) | 1.0 (0.09) |
| Misuse Of Opioids‡ | 3.2 (0.13) | 6.1 (0.33) | 2.4 (0.13) |
| Misuse Of Central Nervous System Stimulants | 3.6 (0.14) | 8.3 (0.39) | 2.3 (0.13) |

*Adults were considered those 18 years old or older.

†Difference between this estimate and the estimate for adults* without mental illness is statistically significant at the 0.5 level.

‡These estimates do not include illegally made fentanyl.

**Reference:**


1. Key substance use and mental health indicators in the United States: results from the 2023 National Survey on Drug Use and Health. SAMHSA. Published July 30, 2024. Accessed May 19, 2025. https://www.samhsa.gov/data/report/2023-nsduh-annual-national-report.

# Negative Outcomes Of SUDs And Mental Illnesses

| Negative Outcomes Association With: | | |
|---|---|---|
| Mental Illness | Drugs Or Consuming Alcohol | Comorbid SUD And Mental Illness |
| **Increased risk of:**<br>• Drug use[1]<br>• Experiencing violence[1]<br>• Sexual behaviors that can lead to HIV, STDs, and unintended pregnancy[1]<br>• Chronic diseases (eg, diabetes, heart disease, and stroke)[2]<br><br>Struggles with school and decision-making among youths[1] | **Effects of long-term alcohol use include[3]:**<br>• Learning and memory problems, including dementia<br>• Mental health conditions (eg, depression and anxiety)<br>• Chronic diseases (eg, high blood pressure, heart disease, and liver disease)<br><br>**Drug use can lead to[4]:**<br>• Dependence and addiction<br>• Injury and accidents<br>• Health problems<br>• Sleep issues | **Higher:**<br>• Risk for homelessness, incarceration, and suicide[5]<br>• Risk of drug use relapse[6]<br>• Morbidity and mortality[5]<br>• Treatment costs[5]<br><br>More profound functional impairment[5]<br>More emergency admissions[6]<br>Worse treatment outcomes[5] |

HIV, human immunodeficiency virus; SUD, substance use disorder; STD, sexually transmitted disease.

**References:**


1. Mental health: poor mental health effects adolescent well-being. CDC. Published November 29, 2024. Accessed May 29, 2025. https://www.cdc.gov/healthy-youth/mental-health/index.html.
2. About mental health. CDC. Published June 9, 2025. Accessed May 29, 2025. https://www.cdc.gov/mental-health/about/index.html.
3. Alcohol use and your health. CDC. Published January 14, 2025. Accessed May 29, 2025. https://www.cdc.gov/alcohol/about-alcohol-use/index.html.
4. Know the risks of using drugs. SAMHSA. Updated December 12, 2024. Accessed May 29, 2025. https://www.samhsa.gov/substance-use/learn/risks.
5. Substance Abuse and Mental Health Services Administration. Key substance use and mental health indicators in the United States: Results from the 2023 National Survey on Drug Use and Health (HHS Publication No. PEP24-07-021, NSDUH Series H-59). Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Published 2024. Accessed May 19, 2025. https://www.samhsa.gov/data/sites/default/files/reports/rpt47095/National%20Report/National%20Report/2023-nsduh-annual-national.pdf
6. Comorbidities in drug use disorders. UNODC. Published March 2022. Accessed May 1, 2025. https://www.unodc.org/documents/drug-prevention-and-treatment/UNODC_Comorbidities_in_drug_use_disorders.pdf.






PsychU® Improving mental health care... together®

# Impact Of Drugs Of Abuse On Neurobiological Pathways

# Neurobiological Impacts Of Substance Use Across Mental Illnesses[1]

| | | Primary Neurochemical Systems | Effects In Primary Brain Regions | Key Interactions |
|---|---|---|---|---|
| **Disorder Comorbid With Substance Use Disorders** | Depression[1] | • Corticotropin-releasing factor (CRF)<br>• Serotonergic<br>• Hypothalamic/extrahypothalamic<br>• Glutamatergic<br>• Dopaminergic<br>• Monoamine oxidase (MAO) activity | ↓ Activity in frontal-limbic circuits<br>↓ Activity in anterior cingulate<br>↑ Activity in amygdala<br>↓ MAO-A and MAO-B levels in the brain in smoking | • Similar imaging findings in major depression and substance use disorder<br>• Common alterations in stress response in major depression and substance use disorder<br>• Smoking-related MAO inhibition contributes to the antidepressant effect of smoking in major depression |
| | Bipolar Disorder[2,3] | • Glutamatergic<br>• Dopaminergic | ↑ Levels of “glutamix” (glutamate combined with glutamine peak) in anterior cingulated cortex hippocampus | • Neurons become increasingly sensitized due to repeated disruptions |

CSF, cerebrospinal fluid.

**References:**

1. Brady KT, et al. *Am J Psychiatry*. 2005;162(8):1483-1493.
2. Gómez-Coronado N, et al. *J Affect Disord*. 2018 1;241:388-401.
3. Grunze H, et al. *Front Psychiatry*. 2021;12:803208.





PsychU® Improving mental health care... together®

# Neurobiological Impacts Of Substance Use Across Mental Illnesses[1]

| | | Primary Neurochemical Systems | Effects In Primary Brain Regions | Key Interactions |
|---|---|---|---|---|
| **Disorder Comorbid With Substance Use Disorders** | Attention-deficit hyperactivity disorder (ADHD) | • Dopaminergic system<br>• Noradrenergic system | Frontal and prefrontal cortical dysfunction | Poor performance on prefrontal cortical-related tasks such as self-monitoring and behavioral and motor control<br>↓ Catecholamine input to prefrontal cortex leading to reduced drug seeking in animal models |
| | Schizophrenia | • Dopaminergic system<br>• Glutamatergic system | Prefrontal cortical and hippocampal/cortical dysfunction | • Dysregulated neural integration of dopamine/glutamate in nucleus accumbens leading to reduced inhibitory control of dopamine release<br>• Nicotine administration improves deficits in inhibitory gating of the P-50 evoked response to repeated auditory stimuli and deficits in smooth pursuit eye movement dysfunction and is associated with impairment in visuospatial working memory |

The intricate relationship between substance use mental illness is neurobiologically complex, involving multiple primary systems and brain regions, resulting in various key interactions

**Reference:**
1. Brady KT, et al. *Am J Psychiatry*. 2005;162(8):1483-1493.

# Understanding The Contribution Of Neuroinflammation In SUDs And Mood Disorders[1]

Chronic substance use and mood-related stressors activate neuroimmune pathways, with cytokine release disrupting neural circuits involved in reward processing and mood regulation

## Neuroinflammation In SUD And Mood Disorders

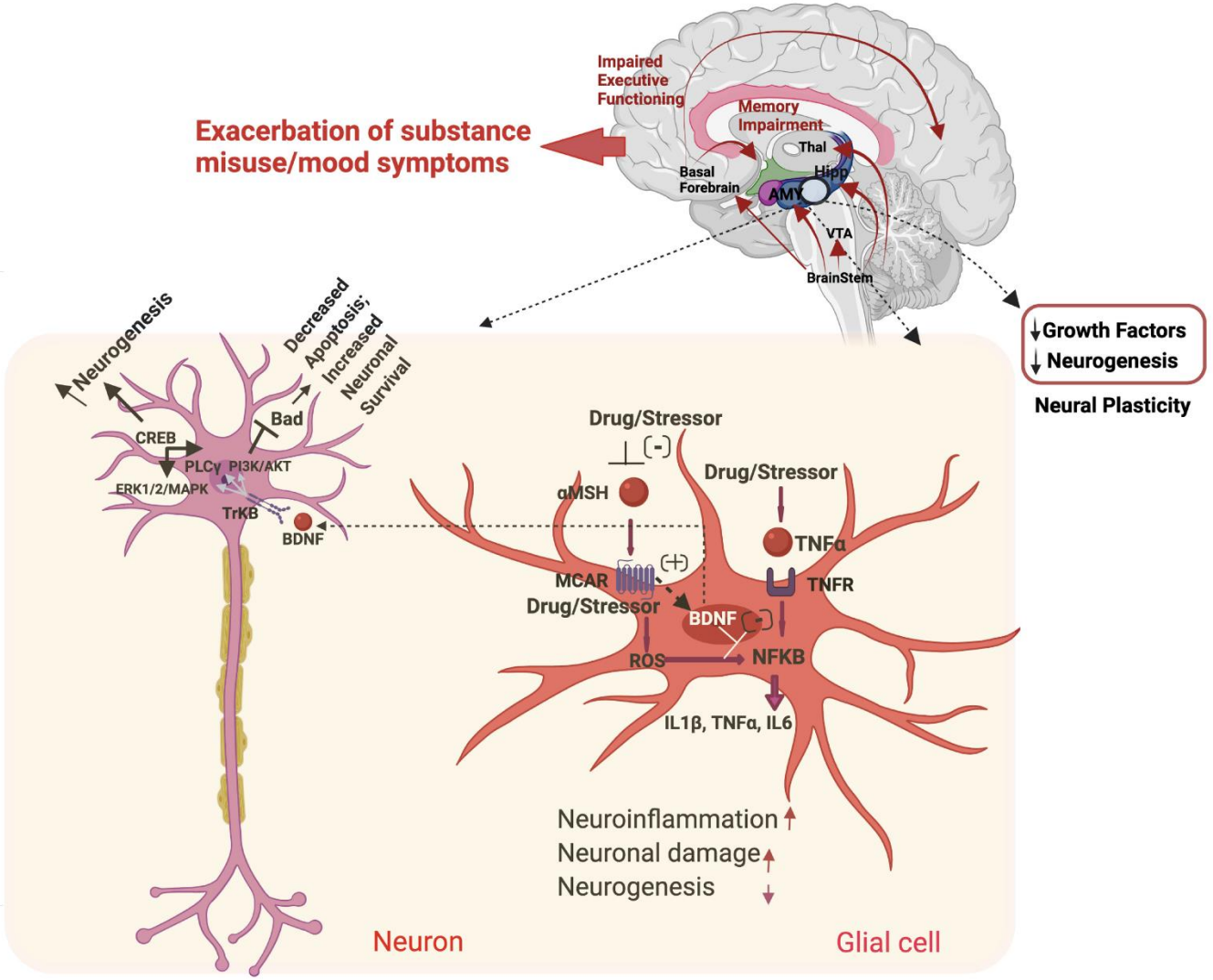



**Image Source:** Found on page 5, fig 1 in: Agarwal K, et al. *Front Psychiatry*. 2022;13::863734. https://doi.org/10.3389/fpsyt.2022.863734. This source is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY).

AKT, Serine/Threonine Kinase; AMY, Amygdala; Bad, BCL2 Associated Agonist of Cell Death; BDNF, Brain-Derived Neurotrophic Factor; CREB, cAMP Response Element Binding Protein; ERK, Serine/Threonine Protein Kinase; Hipp, Hippocampus; IL, Interleukin; MSH, Melanocyte Stimulating Hormone; PI3K, Phosphoinositide 3-kinases; PLC, Phospholipase C; ROS, Reactive Oxygen Species; SUD, substance use disorder; Thal, Thalamus; TNF, Tumor Necrosis Factor; TrKB, Tropomyosin Receptor Kinase B; VTA, Ventral Tegmental Area.

**Reference:**


1. Agarwal K, et al. *Front Psychiatry*. 2022;13:863734.

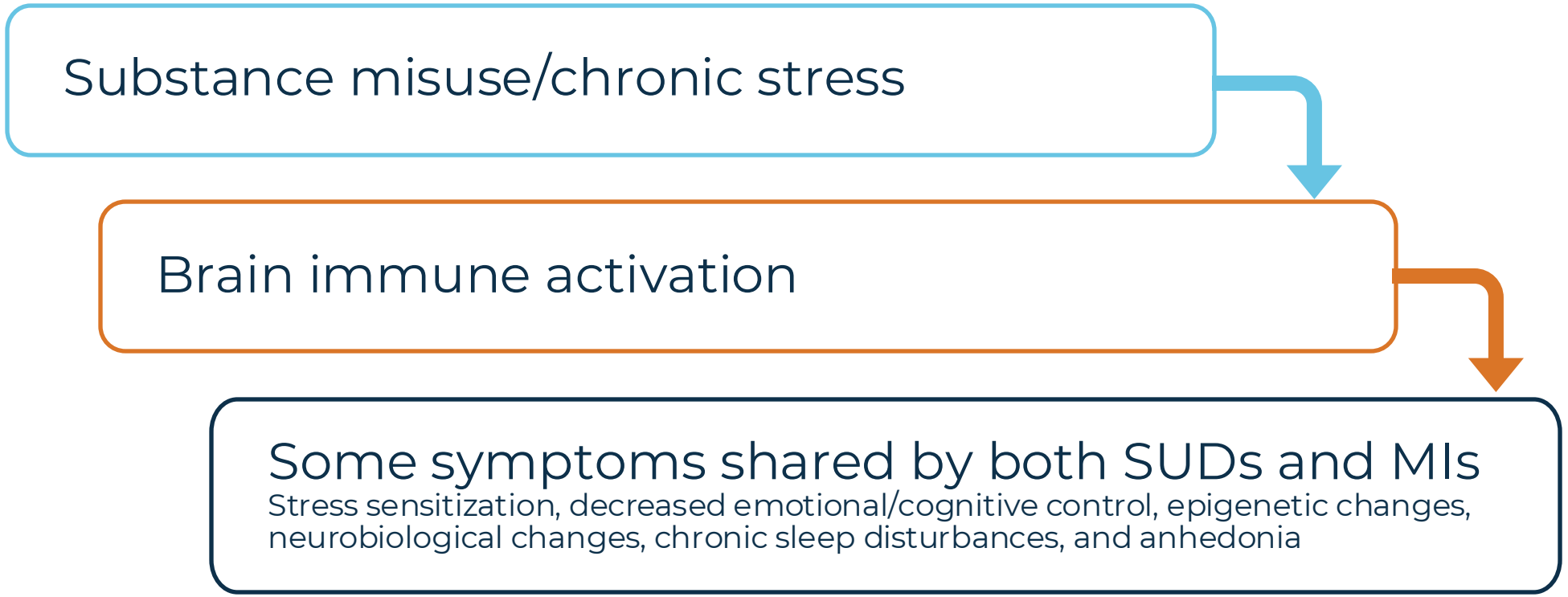





PsychU® Improving mental health care... together®

# Diagnostic And Treatment Challenges

# Shared Symptomology Between SUDs And Mental Illnesses[1]




MI, mental illness; SUD, substance use disorder.

**Reference:**

1. Agarwal K, et al. *Front Psychiatry.* 2022;13:863734.

# Substances Can Mimic Mental Illness During Or After Use

| Mental Disorder | Substances That Mimic Mental Disorders During Use (Intoxication) | Substances That Mimic Mental Disorders After Use (Withdrawal) |
|---|---|---|
| Depression and dysthymia | Alcohol, benzodiazepines, opioids, barbiturates, cannabis, steroids (chronic), stimulants (chronic) | Alcohol, benzodiazepines, barbiturates, opioids, steroids (chronic), stimulants (chronic) |
| Anxiety disorders | Alcohol, amphetamine and its derivatives, cannabis, cocaine, hallucinogens, intoxicants and PCP, inhalants, stimulants | Alcohol, cocaine, opioids, sedatives, hypnotics, anxiolytics, stimulants |
| Bipolar disorders and mania | Stimulants, alcohol, hallucinogens, inhalants (organic solvents), steroids (chronic, acute) | Alcohol, benzodiazepines, barbiturates, opioids, steroids (chronic) |
| Psychosis | Alcohol, anxiolytics, cannabis, hallucinogens (eg, PCP), inhalants, sedatives, hypnotics, stimulants | Alcohol, sedatives, hypnotics, anxiolytics |

PCP, phencyclidine.

**Reference:**

1. Substance use disorder treatment for people with co-occurring disorders. SAMHSA. Updated 2020. Accessed June 18, 2025. https://library.samhsa.gov/sites/default/files/pep20-02-01-004.pdf.

# Differential Diagnosis Challenges In SUDs And Mental Illness[1]

Scan here to access screening and assessment tools, along with other resources, for substance use disorder on PsychU

**Health care providers face the complex task of differentiating SUDs from mental illnesses**

- A challenge could be figuring out a timeline in the history of the presenting illness while considering contributing factors

**To add on to the complexity, individuals living with a dual diagnoses often turn to substances for various reasons** (eg, attempting to alleviate symptoms of an underlying mental illness, managing medication side effects, or coping with the stigma associated with these disorders)

**This all creates a complex web of intricate medical, social, and psychological needs** that require comprehensive and patient-centered care

SUD, substance use disorder.

**Reference:**

1. Bahji A. *J Clin Med*. 2024;13(4):999.





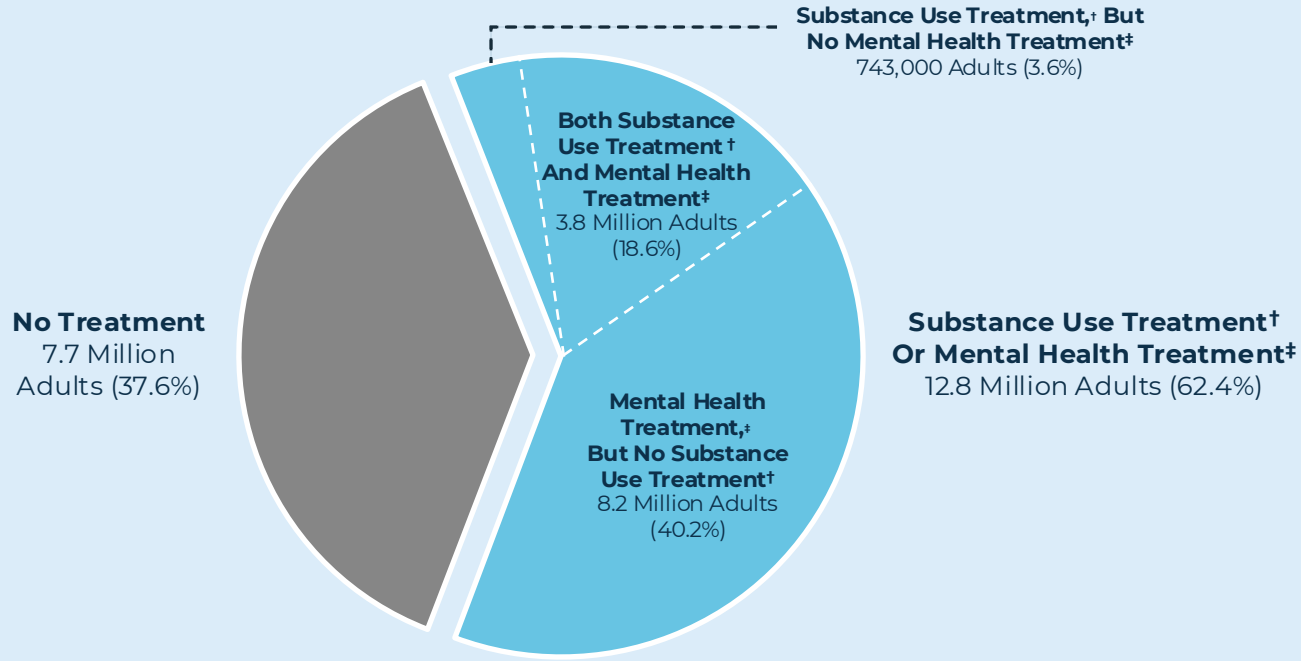
PsychU® Improving mental health care... together®

# In 2022, Nearly 8 Million Adults* With Co-Occurring AMI And SUD Did Not Receive Treatment For Either Condition[1]

## Importance Of Timely And Accurate Diagnoses

- Missed, delayed, or inaccurate mental illness diagnoses can lead to poorer patient outcomes and can waste time and resources[2]
- Misdiagnoses of SUDs can lead to negative outcomes including stigma, discontinuation of necessary medications, undue scrutiny of both patients and health care professionals, criminal consequences, and even life-threatening consequences[3]

## Treatment For Substance Use† Or Mental Health‡ Among Adults* In 2022 With Past-Year SUD And AMI (2023)[1§]




20.4 Million Adults With A Substance Use Disorder And Any Mental Illness

AMI, any mental illness; SUD, substance use disorder.

*Adults were considered those 18 years old or older.[1]

†Substance use treatment includes treatment for drug or alcohol use through inpatient treatment/counseling; outpatient treatment/counseling; medication-assisted treatment; telehealth treatment; or treatment received in a prison, jail, or juvenile detention center.[1]

‡Mental health treatment includes treatment/counseling received as an inpatient or as an outpatient; use of prescription medication to help with mental health; telehealth treatment; or treatment received in a prison, jail, or juvenile detention center.[1]

§The numbers for the interior pieces may not add to the number for the whole due to rounding.[1]

**References:**


1. Key substance use and mental health indicators in the United States: results from the 2023 National Survey on Drug Use and Health. SAMHSA. Published July 2024. Accessed May 1, 2025. https://www.samhsa.gov/data/report/2023-nsduh-annual-national-report.
2. Bradford A, et al. *BMJ Qual Saf*. 2024;33:663-672.
3. Szalavitz M, et al. *Ann Med*. 2021;53(1):1989-1992.






PsychU® Improving mental health care... together®

# Stigma From Providers And Patients Add Onto The Challenges

Research shows that stigma contributes in multiple ways to poorer health outcomes and is an obstacle to help-seeking behavior among individuals[1,2]

- Even bias from providers can reduce the likelihood that individuals with mental illness will be offered or receive appropriate treatment, or be referred for specialty care

| Stigma From Providers | Stigma From Patients |
|---|---|
| • Perception that agonist medications for OUD only substitute one addiction for another, leading to their low implementation in health care and justice settings[1]<br>• Negative attitude towards patients with SUDs leading to short encounters and decreased patient-provider collaboration[3] | • Feelings of shame and the perception as flawed, disrespected, and rejected[4]<br>• Perceptions of dangerousness, unpredictability, less able to make decisions and responsible for their disease[5]<br>• Seen as incapable of holding jobs or forming families[2] |

OUD, opioid use disorder; SUD, substance use disorder.

**References:**


1. Volkow ND, et al. *Neuropsychopharmacology*. 2021;46(13):2230-2232.
2. El Hayek S, et al. *Front Psychiatry*. 2024;15:1295818.
3. Bielenberg J, et al. *J Subst Abuse Treat*. 2021;131:108486.
4. Elkalla IHR, et al. *BMC Psychiatry*. 2023 ;23(1):592.
5. Cazalis A, et al. Drug *Alcohol Depend Rep*. 2023;9:100196.

# Treatment Approaches

# Psychotherapeutic Approaches To SUD And Mental Illness

Psychotherapeutic approaches in integrated care for SUD and mental illness can include[1-3]:

- **Motivational interviewing:** fosters intrinsic motivation for change
- **Cognitive-behavioral therapy:** addresses psychological, behavioral, and social aspects of addiction and mental illness
- **Contingency management:** provides rewards or incentives for participants when they demonstrate desired behaviors
- **Family therapy:** uses family-level assessment, involvement, and approaches to bring about change
- **Group therapies:** involves a group of participants who learn and practice recovery strategies, build interpersonal skills, and reinforce social support networks

Integrated treatment often involves an interdisciplinary team, and combines psychotherapy and pharmacotherapy to provide effective care for patients[1]

SUD, substance use disorder.


**References:**

1. Bahji A. *J Clin Med*. 2024;13(4):999.
2. Co-occurring mental health and substance use services. Published 2024. Accessed May 20, 2025. https://library.samhsa.gov/sites/default/files/issue-brief-co-occurring-pep24-01-008.pdf.
3. Substance use disorder treatment and family therapy. Chapter 1—Substance Use Disorder Treatment: Working With Families. SAMHSA. Updated 2020. Accessed May 20, 2025. https://www.ncbi.nlm.nih.gov/books/NBK571084.

# Data On Psychotherapy Approaches

Evidence-based strategies, including CM, CBT, DBT, MI, acceptance and commitment therapy, and family-based interventions have demonstrated their effectiveness in reducing substance use and enhancing treatment outcomes[1]

**For example:**

- Most integrated treatments—such as those combining CBT, MI, and family services—have strong evidence base for supporting their effectiveness for co-occurring disorders[2]
- MI fosters intrinsic motivation for change and helps individuals explore their ambivalence towards substance use and mental health management[1]

However, more research in this area is needed to establish the effectiveness of certain psychotherapies for various SUDs, with or without a comorbidity[1]

CBT, cognitive-behavioral therapy; CM, contingency management; DBT, dialectical behavior therapy; MI, motivational interviewing; SUD, substance use disorder.

**References:**


1. Bahji A. *J Clin Med*. 2024;13(4):999.
2. Substance use disorder treatment for people with co-occurring disorders (treatment protocol tip 42). Updated 2020. Accessed July 9, 2025. https://library.samhsa.gov/sites/default/files/pep20-02-01-004.pdf.






PsychU® Improving mental health care... together®

# Harm Reduction Strategies As An Approach To Comorbid SUDs And Mental Illness[1]

As individuals with a dual diagnosis face unique challenges due to social determinants of health, stigma, and limited access to comprehensive care, harm reduction strategies offer a holistic approach that prioritizes safety and well-being over immediate abstinence

**Harm reduction interventions include a range of evidence-based practices:**

- Supervised consumption sites
- Opioid antagonist distribution programs
- Proactive outreach initiatives

Harm reduction helps providers compassionately and effectively support individuals with dual diagnosis by acknowledging their current stage of recovery

SUD, substance use disorder.

**Reference:**

1. Bahji A. *J Clin Med*. 2024;13(4):999.

# VA/DoD Treatment Guidelines Recommendations

| Disorder[1] | Guideline Recommendations[1]* |
|---|---|
| Alcohol use | General<br>• Suggest one or more psychosocial interventions (eg, CBT or couples' behavioral therapy)<br><br>Moderate-severe use<br>• Recommend offering opioid antagonist (oral or extended release) or an anticonvulsant<br>• Suggest offering a glutamergic modulator or an aldehyde dehydrogenase inhibitor<br>• If first-line pharmacotherapy is contraindicated or ineffective, suggest offering another anticonvulsant |
| Opioid use | • Recommend one of the following strategies: opioid partial agonist-antagonist in any setting or full opioid agonist or opioid partial agonist-antagonist provided through an accredited opioid treatment program<br>• Suggest offering an extended-release opioid antagonist (IM) |
| Stimulant use disorder | • For cocaine use disorder, recommend one or more psychosocial interventions (eg, CBT, recovery-focused behavioral therapy) as initial treatment<br>• For amphetamine/methamphetamine use disorder, suggest offering contingency management as initial treatment with another behavioral intervention |

**Current treatment guidelines recommend that individuals with MI and SUD receive treatment for both disorders[2]**

*The recommendations within the guidelines vary in strength, from strong to weak.

CBT, cognitive behavioral therapy; DoD, Department of Defense; IM, intramuscular; MI, mental illness; SUD, substance use disorder; VA, Department of Veterans Affairs.

**References:**


1. Department of Veterans Affairs, Department of Defense. VA/DoD clinical practice guideline for the management of substance use disorders. Published August 2021. https://www.healthquality.va.gov/guidelines/MH/sud/VADODSUDCPGProviderSummary.pdf.
2. Key substance use and mental health indicators in the United States: Results from the 2023 National Survey on Drug Use and Health (HHS Publication No. PEP24-07-021, NSDUH Series H-59). Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Published 2024. Accessed May 19, 2025. https://www.samhsa.gov/data/sites/default/files/reports/rpt47095/National%20Report/National%20Report/2023-nsduh-annual-national.pdf.

# Why Integrated Care Matters

SAMHSA recommends **fully integrated care**, coordinating mental health and SUD treatment, to improve[1]:

Patient engagement

Treatment adherence

Overall health outcomes

The National Institute on Drug Abuse (NIDA) emphasizes that[2]:

- Treating MI and SUD together can increase effectiveness of the treatments
- Integrated care is more successful than treating each condition in isolation

Coordinated care aligns with clinical guidelines and delivers better recovery trajectories across different settings and diverse populations[1]


**References:**

1. Substance use disorder treatment for people with co-occurring disorders (treatment protocol tip 42). Updated 2020. Accessed July 9, 2025. https://library.samhsa.gov/sites/default/files/pep20-02-01-004.pdf.
2. National Institute on Drug Abuse. Co-occurring disorders and health conditions. National Institute on Drug Abuse. Published April 19, 2024. Accessed July 9, 2025. https://nida.nih.gov/research-topics/co-occurring-disorders-health-conditions.






PsychU® Improving mental health care... together®

# Addressing Comorbidity In Stimulant Use Disorders And ADHD

Individuals diagnosed with SUD often have comorbid psychiatric conditions, including ADHD; management can involve removal of the offending agent and avoidance of medications known to increase addictive behaviors[1]

**Integrated treatment with these two disorders is key[2,3]:**

- Comprehensive treatment comprised of psychoeducation, pharmacotherapy, individual or group CBT, and peer support
- Treating both disorders, but addressing SUD first and then ADHD shortly afterwards
- Prescribing ADHD medication as needed but considering all risks and benefits because of the misuse liability of stimulants
  - Among individuals with amphetamine-type stimulant use disorder, treatment with prescription psychostimulants, especially at high doses, may decrease use and craving

ADHD, attention-deficit/hyperactivity disorder; ATSUD, Amphetamine-type stimulant use disorder; CBT, cognitive behavioral therapy; SUD, substance use disorder.

**References:**


1. Srichawla BS, et al. *Cureus*. 2022;14(4):e24068.
2. Substance use disorder treatment for people with co-occurring disorders (treatment protocol tip 42). Updated 2020. Accessed May 27. 2025. https://library.samhsa.gov/sites/default/files/pep20-02-01-004.pdf.
3. Sharafi H, et al. *Addiction*. 2024;119(2):211-224.

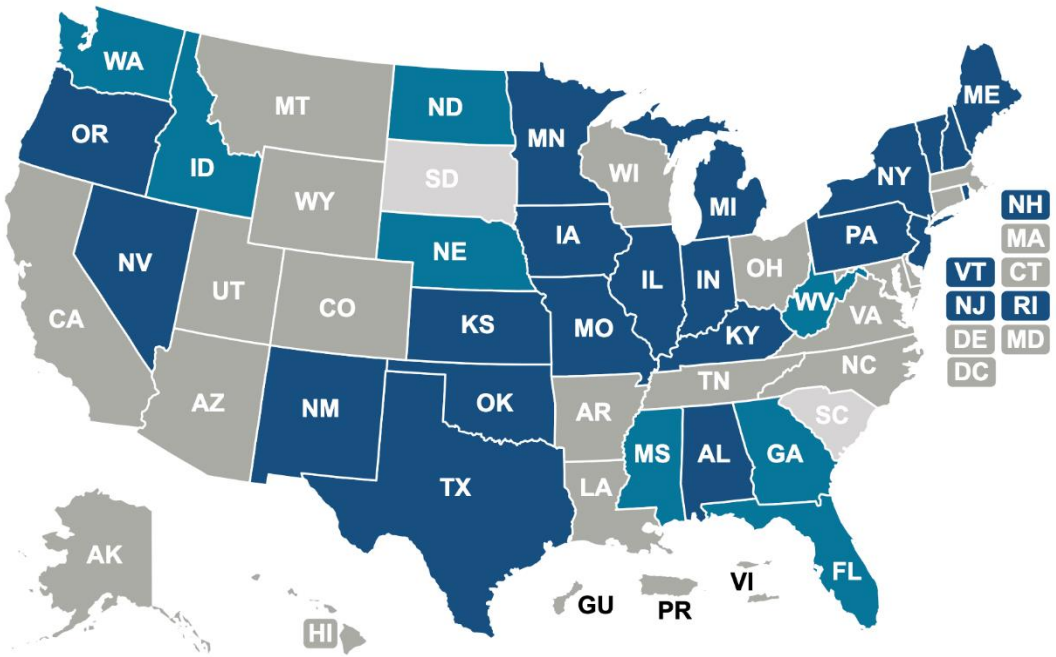





PsychU® Improving mental health care... together®

# Expanding Access And Enhancing Outcomes: The Integrated Care Approach Of Certified Community Behavioral Health Clinics


- Section 223 of the Protecting Access To Medicare Act (PAMA) of 2014 supports states in establishing **certified community behavioral health clinics (CCBHCs)** through the creation and evaluation of a CCBHC 223 Demonstration Program[1]
- 8 states were initially selected to participate in a demonstration project (prospective payment rate system)[1]
  - Today, **more than 500 CCBHCs and CCBHC grantees operate in 46 states**, plus the District of Colombia and Puerto Rico[2]
- As an integrated model for care delivery, CCBHCs provide substance use disorder and mental health services, including crisis response and MAT[2,3]
  - CCHBCs also provide patient-centered treatment planning, psychiatric rehabilitation services, and peer support
- CCBHCs currently serve an estimated **3 million people**, representing continued yearly growth since its inception[4]




MAT, medication-assisted treatment.

**References:**

1. Pittsburgh Mercy. Our certified community behavioral health clinic (CCBHC) & integrated community wellness center (ICWC). Published May 3, 2023. Accessed February 27, 2025. https://www.pittsburghmercy.org/about/ccbhc.
2. What is a CCBHC? National Council for Mental Wellbeing. Published 2024. Accessed May 27. 2025. https://www.thenationalcouncil.org/program/ccbhc-success-center/ccbhc-overview.
3. Certified community behavioral health clinics (CCBHCs). SAMHSA. Published 2023. Accessed May 27, 2025. https://www.samhsa.gov/communities/certified-community-behavioral-health-clinics.
4. Impact highlights. National Council for Mental Wellbeing. Published June 3, 2024. Accessed February 27, 2025. https://www.thenationalcouncil.org/wp-content/uploads/2024/05/24.05.30_2024-CCBHC-Impact-Highlights.pdf.

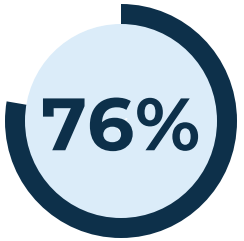




PsychU® Improving mental health care... together®

# Certified Community Behavioral Health Clinics Have Made Positive Impacts[1]

- ✓ Currently, CCBHCs continue to close the treatment gap that leaves millions of people in the US unable to access mental health care
- ✓ CCBHCs have been able to coordinate and integrate care with partners to increase access to primary care among individuals served




of CCBHCs reported that referrals to primary care have increased since becoming a CCBHC


of CCBHCs reported in 2024 that their number of clients engaged in MAT for opioid use disorder has increased since becoming a CCBHC, with **29% reporting increases of ≥20%**

- ✓ Other positive impacts are seen in the following: strengthening the behavioral health workforce, expanding the availability of crisis services, and addressing health disparities among the underserved

CCBHC, certified community behavioral health clinics; MAT, medication-assisted treatment..

**Reference:**

1. Impact highlights. National Council for Mental Wellbeing. Published June 3, 2024. Accessed February 27, 2025. https://www.thenationalcouncil.org/wp-content/uploads/2024/05/24.05.30_2024-CCBHC-Impact-Highlights.pdf.





PsychU® Improving mental health care... together®

# Managed Market And Payer Insights

# MAT Act Expands Access To Medication-Assisted Treatment

The MAT Act was implemented by the DEA and SAMHSA to simplify process for health care providers to treat OUD, and improve treatment access[1]

- The removal of the X-waiver (ie, “X-DEA number”) requirement is no longer required to prescribe opioid partial agonist-antagonist for OUD, which allows all practitioners who have a DEA registration to prescribe it, increasing the availability of life-saving treatment options

**As of June 27, 2023, HCPs must also meet new requirements to have at least one of the following:**

1. A total of eight hours of training from certain organizations on opioid or other substance use disorders for practitioners renewing or newly applying for a registration from the DEA to prescribe any Schedule II-V controlled medications
2. Board certification in addiction medicine or addiction psychiatry from the American Board of Medical Specialties, American Board Of Addiction Medicine, or the American Osteopathic Association
3. Graduation within five years and status in good standing from medical, advanced practice nursing, or physician assistant school in the United States that included successful completion of an opioid or other substance use disorder curriculum of at least eight hours

DEA, Drug Enforcement Administration; MAT, Mainstreaming Addiction Treatment; OUD, opioid use disorder; SAMHSA, Substance Abuse and Mental Health Services Administration.

**References:**


1. Waiver elimination (MAT Act). SAMHSA. Published 2024. Accessed May 1, 2025. https://www.samhsa.gov/substance-use/treatment/statutes-regulations-guidelines/mat-act.
2. Varisco TJ, et al. *J Am Pharm Assoc (2003)*. 2023;63(4):1039-1043.

# Increased Access To MOUD, Increased Prescribing Potential[1]

Relaxation of X-waiver registration requirements is associated with an increase in the number of unique opioid partial agonist-antagonist prescribers

↑ 36% more unique MOUD prescribers
were recorded in the year after the X-waiver removal implementation compared to the year prior.

**The largest increases were observed for:**

- Hospitalist (70%)
- Emergency Medicine (50%)
- PAs (50%)

While the X-waiver removal may have increased the total number of prescribers, **this increase has not yet impacted the number of patients dispensed MOUD** and further research is warranted.

53%
**more patients**
were projected to have a prescription for MOUD in 2024 compared to 2018.

MOUD, medication for opioid use disorder; PA, physician assistant.

**Reference:**

1. Buprenorphine treatment for substance use disorder. IQVIA. Published August 23, 2024. Accessed May 20, 2025. https://deadiversion.usdoj.gov/pubs/docs/IQVIA-Buprenorphine-for-SUD-v3.pdf.





PsychU® Improving mental health care... together®

# Cost-Related Impacts Of The MAT Act

**Cost effectiveness and cost benefits of the MAT Act include[1,2]:**

- More cost effectiveness when patients are treated with MOUD than OUD treatment without medication
- Significantly lower health care costs with counseling plus MOUD in comparison to little or no treatment among commercially insured patients with OUD
- Lower health care usage and costs when patients are treated with MOUD than treatment without medication in a study conducted in a large health plan

## ~$144,000

**estimated annual per-case savings** net of treatment cost from ambulatory treatments are for behavioral therapy alone vs $271,000-$295,000 for behavioral plus sublingual/LAI MOUD

LAI, long-acting injectable; MAT, Mainstreaming Addiction Treatment; MOUD, medication for opioid use disorder; OUD, opioid use disorder.

**References:**


1. Medications for opioid use disorder for healthcare and addiction professionals, policymakers, patients, and families (treatment improvement protocol, tip 63). SAMHSA. Published 2021. Accessed May 1, 2025. https://library.samhsa.gov/sites/default/files/pep21-02-01-002.pdf
2. The cost of addiction: opioid use disorder in the United States. Published May 2025. Accessed May 20, 2025. https://advisory.avalerehealth.com/wp-content/uploads/2025/05/Avalere-Health-White-Paper_The-cost-of-opioid-addiction_OUD-in-the-United-States.pdf






PsychU® Improving mental health care... together®

# Summary

SUDs and mental illnesses have a bidirectional relationship, which could often complicate diagnosis and treatment

Substance use can have significant neurological impacts, influencing mental health symptoms and treatment outcomes

Co-occurring disorders present unique challenges in diagnosis and treatment, requiring integrated care

Effective treatment involves a combination of pharmacological and psychotherapeutic interventions

SUD, substance use disorder.

PsychU®
Improving mental health care... together®

For more information or to request a more detailed live presentation on this topic from your local Medical Science Liaison, please visit www.PsychU.org/contact

# www.PsychU.org

PsychU®
Improving mental health care... together®

# Thank you for attending today's live program!

Tell us what you thought by scanning the QR code and taking a quick survey.

We look forward to seeing you again!

# Get Your Resources On The Go

Download the PsychU app from Google Play or from the Apple App Store!


Subscribe to
The PsychU Community
Podcast on the Spotify app
or on the Apple Podcasts app.





PsychU® Improving mental health care... together®

PsychU®
Improving mental health care... together®

# Dual Realities:

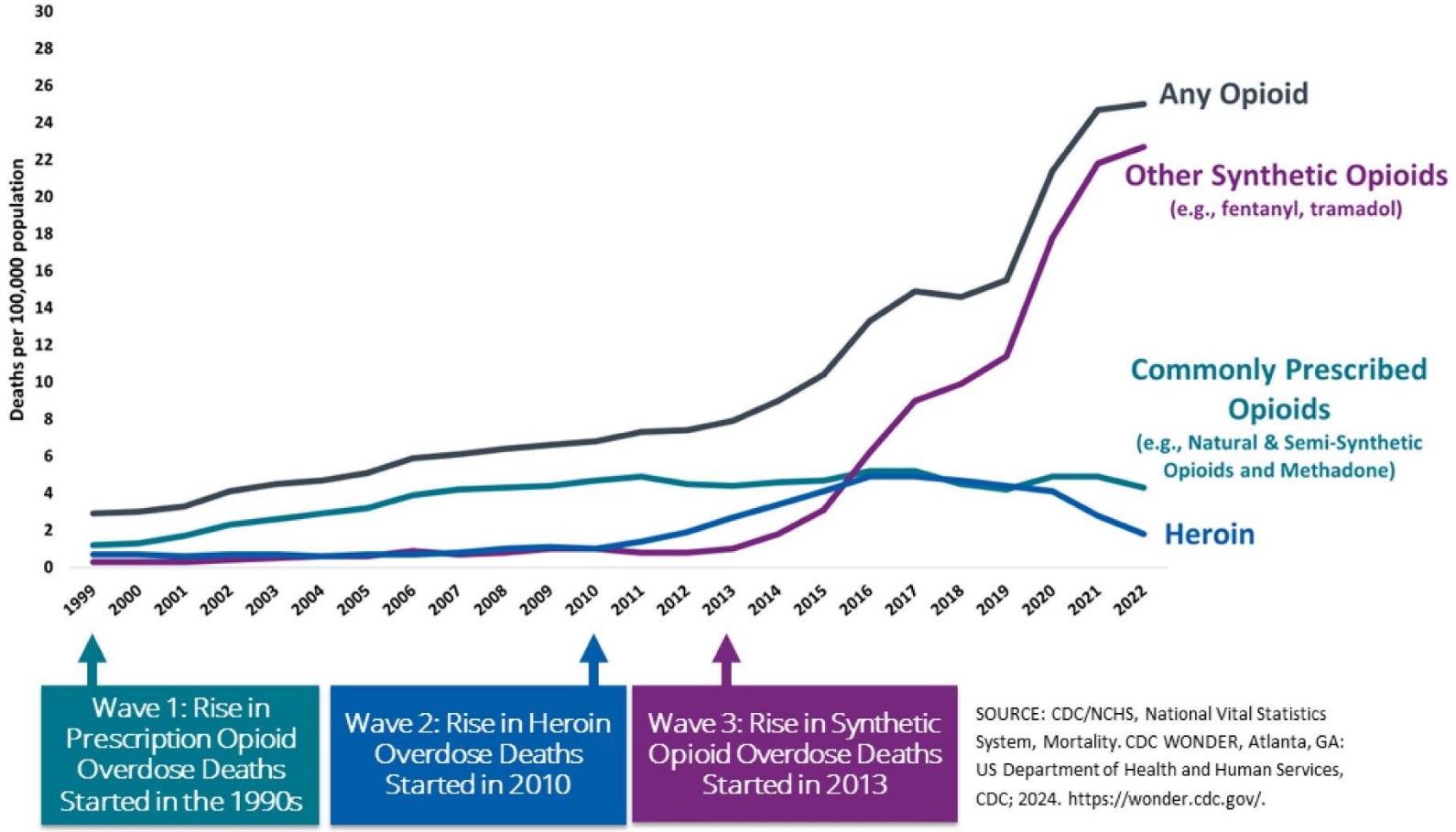
## Navigating The Complex Interface Of Mental Illness And Substance Use Disorders

September 2025 US.PSY.D.25.00020

# Appendix

# Understanding The Three Waves Of Opioid Overdose Crisis[1]

Death rates involving different types of opioids are changing differently, with 3 distinct waves of increases in opioid overdose deaths over the last 25 years[1]




SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2024. https://wonder.cdc.gov/.


**Reference:**

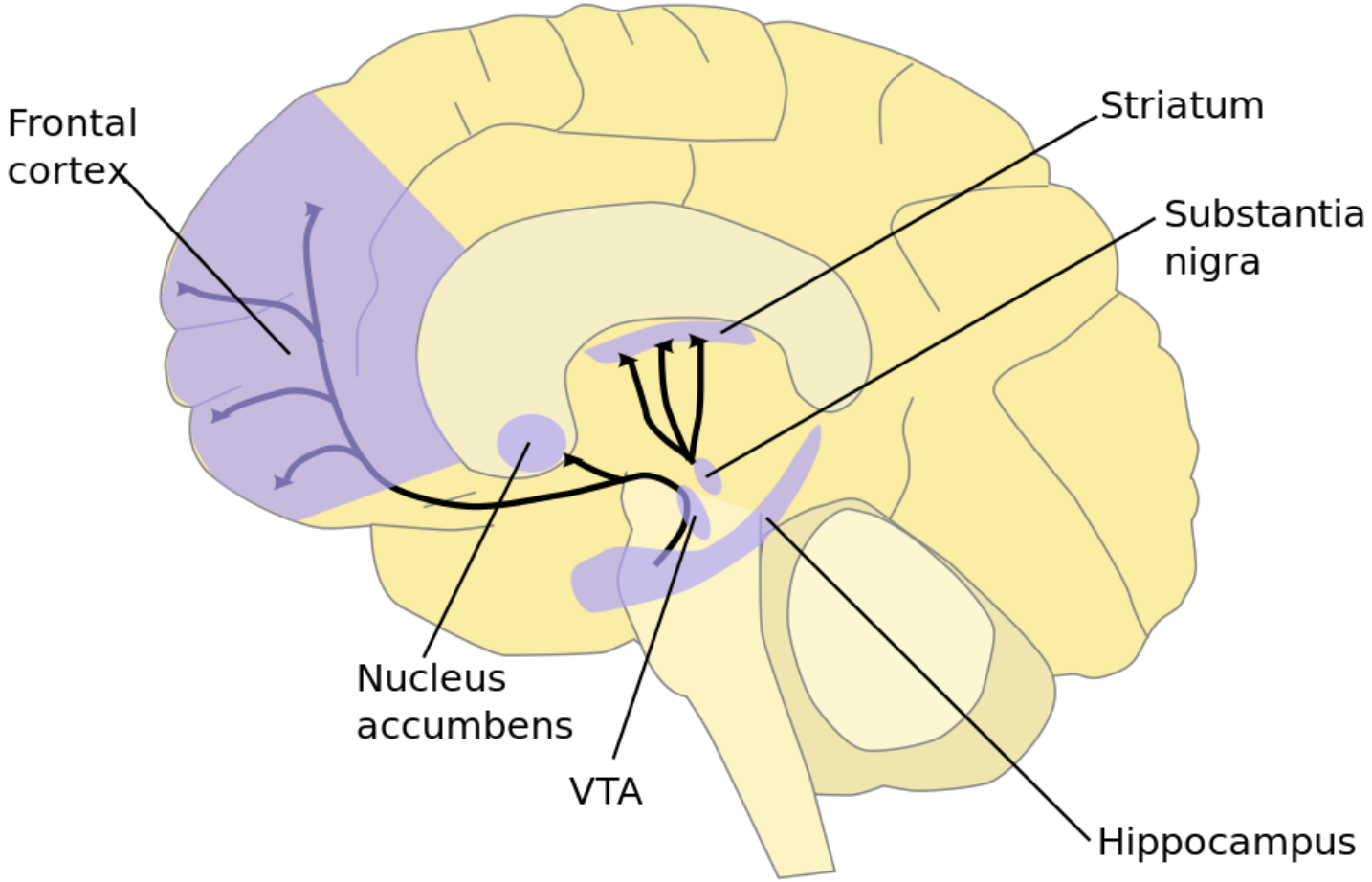
1. Understanding the opioid overdose epidemic. CDC. Published November 1, 2024. Accessed May 1, 2025. https://www.cdc.gov/overdose-prevention/about/understanding-the-opioid-overdose-epidemic.html.






PsychU® Improving mental health care... together®

# Neurobiological Pathway Overlap For Substance Use Disorder (SUD)[1]




VTA, ventral tegmental area.

**Reference:**

1. Yu Y, et al. *J Eat Disord*. 2022;10(1):11.

# Alcohol Neurobiology[1]



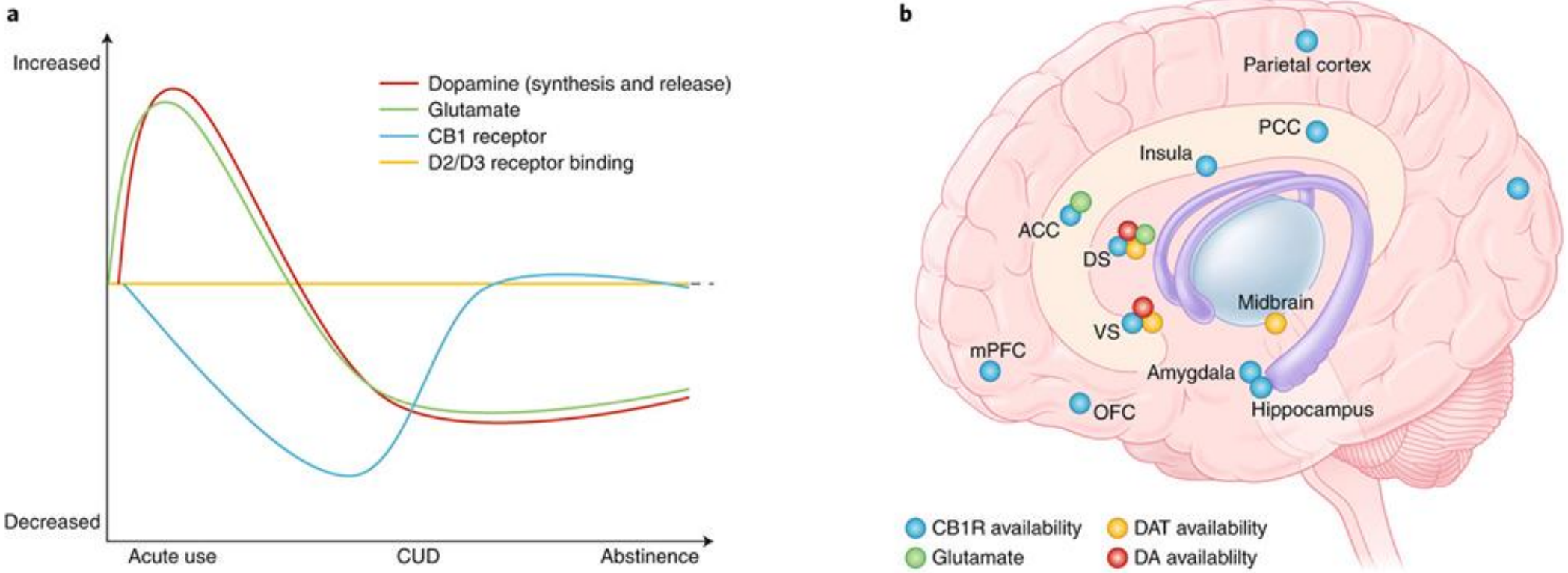
## Ethanol Alcohol

| 5-hydroxytryptamine (5-HT) | Dopamine (DA) | Gamma-aminobutyric acid (GABA) | Glutamate (Glu) | Acetylcholine (Ach) | Endogenous Opioid |
|---|---|---|---|---|---|
| Increased 5-HT activity<br><br>Anxiety, depression, bipolar disorders, OCD, eating behaviour, obesity, drug addiction | Motivation and reward circuitry<br><br>Drug addiction | Principal inhibitory neurotransmitter<br><br>GABA receptor modulation | Major excitatory transmitter<br><br>Modulates glutamate activity | Et0H modulation of nAChR activity in mesolimbic pathway | Modulation of dopamine activity |


**Reference:**

1. Yang W, et al. *Biomedicines*. 2022;10(5):1192.

# Cannabis Neurobiology[1]




ACC, anterior cingulate cortex; CB1 receptor, cannabinoid receptor 1; CUD, cannabis use disorder; D2, dopamine 2; D3, dopamine 3; DS, dorsal striatum; mPFC, medial prefrontal cortex; OFC, orbitofrontal cortex; PCC, posterior cingulate cortex; VS, ventral striatum.

**Reference:**

1. Ferland JN, Hurd YL. *Nat Neurosci*. 2020;23(5):600-610.

# THC And CBD In Depression

The cannabis plant is composed of many chemical compounds, including **THC** and **CBD**[1]

## THC

- Interacts with the endocannabinoid system to modulate mood[1]
- Binds with high affinity to CB1 receptors in the CNS[2]
- A major active chemical component of cannabis[1]
  - Can produce psychoactive and hallucinogenic effects[1]
- The therapeutic use of THC is limited[2]

## CBD

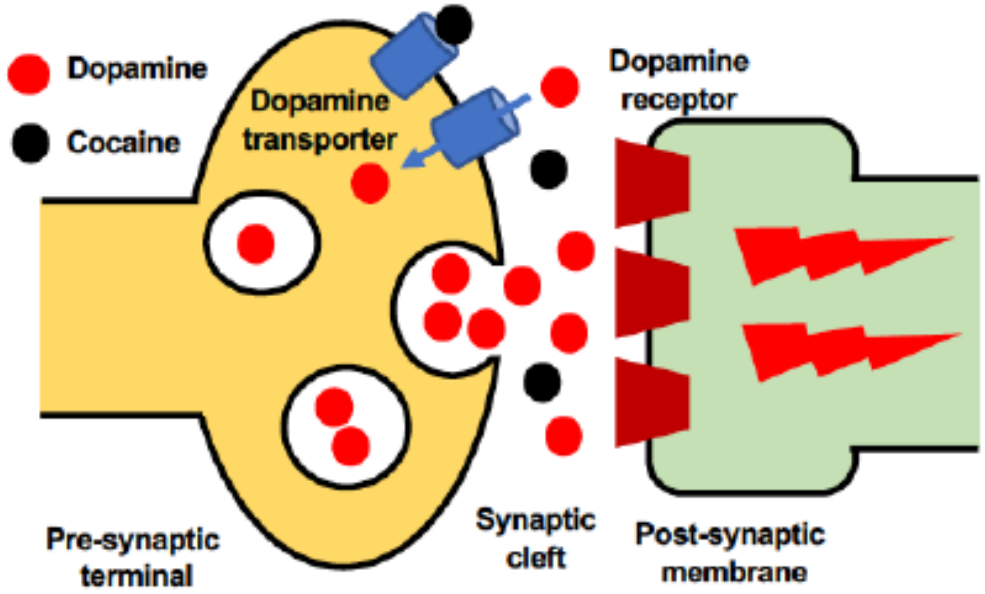
- Interacts with the endocannabinoid system and activates 5-HT1A receptors in the CNS[1,2]
- Binds with low affinity at CB1 receptors[2]
- Can produce anxiolytic and antidepressant therapeutic effects[1]
- CBD is non-hallucinogenic[1]
- The therapeutic use of CBD for depression is being explored[1]

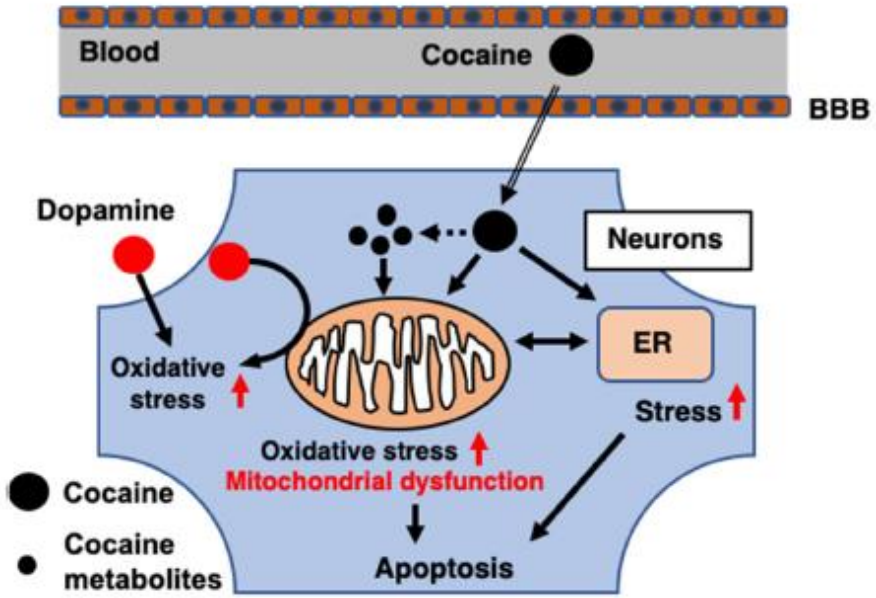
5-HT1A, serotonin 1A; CB1 receptor, cannabinoid receptor 1; CBD, cannabidiol; CNS, central nervous system; THC, delta-9-tetrahydrocannabinol.

**References:**


1. de Mello Schier AR, et al. CNS Neurol Disord Drug Targets. 2014;13(6):953-960.
2. Zou S, Kumar U. Int J Mol Sci. 2018;19(3):833.

# Cocaine Neurobiology[1]



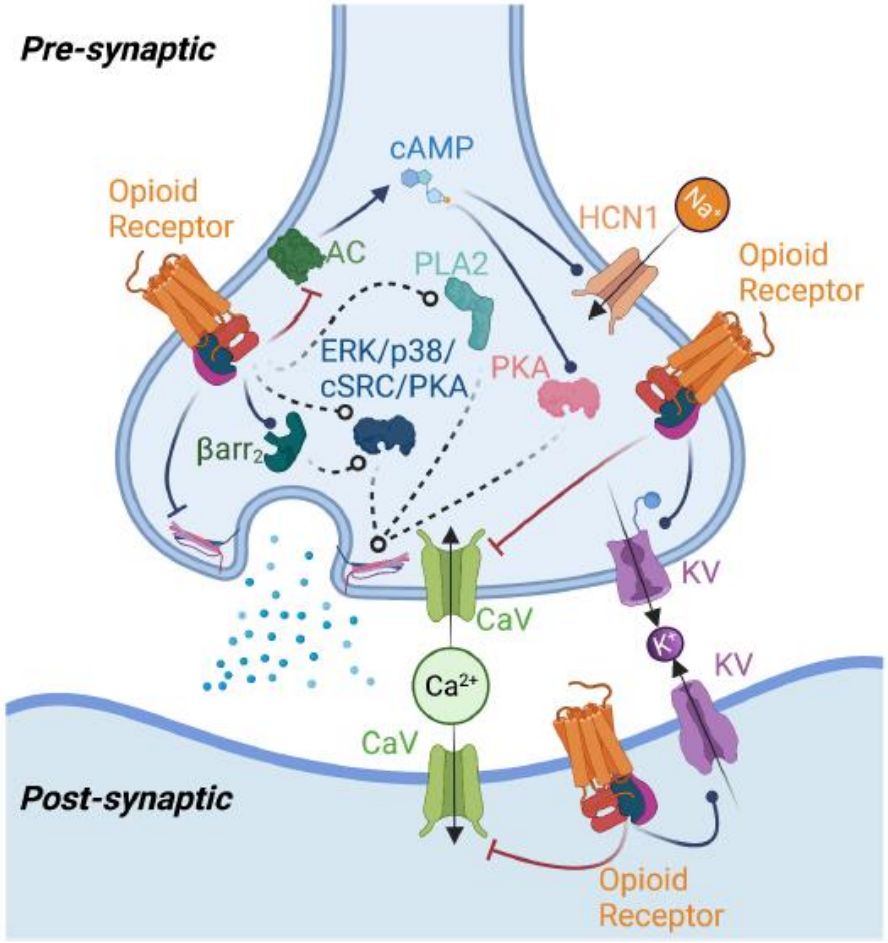




BBB, blood-brain barrier; ER, endoplasmic reticulum.

**Reference:**

1. Wen S, et al. *Int J Mol Sci*. 2022; 23(10):5418

# Opiate Neurobiological Pathways[1]




AC, adenylyl cyclase; $\beta arr_2$, Beta-arrestin$_2$; cAMP, cyclic adenosine monophosphate; CaV, calcium channel; c-SRC, cellular SRC; ERK, extracellular signal-regulated kinase; HCN1, type 1 hyperpolarization-activated cyclic nucleotide-gated channel; KV, potassium channel; p38, p38 mitogen-activated protein kinase; PKA, protein kinase A; PKC, protein kinase C; PLA2, phospholipase A2.

**Reference:**

1. Reeves KC, et al. *Front Mol Neurosci.* 2022;15:919773.