

CHASING THE DRAGON

The Disease of Addiction
Presented by: Michael Fatula, LPC, CAADC

Learning objectives:

Describe

Describe the role of dopamine in the neurobiology of addiction

Recognize

Recognize there are many pathways to recovery

Explain

Explain addiction as a chronic disease

Identify

Identify the three types of FDA approved medications for opioid use disorder

Increase

Increase understanding of treatment modalities for substance use disorder

Outline

- Learning objectives and presenter bio
- Neurobiology of addiction
- Behavioral components of addiction
- Substance use disorder and stigma
- Treatment of substance use disorder
- Recovery
- Questions

A little bit about me

- Licensed Professional Counselor (LPC)
- Clinical LPC supervisor
- Certified Advanced Alcohol and Drug Counselor
- Crisis Intervention Team Instructor
- Veteran
- Program Manager at VADOC

- Family man
- Gardener
- Birdwatcher
- Aspiring musician and writer
- Stauntonian
- Ohioan
- Above all, Human

Why “Chasing the Dragon?”



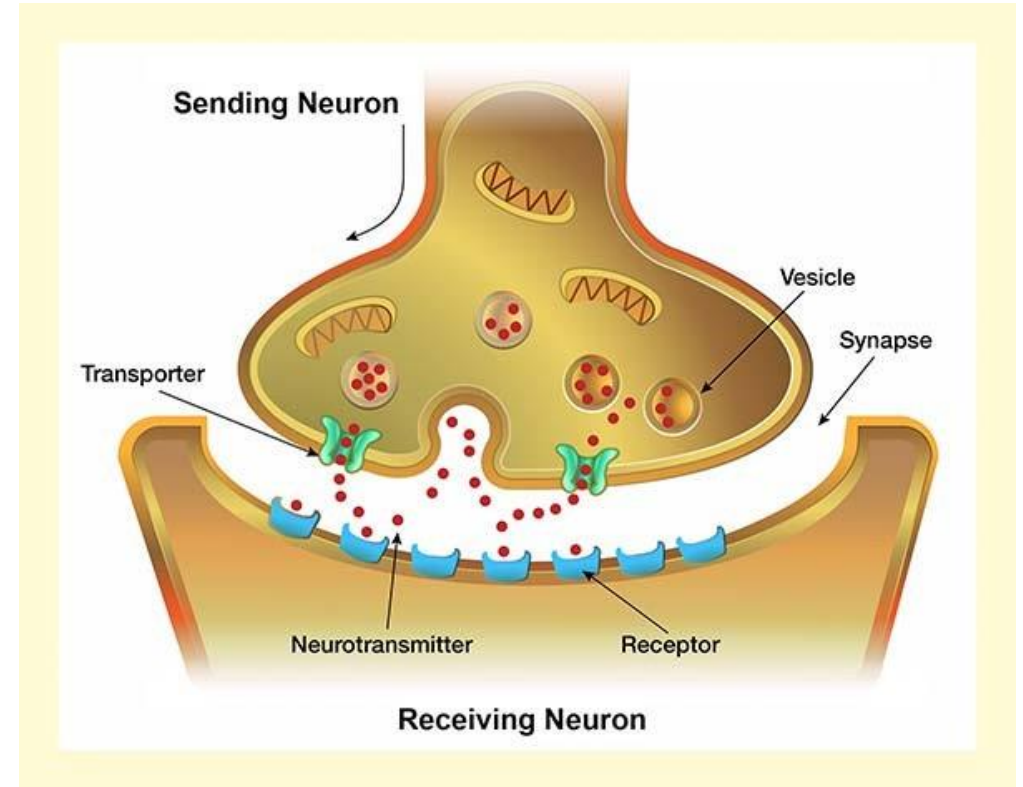


Understanding the brain and behavior

- Cells communicate with one another
- Cells send signals to hundreds of cells
- Cells receive signals from hundreds of cells
- Every thought, feeling, or action is a result of cells communicating!

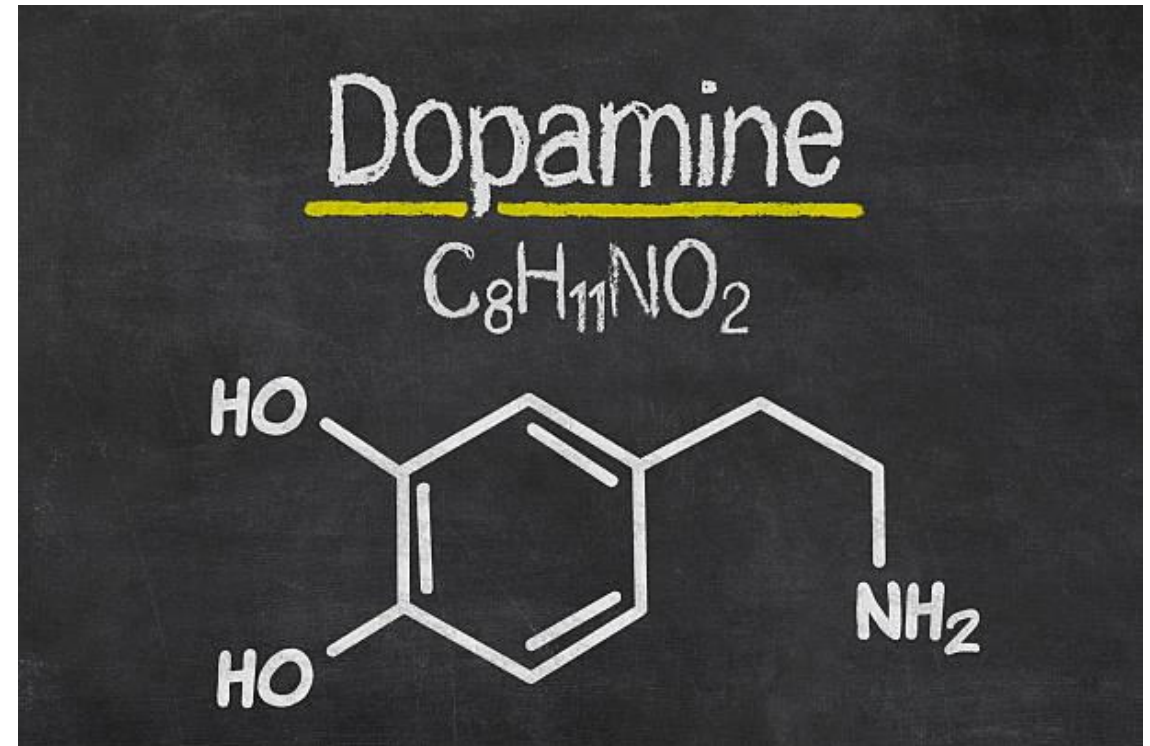
Brain cells communicate with one another

- Cells use neurotransmitters to communicate
- There are many different types of neurotransmitters
- Neurotransmitters bind at receptors to signal actions
- Drugs can bind at receptors and mimic certain neurotransmitters



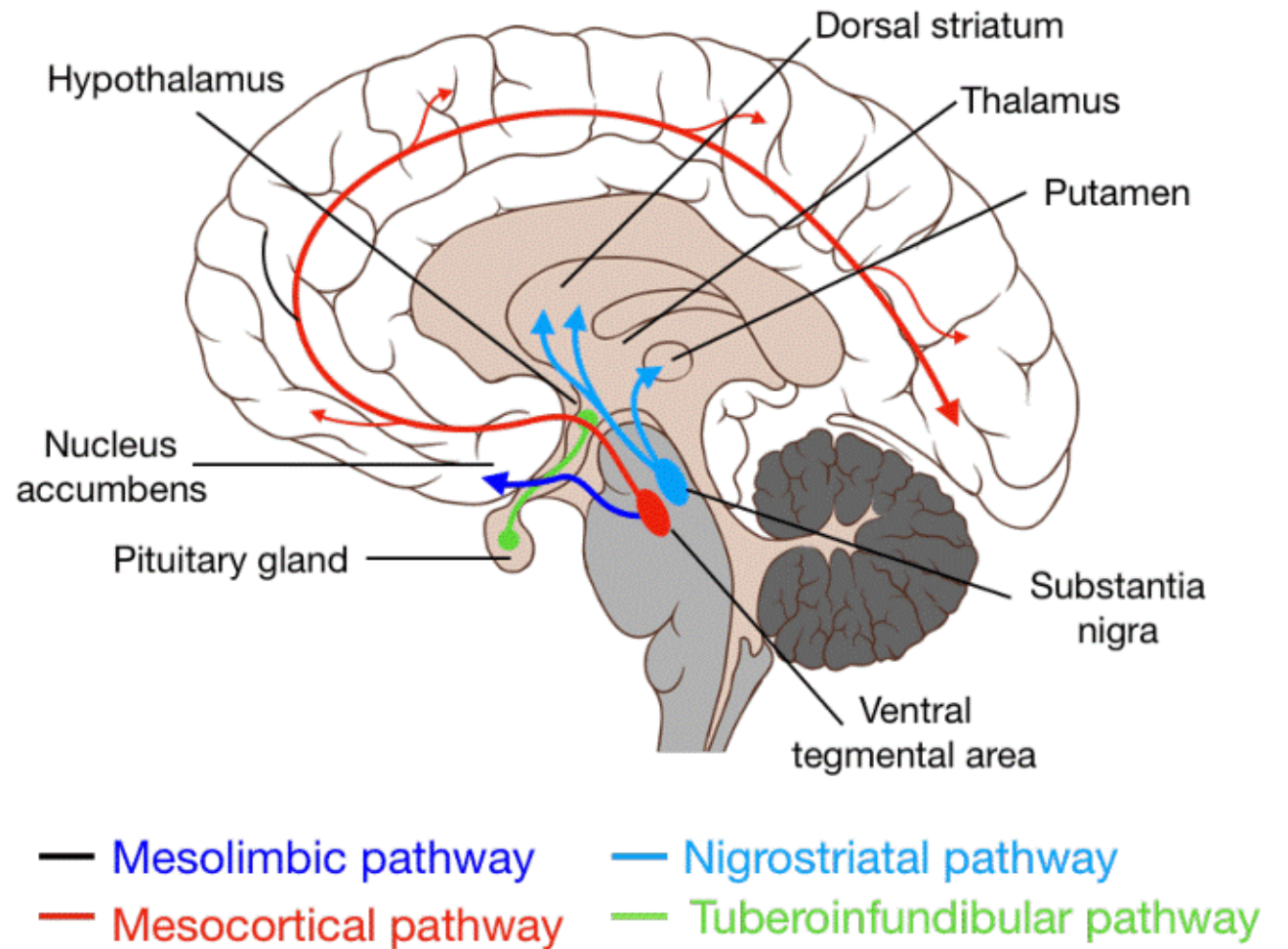
Dopamine: the “feel good” neurotransmitter

- Responsible for feelings of pleasure, well being
- Food, socialization, exercise elevate dopamine levels
- Alcohol, nicotine, stimulants, and opioids also elevate dopamine

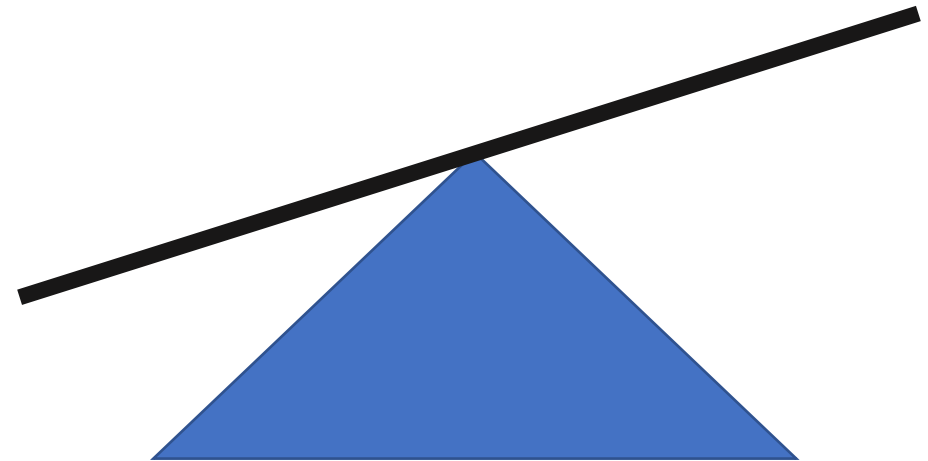
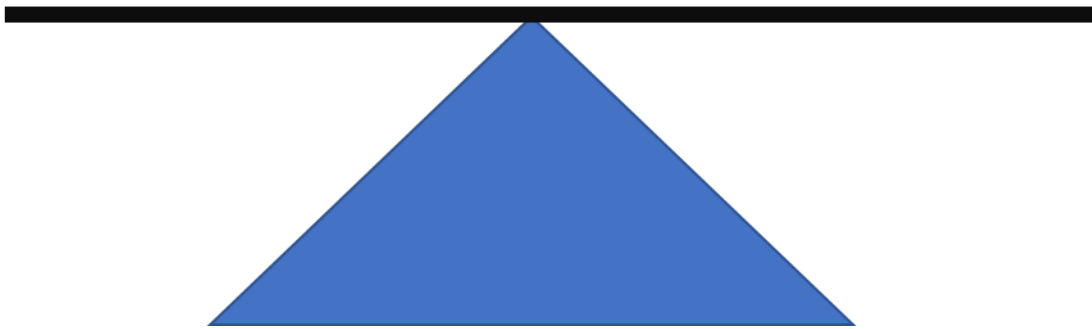


Dopamine pathways involved in addiction

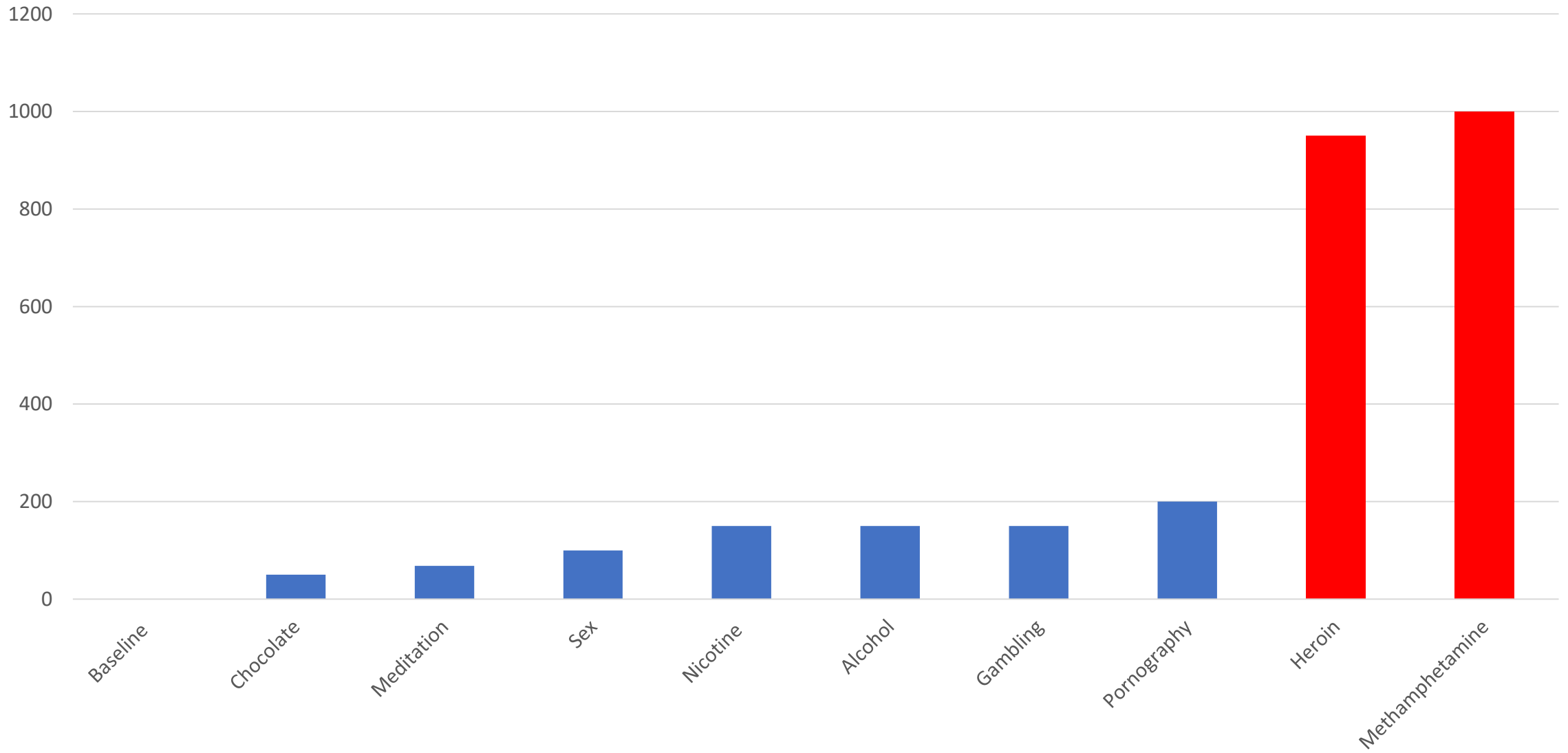
- A. Mesolimbic dopamine pathway
 - Result: pleasurable effects and reward
- B. Mesocortical dopamine pathway
 - Result: motivation, emotion, and executive function



Homeostasis and Allostasis



% increase in dopamine levels from baseline

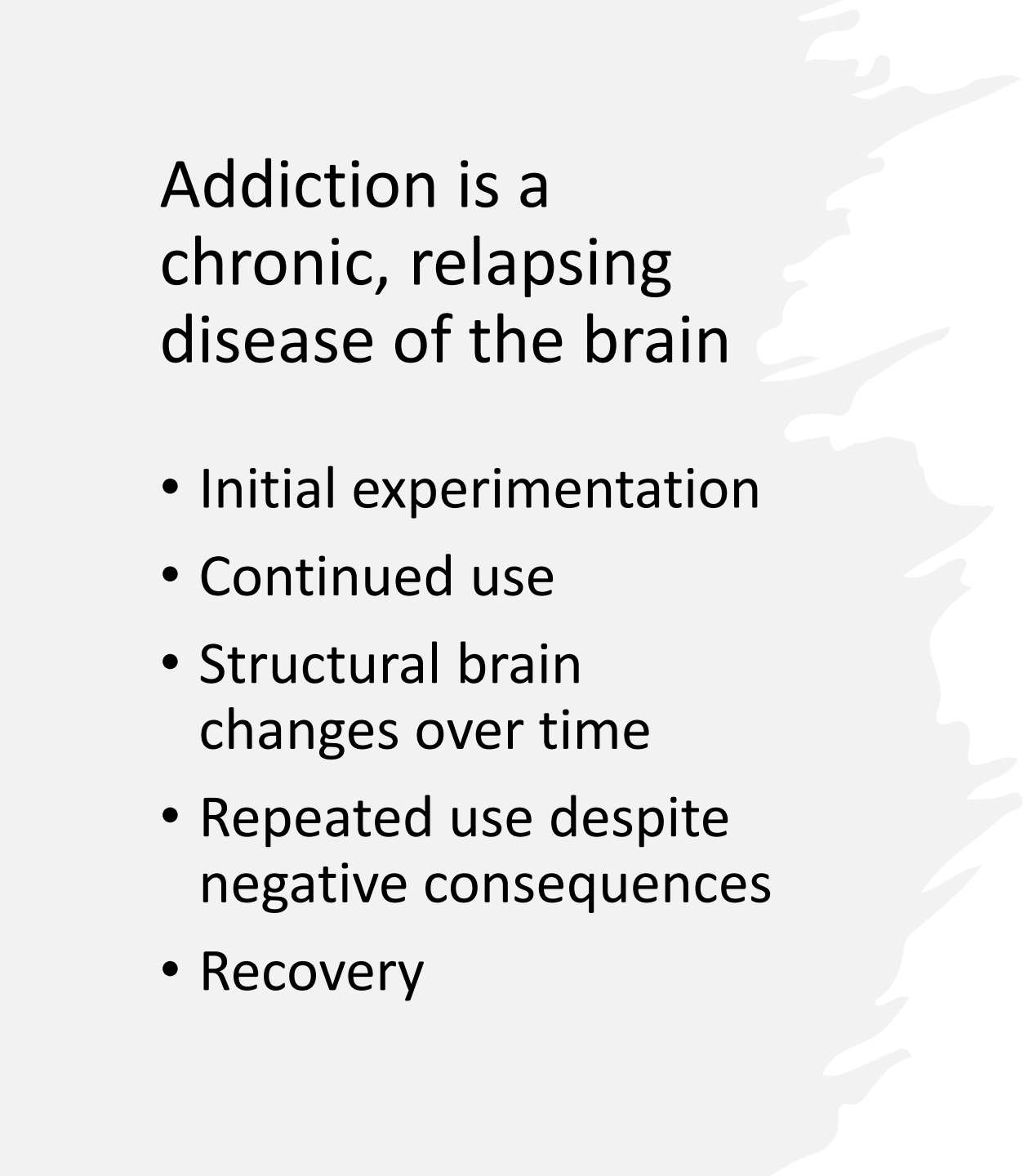


What is addiction?

Substance use disorders occur when the recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home. (SAMHSA)

Problematic pattern of substance use leading to clinically significant impairment. (DSM V TR)

Chronic, relapsing disorder characterized by compulsive drug seeking, continued use despite harmful consequences, and long-lasting changes in the brain. It is considered both a complex brain disorder and a mental illness. It is the most severe form of a full spectrum of substance use disorders, and is a medical illness caused by repeated misuse of a substance or substances. (NIDA/NIH)



Addiction is a chronic, relapsing disease of the brain

- Initial experimentation
- Continued use
- Structural brain changes over time
- Repeated use despite negative consequences
- Recovery

Addiction is not a moral failing. It is a chronic disease that requires medical and professional help.



Prevalence of addiction

In 2019, an estimated 21.6 million people aged 12 or older had a substance use disorder in the past year, which represents 8.1% of the population.


Among those with a past-year SUD in 2019, 14.5 million had an alcohol use disorder, 8.1 million an illicit drug use disorder, and 2 million had both an alcohol use and illicit drug use disorder.

Opioids were the most commonly reported primary substance of abuse among treatment admissions in 2018 (24%) followed by alcohol (22%) and marijuana (15%).

In 2019, 967,000 people aged 12 or older had a heroin use disorder and 2 million had a prescription opioid use disorder



Overdose statistics

- Over 96,700 people die from drug overdoses in a year (2019)
 - Opioids are a factor in 7 out of every 10 overdose deaths (74%)
 - Drug overdoses have killed almost a million people since 1999
 - In January 2021, drug overdose deaths exceeded homicides by 306,7%
 - In Virginia, there were 9,901 emergency department visits from opioid overdose in 2020, a 33% increase from 2019
 - Also in 2020, 1478 Virginians died from opioid overdose, a 17% increase from 2019
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Substance use disorders



Opioid Use Disorder



Cannabis Use Disorder



Stimulant Use Disorder



Alcohol Use Disorder



Nicotine Use Disorder

Symptoms of substance use disorder

- Loss of control over drug use
- Unsuccessful efforts to cut down or control substance use
- Continued use despite negative consequences
- Craving, or a strong desire to use substances
- Failure to fulfill major role obligations at work, school, or home

Risk factors for addiction

- Family history of addiction
- Mental health disorder
- Trauma history
- Peer pressure
- Lack of family involvement
- Early use
- Taking a highly addictive drug
- Method of use
- Availability of substances at home or school
- Low peer refusal skills
- Experimentation
- Curiosity and social pressure
- Pressure to improve performance (school, sports, work)

Treatments for substance use disorder

Abstinence or “quitting cold turkey”

Detoxification or withdrawal management

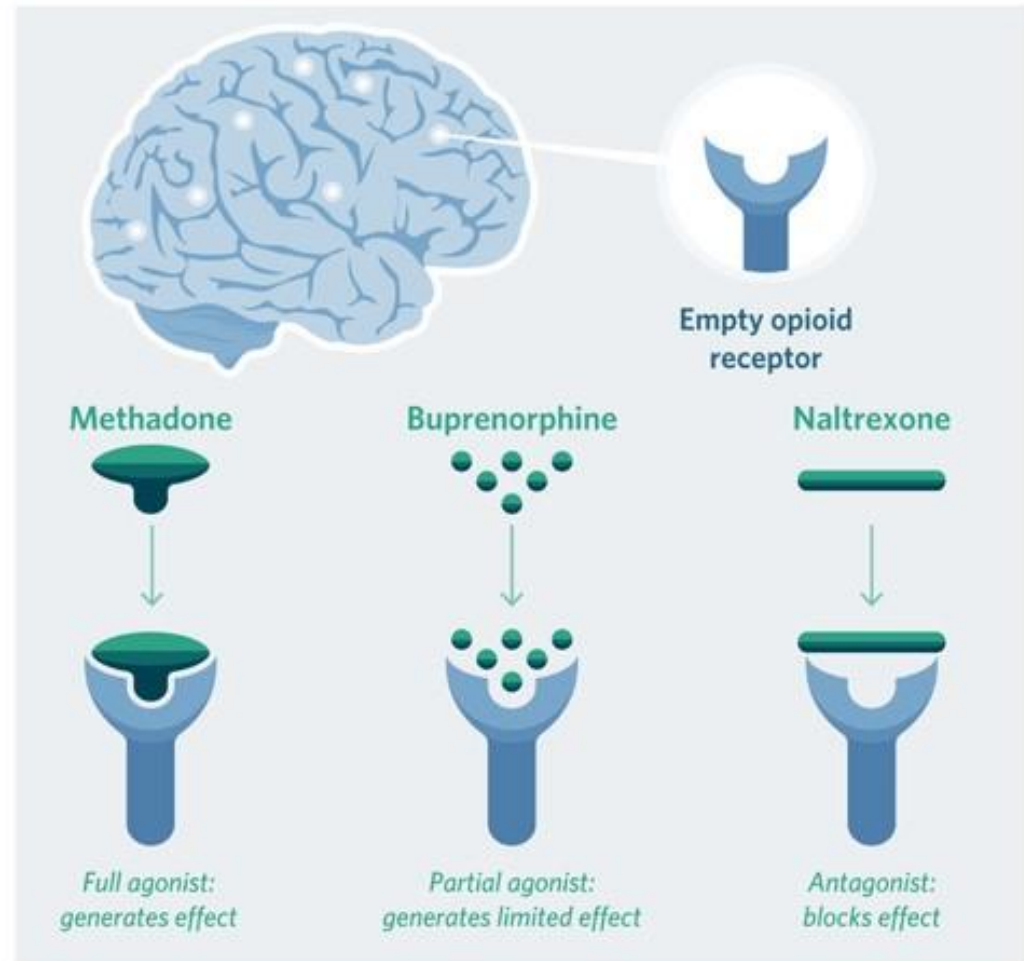
Medication-assisted treatment using medications for opioid and alcohol use disorder

- Behavioral therapies such as Motivational Interviewing, Cognitive Behavioral Therapy, Motivational Enhancement Therapy, and Contingency Management
- Supportive services
 - Peer Recovery Specialist Services
 - 12 step support/mutual self help groups

Medication-Assisted Treatment

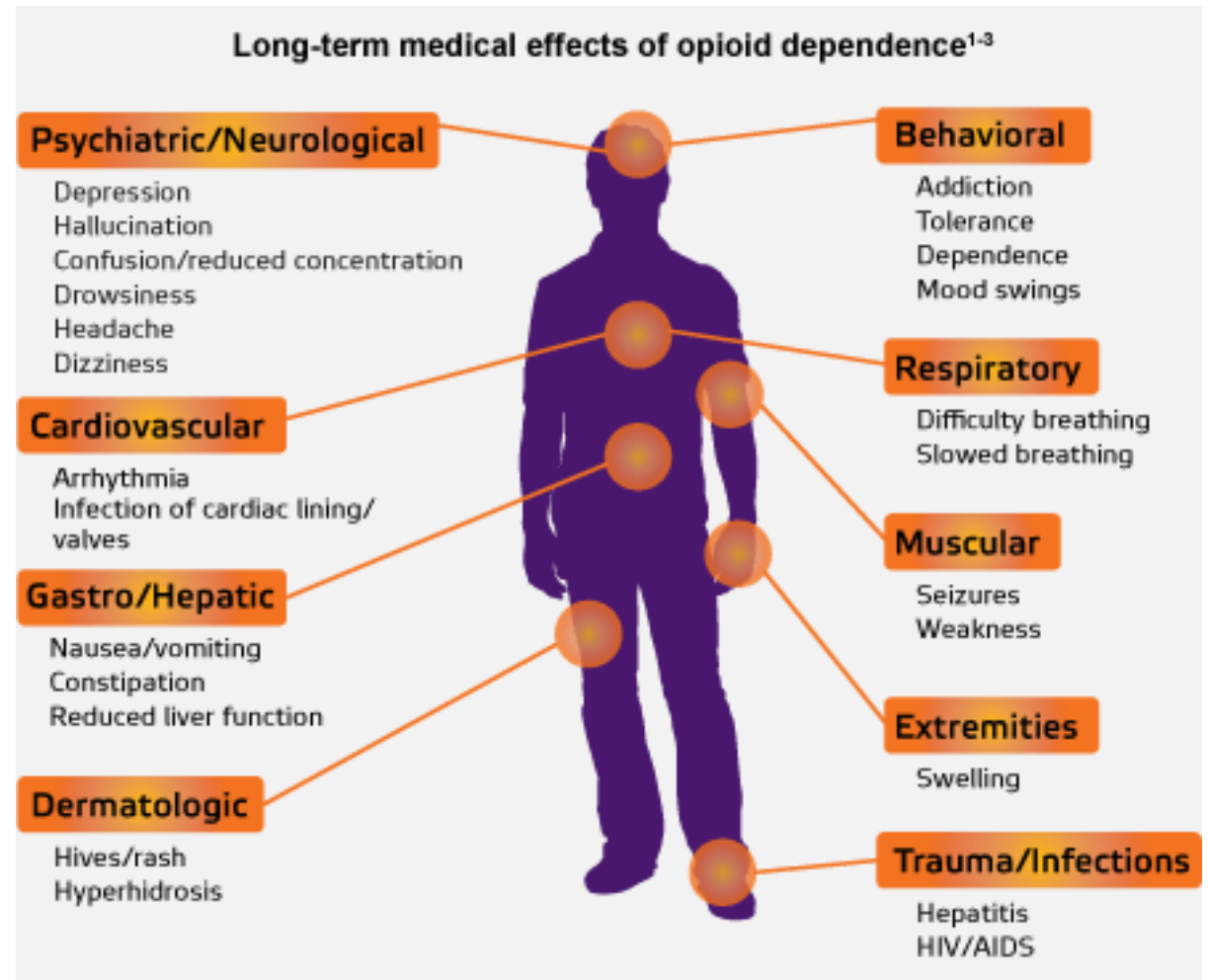
- MAT is the standard of care to treat opioid use disorder
- Three FDA-approved medications to treat opioid use disorder
- Medications bind to the opioid receptor to regulate dopamine system
- Improves post-incarceration outcomes

How OUD Medications Work in the Brain




MOUD targets opioid receptors

- MOUD and all opioids bind to the opioid receptor
- Binding to the receptor produces a physiological response
- The magnitude of the response depends on the pharmacology of the medication

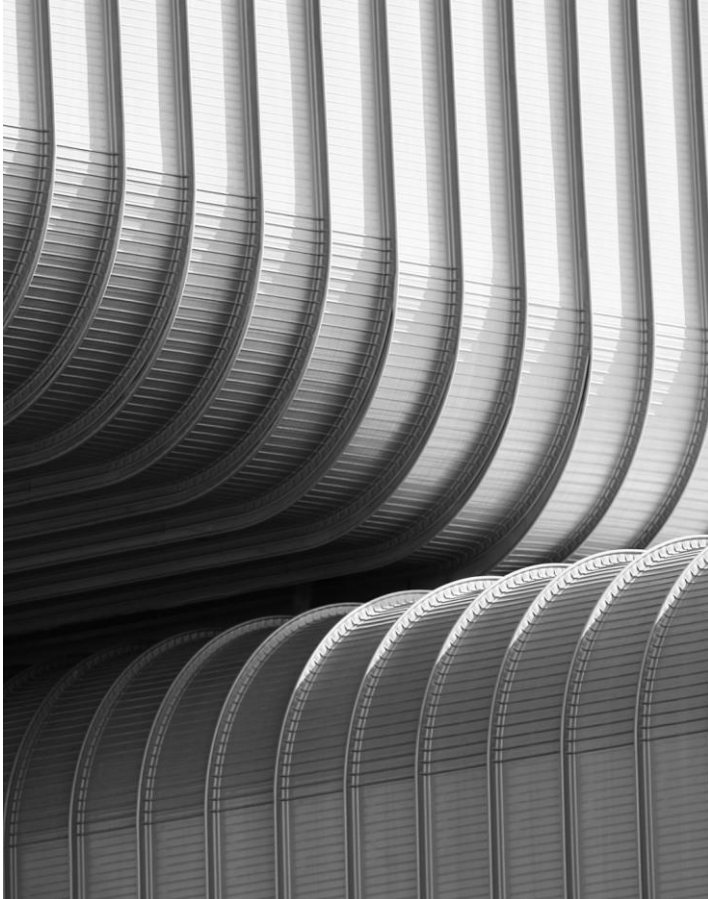




Benefits of Medication Assisted Treatment

- Decreased risk of opioid overdose
 - Less time spent on drug seeking behavior
 - More time spent engaging in pro-social behaviors
 - Decreased transmission of HIV and hepatitis C
 - Lower rates of crime and incarceration
 - More likely to remain employed
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Recovery Support by a PRS



No expectation between the PRS and person under probation supervision (voluntary)

Provides professionalism while including personal lived experience from the PRS

Provides non-judgmental listening and support

No hierarchy within the support relationship

Goal oriented, strength based, person centered

Provides recovery education and resources

Benefits

- Decreases recidivism (EBP)
- Decreases risk of overdose
- Reduces overall stress on our system and communities (promotes self management)
- Cost effective (increases personal connection which reduces cost and increases stability in health and wellness)
- Increases engagement w/ 'difficult to reach individuals'





January – March 2022 PRS Survey Results

97 %

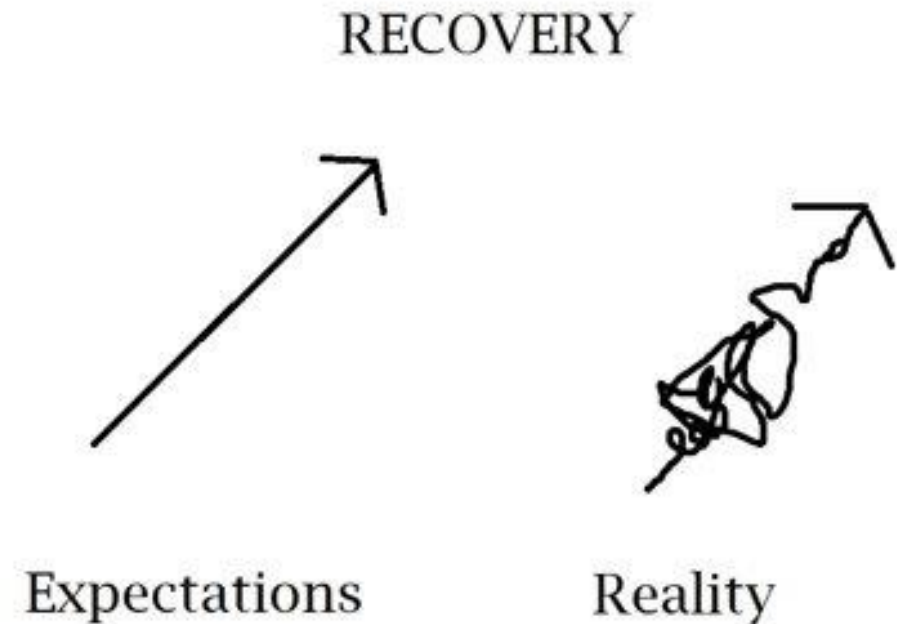
Respondents reported working w/ the PRS through the District / CCAP helped them in their recovery

97 %

Respondents reported working w/ the PRS through the District / CCAP helped them to stop using substances

What is Recovery?

- SAMHSA defines recovery as: a process of change through which individuals improve their health and wellness, live self-directed lives, and strive to reach their full potential.
- There are many pathways to recovery from substance use
- Addiction is a chronic, relapsing condition of the brain that has no cure, however it can be treated, and people can and do recover



Common questions and statements I hear

- What about relapse?
- Isn't MAT just switching one drug for another?
- Can addiction be cured?
- Why doesn't someone just stop using? I mean, they voluntarily picked up the drug in the first place.
- What is harm reduction?

Questions and contact info

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