

SBIRT Training

Screening, Brief Intervention & Referral to Treatment

Medication for Addiction Treatment (MAT)



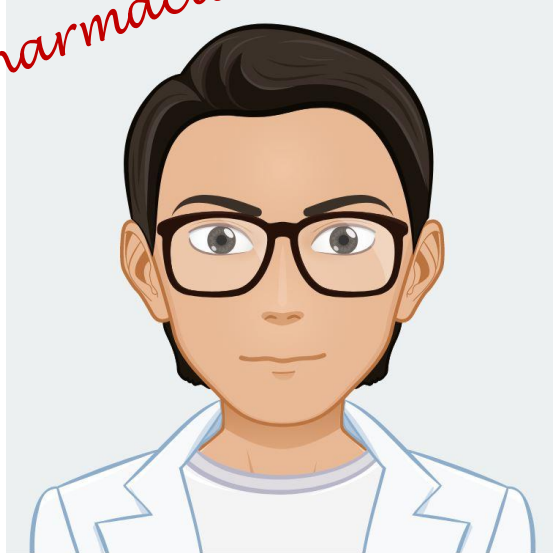
The Faith & Spirituality Integrated SBIRT Network

Navigating the Training

Physician



Pharmacist



Nurse Practitioner



Case Manager



Welcome! These health professionals will guide you through your MAT training.*

Click on the “Previous” and “Next” buttons on the bottom of the page to navigate through the training.

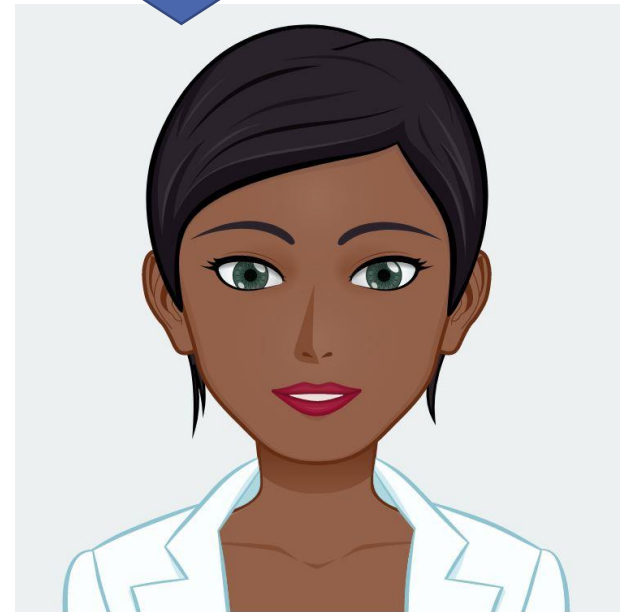
*Note: No audio or interactive animation is available for this training module.

Training Objectives

Upon completing this training, you will be able to:

1. Accurately describe the etiology and current trends associated with alcohol and opioid use in the United States.
2. Accurately identify and describe the different medications for the treatment of alcohol use disorders, opioid use disorders, or both.
3. Understand the practical considerations when implementing a MAT program.

Hello! Welcome to the training. We will be covering each of these objectives during this module.



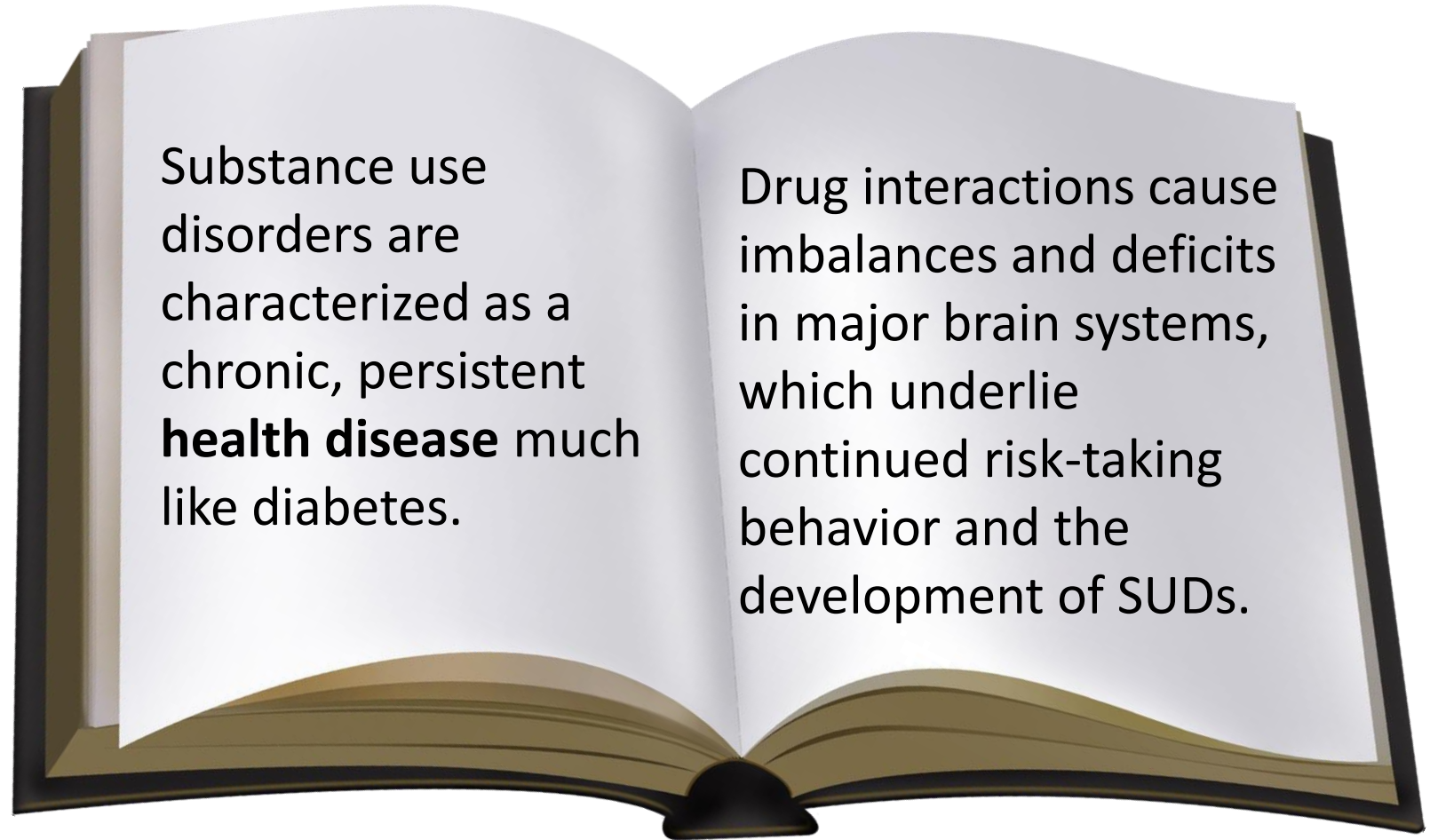
Defining Substance Use Disorders

Before we begin, let's define "Substance Use Disorder (SUD)" and explore current trends of alcohol and opioid use.



Substance use disorders are characterized as a chronic, persistent **health disease** much like diabetes.

Drug interactions cause imbalances and deficits in major brain systems, which underlie continued risk-taking behavior and the development of SUDs.



National Data on Alcohol Use

- 86% of people ages 18 or older reported that they drank alcohol at some point in their lifetime; 70% reported drinking within the past year; and 56% reported drinking within the past month.
- In 2015, 27% of people (18+) reported that they engaged in binge drinking within the past month; 7% reported that they engaged in heavy alcohol use in the past month.
- In 2015, 15 million adults (18+) had an alcohol use disorder (9.8 million men and 5.3 million women).
- Only about 1.3 million adults received treatment in 2015.

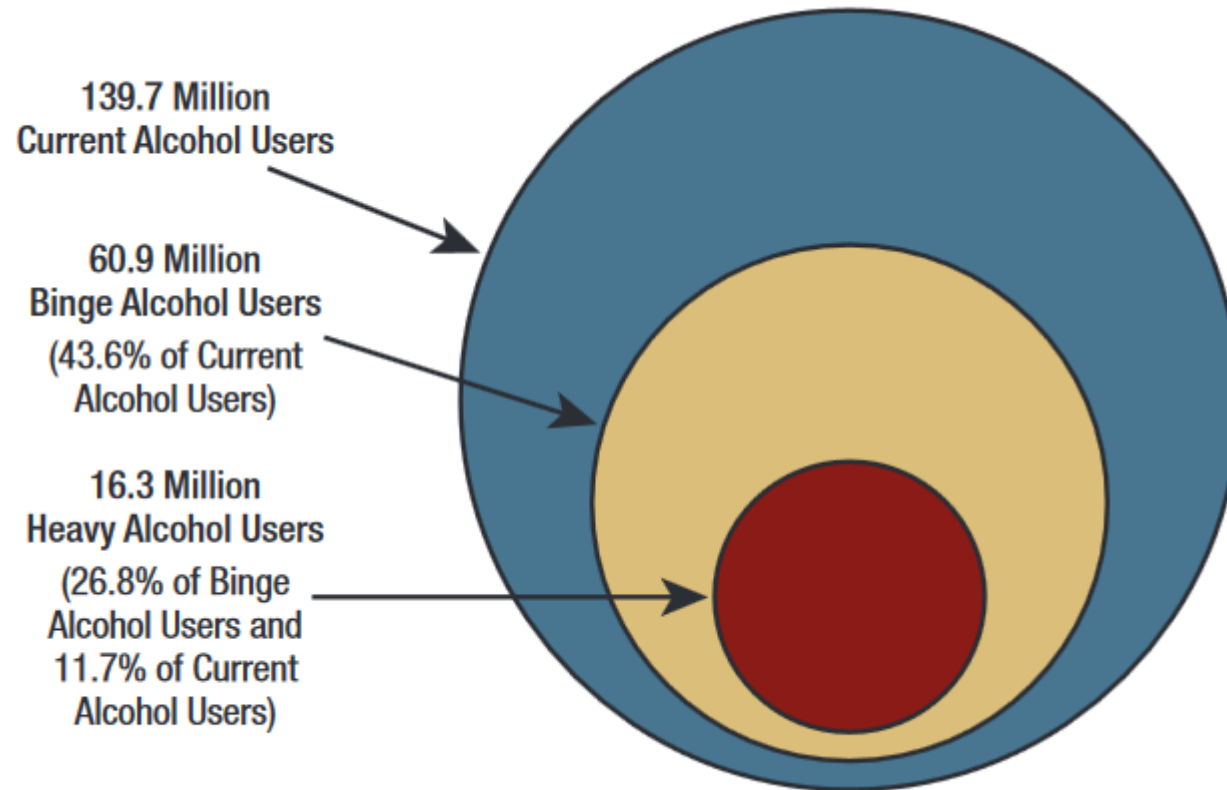
Source: <https://pubs.niaaa.nih.gov/publications/alcoholfacts&stats/AlcoholFacts&Stats.pdf>

National Data on Alcohol Use

This pie chart depicts the level of current alcohol users, binge, and heavy alcohol use in the U.S.



Current¹, Binge², and Heavy³ Alcohol Use among People Aged 12 or Older: 2014



¹ Current Drinking: any use of alcohol in the past 30 days.

² Binge drinking: drinking 5 or more alcoholic drinks on the same occasion on at least 1 day in the past 30 days.

³ Heavy Drinking: drinking 5 or more drinks on the same occasion on each of 5 or more days in the past 30 days.

Opioids and the Opioid Epidemic

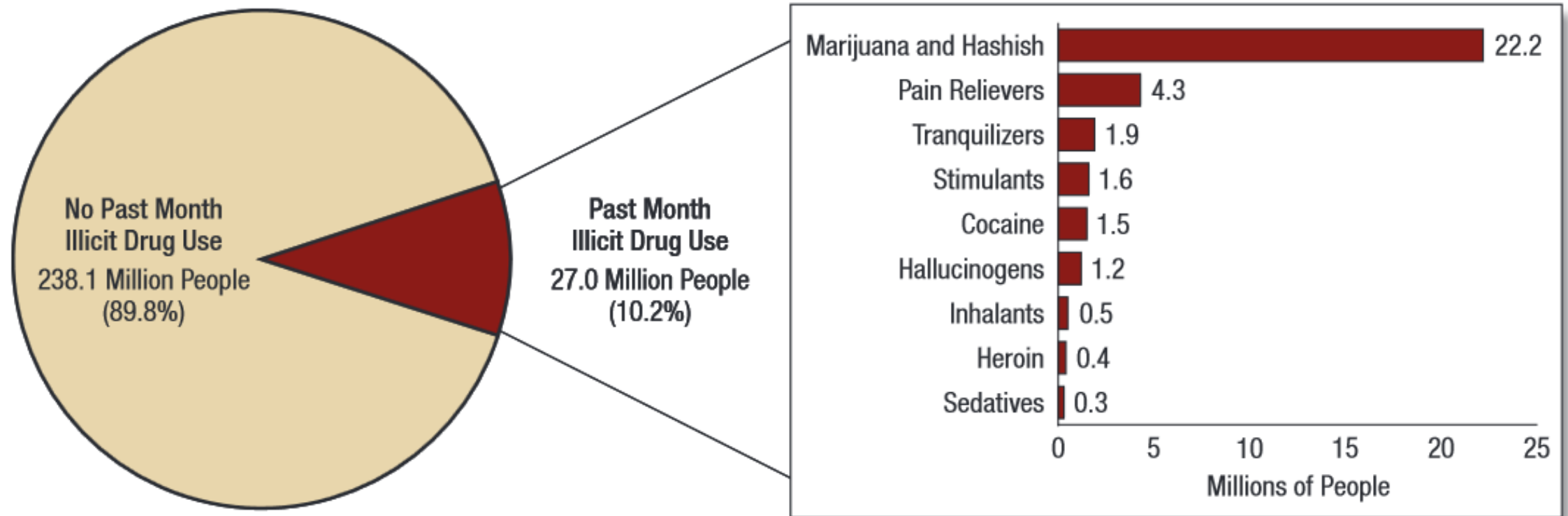
- Opioids are a class of drugs that include the illicit drug heroin, as well as the illicit prescription pain relievers **oxycodone, hydrocodone, codeine, morphine, fentanyl**, etc.
- Opioids are chemically related and interact with opioid receptors on nerve cells in the brain and nervous system to produce pleasurable effects and relieve pain.
- Opioid Use Disorders occur when an individual chronically and pathologically pursues the reward/relief provided by substance use and other behaviors, regardless of negative consequences.
- Of the 20.5 million Americans who have a substance use disorder, **2 million** were involved with prescription pain relievers and **590,000** with heroin.

Source: <https://www.asam.org/docs/default-source/advocacy/opioid-addiction-disease-facts-figures.pdf>



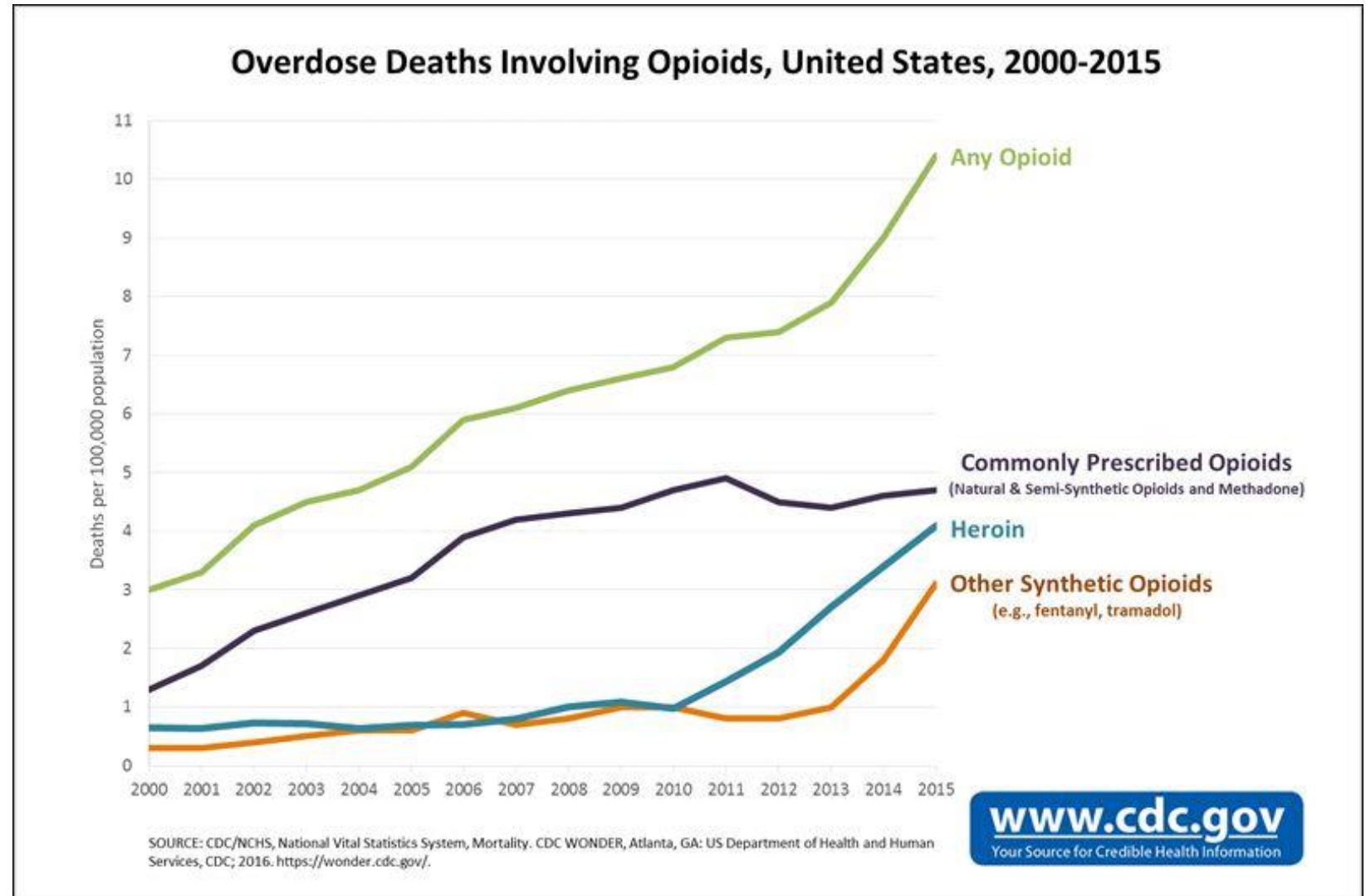
National Data on Drug Use

Numbers of Past Month Illicit Drug Users among People Aged 12 and Older: 2014



National Data on Opioid Use

Currently, there is an opioid epidemic in the United States. As of 2015, opioid overdose deaths peaked at 22,000.

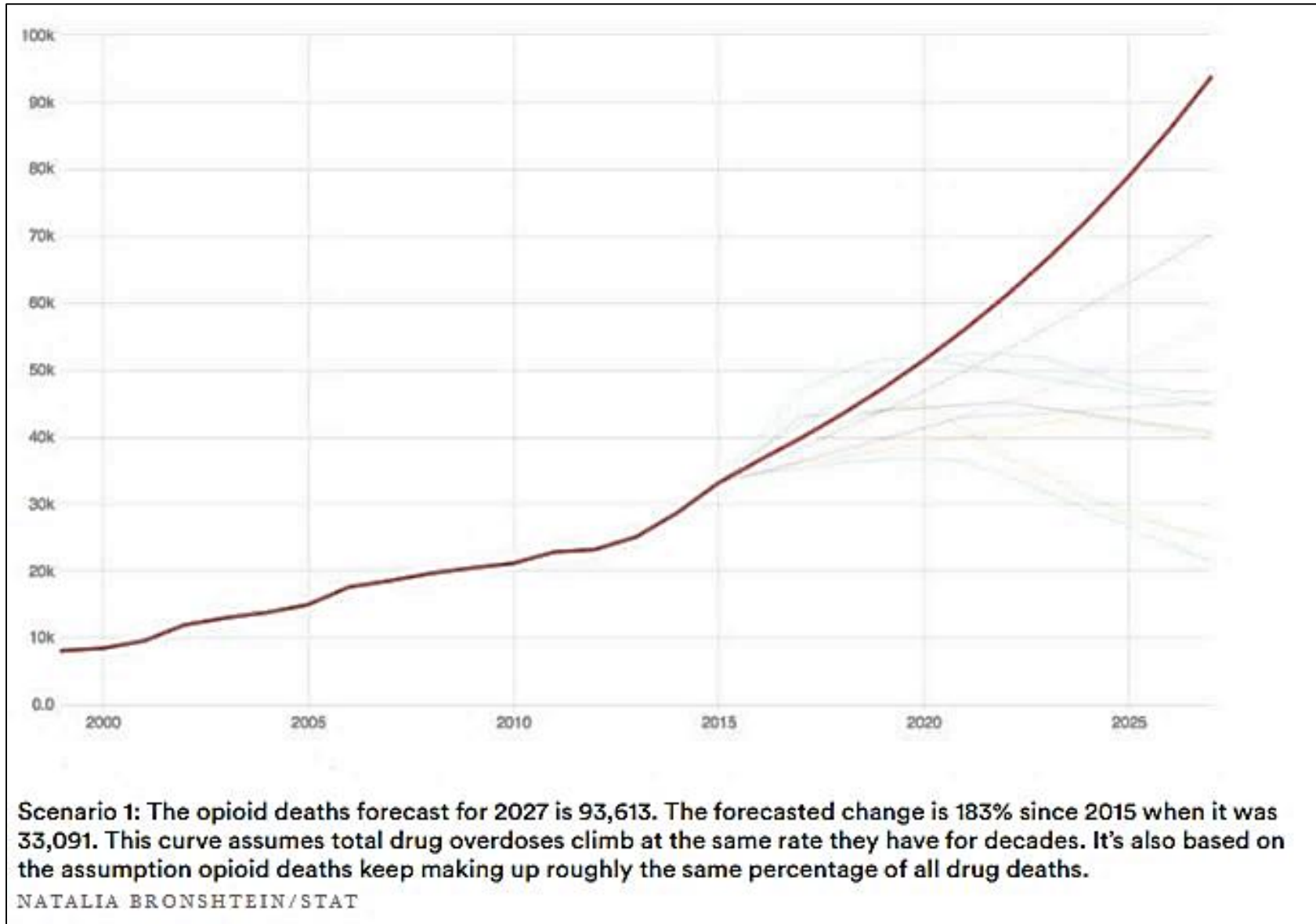


Source: <https://www.cdc.gov/drugoverdose/data/analysis.html>

If this epidemic goes unaddressed, we may be faced with increasing numbers of opioid overdose deaths, upwards of 93,000 people per year by 2027.



Opioid Overdose Deaths: Worst Case Scenario



Some people wonder, “Why can’t people just stop using drugs?”

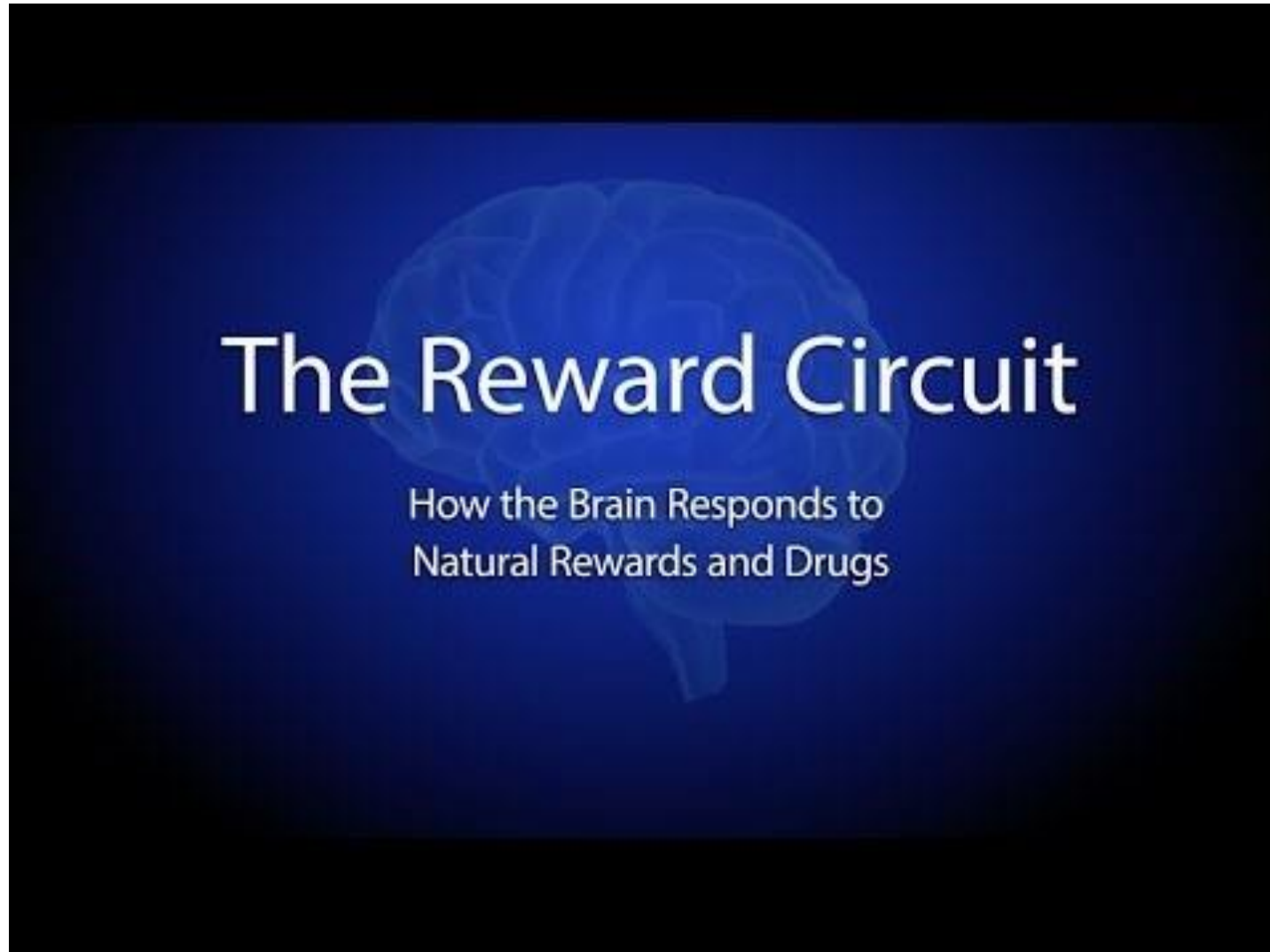


Prolonged drug use changes the brain in fundamental and long-lasting ways.



Neuroscience, cognitive, and behavioral research has confirmed that substance use disorders are brain disorders that develop over time.

The Science of Substance Use Disorders



Watch this video to see how substance use can impact the reward circuit.

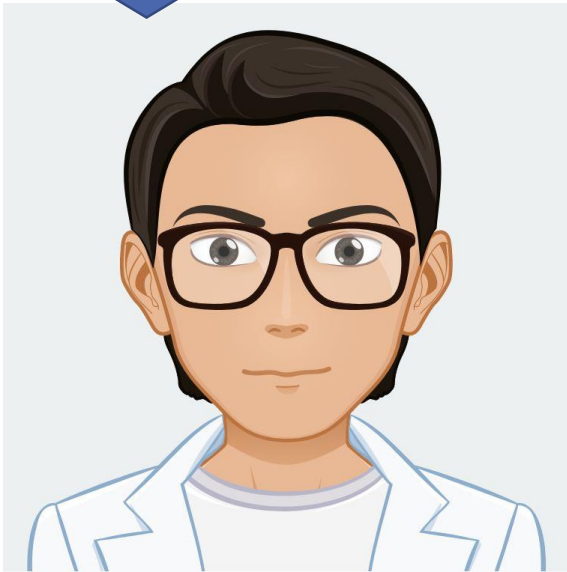


<https://youtu.be/DMcmrP-BWGk>

What is Medication Assisted Treatment (MAT)?



Drugs are substances that change the body's functioning. Medications are drugs that restore normal functioning.

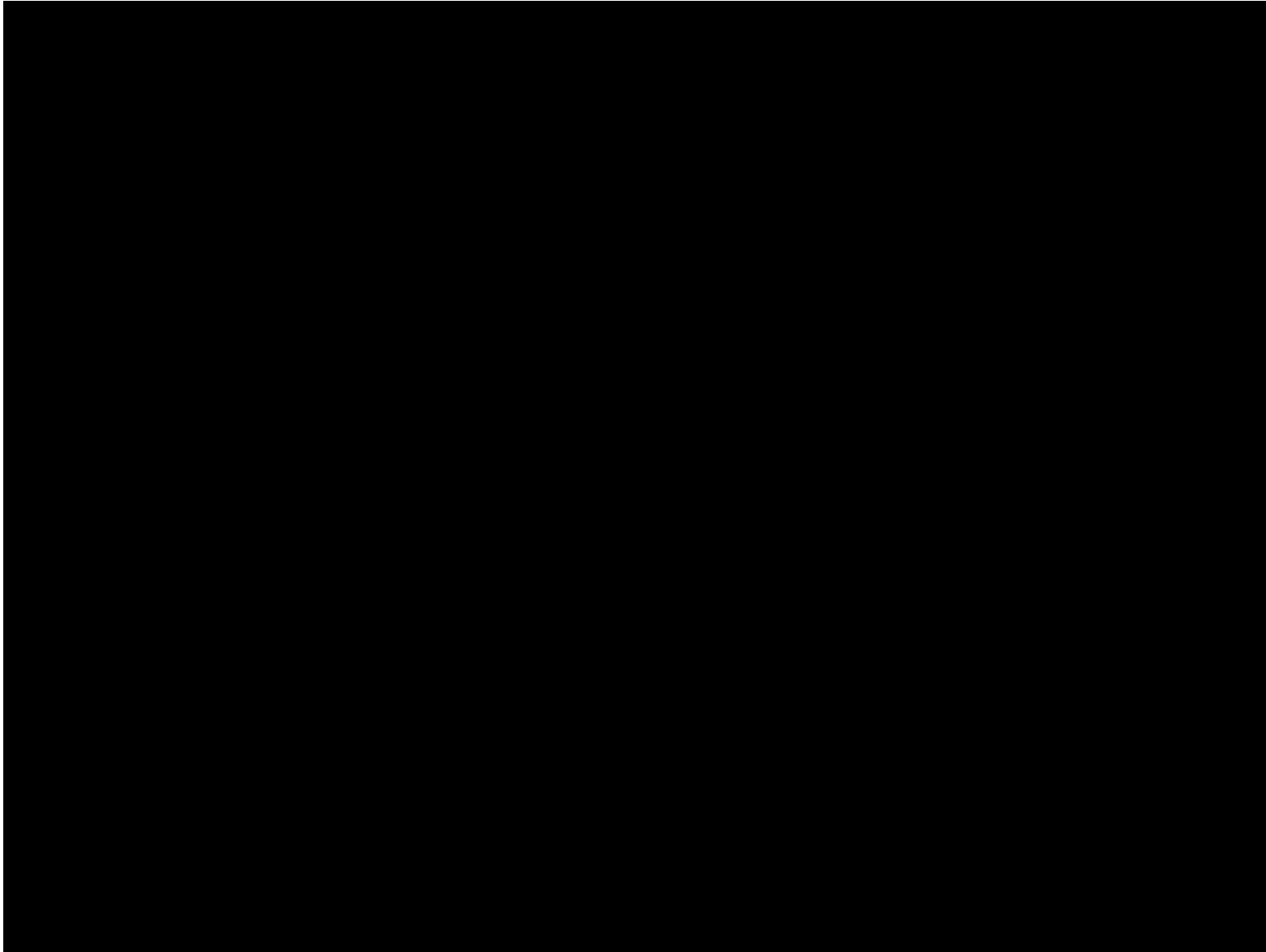


- MAT is the use of FDA-approved medications, in combination with counseling, to provide a whole-person approach to the treatment of SUDs.
- MAT is clinically driven and focuses on individualized client care.
- Research shows that the combination of medication and behavioral therapies works best to treat substance use disorders.

Benefits of Medication for Addiction Treatment (MAT)

- SUDs are complex and difficult to treat; we need to use all available tools to maximize positive patient outcomes.
- MAT takes a biopsychosocial approach by combining medication with counseling.
- MAT is a safe and effective approach to treat opioid and alcohol use disorders.
- Research shows that MAT improves treatment retention.
- Research also shows that MAT supports improved functioning across several psychosocial parameters.
- MAT is evidence-based – it works!

Video: Medication-Assisted Treatment Works



<https://youtu.be/HlCoOKPWqwg>

Types of FDA Approved Medications

Medications for Alcohol Use Disorder

Disulfiram

Acamprosate

Naltrexone

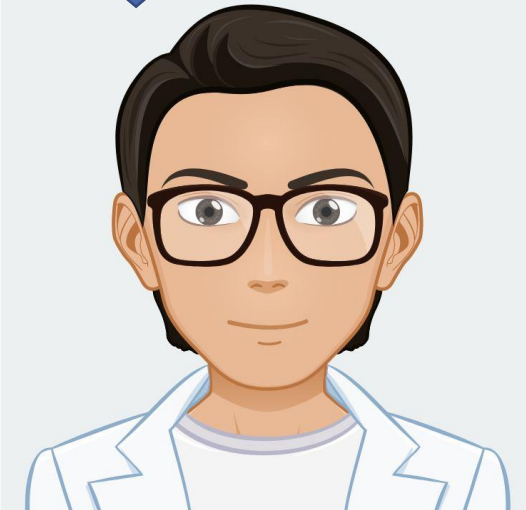
Medications for Opioid Use Disorder

Naltrexone

Methadone

Buprenorphine

Notice that Naltrexone can be used for ***both*** alcohol and opioids.

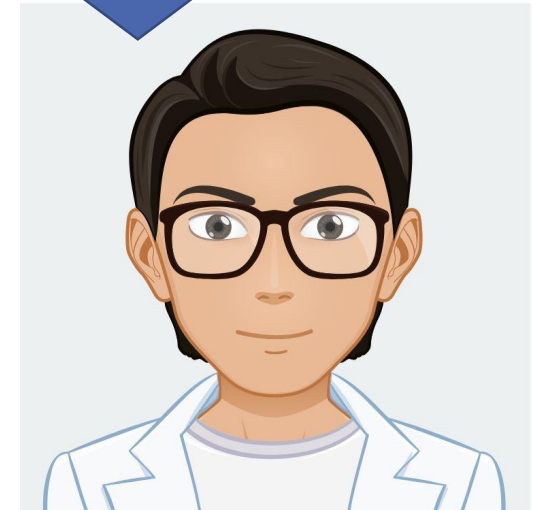


How Can We Treat Alcohol Use Disorder?

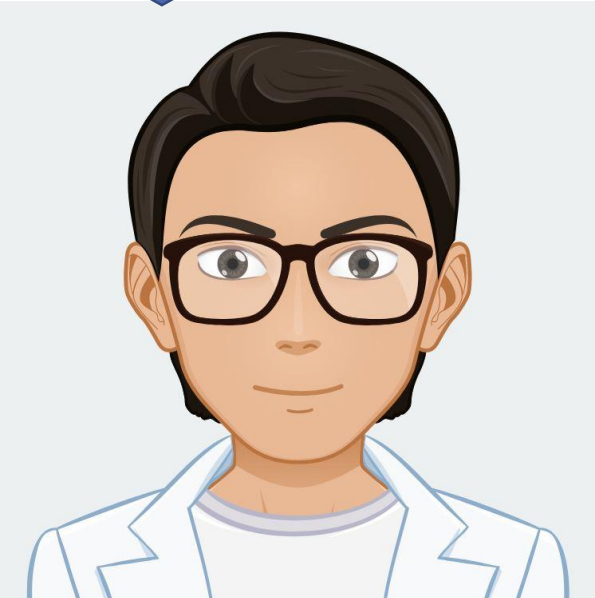
Medications for Alcohol Use Disorder can:

- **Reduce** withdrawal symptoms
- **Block or ease** euphoria from alcohol
- **Discourage** drinking by creating an unpleasant association with alcohol

Let's start by looking at MAT for alcohol use. In the next few slides, we'll go over each of the medications.



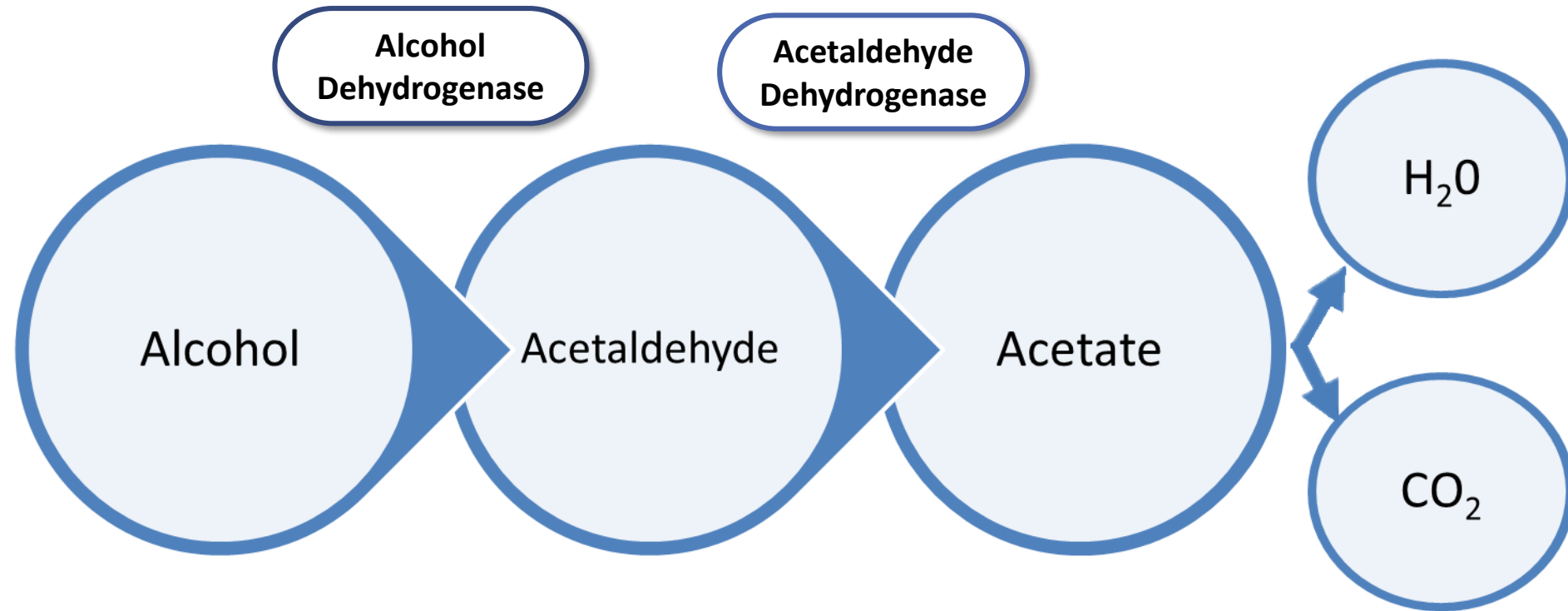
Disulfiram is
commonly known
as Antabuse®



Disulfiram

- Discourages drinking by making the patient physically sick when alcohol is consumed.
- Non-addictive and no reports of misuse.
- Research shows that participants treated with disulfiram drank alcohol on fewer days than those treated with placebo.

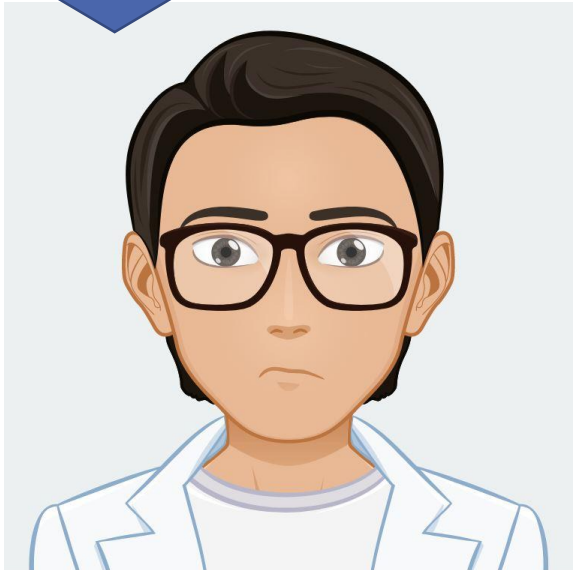
How Does Disulfiram Work?



Disulfiram works by blocking the enzyme acetaldehyde dehydrogenase. This causes acetaldehyde to accumulate in the blood at **5 to 10 times higher** than what would normally occur with alcohol alone.

Symptoms of Disulfiram

Since **acetaldehyde** is **poisonous**, a buildup of it produces highly unpleasant symptoms, commonly referred to as the “**disulfiram-alcohol reaction**.”

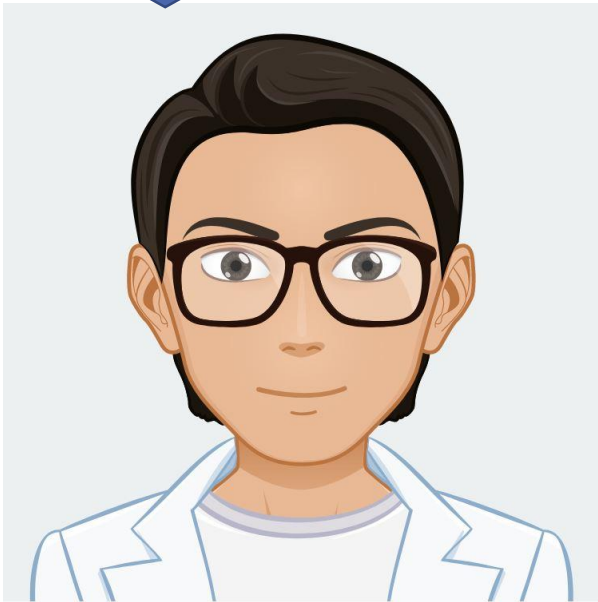


- ✓ Throbbing in Head/Neck
- ✓ Brief Loss of Consciousness
- ✓ Throbbing Headache
- ✓ Lowered Blood Pressure
- ✓ Difficulty Breathing
- ✓ Uneasiness
- ✓ Vomiting
- ✓ Nausea
- ✓ Flushing
- ✓ Sweating
- ✓ Thirst
- ✓ Weakness
- ✓ Chest Pain
- ✓ Dizziness
- ✓ Palpitation
- ✓ Hyperventilation
- ✓ Rapid Heartbeat
- ✓ Blurred Vision
- ✓ Confusion
- ✓ Respiratory Depression
- ✓ Cardiovascular Collapse
- ✓ Myocardial Infarction
- ✓ Congestive Heart Failure
- ✓ Unconsciousness
- ✓ Convulsions
- ✓ Death

Important Considerations of Disulfiram

- As long as there is alcohol in the blood, the **disulfiram-alcohol reaction** will continue.
- The disulfiram-alcohol reaction usually lasts for **30 to 60 minutes**, but can continue for several hours depending on the amount of alcohol consumed.
- The disulfiram-alcohol reaction can be triggered when alcohol is consumed one or two weeks after the last dose of disulfiram.
- Disulfiram should not be administered to someone who has consumed alcohol-containing preparations such as cough syrup, tonics, etc.

Acamprosate is
commonly known
as Campral®

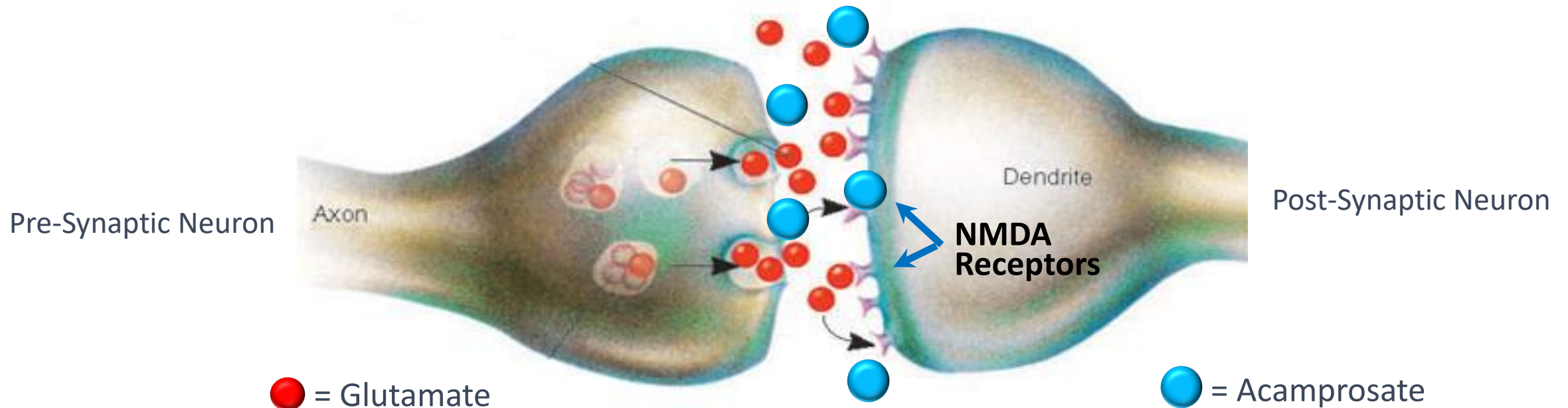


Acamprosate Calcium

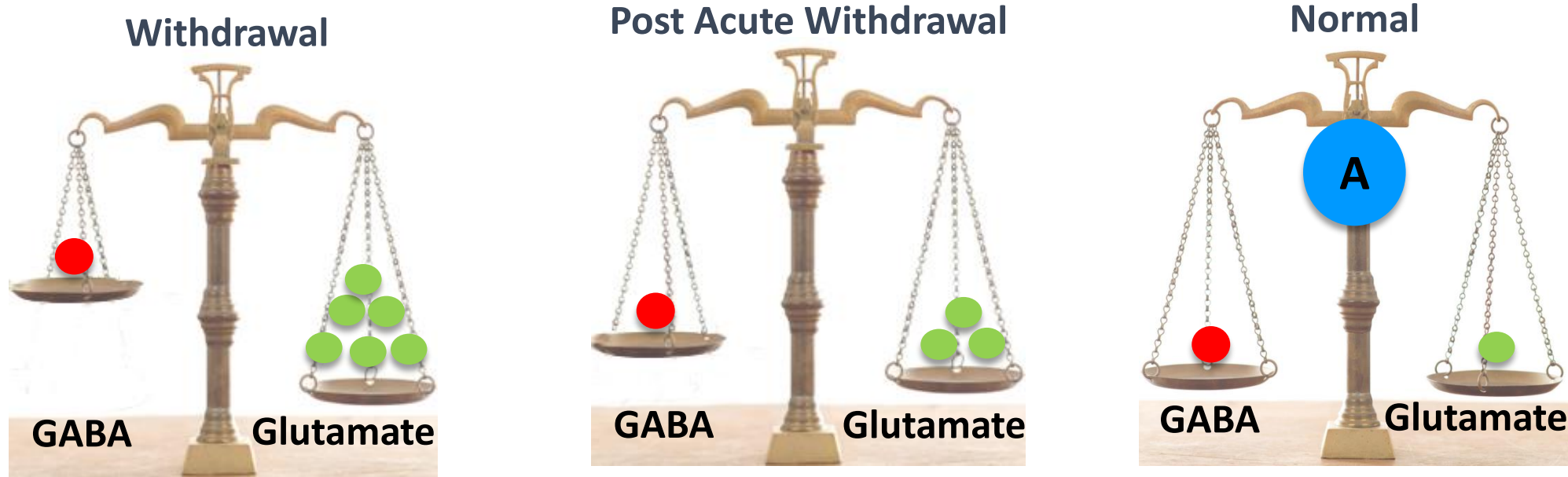
- Helps maintain abstinence from alcohol in patients with alcohol dependence by reducing withdrawal symptoms.
- Non-addictive and no reports of misuse.
- Research shows that participants treated with acamprosate drank alcohol on fewer days than those treated with placebo.
- Research also shows that those treated with acamprosate were able to regain abstinence after one relapse more frequently than those treated with placebo.

How Does Acamprosate Work?

- Acamprosate is a **glutamate receptor modulator**. In order to counteract alcohol's depressive effects, the brain responds to repetitive consumption of alcohol by increasing the number of glutamate receptors.
- Acamprosate is thought to reduce the amount of glutamate released, and reduce the activity of the glutamate receptors.

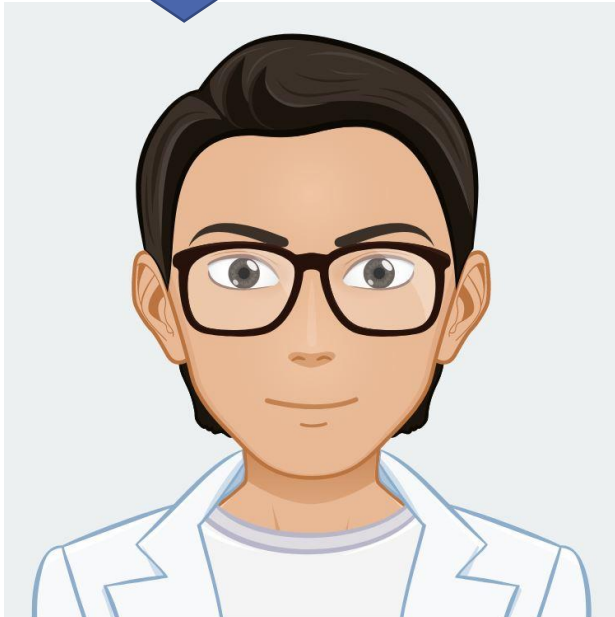


How Does Acamprosate Work?



- After one stops consuming alcohol, the glutamate system continues to be overactive as it readjusts by down regulating the glutamate receptors.
- During this time, the individual continues to feel anxiety and agitation that can lead to relapse. Acamprosate helps to reregulate the glutamate system.

Naltrexone is commonly known as ReVia® and Depade®



Naltrexone Hydrochloride

- Is a full mu opioid **antagonist**.
- Used to treat **alcohol or opioid** dependence by blocking the effects of opioids thereby **decreasing the pleasurable effects** of alcohol or opioids.
- Available in oral/pill or long-acting injectable formulations.
- Research shows that participants treated with naltrexone drank alcohol on fewer days than those treated with placebo.
- Research shows naltrexone reduces opioid use, and also reduces risk of re-imprisonment for justice-involved patients.

Extended-Release Naltrexone (Vivitrol®)

- Blocks opioid receptors for **one entire month** compared to approximately 28 doses of oral naltrexone.
- Must be administered by a healthcare professional and should alternate buttocks each month.
- It is **not possible to remove** it from the body once extended-release naltrexone has been injected.
- When compared to placebo, those receiving extended release naltrexone for 6 months had fewer opioid positive urines, retained in treatment longer, had fewer cravings, and showed greater improvement quality of life and overall health status

How Can We Treat Opioid Use Disorders?

- Opioid Use Disorders are treated most successfully by a combination of pharmacological and counseling interventions.
- Medications for Opioid Use Disorder can:
 - **Alleviate** withdrawal & craving
 - **Block** euphoria from opioids

That concludes the medications for alcohol. In the next few slides, we'll go over each of the medications for treating opioid use.



Methadone is commonly known as Methadose® and Dolophine®



Methadone

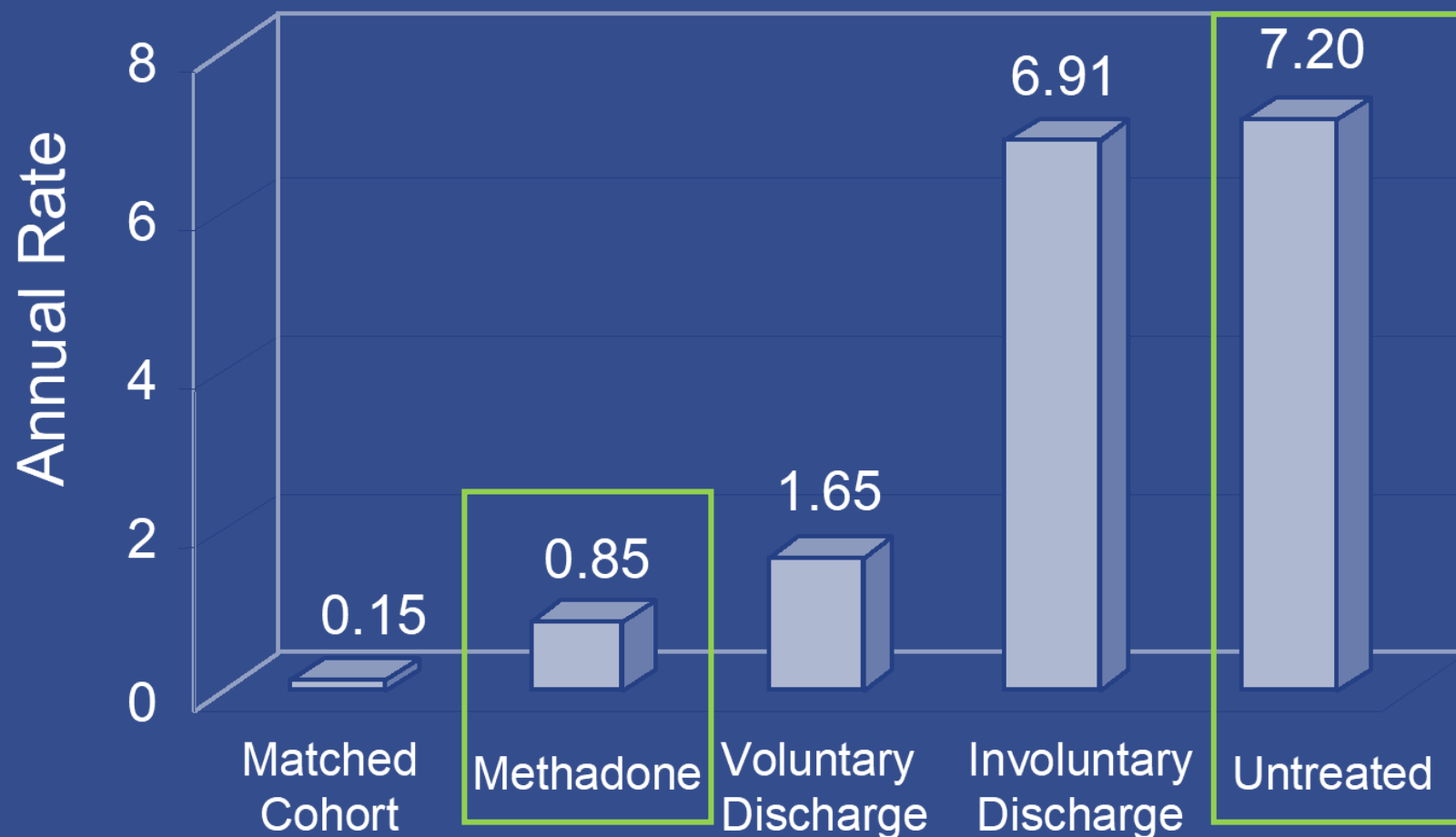
- Is commonly used for opioid use disorders.
- Is a full mu opioid agonist. It binds to the same receptor sites as other opioids and alleviates withdrawal and blocks euphoria.
- Suppresses withdrawal and craving for 24 hours.
- Shown to be safe and effective when used appropriately and in combination with psychosocial services.

Benefits of Methadone Maintenance

- ✓ Suppresses opioid withdrawal and reduces craving.
- ✓ Has few long-term side-effects.
- ✓ Research has found that it...
 - Reduces death rates by 8-10 fold.
 - Reduces drug use.
 - Reduces criminal activity associated with drug use.
 - Promotes engagement in socially productive roles and improves family and social functioning.
 - Helps to increase employment.
 - Improves physical and mental health.
 - Reduces the spread of HIV and other infectious diseases by reducing the use of needles.

Opioid

Death Rates in Treated and Untreated Heroin Addicts



This graph demonstrates the effectiveness of Methadone in reducing death rates among heroin users.



Buprenorphine is commonly known as Subutex®



Buprenorphine

- May be used both for medical **maintenance** pharmacotherapy and for medically supervised **withdrawal**.
- Is generally safe and well tolerated when used as recommended.
- Can precipitate opioid-like withdrawal symptoms in patients with high levels of physical dependence.
- Is as effective as moderate doses of methadone.
- Has over 25 years of research supporting its use.

How Does Buprenorphine Work?

- It is a Partial Opioid Agonist. It binds to the same receptor sites as other opioids and alleviates withdrawal and blocks euphoria.
- **Binds strongly** to opiate receptor and is long-acting.
- It produces a **ceiling effect** that prevents larger doses from producing greater agonist effects, although larger doses lengthen its duration of activity.
- It is available in the form of pills or film/sublingual formulations.
- It is available for use in office-based settings, and designed for take-home dosing. This makes it a more flexible treatment than methadone.

Implementing Medication-Assisted Treatment

There are many different, empirically tested models of MAT delivery.



MAT Implementation Procedures include:

- A complete, thorough assessment to determine appropriateness of MAT.
- Developing a plan and overseeing provisions of MAT services in accordance with best practices.
- Ensuring the appropriate medical providers are integrated into the treatment team.
- Regular and ongoing assessment should be conducted to ensure the continued appropriateness of care throughout the intervention.

Challenges for MAT

- Like all medications, MAT will only work if the patient is diligent about taking it orally or coming into the clinic for routine injections.
- Since MAT is fairly new, the long-term impact is not yet fully known.
- There may be some stigma surrounding MAT among those in recovery and treatment providers.
 - Certain treatment centers uphold a policy of sobriety and do not recognize use of MAT.
 - Those in recovery who did not utilize MAT may hold certain beliefs about the use of medication for recovery.

Module Review

Let's review
what we've
learned!



- Addiction is a brain disease and should be treated like other physical diseases and disorders.
- Medications used to treat Alcohol Use Disorder include Disulfiram, Acamprosate, and Naltrexone.
- Medications used to treat Opioid Use Disorder include Methadone, Buprenorphine, and Naltrexone.
- MAT should be used in combination with counseling/therapy and other medical healthcare.
- MAT implementation involves assessment and developing a plan, having qualified medical providers, and an ongoing evaluation of treatment.

Module Quiz

Answer the following questions to test your knowledge. Please write down your answers.

1. **The “disulfiram-alcohol reaction” refers to the buildup of acetaldehyde, which is poisonous and causes the individual to experience unpleasant symptoms when they consume alcohol.**
☐ True ☐ False
2. **Naltrexone can be used to treat both alcohol and opioid use disorders.**
☐ True ☐ False
3. **Which of the following is the most effective way of treating a SUD?**
A. Outpatient treatment centers that offer therapy are the best way to treat SUDs.
B. Medication for Addiction Therapy is the most effective way of treating an SUD, even without the help of therapy.
C. The combination of MAT and behavioral therapy is the most effective way of treating SUDs.
4. **Which of the following medications are used to treat opioid use disorders?**
A. Methadone and Disulfiram
B. Buprenorphine and Methadone
C. Acamprosate and Disulfiram

Module Quiz: Check Your Answers

1. The “disulfiram-alcohol reaction” refers to the buildup of acetaldehyde, which is poisonous and causes the individual to experience unpleasant symptoms when they consume alcohol.

☐ **True**

1. Naltrexone can be used to treat both alcohol and opioid use disorders.

☐ **True**

2. Which of the following is the most effective way of treating a SUD?

C. The combination of MAT and behavioral therapy is the most effective way of treating SUDs.

4. Which of the following medications are used to treat opioid use disorders?

B. Buprenorphine and Methadone

Here are the answers. How well did you do?



Resources for MAT

That's it for the training! Here are some helpful resources for you on MAT. You can also download the MATx mobile app found on the SAMHSA website!



SAMHSA MAT: <https://www.samhsa.gov/medication-assisted-treatment>

- **Opioid Treatment Program Locator:** <http://dpt2.samhsa.gov/treatment/directory.aspx>
- **Medication-Assisted Treatment for Opioids: Facts for Families and Friends:** <https://store.samhsa.gov/shin/content/SMA09-4443/SMA09-4443.pdf>
- **TIP 43: Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs:** <https://store.samhsa.gov/shin/content//SMA12-4214/SMA12-4214.pdf>
- **Increase Limit Rule to 275 Patients for Physicians:** <http://buprenorphine.samhsa.gov/forms/select-practitioner-type.php>
- **Buprenorphine Practitioner Verification for Pharmacists:** <https://www.samhsa.gov/bupe/lookup-form>

Policies Surrounding MAT:

- **Drug Addiction Treatment Act (DATA) 2000:** https://www.deadiversion.usdoj.gov/pubs/docs/dwp_buprenorphine.htm
- **Comprehensive Addiction Recovery Act (CARA):** <https://www.congress.gov/bill/114th-congress/senate-bill/524>
- **Legislation, Regulations, and Guidelines:** <https://www.samhsa.gov/medication-assisted-treatment/legislation-regulations-guidelines>