MEDICATIONS FOR OPIOID USE DISORDER TREATMENT, THE WHAT, WHY AND HOW

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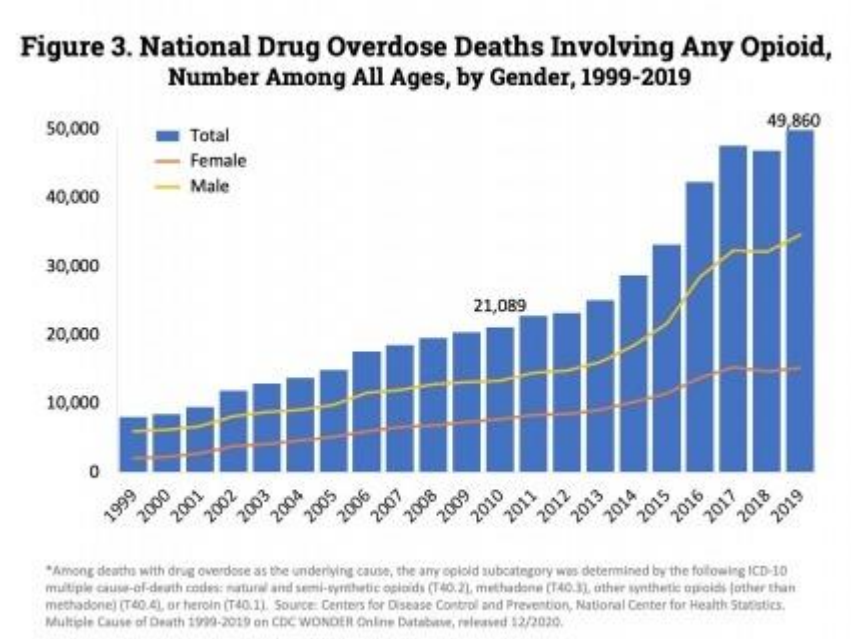
TRAINING OBJECTIVES

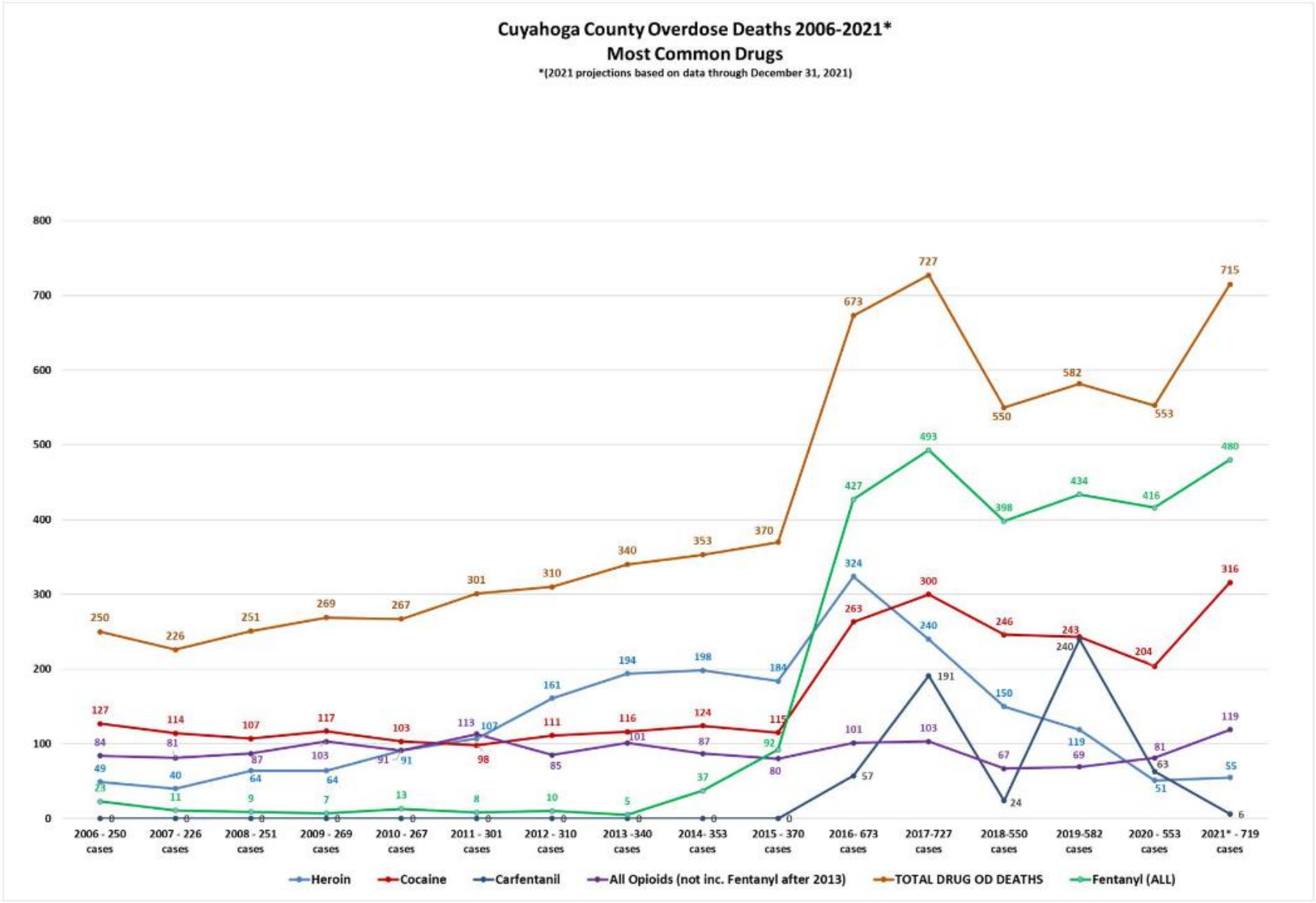
- *Discuss the relevant factors of changes that occur in the brain and behavior related substance use*
- *Understand the role of the FDA approved medications for addiction treatment (MAT) and describe their different methods of action in supporting treatment and recovery*
- *Discuss the role and impact of trauma and stigma in addressing opioid use disorder*
- *Discuss the legal landscape with regard to medications for addiction treatment and how that is impacting the criminal justice system from arrest and booking, to incarceration reentry*

CURRENT LANDSCAPE

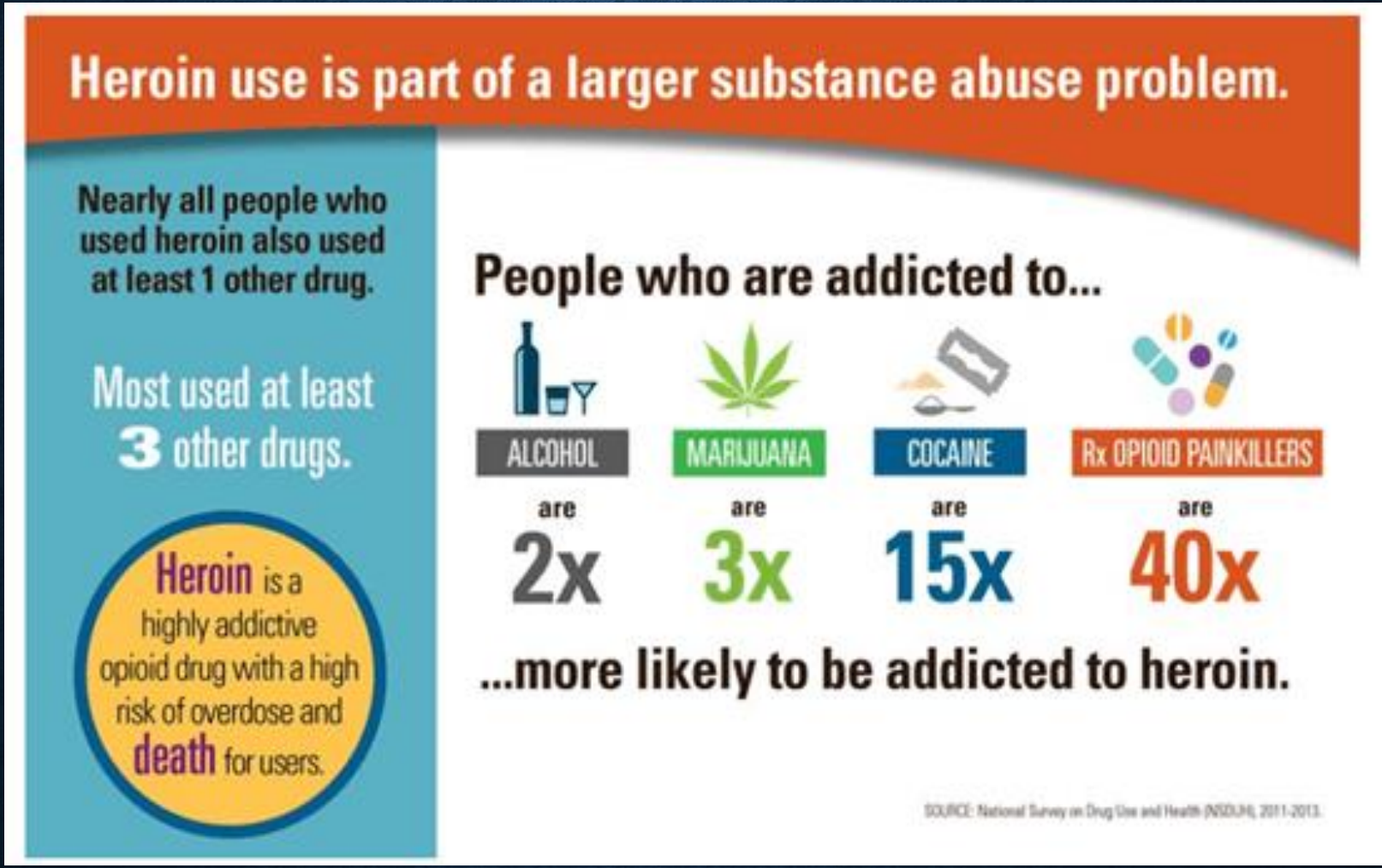
- We can no longer be passive with the presence of Fentanyl
- According to Centers for Disease Control and Prevention data, more than 107,000 Americans died from drug overdoses in 2021, an increase of more than 15 percent from 2020 year (78,056 OD deaths during March – April 2020)
- In 2022, the DEA sent a letter to its federal, state and local law enforcement partners warning of a nationwide spike in Fentanyl-related mass overdose deaths
- Last year, the US suffered more fentanyl-related deaths than gun and auto-related deaths combined

PREVIOUS YEARS DATA





Source: Cuyahoga County Medical Examiner's Office revised 1-12-22


Heroin use is part of a larger substance abuse problem.
Nearly all people who used heroin also used at least 1 other drug.
Most used at least 3 other drugs.
Heroin is a highly addictive opioid drug with a high risk of overdose and death for users.
People who are addicted to...
ALCOHOL
are 2x
MARIJUANA
are 3x
COCAINE
are 15x
Rx OPIOID PAINKILLERS
are 40x
...more likely to be addicted to heroin.
SOURCE: National Survey on Drug Use and Health (NSDUH), 2011-2013.

ADDICTION VS. DEPENDENCE

- Physical Dependence is NOT addiction
  - Physical withdrawal on a prescribed and properly taken medication is distinct from Addiction, which is characterized by a loss of control, reduced functioning, and compulsion to use despite devastating consequences
  - Physical dependence involves tolerance to a substance - we can become physically dependent on many different drugs, such as steroids for Lupus

OPIOIDS

- Sedative narcotic containing opium or one or more of its natural or synthetic derivatives
- Act by attaching to specific proteins called Mu Opioid Receptors
- Mu Opioid Receptors are responsible for the euphoric effects of an opioid – the "high" that users feel
- Opioid receptors are part of the body's natural endorphins system. Endorphins are chemicals that our body releases to help reduce experiences of pain and increase euphoric feelings
- After taking opiates, molecules bind to and activate receptors and release dopamine
- Affects other areas of the brain that are involved in Self Regulation and Decision Making
    - Overactive Amygdala – Feelings of Fear, Danger and Anger
    - Underactive Frontal Cortex – Planning and Self-Control (loss of ability to control impulses)

EXAMPLES OF OPIOIDS

- Oxycontin
- Percocet
- Morphine
- Heroin
- Fentanyl (up to 50 times stronger than heroin)
  - Often illicitly produced and mixed in street drug supplies including heroin, cocaine, marijuana, pills including opioids and benzodiazepines
- Dilaudid
- Carfentanil (up to 2,500 times stronger than heroin)
  - Has been found in street drug supplies, most often mixed with heroin

Opioid Crisis

Lethal Opioid Doses

Opioid	FDA	Relative Potency	Lethal Dose
Morphine	✓	1x	1 Pea 
Oxycodone	✓	1.5x	1 Sunflower Seed 
Fentanyl	✓	100x	1 Sesame Seed 
Sufentanil	✓	500x	1 Grain of Sand 
Carfentanil	✗	10,000x	0.5 Grains of Salt 

Clearvue Data

CYCLE OF ADDICTION

- Euphoria > Habit > Compulsion > Eliminate Withdrawal
- Withdrawal can occur within a few hours after the last time the drug is taken.
- During withdrawal, opioid cravings driven by dopamine depletion are extremely strong and the physical effects are "torturous" and often life threatening
  - Symptoms of withdrawal include restlessness, muscle and bone pain, insomnia, diarrhea, vomiting, cold flashes with goose bumps ("cold turkey"), and leg movements.
  - Individuals can experience acute cardiac stress and many individuals with other physical and mental health co-morbidities are at increased risk of serious injury or death
- Need to escape the discomfort and intensity of negative emotional states and withdrawal becomes driving force

TREATING OPIOID USE DISORDER

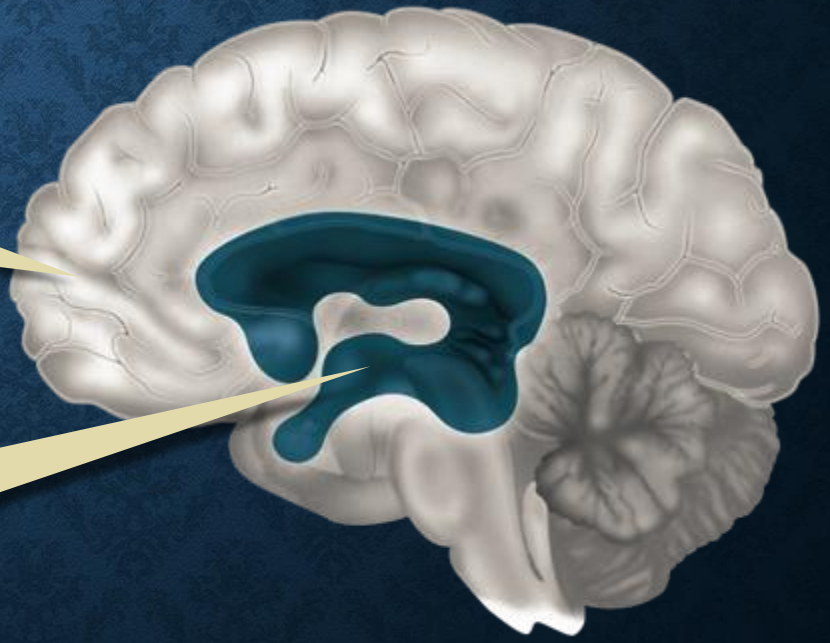
BEHAVIORAL – TRIGGERS, ENVIRONMENT, BEHAVIOR
PHARMACOLOGICAL – BRAIN CHANGES, MOOD STABILIZATION

PSYCHOLOGICAL EFFECTS

Counseling targets the ***CORTEX***

PHYSICAL EFFECTS

Medication targets the ***LIMBIC REGION***



WHAT IS MOUD/MAT

MOUD is considered the Gold Standard of Care in the treatment of OUD

MOUDs are evidence-based treatments for OUD, which may increase the likelihood that a person will discontinue the use of illegal drugs, reduce withdrawal symptoms and cravings and reduce the risk of overdose death (nobody recovers from OUD if they're dead)

MOUD addresses the compulsion and craving to use and promotes emotional, physiological and behavioral stabilization by acting on the same opiate receptors but in different ways

Medication can help restore the disrupted brain circuits –

- While the brain begins its physiological healing – the stabilization allows for psychological healing
- Stabilization allows counselors to do behavioral interventions to repair brain balance and allows the person to focus on learning new ways of thinking and acting

MOUD/MAT

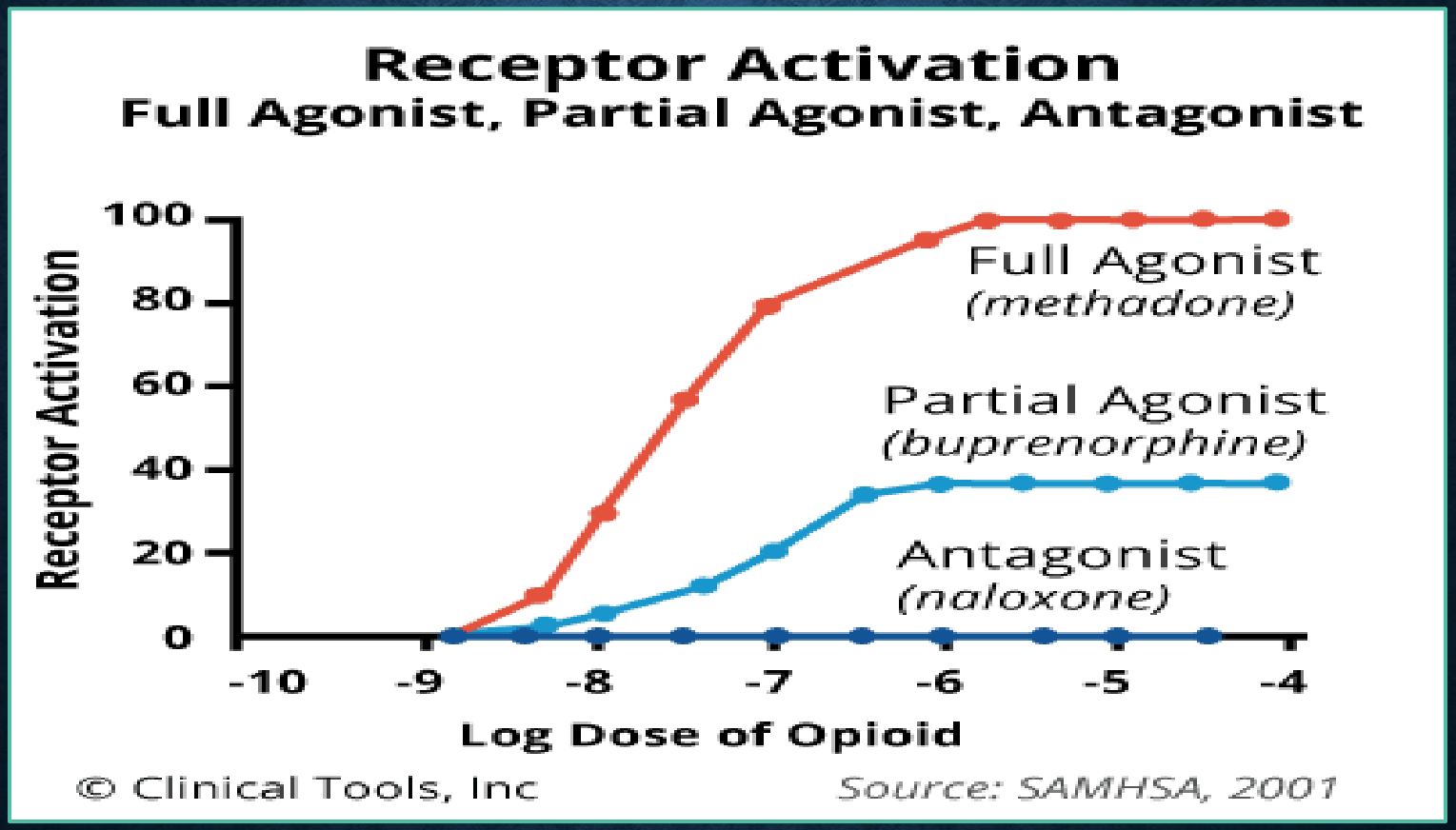
As part of a comprehensive treatment program MAT has been shown to:

- Reduced mortality and OD risk
- Improves medical and mental health outcomes
- Increased treatment retention
- Decrease illicit opiate use
- Decrease Hep C and HIV risk behaviors
- Decrease criminal behavior and recidivism
    - 2022 NIDA study revealed a 32% reduction in incarceration and new charges
- Increase employment
- Improve birth outcomes in pregnant individuals

<u>Medication First Movement</u> (do not delay MOUD)

- Wouldn't require treatment when prescribing an anti-depressant

MEDICATIONS FOR ADDICTIONS TREATMENT



Opiate Agonists

- The US Sec. of Health and Human Services noted that treating OUD without the use of opiate agonists is tantamount to treatment an infection without the use of antibiotics

- Reduce cravings without causing a "high" (acts on the same receptors but in a different way)- eliminate withdrawal symptoms by blocking or blunting the effects of other opiates and reducing the cravings to use other opiates.

- Many of the individuals we encounter in this field are not ready to have nothing on their receptors. Need to stabilize the brain.

TYPES OF MOUD

- Methadone - Meets the person where they are. Doesn't require detox from Op. Can be messy at the Mu Op Receptor – doesn't bind well)
- Buprenorphine (Subutex, Suboxone, Sublocade): Pushes the full agonist off the receptors and replaces with this weaker, partial, activating effect. Bup. will beat Heroin to the receptor 100% of the time – faster and stickier (higher binding affinity). Heroin finds the receptor and sits for a second and bounces off (ADD of Opiates). Bup. seeks out and outcompetes and binds strongly.
- Naltrexone (Vivitrol): Requires the individual to be detoxed off opiates. Binds to the receptor but stops the receptor from producing any response. Blocks receptor without activating it. Described as "like being on Narcan".

NEED TO BEGIN TO DO THINK AND DO THINGS DIFFERENTLY

- Begin to recognize OUD as a chronic disease or illness as opposed to an acute issue
- OUD is a chronic, relapsing disease
  - Comes on slowly and requires longer term treatment and management strategy
  - While often no cure, but treatment and pharmacology you can live with and manage the symptoms like heart disease, diabetes or bi-polar disorder

CRIMINAL JUSTICE SYSTEM

- Within the first few hours and days of detainment, heavy/long term opioid-using individuals who have abruptly stopped using, experience extreme and torturous withdrawal symptoms
- Most OD deaths occur during the first few hours to days following booking into a correctional facility
- Failing to manage withdrawal symptoms can lead to serious health complications, including death and increased suicide attempts, when those addicted to opioid pain medication have them abruptly discontinued
- Typical CJ response to opioid use: book, forced withdrawal, lower tolerance, release without MOUD, use at previous levels, OD
  - Individuals are 129x more likely to die from an OD upon release from custody
  - Jail and prison inmates are 10 – 40x more likely to die from an opioid OD within the first few days of relapse, compared to the non-incarcerated population

LEGAL RAMIFICATIONS FOR DENIAL OF ACCESS TO MOUD

- Perhaps at no other time has the need for medically managed withdrawal policy and protocols and unfettered access to all forms of FDA-approved MOUD been more critical
- SAMHSA – there should be no blanket prohibition against certain MOUD or against requiring and individual to discontinue or change meds
- OUD is condition protected by the Americans with Disabilities Act (a protected disability under Federal Law)
- The DOJ and LAC using the ADA to increase access to MOUD in jails, specialized dockets, probation departments, etc.
- On April 5, 2022, the DOJ published guidance on how the ADA protects people with OUD, particularly those who take medication to treat OUD
  - Litigation around denial of access to MOUD; only offering one type of medication; requirements to switch medications or to discontinue
- Additional litigation around the 8th Amendment's prohibition of cruel and unusual punishment (forced or improperly managed withdrawal) and the 5th and 14th Amendments around Due Process
- Tort law liability – involving non-criminal harms

TAKE AWAY THOUGHTS

- Individuals start treatment because they have to but continue because they want to
- Sobriety begets sobriety
- 90% of individuals without MOUD relapse within the first year
- We can't berate individuals – we need to approach substance use treatment like we approach and treat individuals with cancer and diabetes
- MAT is "enabling people" to live with dignity
- We practice harm reduction in many areas of life already
  - Seatbelts
  - Helmets
  - Condoms
  - Cigarette Filters

QUESTIONS? COMMENTS?

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