

A decorative graphic consisting of a series of colored circles of varying sizes, arranged in an upward-curving arc from left to right. The colors include yellow, red, blue, green, orange, purple, and teal. The teal circle on the far right is the largest and contains the year "2021".

ANNUAL CONFERENCE 2021

A Changing Idaho: Challenges & Opportunities

APRIL 13 & 14, 2021

2021: SPACE (MAT) ODYSSEY

**Where did MAT come from and
What we know now !**



**Dr. DAVID R HADLOCK, DO
FACOOG DABAM MAC
CMRO SAP**



Our Discussion Goals

- **Where did MAT get its start ?**
 - **Federal regulations and legislation**
 - **MAT Program Guidelines**
 - **Opioid Epidemic and Overdose**
 - **How has the Epidemic changed**
- **Opioid pharmacology.**
- **Treatment and Clinical outcomes**



Drug Addiction Treatment Act of 2000 (DATA)

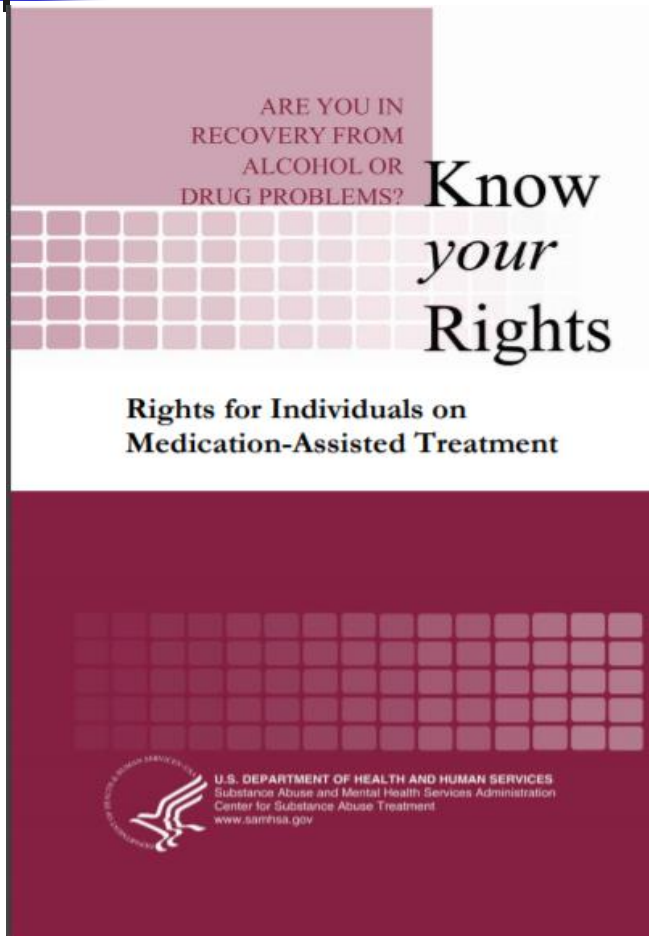
- Dole and Nyswander at Rockefeller University in the 1960s showed that the treatment of opioid addiction, led to reduced criminal behavior and improved function
- The Controlled Substances Act of 1970
- The Narcotic Addict Treatment Act of 1974
- Congress passed the Drug Abuse Treatment Act in 2000
- October 17, 2000, President Bush signed into law The Drug Addiction Treatment Act of 2000
- The Food and Drug Administration (FDA) on October 8, 2002, approved two formulations of buprenorphine.
 - Subutex® and Suboxone®
 - SAMSHA TIP 40 Guideline (2004)

FEDERAL REGULATIONS THAT HAVE BEEN ENACTED



- The Americans with Disabilities Act (1990)
 - Amended in 2008
 - To include people with mental illnesses and addictions
- The Mental Health Parity and Addiction Equity Act of 2008 (rewritten 2013)
 - Which requires parity between mental health or substance use disorder benefits and medical and surgical benefits offered by Health Care Plans

RIGHTS FOR PEOPLE ON MAT



**Individuals in MAT
often face
discrimination despite
laws that plainly
prohibit it. This
discrimination is
largely due to lack of
knowledge about MAT's
value, effectiveness
and safety.**



RIGHTS FOR PEOPLE ON MAT

FEDERAL NON-DISCRIMINATION LAWS THAT PROTECT PEOPLE IN MAT

PEOPLE on MAT are PROTECTED by LAW with respect to:

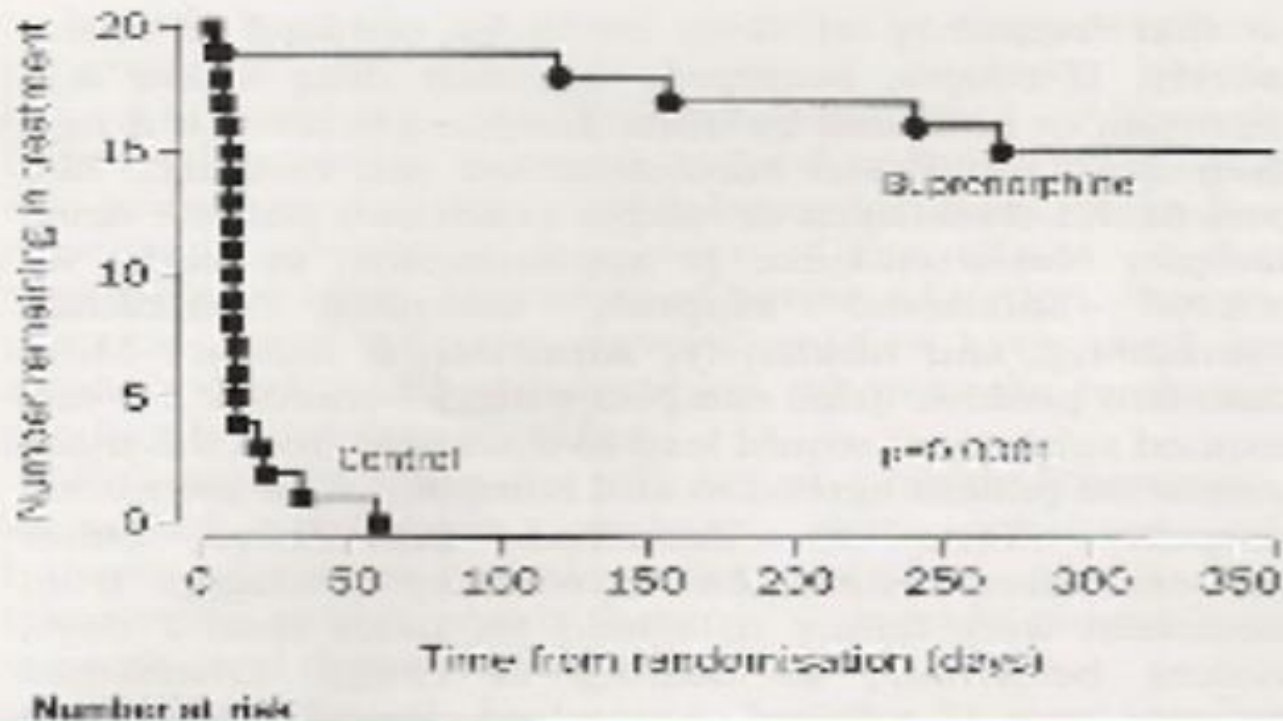
- EMPLOYMENT
- HOUSING – INCLUDING RESIDENCES FOR PEOPLE IN RECOVERY
- GOVERNMENT ACTIVITIES, BENEFITS AND SERVICES INCLUDING:
 - THE CHILD WELFARE SYSTEM
 - PROBATION AND PAROLE
 - ZONING
 - ISSUANCE OF DRIVERS LICENSES
- PRIVATE EDUCATIONAL, HEALTH CARE AND OTHER FACILITIES
 - (ALSO CALLED “PUBLIC ACCOMMODATIONS”)



ASAM ADDICTION

- Addiction is a *treatable*, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.

Lancet 2003; 361:662-68





SAMSHA's MAT GOALS

- Medication-assisted treatment (MAT) is the use of medications, in combination with counseling and behavioral therapies, to provide a “whole-patient” approach to the treatment of substance use disorders
- MAT has proved to be clinically effective and to significantly reduce the need for inpatient detoxification services for these individuals.
- MAT provides a more comprehensive, individually tailored program of medication and behavioral therapy.



SAMSHA's MAT GOALS

- The ultimate goal of MAT is **full recovery**, including the ability to live a self-directed life. This approach has been shown to:
 - *Improve patient survival*
 - *Increase retention in treatment*
 - *Decrease illicit opiate use and criminal activity*
 - *Increase patient to gain and maintain employment*
 - *Improve birth outcomes for women with SUD*



SAMSHA's MAT GOALS

- MAT medications relieve the withdrawal symptoms and psychological cravings.
- Medications are **evidence-based treatment** options, and do not just substitute one drug for another.
 - **DSM-IV** now the **DSM-V**



LIFESTYLE CHANGES

- **Medication alone is not sufficient for sustained long term sobriety**
 - **Counseling**
 - **12-step programs/ Community support**
 - **Church**
 - **Relationship**
 - **Family**
 - **Physical health**
 - **Work/ Employment**



Counseling and Behavioral Therapies

- Under federal law [42.CFR 8.12](#), MAT patients receiving treatment must receive counseling or behavioral therapy.
- These services are required along with medical, vocational, educational, and other assessment and treatment services.



SUPPORT for MAT ENGAGEMENT

MAT services does work with a collaboration of a wide range of prevention, health care, social service, SUD treatment, and legal providers working together to provide **treatment and counseling to patient's with OUD.**



THE OPIOID EPIDEMIC

Historically, there has been some medical practices that have driven the Opioid problem and the current Overdose Epidemic.

National Center on Addiction and Substance Abuse at Columbia University reported in 2009 that:

3 % of the prescribing providers accounted for 55 % of all Schedule II prescriptions



OPIOID TRENDS THAT HAVE CHANGED

- First wave began with increased prescribing of opioids in the 1980s, and increase of overdose deaths since at least 1999. (natural opiates and semi synthetic opioids)
- Second wave began in 2010, with rapid increases in overdose deaths involving heroin
- Third wave began in 2013, with significant increases in overdose deaths involving synthetic opioids (fentanyl and analogs)



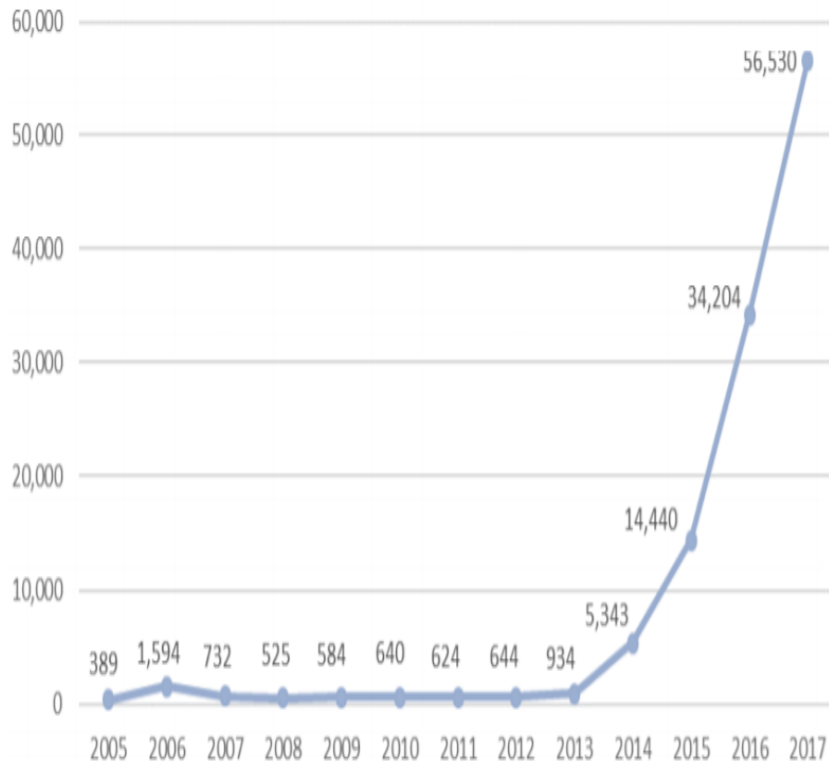
DEA 2020 Year in Review:

Combatting Serious Drug-Related Threats During the Pandemic

- **Centers for Disease Control and Prevention, reports more than 81,000 people in the United States have died of a drug overdose between May 2019 and May 2020**
- **The number of overdose deaths has accelerated significantly during the pandemic, resulting in the largest monthly increases documented since data calculations began in 2015**

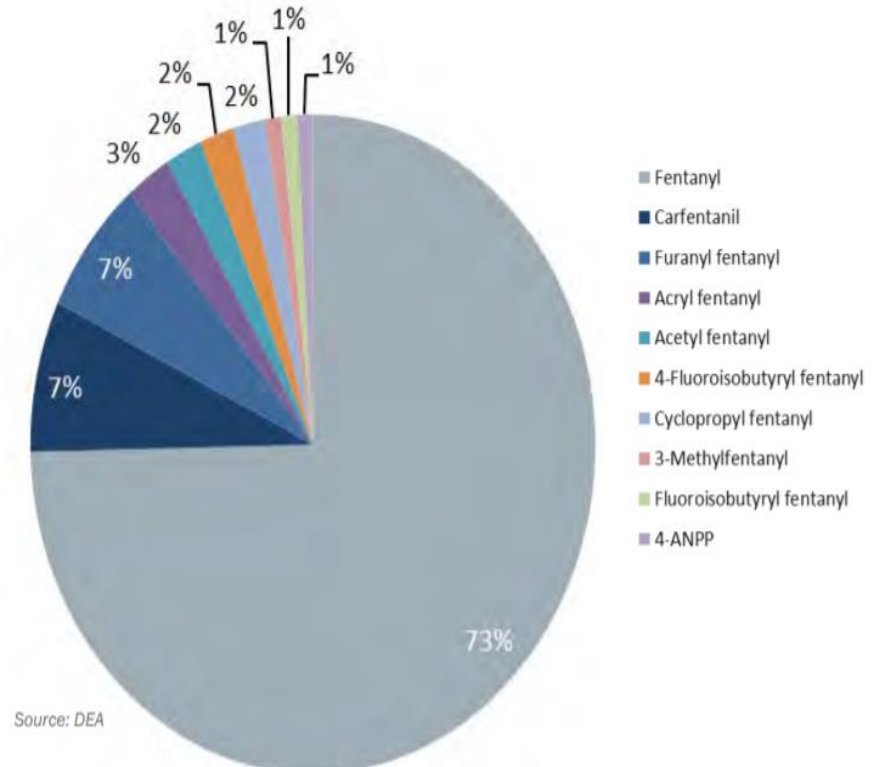
2019 National Drug Threat Assessment (NTSA)

Figure 2. Forensic Laboratory Reports of Fentanyl, 2005 - 2017

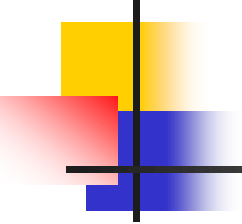


Source: DEA

Nationwide Reports of Fentanyl, Synthetic Opioids, and Precursor Chemicals, 2017



Source: DEA



DEA 2020 Year in Review:

Combatting Serious Drug-Related Threats During the Pandemic

- While *synthetic* opioids, Fentanyl remains the primary driver behind the ongoing opioid crisis, with fentanyl involved in more deaths than any other illicit drug. (NTSA)
- There has also been an alarming increase in the number of deaths involving illicit stimulants.
 - **Particularly methamphetamine and cocaine**
- **THE USE OF CONCOMITANT MEDICATIONS**
 - **How did this effect the following people's lives, and what did they all have in common ? (next slide)**

FEBRUARY 4, 2008

People

MILEY CYRUS
Gets a Makeover!

EDDIE'S SPLIT
Shocking Details

1979 - 2008
most famous:
**HEATH LEDGER'S
TRAGIC
DEATH**

Trade Name: Flacidyl
Controlled Ingredient: ethylhexoanil, 20mg

Trade Name: Flacidyl
Controlled Ingredient: ethylhexoanil, 20mg

Trade Name: Flacidyl




Avoid concurrent opioid and benzodiazepine prescribing

- **Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.**

(Recommendation category A: Evidence type: 3)

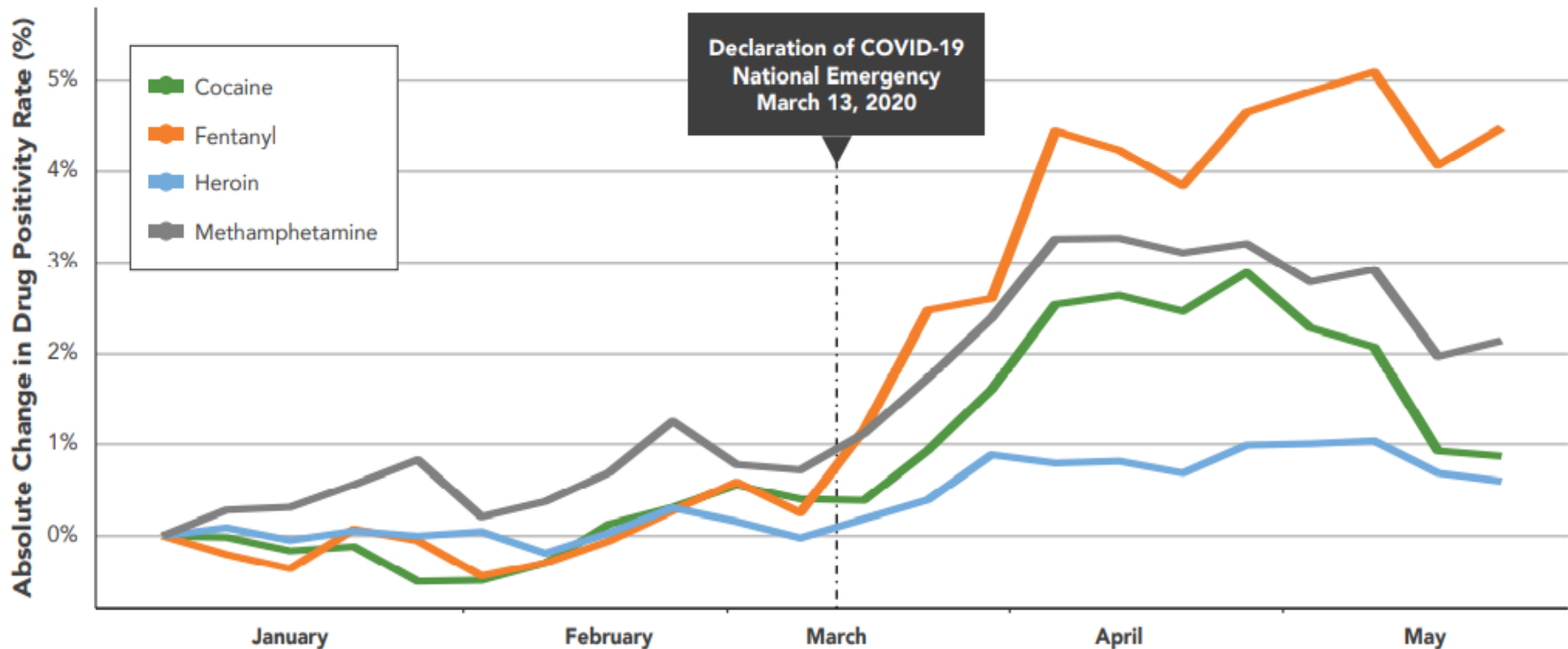
WARNING: RISKS FROM CONCOMITANT USE WITH OPIOIDS
Taking benzodiazepines with opioid medicines, alcohol, or other central nervous system depressants (including street drugs) can cause severe drowsiness, breathing problems (respiratory depression), coma, and death.

Millennium Health Signals Report™

COVID-19 Special Edition: Significant Changes in Drug Use During the Pandemic

July 2020

- Total Study Population Change in Unadjusted Positivity Rate for Cocaine, Fentanyl, Heroin and Methamphetamine



Millennium Health Signals Report™

COVID-19 Special Edition: Significant Changes in Drug Use During the Pandemic

July 2020

Fentanyl Positivity in the Cocaine, Heroin, and Methamphetamine Positive Populations by U.S. Region

| Regions | Cocaine | | | Heroin | | | Methamphetamine | | |
|----------|---------|--------|----------|--------|--------|----------|-----------------|-------|----------|
| | 2015 | 2019 | % Change | 2015 | 2019 | % Change | 2015 | 2019 | % Change |
| Mountain | 1.07% | 12.06% | 1022.72% | 0.27% | 17.83% | 6480.50% | 0.85% | 8.41% | 891.15% |
| Pacific | 5.77% | 7.74% | 34.10% | 4.48% | 8.99% | 100.84% | 1.69% | 4.14% | 144.27% |

MOUNTAIN REGION includes:
IDAHO, MONTANA, WYOMING, NEVADA,
UTAH, ARIZONA, and NEW MEXICO

Opioid Epidemic Within the COVID-19 Pandemic: Drug Testing in 2020

POPULATION HEALTH MANAGEMENT Volume 00, Number 00, 2020; NILES et al
Quest Diagnostics Laboratories

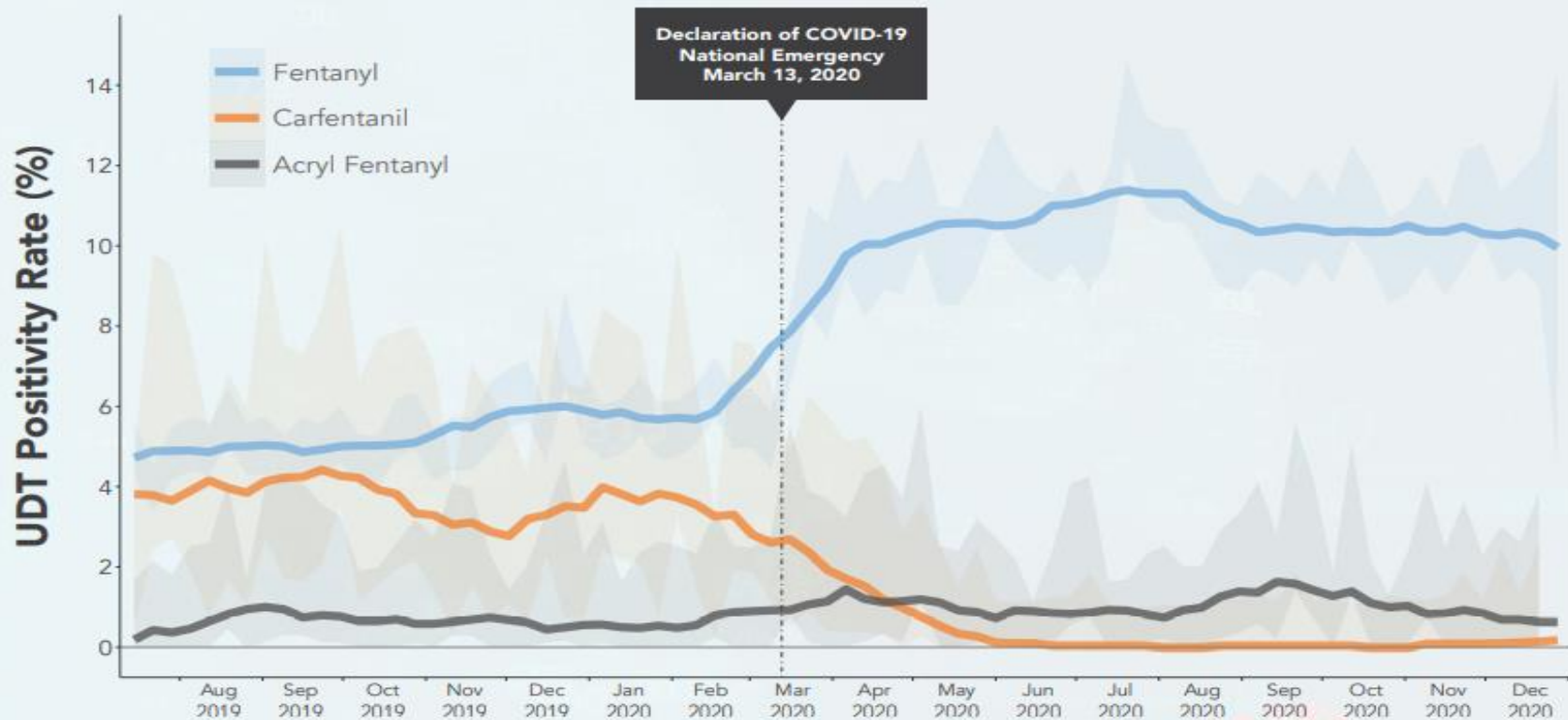
TABLE 1. DEMOGRAPHIC CHARACTERISTICS FOR ALL INCLUDED SPECIMENS AND FENTANYL-TESTED SPECIMENS, BASELINE AND DURING COVID-19

| | <i>All included specimens</i> | | | <i>Fentanyl-tested specimens</i> | | |
|--------------------|--------------------------------------|--------------------------------------|-------------|--------------------------------------|--------------------------------------|-------------|
| | <i>Before COVID-19 n (%)</i> | <i>During COVID-19 n (%)</i> | <i>Sig*</i> | <i>Before COVID-19 n (%)</i> | <i>During COVID-19 n (%)</i> | <i>Sig*</i> |
| Total | 823,824 | 48,938 | | 293,253 | 17,456 | |
| Patient age, years | | | | | | |
| 18–24.9 | 13,774 (1.7) | 688 (1.4) | <0.001 | 4,052 (1.4) | 194 (1.1) | 0.003 |
| 25–34.9 | 83,678 (10.2) | 4,315 (8.8) | <0.001 | 30,836 (10.5) | 1,555 (8.9) | <0.001 |
| 35–44.9 | 127,818 (15.5) | 7,212 (14.7) | <0.001 | 45,966 (15.7) | 2,630 (15.1) | 0.032 |
| 45–54.9 | 168,151 (20.4) | 10,326 (21.1) | <0.001 | 61,869 (21.1) | 3,958 (22.7) | <0.001 |
| 55–64.9 | 232,105 (28.2) | 14,786 (30.2) | <0.001 | 85,732 (29.2) | 5,435 (31.1) | <0.001 |
| ≥65 | 198,298 (24.1) | 11,611 (23.7) | 0.083 | 64,798 (22.1) | 3,684 (21.1) | 0.002 |
| Sex | | | | | | |
| Male | 344,821 (41.9) | 20,979 (43.0) | <0.001 | 123,463 (42.2) | 7,702 (44.2) | <0.001 |
| Female | 477,926 (58.1) | 27,788 (57.0) | <0.001 | 169,456 (57.9) | 9,717 (55.8) | <0.001 |
| <i>MAT status</i> | | | | | | |
| MAT patient | 149,202 (18.1) | 7,175 (14.7) | <0.001 | 66,256 (22.6) | 3,501 (20.1) | <0.001 |
| Non-MAT patient | 635,409 (77.1) | 39,464 (80.6) | <0.001 | 211,361 (72.1) | 13,090 (75.0) | <0.001 |

The COVID-19 Connection: Tracking 2020 Trends in Drug Use

Millennium Health Signals Report™ (Vol. 3)

Figure 1. Fentanyl and Fentanyl Analogue Positivity Rates Between July 15, 2019, and December 31, 2020



An Evaluation of Pain Medication Misuse in the Midst of the Pandemic

Millennium Health Signals Report™ (Vol. 3)

Table 1. Non-Prescribed Positivity Rate Change for U.S. Census Divisions between the Pre-COVID-19 and COVID-19 Time Periods†

| U.S. Census Division | Gabapentin | Tramadol | Hydrocodone | Oxycodone |
|----------------------|---------------|----------------|----------------|----------------|
| Mountain | -7% [-20 - 8] | -16% [-32 - 5] | -12% [-26 - 5] | -11% [-24 - 3] |

Table 1. Top 10 Most Frequently Detected Individual or Combinations of Substances in the Population Prescribed Methadone

| Ranking | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------------|---|---|---|---|---|---|---|---|---|----|
| Fentanyl | ● | ● | ● | ● | | ● | ● | ● | | ● |
| Methamphetamine | | ● | | | | | ● | ● | | |
| Marijuana | | | ● | | ● | ● | ● | | | |
| Cocaine | | | | ● | | ● | | ● | | |
| Gabapentin | | | | | | | | | ● | ● |

The findings are ranked 1 through 10 with number 1 (i.e. fentanyl alone) being the most common finding.

MEDICATION ASSISTED TREATMENT



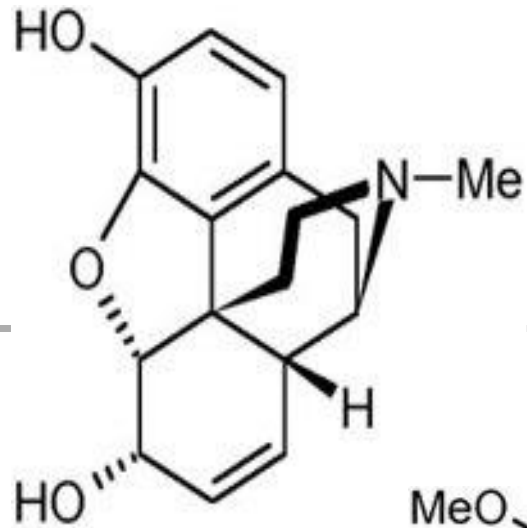
PHARMACOLOGY OF OPIOIDS

MEDICATION ASSISTED TREATMENT

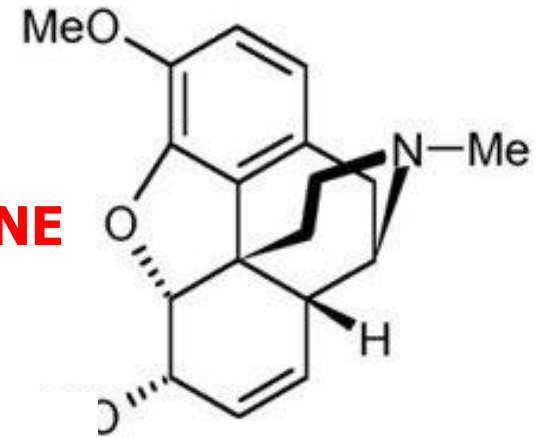
PHARMACOLOGY OF OPIOIDS



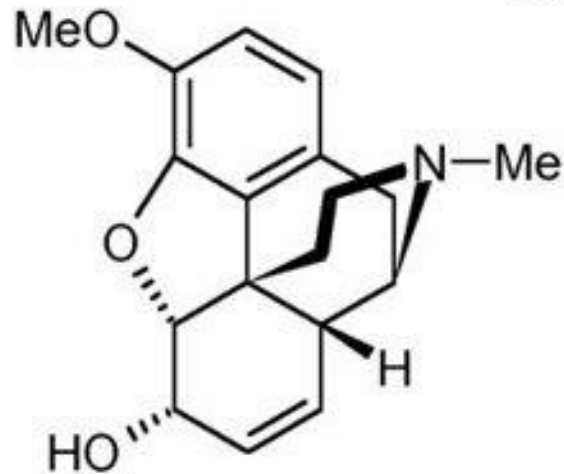
OPIATES



MORPHINE



CODEINE



THEBAINE





OPIOID RECEPTORS

- THREE TYPES OF OPIOID RECEPTORS
 - Mu
 - Kappa
 - Delta
- Opioid receptors use a lock and key mechanism
- Addictive effects of opioid medications occurs though activation of mainly the Mu receptors



Mu Receptors

- Binding of the Mu receptor exerts the analgesic, euphorigenic and addictive effects of opioids
- Opioids are described as either a full agonists, partial agonists or antagonists

**Mu
receptor**

Full agonist binding ...

**FULL
OPIOID
AGONIST**

**Perfect fit –
Maximum Opioid
Effect.**

**No Withdrawal
Pain**

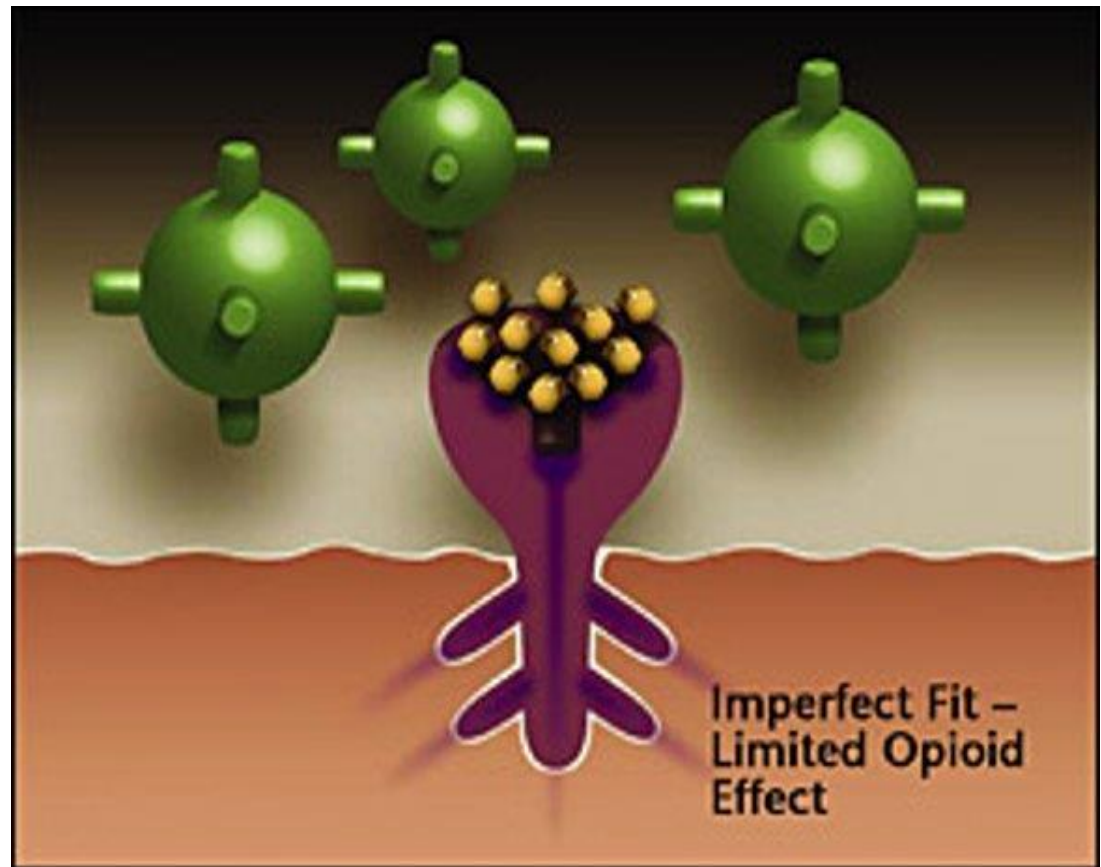
**Euphoric
Opioid
Effect**

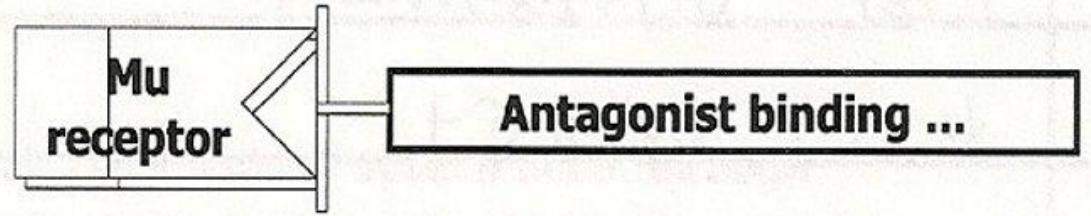


**Mu
receptor**

Partial agonist binding ...

**PARTIAL
OPIOID
AGONIST**



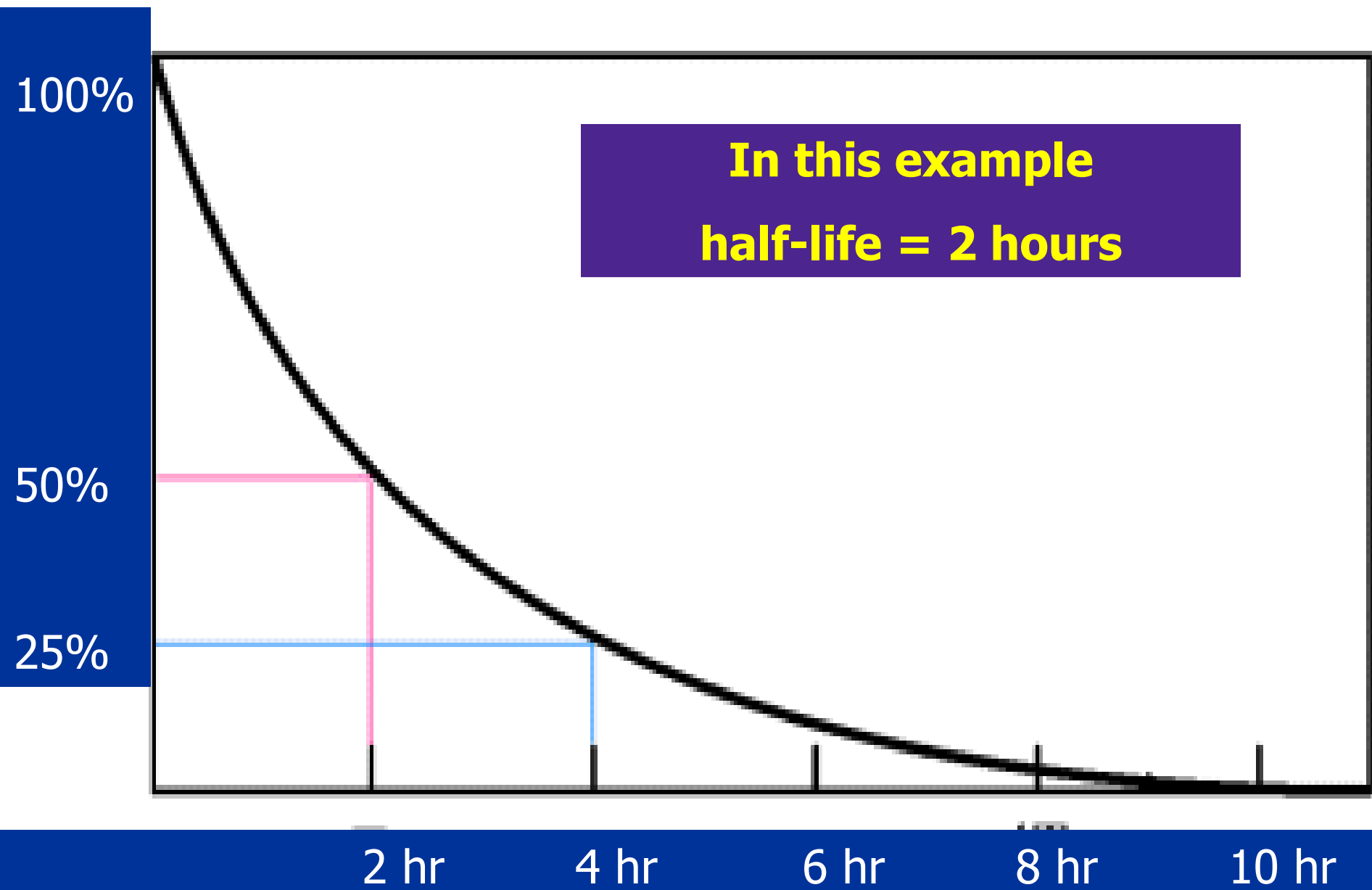


- **Binds and fully blocks of the Mu receptor**
- **Blocks agonist opioids binding**
- **Key fits over the lock and blocks opening the door**



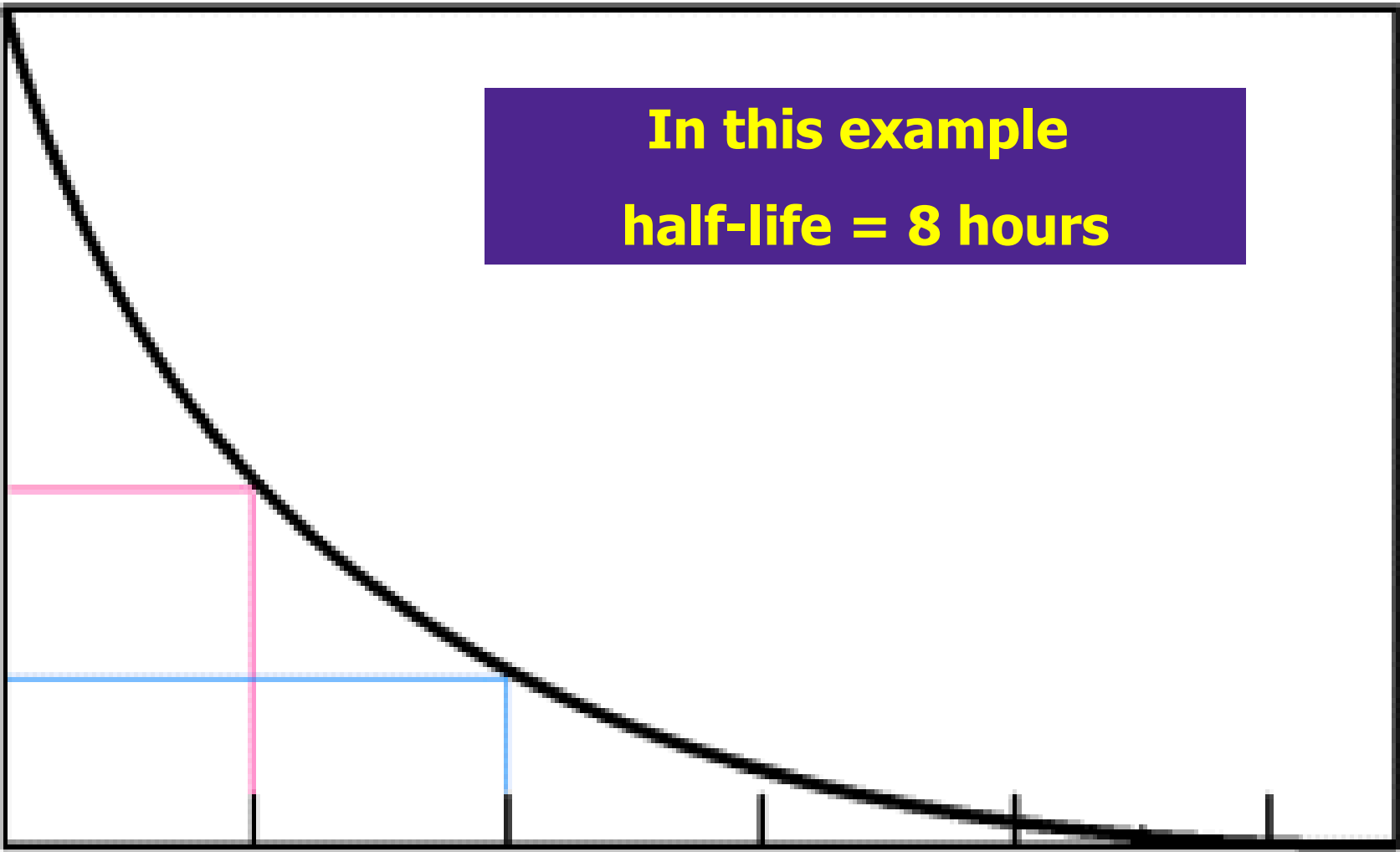
HALF-LIFE

- The length of time it takes for half of the drug in the body to be eliminated from the body
 - **Affinity**: strength with which drug binds to a receptor
 - **Intrinsic Activity**: degree to which a drug activates a receptor
 - **Dissociation**: measure of the disengagement from the receptor



100%
50%
25%

**In this example
half-life = 8 hours**



8 hr

16 hr

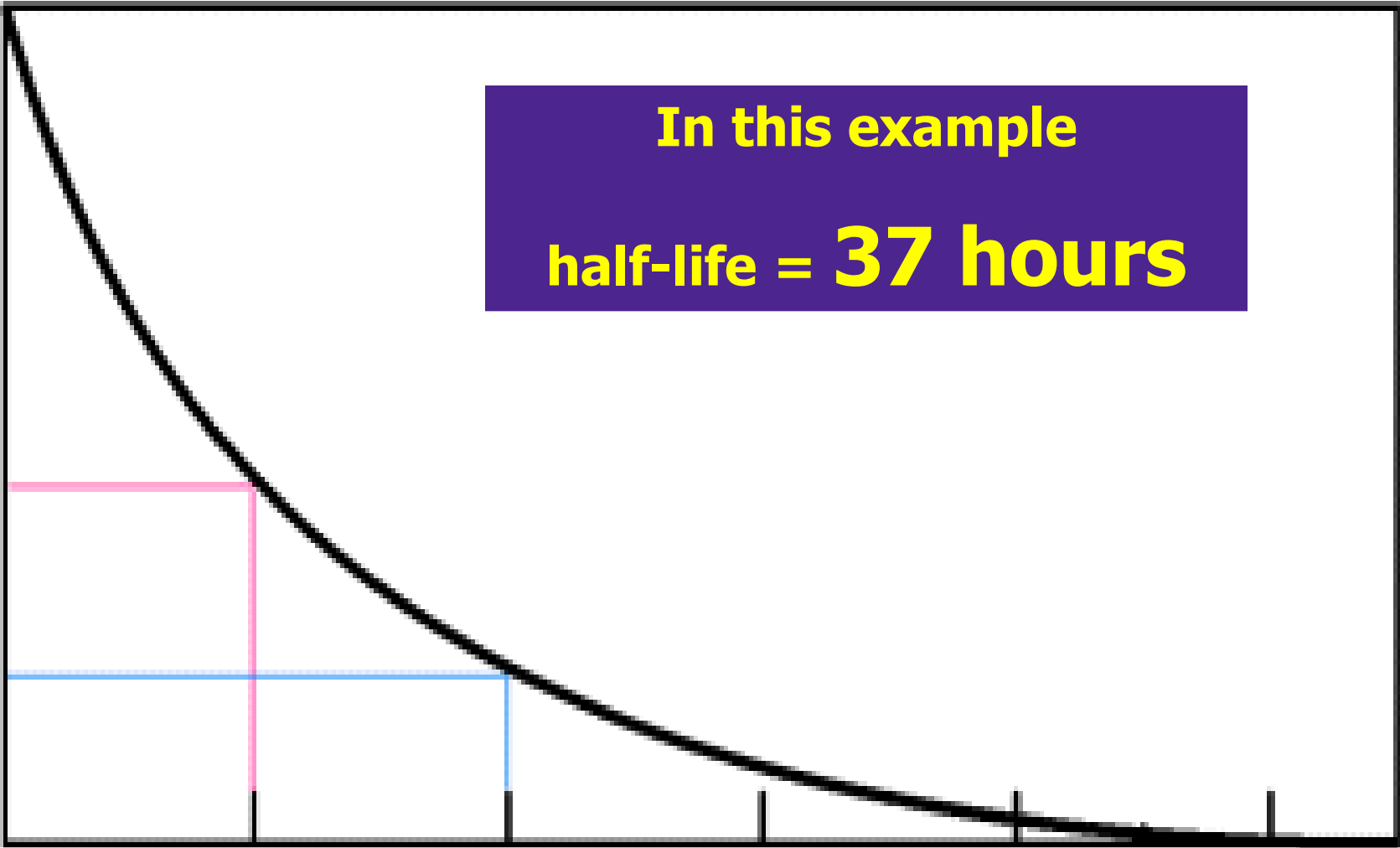
24 hr

32 hr

40 hr

100%
50%
25%

**In this example
half-life = 37 hours**



37 hr

2 1/2 days

3 3/4 days

5 days

6 1/4 days

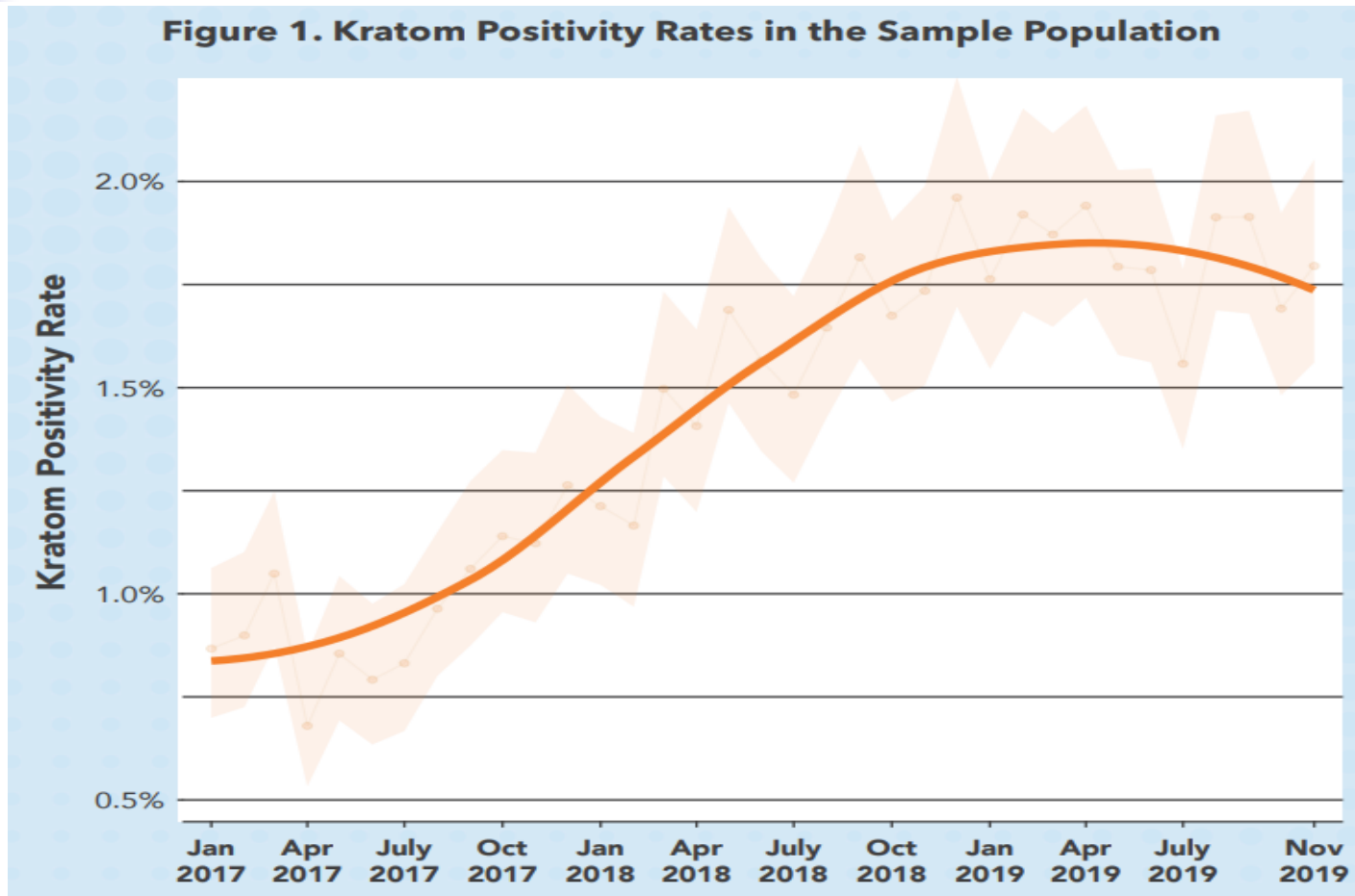


MEDICATION ASSISTED TREATMENT

KRATOM

"A DRUG of CONCERN"

Kratom: An Investigation into a “Drug of Concern”





KRATOM

- **Kratom (*Mitragyna speciosa*) is a tree native to Southeast Asia**
- **Kratom positivity rates increased in every U.S. region during the study period between Jan. 2017 and Nov. 2019**
- **Individuals who were positive for kratom were also more likely to be positive for non-prescribed opioids, benzodiazepines, and illicit substances (heroin, cocaine, methamphetamine, benzodiazepines, fentanyl).**



KRATOM

- **Mitragynine is a kappa-opioid receptor agonist**
- **Kratom is roughly 13 times more potent than morphine.**
- **Combining Kratom with other CNS depressants can result in an increased risk of overdose.**
- **The elimination half-life of Kratom is 23.24 hours, and around 5.33 days to completely eliminate Kratom from a person's system.**



KRATOM

- **The symptoms of withdrawal were similar to those from traditional opioids.**
- **The acute adverse effects appear to be a result of kratom's stimulant and opioid activities.**
 - **Stimulant effects may manifest anxiety, irritability, and increased aggression, and reports of seizures (<5gms)**
 - **Opioid-like effects include sedation, nausea, constipation, itching, sweating, dry mouth, tremor, anorexia, weight loss, dizziness, confusion, and psychosis.**

MEDICATION ASSISTED TREATMENT



**Treatment and
Clinical outcomes**

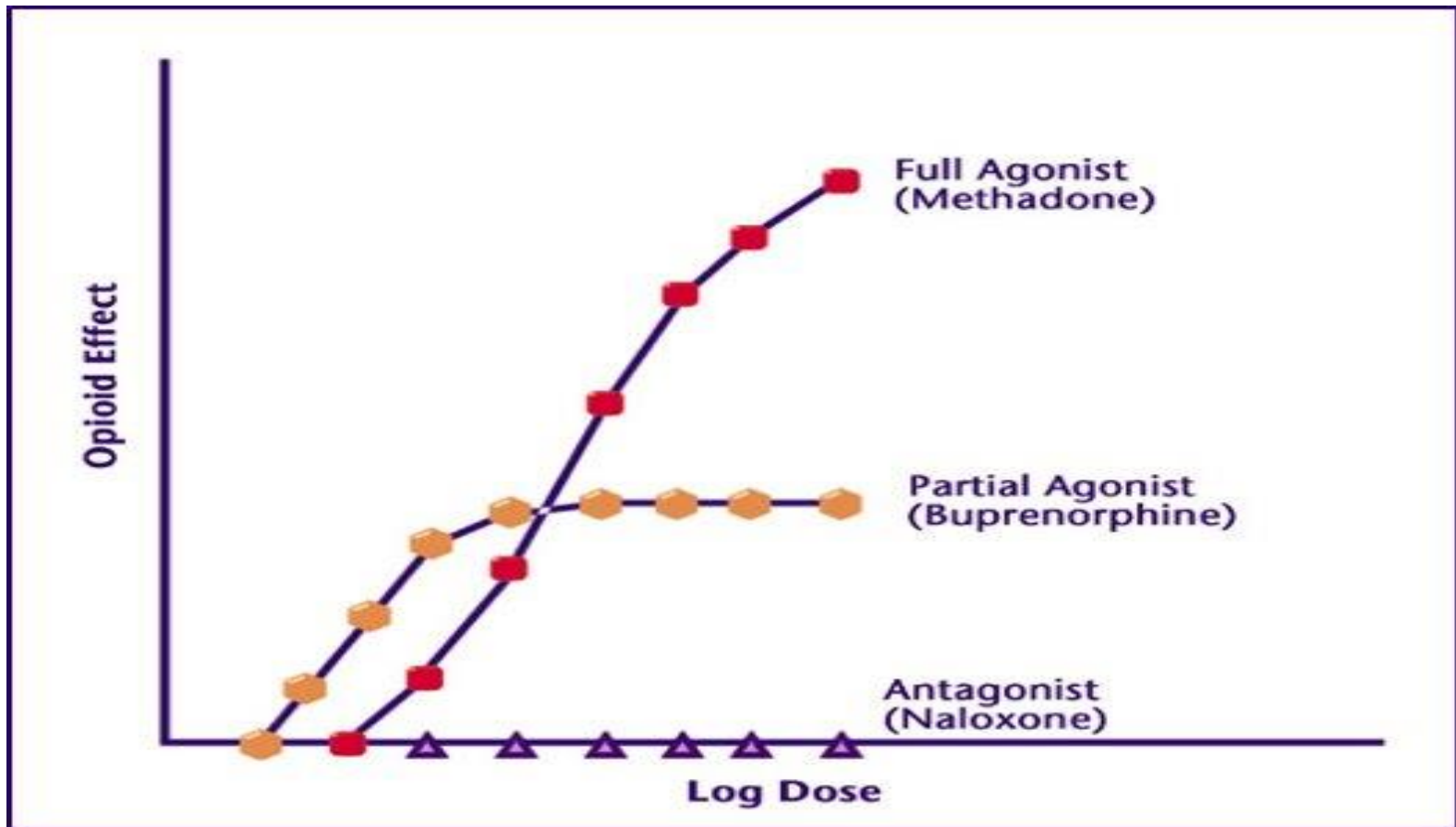


BUPRENORPHINE

"FIRST DO NO HARM"

- **WHAT ARE THE RISKS ?**
- **WHERE DID IT COME FROM ?**
 - **Thebaine**
 - **Buprenex**
- **CLINICAL STUDY SUPPORT ?**

OPIOIDS RISK

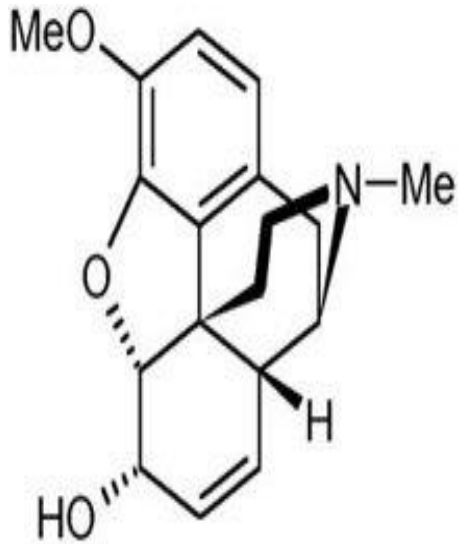


Treat patients for opioid use disorder (OUD) if needed

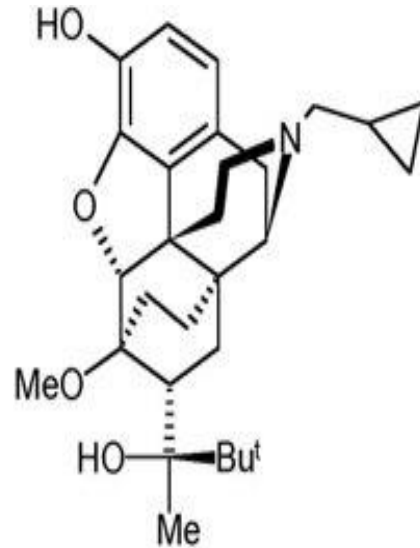
12

- **Clinicians should arrange evidence-based treatment**
 - Usually medication-assisted treatment with
 - Buprenorphine/Naloxone or
 - Methadone (liquid)
 - Naltrexone
 - In combination with behavioral therapies
 - For any patients with opioid use disorder.

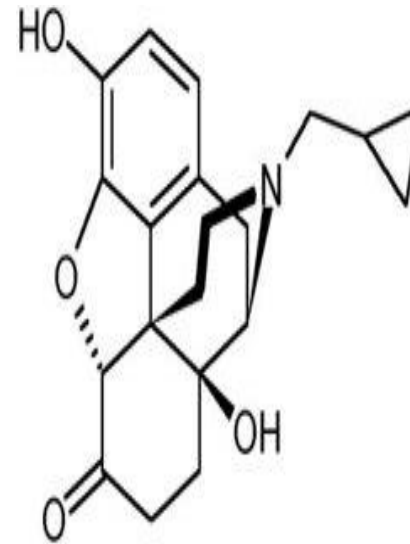
THEBAININE



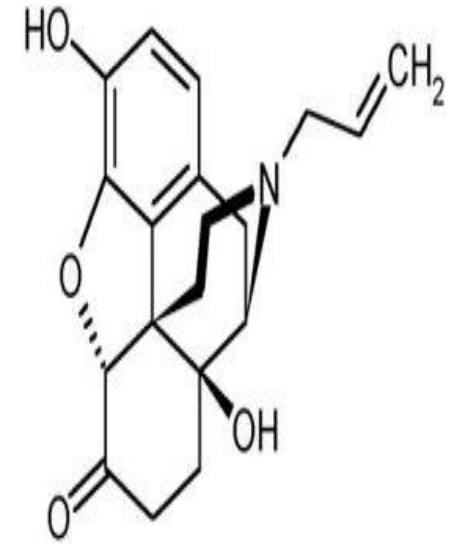
THEBAININE



BUPRENORPHINE



NALTREXONE
(Vivitrol)



NALOXONE
(Narcan)

BUPRENORPHINE STARTED WITH



Buprenex
buprenorphine

- Class
 - Opioid analgesic (agonist – antagonist)
 - Schedule V
- Indications
 - Management of moderate to severe pain



BUPRENEX

- **Buprenex is a narcotic under the Controlled Substances Act due to its chemical derivation from thebaine**
- **CLINICAL PHARMACOLOGY**
 - **Mechanism of Action Buprenorphine**
 - **A partial agonist at the mu-opioid receptor**
 - **A full antagonist at the kappa-opioid receptor.**



BUPRENEX

- Is a parenteral opioid analgesic with 0.3mg being approximately equivalent to 10 mg morphine sulfate in analgesic effects in adults (1 mg = 30 MME)
- Risks from Concomitant use with other:
 - **CNS Depressants**
 - **Benzodiazepines**
 - **Alcohol.**
 - They can result in profound sedation, respiratory depression, coma, and death



BUPRENORPHINE PRODUCTS

- **BUPRENORPHINE/NALOXONE**

- **Names:**

- **Suboxone**
- **Zubsolv**
- **Bunavail**
- **buprenorphine/naloxone generics**
 - **Tablets and film**



BUPRENORPHINE PRODUCTS

■ BUPRENORPHINE

■ **Names:**

- **Subutex (for pregnant patients)**
- **Probuphine subdermal implant**
- **Sublicade subcutaneous injection**
- **buprenorphine generic**
 - **Tablets and film**
- *Butrans transdermal patch*
- *Belbucca*
- *Buprenex (IM or IV)*



SUPPORT for MAT and OUTCOMES

- **CDC GUIDELINES state:**
 - **Treatment of opioid use disorder with buprenorphine decreases opioid use and prevents morbidity and mortality.**
 - **Standard of Care for OUD**
 - **Evidence Based Treatment for OUD**



Benefits of MAT (SAMHSA)

- Safe.
- Cost-effective.
- Reduce the risk of overdose.
- Increase **treatment** retention.
- Improve social functioning.
- Reduce the risks of infectious disease transmission.
- Reduce criminal activity.



SAMHSA STR-TA GRANT GUIDING PRINCIPLES

TREATMENT

- OUD is a treatable disease
- Standard medical practice is to identify, diagnosis, and treat patients with SUD/OUD
- FDA medications are the standard of care and are effective in treating OUD and saving lives
- All patients with OUD must be offered FDA indicated medications as part of their treatment
- Evidence based psychosocial interventions in combination with MAT improves outcomes
- Address stigma to increase access to care
- People can and do recover from OUD and other SUD's

RECOVERY

- Medications for OUD can support long-term recovery
- MAT is a critical part of recovery for individuals living with OUD and individuals on MAT
- Peer support workers can offer role-model recovery and provide support across the continuum of care
- Recovery is holistic and includes an individual's health, home, community, and purpose
- Recovery is culturally based and defined by the individual, in consultation with their clinician, family and community.

State Targeted Response (STR) Technical Assistance (TA) Consortium

Addressing OUD prevention, treatment and recovery.

Partners

- [Abuse and Mental Health Services Administration \(SAMHSA\)](#)
- [American Academy of Addiction Psychiatry \(AAAP\)](#)
- [Addiction Technology Transfer Center Network \(ATTC\)](#)
- [American Academy of Family Physicians \(AAFP\)](#)
- [American College of Emergency Physicians \(ACEP\)](#)
- [American College of Physicians \(ACP\)](#)
- [American Medical Association \(AMA\)](#)
- [American Osteopathic Academy of Addiction Medicine \(AOAAM\)](#)
- [American Psychiatric Association \(APA\)](#)
- [Association for Medical Education and Research in Substance Abuse \(AMERSA\)](#)
- [Boston Medical Center \(BMC\)](#)
- [Coalition of Physician Education \(COPE\)](#)
- [Council of Social Work Education \(CSWE\)](#)
- [National Alliance for HIV Education and Workforce Development \(NAHEWD/AETC\)](#)
- [National Association for Community Health Centers \(NACHC\)](#)
- [National Association of Drug Court Professionals \(NADCP\)](#)
- [National Council for Behavioral Health \(NCBH\)](#)
- [Physician Assistant Education Association \(PAEA\)](#)
- [Strengthening Families](#)



MAT OUTCOMES

- **CDC GUIDELINES state:**
 - **Treatment of opioid use disorder with buprenorphine decreases opioid use and prevents morbidity and mortality.**
 - **Standard of Care for OUD**
 - **Evidence Based Treatment for OUD**



Recovery From Opioid Use Disorder (OUD) After Monthly Long-acting Buprenorphine Treatment: 12-Month Longitudinal Outcomes From RECOVER, an Observational Study

Journal of Addiction Medicine: [September/October 2020 - Volume 14 - Issue 5 - p e233-e240](#)

- Pharmacotherapy for OUD is underutilized with estimates from the year 2019 suggesting that **fewer than 35%** of adults with OUD received OUD treatment in the past year.
- Although the beneficial effects of pharmacotherapy, including decreased opioid use, decreased opioid-related overdose deaths, decreased criminal activity, decreased infectious disease transmission, and increased social functioning are clearly demonstrated
- RECOVER participants reported positive outcomes over the 12-month observational period, including high opioid abstinence and stable or improved humanistic outcomes. These findings provide insights into the long-term impact of pharmacotherapy in OUD recovery.



National Drug Abuse Treatment Clinical Trials Network (CTN) opioid use disorder trials as background and rationale for NIDA CTN-0100 "optimizing retention, duration and discontinuation strategies for OUD pharmacotherapy

Addict Sci Clin Pract. 2021 Mar 6;16(1):15

- The **largest clinical trials** on treatment of OUD yet conducted, consisting of two phases, the Retention phase, and the Duration-Discontinuation phase.
- Long-term follow-up studies on those patient samples demonstrated the **importance of long-term** continuation of medication for many patients to sustain remission.
- The findings that **psychosocial intervention without medication** for OUD are not effective in the OUD population
- Importantly, there are **no prospective data** that can help clinicians advise patients regarding the likelihood that they will be able to safely discontinue medication without returning to opioid use.



Medication-assisted treatment of opioid use disorder: review of the evidence and future directions

Harv Rev Psychiatry. Mar-Apr 2015;23(2):63-75

- **Medication-assisted treatment** of opioid use disorder with physiological dependence at least **doubles rates** of opioid-abstinence outcomes in randomized, controlled trials comparing **psychosocial treatment of opioid use disorder with medication versus with placebo or no medication**
- The **evidence strongly supports the use of agonist therapies** to reduce opioid use and to retain patients in treatment
- Combined BUP/NAL also **demonstrates significant efficacy and favorable safety** and tolerability in multiple populations, including youth and prescription opioid-dependent individuals, as does BUP monotherapy in pregnant women.

Improving Access to Evidence-Based Medical Treatment for Opioid Use Disorder: Strategies to Address Key Barriers Within the Treatment System

The Prevention, Treatment, and Recovery Working Group of the Action Collaborative on Countering the U.S. Opioid Epidemic

- Even though evidence-based treatment for opioid use disorders (OUD) is effective, **almost four in five** Americans with OUD **do not** receive any form of MAT
- **Nine key barriers** that prevent access to evidence-based care, including stigma; inadequate clinical training; a lack of addiction specialists; lack of integration of MOUD in practice; regulatory, statutory, and data sharing restrictions; and financial barriers.
- Comprehensive treatment for OUD includes medications and opportunities to receive additional services such as behavioral counseling, case management, and peer support

Comparative effectiveness of extended-release naltrexone versus buprenorphine-naloxone for opioid relapse prevention (X:BOT): a multicentre, open-label, randomised controlled trial

[Lancet. 2018 Jan 27; 391\(10118\): 309–318.](#)

- We initiated this 24 week, open-label, randomised controlled, comparative effectiveness trial at eight US community-based inpatient services and followed up participants as outpatients.
- The primary outcome was opioid relapse-free survival during 24 weeks of outpatient treatment
- **Buprenorphine products** (sublingual tablets, film, and implants) are now the most commonly prescribed, most accessible form of **evidence-based opioid treatment** in the USA.



Comparative effectiveness of extended-release naltrexone versus buprenorphine-naloxone for opioid relapse prevention (X:BOT) continued

- Outcomes were consistent with observational analyses showing **overdose risk increases** substantially after discontinuation of BUP
- XR-NTX treatment was less effective than BUP-NX treatment for the prevention of opioid relapse following admission
- It is **more difficult to initiate** patients to XR-NTX than BUP-NX, and this negatively affected overall relapse.
- The risk of relapse was lower in the BUP-NX group than the XR-NTX group at the start of the study period, but this risk was not sustained
 - **For the XR-NTX group by day 21 was 25% of participants, whereas for BUP-NX group by day 21 was 3% participants.**
- Opioid use **outcomes measures** (opioid relapse, relapse-free survival, opioid-negative urine samples, and opioid-abstinent days) favored BUP-NX treatment compared with XR-NTX treatment

Buprenorphine maintenance and mu-opioid receptor availability in the treatment of opioid use disorder: implications for clinical use and policy

Drug Alcohol Depend. 2014 Nov 1;144:1-11

- Sublingual formulations of buprenorphine (BUP) and BUP/naloxone have well-established pharmacokinetic and pharmacodynamic profiles, and are **safe and effective** for treating opioid use disorder
- **Withdrawal suppression** appears to **require $\leq 50\%$** μ OR availability associated with BUP, for most patients, this may require single daily BUP doses of 4 mg to defend against trough levels.
- **Blockade of the reinforcing and subjective effects** of typical doses of abused opioids **require $< 20\%$** μ OR availability associated with BUP, for most individuals, this may require single daily BUP doses > 16 mg, or lower divided doses
- We conclude that fixed, arbitrary limits on BUP doses in clinical care or limits on reimbursement for this care are unwarranted.



A controlled trial of buprenorphine treatment for opioid dependence

JAMA. 1992 May 27;267(20):2750-5

- Throughout the maintenance phase, **retention rates** were significantly greater for buprenorphine than for methadone
- The percentage of **urine samples negative** for opioids was significantly greater for buprenorphine than for methadone.
- **Failure to maintain abstinence** during the maintenance phase was significantly greater for methadone than for buprenorphine
- The percentages of patients who received counseling did not differ between groups.

PSYCHOSOCIAL SUPPORTS IN MEDICATION-ASSISTED TREATMENT: RECENT EVIDENCE AND CURRENT PRACTICE

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES ASSISTANT SECRETARY FOR PLANNING AND EVALUATION OFFICE OF DISABILITY, AGING AND LONG-TERM CARE POLICY-APPENDIX B

- Interviews with key informants and an environmental scan of the literature have demonstrated **wide variation in the level** and type of **psychosocial support services** offered as part of MAT for OUD
- MAT services have expanded into a broader range of settings with differing characteristics and requirements, further contributing to the heterogeneity in the psychosocial supports delivered.
- The best available evidence suggests there is a valuable role for psychosocial supports, but the studies **do not establish which models of psychosocial treatment are most effective** with populations of people with OUD
- **Providers of psychosocial supports vary widely** in terms of their education and training, and in the beliefs, and attitudes they bring to their work.



Craving in Opioid Use Disorder: From Neurobiology to Clinical Practice

Front Psychiatry. 2019; 10: 592.

- **Craving** is strongly associated with patients returning to opioid misuse and is therefore an **important treatment target** to reduce the risk of relapse and improve patients' quality of life
- **MAT can significantly reduce craving and relapse risk**, and it is essential that patients are treated optimally with these therapies.
- There is also evidence to support the benefits of non-pharmacological approaches, such as cognitive behavioral therapy and mindfulness-based interventions, as supplementary treatments to opioid agonist therapies.



Retention in medication-assisted treatment for opiate dependence: A systematic review

Journal of Addictive Diseases Volume 35, 2016 - Issue 1

- Retention in medication-assisted treatment among opiate-dependent patients is associated with better outcomes.
- **Patients who received naltrexone or buprenorphine had better retention rates than patients who received a placebo or no medication.**
- **Contingency management showed promise to increase retention,** but other behavioral therapies failed to find differences between intervention and control conditions.



OPTUM®

ANNUAL CONFERENCE 2021
A Changing Idaho: Challenges & Opportunities



QUESTIONS ?



Dr. David R. Hadlock, DO

FACCOOG DABAM MAC

- **496-C Shoup Ave W**
- **Twin Falls, ID 83301**
 - **Office Phone: (208) 735-0000**
 - **Office Fax: (208) 734-1717**
 - **Cellular: (208) 539-5323**
 - **Wife: (208) 539-9935**
 - **drhadlock@gmail.com**