



New England (HHS Region 1)

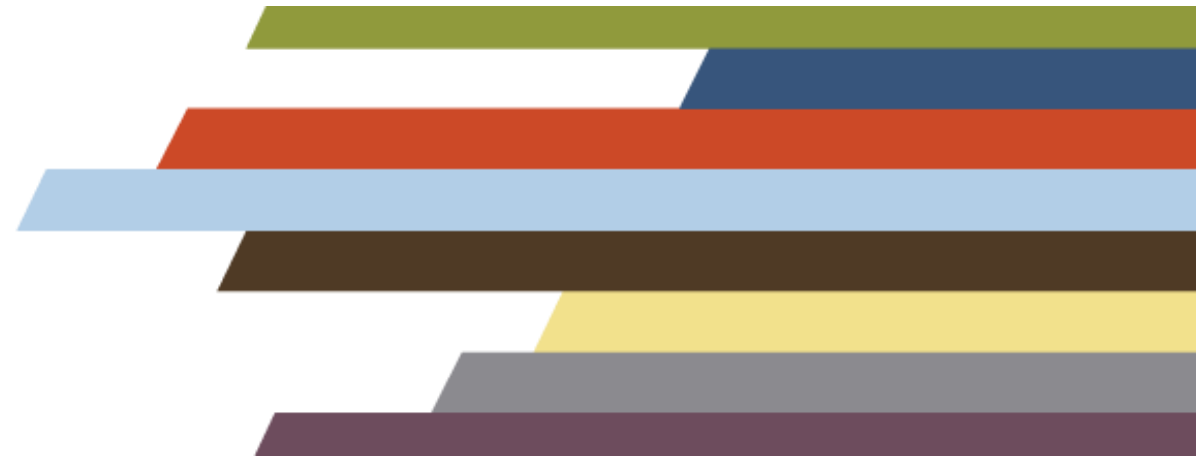
ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

Medication Assisted Treatment comes to Departments of Corrections

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New England ATTC Consultant and Trainer



Disclosures

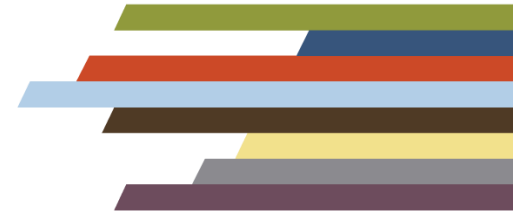
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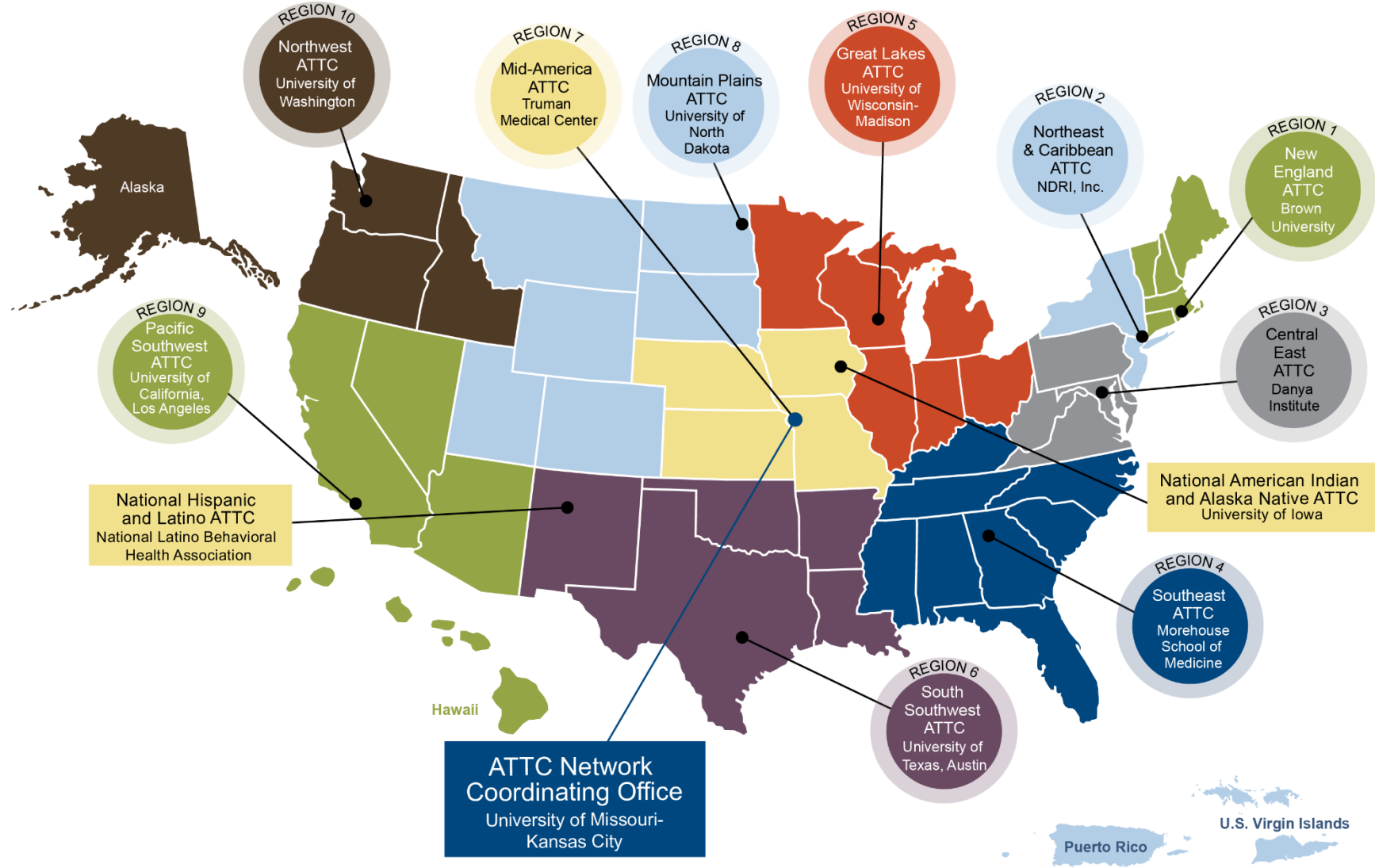




ATTC

Addiction Technology Transfer Center Network
Funded by Substance Abuse and Mental Health Services Administration

U.S.-based ATTC Network



Goals of Today's Training

After this training, you will be more familiar with:

- Statistics regarding Substance Use Disorders (SUDs) and Incarcerations
- Opioid Use Disorder's (OUD's) effects on the brain
- Medications: what they are, how they work
- Benefits of MAT in criminal justice (CJ) systems
- Self-care Strategies

What do you need today?

- Break into small groups
- Take 15 minutes to come up with ONE goal that you would like addressed today
- Choose one from among each group to share that goal with the rest of the class

What are the Typical Questions and concerns?

- The Medications:
 - Methadone, Buprenorphine, Vivitrol
 - Diversion, safety concerns
- The DOC Staff:
 - How long do people stay on these medications?
 - How is it not prolonging the addiction process?

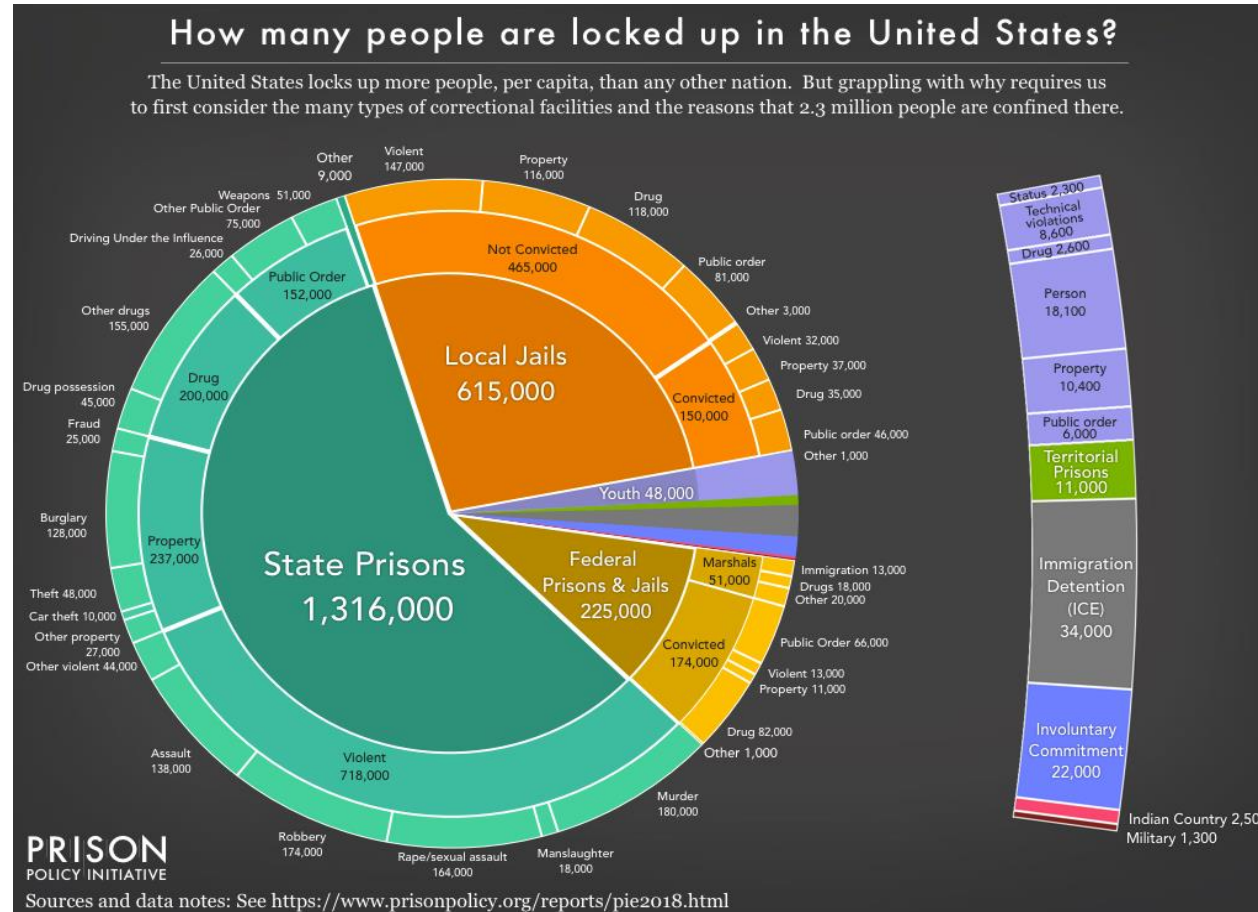
What are your specific questions and concerns?

- How to make sure there are systems available for door-to-door referral
- How to coordinate treatment prior to discharge
- Unclear goals within the DOC systems
- Internal steps to decrease/eliminate diversion
- How is dose determined
- How do you deal with persons who give evidence of multiple substance use

What are your specific questions and concerns?

- Why are people on MAT for a long time?
- Why are people placed on MAT prior to d/c when they've been sober while incarcerated?
- Why prescribe a replacement drug?
- What should we expect of the offender?
- What can we do to avoid burn-out?

Number of incarcerated persons by reason for confinement

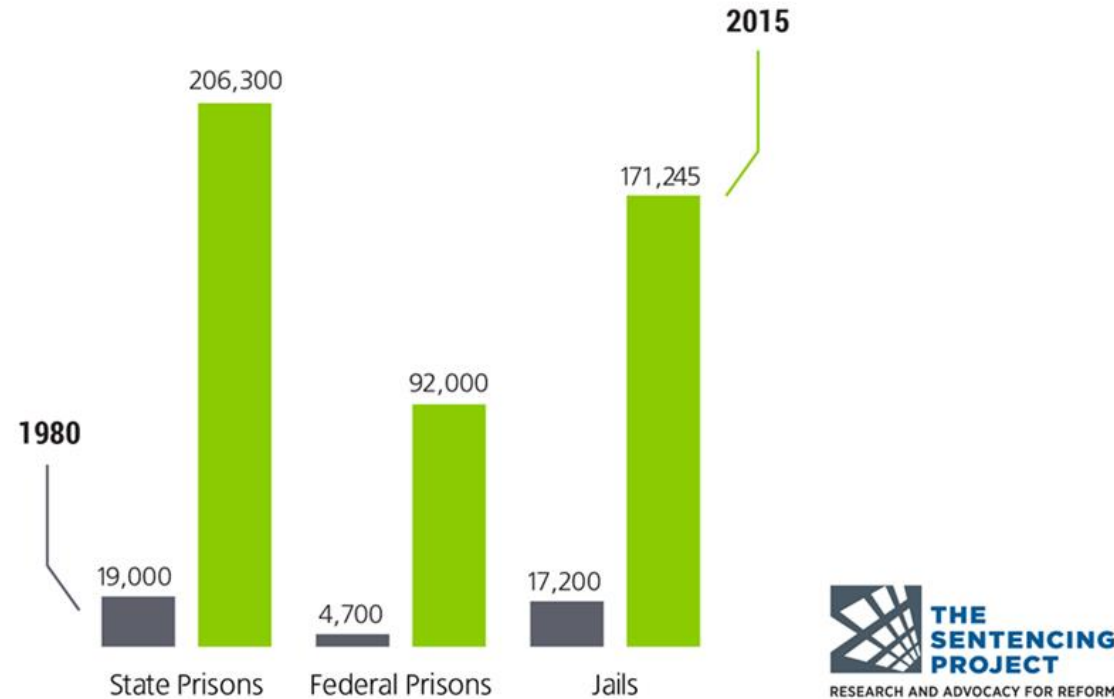


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1. Source: www.prisonpolicy.org/reports/pie2018

Number of incarcerated persons by reason for confinement

Number of People in Prisons and Jails for Drug Offenses, 1980 and 2015



Sources: Carson, E.A. and Anderson, E. (2016). *Prisoners in 2015*. Washington, DC: Bureau of Justice Statistics; James, D.J. (2004). *Profile of Jail Inmates, 2002*. Washington, DC: Bureau of Justice Statistics; Mauer, M. and King, R. (2007). *A 25-Year Quagmire: The War on Drugs and its Impact on American Society*. Washington, DC: The Sentencing Project; Minton, T.D. and Zeng, Z. (2016). *Jail Inmates in 2015*. Washington, DC: Bureau of Justice Statistics.

Minimum Prison sentences Per Substance

What are mandatory minimum prison sentences for drugs?

Type of drug	5 years	10 years
Crack cocaine	28 grams	280 grams
Powder cocaine	500 grams	5,000 grams
Heroin	100 grams	1,000 grams
LSD	1 gram	10 grams
Marijuana	100,000 grams	1,000,000 grams
Meth (pure)	5 grams	50 grams
PCP	10 grams	100 grams

Source: Families Against Mandatory Minimums



Some sobering statistics...

What does this all mean for the Criminal Justice System?

- 1 in 3 of the 2 million persons with OUD in the US are arrested
- Nearly 1 in 10 persons will die within 2 years after an initial overdose
- There is a 50% reduction in number of deaths for those on MAT
- Only about 5% of persons with OUD are getting MAT
- Opioid death rates are 120x's greater in MA for those with a history of incarceration. In CT?
- Majority of life-threatening incidents occurs within 4 weeks of release.
- Overdose deaths are 30 times higher for homeless population
- There are higher rates of overdose for those with co-occurring disorders
- Sixty-five percent of all incarcerated individuals meet the criteria for a substance use disorder.
- Use of opioids—which include prescription pain relievers, heroin, and synthetic opioids such as fentanyl—is linked with a higher rate of recidivism.

Even More Sobering Facts

Inmates in the U.S. Do Not Receive Adequate Treatment for Addiction

Only 11 percent of inmates who need substance use disorder treatment in the U.S. receive any form of it.

The World Health Organization recommends that all prisons make methadone and buprenorphine available for treatment and naltrexone available for relapse prevention.

Medications remain underutilized: As of 2009, while 55 percent of U.S. prison systems offered methadone treatment, more than 50 percent did so only for pregnant women; only 14 percent offered buprenorphine treatment for any inmates.

Medications are underused by drug courts. However, as of 2015, state drug courts receiving federal grants must allow people being treated with medications for opioid addiction to continue their use.

Four Reasons to Not Bring MAT to DOC

- In an article entitled ‘Treatment May not Help Inmates’ (January 4, 2019), author Andrew Klein of Advocates for Human Potential suggests that medication for inmates may not be the right course of action. According to Klein, “The real issue is *should* jails and prisons provide opioid medications for those already on these medications or for those who request them to prevent relapse upon release? The answer is not clear cut one way or the other.”
- Mr. Klein states that the motivation to begin agonist medication is primarily to avoid the agony of withdrawal, not for sustained recovery. He contends that once released from prison, the person soon returns to illicit use.

Four Reasons to Not Bring MAT to DOC

The Four Reasons	Rationale	Reason-busters
1. Offering medications in jails/prisons when they are not readily available upon release.	Prescribers and programs are scarce or non-existent in many communities. Costs too much.	
2. Continue them on medication if they are not able or willing to stick to the rules.	Many individuals entering with prescriptions for Methadone or Buprenorphine are mixing meds with additional narcotics, benzos and alcohol.	

Four Reasons to Not Bring MAT to DOC

The Four Reasons	Rationale	Reason-busters
3. Polysubstance-abusing persons may not be able to sustain a regimen for daily medication.	Diversion of Buprenorphine in the community is the rule, not the exception. 11000 children and adolescents reported to poison control centers for exposure between 2007 and 2016.	
4. Why medicate when most do not continue once released from the system?	CT study: 40.6% returned to illicit use after release within the first 30 days. RI DOC reports that 32% induced on methadone/Buprenorphine continued on medication after release.	

Four Reasons to Not Bring MAT to DOC

YOUR CHALLENGE TODAY IS TO FIND THE REASON-BUSTERS TO THE FOUR REASONS IDENTIFIED BY KLEIN

Why Initiate and Maintain MAT in Jails and Prisons and refer to community providers upon discharge

More than half of inmates will relapse within one month of release.

Reasons Include, but are not limited to:	
Peer Pressure	Isolation
Familial Pressure	Disillusionment and Apathy
Tensions in Daily Life	The Stress of Complying with DOC
Few Job Opportunities	Lack of Safe Housing
Inadequate Follow-up Treatment	Other?

Why Initiate and Maintain MAT in Jails and Prisons and refer to community providers upon discharge

- Death rates surge 200% to 700% in the first few weeks after correctional institution release primarily due to opioid overdose.
- In RI, post-release deaths decreased by 60.5%, and overall statewide overdose deaths dropped by 12.5% after one year of MAT program.
- Relapse and overdose rates justify referral to MAT post-release.

Why Initiate and Maintain MAT in Jails and Prisons and refer to community providers upon discharge

Providing medication improves post-release outcomes

- Inmates treated with methadone or buprenorphine prior to release are more likely to engage in post-release treatment, and to stay in treatment longer.
- A recent NIDA-funded study found treatment with extended-release naltrexone reduced relapse rates among criminal justice-involved adults with a history of opioid dependence.
- Forced discontinuation of methadone treatment during incarceration can lead to a reluctance to engage in future treatment, due to the severe and extended withdrawal symptoms that occur when these medications are abruptly discontinued.
- Opioid dependent patients allowed to continue methadone treatment during incarceration are less likely to be re-arrested than those who are detoxified in jail. Over 97 percent of those receiving methadone continued treatment after release.

Benefits to the CJ System Include:

 Public safety

 Public health

 Effectiveness
of Probation & Parole

 Rate of opiate overdose

 Recidivism

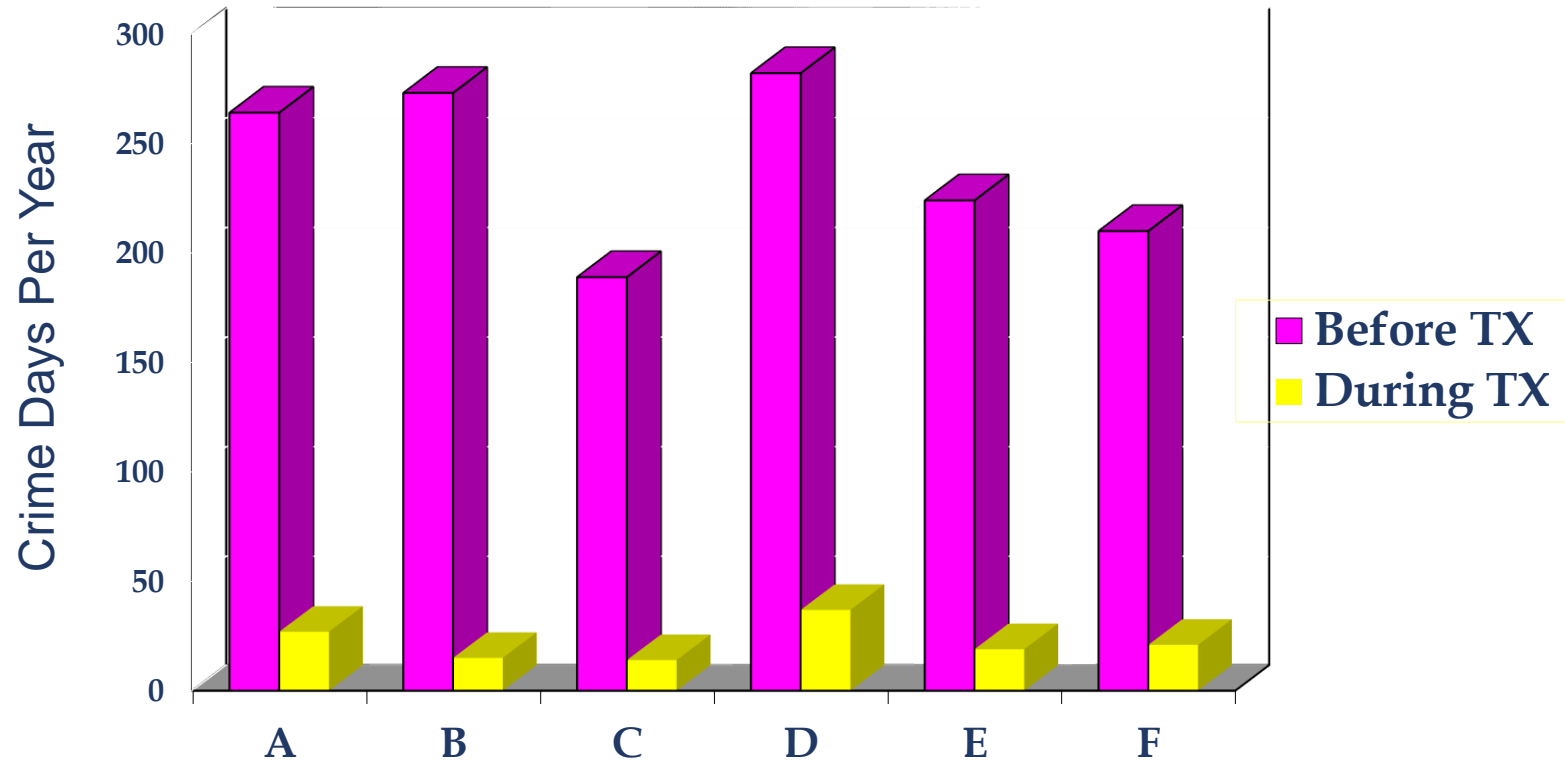
 Public and DOC costs

Increased Public Health

Drug abuse treatment is HIV and HCV prevention!

- Drug injectors who do not enter treatment are up to 6x more likely to become infected with HIV than injectors who enter and remain in treatment
- Treatment reduces associated risk behaviors such as sharing injection equipment and unprotected sex
- Treatment provides opportunities for screening, counseling, and referral to additional services, including early HIV treatment

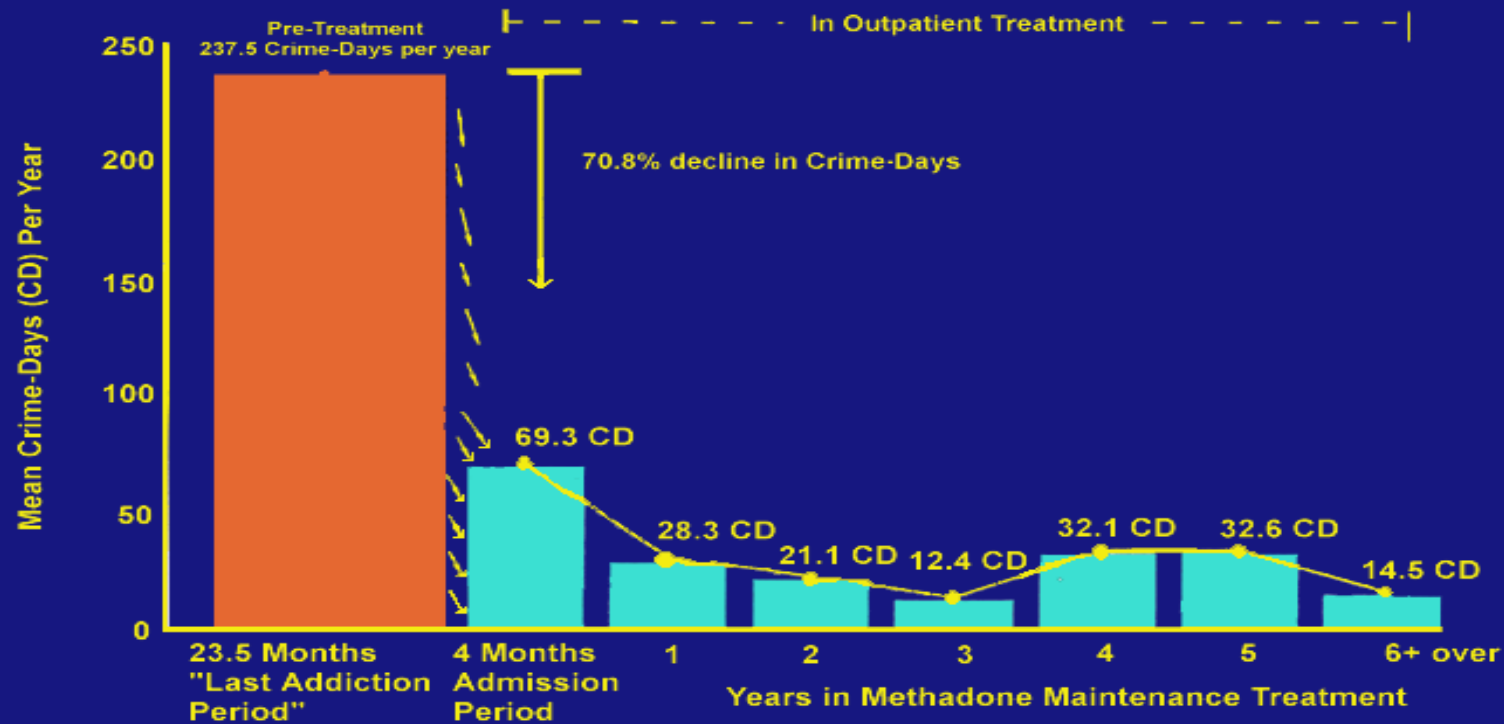
Decreasing Criminal Behaviors



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7. Source: Medication Assisted Treatment in the Criminal Justice System. PowerPoint Presentation. ATTC, May 2015.

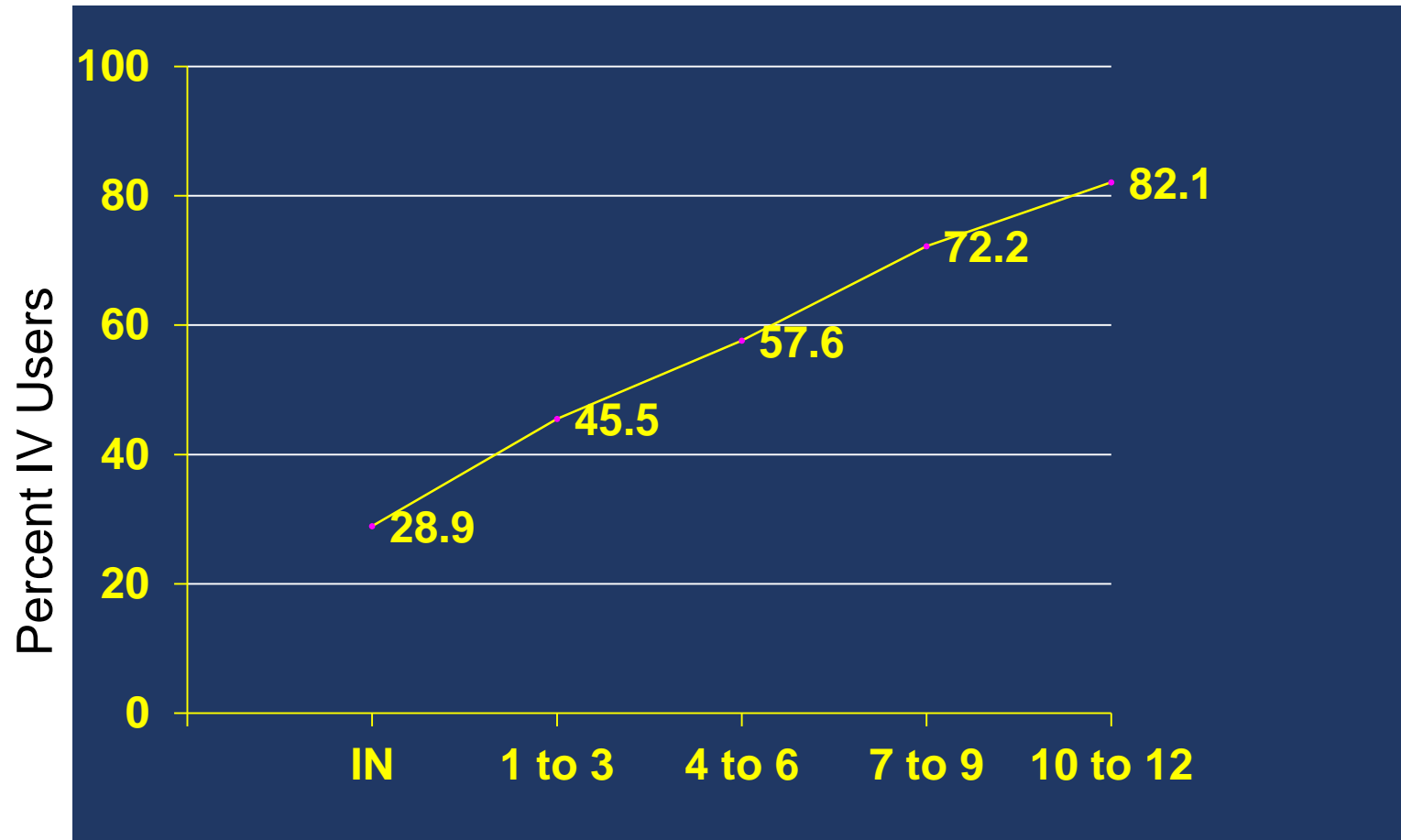
Longer Time in MAT Decreases Crime-Days



Reduction in crime by years in methadone maintenance treatment.

From the Effectiveness of Methadone Maintenance Treatment (p. 182), by J. C. Ball and A. Ross, 1991, New York: Springer-Verlag. Copyright 1991 by Springer-Verlag New York, Inc. Reprinted with permission.

Relapse Rates



Treatment Months Since Stopping Treatment

Effect of MAT on Parole & Probation

An additional tool for repeat offenders

- Increased retention and effectiveness of community SUDO treatment
- Decreased recurrent drug use
- Decreased behavioral problems and crime
- Decreased violations and arrests
- Decreased P&P workload & hassles

Effect of MAT on DOC Budget

- Reduces the number of persons going through repeated arrest-incarceration-release cycle.
- Increases retention and effectiveness of community SUDO treatment
- Decreases recurrent drug use
- Decreases drug-related crime
- Decreases violating or arresting Persons with SUDO
- Increases community time between relapses
- Decreases incarceration costs

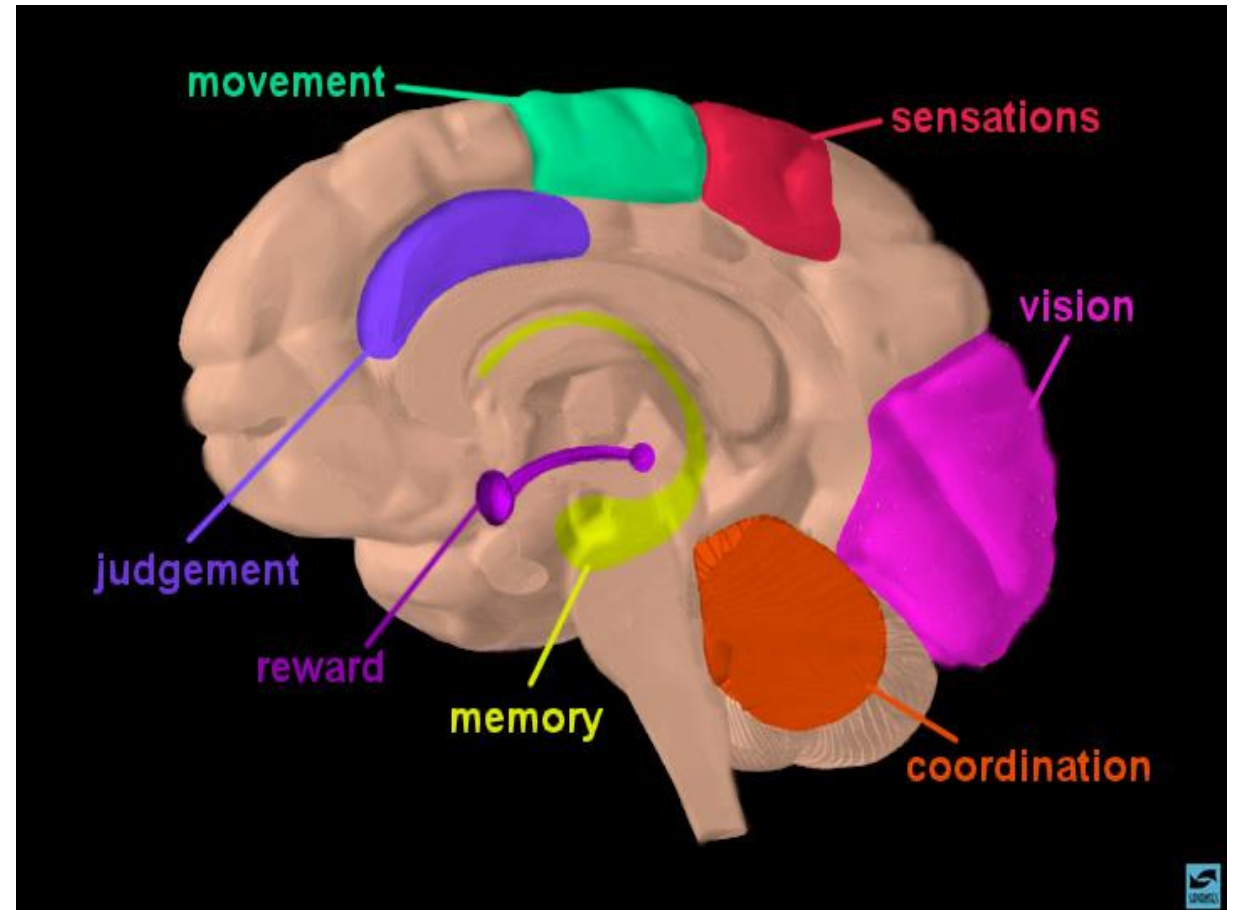
What Influences a CO's or PO's Attitude about MAT?

<u>Favorable Attitude</u>	<u>Unfavorable Attitude</u>
↑ Knowledge about MAT	↓ Little knowledge about MAT
Understands role to be one of assisting reintegration	Less therapeutic or supportive role
Understands centrality of SUTx in achieving goals	Understands MAT as substituting one drug for another
In favor of anything that makes job easier	Believes that MAT was not strict enough
Positive personal beliefs about MAT	Limited understanding about addiction and recovery
Understands the importance of personal choice	Believes that people should eventually get off meds
Has a favorable attitude toward OTP's	Has the impression that OTP's were 'dose and goes'
Understands that MAT was evidence-based	Understands MAT as no more than a 'last resort'
Feels compassion for the inmate	Feels responsible for the inmate
Understands the role of the courts/judge	Has no choice but to comply with courts/judge
Positive and supportive philosophical environment	The environment has 'zero tolerance' for all drugs
Other?	Other?

Basic Information about Opioid Use Disorder (OUD)

Research shows...

- that prolonged drug use can change brain chemistry:
 - Adaptation of receptor sites
 - Brain regions involving executive function weaken
 - Conversion of receptor sites
 - Desensitization of reward system



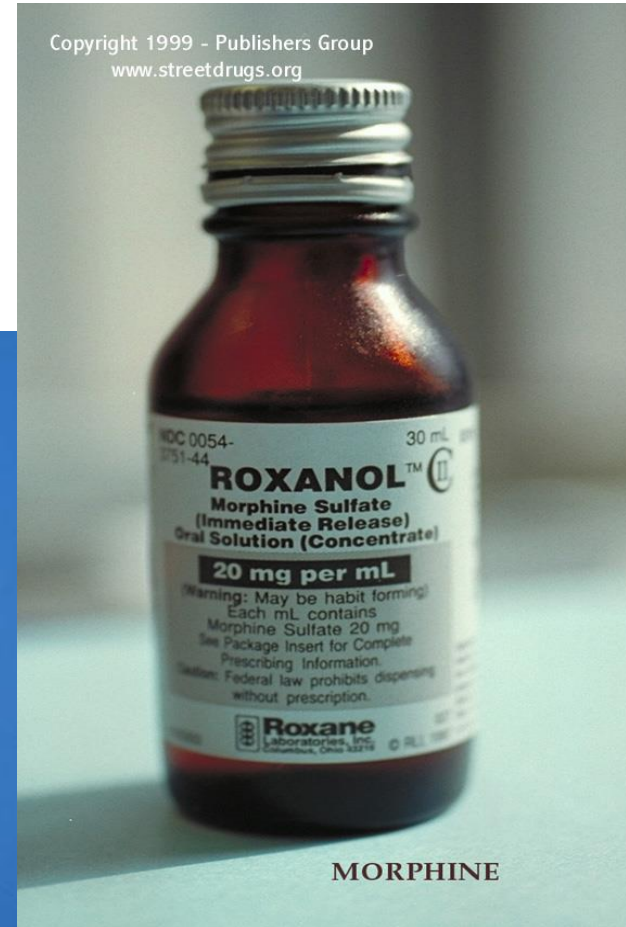
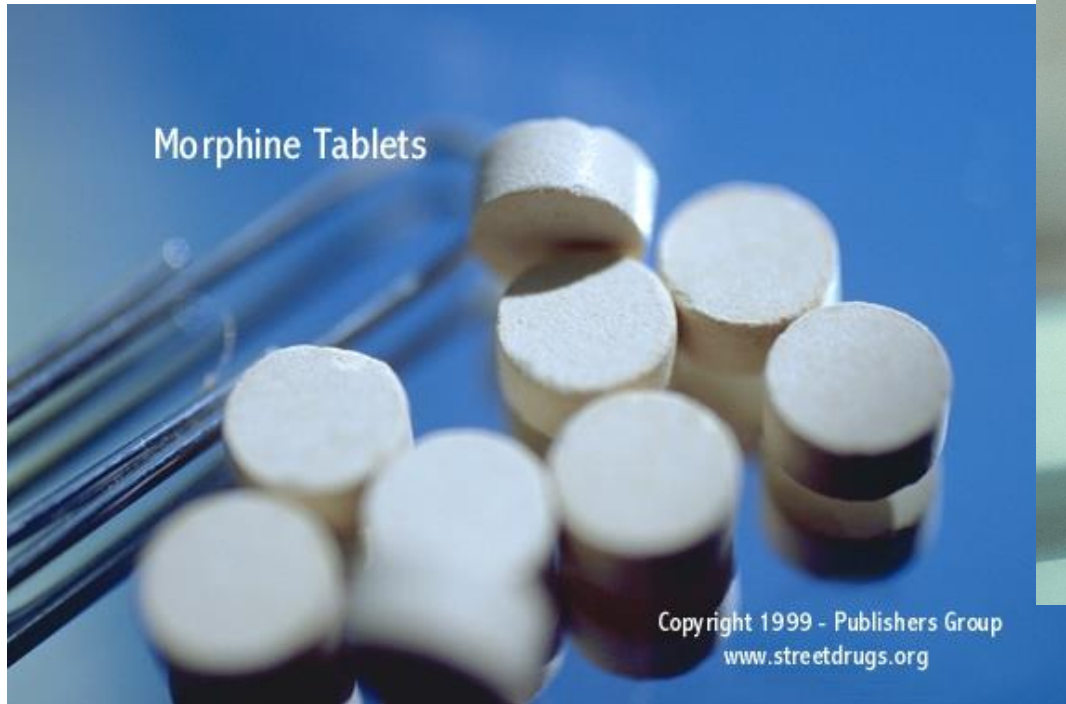
Basic Opioid Facts

- When Opiate Receptors are activated, they reduce the perception of pain and produce a sense of well-being.
- They can also cause drowsiness, mental confusion, nausea and constipation.
- With repeated illicit use, the production of endogenous opioids is inhibited and atrophies.
- With repeated use, tolerance sets in which results in need for more of the drug to achieve the desired effect. Some deaths due to lapse/relapse are related to tolerance; the user's tolerance decreased during recovery.

Opium



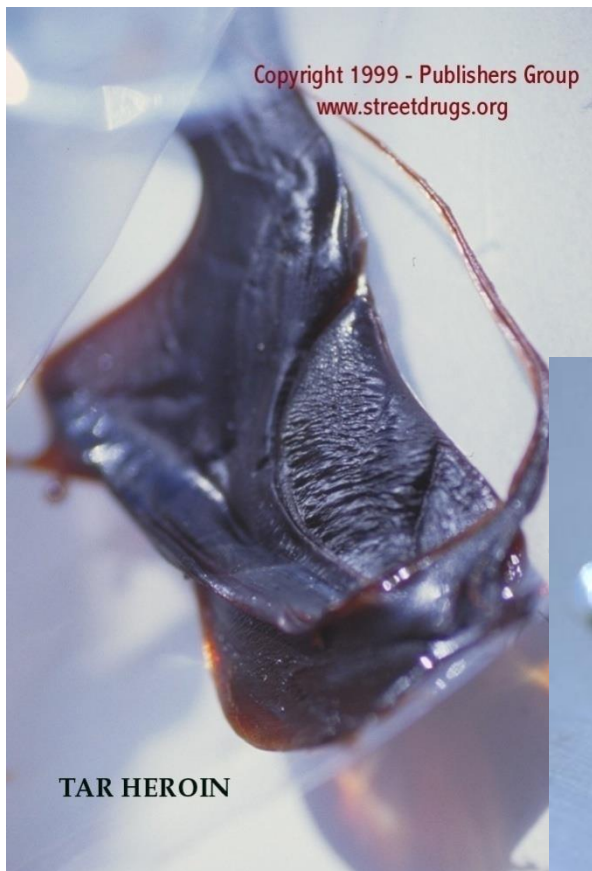
Morphine



Opioid Agonists

- Semisynthetics: Derived from chemicals in opium
 - Diacetylmorphine – Heroin
 - Hydromorphone – Dilaudid[®]
 - Oxycodone – Percodan[®], Percocet[®]
 - Hydrocodone – Vicodin[®]

Heroin



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SOLE AGENTS

Opioid Agonists



Opioid Agonists

- Synthetics
 - Propoxyphene – Darvon[®], Darvocet[®]
 - Meperidine – Demerol[®]
 - Fentanyl citrate – Fentanyl[®]
 - Methadone – Dolophine[®]
 - Levo-alpha-acetylmethadol – ORLAAM[®]

Methadone



Fentanyl



Darvocet



What is Fentanyl?

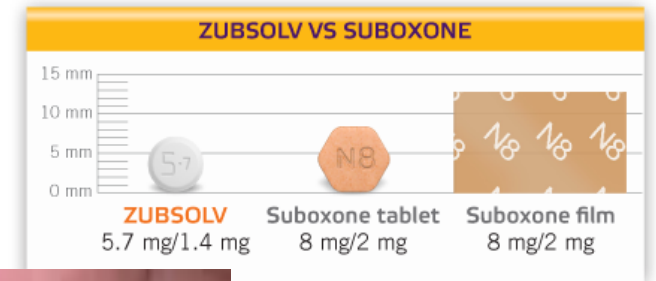
- Pharmaceutical fentanyl is a synthetic opioid pain reliever, approved for treating severe pain, typically advanced cancer pain. It is 50 to 100 times more potent than morphine. It is prescribed in the form of transdermal patches or lozenges and can be diverted for misuse and abuse in the United States.
- Most recent cases of fentanyl-related harm, overdose, and death in the U.S. are linked to illegally made fentanyl. It is sold through illegal drug markets for its heroin-like effect. It is often mixed with heroin and/or cocaine as a combination product—with or without the user's knowledge—to increase its euphoric effects.



Opioid Partial Agonists

- Buprenorphine – Buprenex[®], Suboxone[®], Subutex[®]
- Pentazocine – Talwin[®]

Buprenorphine/Naloxone Combination and Buprenorphine Alone



Opioid Antagonists

- Naloxone – Narcan®
- Naltrexone – ReVia®, Trexan®
- Vivitrol



Possible Acute Effects of Opioid Use

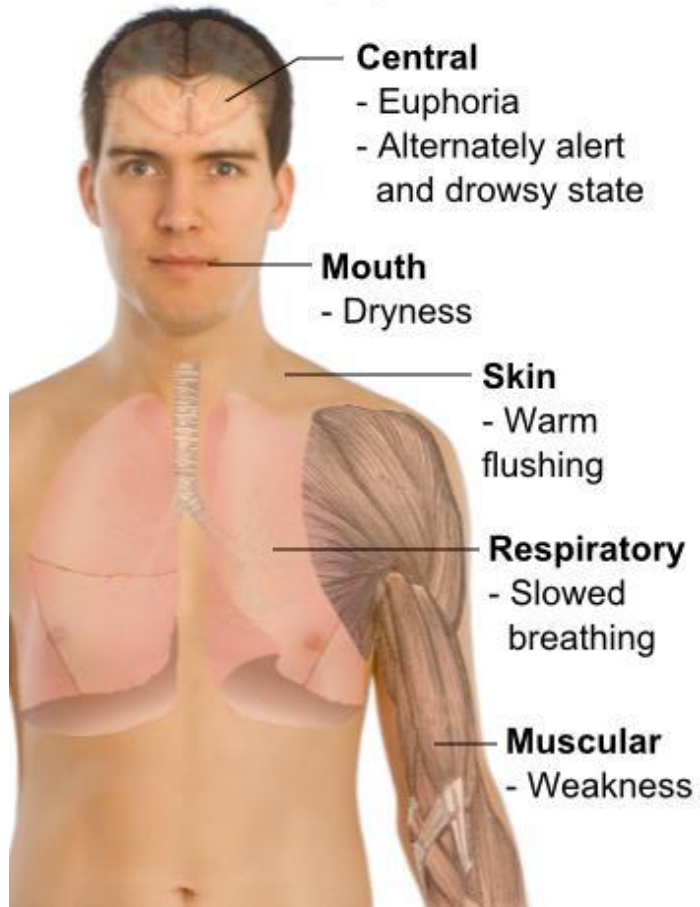
- Surge of pleasurable sensation = “rush”
- Warm flushing of skin
- Dry mouth
- Heavy feeling in extremities
- Drowsiness
- Clouding of mental function
- Slowing of heart rate and breathing
- Nausea, vomiting, and severe itching

Consequences of Opioid Use (Not an exhaustive list)

- Addiction
- Overdose
- Death
- Use related (Hep B, C, D, HIV infection, malnutrition)
- Negative consequences from injection:
 - Infectious diseases (e.g., HIV/AIDS, Hepatitis B and C)
 - Collapsed veins
 - Infection of heart lining and valves
 - Arthritis and other rheumatologic problems
 - Bacterial infections
 - Abscesses

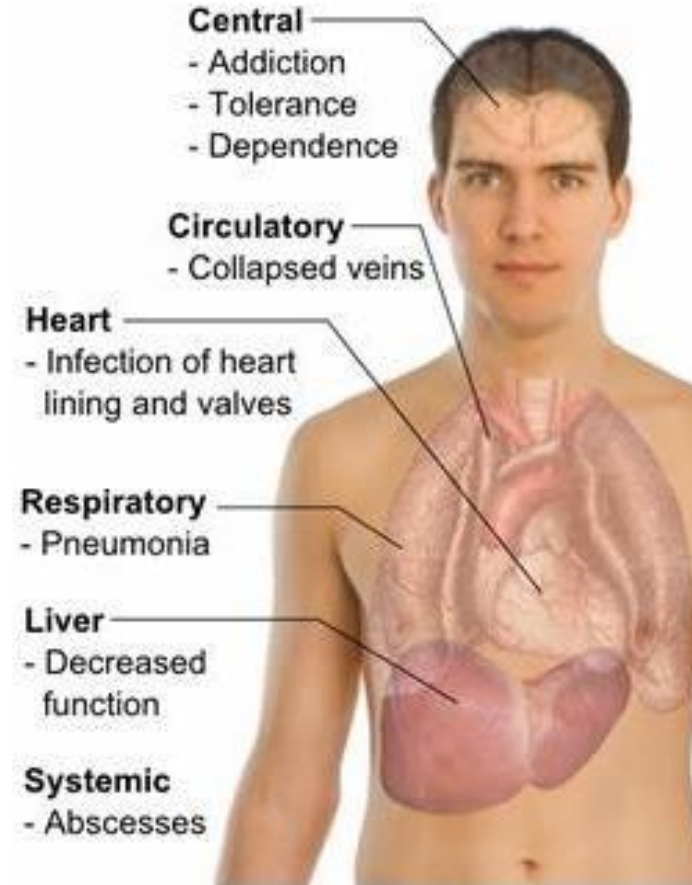
Short Term Effects

Short-term effects of
Heroin



Long Term Effects

Long-term effects of
Heroin



Abscesses from IV Use



Heroin Withdrawal Syndrome

- Intensity varies with level & chronicity of use
- Cessation of opioids causes a rebound in function altered by chronic use
- First signs occur shortly before next scheduled dose
- Duration of withdrawal is dependent upon the half-life of the drug used:
 - Peak of withdrawal occurs 36 to 72 hours after last dose
 - Acute symptoms subside over 3 to 7 days
 - Protracted symptoms may linger for weeks or months

Opioid Withdrawal Syndrome Acute Symptoms

- Pupillary dilation
- Lacrimation (watery eyes)
- Rhinorrhea (runny nose)
- Muscle spasms (“kicking”)
- Yawning, sweating, chills, gooseflesh
- Stomach cramps, diarrhea, vomiting
- Restlessness, anxiety, irritability

Opioid Withdrawal Syndrome Protracted Symptoms

- Deep muscle aches and pains
- Insomnia, disturbed sleep
- Poor appetite
- Reduced libido, impotence, anorgasmia
- Depressed mood, anhedonia
- Drug craving and obsession

Physical Signs of W/D and Time to Onset

Stage	Grade	Physical Signs and Symptoms
<u>Early Withdrawal</u> : Short-acting opioids: 8-24 hours after last use. Long-acting opioids: up to 36 hours after last use.	1	Lacrimation, rhinorrhea or both, Diaphoresis, yawning, restlessness, insomnia.
<u>Early Withdrawal</u> : (see above)	2	Dilated pupils, Piloerection, Muscle twitching, Myalgia, Arthralgia, Abdominal pain
<u>Fully-developed Withdrawal</u> : Short-acting opioids: 1-3 days after last use. Long-acting opioids: 72-96 hours after last use.	3	Tachycardia, Hypertension, Tachypnea, Fever, Anorexia or nausea, Extreme restlessness.
<u>Fully-developed Withdrawal</u> : (see above)	4	Diarrhea, vomiting or both, Dehydration, Hyperglycemia, Hypotension, Curled-up position.

Total duration of withdrawal:

Short-acting opioids: 7-10 days Long-acting opioids: 14 days or more.

How do medications for OUD work?

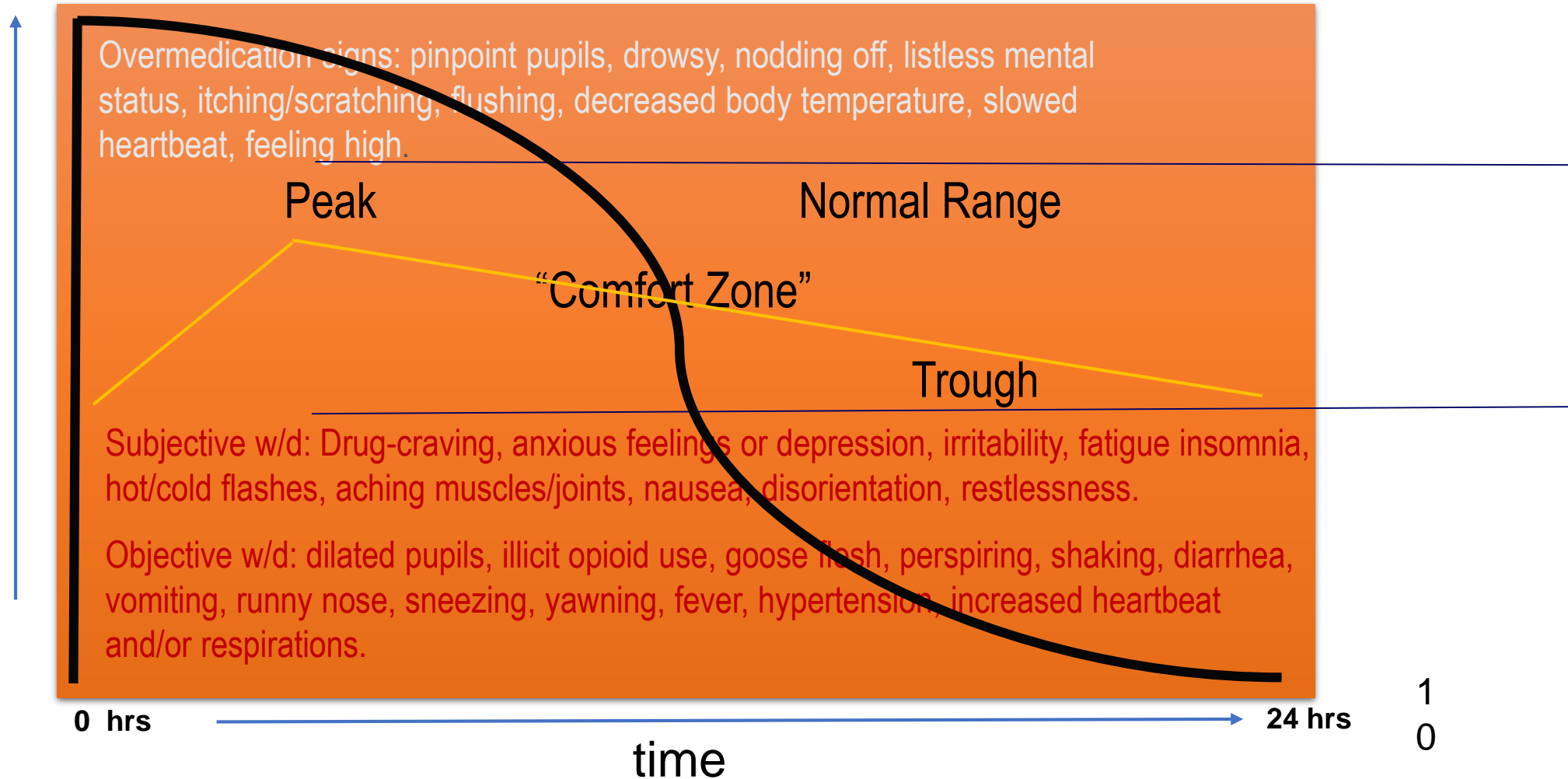
- Agonists
 - Produce opioid effects
- Partial Agonists
 - Produce moderate opioid effects
- Antagonists
 - Block opioid effects

Agonist Therapy: Methadone

Methadone



Agonist Therapy: Methadone



Agonist Therapy: Methadone

- Dose Determination:
 - History of use
 - History of last agonist treatment
 - Induction Period
 - Achievement of a steady state
 - Peak and trough

Partial-Agonist Therapy: Buprenorphine

- Buprenorphine is currently marketed for opioid treatment under the trade names:



Subutex®
(buprenorphine)



Suboxone®
(buprenorphine/naloxone)

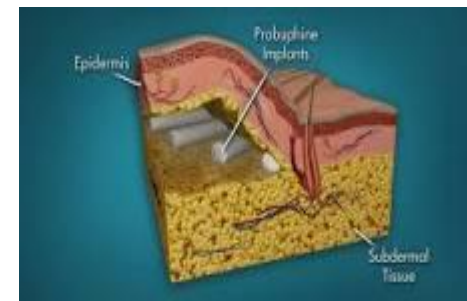


Zubsolv

- Over 25 years of research
- Over 5,000 patients exposed during clinical trials
- Proven safe and effective for the treatment of opioid addiction

Partial-Agonist Therapy: Buprenorphine

- Probuphine: Implant designed for persons who are stable for 6 or more months. It is indicated for the maintenance treatment of opioid dependence in patients who have achieved and sustained prolonged clinical stability on low-to-moderate doses of a transmucosal buprenorphine-containing product (i.e., doses of no more than 8 mg per day of Subutex or Suboxone sublingual tablet or generic equivalent).
- Probuphine should be used as part of a complete treatment program to include counseling and psychosocial support.



Partial-Agonist Therapy: Buprenorphine

- In November 2017, the FDA approved Indivior's Sublocade, an extended-release buprenorphine injection for the treatment of moderate-to-severe opioid use disorder (OUD) in adult patients who have initiated treatment with a transmucosal buprenorphine-containing product. With its approval, Sublocade became the first once-monthly buprenorphine injection for the treatment of OUD.

Partial-Agonist Therapy: Buprenorphine

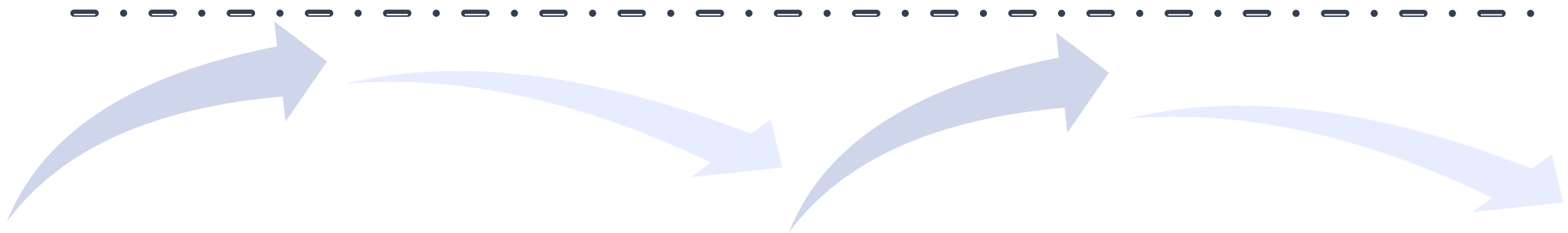
- The recommended dose of Sublocade following induction and dose adjustment with transmuscosal buprenorphine is 300 mg monthly by subcutaneous injection in the abdominal region for the first 2 months followed by a maintenance dose of 100 mg monthly.
- The maintenance dose may be increased to 300 mg monthly for patients who tolerate the 100 mg dose, but do not demonstrate a satisfactory clinical response, as evidenced by self-reported illicit opioid use or urine drug screens positive for illicit opioid use.

Partial-Agonist Therapy: Buprenorphine

	Indication	Administration	Frequency	Generic Available ⁴
Sublocade (buprenorphine)	SUDO	SQ Injection	Monthly	N
Probuphine (buprenorphine)	SUDO	Intradermal implant	6 months x 1 dose	N
Suboxone (buprenorphine and naloxone)	SUDO	Sublingual tablet and film	Daily	Y (tablet), N (film)
Subutex (buprenorphine)	SUDO	Sublingual tablet	Daily	Y
Zubsolv (buprenorphine and naloxone)	SUDO	Sublingual tablet	Daily	N
Bunavail (buprenorphine and naloxone)	SUDO	Buccal film	Daily	N
Buprenex (buprenorphine)	Pain	IM or IV injection	Varies	Y
Belbuca (buprenorphine)	Pain	Film	Twice daily	N
Butrans (buprenorphine)	Pain	Transdermal patch	7 days on, 3 weeks off	N

Partial-Agonist Therapy: Buprenorphine

- Partial Opioid Agonist
 - Produces a ceiling effect at higher doses
 - Has effects of typical opioid agonists—these effects are dose dependent up to a limit
 - Binds strongly to opiate receptor and is long-acting
- Safe and effective therapy for opioid maintenance and detoxification



Opioid Antagonists

- Naloxone – Narcan®
- Naltrexone – ReVia®
- Vivitrol



Antagonist Medication: Vivitrol

- Approved for use in treatment for opioid use disorder on October 12, 2010.
- Approval followed a six-month clinical trial in which recovering adults were given either Vivitrol or a placebo.
- 36% of those on Vivitrol were still in treatment at the end of the study compared to 23% on the placebo.

Antagonist Medication: Vivitrol

- Prior to approval for use with opioid use disordered persons, it was already being used to treat alcoholism [as was the shorter acting pill form: Naltrexone (trade name ReVia)].
- When used in conjunction with counseling, it was shown to reduce the number of drinking days and heavy drinking days as well as prolonging abstinence.

Antagonist Medication: Vivitrol

- The recommended dose of VIVITROL is 380 mg delivered intramuscularly every 4 weeks or once a month. The injection should be administered by a health care professional as an intramuscular (IM) gluteal injection, alternating buttocks, using the carton components provided. VIVITROL must not be administered intravenously.
- If a patient misses a dose, he/she should be instructed to receive the next dose as soon as possible.
- Effectiveness in opioid treatment is related to:
 - Binding to opioid receptors in the brain,
 - Blocking neurotransmitters in the brain,
 - Eliminating pleasurable effects of recreational drugs such as alcohol, heroin and morphine.

Which Medication Makes Sense?

Comparison of OUD Medications to Guide Shared Decision-Making			
Category	Buprenorphine	Methadone	Naltrexone
Outcome; tx retention	Higher than without medication	Higher than without medication	Naltrexone: no difference. Vivitrol: higher than without medication.
Outcome; suppression of illicit opioid use	Effective	Effective	Effective
Outcome: overdose mortality	Lower for people in tx.	Lower for people in tx.	Unknown
Location/frequency of visits		6-7 days/wk until takehomes approved	Varies from weekly to monthly

Which Medication Makes Sense (cont.)

Comparison of OUD Medications to Guide Shared Decision-Making			
Category	Buprenorphine	Methadone	Naltrexone
Misuse/diversion potential	Low in OTP's or other settings with observed administration Moderate for take-home doses	Low in OTP's or other settings with observed administration Moderate for take-home doses	None
Sedation	Low unless use of other substances	Low unless does titration is too quick or concurrent substance use	None

Which Medication Makes Sense (cont.)

Comparison of OUD Medications to Guide Shared Decision-Making			
Risk of Respiratory Depression	Rare. Lower than with Methadone	Rare. May be elevated in first 2 weeks.	None
Risk of Precipitated W/D	Can occur if started too soon after recent use of other opioids	None	Severe w/d if abstinence inadequate before starting.
W/D sx's on discontinuation	Present; lower than methadone	Present	None
Common side effects	Constipation, vomiting, headache, sweating, insomnia, blurred vision.	Constipation, vomiting, sweating, dizziness, sedation	Difficulty sleeping, anxiety, joint pain, headache, injection site pain, toothache, liver enzyme elevation.

Which Medication Makes Sense (cont.)

Comparison of OUD Medications to Guide Shared Decision-Making			
Category	Buprenorphine	Methadone	Naltrexone
Appropriate Clients	Typically for patients with OUD who are physiologically dependent on opioids.	Typically for patients with OUD who are physiologically dependent on opioids and who meet federal criteria for OTP admission.	Typically for patients with OUD who have abstained from short-acting opioids for at least 7–10 days and long-acting opioids for at least 10–14 days.

Which Medication Makes Sense (cont.)

Comparison of OUD Medications to Guide Shared Decision-Making			
Pharmacology	Partial Agonist	Agonist	Antagonist
Client Education	<ul style="list-style-type: none"> •That they will need to be in opioid withdrawal to receive their first dose to avoid buprenorphine-precipitated opioid withdrawal. •About the risk of overdose with concurrent benzodiazepine or alcohol use, with injecting buprenorphine, and after stopping the medication. 	<ul style="list-style-type: none"> •That their dose will start low and build up slowly to avoid over sedation; it takes several days for a given dose to have its full effect. •About overdose risk in the first 2 weeks of treatment, especially with concurrent benzodiazepine or alcohol use, and after stopping the medication. 	<p>That they will need to be opioid free for at least 7–10 days for short-acting opioids and at least 10–14 days for long-acting opioids before their first dose to avoid XR-NTX-precipitated opioid withdrawal (which may require hospitalization).</p> <ul style="list-style-type: none"> •About the risk of overdose after stopping the medication.

Which Medication Makes Sense (cont.)

Comparison of OUD Medications to Guide Shared Decision-Making			
Category	Buprenorphine	Methadone	Naltrexone
Administration	Daily (or off-label less-than-daily dosing regimens) administration of sublingual or buccal tablet or film. Subdermal implants every 6 months, for up to 1 year, for stable patients. Monthly subcutaneous injection of extended-release formulation in abdominal region for patients treated with transmucosal buprenorphine for at least 1 week.	Daily oral administration as liquid concentrate, tablet, or oral solution from dispersible tablet or powder (unless patients can take some home).	Every 4 weeks or once-per-month intramuscular injection.

Which Medication Makes Sense (cont.)

Comparison of OUD Medications to Guide Shared Decision-Making

Prescribing	Physicians, nurse practitioners (NPs), and physician assistants (PAs) need a waiver to prescribe. Any pharmacy can fill a prescription for sublingual or buccal formulations.	SAMHSA-certified OTPs can provide methadone for daily onsite administration or at-home self-administration for stable patients.	Physicians, NPs, or PAs prescribe or order administration by qualified healthcare professionals.
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Which Medication Makes Sense (cont.)

- *Long-acting buprenorphine implants (every 6 months) for patients on a stable dose of buprenorphine are also available through implanters and prescribers with additional training and certification through the Probuphine Risk Evaluation and Mitigation Strategy (REMS) Program. Extended-release buprenorphine monthly subcutaneous injections are available only through prescribers and pharmacies registered with the Sublocade REMS Program.
- **Naltrexone hydrochloride tablets (50 mg each) are also available for daily oral dosing but have not been shown to be more effective than treatment without medication or placebo because of poor patient adherence.

Why prescribe a replacement drug

- 'Drug' vs 'Medication'
- Addiction vs Physical Dependence
- 'Replacement'/'Substitute' vs Medication Assistance



Substance Abuse & Mental Health
Services Administration
U.S. Department of Health
and Human Services

Buprenorphine PHYSICIAN LOCATOR

Notice: The Drug Addiction Treatment Act of 2000 limits physicians or physician group practices to prescribing buprenorphine for opioid addiction to a maximum of 30 patients at one time. Because of this, some physicians listed on the Locator may not be accepting new patients at this time. If you are unable to find a physician within your area who is accepting new patients, please check our site later, as new physicians are being added weekly.

To locate the physicians) authorized to prescribe Buprenorphine nearest you, find your **State** on the map below and click on it.

[home](#)

[about the physician locator](#)

[physician list search](#)

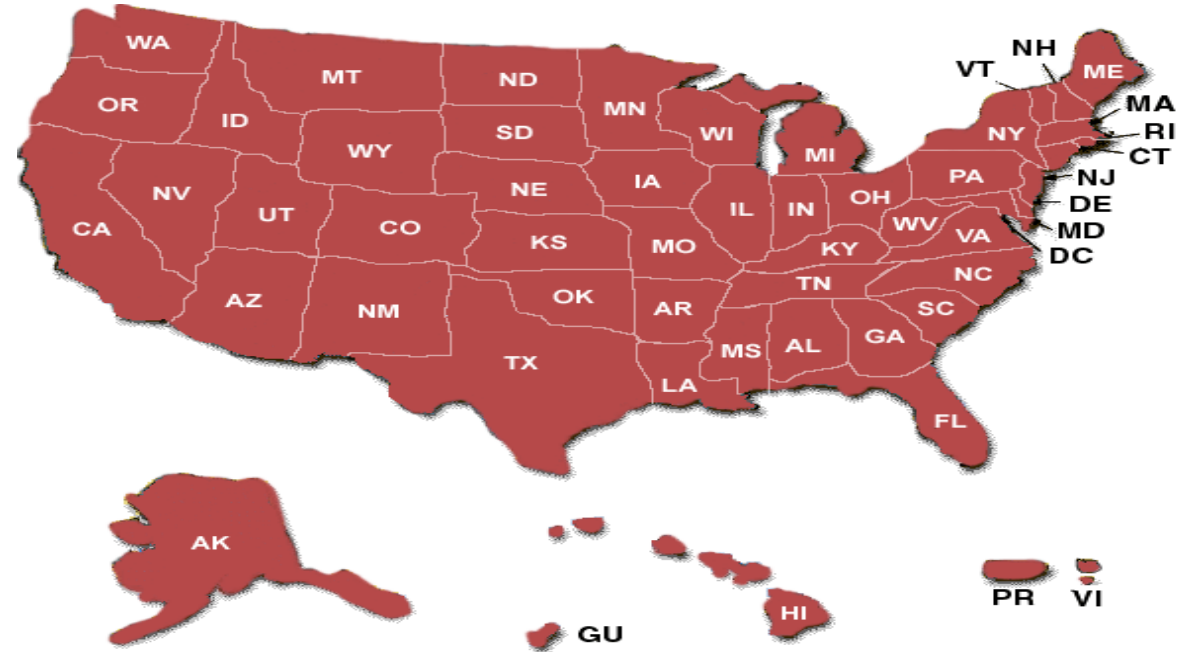
[state substance abuse agencies](#)

[frequently asked questions](#)

[additional resources](#)

[comments or questions](#)

[treatment facility locator](#)



Components of Effective Programs

- A. If a person entering a correctional institution is on a maintenance protocol, that person should be allowed to remain on that protocol. Forced detoxification is a precursor to unwillingness to engage in treatment post release.
- B. Poly-substance abuse is more often the rule rather than the exception, especially alcohol and benzodiazepines, but can include cocaine and marijuana and other substances of abuse. Universal withdrawal severity screening is widely recommended.
- C. Federal Bureau of Prisons offers clinical guidelines for safe detoxification from alcohol, barbiturates and other substances. These guidelines include the recommendation for the use of prescribed medications to assist in a safe detoxification protocol.
- D. Develop collaborative relationships with community providers.
- E. The clinical needs of the person are determined by an appropriately administered assessment and not by the opinion of the courts, judges, CO's, PO's, police, etc.

12

Components of Effective Programs

- F. Individuals recovering from substances, even those on MAT, may experience a relapse and return to drug use. It may be necessary to raise the person's dose. Monitoring should be a part of the program.
- G. Monitoring can include toxicological screens, pill or strip counts and behavioral observations.
- H. There is no one medication that guarantees that an individual will sustain long-term recovery. The medication and length of its use is matched to the needs of the individual.
- I. Pregnant women with opioid and alcohol use disorders require specialized services to prevent and reduce health risks during pregnancy.
- J. Medication is not the required treatment for all persons who report with Opioid Use Disorder. Some individuals can detox and maintain abstinence without prescribed medications. (Personal choice, frequency-amount-length of use)

How long on MAT is long enough?

Dealing with multiple substances of abuse



Pascal Rossignol / Reuters File

Managing Multiple Substance Use

- Alcohol-related factors are a major cause of death among persons on MAT.
- Alcohol can lead to overdose, liver damage, increased methadone metabolism.
- Benzo's can increase the effects of methadone (“boosting”).
- Cocaine and stimulants can:
 - Have cardiovascular effects
 - Respiratory effects
 - Mood swings
 - Decrease methadone concentration in blood

Managing Multiple Substance Use

- Marijuana use is prevalent among persons on MAT and is often used to self-medicate anxiety or insomnia
- Persons and many professionals will overlook marijuana use, especially as it becomes more legally acceptable.
- What are your thoughts about this?

Managing Multiple Substance Use

- Nicotine-related illnesses are a major cause of morbidity and mortality among MAT clients.
- A 2000 study found that persons in MAT who smoked heavily were more likely to abuse cocaine and opioids.
- How does your system address nicotine use?

Medications can assist recovery from other substances

Current Medications

- Alcohol: drinking alcohol stimulates both GABA and glutamate systems in the brain. (brake vs. gas pedal)
 - **Disulfiram** (Antabuse);
 - Approved in 1951
 - Interferes with the metabolic process and results in buildup of acetaldehyde in blood (toxic)
 - Causes nausea, vomiting, sweating, flushed skin, throbbing headache, respiratory difficulties, blurred vision, confusion.
 - Acts as a deterrent, not a blocker and no healing qualities.
 - **Naltrexone** (Re Via)
 - Antagonist substance that blocks the euphoric effects of alcohol
 - Must be taken daily

Current Medications

- Alcohol:
 - **Vivitrol**
 - Injectable form of Naltrexone, lasting 30 days
 - Controls /decreases cravings for alcohol and opioids
 - Prevents alcohol molecule from binding to the receptor (antagonist) so there is no 'high'
 - Prevents the user from taking more of the drug
 - **Campral** (Acamprosate)
 - Repairs damage to the brain caused by alcohol
 - Rebalances and restores normalcy to GABA and glutamate systems in the brain.
 - Improves cognitive skills and ability to learn new coping skills that can otherwise take several months.
 - Approved by FDA in 2004.

Current Medications

- Alcohol:
 - **Topamax:**
 - Anticonvulsant, mood-stabilizer.
 - Not yet approved by FDA, but can be prescribed off-label.
 - Reduced cravings by lowering dopamine, made withdrawal easier
 - Unpleasant side effects requiring medical monitoring.
 - **Serzone, Zofran** (treats nausea and vomiting) and
 - **Lioresal** (muscle relaxant): shows promise for reducing cravings. Increases GABA

Medications Approved in the Treatment of Alcohol Use Disorder*

DOSAGE AND FREQUENCY OF ADMINISTRATION		
Disulfiram	Naltrexone oral and extended release injectable formulations	Acamprosate delayed-release tablets
Oral: 250 to 500 mg per day- Daily	Oral: 50 to 100mg per day –Daily Extended-release injectable: 380mg per month - Monthly	Oral: 666 mg- Three times per day

PRINCIPAL ACTION

Disulfiram

When taken in combination with alcohol, causes a significant physical reaction, involving nausea/vomiting, flushing, and heart palpitations. The knowledge that such reactions are likely if alcohol is consumed acts as a deterrent to drinking. Given sufficient amounts of alcohol in the patient's system, more severe reactions may occur, such as respiratory depression, cardiovascular collapse, arrhythmias, myocardial infarction, acute congestive heart failure, unconsciousness, convulsions, and death.

Naltrexone oral and extended release injectable formulations

Blocks opiate receptors that are involved in the rewarding effects of drinking and craving for alcohol. Extended-release injectable naltrexone is administered every 4 weeks, thereby minimizing opportunities for nonadherence, as compared with daily oral ingestion. The monthly injection also produces a more consistent and predictable blood level of the drug, because the depot injection bypasses first-pass metabolism.

Acamprosate delayed-release tablets

Is thought to reduce symptoms of protracted abstinence by counteracting the imbalance between the glutamatergic and GABAergic systems associated with chronic alcohol exposure and alcohol withdrawal.

CLINICAL USES/IDEAL CANDIDATES

Disulfiram

Candidates include patients dependent on alcohol who have completed alcohol withdrawal. Ideally, candidates are committed to abstinence and willing to take disulfiram under the supervision of a family member or treatment program.

Naltrexone oral and extended release injectable formulations

Oral naltrexone and extended-release injectable naltrexone are indicated for the treatment of alcohol dependence in patients who can abstain from alcohol in an outpatient setting before the initiation of treatment. Naltrexone has not been shown to be effective in patients who are drinking at treatment initiation. Both formulations may have the greatest benefit in patients who can discontinue drinking on their own for several days before treatment initiation. Extended-release injectable naltrexone is also indicated for the prevention of relapse to opioid dependence following detoxification.

Acamprosate delayed-release tablets

Acamprosate is indicated for the maintenance of abstinence in patients who are dependent on alcohol and are abstinent at treatment initiation. The efficacy of acamprosate in promoting abstinence has not been demonstrated in subjects who have not completed detoxification or who have not achieved alcohol abstinence before beginning treatment.

CONTRAINDICATIONS

Disulfiram

Contraindicated in the presence of severe myocardial disease or coronary occlusion, psychoses, pregnancy, and in those with high levels of impulsivity, suicidality, and hypersensitivity to disulfiram or to other thiuram derivatives used in pesticides and rubber vulcanization. Patients who are taking or have recently taken metronidazole, paraldehyde, alcohol, or alcohol-containing preparations (e.g., cough syrups, tonics) should not be given disulfiram. Disulfiram labeling also includes several important precautions regarding drug–drug interactions. See the package insert for specific contraindications.

Naltrexone oral and extended release injectable formulations

Contraindicated in patients receiving opioid analgesics and those receiving long-term opioid therapy or anticipating a need for opioids (e.g., surgery), because it could precipitate a severe opioid withdrawal or block opioid analgesia; patients currently dependent on opioids, including those being maintained on opioid agonists such as methadone or partial agonists such as buprenorphine; patients in acute opioid withdrawal; patients who have failed the naloxone challenge test or whose urine tests positive for opioids.

Contraindicated in patients with a history of sensitivity to polylactide-co-glycolide, carboxymethyl cellulose, or any components of the diluent used for the injectable medication. It should not be given to patients whose body mass precludes intramuscular (IM) injection with the 2-inch needle provided. Inadvertent subcutaneous injection may cause a severe injection-site reaction. Although not in current labeling, the consensus of the panel is that use should be avoided in patients with serum aminotransferase levels greater than five times the upper limit of normal, except where the benefits outweigh the risks.

Acamprosate delayed-release tablets

Acamprosate is indicated for the maintenance of abstinence in patients who are dependent on alcohol and are abstinent at treatment initiation. The efficacy of acamprosate in promoting abstinence has not been demonstrated in subjects who have not completed detoxification or who have not achieved alcohol abstinence before beginning treatment.

USE IN PREGNANT AND POSTPARTUM WOMEN

Disulfiram	Naltrexone oral and extended release injectable formulations	Acamprosate delayed-release tablets
<p>Pregnancy: The FDA has not assigned a pregnancy category. The safe use of this drug in pregnancy has not been established. Therefore, disulfiram should be used during pregnancy only when, in the judgment of the physician, the probable benefits outweigh the possible risks.</p> <p>Nursing: Do not give disulfiram to nursing mothers.</p>	<p>Pregnancy: FDA Pregnancy Category C</p> <p>Nursing: Transfer of naltrexone and 6β-naltrexol into human milk has been reported with oral naltrexone. Because animal studies have shown that naltrexone has a potential for tumorigenicity and other serious adverse reactions in nursing infants, an individualized treatment decision should be made whether a nursing mother will need to discontinue breastfeeding or discontinue naltrexone.</p>	<p>Pregnancy: FDA Pregnancy Category C</p> <p>Nursing: It is not known whether acamprosate is excreted in human milk.</p>

** This table highlights some properties of each medication. It does not provide complete information and is not intended as a substitute for the package inserts or other drug reference sources used by clinicians (see <http://www.dailymed.nlm.nih.gov> for current package inserts). For patient information about these and other drugs, visit the National Library of Medicine's MedlinePlus (<http://www.medlineplus.gov>). Whether a medication should be prescribed and in what amount are matters to be discussed between an individual and his or her health care provider. The prescribing information provided here is not a substitute for the clinician's judgment, and the National Institutes of Health and SAMHSA accept no liability or responsibility for use of the information in the care of individual patients.*

Current Medications

- Sedatives:
 - No FDA approved medication to treat sedative addiction, however, there are meds that are effective in treating the anxiety that follows cessation of use.
 - Antiseizure/antiepileptic medications
 - Work on the GABA receptors to relieve anxiety
 - Neurontin, Trileptal
 - Atypical antipsychotic medications
 - Seroquel, Resperidol
 - Reduce anxiety and relieve depression
 - Antidepressant medications
 - Lexapro, Effexor XR, Pristiq
 - Relieve any co-existing depression

Current Medications

- Stimulants: Cocaine
 - Possible vaccine in the works: dAd5GNE
 - While most drugs that target addiction are designed to disrupt some process in the brain, this vaccine, called dAd5GNE, is meant to absorb cocaine in the bloodstream — well before it has had a chance to pass the blood-brain barrier and later produce a dopamine-induced high.

Current Medications

Stimulants:

- No medications specifically approved by FDA
- Other possible contenders: Disulfiram, Gabapentin and Baclofen
- Most effective treatment known is Promera Treatment Program:
 - Uses a cocktail of FDA approved medications
 - Restores normal functioning of GABA system
 - Helps to decrease cravings, calm down, re-establish pro-recovery thought patterns and build a healthy lifestyle.

Current Medications

Hallucinogens: Marijuana

Marijuana exposure during development can cause long-term or possibly permanent adverse changes in the brain. Some studies suggest regular marijuana use in adolescence is associated with altered connectivity and reduced volume of specific brain regions involved in a broad range of executive functions such as memory, learning, and impulse control

- THC stored in fat cells. Takes over a month to be removed.
- Withdrawal symptoms often don't occur until after 2 weeks from last use.
- No approved medications
- Seroquel is effective to decrease cravings and reduce anxiety
- Lexapro, Zoloft and other SSRI's to reduce anxiety and depression

Current Medications

Nicotine:

- a small molecule that upon inhalation into the lungs quickly passes into the bloodstream and subsequently reaches the brain by crossing the blood-brain barrier.
- Once in the brain, the nicotine binds to specific nicotine receptors resulting in the release of stimulants, such as dopamine, a chemical linked to pleasure and to addiction.

Current Medications

Current FDA-approved medications for smoking cessation have modest efficacy and are associated with high rates of relapse.

- TA-NIC: A potential vaccine was studied and found to be ineffective.
- AZD8529 (Metabotropic glutamate receptor modulator) currently being studied, and may be effective with other substances of abuse. Originally developed to treat schizophrenia but was ineffective.
- Chantix: may also be effective in the treatment of alcohol dependence.

Current Medications

- Inhalants:
 - **Sabril**: anti-epileptic medication that reduces cravings
 - The medication increases the amount of the neurotransmitter GABA in the brain, which decreases dopamine production
 - An appropriate dose of **Vigabatrin** taken before exposure to nicotine, cocaine or inhalants (which increase dopamine production) can block their effects on the brain

Current Medications

- Methamphetamines:
 - **Paxil**: antidepressant, decreases craving by blocking the effects
 - **Wellbutrin**: antidepressant, reduces symptoms of depression brought on by withdrawal
 - **Provigil**: treats sleep disorders related to withdrawals and improves cognitive functioning
 - **Remeron**: antidepressant that releases several brain chemicals that improve mood

Self-care

The 3-C's:

- we did not cause it,
- we cannot control it,
- we cannot cure it!

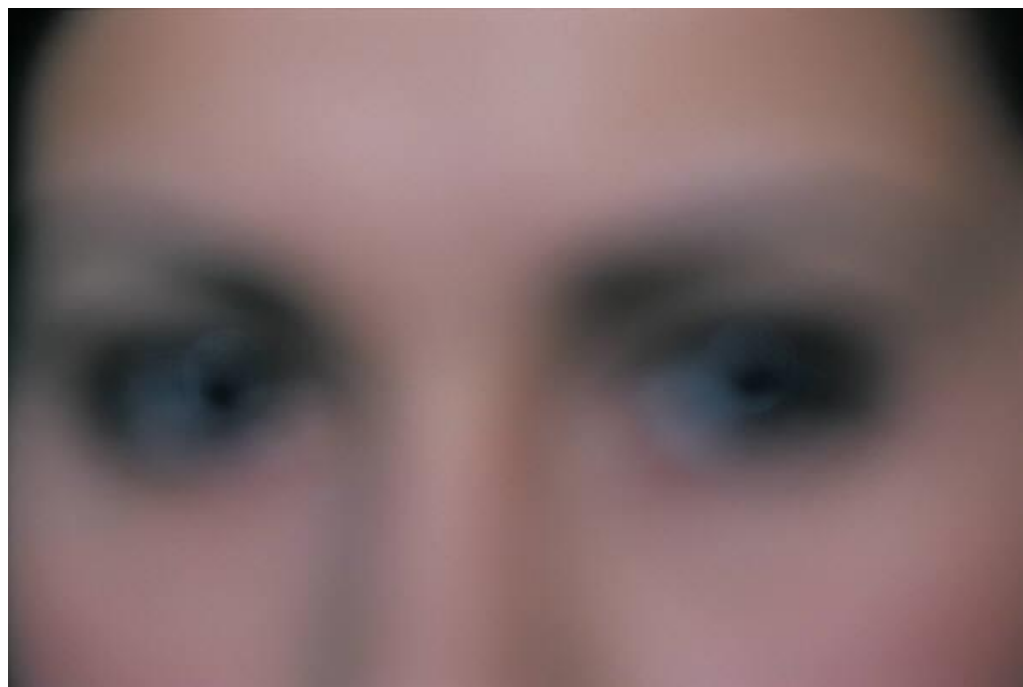
The Problem

- We are often faced with many challenges for which we are not equipped.
- More is required of less
- Issues we address are more complex



The Problem

- Sometimes we lose sight of taking care of ourselves!



How does it happen to us?

- Identifying with the pain and suffering
- Thinking that it goes with the territory
- Wanting to do our very best
- Loving the process of helping others
- Needing to help others
- Needing to fix others
- Have a negative opinion of the 'residents'



How does it happen to us?

- Demands from various sources
- Overwhelming expectations
- Dysfunctional work settings
- Lack of voice
- Constant exposure to crises or potential for such
- Low Professional-Esteem
- Personal/Professional Contamination

How does this happen?

- Staff turnover and vacancies create more pressure and stress to do more work



How does it happen to us?

When you spread peanut butter too thin...

... it tastes just like bread!



Here's what it looks like

- Blaming others
- Further injuring the resident
- Emotional drain
- Becoming indifferent to pain/suffering
- Resistance to change
- Grieving
- Rust-out/Burn-out
- Physical illness
- Going home angry or with any other unpleasant feeling
- Taking it out on 'innocent others'
- Forgetting how to take care of ourselves
- Emotional numbness

Here's what it looks like

- Feelings of sadness, frustration, and helplessness
- Recurring feelings of fear and anxiety
- Anger, tension, and irritability
- Difficulty concentrating and making decisions
- Reduced interest in usual enjoyable activities
- Wanting to be alone and avoiding others
- Loss of appetite or eating too much
- Irregular sleeping patterns
- Nightmares
- Headaches, muscle pains, and stomach problems
- Smoking or increased use of alcohol or drugs
- Other?

Here's what you can do about it!

- Recognize/acknowledge stressors
- Suggest solutions, don't focus on the problem
- Do periodic Self-Assessments
- Schedule time off and TAKE IT!
- Put yourself in your schedule for one hour/wk
- Know your limitations, training needs, etc.

Here's what you can do about it!

- Set Priorities
- Access training opportunities
- Seek/receive support and avoid isolation
- Access your spiritual source/inner strength
- Make time to decompress
- Stop thinking that you can handle it on your own...you can't!
- Stop thinking that it will go away eventually....it doesn't!

So, what did you come up with for Reason-busters?

The Four Reasons	Reason-Busters
Offering medications in jails/prisons when they are not readily available upon release.	
Continue them on medication if they are not able or willing to stick to the rules.	
Polysubstance-abusing persons may not be able to sustain a regimen for daily medication.	
Why medicate when most do not continue once released from the system?	

Here's My Commitment to Change

- What is one thing that you will bring back to your workplace that will enhance the quality of the MAT program?
- What is one thing that you will bring back to your workplace that will enhance self-care?

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