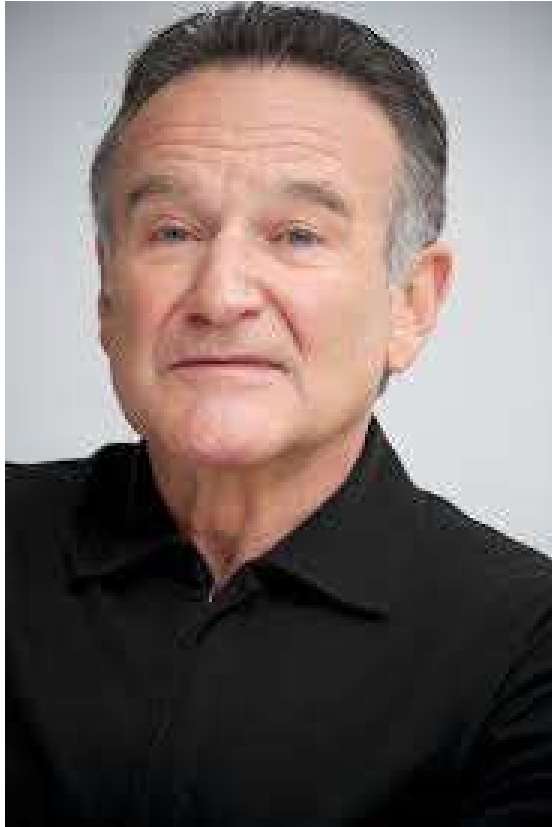


# The Prescription Narcotic Abuse and Addiction Epidemic in Primary Care

**Dr. David Leszkowitz**

Board Certified Addiction Medicine/Family Medicine

No Disclosures



Robin William 1951 - 2014



Seymour Hoffman 1967 - 2014

**HARM**

Never judge, takes all those that  
comes before you!

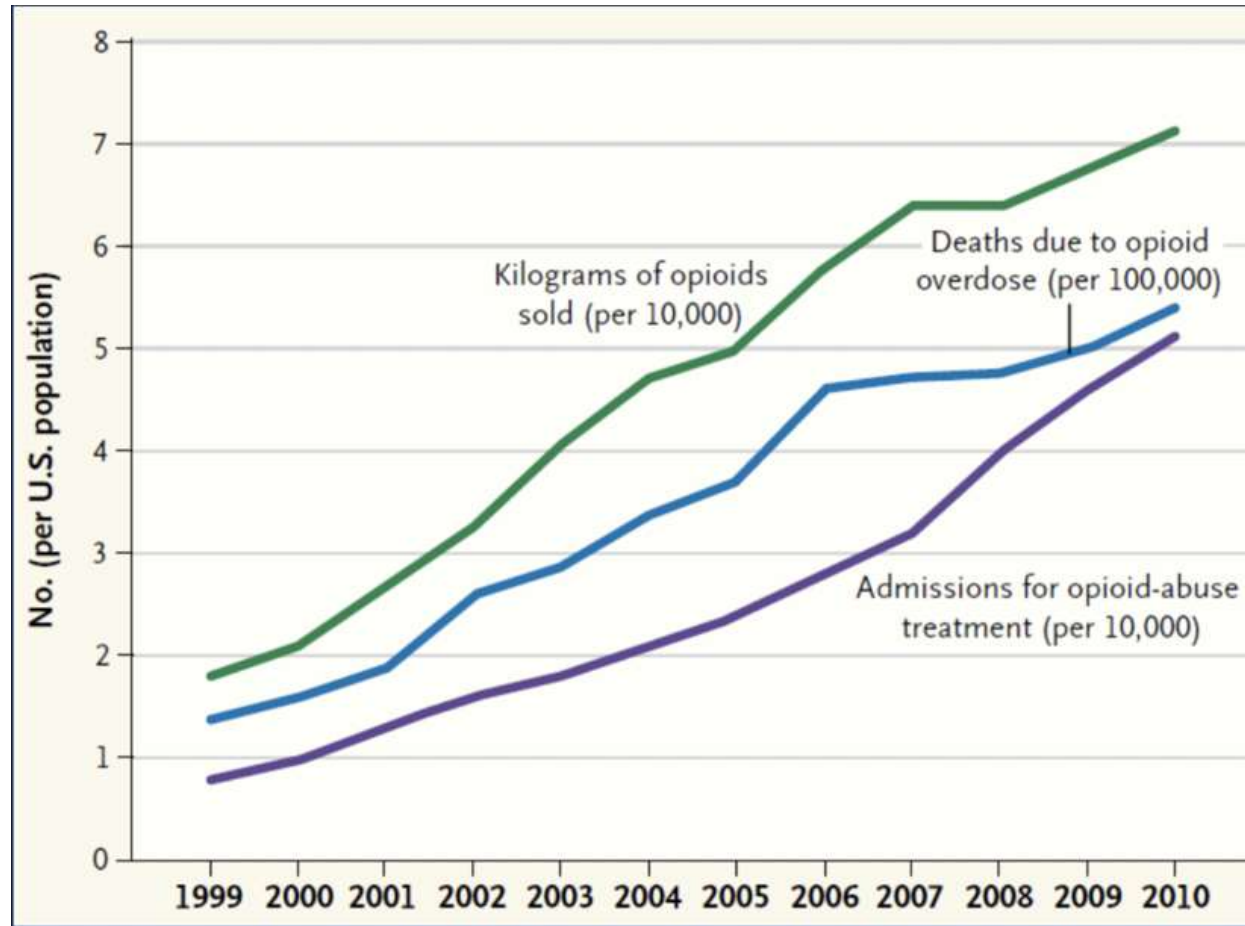
*AN ESTIMATED 97 MILLION  
ADULTS IN THE UNITED STATES  
ARE OVERWEIGHT OR OBESE*

*WEIGHT MANAGEMENT  
IN  
PRIMARY CARE*



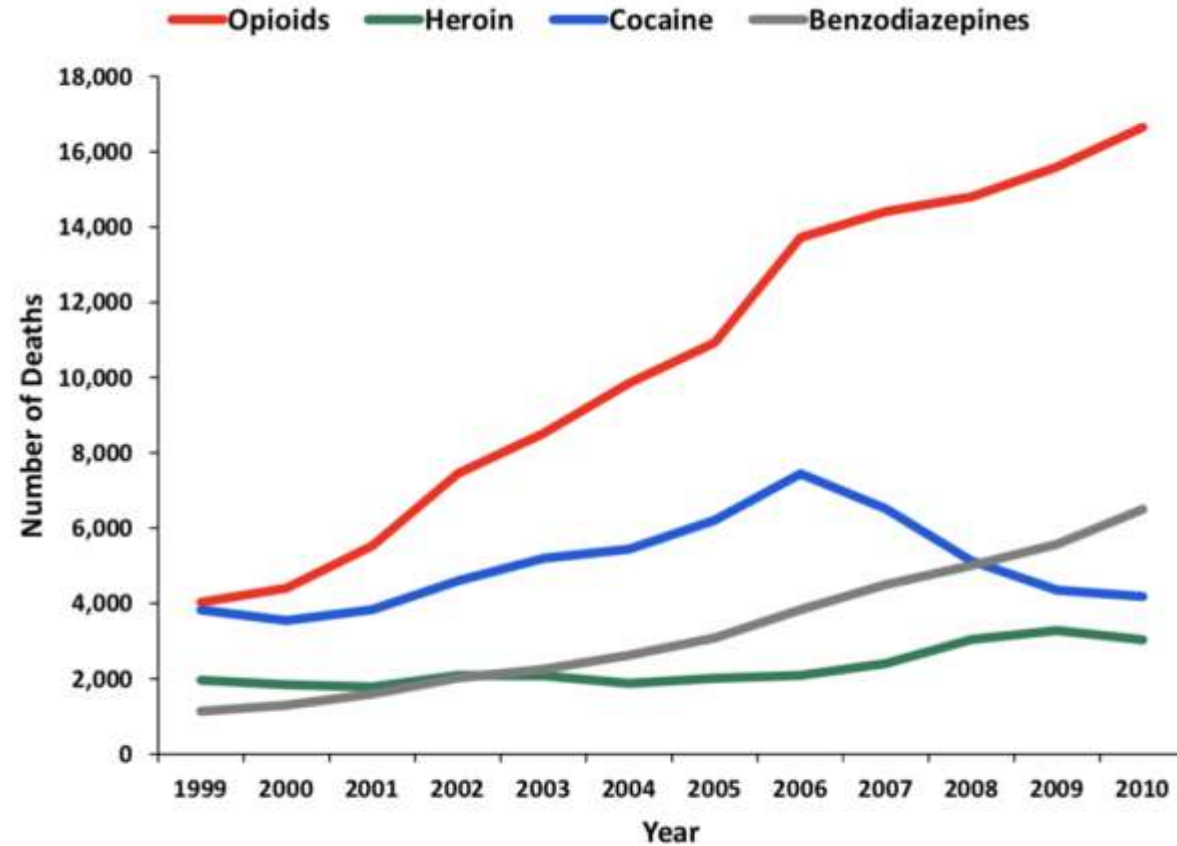
We must treat the primary  
cause of the disease

# Prescription Opioid Trends: 1999-2010



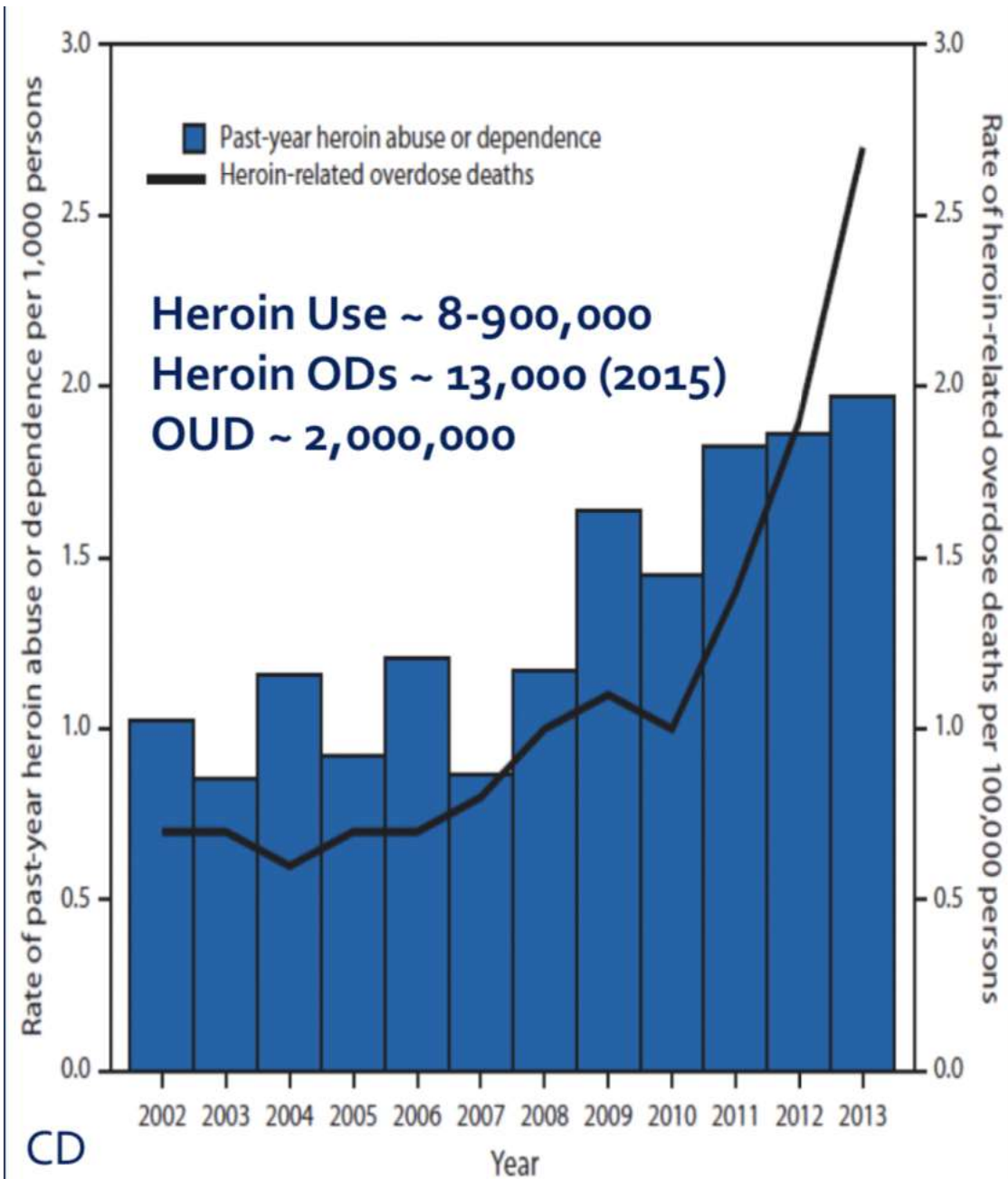
National Vital Statistics System, 1999-2008; Automation of Reports and Consolidated Orders System of the DEA; Treatment Episode Data Set

# Drug Overdose Deaths by Major Drug Type, United States, 1999-2010



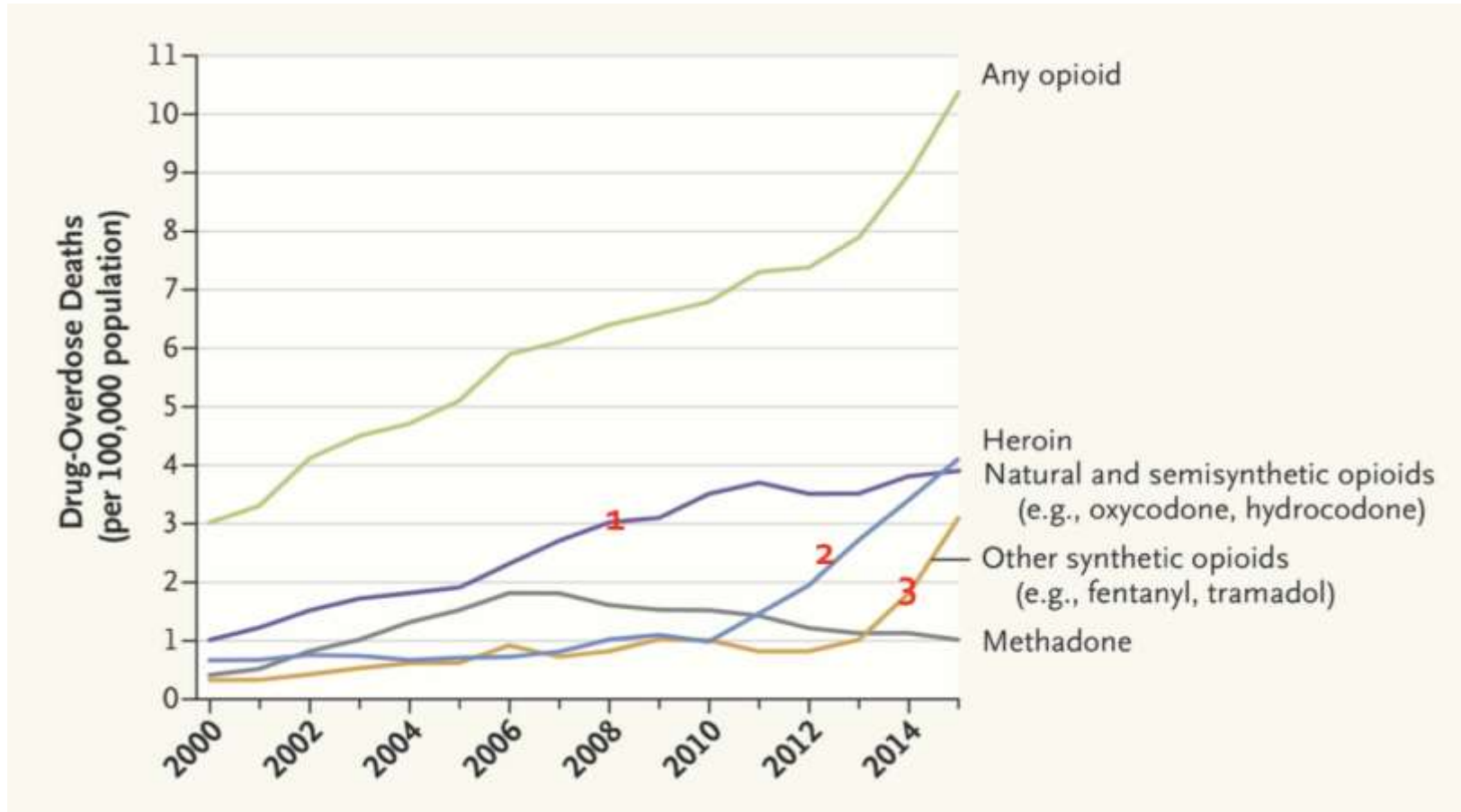
CDC, National Center for Health Statistics, National Vital Statistics System, CDC Wonder. Updated with 2010 mortality data.





CD

# Drug-Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2014

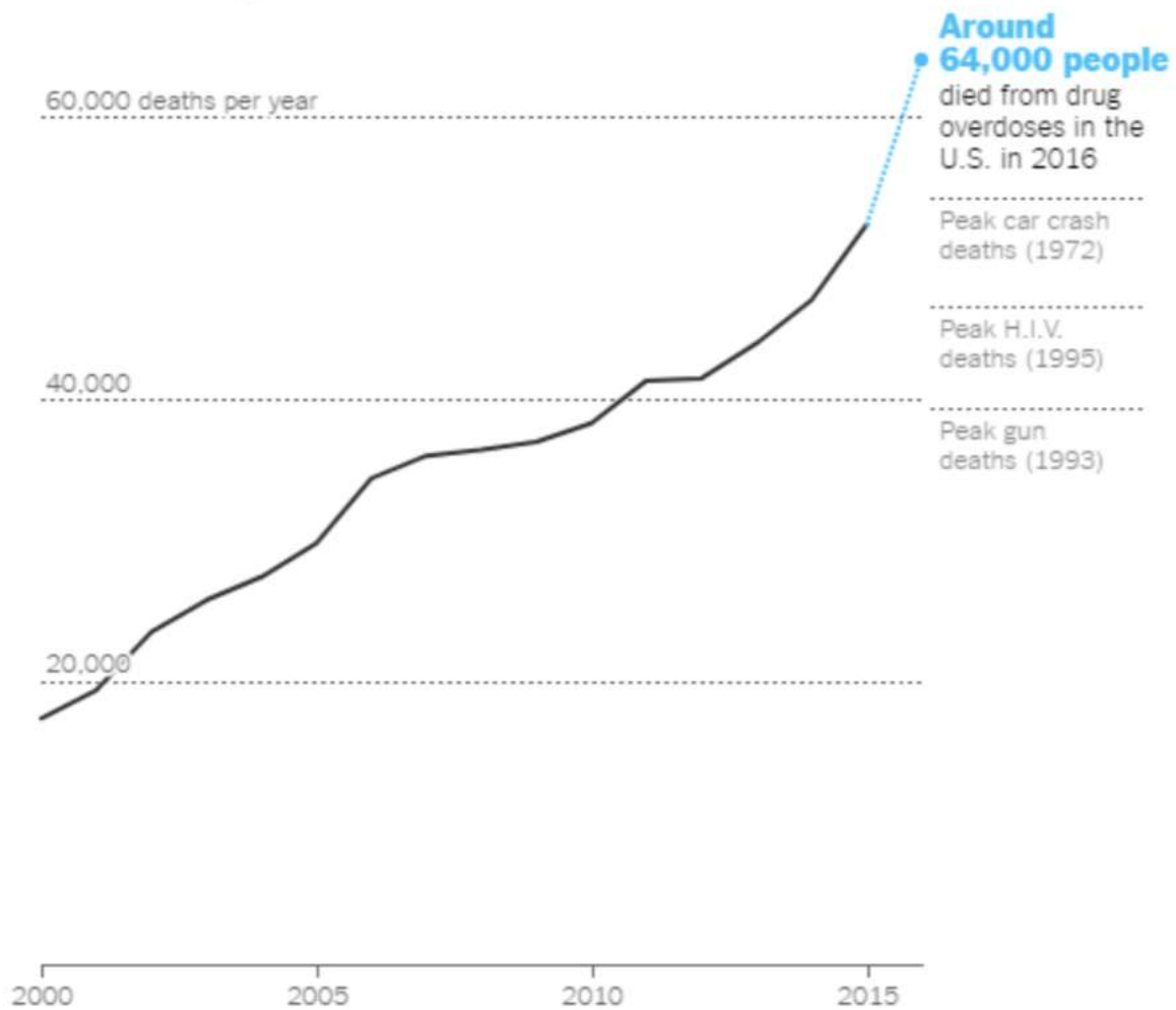


2 Minutes: 3A<sub>4</sub>

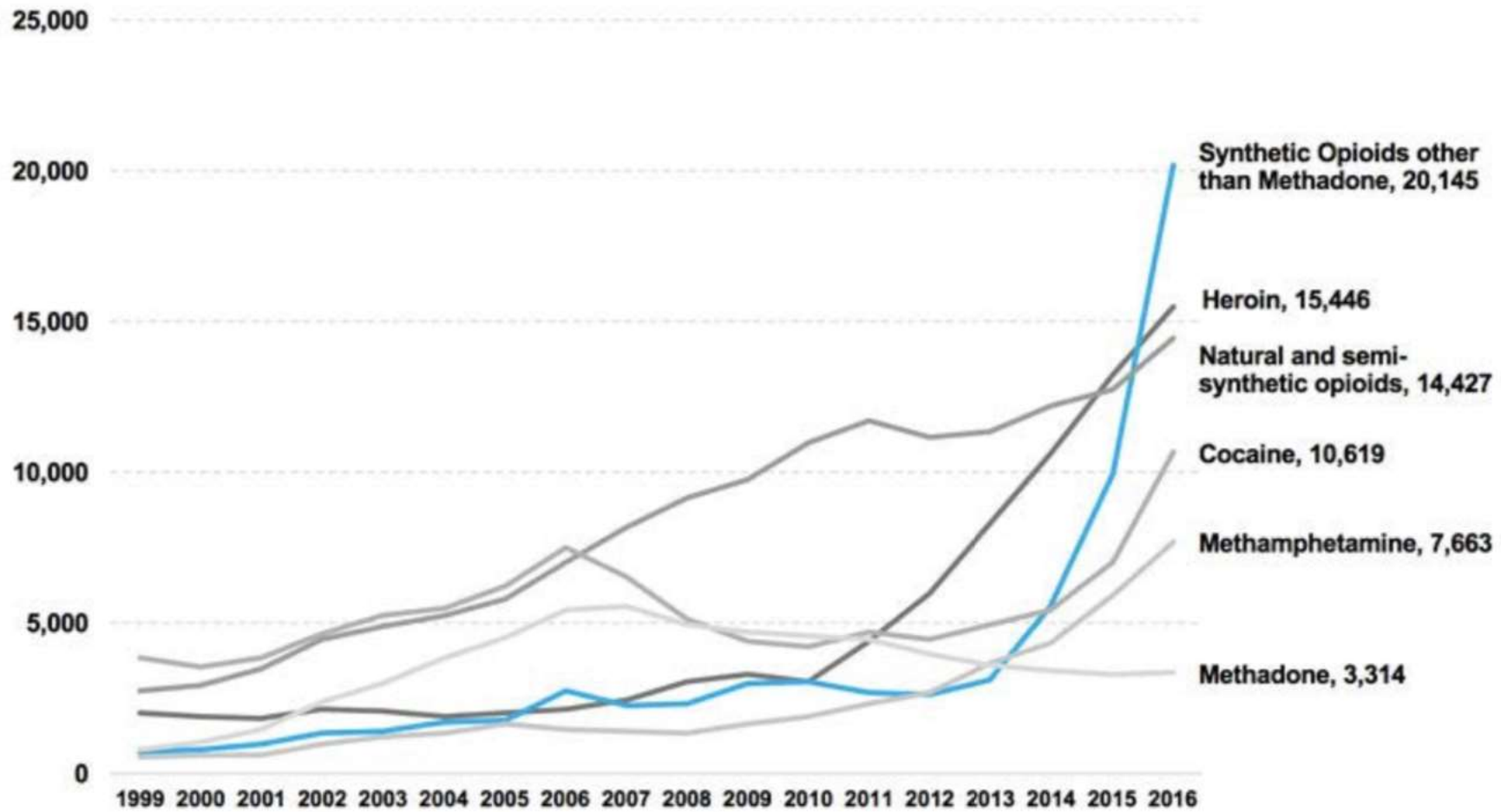
Synthetic opioids/fentanyl analogues/metabolites	A. All cases (N=100)	B. Acryl Fentanyl Positives (N=56)	C. Furanyl Fentanyl Positives (N=39)
<b>Fentanyl</b>	<b>99 (99%)</b>	<b>56 (100%)</b>	<b>39 (100%)</b>
<b>Norfentanyl</b>	<b>64 (64%)</b>	<b>39 (70%)</b>	<b>26 (67%)</b>
<b>Acryl fentanyl</b>	<b>56 (56%)</b>		<b>25 (64%)</b>
<b>Despropionylfentanyl</b>	<b>46 (46%)</b>	<b>26 (46%)</b>	<b>32 (82%)</b>
<b>Furanyl Fentanyl</b>	<b>39 (39%)</b>	<b>25 (45%)</b>	
<b>Carfentanil</b>	<b>3 (3%)</b>	<b>2 (4%)</b>	<b>1 (2.6%)</b>
<b>Acetyl Fentanyl</b>	<b>2 (2%)</b>	<b>1 (2%)</b>	<b>1 (2.6%)</b>
<b>Butyryl/isobutyrylfentanyl</b>	<b>1 (1%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>
<b>Furanyl Norfentanyl</b>	<b>1 (1%)</b>	<b>1 (2%)</b>	<b>1 (2.6%)</b>
<b>U47700</b>	<b>1 (1%)</b>	<b>1 (2%)</b>	<b>1 (2.6%)</b>

100 Accidental OD deaths 2017(3mos): 99% + FENTANYL Only 3 cases + HEROIN

## Total U.S. drug deaths



## Drugs Involved in U.S. Overdose Deaths, 2000 to 2016



# Lethal Dose

Morphine = 1X

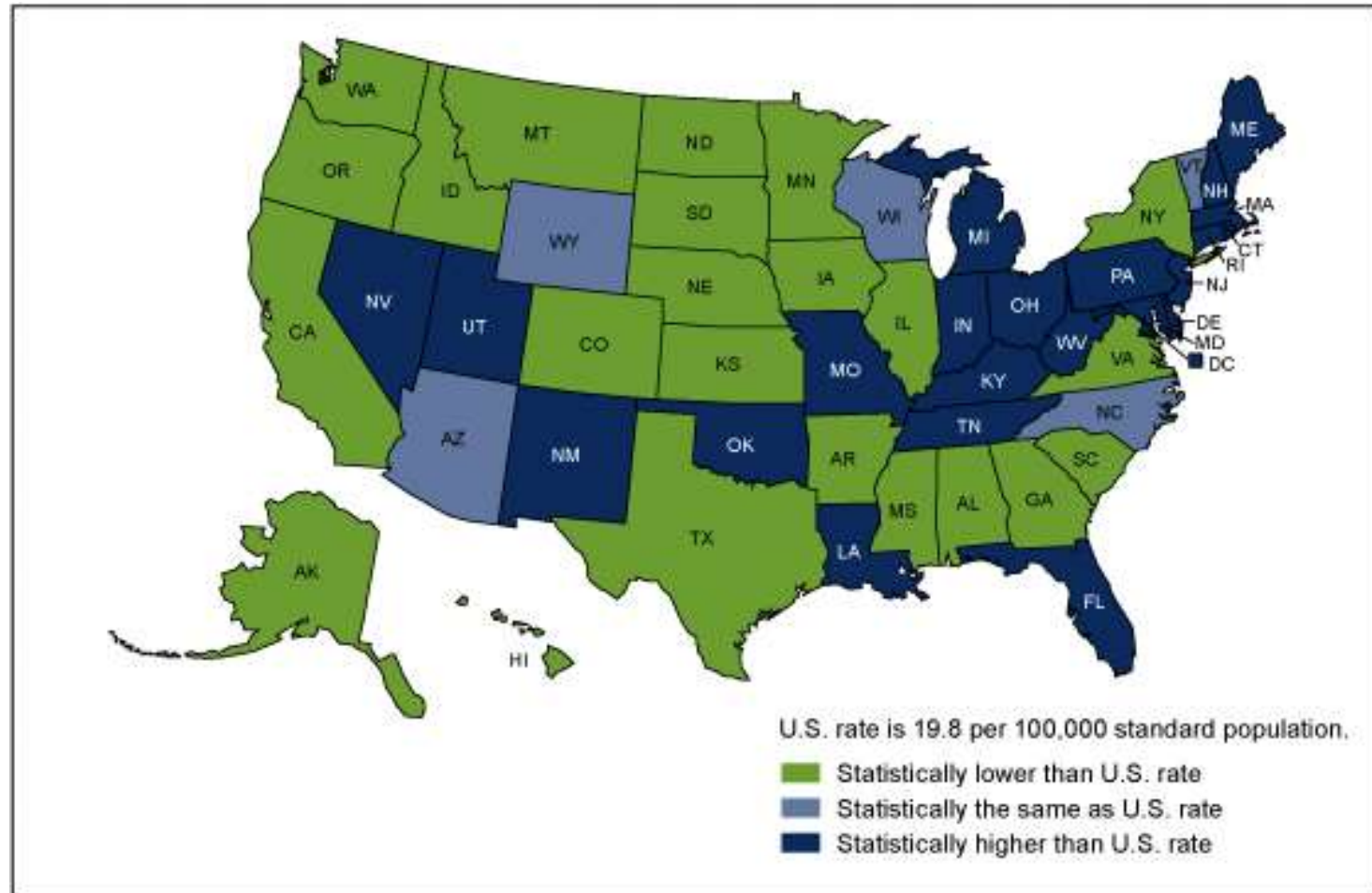
Fentanyl = 100X

Carfentanil = 10,000X





Lethal doses of heroin compared to "synthetic" opioids.  
*New Hampshire State Police Forensic Lab*

# Drug Overdose Deaths - 2016



# Opioid Tolerance & Physical Dependence

- Both tolerance and physical dependence are physiological adaptations to chronic opioid exposure
- **Tolerance** 
  - Increased dosage needed to produce specific effect. Develops readily for CNS and respiratory depression
- **Physical Dependence** 
  - Signs and symptoms of withdrawal by abrupt opioid cessation, rapid dose reduction, administration of antagonist e.g., Narcan (Naloxone)



# Addiction

- Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.
- Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.

# Opioid Neurobiology and Pharmacology

# Opiates and Opioids

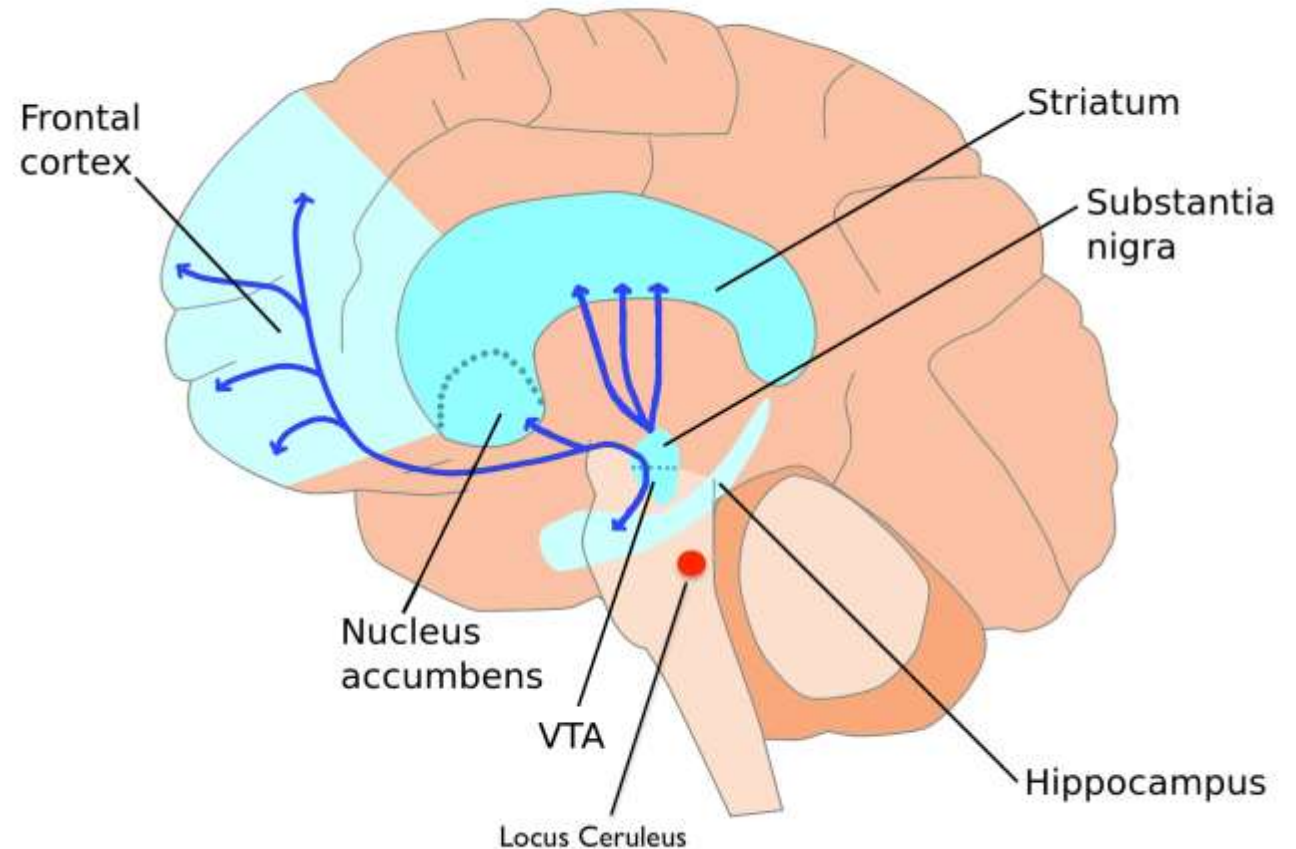
- **Opiates** are present in opium e.g., morphine, codeine, thebaine
- **Opioids** are manufactured as
  - **Semi-synthetic opioids** derived from an opiate e.g., heroin from morphine
  - **Synthetic opioids** completely synthesized to have function similar to natural opiates e.g., methadone



**Opium poppy Plants**

# Reward/Reinforcement Pathway

- Reward/reinforcement is in part controlled by  $\mu$ -receptors in the
- Reward pathway:
  - Ventral Tegmental Area (VTA)
  - Nucleus Accumbens with projections to Prefrontal Cortex
  - Dopaminergic system



# Heroin and The Reward Pathway

- Heroin (di-acetyl-morphine)
  - Very lipophilic
  - Rapidly crosses the blood brain barrier in the reward pathway
- This is the reason heroin is preferred over morphine as a drug of abuse by injecting opioid users

# Medication Comparison

	<b>Methadone</b>	<b>Buprenorphine</b>	<b>ER Naltrexone</b>
Pharmacology	Full agonist	Partial agonist	Full antagonist
Dosing	Daily (but duration often longer)	Daily	<i>q4wks</i>
Setting	Specialty licensed OTP	Office-based or OTP, requires "X" waiver	Any medical setting, requires injection
Induction	No time restriction; start low, go slow	Mild-mod withdrawal: > 8-12 hrs after last opioid	>7 days after last opioid
Adherence	Intrinsically reinforcing	Intrinsically reinforcing	Long acting

# Medication Comparison: Limitations and Benefits

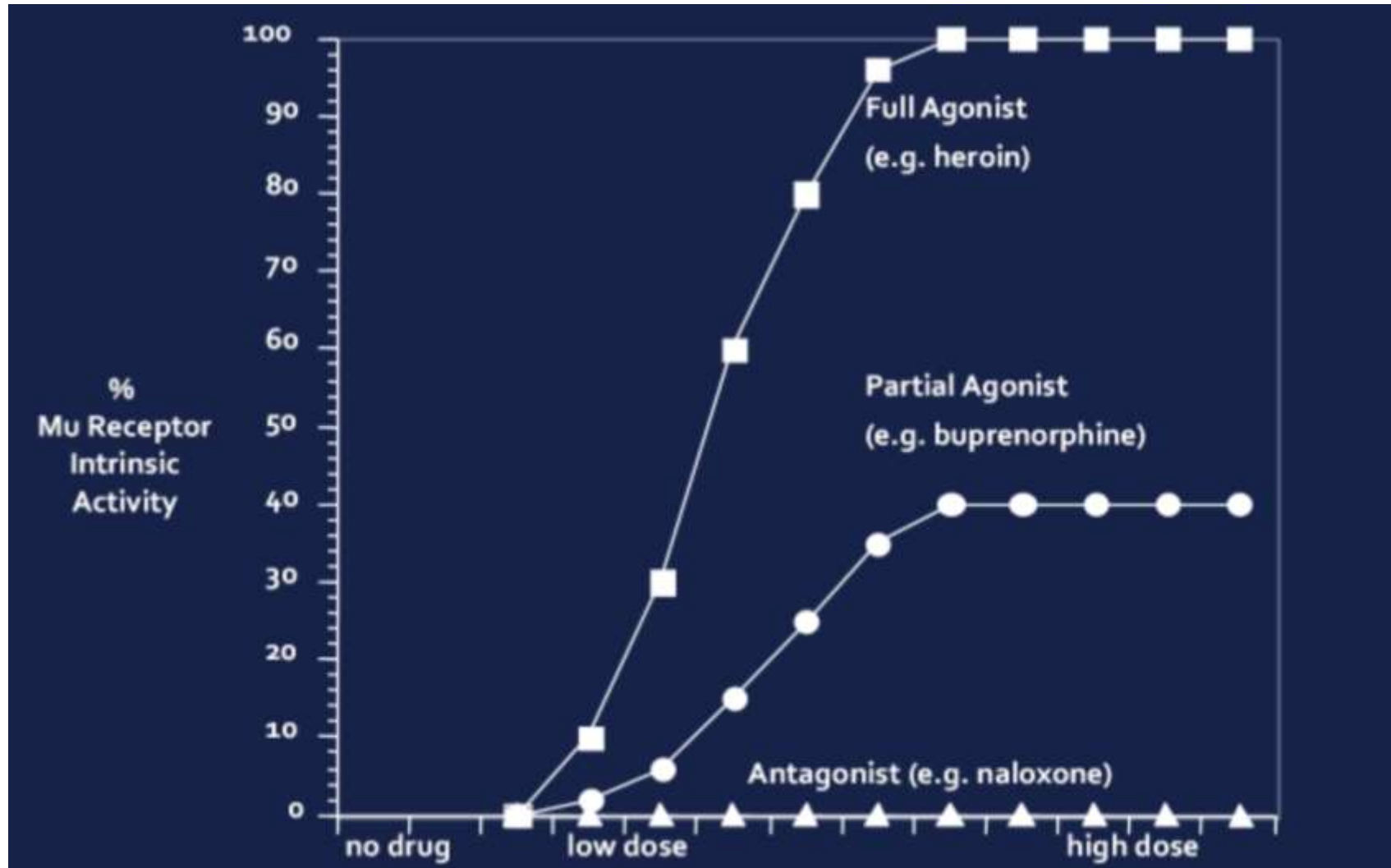
	Methadone	Buprenorphine	ER Naltrexone
Side Effect/Safety	Sedation esp early in treatment, constipation, liver disease. Caution re: concurrent benzos/alcohol overdosing, drug-drug interactions	Lower extremity swelling, urinary hesitancy, constipation. Caution re: concurrent benzos/alcohol. Not recommended for patients with severe hepatic impairment.	Injection site rxns, nausea, malaise. Caution re: precipitated withdrawal if given before opioid free washout period. Risk of hepatotoxicity.
Other advantages	Co-morbid pain, high potency, high structure of delivery setting.	Safety compared to methadone, co-morbid pain, dosing flexibility, lower burden of OBOT delivery, simple pharmacy availability	Low diversion, no dependence, verifiable dosing. Lower stigma in some settings compared to agonists.
Craving reduction	+++	++	+



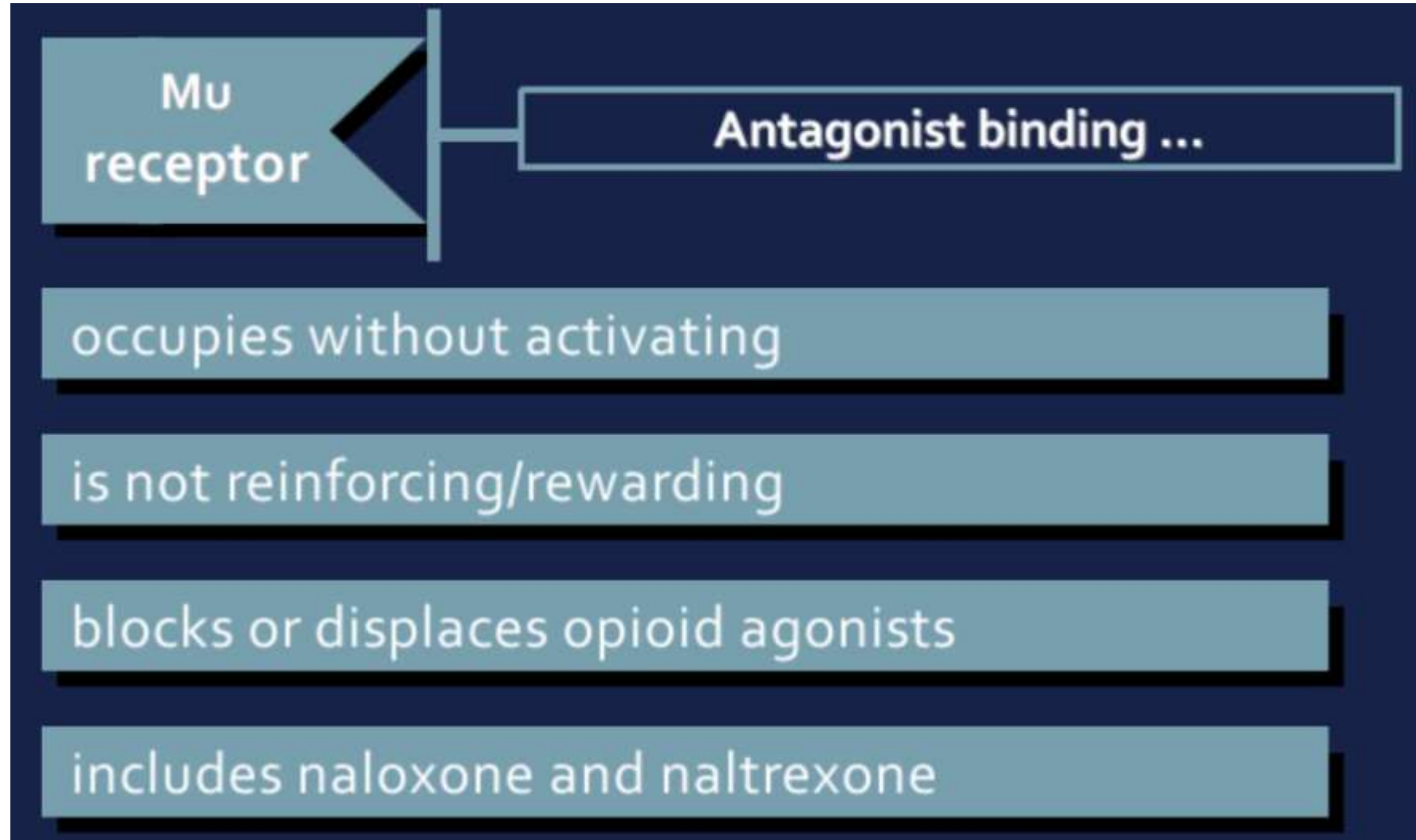
# Medication Comparison: Limitations and Benefits (Continued)

	Methadone	Buprenorphine	ER Naltrexone
Contraindications	Hypersensitivity, respiratory depression, severe bronchial asthma or hypercapnia, paralytic ileus	Hypersensitivity	Hypersensitivity reactions to naltrexone, or for injectable previous hypersensitivity reactions to polylactide-co-glycolide, carboxymethylcellulose, or any other constituent of the diluent. Patients currently physically dependent on opioids, including partial agonists. Patients receiving opioid analgesics. Patients in acute opioid withdrawal.
Pregnant women	Treatment with methadone should be initiated as early as possible during pregnancy.	Buprenorphine monoproduct is a reasonable and recommended alternative to methadone.	If a woman becomes pregnant while receiving naltrexone, it is appropriate to discontinue the medication if the patient and doctor agree the risk of relapse is low.
Diversion/misuse	Diversion and misuse are possible	Diversion and misuse are possible	No risk

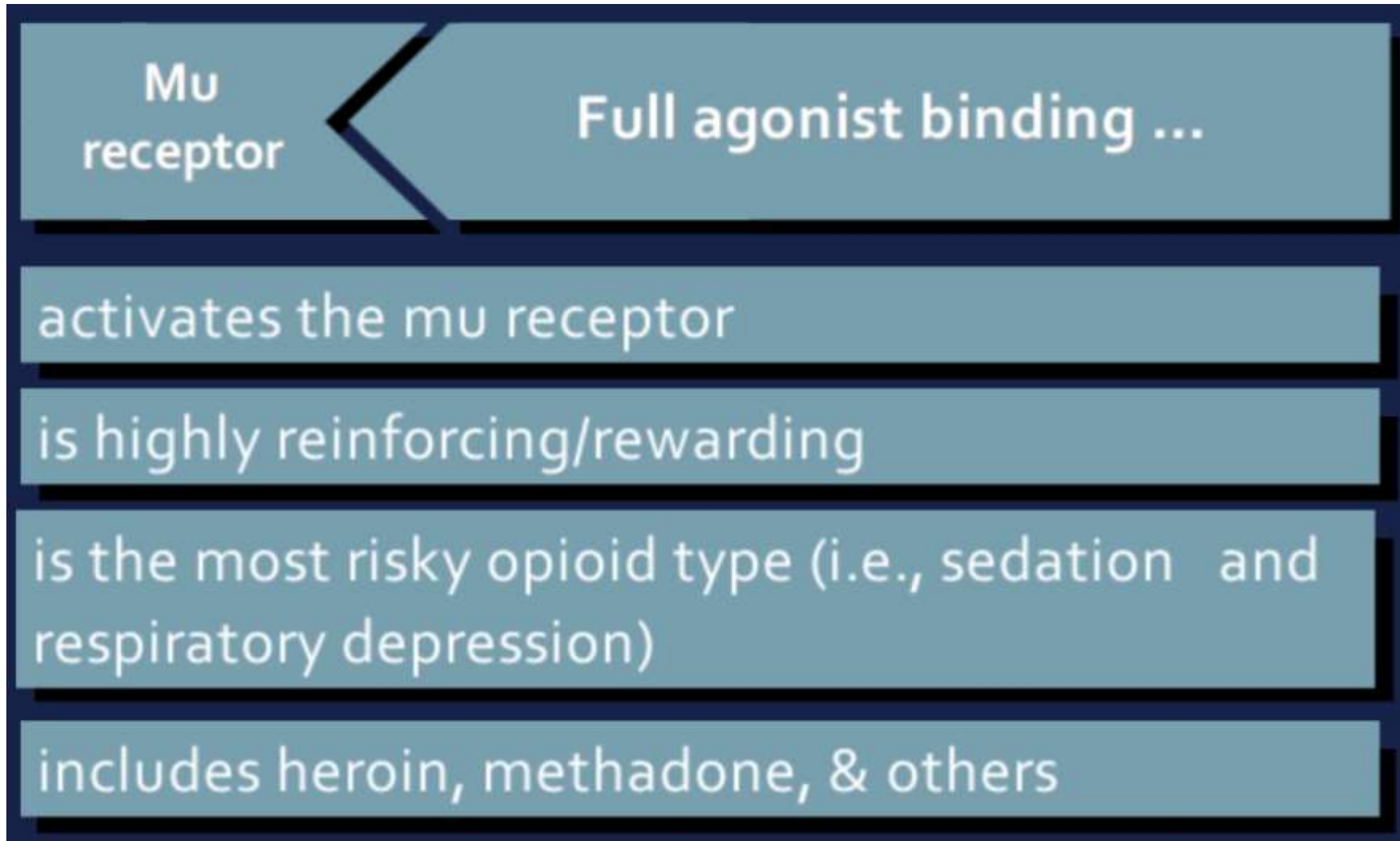
# Opioid Agonists and Antagonists



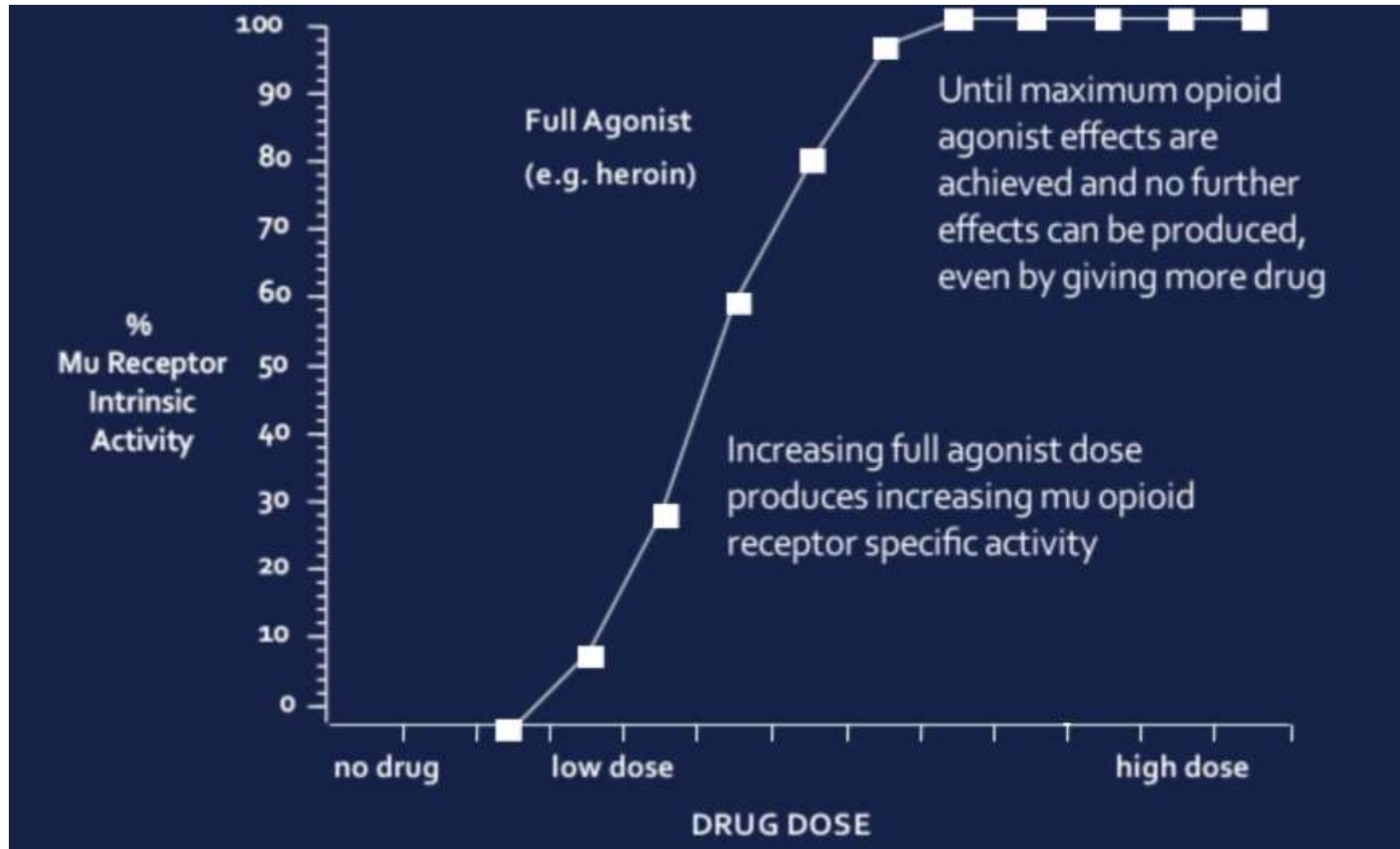
# Full Opioid Antagonist



# Full Opioid Agonists



# Full Agonist Activity Levels



# Partial Opioid Agonists

Mu  
receptor

Partial agonist binding ...

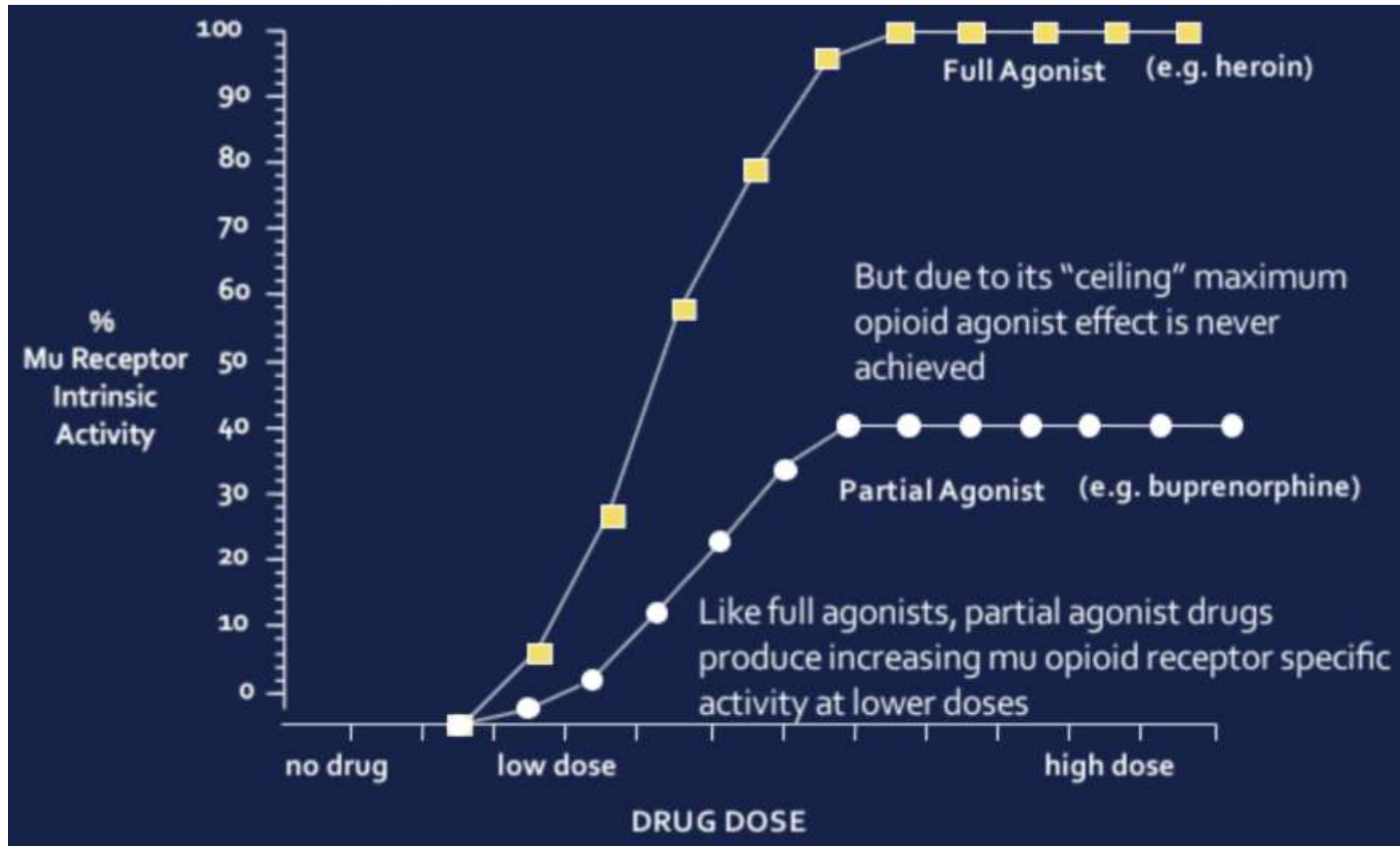
activates the mu receptor with ceiling effect

is relatively less reinforcing/rewarding

is a less risky opioid type (i.e., sedation and respiratory depression)

includes buprenorphine

# Partial Agonist Activity Levels



# Receptor Affinity

- Affinity is the strength with which a drug physically binds to a receptor
  - Buprenorphine's affinity is very strong and it will displace full agonists like heroin and methadone
  - Note: receptor binding strength (strong or weak), is NOT the same as receptor activation (agonist or antagonist)





# Receptor Dissociation

- Dissociation is the speed (fast or slow) of disengagement or uncoupling of a drug from the receptor
  - Buprenorphine's dissociation is slow
  - Therefore Buprenorphine stays on the receptor a long time and blocks heroin or methadone from binding



# Setting the Tone

- Empathic vs. unconcerned
- Unbiased vs. judgmental
- Supportive vs. dismissive
- Accepting vs. fault-finding
- Optimistic vs. skeptical



# Before getting started...

- Make treatment goals and expectations clear to patient
- Know community referral sources to expediate referral when a patient needs more than your practice can offer
- Check Michigan Automated Prescription System (MAPS) to verify patient medication history
- Check urine drug test to confirm patient substance use history
- Use a Treatment Agreement that includes plan of care (e.g., medication management, monitoring) and informed consent (e.g., adverse effects)

# Assessment Overview

- Establish diagnosis of opioid use disorder and current opioid use history
- Identify comorbid medical and psychiatric conditions; how, when, where they will be addressed
- Screen for and address communicable diseases
- Evaluate level of physical, psychological and social functioning or impairment
- Determine patient's readiness to participate in treatment

# Current Opioid Use History

- Quantity used per day
- Type: heroin, prescription opioids
- Routes: IV, IM, SC, PO, intranasal, inhaled
- Last used, date and time
- Previous attempts to discontinue
- Past treatment experience
  - Nonpharmacologic
  - Pharmacologic with agonist (methadone, buprenorphine) and antagonist (naltrexone) therapies

# Co-morbidity?

- **Medical**

- Past and present medical illness, hospitalizations, surgeries, accidents/injuries
- Current medications, drug allergies
- Is the patient taking other medications that may interact with buprenorphine, e.g., opioids, naltrexone, sedative-hypnotics?

- **Psychiatric**

- History of inpatient and/or outpatient treatment
- Is the patient psychiatrically stable?
- Are the psychosocial circumstances of the patient stable and supportive?

# Physical Examination

**During a standard physical examination, pay attention to:**

- Stigmata of injection drug use, e.g., needle tracks, skin and soft tissue infections
- Stigmata of chronic infections, e.g., HIV, hepatitis C
- Neurocognitive function
- Liver disease and dysfunction

# Laboratory Evaluation

- Liver function tests
- Hepatitis and HIV serologies
- Pregnancy test for women
- Urine drug testing
  - Naturally occurring opiates (morphine, codeine)
  - Synthetic and semisynthetic opioids (methadone, oxycodone)
  - Other commonly used drugs (cocaine, amphetamines, benzodiazepines)

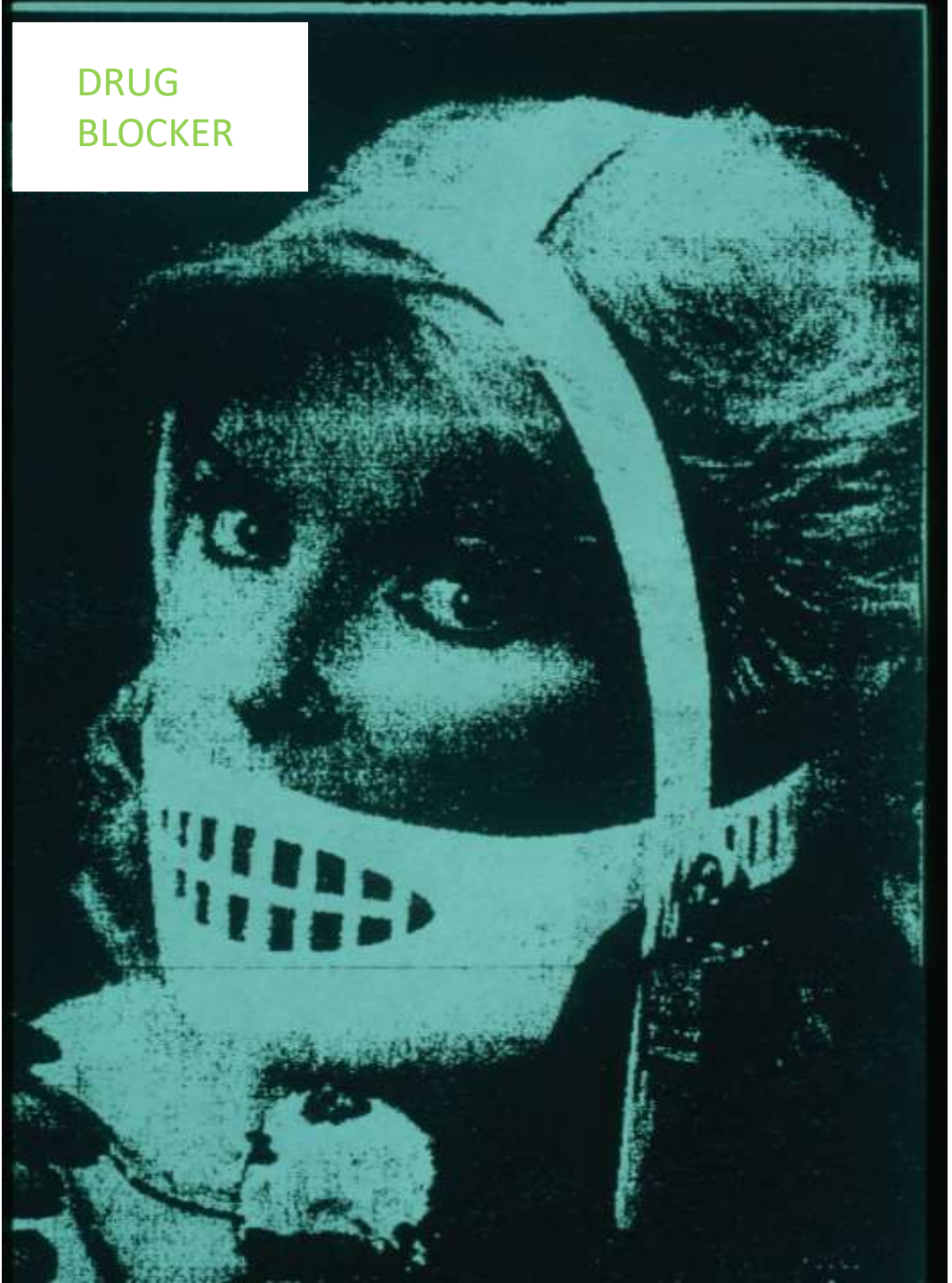


# Are you ready to treat your patient?

- Are there resources available in the office to provide appropriate treatment? Medical or psychiatric care?
- On-call coverage?
- Are there treatment programs available that will accept referral for more intensive levels of service if needed?
- Words of wisdom
  - Don't start with the most complicated
  - Start with 1, not 30
  - Know your limits
  - Don't be afraid to consult and refer

**HARM**

DRUG  
BLOCKER



# Why use medications? Because they work....

- 80-89% relapse to drug use without medication assisted treatment (MAT)
- Increased treatment retention
- 80% decreases in drug use and crime
- 70% decrease all cause death rate



# Medication Assisted Treatment (MAT)

- “**All** Treatments Work for **Some** People/Patients.”
- No One Treatment Works for **All** People/Patients.”

Alan I. Leshner Ph.D  
Former Director NIDA

# Medication Assisted Treatment (MAT)

- Goals

- Alleviate signs/symptoms of physical withdrawal
- Opioid receptor blockade
- Diminish and alleviate drug craving
- Normalize and stabilize perturbed brain neurochemistry

- Options

- Opioid antagonist
  - Naltrexone (full opioid antagonist)
- Opioid agonist
  - Methadone (full opioid agonist)
  - Buprenorphine (partial opioid agonist)

# Naltrexone

- Pure opioid antagonist
- Blocks opioids without agonist effects
  - Serum level of 2ng/ml blocks 25mg IV heroin effects
- No tolerance or physical dependence (withdrawal) develops
- Prevents impulsive drug use
- Protects against overdose, but discontinuation poses higher risk because of lost tolerance

# Oral Naltrexone Efficacy

- Oral Naltrexone
  - Duration of action 24-48 hours
  - FDA approved in 1984
- 10 RCTs ~ 700 participants to naltrexone alone or with psychosocial therapy compared with psychosocial therapy alone or placebo
  - No clear benefit in treatment retention or relapse at follow up
- Benefit in highly motivated patients
  - Impaired physicians > 80% abstinence at 18 months



# Oral Naltrexone Safety

- Naltrexone has the capacity to cause hepatocellular injury when given in excessive doses
- Naltrexone does not appear to be hepatotoxic at the recommended doses
- Contraindicated in hepatitis or liver failure

# Oral Naltrexone Dosing

- 50mg daily,
- 100mg every 2 days,
- 150 mg every third day
- Adherence has limitation on effectiveness
- Induction requires 5-7 days of abstinence from heroin or short-acting opioid, 7-10 days from buprenorphine or methadone

# Injectable Naltrexone (XR-NTX)

- Multicenter (13 sites in Russia) Funded by Alkermes
- DB RPCT, 24 weeks, n = 250 w/opioid dependence
- XR-NTX vs. placebo, all offered biweekly individual drug counseling
- Weeks of confirmed abstinence (90% vs 35%)
- Patients with confirmed abstinence (36% vs 23%)
- Craving (-10 vs +0.7)

# Injectable Naltrexone Dosing

- Monthly XR-NTX 380mg for opioid dependence
- IM injection (w/customized needle) once/month
- FDA approved 2010
- Patients must be opioid free for a minimum of 7-10 days before treatment

# Methadone Maintenance Treatment

- Highly regulated – *Narcotic Addict Treatment Act 1974*
  - Created Opioid Treatment Programs (OTPs)
  - Separate system not involving primary care or pharmacists
- Treatment (methadone dispensing) for opioid use disorder limited to licensed OTPs
- It is illegal for a physician to prescribe methadone for the treatment of opioid use disorders in an office-based practice

# Methadone Maintenance in OTP

- Highly structured
  - Daily nursing assessment
  - Weekly individual and/or group counseling
  - Random supervised drug testing
  - Psychiatric services
  - Medical services
  - Methadone dosing
    - Observed daily → "take homes" based on stability and time in treatment. Max: 27 take homes. Varies by state, county and individual clinic.

# Methadone Maintenance Treatment Benefits

- Increase overall survival
- Increases treatment retention
- Decreases illicit opioid use
- Decreases hepatitis and HIV seroconversion
- Decreases criminal activity
- Increases employment
- Improves birth outcomes

# Methadone Maintenance Treatment Limitations

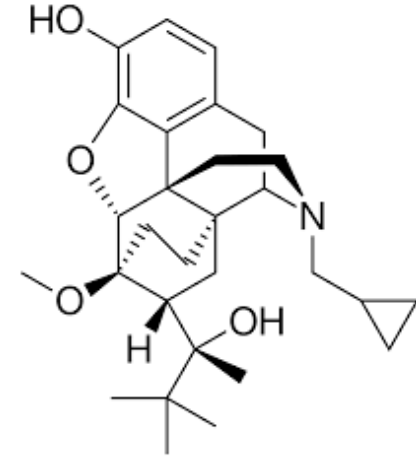
- Limited access
- Inconvenient and highly punitive
- Mixes stable and unstable patients
- Lack of privacy
- No ability to “graduate” from program
- Stigma



# Methadone Safety

- Long, variable, unpredictable half-life
  - Serum  $t_{1/2}$  20-120 hours
- QTc prolongation, risk of torsades de pointes
  - Generally dose related; > 100mg daily
  - Multifactorial; ↓ K; ↓ Mg, other drugs ↑ QTc
  - CYP450: 3A4, 2D6 interactions
  - QTc > 500 msec > Torsades de Pointes

# Buprenorphine



- Partial mu-opioid agonist
- Schedule III (*vs. Methadone: schedule II*)
- **Metabolism**
  - In liver with N-dealkylation by cytochrome P450 3A4 enzyme system into an active metabolite norbuprenorphine
    - Norbuprenorphine undergoes further glucuronidation
- **Elimination**
  - Excreted in feces (70%) and urine (30%)
    - Mean elimination half-life = 37 hours
  - Commercial screening urine drug test for parent compound and metabolite
  - Does NOT show as opiate positive on standard screen

# Cytochrome P450 3A4 interactions

- Buprenorphine is metabolized by CYP3A4. Clinically significant drug/drug interactions are uncommon
- Elevated Buprenorphine levels have been reported with co-administration of atazanavir/ritonavir
- Decreased buprenorphine levels have been reported with co-administration of rifampin

# Buprenorphine Formulations

- Approved for moderate to severe OUDs, can be used OFF LABEL for pain
  - Sublingual forms (tablets and films)
  - “**Combo**” (buprenorphine/naloxone)
  - “**Mono**” (Buprenorphine only) generic tablets only
- Approved for pain and NOT OUDs
  - Parenteral form
  - Transdermal Patch (7-day)

# Sublingual Use & Bioavailability

- Sublingual tablets/film strip must be held under tongue for several minutes to dissolve
  - Instruct to:
    - Not talk
    - Keep dissolving liquid under tongue
    - Don't swallow till entire tablet dissolved
    - Considerable variability between patients in Bup Bioavailability of tablets/film strip
    - Buccal film – able to talk and swallow

# Purpose of Naloxone in “Combo”

- Naloxone has limited bioavailability orally or sublingually, but is active parenterally, e.g., injected SQ, IM or IV
- The combo product, if crushed, dissolved and injected the:
  - Naloxone may cause initial withdrawal if the person is physically opioid dependent
    - Decreasing diversion and misuse
  - Naloxone will block, or attenuate, the opioid agonist effect of the buprenorphine
    - Therefore safer if diverted

# Buprenorphine/Naloxone Bioavailability

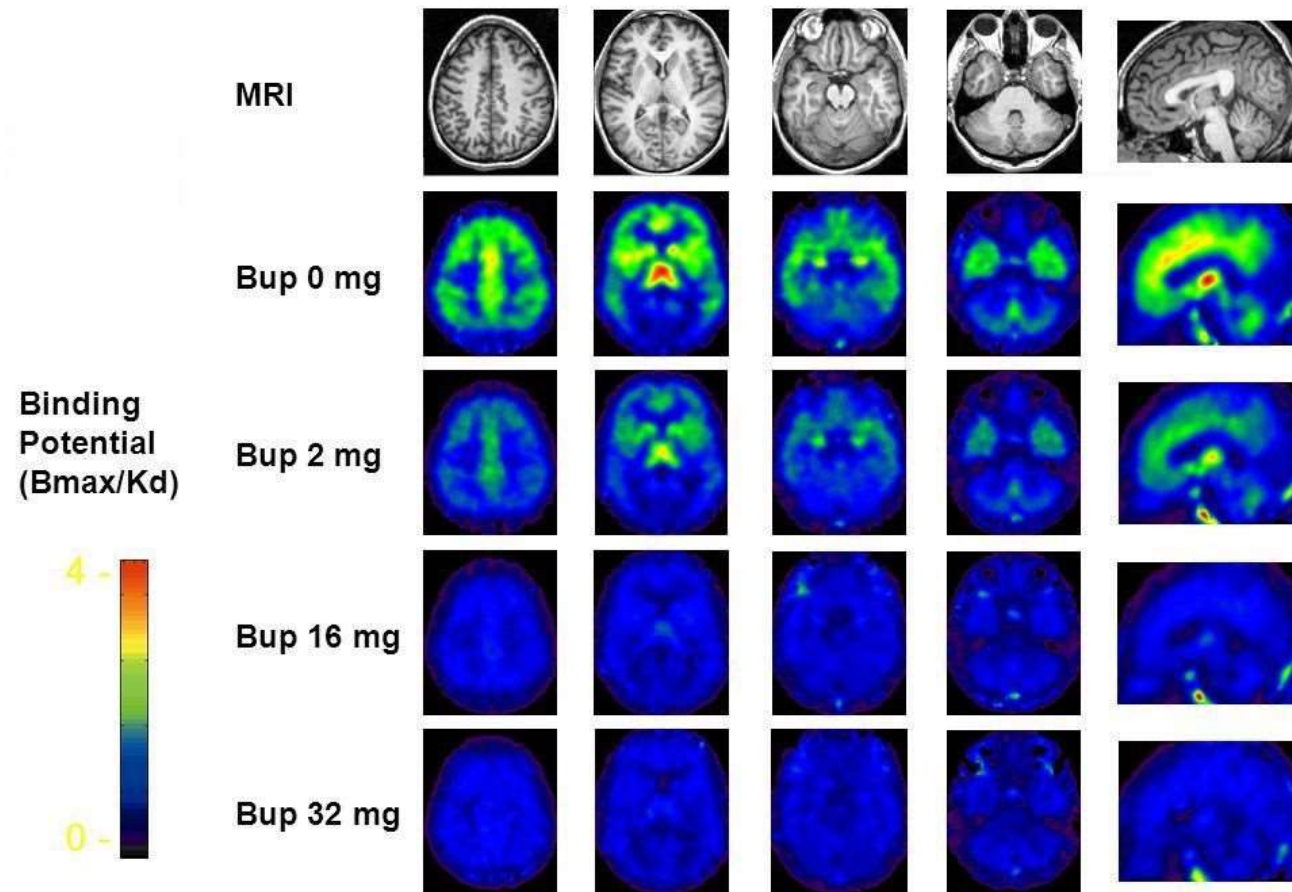
- If dissolved sublingually
  - Buprenorphine is active
  - Naloxone is not active
- If swallowed
  - Buprenorphine not active (minimal oral bioavailability)
  - Naloxone not active (no oral bioavailability)
- If injected
  - Buprenorphine active, but
  - Naloxone active x 20 minutes so attenuates the parenteral “rush”
- Not time released so tablets/film strip can be split  
(splitting tablets or film is considered “off-label” use)

# How Does Buprenorphine Work?

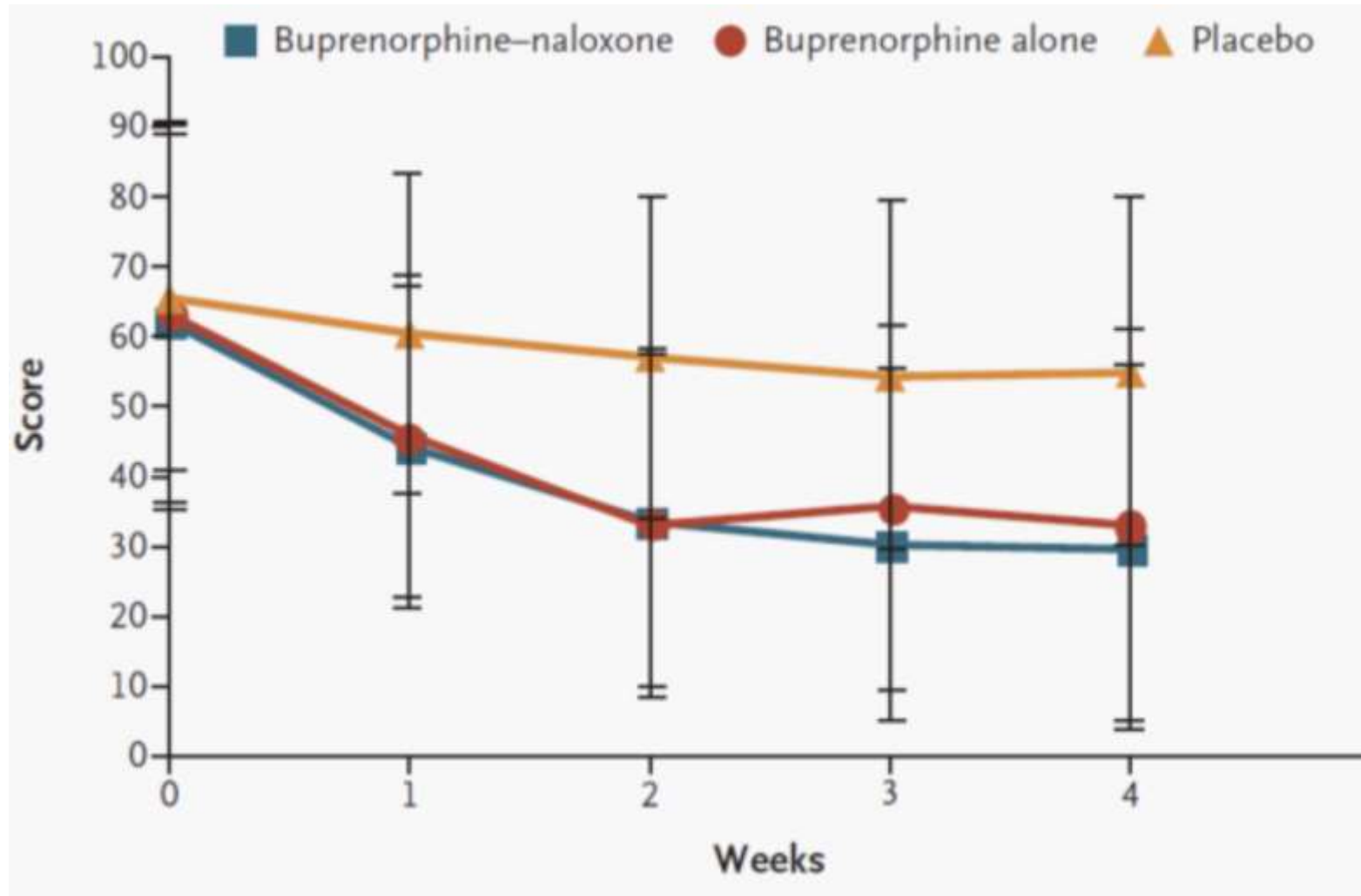
- Buprenorphine may reduce the effects of other opioids taken due to its high affinity for, and slow dissociation from, the mu receptor
- However, buprenorphine is unlikely to block *ALL* effects from an opioid taken after initiation of buprenorphine treatment
- This is because the availability of mu receptors is a dynamic process; while effects may be less, they are not likely to be completely eliminated



# Effects of Buprenorphine Dose on mu opioid receptor availability in subjects



# Buprenorphine Decreases Opioid Craving



Fudala P et al. *NEJM*. 2003.

# Clinical Uses of Buprenorphine

- Induction
- Stabilization/Maintenance
- Tapering off Maintenance (Discontinuation)
- Buprenorphine for Opioid Withdrawal Management

# Unobserved “Home” Inductions

- Numerous studies demonstrate that unobserved “home” inductions are both effective and safe
- Should be performed in properly selected patients
- Providers and patient/significant other should be able to communicate during the induction
- Same protocol as in office-based induction

Alford DP et al. *J Gen Intern Med.* 2007.

Lee JD et al. *J Gen Intern Med.* 2008. Cunningham CO et al. *J Subst Abuse Treat.* 2011. Sohler NL et al. *J Subst Abuse Treat.* 2011.

Lee JD et al. *J Addict Med.* 2014.

# Buprenorphine: “The First Prescription”

- The amount of buprenorphine prescribed for induction and stabilization depends on many factors:
- How reliable is the patient?
- Is there a significant other who can secure and dispense the medication: particularly important with younger patients
- How are co-pays managed? Is it reasonable to fill prescriptions every few days?
- Prior authorizations

## Bioequivalence of Buprenorphine Formulations

### Available Dosage Strengths

Buprenorphine sublingual tablets, including generic equivalents:	2 mg buprenorphine 8 mg buprenorphine
Buprenorphine and naloxone sublingual tablets, including generic equivalents:	2 mg buprenorphine / 0.5 mg naloxone 8 mg buprenorphine / 2 mg naloxone
<i>Zubsolv</i> <sup>®</sup> (Buprenorphine and naloxone sublingual tablets):	1.4 mg buprenorphine / 0.36 mg naloxone 2.9 mg buprenorphine / 0.7 mg naloxone 5.7 mg buprenorphine / 1.4 mg naloxone 8.6 mg buprenorphine / 2.1 mg naloxone 11.4 mg buprenorphine / 2.6 mg naloxone
<i>Suboxone</i> <sup>®</sup> sublingual film (Buprenorphine and naloxone sublingual film):	2 mg buprenorphine / 0.5 mg naloxone 4 mg buprenorphine / 1 mg naloxone 8 mg buprenorphine / 2 mg naloxone 12 mg buprenorphine / 3 mg naloxone
<i>Bunavail</i> <sup>®</sup> (Buprenorphine hydrochloride and naloxone hydrochloride buccal film):	2.1 mg buprenorphine / 0.3 mg naloxone 4.2 mg buprenorphine / 0.7 mg naloxone 6.3 mg buprenorphine / 1 mg naloxone

# How Long Should Buprenorphine Maintenance Continue?

- No data to provide guidance on how long to treat a patient with buprenorphine/naloxone maintenance
- Studies as long as 16 weeks show high relapse rates with medical withdrawal (Weiss et al., 2011)
- Patients can be retained long term; showed approximately 75% retention at one year with maintenance (Kakko et al., 2003)
- Continue maintenance as long as patient is benefitting from treatment (opioid/other drug use, employment, educational goals pursued, improvement in relationships, improvement in medical/mental illnesses, engaged in psychosocial treatment)

## Summary

### Summary

Total Prescriptions: 73  
 Total Prescribers: 8  
 Total Pharmacies: 3

### Narcotics \* (excluding buprenorphine)

Current Qty: 0  
 Current MME/day: 0.00  
 30 Day Avg MME/day: 0.00

### Sedatives

Current Qty: 0  
 Current mg/day: 0.00  
 30 Day Avg mg/day: 0.00

### Buprenorphine

Current Qty:  
 Current mg/day:  
 30 Day Avg mg/day:

## Prescriptions

Fill Date	ID	Written	Drug	Qty	Days	Prescriber	Rx #	Pharmacy	Refill	Daily Dose *	Pymt Type
08/10/2019	3	07/31/2019	Suboxone 8 Mg-2 Mg Sl Film	10.00	5	Be Roj	3195710	Pha (9205)	0	16.00 mg	Other
08/05/2019	3	07/31/2019	Suboxone 8 Mg-2 Mg Sl Film	10.00	5	Be Roj	3195710	Pha (9205)	0	16.00 mg	Other
07/31/2019	3	07/30/2019	Buprenorphin-Naloxon 8-2 Mg Sl	30.00	15	Da Les	3194958	Pha (9205)	0	16.00 mg	Other
07/31/2019	3	07/31/2019	Suboxone 8 Mg-2 Mg Sl Film	10.00	5	Be Roj	3195710	Pha (9205)	0	16.00 mg	Other
07/31/2019	3	07/30/2019	Alprazolam 1 Mg Tablet	30.00	30	Be Roj	3194852	Pha (9205)	0	2.00 LME	Other
07/12/2019	1	07/11/2019	Buprenorp-Nalox 4-1 Mg Sl Film	42.00	14	Da Les	849318	Pon (7877)	0	12.00 mg	Comm Ins
07/08/2019	1	07/08/2019	Buprenorp-Nalox 4-1 Mg Sl Film	21.00	7	Da Les	848683	Pon (7877)	0	12.00 mg	Comm Ins
06/24/2019	2	06/24/2019	Buprenorphine 2 Mg Tablet Sl	42.00	14	Da Les	4001034	Pon (1034)	0	6.00 mg	Comm Ins
06/19/2019	2	06/19/2019	Buprenorp-Nalox 4-1 Mg Sl Film	10.00	6	Da Les	4001021	Pon (1034)	0	6.67 mg	Comm Ins
06/03/2019	1	06/03/2019	Diazepam 5 Mg Tablet	30.00	30	Ar Mar	844328	Pon (7877)	0	0.50 LME	Comm Ins
05/23/2019	1	05/23/2019	Methadone Hcl 10 Mg Tablet	28.00	7	Ar Mar	842906	Pon (7877)	0	120.00 MME	Comm Ins
05/10/2019	1	04/16/2019	Oxycodone Hcl 15 Mg Tablet	120.00	30	Ke Ric	837419	Pon (7877)	0	90.00 MME	Comm Ins
05/02/2019	1	05/02/2019	Methylphenidate 10 Mg Tablet	90.00	30	Ar Mar	839666	Pon (7877)	0		Comm Ins
04/17/2019	1	04/16/2019	Methadone Hcl 10 Mg Tablet	90.00	30	Ke Ric	837418	Pon (7877)	0	90.00 MME	Comm Ins
04/10/2019	1	04/01/2019	Oxycodone Hcl 15 Mg Tablet	120.00	30	Ke Ric	836268	Pon (7877)	0	90.00 MME	Comm Ins
03/25/2019	1	03/13/2019	Oxycodone Hcl 15 Mg Tablet	28.00	7	Ke Ric	831929	Pon (7877)	0	90.00 MME	Comm Ins



# UDT: Detection Windows in Urine

Drug/Medication	Primary Metabolite	Ave. Detection Time (days)
Opiates (heroin, morphine)	Morphine	2-3
Semisynthetic Opioids (oxycodone, hydrocodone)	Variable Must be tested specifically	2-3
Methadone	EDDP	2-3
Buprenorphine	Nor-buprenorphine	2-3
Cocaine	benzoylecgonine	2-3
Amphetamines		2-3
Benzodiazepine	Varies by medication type	Variable with half life Unreliable immunoassays
Marijuana Occasional Marijuana Chronic	THC	1-3 Up to 30

# Prescription Drug Monitoring Program (PDMP)

- State-wide system tracking prescriptions
  - Decreasing or preventing misuse of medications
  - Improving clinical decision making
- Pharmacies report information to state
- Information varies:
  - Schedule II, II and III, II-IV, II-V
  - Some selected non-scheduled medications with abuse potential: e.g. gabapentin, ephedrine
- Data availability
  - Format/eligibility vary by state

# RED FLAGS

- Strong preference for specific drug
- Multiple “allergies”
- Multiple Prescribers/Pharmacies
- Frequent visits to the ED
- “Eating”, injecting or snorting meds
- Refusing drug screen



**MISUSE**



# WHIZZINATOR



# EVIDENCE OF MISUSE

- Multiple early refill requests
- Refill requests after hours
- Multiple reports of lost/stolen Rx
- Rx from multiple sources w/o your knowledge
- Intoxication (observed or reported)
- Pressuring or threatening behavior
- Injecting or snorting
- Pattern of behavior that suggests recurring misuse
  - Unsanctioned dose escalations
  - Deteriorating function
  - Failure to comply (recs or screens)
- Demands prompt intervention

# Street Values of Legal Drugs

<b>Generic Name</b>	<b>Brand Name</b>	<b>Brand Cost/100</b>	<b>Street Value per 100</b>
<b>Tylenol w/ Codeine</b>	Tylenol #3	\$56.49	\$800.00
<b>Diazepam</b>	Valium 10mg	\$298.04	\$1,000.00
<b>Hydromorphone</b>	Dilaudid 4 mg	\$88.94	\$10,000.00
<b>Methylphenidate</b>	Ritalin	\$88.24	\$1,500.00
<b>Oxycodone</b>	Oxycontin 80 mg	\$1,081.36	\$8,000.00

Source: Kentucky All Schedule Prescription Electronic Reporting (KASPER). A Comprehensive Report on Kentucky's Prescription Monitoring Program Prepared by the Cabinet for Health and Family Services Office of the Inspector General, Version 1~3/29/2006

# Relapse: Prevention and Management

- Relapse is a process in which return to substance use results from maladaptive responses to stressors and stimuli
- Relapse precipitants
  - Negative affect (anger, fatigue, boredom, family conflict)
  - Cravings/cues (people, places and things)
  - Social pressure (social functions)
- Education patients about how to anticipate/avoid/cope with these precipitants
- After initial use (a lapse), patients may experience guilt, shame resulting in return to heavy use
- Recovery is a learning process, lapses provide valuable lessons
- Return to substance use requires prompt evaluation and possible referral to additional or higher level of care

# Legislation



# Drug Addiction Treatment Act (DATA) of 2000

- Signed by President Clinton in October 2000
- Allows prescription of an opioid to an opioid addicted person for the treatment of addiction, with certain restrictions.
- Prior to this Act, only licensed methadone treatment programs

# DATA 2000, obtaining Buprenorphine waiver

- MD/DO must have 8 hours of training in opioid by AMA, AAAP, ASAM, AOA, APA
- PA/NP must complete an additional 16 hours of training
- Providers must submit notification to Secretary of HHS of intent to prescribe and obtain a new DEA number. The regular DEA is retained for other scheduled substances. The new “X” DEA is used only for buprenorphine prescriptions.

# DATA 2000, restrictions: Medication allowed

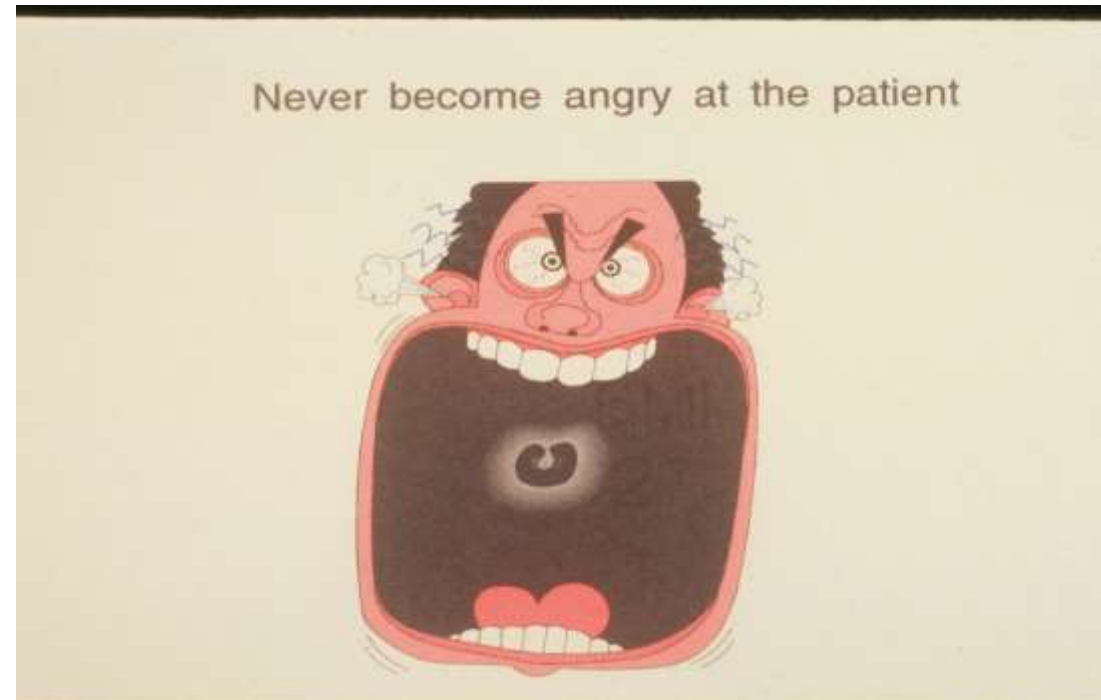
- Drug must be approved by FDA for use in treating addiction
- Medication must be DEA schedule III, IV, or V (*Methadone is schedule II*)
- Buprenorphine and Buprenorphine/naloxone sublingual tablets and film strips approved October 2002, are schedule III, and are the only the only medications fitting these restrictions

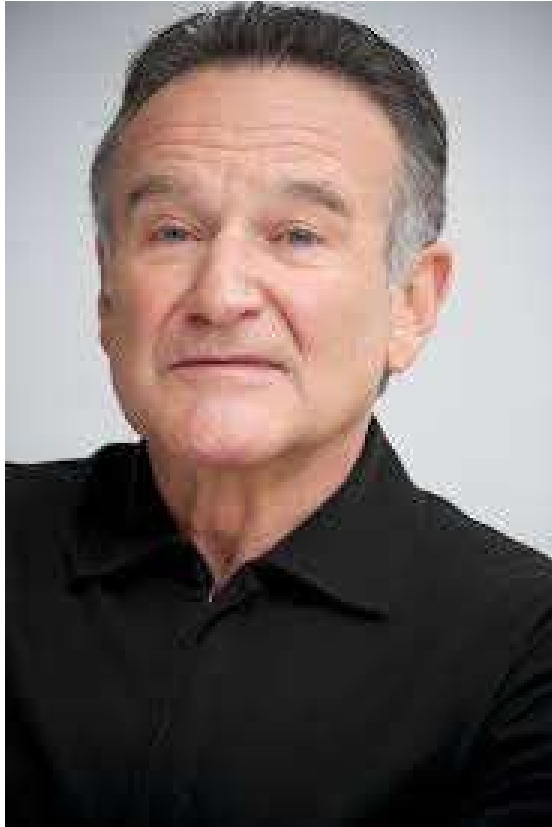
# DATA 2000, restrictions: number of patients

- 30 patients per provider during the first year of the waiver
- After the first year 100 patients per provider – a new waiver must be obtained
- Patient remains on your census until the last prescription has run out
- Hospitalized patients with a primary diagnosis of other than opioid dependence can be ordered buprenorphine by a non-waivered provider

Never judge, takes all those that  
comes before you!

- Never become angry at the patient
- Offer easier goals if necessary
- Praise even with moderate improvement
- Manage the patient's entire care
- Encourage support groups and material
- Encourage the use of different tools





Robin William 1951 - 2014



Seymour Hoffman 1967 - 2014

Questions?