OVERVIEW OF MEDICATION ASSISTED TREATMENT IN THE EMERGENCY ROOM

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May 21, 2019

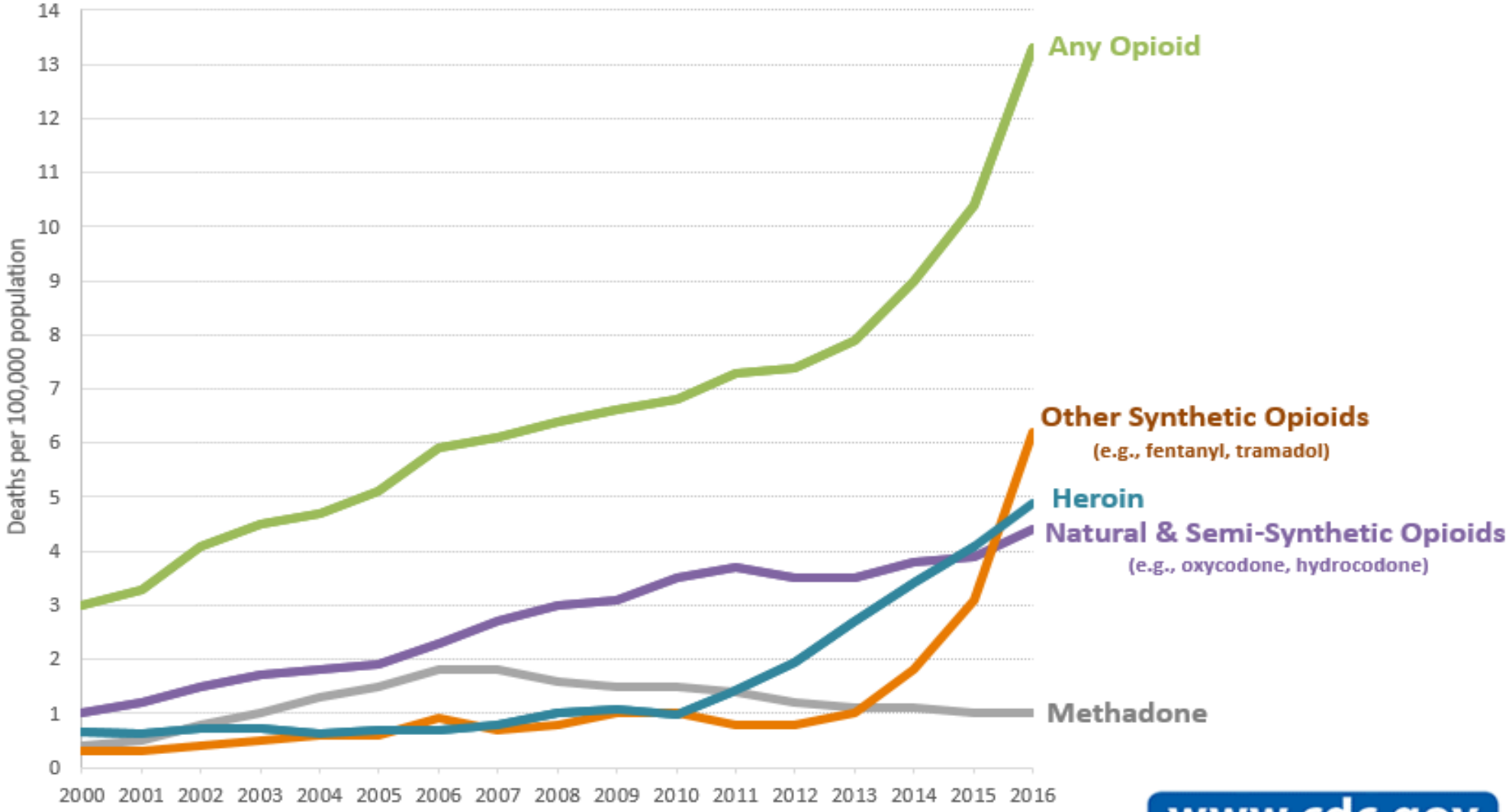
OBJECTIVES

- The problem
- Overview of addiction and pathophysiology
- Description of Medication Assisted Treatment (MAT)
- Role of the Emergency Room for initiation of MAT
- Barriers to Care
- Brief overview of the ED Coordination of Care Grant
- X waiver
- Peer Support-Thrive: Jody Morgan

STAGGERING NATIONAL STATISTICS

- 1999-2017 >400,000 people died from an opioid overdose (700, 000 all overdose deaths)
- **49,068** opioid related deaths in 2017 (>5x increase since 1999)
- Approximately 130 Americans die daily from an opioid overdose
- Probable underestimate as 1 in 5 death certificates do not list specific agent related to OD (polysubstance)
- White males 25-44 y/o highest heroin death rate

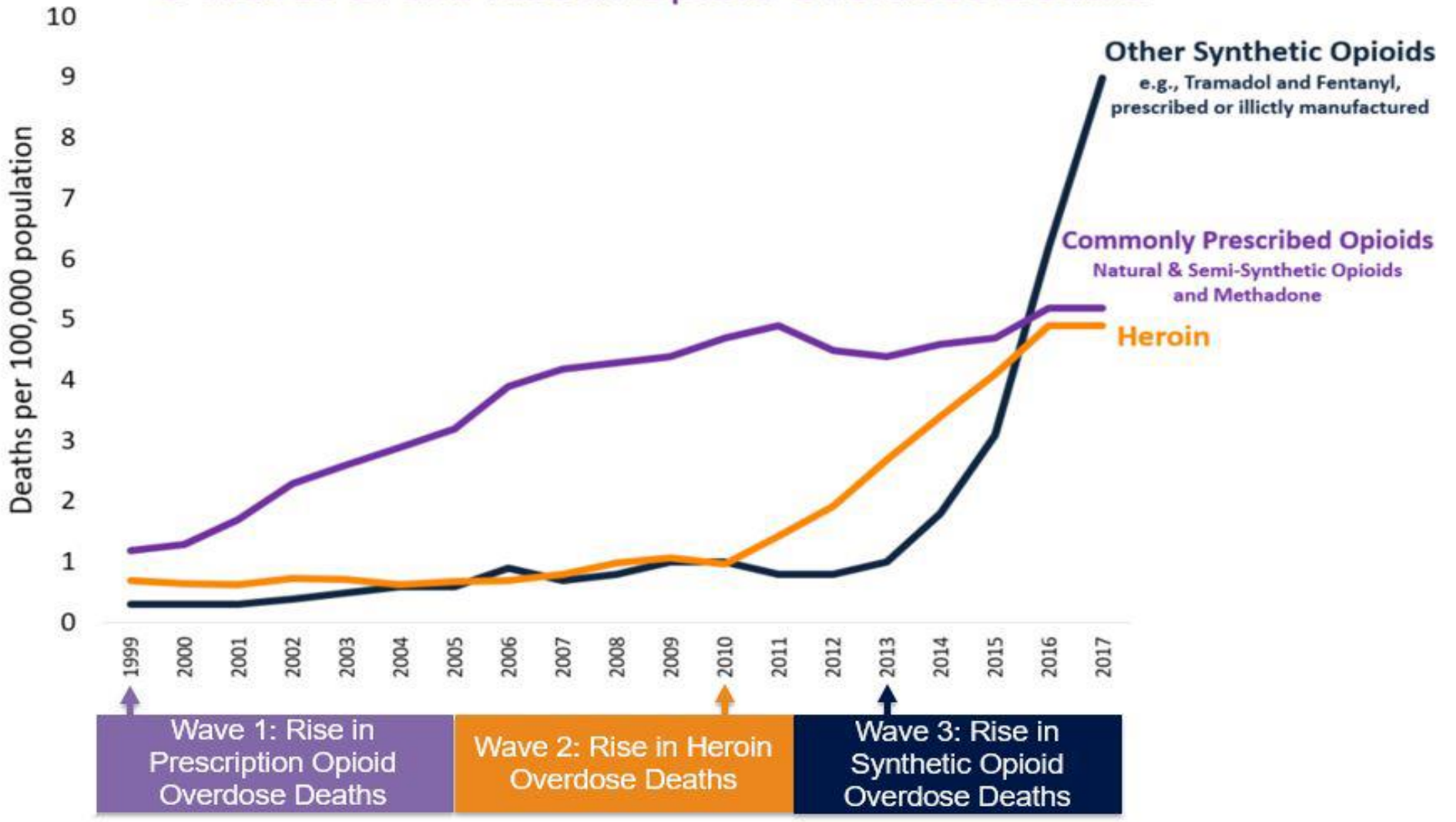
Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2016



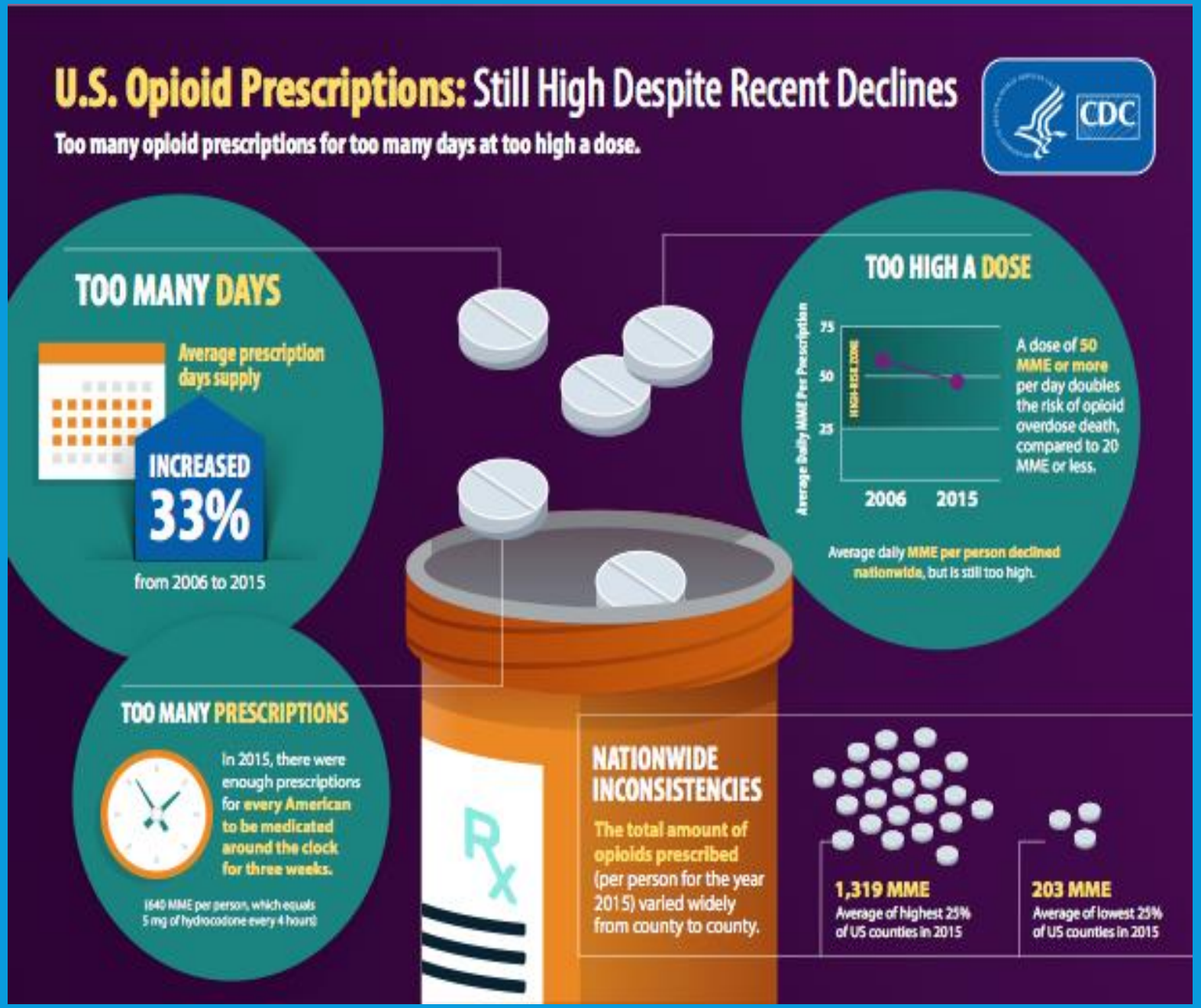
SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Ser vices, CDC; 2017. https://wonder.cdc.gov/.

www.cdc.gov
Your Source for Credible Health Information

3 Waves of the Rise in Opioid Overdose Deaths



SOURCE: National Vital Statistics System Mortality File.



2006 72.4-2012: 81 scripts/100 people (>255 million scripts in 2012)

2012-2017 decline to 59 scripts/100 people (191 million)

Nationwide decline since about 2012-2013

Some states still high: AL (107 scripts), NV and certain cities/counties (often rural)

Ohio in 2017: 63.5 prescriptions/100 people

OARRS queries up:

2016: 24 million

2017: 89 million

2017 DEATH RATE DUE TO DRUG OVERDOSES BY STATE

- 1. West Virginia: 57.8/100,000
- **2. Ohio: 46.3/100,000**
- 3. Pennsylvania: 44.3/100,000
- 4. District of Columbia: 44/100,000
- 5. Kentucky: 37.2/100,000

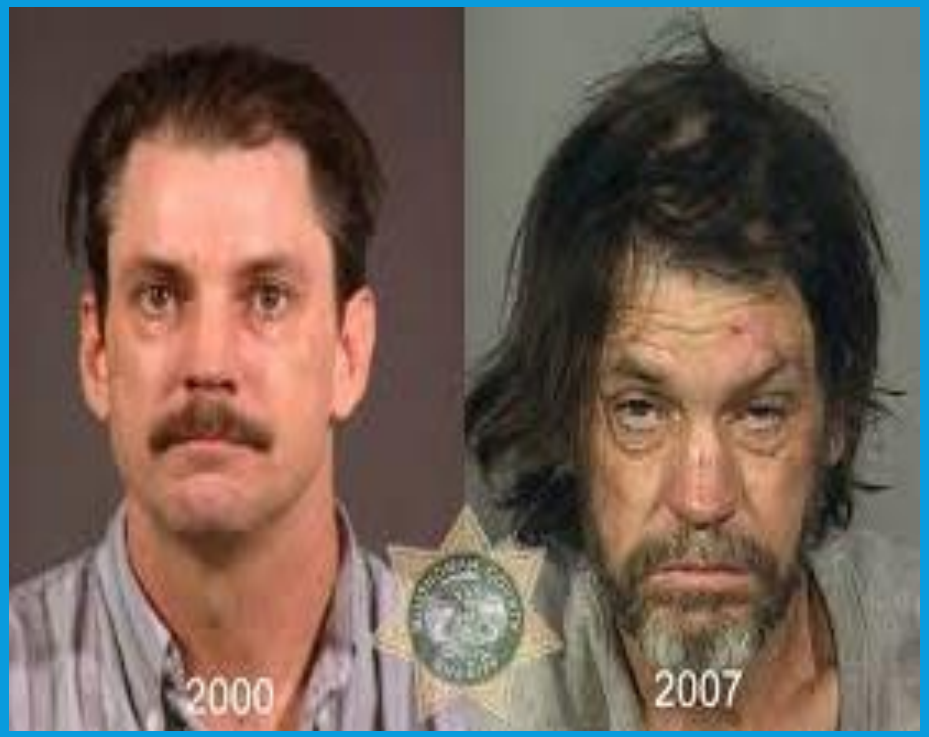
OHIO OVERDOSE DATA

- 1999-2011 death rate due to opioid related overdose increased **440%**
- **2017: 13-14 Ohioans die daily**
- 2008: 5213 overdoses, 2016: 27,336
- **2017: 4,854 deaths related to drug OD- increased,** cocaine/meth ⬆
  - **4162 opioids, 3431 fentanyl and analogues**

COSTS RELATED TO OPIOID OVERDOSE IN OHIO

- In 2012 $2 billion toward work loss and medical expenses related to unintentional fatal drug overdoses
- 2012: Inpatient hospital costs $39.1 million
- Total cost=average of $5.4 million/day in medical and work loss
- Average cost of intranasal Narcan kit: $40-$50

ADDICTION=SUBSTANCE USE DISORDER

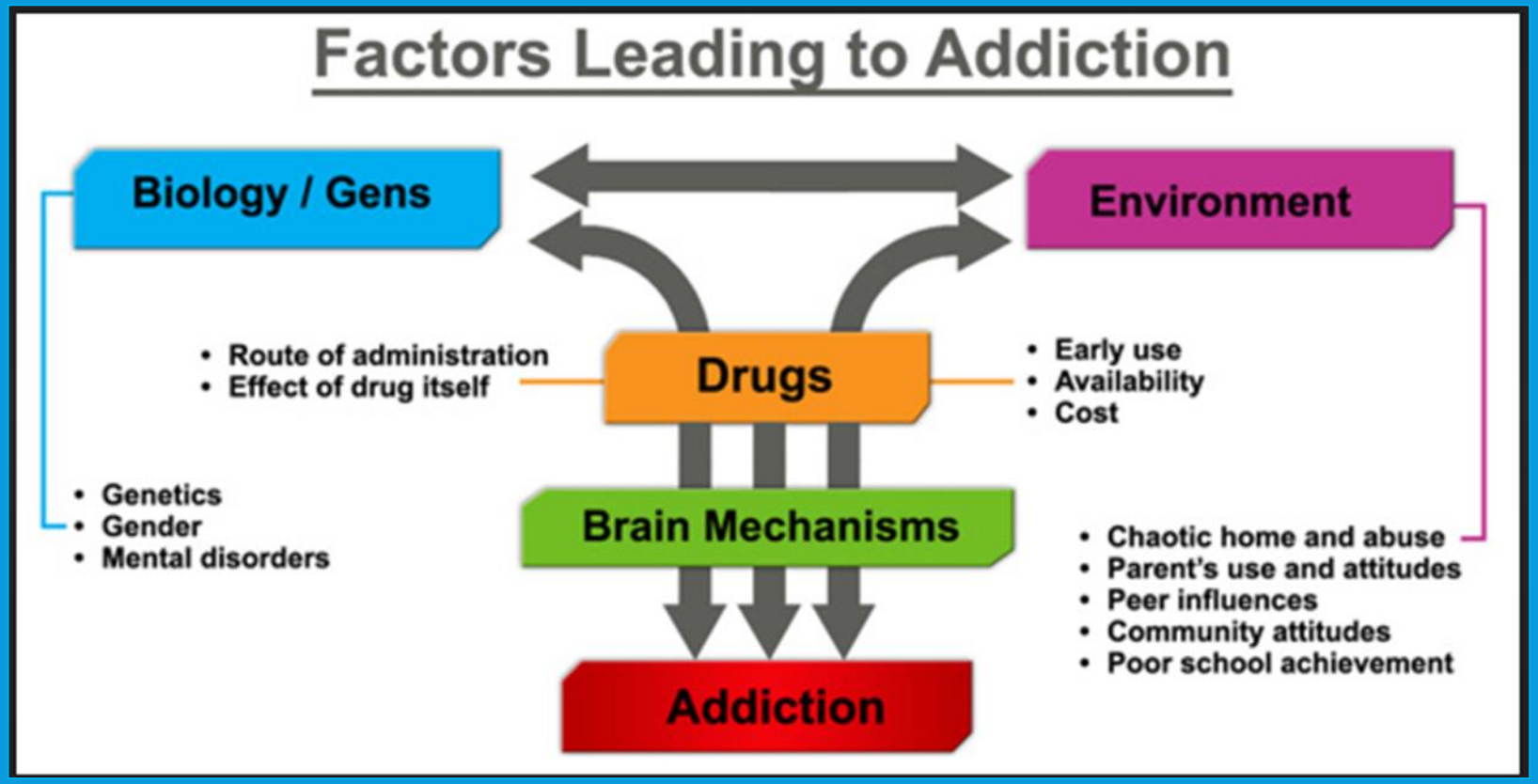


- Chronic relapsing condition
- Complex behavioral syndrome with physiological dependence
- Extreme tolerance and dependence
- Cycle of "spiraling dysregulation" of brain reward systems leading to compulsive behavior and loss of control over drug use: the hijacker
- **Loss of coping skills**

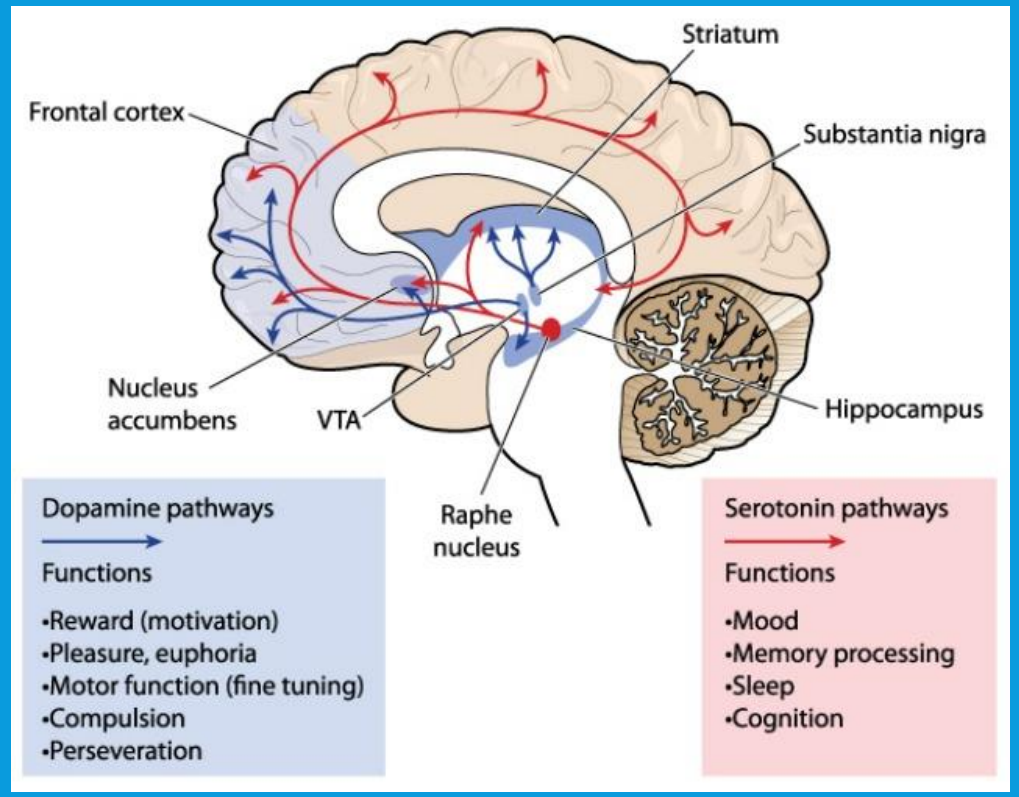
HOW DOES ADDICTION START?

- Drugs of abuse can release 5 to 10 times the amount of dopamine as natural rewards: Euphoria
- Onset can be immediate, prolonged, and often more intense than natural rewards (pending route of administration)
- Repeat use rewires the brain's reward circuitry with maladaptive behavioral patterns
- The effect of such a powerful reward strongly motivates people to take drugs again and again (craving)
  - Downregulation of dopamine receptors
  - Use to feel "normal"

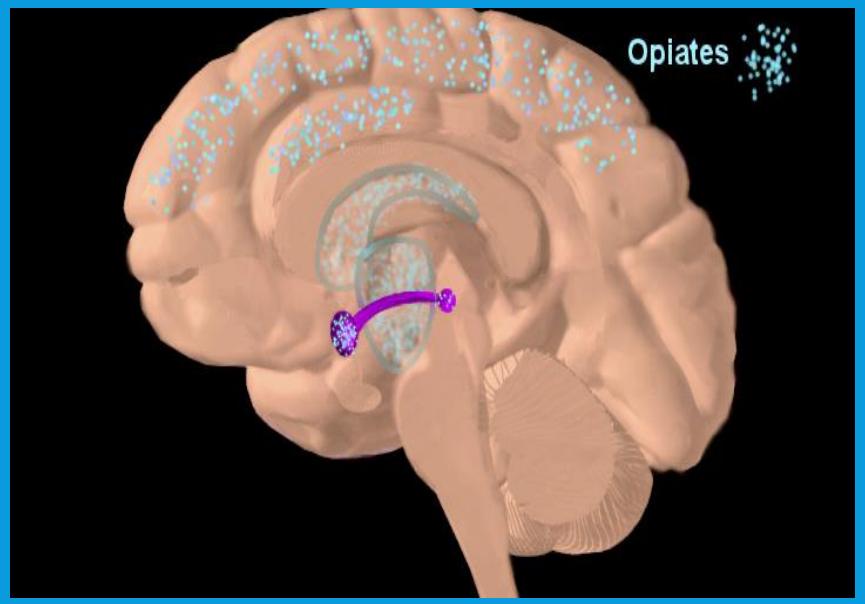
WHY DOESN'T EVERYONE GET ADDICTED?



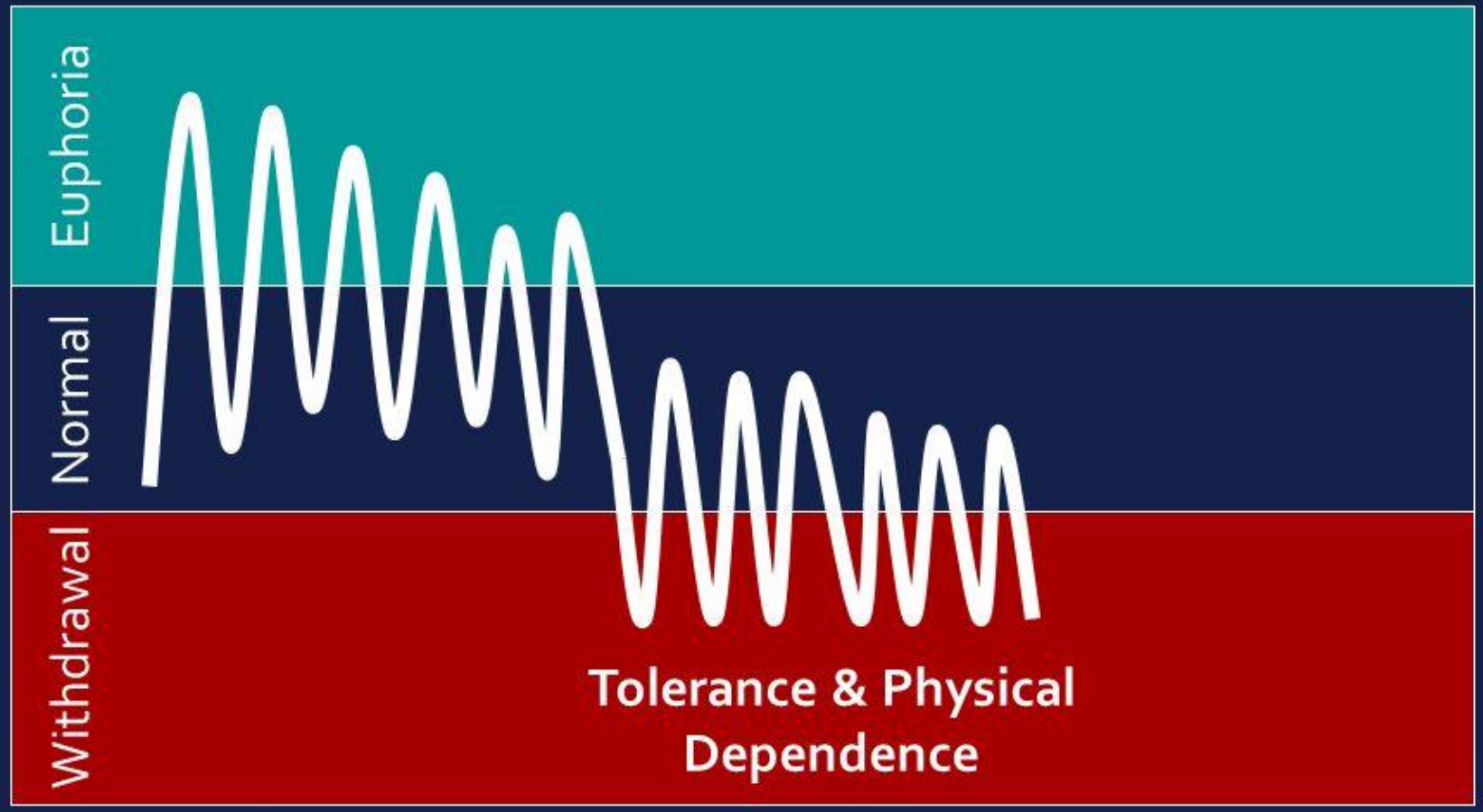
OPIATES AND BRAIN WIRING



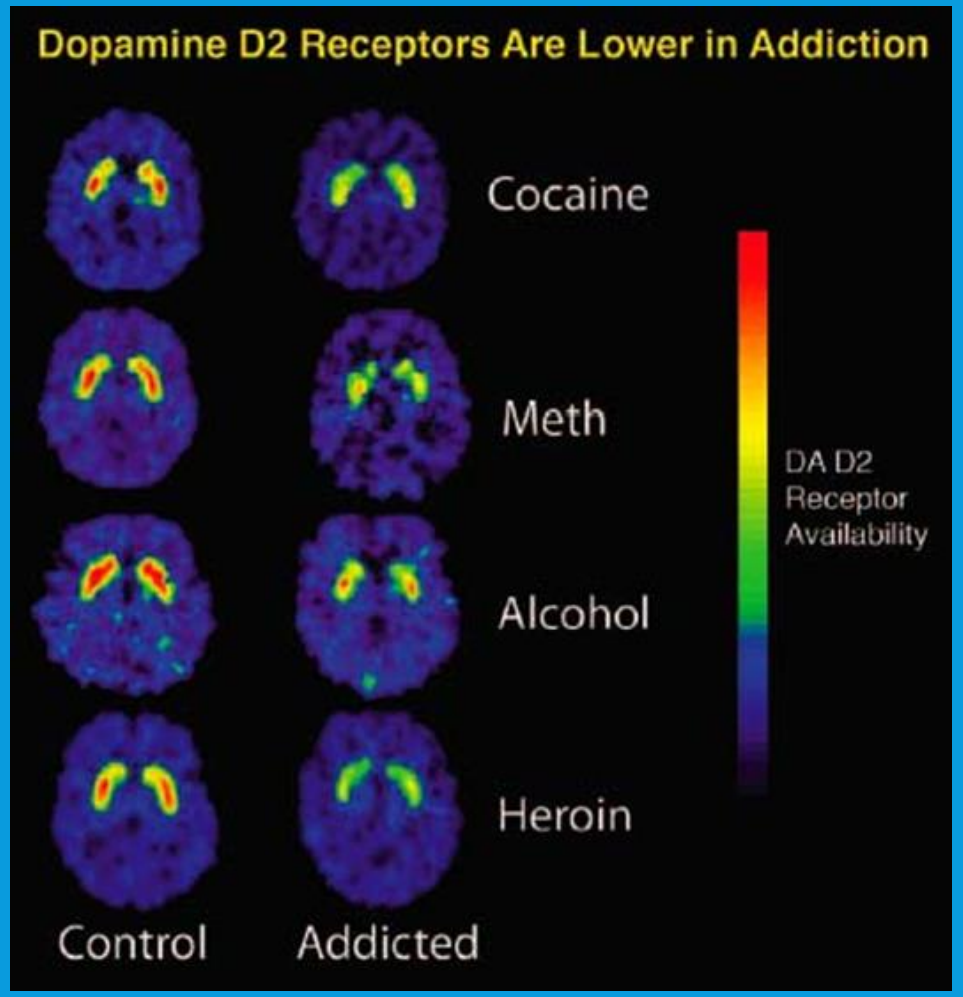
Ventral Tegmental Area: area of opioid concentration
-rewarding behaviors: euphoria and analgesia
-initially increases dopamine release, then downregulates: **Allostasis**



Natural History of Opioid Use Disorder



EFFECTS OF CHRONIC DRUG USE



Chronic use leads to dopamine downregulation in the brain cortex & reduced dopamine signaling

- Decreased euphoria
- Normal satisfactions get a very weak signal to the decision areas
- **Loss of enjoyment and satisfaction**

Priorities are rearranged

- Drug gives enough signal to remain salient
- Must take the drug to feel normal or at least less abnormal
- Normal reinforcers give less signal and are less important

WHAT IS MEDICATION-ASSISTED TREATMENT (MAT)?

Buprenorphine (semi-synthetic opioid)

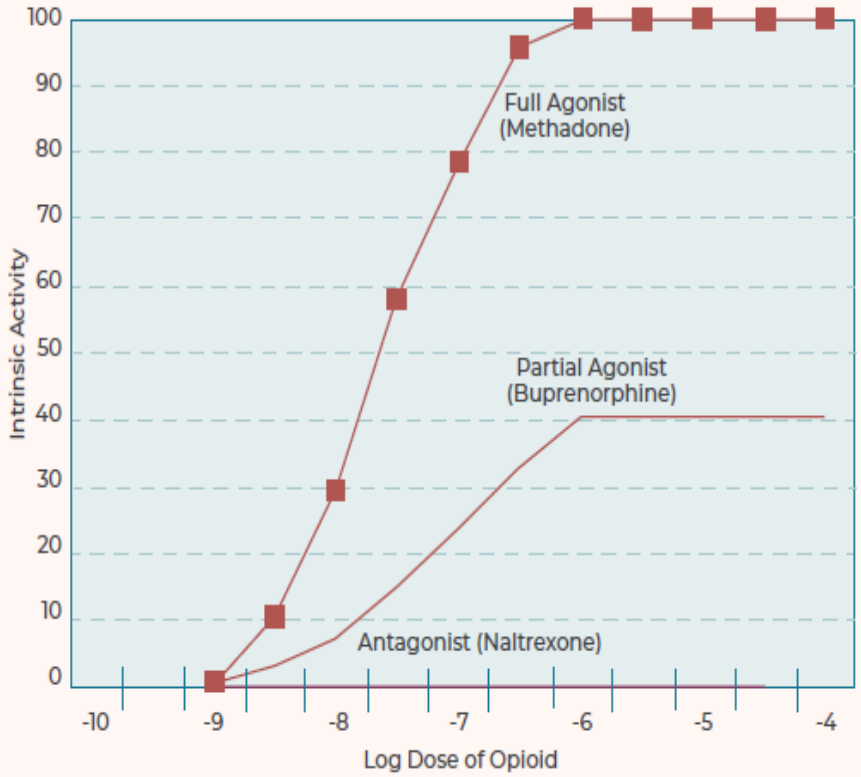
- Partial opioid agonist-antagonist with high affinity for the mu receptor; long acting, t ½ 37 hours
- Minimal respiratory depression and minimal euphoria (and decreases craving)
- Often combined with naloxone (film/tab) to prevent misuse/diversion, (not absorbed in GI tract)
- Monthly injections (SC) or subdermal implant (6 months)

- **Methadone**
  - Long acting full mu agonist
  - Typically only obtained outpatient from federally sanctioned Narcotic Treatment Programs

- **Naltrexone (Vivitrol)**
  - Mu antagonist, typically monthly injection Vivitrol; abstinence 7-10 days prior

BUPRENORPHINE PHARMACOLOGY

EXHIBIT 3A.4. Intrinsic Activity of OUD Medications[72]



- Ceiling effect: lower risk of respiratory suppression than with full agonist opioids
- Higher affinity for opioid receptors than other opioids which can precipitate withdrawal symptoms in patients who have recently used a full opioid agonist.

IS MAT EFFECTIVE TREATMENT?

- **Liebschultz JM et al. *JAMA* 2014. Buprenorphine treatment for hospitalized, opioid-dependent patients: A Randomized Clinical Trial**
  - **increased entrance into outpatient MAT therapy in patients discharged with buprenorphine and linkage appointment compared with detox and given information to make own appointments (72% vs 12%), improved adherence at 6 mos (17% vs 3%)**
- **Dunlap, et al. *JAMA* 2016-JAMA Clinical Guidelines Synopsis: Clinical Management of Opioid Use Disorder**
  - **MAT is superior to withdrawal alone in multiple studies**
- **Sordo et al. *BMJ* 2017. Mortality risk during and after opioid substitution treatment: systemic review and meta-analysis of cohort studies**
  - Meta-analysis: 19 eligible cohorts, following 122, 885 people treated with methadone 1.3-13.9 years and 15,831 people treated with buprenorphine over 1.1-4.5 years
  - **Retention in Methadone Maintenance Treatment (MMT) and Buprenorphine Maintenance Treatment (BMT) is associated with substantial reductions in the risk for all cause mortality and overdose**

WHY TARGET PATIENTS IN THE ER

- ED setting most frequently encounters patients with Opioid Use Disorder (OUD) given lack of routine/primary care option
- 50 % ER admissions involve a substance use disorder
- 30% increased ER visits in 2017 for non-fatal opioid overdoses
- Barriers to care and **treatment gap**
  - 2010: 23.1 million Americans with Substance Use Disorder needing treatment: 2.6 million were able to access (10%)
  - 2010 6 month waitlist for outpatient MAT versus immediate suboxone while waiting for treatment: 99% adherence to suboxone with decreased illicit opioid use, decreased craving, control of withdrawal symptoms with MAT alone

WHY INITIATE MAT IN THE ER?

- *Journal of American Medical Association* 2015 Gail D'Onofrio: ED initiated buprenorphine/naloxone treatment for opioid dependence: a randomized clinical trial
  - 78% initiated on Suboxone (in ED or home) engaged in treatment at 30 days (compared to 37% for referral only group and 45% of brief intervention group)
  - Urine Drug Screen in prior 7 days more likely to be free of illicit opioids
- *Annals of Internal Medicine Aug. 2018:* Medication for opioid use disorder after nonfatal opioid overdose and association with mortality: a cohort study
  - Large retrospective study of>17,000 ED visits for nonfatal opioid overdose
  - 4.9% all cause mortality and 2.2% opioid related mortality
  - If started on methadone or Suboxone, lowers to 2.5% for all cause mortality and 1.4% opioid related (no benefit with Vivitrol)

SUBOXONE MYTHS

- Replacement of one addiction for another
  - Addiction=compulsively taking a substance, despite harm;
  - taking a prescribed medication to manage a chronic disease, not unlike diabetes
  - While buprenorphine has analgesic properties, very minimal euphoria
- Too time consuming to initiate and the medication is "dangerous"
  - Simple screening, determine if in withdrawal, dosing is not complicated and much easier to start than insulin; very few side effects; opioids and NOACs are much more dangerous
- Detoxification is "effective"
  - NO! 90% relapse rate with detox alone; also increased rate of overdose
- Decrease opioid prescribing will "fix" the problem
  - Since 2016, prescribing patterns have declined, but death rate has increased (fentanyl)

HARM REDUCTION

- Naloxone
- *Medication Assisted Treatment (MAT) in the ER
- Immediate referral/linkage (RREACT)
- Needle Exchange/Safe places for use (Safe Point)
- Opioid Prescribing and Monitoring (OARRS)

TERMINOLOGY: ADDICTION VS DEPENDENCE AND TOLERANCE WITH MAT

- As a patient transitions to MAT, the compulsive behavior of addiction often stops and due to the long duration of MAT, cravings are often reduced, manageable or often eliminated
- Individuals are able to regain control over their drug use and no longer use despite harm
- There is no SUBSTITUTION of one medication for another-rather they have exchanged a life threatening scenario (such as severe OUD with risk of fatal OD) with a daily medication to treat a chronic disease
- Physical dependence to opioids persists; however, this is chronic disease process that can be managed and is now imminently less life threatening
  - 90% relapse rate with detoxification alone with OUD

BARRIERS

- Stigma among providers surrounding addiction and medication assisted treatment
- Pharmacy restrictions: retail and inpatient (cost, availability, lack of coordination)
- Institutional barriers
- EMR adaptation- screening, orders, discharge instructions
- Socioeconomic barriers: housing, insurance, lack of access to primary care, ongoing MAT prescriber
- Lack of residential options/sober living that allow individuals to continue MAT
- After hours care
- Regulations surrounding methadone as MAT
- Medically-complex patients requiring higher levels of care and continuing MAT upon discharge in skilled nursing facilities

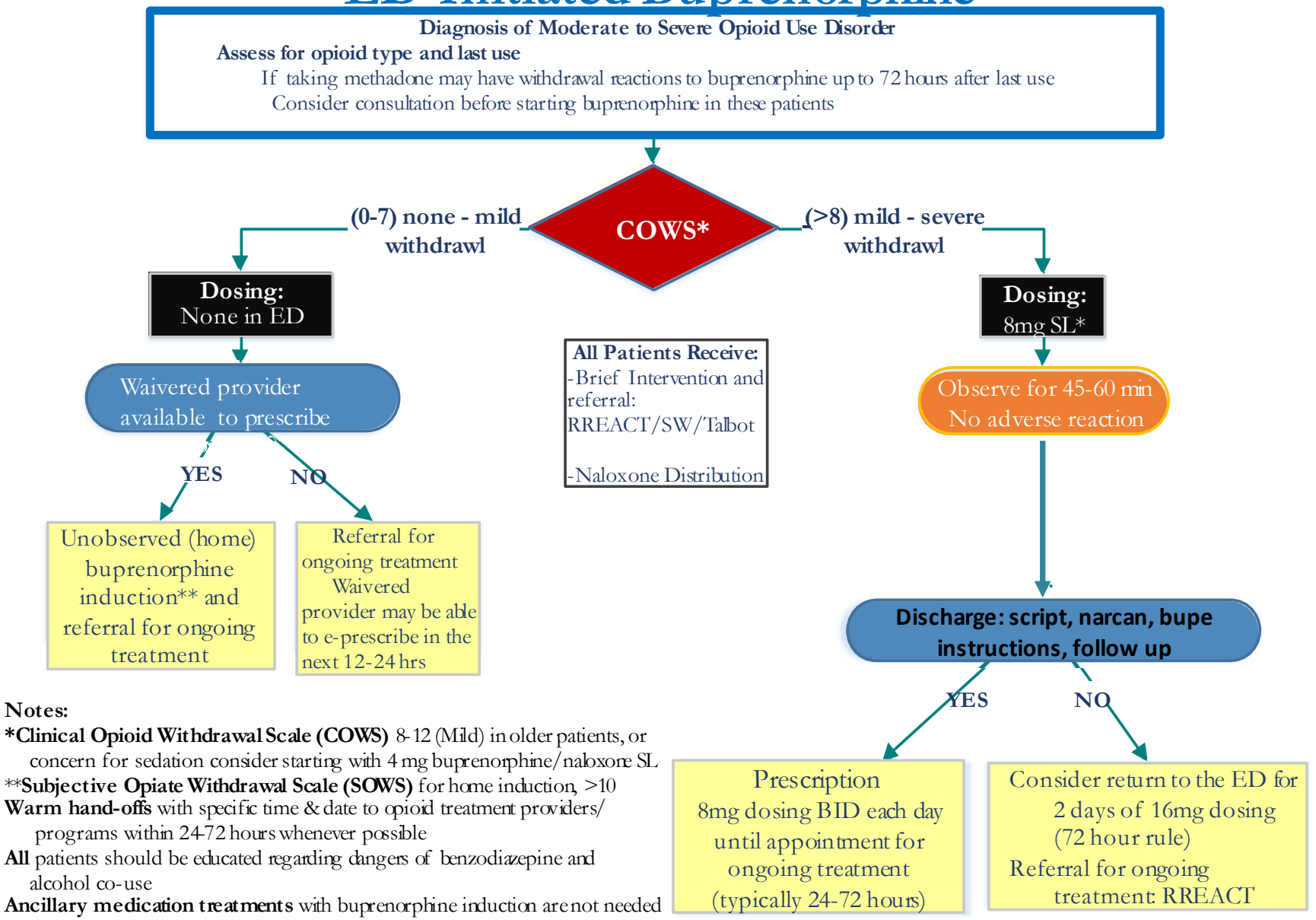
ED COORDINATION OF CARE GRANT

- OSU received the grant from Franklin County Public Health in fall 2018
  - Grant period 10/1/2018-8/31/2019
- ODH gave three grants in total, being administrated by local public health
  - Summit County
  - Hamilton County
- **Main Objectives of the Grant**
  - Implement evidence based clinical practices in the ED setting
  - Improve care coordination

ED COORDINATION OF CARE COMPONENTS

- Implement evidence-based clinical practices in the ED setting
  - Development of policies/procedures
  - Training of staff/providers
  - Screening and identification of those with Opioid Use Disorder
  - Initiation of Medication-Assisted Treatment
  - Provision of harm reduction (Narcan distribution)
- Care coordination
  - Engagement using peer support - Thrive
  - Increase in social work support for care coordination
  - Linkage for those who are ready and willing
    - RREACT
    - Talbot Hall
  - Care of Special Populations: OB/STEPP Clinic, medically complex
  - Treatment Finder development

ED-Initiated Buprenorphine



Notes:

***Clinical Opioid Withdrawal Scale (COWS)** 8-12 (Mild) in older patients, or concern for sedation consider starting with 4 mg buprenorphine/naloxone SL

****Subjective Opiate Withdrawal Scale (SOWS)** for home induction, >10

Warm hand-offs with specific time & date to opioid treatment providers/ programs within 24-72 hours whenever possible

All patients should be educated regarding dangers of benzodiazepine and alcohol co-use

Ancillary medication treatments with buprenorphine induction are not needed

A Guide for Patients Beginning Buprenorphine Treatment at home

Timing	MUST FEEL SICK!	> 3 symptoms	>10 on SOWS
>12 hours if injected/snorted	Restlessness	Body aches	Goose Pimples
>16 hours if swallowed	Heavy yawning	Tremors/twitching	Runny Nose
48-72 hours (methadone)	Big pupils	Chills or sweating	Nausea, vomiting, or diarrhea
		Anxious or irritable	

Day 1 (8 mg)

- Take the first dose once in withdrawal
- Put the tablet or strip under your tongue
- Keep it there until fully dissolved
- (15 minutes)
- Do not swallow the medicine
- No eating or drinking at the same time
- You should feel better in less than 45 mins

Day 2, until appointment

- 8mg twice a day, total dose 16mg
- Some may opt to take both tabs once-a-day
- Do not exceed 16 mg until seen by your MAT prescriber, in less than 72 hours
- Return to the ED if you feel worse

Name: _____

DOB: _____

IT MATTTRs Colorado

Subjective Opiate Withdrawal Scale (SOWS)

Instructions: We want to know how you're feeling. In the column below today's date and time, use the scale to write in a number from 0-4 about how you feel about each symptom right now.

Scale: **0 = not at all** **1 = a little** **2 = moderately** **3 = quite a bit** **4 = extremely**

DATE						
TIME						
SYMPTOM		**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
1	I feel anxious					
2	I feel like yawning					
3	I am perspiring					
4	My eyes are tearing					
5	My nose is running					
6	I have goosebumps					
7	I am shaking					
8	I have hot flushes					
9	I have cold flushes					
10	My bones and muscles ache					
11	I feel restless					
12	I feel nauseous					
13	I feel like vomiting					
14	My muscles twitch					
15	I have stomach cramps					
16	I feel like using now					
TOTAL						

Mild Withdrawal = score of 1 – 10
Moderate withdrawal = 11 – 20
Severe withdrawal = 21 – 30

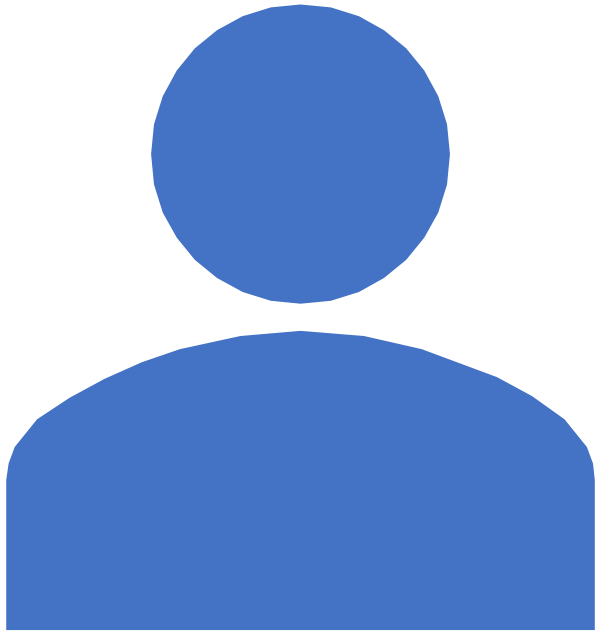
GETTING A SUBOXONE WAIVER

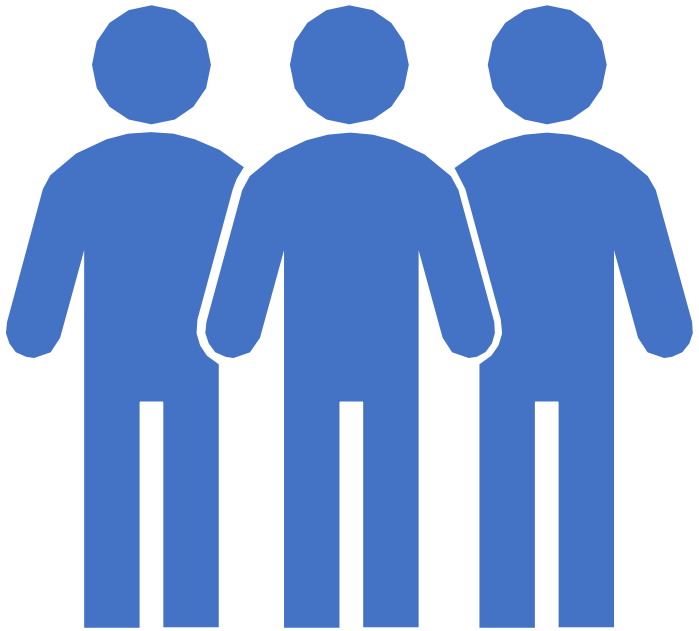
- Training
  - 8 hour online course for physicians through ASAM and SAMHSA, or AOAAM
  - 24 hour online course for NP's and PA's
  - Ohio also offering reimbursement for your time to get trained (1.5 day course):
    - Next training at OSUWMC on 6/13-6/14
- After completing training, apply for DEAX
- Providers are limited in how many patients they can treat at a time
  - 30 for the first year
  - 100 after 1 year of prescribing
  - Up to 275 after 2 years of prescribing if in qualified practice settings
- There are laws regarding how often patients need to be seen
  - Monthly for the first year, then can space out
  - Must also be in counseling

https://www.samhsa.gov/medication-assisted-treatment/buprenorphine-waiver-management

What services do peer supporters provide?

What is Peer Support?





Gap in Treatment

Nearly 20.5 million Americans suffer from a substance use disorder (SUD), yet only 1 in 10 people with SUD receive treatment.

What's The Difference

	Follows HIPAA/42 CFR	Professionally Trained	Shares Lived Experience	Diagnose & Treat	12-Step Program	Person Centered Care	Community Liaison
Peer Supporter	✔	✔	✔			✔	✔
Sponsor			✔		✔		
Counselor or CDCA	✔	✔	Possible	✔		✔	Possible
Social Work	✔	✔		✔		✔	Possible

What Peer Support Is

Transportation: : Drive Peer to appointments, meetings or other recovery based activities

Clinical Care: Provide contact information to local hospitals, IOP, treatment centers, recovery centers, psychiatry, psychology etc.

Legal Aid: Give peers information and resources to legal aid and other legal resources.

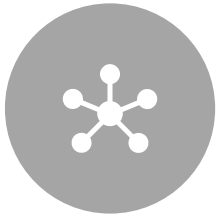
Contact with Outside Entities: Provide phone numbers and other resources to the peer in order to contact resources such as: food, shelter, meetings, recovery support and other needs.

Advocacy: Help to teach advocacy skills to the peer so peer may advocate for themselves in situations.

Case Management: Provide resources to assist in meeting current case management directives. Encourages person-driven care

Why Peer Support

TO INSPIRE HOPE



SHARE LIVED EXPERIENCE TO CONNECT

LISTEN, UNDERSTAND AND PROVIDE EMPATHY

OVERCOME BARRIERS IN RECOVERY

GROW SOCIAL SKILLS

DEVELOP RELAPSE PREVENTION PLAN

DEVELOP RECOVERY GOALS

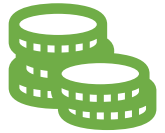
Efficacy of Peer Support

Improve quality of life

Improve engagement and satisfaction with services and supports

Improve whole health, including chronic conditions like diabetes

Decrease hospitalizations and inpatient days



Reduce the overall cost of services

Case Study – Emergency Room Peer Support

- Female
- Presented in ED following overdose
- Previous use of cocaine and benzodiazepine
- Met with peer coach in emergency room
- Transported to treatment from emergency room
- Then linked with community peer support

Contact Information

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