



Boonshoft
School of Medicine

WRIGHT STATE UNIVERSITY

Substance Use Disorders

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**Wright OUTT
Opioid Use Treatment Training Program
H79TI085526-01**

**Department of Health and Human Services
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Treatment**

Objectives

1. Understand the epidemiology and neurobiology of addiction.
2. Utilize appropriate language that reduces stigma in treating substance use disorders.
3. Complete a thorough intake and discuss / prescribe medications for opioid use disorder.
4. Understand the differences of OUD and SUD in special populations and co occurring disorders.

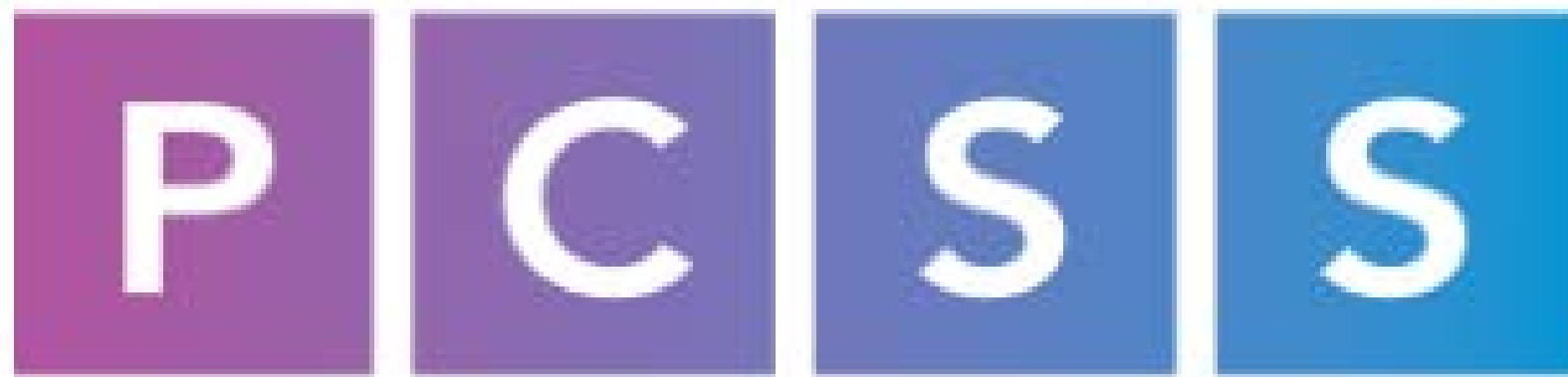


Outline

- ✦ Introduction
 - ✦ Epidemiology
 - ✦ Neurobiology
 - ✦ ASAM Spectrum of Use
 - ✦ Language & Stigma
 - ✦ Evaluation
 - ✦ MI/SBIRT
 - ✦ ASAM Levels of Care
 - ✦ Harm Reduction
 - ✦ OUD
 - ✦ UDS Testing
 - ✦ Long Term Management
 - ✦ OUD Treatment
 - ✦ Co-Occuring Disorders
 - ✦ Induction
 - ✦ Pregnancy
 - ✦ Pain Management
 - ✦ Other Populations
-

Introduction

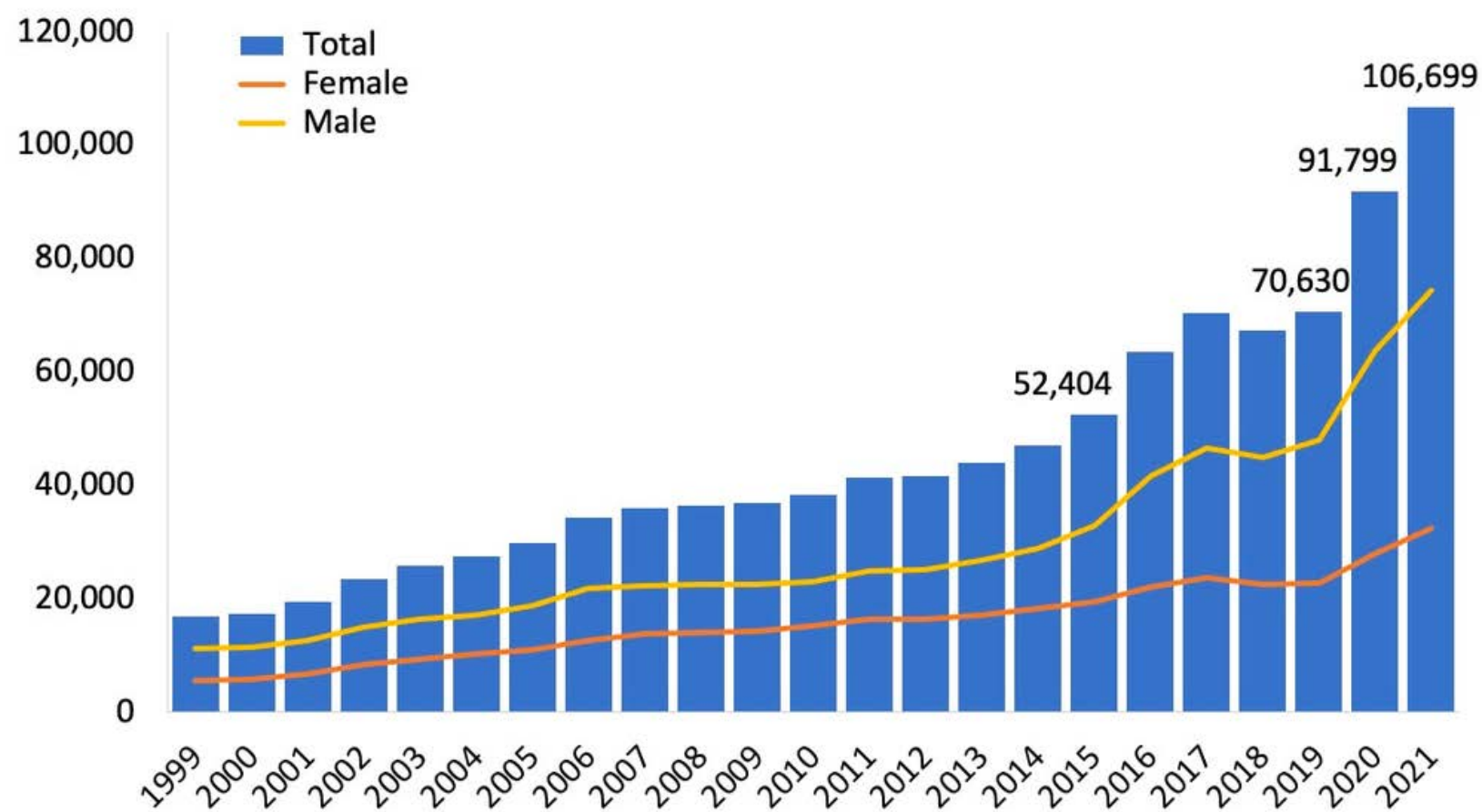
Much of the following content is taking from the PCSS 8 hour MOUD training. It has been amended and developed in order to be more practical and applicatoin based for you learners here today.



Providers
Clinical Support
System

Why is this training so important?

Figure 1. National Drug-Involved Overdose Deaths*, Number Among All Ages, by Gender, 1999-2021



*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999–2021 on CDC WONDER Online Database, released 1/2023.

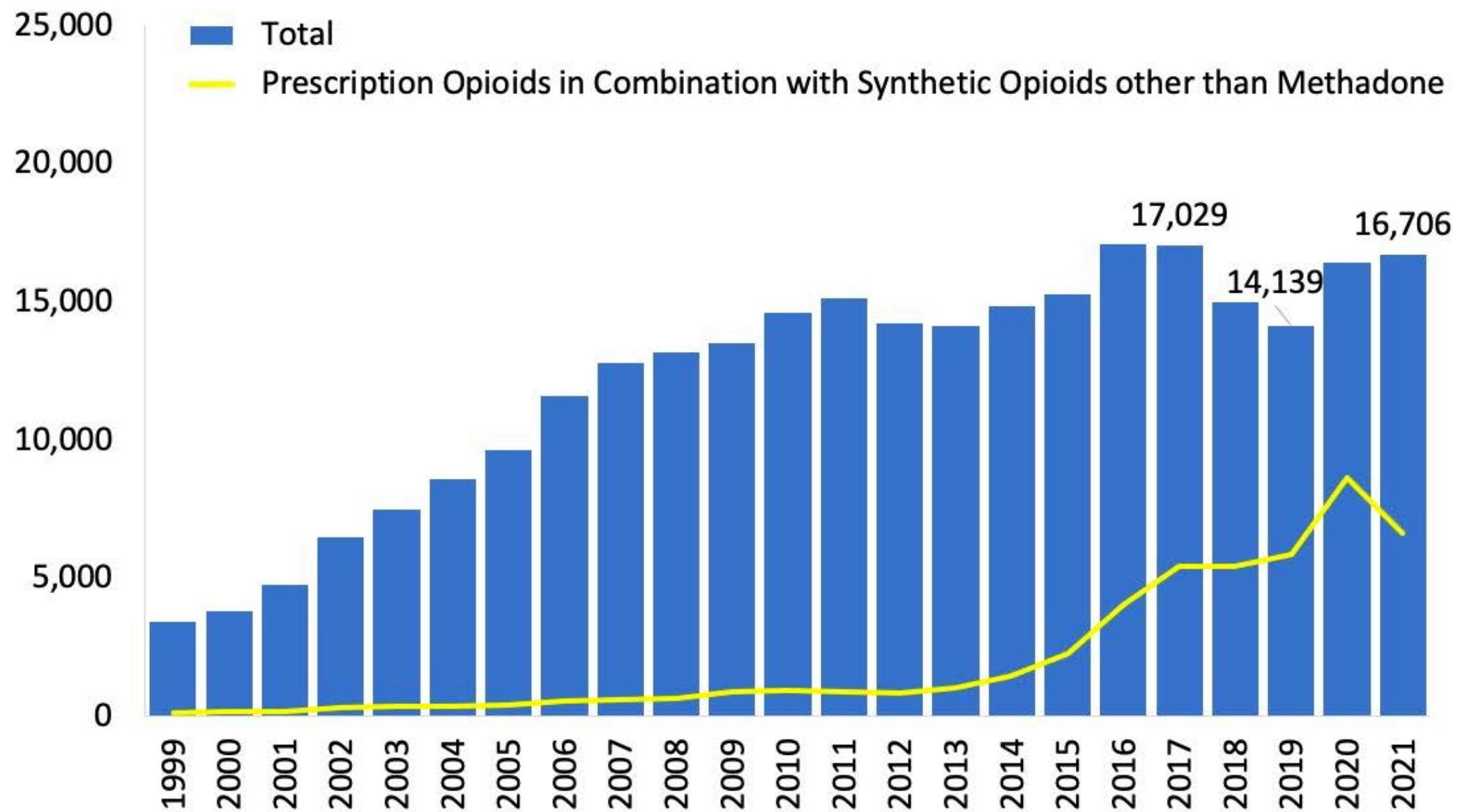
- More than 106,000 persons in the U.S. died from drug-involved overdose in 2021, including illicit drugs and prescription opioids.
- This figure shows the total number of U.S. drug overdose deaths involving select illicit or prescription drugs from 1999 to 2021.
- The bars are overlaid by lines showing the number of deaths by gender from 1999 to 2021
- Source: CDC WONDER

**Opioid overdose
is preventable!**



Epidemiology

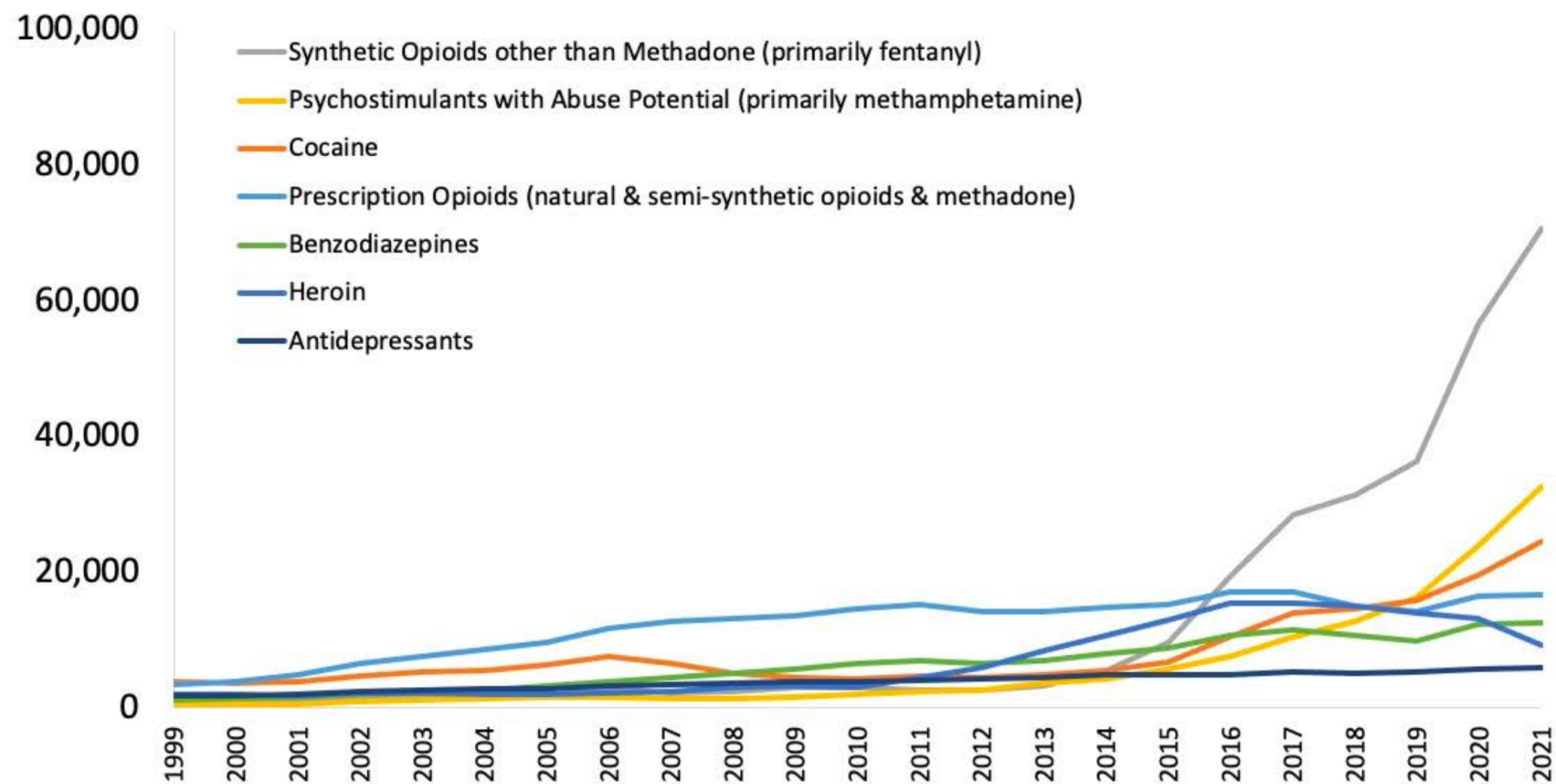
Figure 4. National Overdose Deaths Involving Prescription Opioids*, Number Among All Ages, 1999-2021



*Among deaths with drug overdose as the underlying cause, the prescription opioid subcategory was determined by the following ICD-10 multiple cause-of-death codes: natural and semi-synthetic opioids (T40.2) or methadone (T40.3). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

Epidemiology

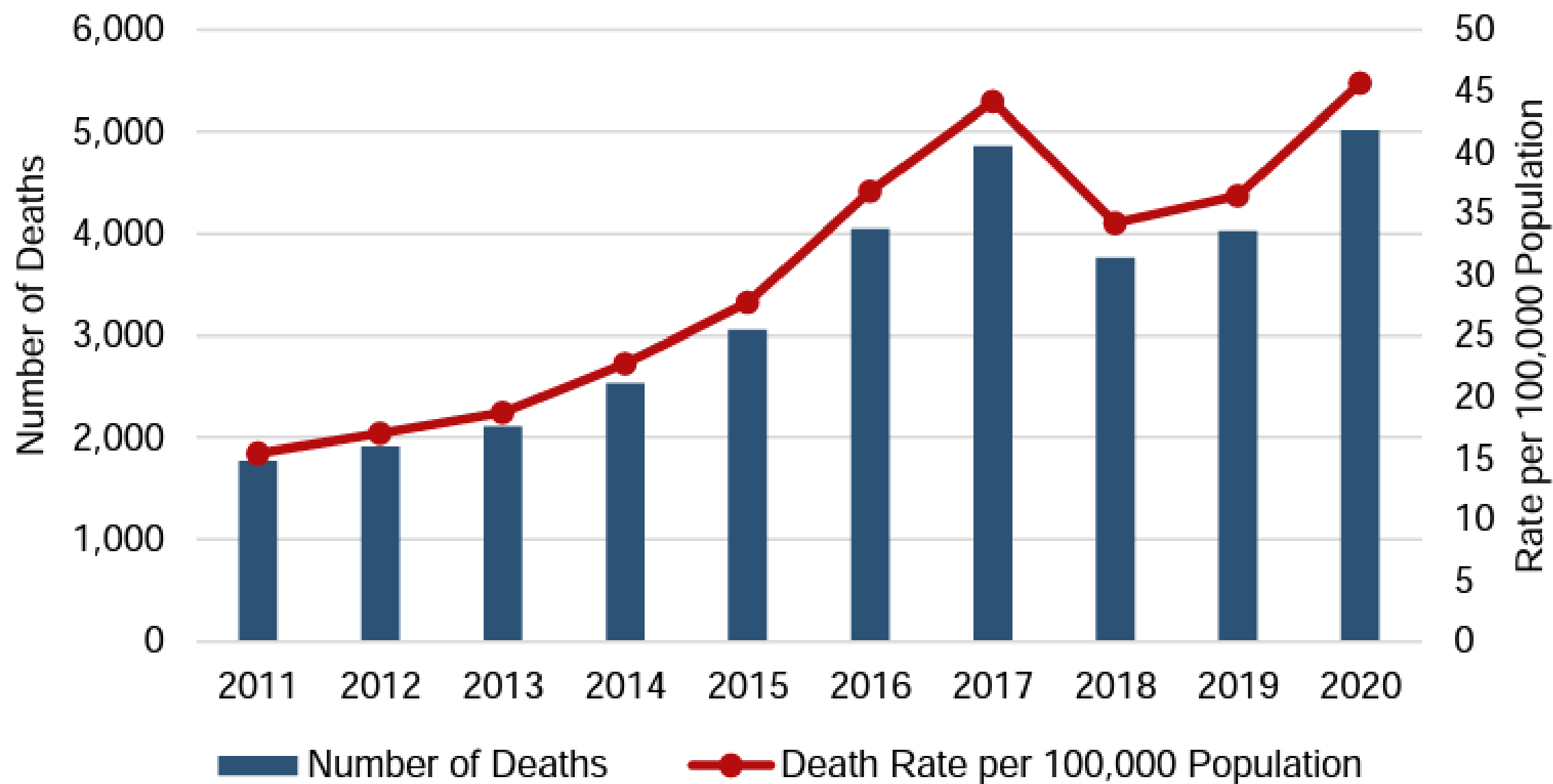
Figure 2. National Drug-Involved Overdose Deaths*, Number Among All Ages, 1999-2021



*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

Local Context: Ohio

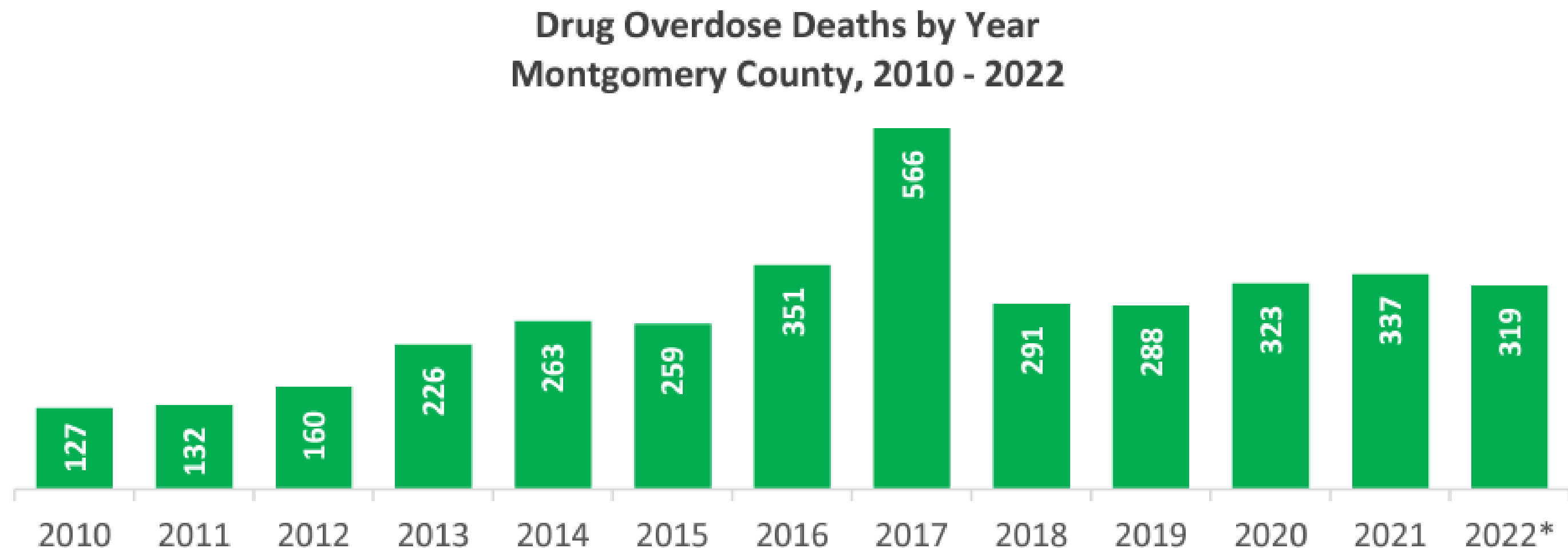
Figure 1. Number and Age-Adjusted Rate of Unintentional Drug Overdose Deaths by Year, Ohio, 2011-2020



2020 surpassed 2017 as the highest year for unintentional drug overdose deaths in Ohio, with 5,017 deaths and an age-adjusted rate of 45.6 deaths per 100,000 population. This was a 3% increase over 2017 and a 25% increase over 2019.

EVEN MORE Local Context: Montgomery County, Ohio

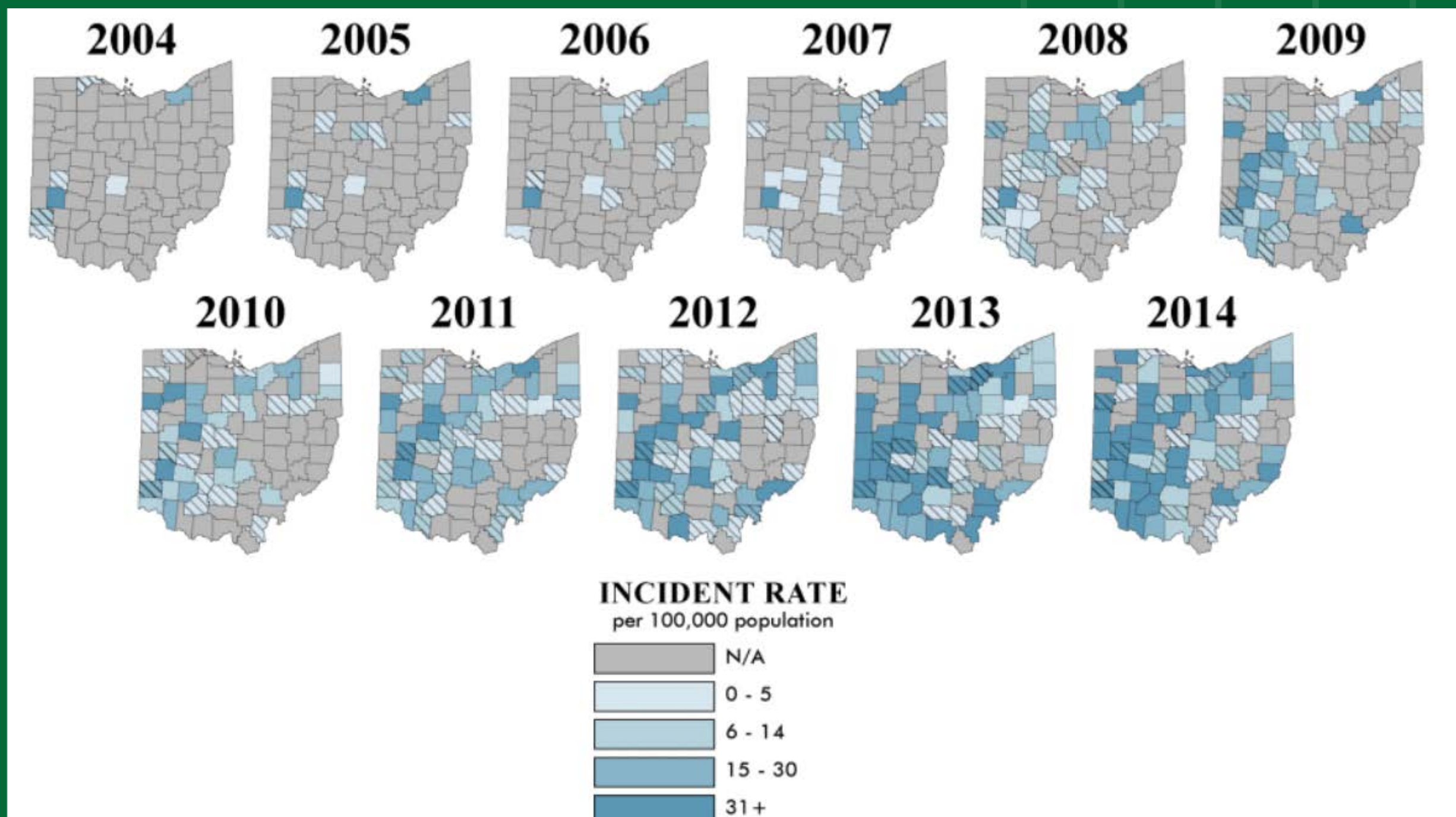
Overdose Deaths by Month and Year



Some promising decreases in OD death rate; despite nationwide increases in 2020, we saw a much smaller increase and dropped from having the highest OD death rate in 2017 to being 20th in the state in 2020

Source: Montgomery County Community Overdose Action Team. (2023). 2022 Data Unit Annual Report. Retrieved from <https://www.mccoat.org/data-reports>.

Local Context: interaction with criminal justice system



Heroin-related crime in Ohio, 2004-2014

SOURCE: OHIO INCIDENT-BASED REPORTING SYSTEM; OFFICE OF CRIMINAL JUSTICE SERVICES

slide credit: Sydney Silverstein, PhD

Local Context: Economic Environment

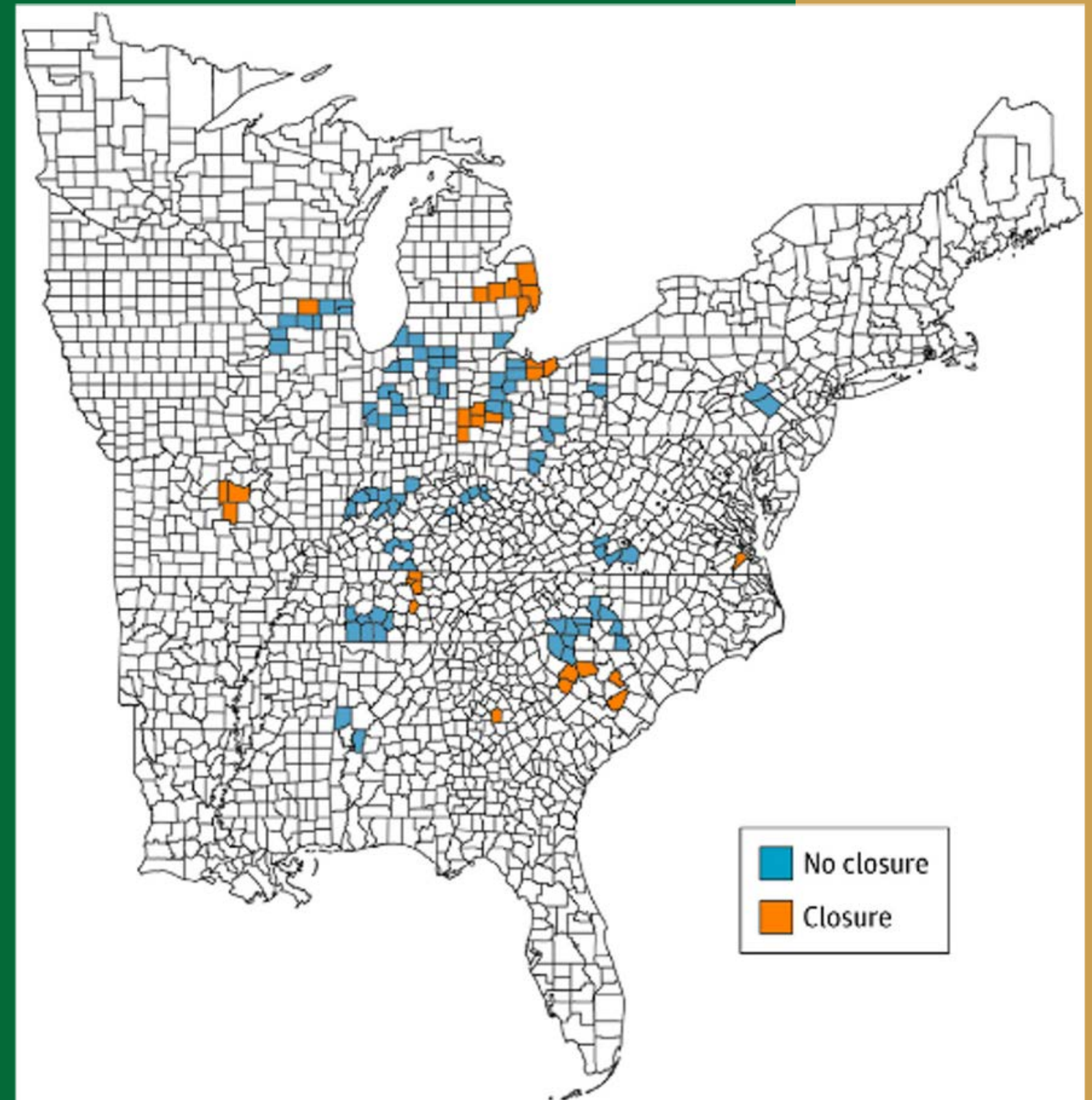
“Five years after a plant closure, mortality rates had increased by 8.6 opioid overdose deaths per 100 000 individuals (95% CI, 2.6-14.6; $P = .006$) in exposed counties compared with unexposed counties”

Source: Venkataramani et al.

“Association Between Automotive Assembly Plant Closures & Opioid Overdose Mortality in the US”

JAMA Internal Medicine, December 30, 2019

slide credit: Sydney Silverstein, PhD



Local context: Healthcare Environment

Ohio was one of the states that opted in to the expansion of Medicaid as part of the federal Affordable Care Act, and in the first 18 months of the program, 626,000 individuals enrolled in Ohio Medicaid through the expansion

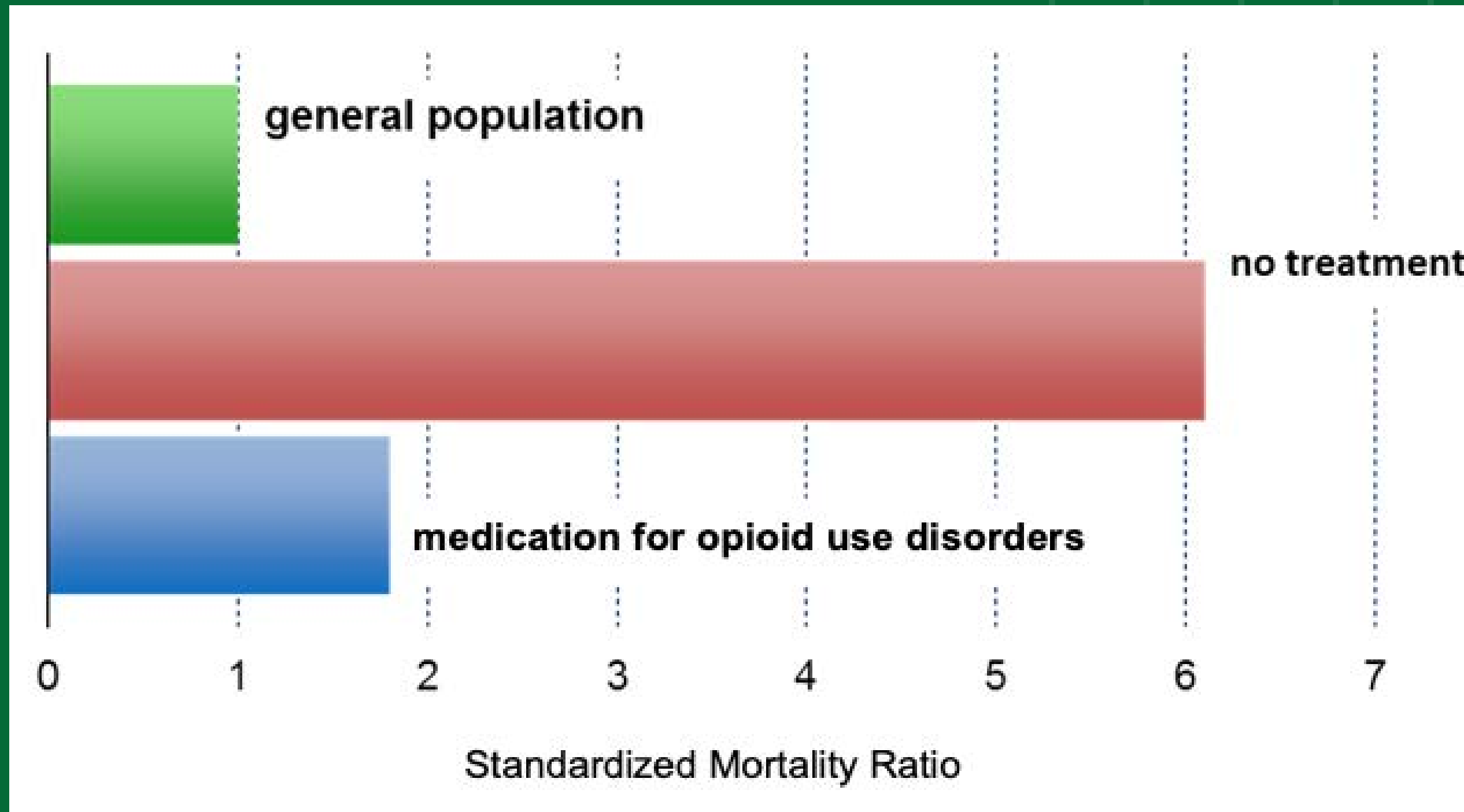
While the precise number fluctuates, a recent survey of the licensed treatment providers in and around Montgomery County approved by the ADAMHS Board showed no fewer than 17 Medicaid-accepting treatment centers that offered MOUD

Slide Credit: Sydney Silverstein, PhD



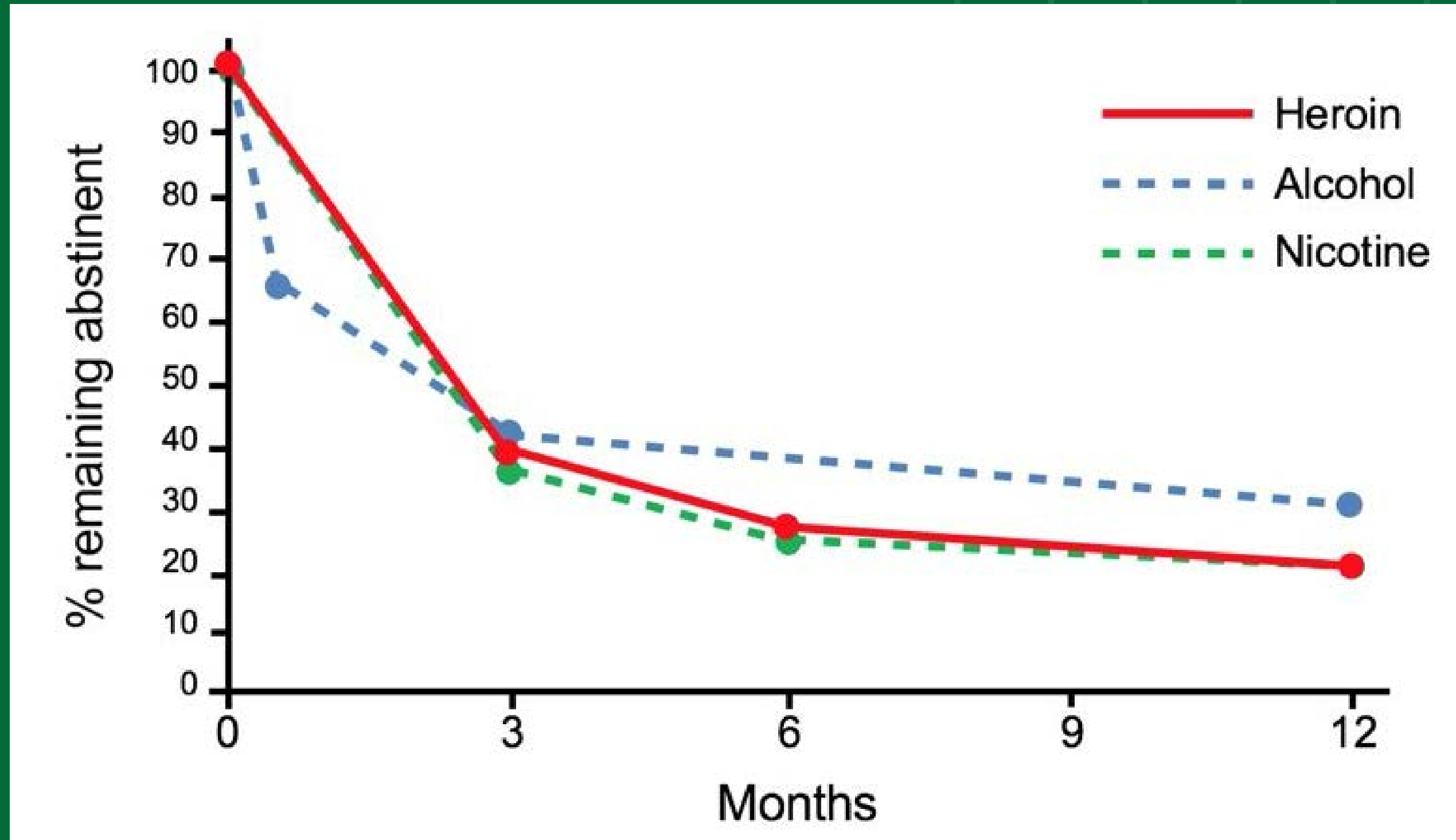
Benefits of MOUD: Decreased Mortality

Death Rates

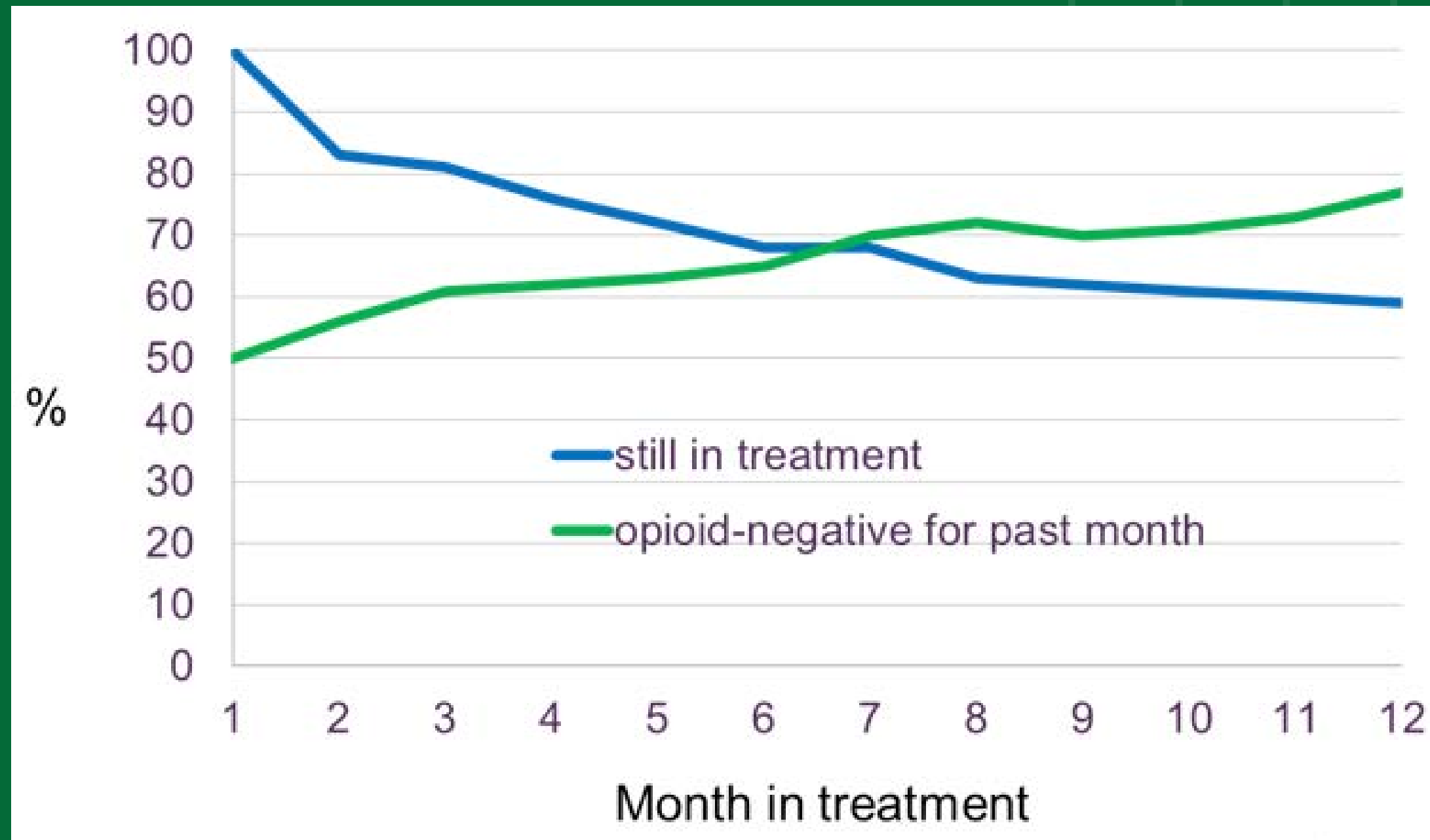


Dupouy et al., 2017
Evans et al., 2015
Sordo et al., 2017

Abstinence **WITHOUT** Medications



Treatment Retention and Decreased Illicit Opioid Use with MOUD

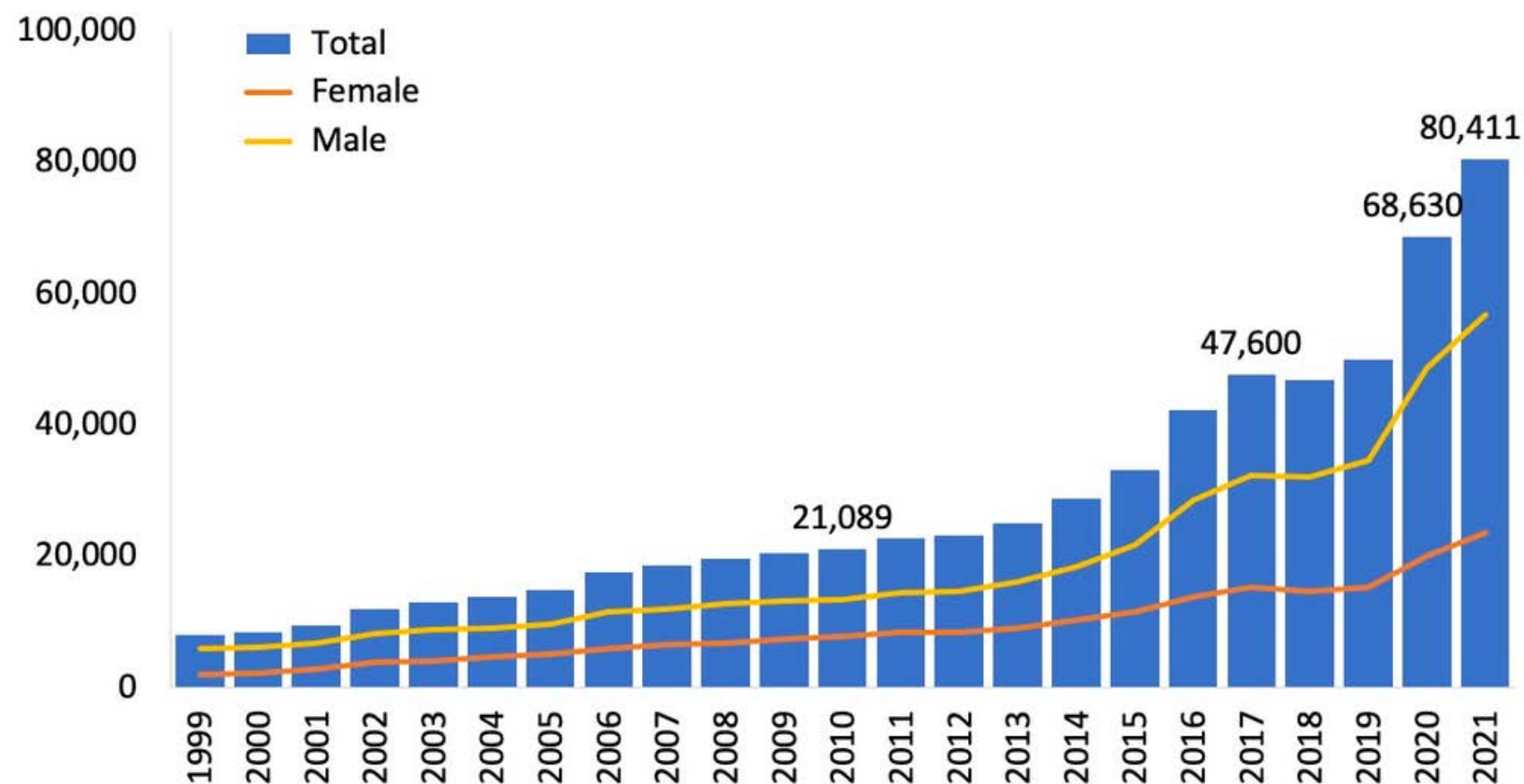


Buprenorphine promotes retention, and those who remain in treatment become more likely over time to abstain from other opioids

Kakko et al., 2003
Soeffing et al., 2009

Effective medications have yet to reduce mortality

Figure 3. National Overdose Deaths Involving Any Opioid*, Number Among All Ages, by Gender, 1999-2021



*Among deaths with drug overdose as the underlying cause, the "any opioid" subcategory was determined by the following ICD-10 multiple cause-of-death codes: natural and semi-synthetic opioids (T40.2), methadone (T40.3), other synthetic opioids (other than methadone) (T40.4), or heroin (T40.1). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

- We have medications that are effective for OUD
- Methadone has been available since the early 1970's to treat OUD, but only in licensed opioid treatment programs (OTPs).
- Office-based buprenorphine prescribing was made possible through the Drug Addiction Treatment Act of 2000 (DATA-2000).

Treatment Gap for Substance Use Disorders

01

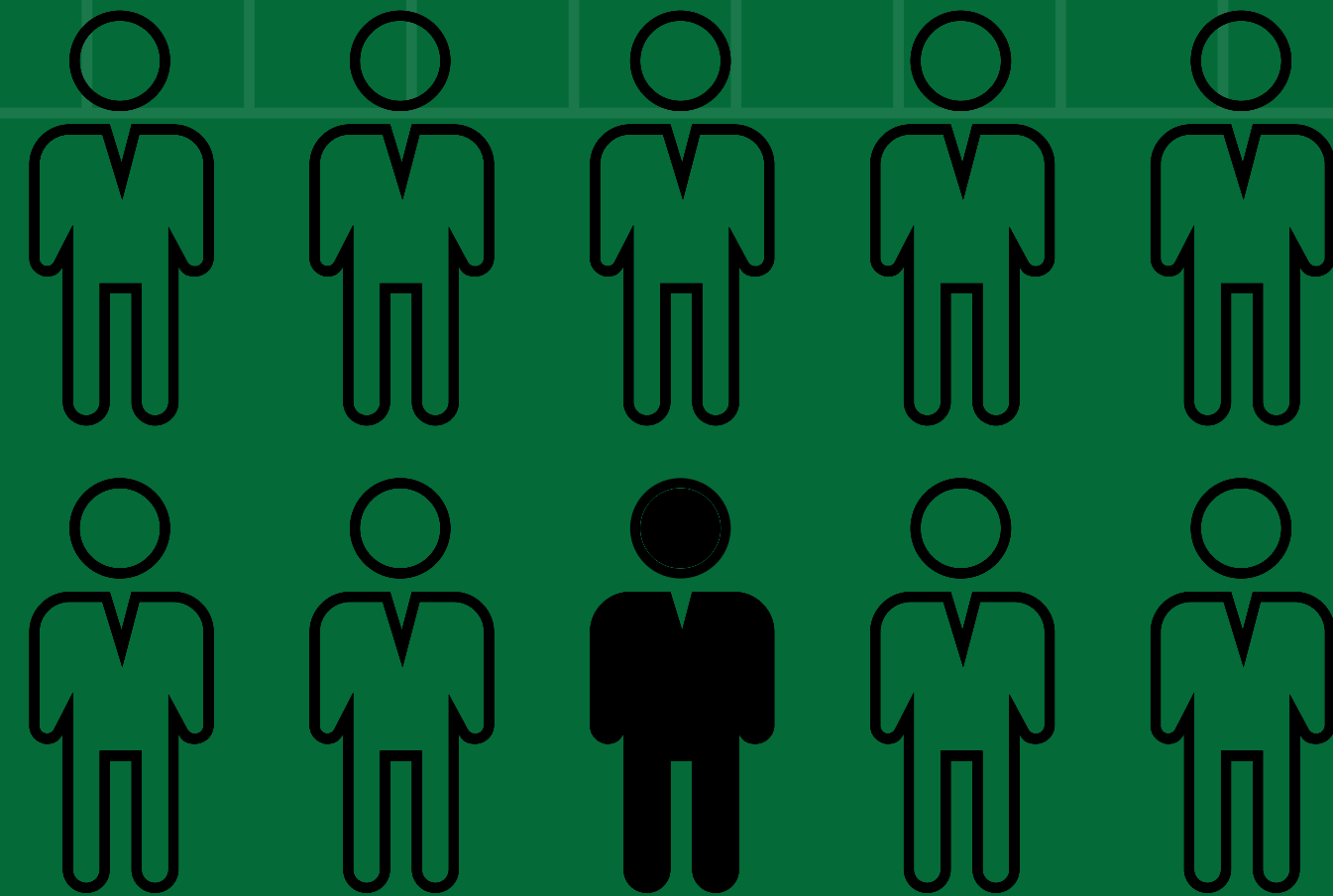
Approximately 20.4 Million individuals aged 12 or older needed substance use treatment in 2019

02

10.3% of those diagnosed with SUDs received any type of specialty treatment

03

Although increasing, currently a minority of all providers are trained to provide MOUD (medications for OUD)



Jones et al., 2015
NSDUH, 2019

Patients Receiving Treatment

- Despite the scientific evidence, only 1 in 10 people with an opioid use disorder receive addiction treatment that includes medication for opioid use disorders (MOUD).
 - Methadone – 380,000 patients at 1,611 methadone treatment programs
 - Buprenorphine – 112,000 patients
 - Naltrexone (long acting injectable) – 23,000 patients
- Approximately an equal number of patients receive treatment without medication.
 - This is often due programmatic “philosophy” and/or the lack of medication availability.

★ Data 2000 Waiver

- DATA 2000 allowed patients to get treatment from their PCP or psychiatrist's office, reducing stigma.
- DATA 2000 required most practitioners to undergo addiction treatment training (eight hours for physicians and 24 hours for APRNs and PAs).
- Compliance may be enforced with unannounced DEA inspections and potential criminal liability.
- Over 90% of physicians in the US have not attended any DATA-2000 waiver course.
- Among clinicians receiving the DATA-2000 waiver training, many do not apply to receive the X-waiver; many do not prescribe at all
- Almost all active buprenorphine clinicians prescribe well below their patient limits—often to only a handful of patients.



Saloner, B., Andraka Christou, B., Gordon, A. J., & Stein, B. D. (2021). It will end in tiers: A strategy to include "dabblers" in the buprenorphine workforce after the X-waiver. *Substance abuse*, 42(2), 153–157. <https://doi.org/10.1080/08897077.2021.1903659>

Barriers to Treatment

Practitioner concerns

- Practitioners feel a need for more training and building of confidence to treat.
- They feel starting to treat patients with OUD would be disruptive to their practice, stigma.
- Preauthorization insurance requirements
- Limited reimbursement
- DEA monitoring
- Not having access to behavioral health providers
- Concerns about diversion





Discontinuation of the Waiver

On December 29, 2022, with the signing of the Consolidated Appropriations Act of 2023 (the Act), Congress eliminated the “DATA-Waiver Program.”

- A DATA-Waiver registration is no longer required to treat patients with buprenorphine for opioid use disorder.
- Going forward, all prescriptions for buprenorphine only require a standard DEA registration number. The previously used DATA-Waiver registration numbers are no longer needed for any prescription.
- There are no longer any limits or patient caps on the number of patients a prescriber may treat for opioid use disorder with buprenorphine.
- The Act does not impact existing state laws or regulations that may be applicable.

Note: The Act also introduced new training requirements for all prescribers. These requirements will not go into effect until June 21, 2023.



Discontinuation of the Waiver



1. The MATE Act applies to new or renewing DEA registrants.
2. On or after June 27, 2023, practitioners will need to check a box on their online DEA registration form—whether they're first-time registrants or renewing—attesting that they have completed eight hours of training on the treatment and management of patients with opioid or other substance use disorders.
3. The MATE Act is a one-time requirement.
4. Once you have completed the training, you don't need to do so for future registration renewals. If you have already completed eight hours of training in the required topic, you do not need to complete another eight hours to satisfy the MATE Act.

MATE Act



1. Graduation within five years and status in good standing from medical, advanced practice nursing, or physician assistant school in the United States that included successful completion of an opioid or other substance use disorder curriculum of at least eight hours.
2. There are no longer any patient caps. A practitioner may treat as many patients as they can support with buprenorphine.

Where do we go from here?



- ✦ Efforts are underway to improve access to care by a variety of sources of medical education, organizations and the federal government.
 - Make medication and treatment more available
 - Reduce constraints by insurance companies and payors, reducing the time and costs of treatment.
- ✦ Professional organizations, have a variety of programs and opportunities for further education and mentoring.
- ✦ PCSS is a federally granted consortium of organizations has a variety of programs and opportunities to help practitioners to feel more comfortable in providing this treatment.

Breaking Barriers



Knowledge and
Skills

CAN

Improve Attitudes
and Reduce Stigma



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Neurobiology

Definitions



- Addiction is a **treatable**, chronic medical disease. involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences.
- It is considered a **brain disorder**, because it involves functional changes to brain circuits involved in reward, stress, and self-control.
- Prevention efforts and treatment approaches for addiction are generally as **successful** as those for other chronic diseases.

Biology of Motivation

Positive reinforcement

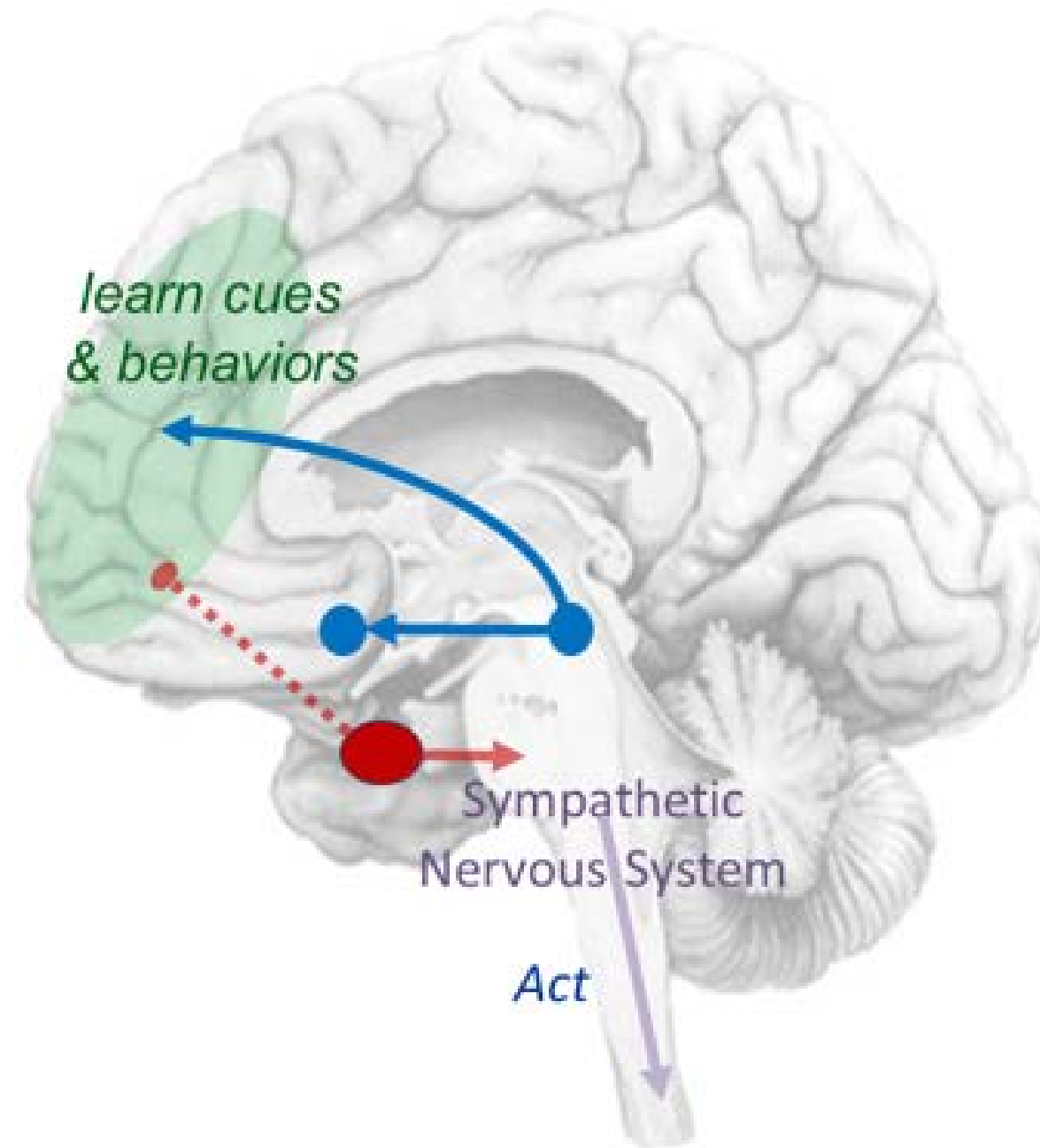
cells in the brainstem release **dopamine** in the **nucleus accumbens**



liking and wanting



seek out and do more



Negative reinforcement

cells in the **amygdala** are stimulated



anxiety, fear, distress



avoid things that cause, do things that relieve fear

Attention, thinking, and judgment use the **prefrontal cortex**

Individual Vulnerability to SUD's

- opioid receptors
- dopaminergic tone
- other transmitters
- intracellular signals

- novelty seeking
- harm avoidance
- impulsivity
- psychiatric disorders

Genetics

Environment

- parents
- siblings
- friends

- Adverse Childhood Experiences (ACEs)
- psychiatric disorders
- stressors
- lack of positive experiences

- illicit sources
- prescription
- family and friends

Anokhin et al., 2015
Milivojevic et al., 2012
Reed et al., 2014
Volkow et al., 2016

Spectrum of Substance Use

**None or
Low Risk**

**At
Risk**

Mild

Moderate

Severe

Increasing amounts, higher-risk
substances or situations

Craving, loss of control,
consequences

Tolerance and **Withdrawal** can appear anywhere

Spectrum of Substance Use

UNHEALTHY USE



Adapted from: Saitz R. Unhealthy alcohol use. N Engl J Med. 2005 Feb 10;352(6):596-607.

ASAM Spectrum of Substance Use

Empirically derived thresholds for each substance

Measurable, epidemiological data on use-related illness, injury or other health consequences

Context is Important

Age, psychosocial circumstances, health consequences, physiologic status

Does NOT imply

Existence of "harmless use" or "healthy use"



LOW- OR LOWER-RISK USE

- Use of alcohol or other substances in a situation that is not physically or psychosocially hazardous.
- Different amount depending on the person and the substance.
- Some substances (e.g. cocaine, methamphetamine, highly potent opioids, etc) would be difficult or impossible to use in a low risk way given their inherent danger.



Activity

**Categorize the following clinical scenarios:
Non-Use, Low or Lower Risk, Unhealthy Use**

A 52-year-old man orally consumes cannabis on the weekend.



Activity

Categorize the following clinical scenarios:

Non-Use, Low or Lower Risk, Unhealthy Use

A 52-year-old man orally consumes cannabis on the weekend.

**Could be
lower-risk,
more info
needed** ✨

Activity

**Categorize the following clinical scenarios:
Non-Use, Low or Lower Risk, Unhealthy Use**

A 13-year-old boy smokes
cannabis before school



Activity

Categorize the following clinical scenarios:

Non-Use, Low or Lower Risk, Unhealthy Use

A 13-year-old boy smokes
cannabis before school

**Unhealthy
Use**



Activity

**Categorize the following clinical scenarios:
Non-Use, Low or Lower Risk, Unhealthy Use**

A 26-year-old man drinks 3
beers after work with friends.



Activity

Categorize the following clinical scenarios:

Non-Use, Low or Lower Risk, Unhealthy Use

A 26-year-old man drinks 3
beers after work with friends.

**Could be
lower-risk,
more info
needed**

Activity

**Categorize the following clinical scenarios:
Non-Use, Low or Lower Risk, Unhealthy Use**

A 26-year-old man who is prescribed (and taking) clonazepam drinks 3 beers after work with friends.



Activity

Categorize the following clinical scenarios:
Non-Use, Low or Lower Risk, Unhealthy Use

A 26-year-old man who is prescribed (and taking) clonazepam drinks 3 beers after work with friends.

**Unhealthy
Use**



Activity

**Categorize the following clinical scenarios:
Non-Use, Low or Lower Risk, Unhealthy Use**

A 26-year-old man uses cocaine after work with friends.



Activity

Categorize the following clinical scenarios:

Non-Use, Low or Lower Risk, Unhealthy Use

A 26-year-old man uses cocaine after work with friends.

**Unhealthy
use, More
info is
needed**

Why is the spectrum of substance use important?

- ✦ Recognizes the potential for lower-risk use, which is a necessary step in some successful paths to recovery (e.g. “not all use is created equal”).
- ✦ Provides a shared and universal language in addiction literature and for us to use when discussing our work with policy experts, the media, etc.
- ✦ Allows for a nuanced discussion of clinical work as opposed to a binary approach, which can be associated with a “good/bad” approach.



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Language and Stigma

Language and Stigma

01

Addiction is one of the most stigmatized conditions

02

Individuals with substance use disorders are viewed more negatively than people with physical or psychiatric disabilities

03

Use of stigmatizing language (such as "substance abuser" rather than a "person with a substance use disorder") can adversely affect quality of care and subsequent treatment outcomes.

04

Broad consensus for adoption of clinical, non-stigmatizing "Person First" language for substance use:

- American Medical Association
- The American Society of Addiction Medicine
- American Academy of Addiction Psychiatry
- International Society of Addiction Journal Editors



SUD as a chronic condition - common features

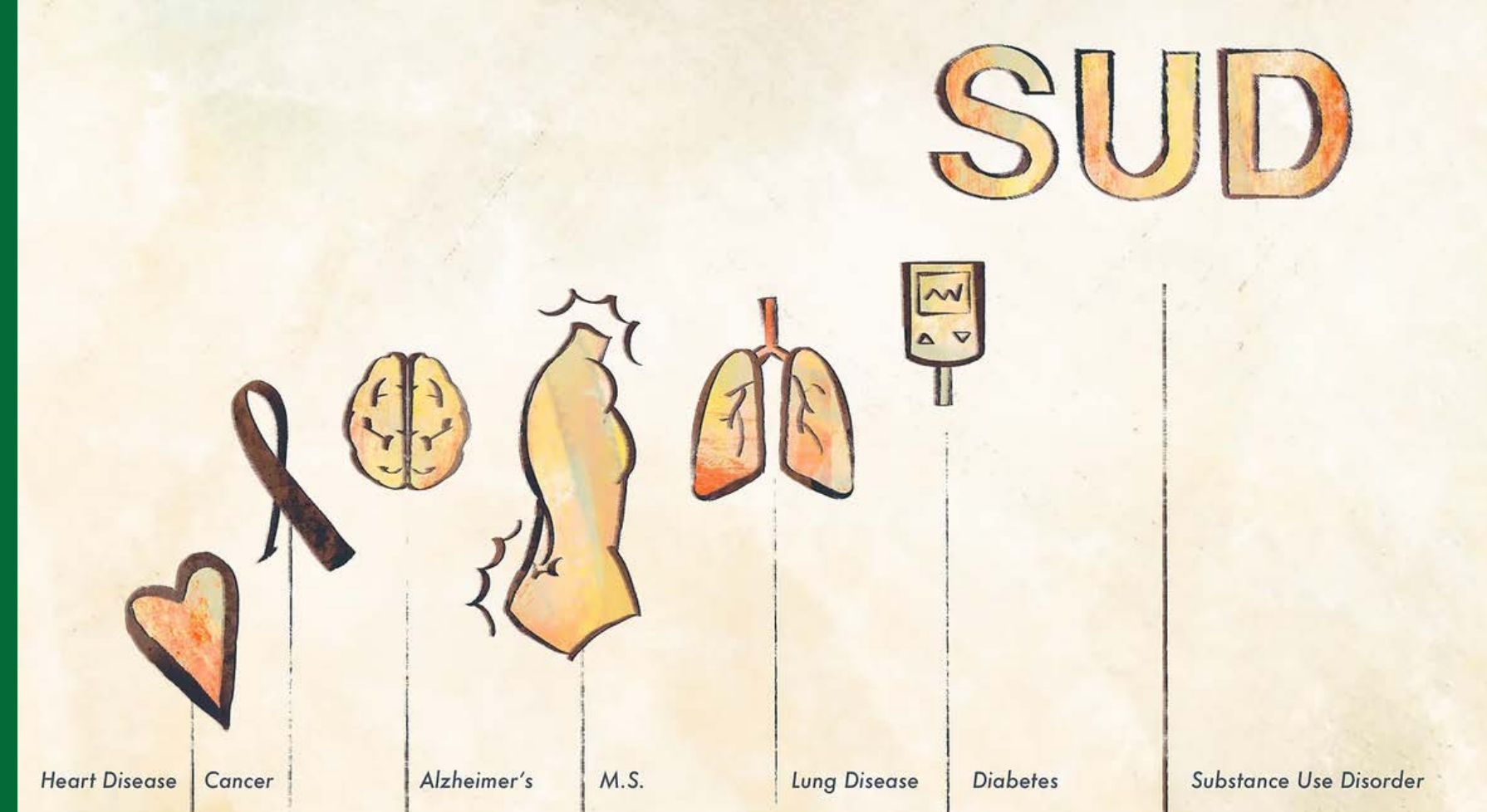
01 Heritability

02 Influenced by genes + environment

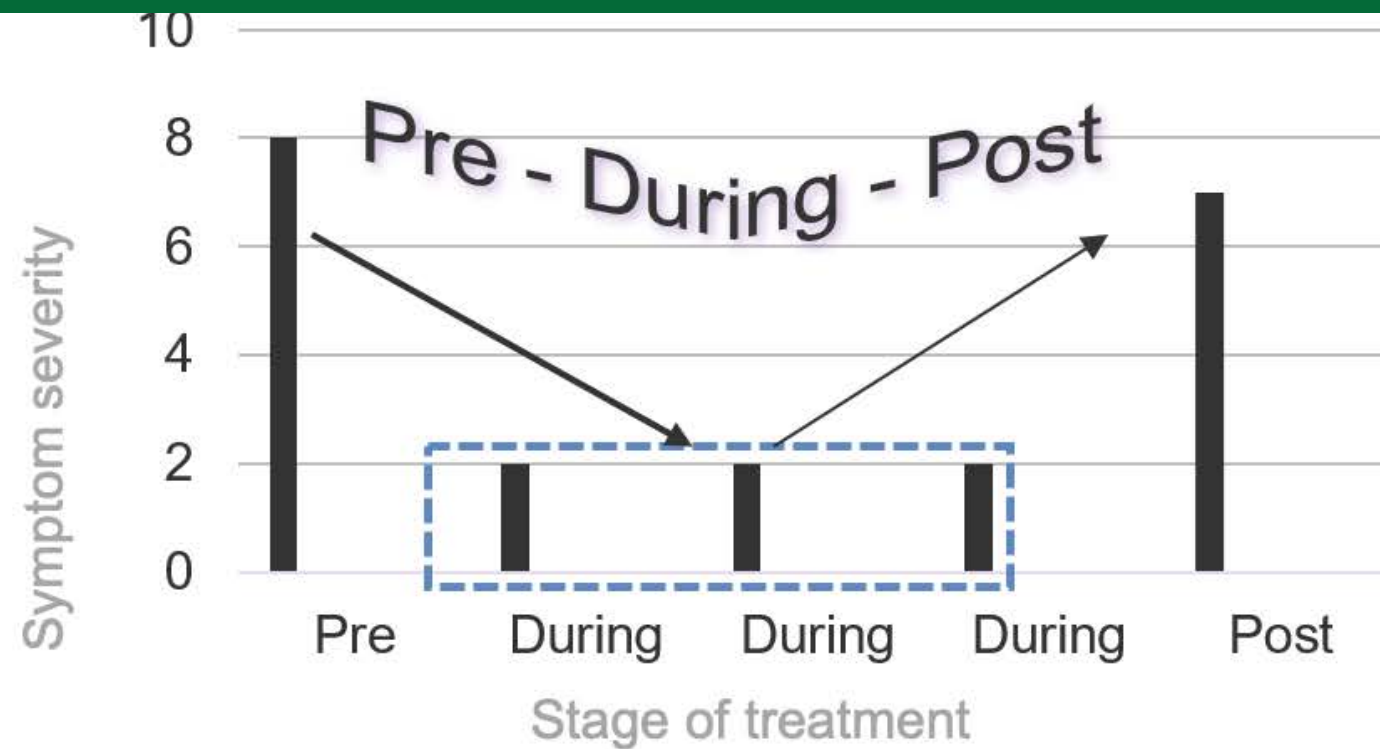
03 Responsive to appropriate treatment

04 Without adequate interventions, the condition progresses and can result in significant morbidity and mortality

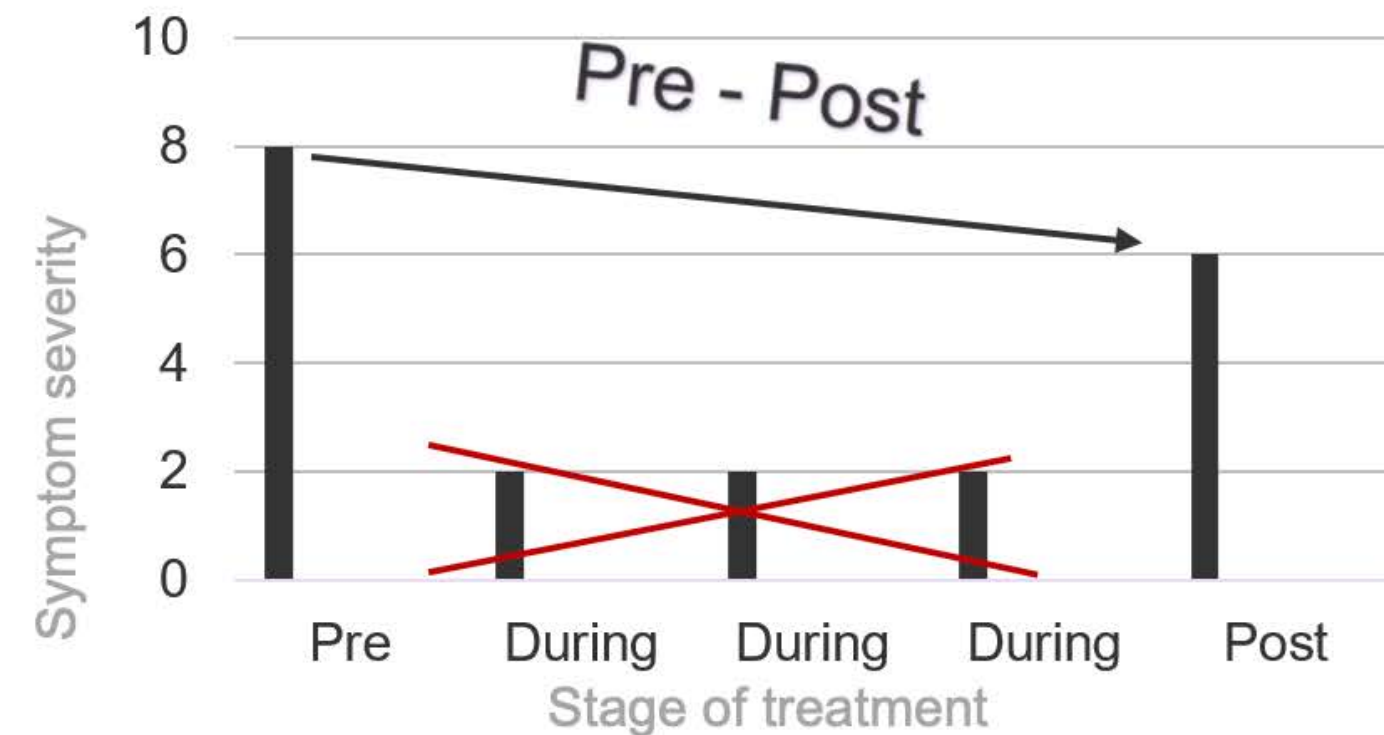
05 Has a biological/physiological basis, ongoing and long term, can involve recurrences after full or partial remission is achieved



SUD as a chronic condition



Hypertension, Diabetes, Asthma



Substance Use Disorders

Like many chronic disease, the interventions currently available for substanceuse disorders will not necessarily correct the essence of the problem but will:

- Reduce the number and severity of the symptoms
- Improve personal function

Thought Exercise

What if we treat SUD the same way that we treat other chronic conditions? Patient is a 56 year old man who presents to the emergency room with signs and symptoms of a myocardial infarction. What if....

- **He is told that the MI is "his fault" because of the "choices" he made in the past.**
- **He is denied treatment because "he did this to himself"**
- **He is given a list of cardiologists and cath labs to call**
- **He is only given medication if he agrees to go to counseling**
- **He is kicked out of the hospital because he has "more severe chest pain"?**



Thought Exercise

What if we treated SUD like every other chronic condition?

- **The only condition for receiving treatment is having a SUD**
- **Treatment is evidence based, involves shared decision making, centered on patient's goals, delivered with compassion**
- **System exists to deliver treatment on demand**
- **Not "fired" for having symptoms of a condition**
- **Patients and families would be given enough evidence to make informed decisions**
- **People would be offered a menu of treatment options**







Am I policing your language?

✦ NO

- Many people use these terms with a basis in lived experience - I am not trying to change that
- Clinical dyads develop shared language as a normal part of a treatment relationship

Why is language important

Research has demonstrated that stigmatizing terms negatively impact quality of care

- One study compared the use of “abuse” versus “disorder”
 - Providers were given surveys that described “substances abusers” and “people with substance use disorders”
 - “Substance abusers” were more likely to be seen as willfully engaging in social misconduct, representing a greater social threat, and more deserving of punishment compared to “people with substance use disorder”
- An additional analysis demonstrated again that “substance abusers” were personally culpable and that punitive measures should be taken

Most stigma is inadvertent

Kelly, et al., 2010.



Why else is language important

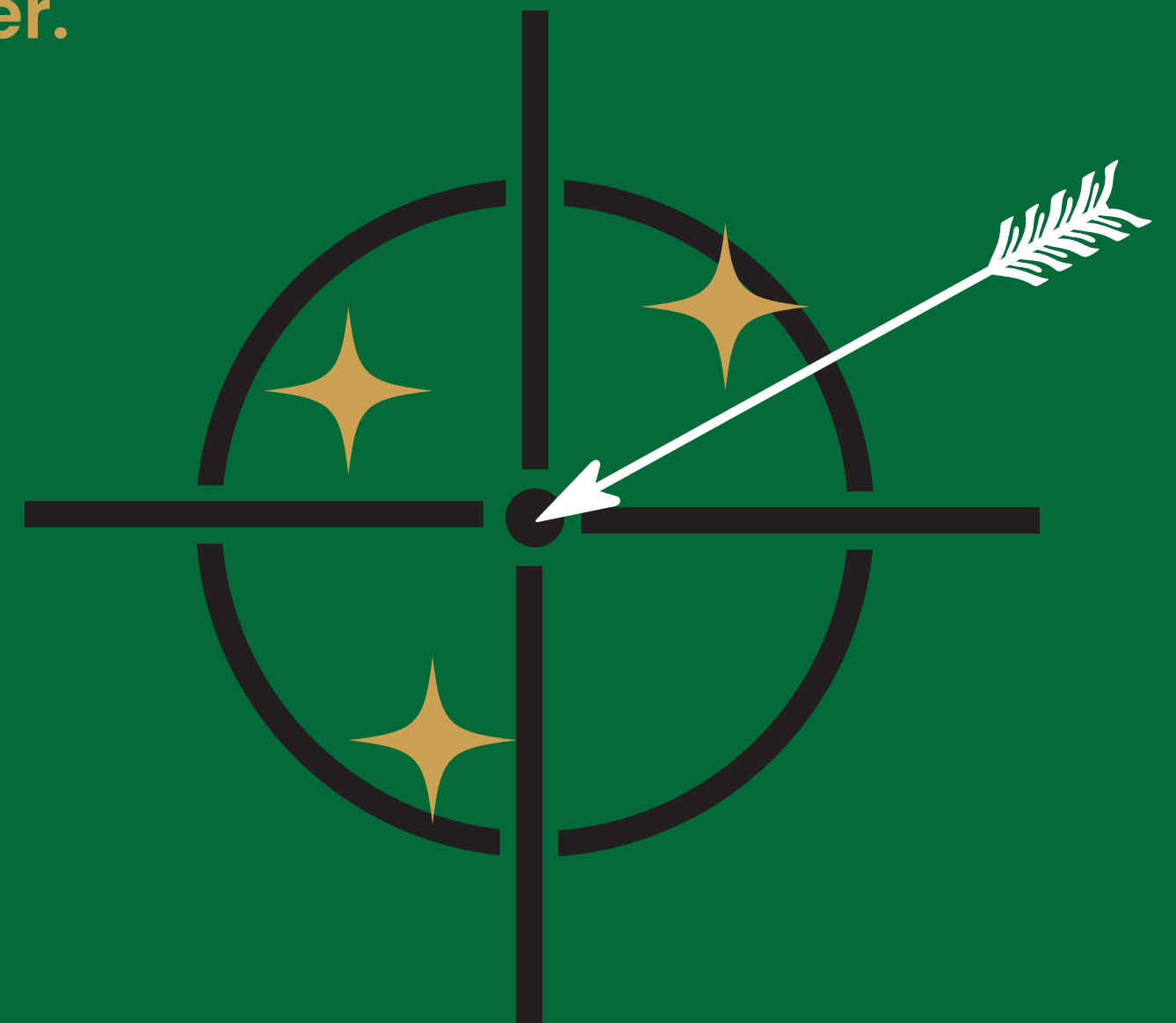
Clinical work relies on the description of inherently imprecise or difficult to describe phenomena and relaying information from one or more people to another.

A patient consumes four standard servings of alcohol and reports this to the treatment team

I got hammered this weekend.



He went on a drinking binge.



Precision and Accuracy

- ✦ Precision refers to our ability to consistently mean the same thing when we say it (and others understanding our statements).
- ✦ Accuracy refers to how our statements align with known or accepted medical definitions

The patient's
urine is dirty

vs.

The patient's urine
screen was
positive for opioids



Activity

Avoid

Prefer

Abuse

Activity

Avoid

Prefer

Abuse

Use with
specifications
(lower-Risk,
hazardous, harmful
or addiction)

✦ **Rationale: Abuse associated with increased stigma (including unintentional stigma) and attitudes that addiction is a moral failing.**

Activity

Avoid

Prefer

Addicted
Baby

Activity

Avoid

Prefer

Addicted
Baby

Baby experiencing
substance
withdrawal or baby
physiologically
dependent on a
substance

★ **Rationale: Addiction is a state of compulsive drug use despite consequences and a desire to cut back or quit, it does not accurately reflect the status of a baby. It could promote the judgement and mistreatment of the baby.**

Activity

Avoid

Prefer

Addict, user, abuser,
alcoholic, crack head,
pot head, dope fiend,
junkie

Activity

Avoid

Addict, user, abuser,
alcoholic, crack head,
pot head, dope fiend,
junkie

Prefer

Person with a
substance use
disorder, or
gambling disorder

★ **Rationale:** Movement toward person-first language. Avoid stereotyping and stigmatizing descriptions. Similar to other movements in medicine (e.g. a person with schizophrenia as opposed to schizophrenic; a person with diabetes and not a diabetic).

Activity

Avoid

Prefer

Dirty versus
clean urine

Activity

Avoid

Prefer

Dirty versus
clean urine

Positive or negative,
detected or not
detected

✦ Rationale: "Dirty" can be pejorative, stigmatizing and judgemental. Often reflective of punitive not collaborative and supportive practices.

Activity

Avoid

Prefer

Meth

Activity

Avoid

Prefer

Meth

Methamphetamine,
methadone,
methylphenidate

✦ Rationale: Disambiguates other substances that share "meth" prefix. Avoids using slang.

Activity

Avoid

Prefer

Medical Marijuana

Activity

Avoid

Prefer

Medical Marijuana

Consider "cannabis
as medicine"

✦ Rationale: "Medical" implies medical benefit, which is inconclusively substantiated.

Activity

Avoid

Prefer

Misuse, problem

Activity

Avoid

Prefer

Misuse, problem

More accurate terms include at-risk or risky use, hazardous use, unhealthy use to describe the spectrum from risky/at-risk/hazardous use through disorder

Rationale: Could be used if clearly defined and most useful for prescription drug (misuse) when the nature or severity of the condition is unknown. Avoid calling the person a problem or their use a problem.

Activity

Avoid

Prefer

Fix

Activity

Avoid

Prefer

Fix

Dose, use

✦ Rationale: Avoiding slang / colloquialisms. Working toward using a shared, technical language given the importance of description in clinical work.

Activity

Avoid

Prefer

Binge

✦ Rationale: Avoiding slang / colloquialisms. Working toward using a shared, technical language given the importance of description in clinical work.

Activity

Avoid

Prefer

Binge

Heavy drinking
episode

✦ Rationale: Avoiding slang / colloquialisms. Working toward using a shared, technical language given the importance of description in clinical work.

Activity

Avoid

Prefer

Relapsed


Activity

Avoid

Prefer

Relapsed

Use, returned to use, recurrence (of symptoms) or disorder vs. remission specifiers (early or sustained) as defined by DSM-5

 **Rationale:** This term will likely continue to be used, but it should not imply a binary process (abstinent vs. relapse) that does not reflect real typical clinical course (that can include lapses or in-between states).

Activity

Avoid

Prefer

Medication assisted
treatment,
Substitution,
replacement

Activity

Avoid

Medication assisted
treatment,
Substitution,
replacement

Prefer

Opioid agonist
treatment, medication
treatment,
psychosocially assisted
pharmacological
treatment, ***treatment***

★ Rationale: Can imply “substituting one addiction for another.” May place emphasis on particular psychosocial treatments that is unsupported in the literature, which can create barriers to patient accessing medication treatment. MEDICATION = TREATMENT

Activity

Avoid

Prefer

Smoking Cessation

Activity

Avoid

Prefer

Smoking Cessation

Tobacco use disorder
treatment, reduction of
tobacco use

Rationale: “The word cessation refers to something the patient does. It happens at a single moment in time; it is not a process or a continuing event. No clinical intervention is implied by the word itself. Using the term smoking cessation as a synonym for the treatment of tobacco dependence ignores both the clinician and valuable clinical tools such as pamphlets, videos, and medicines. In my work with patients, I don’t do cessation. I treat them.”

New terminology for the treatment of tobacco dependence: a proposal for debate

Fred Wolff,¹ John R. Hughes,² and Susan S. Woods³

¹ Tobacco Treatment Specialist, MaineHealth Center for Tobacco Independence Portland, Maine, USA

² Departments of Psychiatry, Psychology and Family Practice, University of Vermont, USA

³ Portland Veterans Administration Medical Center, Portland, Oregon, USA



Rationale: “The word cessation refers to something the patient does. It happens at a single moment in time; it is not a process or a continuing event. No clinical intervention is implied by the word itself. Using the term smoking cessation as a synonym for the treatment of tobacco dependence ignores both the clinician and valuable clinical tools such as pamphlets, videos, and medicines. In my work with patients, I don’t do cessation. I treat them.”

Activity

Avoid

Prefer

Moderate drinking or
drug use

Activity

Avoid

Prefer

Moderate drinking or
drug use

Low or lower-risk use

★ Rationale: Working toward using a shared, technical language given the importance of description in clinical work.

Activity

Avoid

Prefer

Detoxification

Activity

Avoid

Prefer

Detoxification

Withdrawal
management,
withdrawal

✦ Rationale: Not always physiologically correct (e.g. alcohol withdrawal can continue long after the “toxic” chemical has left the body). Also not all substances associated with addiction are toxins.

Building a Therapeutic Alliance



✦ **Attitude**

- Non-judgmental, curious, empathetic

✦ **Respectful**

- Recognize adversity and strengths
- Use non-stigmatizing language

✦ **Honesty**

✦ **Shared goals**

- Why is the patient seeking treatment?
- Provider treatment team concerns

✦ **Reassurance**

- Confidentiality (with qualifiers)
 - Safety of self, well-being of other (especially children)

TREE OF LIBERATION

TREE OF STIGMA

LEAVES: ACTIONS

Create plans together
based on their goals

Ask clarifying questions to
understand the whole story
& needs

Share resources
& education for their friends
to have

TRUNK: BELIEFS

"They can do _____"
"They're telling me the truth"
"They care about the community"

Capable
Trustworthy
Caring

ROOTS: PERCEPTIONS

LEAVES: ACTIONS

Ignore the story & project
your own agenda

Require mandatory XYZ
because "they won't do it
otherwise"

Only talk about the
"disease" & not about what
they have control over

TRUNK: BELIEFS

"They're probably lying"
"They don't have the willpower"
"They can't help themselves"

Not trustworthy
Lazy
Sick



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Screening Tools and Lab Testing

Screening for alcohol and drugs

- Screening is used for illnesses with high prevalence

- Used for early detection & leads to better outcomes



Population	Recommendation	Grade
Adults 18 years or older, including pregnant women	The USPSTF recommends screening for unhealthy alcohol use in primary care settings in adults 18 years or older, including pregnant women, and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use.	B

Group Work

You are working as an intern on an internal medicine service. Your team has just been given a new admission for community acquired pneumonia after failed outpatient treatment. You review the chart and notice the patient was also admitted for **acute alcohol intoxication** in the past (3 months ago).

What screening tools could you use in the emergency room to evaluate if this person has a substance use disorder?

What if the person is 15 years old while you are on inpatient pediatrics?

What if the person is pregnant and being seen for an initial obstetrics visit?

Work in your group to determine evidence-based screening tools, which you would use in each situation and why.

Screening Tests

Brief Tools

- CAGE
 - may not pickup risky drinking
- **AUDIT- C
 - Better than CAGE
- DAST-10
- NIDA quick screen
- TAPS



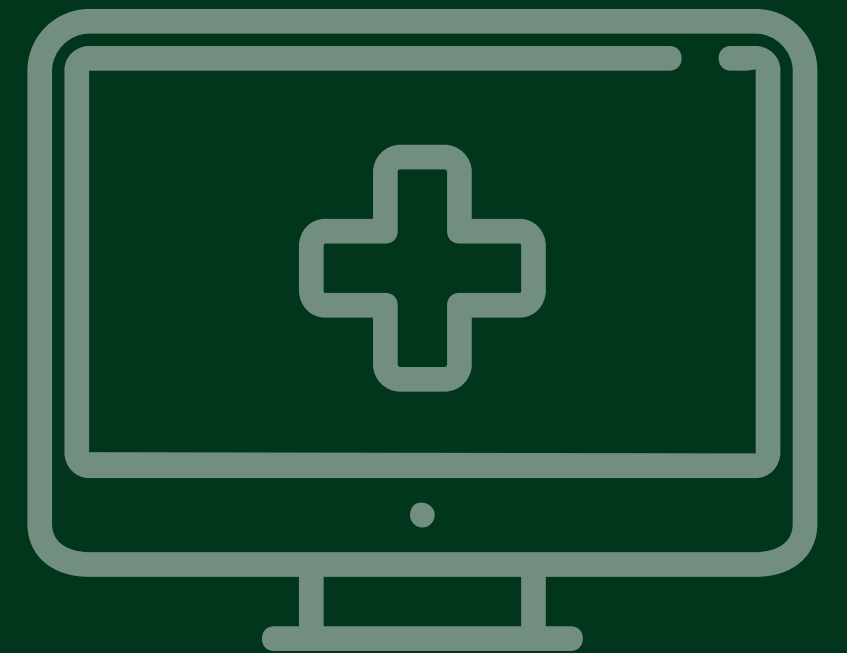
Screening Tests

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- **TAPS**

Extended Tools

- **NM Assist**
- **NIAAA**
- **AUDIT**
- **DAST 28**



Screening Tests

Brief Tools

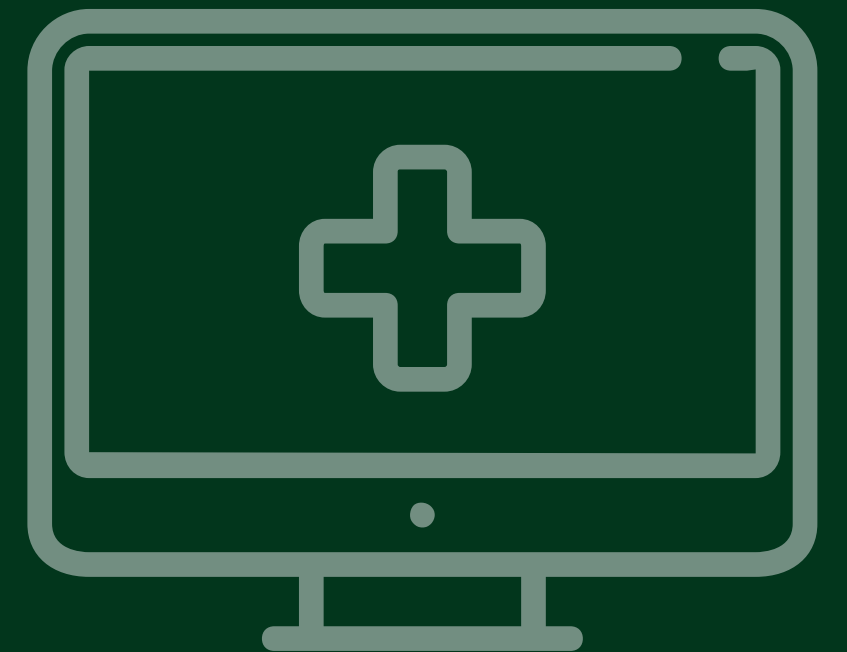
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 - Better than CAGE
- **DAST 10**
- **NIDA quick screen**
- **TAPS**

Extended Tools

- **NM Assist**
- **NIAAA**
- **AUDIT**
- **DAST 28**

Special Populations

- **CRAFFT (adolescents)**
- **MAST GMAST (geriatric)**
- **TACE TWEAK (pregnancy)**
- **4P (pregnancy)- adds depression and IPV**



Substance Use

Screening, Diagnosis and Assessment

- Overall Goals:
 - Identify at risk individuals, examples:
 - patients with active substance use of other substances
 - those with complicating physical or behavioral health diseases
 - Diagnose patients who meet Substance Use Disorders criteria
 - Assess social determinants of patient's health
 - Develop recommendations and plan for treatment
- Consider Validated Screening/Assessment Instruments:
 - Drugs: Drug Abuse Screening Test (DAST-10)
 - Opioids: Clinical Opiate Withdrawal Scale (COWS)
 - Alcohol Use Disorders Identification Test (AUDIT)
 - PHQ-9



Alcohol Use Disorders Identification Test (AUDIT)

Domains	Question Number	Item Content
Hazardous Alcohol Use	1 2 3	Frequency of Drinking Typical Quantity Frequency of Heavy Drinking
Dependence Symptoms	4 5 6	Impaired Control over Drinking Increased Salience of Drinking Morning Drinking
Harmful Alcohol Use	7 8 9 10	Guilt After Drinking Blackouts Alcohol-Related Injuries Others Concerned about drinking

Alcohol Use Disorders Identification Test (AUDIT)

Patient name: _____

Date of birth: _____

Alcohol screening questionnaire (AUDIT)

Drinking alcohol can affect your health and some medications you may take. Please help us provide you with the best medical care by answering the questions below.

One drink equals:



12 oz.
beer



5 oz.
wine



1.5 oz.
liquor
(one shot)

1. How often do you have a drink containing alcohol?	Never	Monthly or less	2 - 4 times a month	2 - 3 times a week	4 or more times a week
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	0 - 2	3 or 4	5 or 6	7 - 9	10 or more
3. How often do you have five or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
9. Have you or someone else been injured because of your drinking?	No		Yes, but not in the last year		Yes, in the last year
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, in the last year

Have you ever been in treatment for an alcohol problem? 0 1 2 3 4
 Never Currently In the past

I II III IV
 0-3 4-9 10-13 14+

Alcohol Use Disorders Identification Test-C (AUDIT-C)

AUDIT-C

Please circle the answer that is correct for you.

1. How often do you have a drink containing alcohol?					SCORE
Never (0)	Monthly or less (1)	Two to four times a month (2)	Two to three times per week (3)	Four or more times a week (4)	_____
2. How many drinks containing alcohol do you have on a typical day when you are drinking?					
1 or 2 (0)	3 or 4 (1)	5 or 6 (2)	7 to 9 (3)	10 or more (4)	_____
3. How often do you have six or more drinks on one occasion?					
Never (0)	Less than Monthly (1)	Monthly (2)	Two to three times per week (3)	Four or more times a week (4)	_____
TOTAL SCORE					
Add the number for each question to get your total score.					_____

Maximum score is 12. A score of ≥ 4 identifies 86% of men who report drinking above recommended levels or meets criteria for alcohol use disorders. A score of > 2 identifies 84% of women who report hazardous drinking or alcohol use disorders.

DAST-10

DRUG USE QUESTIONNAIRE (DAST-10)

The following questions concern information about your possible involvement with drugs, not including alcoholic beverages, during the past 12 months. Carefully read each statement and decide if your answer is "Yes" or "No." Then, circle the appropriate response beside the question.

In the statements, "drug abuse" refers to (1) the use of prescribed or over-the-counter drugs in excess of the directions and (2) any non-medical use of drugs. The various classes of drugs may include: cannabis (e.g., marijuana, hash), solvents, tranquilizers (e.g., Valium), barbiturates, cocaine, stimulants (e.g., speed), hallucinogens (e.g., LSD) or narcotics (e.g., heroin). Remember that the questions **do not** include alcoholic beverages.

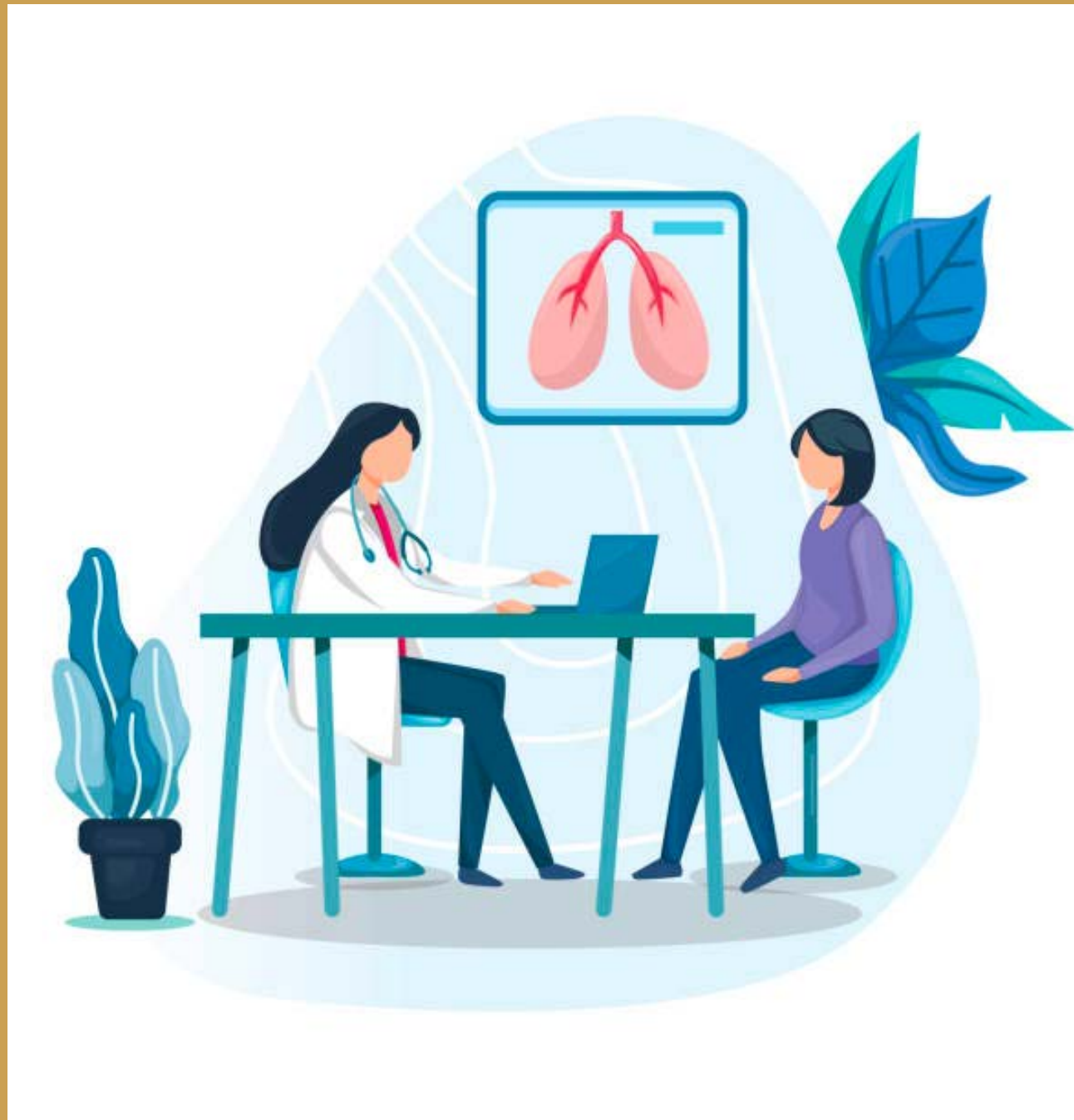
Please answer every question. If you have difficulty with a statement, then choose the response that is mostly right.

<u>These questions refer to the past 12 months.</u>	Circle your response	
1. Have you used drugs other than those required for medical reasons?	Yes	No
2. Do you abuse more than one drug at a time?	Yes	No
3. Are you always able to stop using drugs when you want to?	Yes	No
4. Have you had "blackouts" or "flashbacks" as a result of drug use?	Yes	No
5. Do you ever feel bad or guilty about your drug use?	Yes	No
6. Does your spouse (or parents) ever complain about your involvement with drugs?	Yes	No
7. Have you neglected your family because of your drug use?	Yes	No
8. Have you engaged in illegal activities in order to obtain drugs?	Yes	No
9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?	Yes	No
10. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding, etc.)?	Yes	No

PHQ-9

Over the last 2 weeks, how often have you been bothered by the following problems?		Not at all	Several Days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling asleep or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself- or that you are a failure or have let yourself or family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed. Or the opposite-being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3
TOTAL SCORE (add the marked numbers):					

Consider this Case:



Jane is a 37 yo woman who presents to her primary care physician to establish care. She has a history of asthma and chronic pancreatitis. She has had seven hospitalizations for pancreatitis in the past seven years.

- You decide to conduct an AUDIT and she scored a 0. She says that she quit drinking alcohol 3 years ago after her fourth hospitalization for pancreatitis.
- She scored an 8 on the DAST-10. She admits to using opioids to manage her chronic pain, but hasn't used any opiates in the past 24 hours.
- What might your next screening tool be?

Clinical Opiate Withdrawal Scale (COWS)

Score	Withdrawal
<5	None
5-12	Mild (Aim for ≥ 8 for Induction)
13-24	Moderate
25-36	Moderately Severe
>36	Severe

COWS

CLINICAL OPIATE WITHDRAWAL SCALE

For each item, circle the number that best describes the patient's signs or symptom. Rate on just the apparent relationship to opiate withdrawal. For example, if heart rate is increased because the patient was jogging just prior to assessment, the increase pulse rate would not add to the score.

<p>Resting Pulse Rate: beats / minute Measured after patient is sitting or lying for one minute</p> <ul style="list-style-type: none"> 0 pulse rate 80 or below 1 pulse 81 to 100 2 pulse 101 to 120 4 pulse rate greater than 120 	<p>GI Upset: over last 1/2 hour</p> <ul style="list-style-type: none"> 0 no GI symptoms 1 stomach cramps 2 nausea or loose stool 3 vomiting or diarrhea 5 multiple episodes of diarrhea or vomiting
<p>Sweating: over past 1/2 hour not accounted for by room temperature or patient activity.</p> <ul style="list-style-type: none"> 0 no report of chills or flushing 1 subjective report of chills or flushing 2 flushed or observable moistness on face 3 beads of sweat on brow or face 4 sweat streaming off face 	<p>Tremor: Observation of outstretched hands</p> <ul style="list-style-type: none"> 0 no tremor 1 tremor can be felt, but not observed 2 slight tremor observable 4 gross tremor or muscle twitching
<p>Restlessness: Observation during assessment</p> <ul style="list-style-type: none"> 0 able to sit still 1 reports difficulty sitting still, but is able to do so 3 frequent shifting or extraneous movements of legs/arms 5 unable to sit still for more than a few seconds 	<p>Yawning: Observation during assessment</p> <ul style="list-style-type: none"> 0 no yawning 1 yawning once or twice during assessment 2 yawning three or more times during assessment 4 yawning several times/minute
<p>Pupil size:</p> <ul style="list-style-type: none"> 0 pupils pinned or normal size for room light 1 pupils possibly larger than normal for room light 2 pupils moderately dilated 5 pupils so dilated that only the rim of the iris is visible 	<p>Anxiety or Irritability: Measured after patient is sitting or lying for one minute</p> <ul style="list-style-type: none"> 0 none 1 patient reports increasing irritability or anxiousness 2 patient obviously irritable or anxious 4 patient so irritable or anxious that participation in the assessment is difficult
<p>Bone or Joint aches: If the patient was having pain previously, only the additional component attributed to opiates withdrawal is scored</p> <ul style="list-style-type: none"> 0 not present 1 mild diffuse discomfort 2 patient reports severe diffuse aching of joints/muscles 4 patient is rubbing joints or muscles and is unable to sit still because of discomfort 	<p>Gooseflesh skin:</p> <ul style="list-style-type: none"> 0 skin is smooth 3 piloerection of skin can be felt or hairs standing up on arms 5 prominent piloerection
<p>Runny nose or tearing: Not accounted for by cold symptoms or allergies</p> <ul style="list-style-type: none"> 0 not present 1 nasal stuffiness or unusually moist eyes 2 nose running or tearing 4 nose constantly running or tears streaming down cheeks 	<p>Total Score: The total score is the sum of all 11 items Initials of person completing assessment: Score: 5- 12 = mild; 13-24 = moderate; 25-36 = moderately severe; more than 36 = severe withdrawal</p>

Clinical Opiate Withdrawal Scale (COWS)

Resting Pulse Rate:

beats / minute

Measured after patient is sitting or lying for one minute

- ① pulse rate 80 or below
- ② pulse 81 to 100
- ③ pulse 101 to 120
- ④ pulse rate greater than 120

GI Upset:

over last 1/2 hour

- ① no GI symptoms
- ② stomach cramps
- ③ nausea or loose stool
- ④ vomiting or diarrhea
- ⑤ multiple episodes of diarrhea or vomiting

Sweating: *over past 1/2 hour not accounted for by room temperature or patient activity.*

- ① no report of chills or flushing
- ② subjective report of chills or flushing
- ③ flushed or observable moistness on face
- ④ beads of sweat on brow or face
- ⑤ sweat streaming off face

Tremor:

Observation of outstretched hands

- ① no tremor
- ② tremor can be felt, but not observed
- ③ slight tremor observable
- ④ gross tremor or muscle twitching

Restlessness:

Observation during assessment

- ① able to sit still
- ② reports difficulty sitting still, but is able to do so
- ③ frequent shifting or extraneous movements of legs/arms
- ④ unable to sit still for more than a few seconds

Yawning:

Observation during assessment

- ① no yawning
- ② yawning once or twice during assessment
- ③ yawning three or more times during assessment
- ④ yawning several times/minute

Pupil size:

Anxiety or Irritability:

Clinical Opiate Withdrawal Scale (COWS)

Pupil size:

- 0 pupils pinned or normal size for room light
- 1 pupils possibly larger than normal for room light
- 2 pupils moderately dilated
- 5 pupils so dilated that only the rim of the iris is visible

Anxiety or Irritability:

Measured after patient is sitting or lying for one minute

- 0 none
- 1 patient reports increasing irritability or anxiousness
- 2 patient obviously irritable or anxious
- 4 patient so irritable or anxious that participation in the assessment is difficult

Bone or Joint aches:

If the patient was having pain previously, only the additional component attributed to opiates withdrawal is scored

- 0 not present
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- 4 patient is rubbing joints or muscles and is unable to sit still because of discomfort

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Runny nose or tearing:

Not accounted for by cold symptoms or allergies

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- 1 nasal stuffiness or unusually moist eyes
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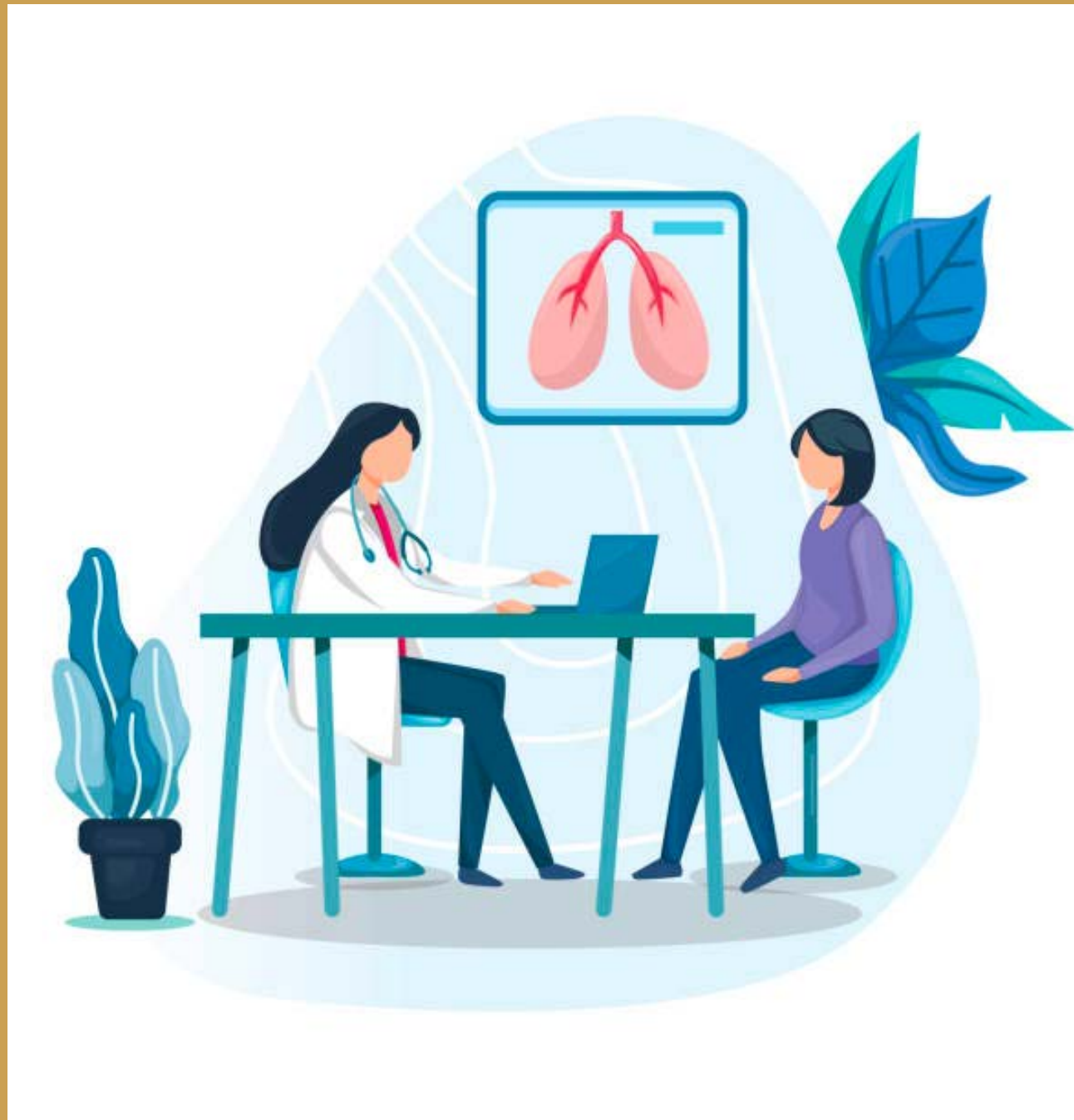
Total Score:

The total score is the sum of all 11 items

Initials of person completing assessment:

Score: 5- 12 = **mild**; 13-24 = **moderate**;
25-36 = **moderately severe**;
more than 36 = **severe withdrawal**

Case Encounter: Jane



- Jane's COWS score is a 15.
- What might you look for upon physical exam?

Physical Examination

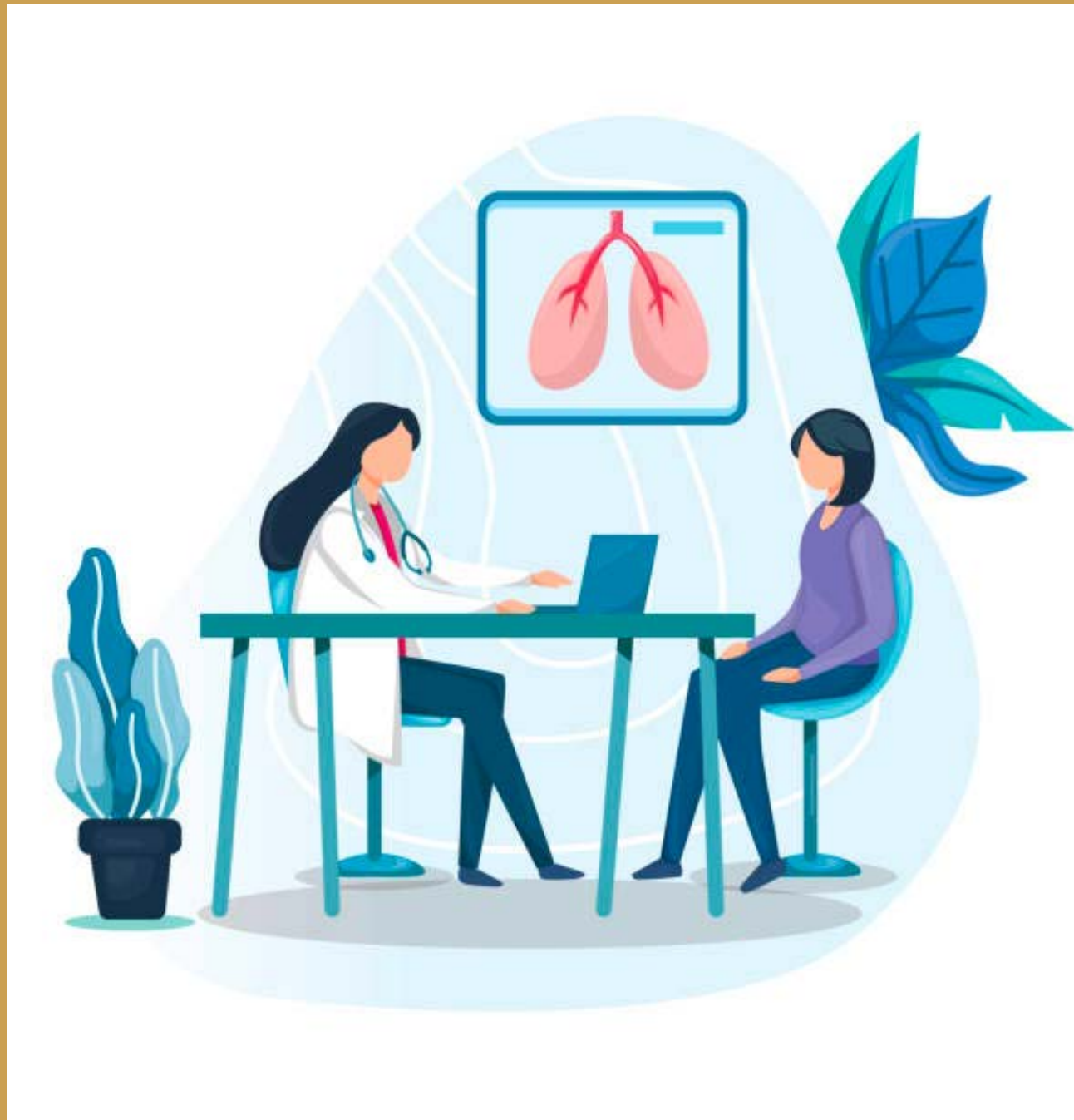
Looking for signs of:

- Intoxication or withdrawal
- Injection drug use
- Acute or chronic disease secondary to injection drug use.

TABLE 2. Objective Physical Signs in Substance Use Disorders

System	Findings
Dermatologic	Abscesses, rashes, cellulitis, thrombosed veins, jaundice, scars, track marks, pock marks from skin popping
Ear, nose, throat, and eyes	Pupils pinpoint or dilated, yellow sclera, conjunctivitis, ruptured eardrums, otitis media, discharge from ears, rhinorrhea, rhinitis, excoriation or perforation of nasal septum, epistaxis, sinusitis, hoarseness, or laryngitis
Mouth	Poor dentition, gum disease, abscesses
Cardiovascular	Murmurs, arrhythmias
Respiratory	Asthma, dyspnea, rales, chronic cough, hematemesis
Musculoskeletal and extremities	Pitting edema, broken bones, traumatic amputations, burns on fingers
Gastrointestinal	Hepatomegaly, hernias

Case Encounter: Jane



- Physical exam findings, COWS score and screening leads you to suspect opioid use disorder.
- You decide to dive deeper and take a comprehensive history.



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Interviewing and History

Patient Evaluation

Initial vs. Comprehensive

- **Completion of a comprehensive assessment should not delay or preclude initiating pharmacotherapy for the patient with an opioid use disorder.**
- **However, if not completed before initiating treatment it should be completed soon after.**
- **The comprehensive assessment of your patient is important in establishing a treatment plan.**

Patient Evaluation

Medical History

- Review of symptoms/prior conditions
- Review of Labs, ECG
- Relationship of medical symptoms to substance use – establish temporality
- Prior diagnoses
- Treatments and response:
 - Medical/Surgical
- Obstetrics/Gynecology:
 - Clarify pregnancy status
 - Pregnancies/Menstrual Status/Birth Control
- Dental care
- Medications:
 - Present/Past
 - Response/Side Effects



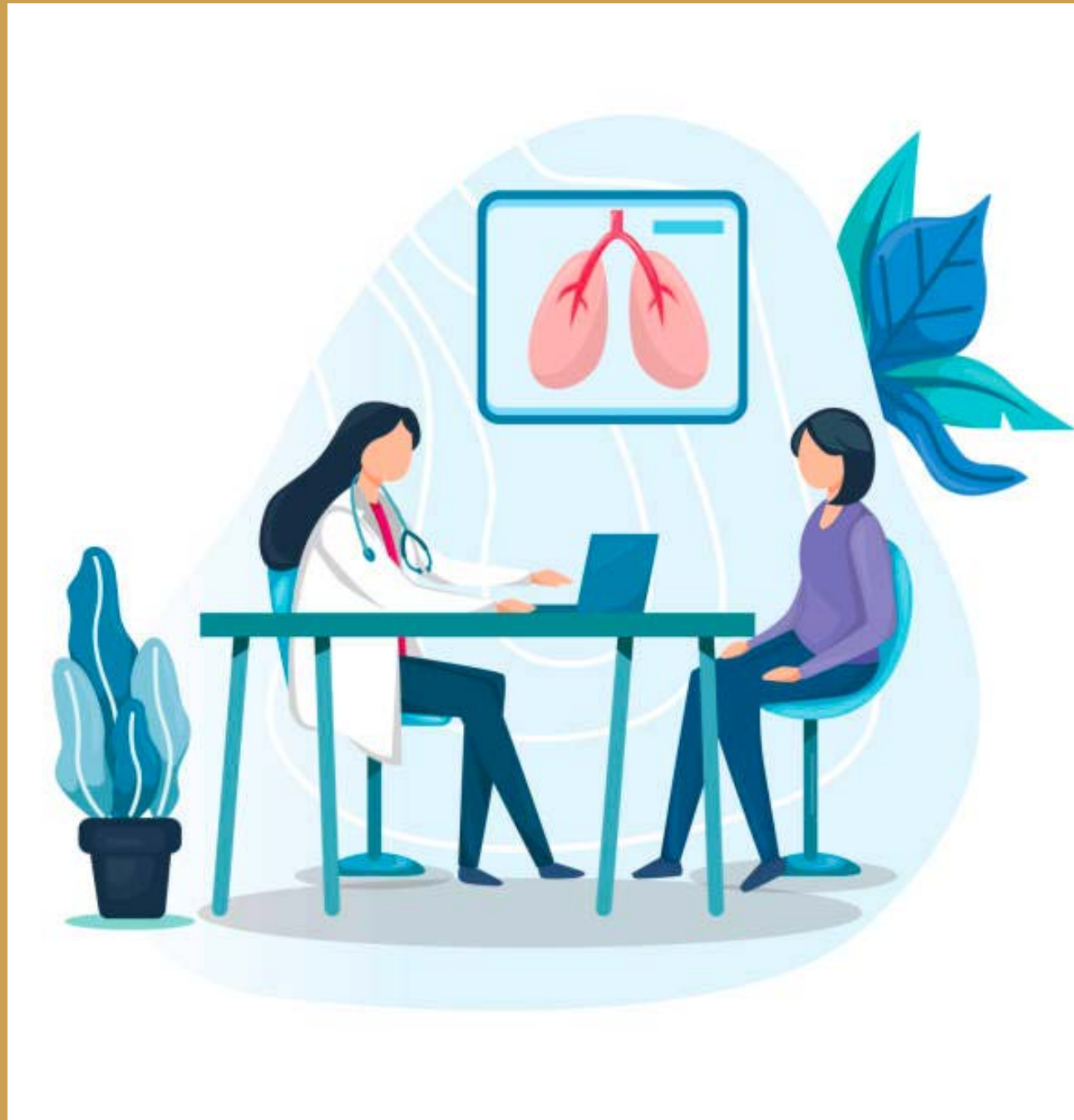
Patient Evaluation

Psychiatric History

- Review of symptoms
- Relationship of psychiatric symptoms to substance use – establish temporality
- Prior diagnosis
- Trauma
- Stressors
- Treatments and response:
 - Inpatient/Residential
 - Intensive Outpatient Programs (IOPs)/ Partial Hospitalization Programs (PHPs)
 - Outpatient
- Psychotropic medications
 - Past/Present
 - Response/Side effects



Case Encounter: Jane



- Past Medical Hx: Asthma, + pancreatitis, caused by chronic alcohol use, seven hospitalizations in the past 7 years for this. + for Hep C, negative for HIV.
- No history of pregnancies, is sexually active, not on oral contraception
- History of PTSD, sexual trauma as a teenager, currently prescribed sertraline 100 mg

Patient Evaluation

Social History

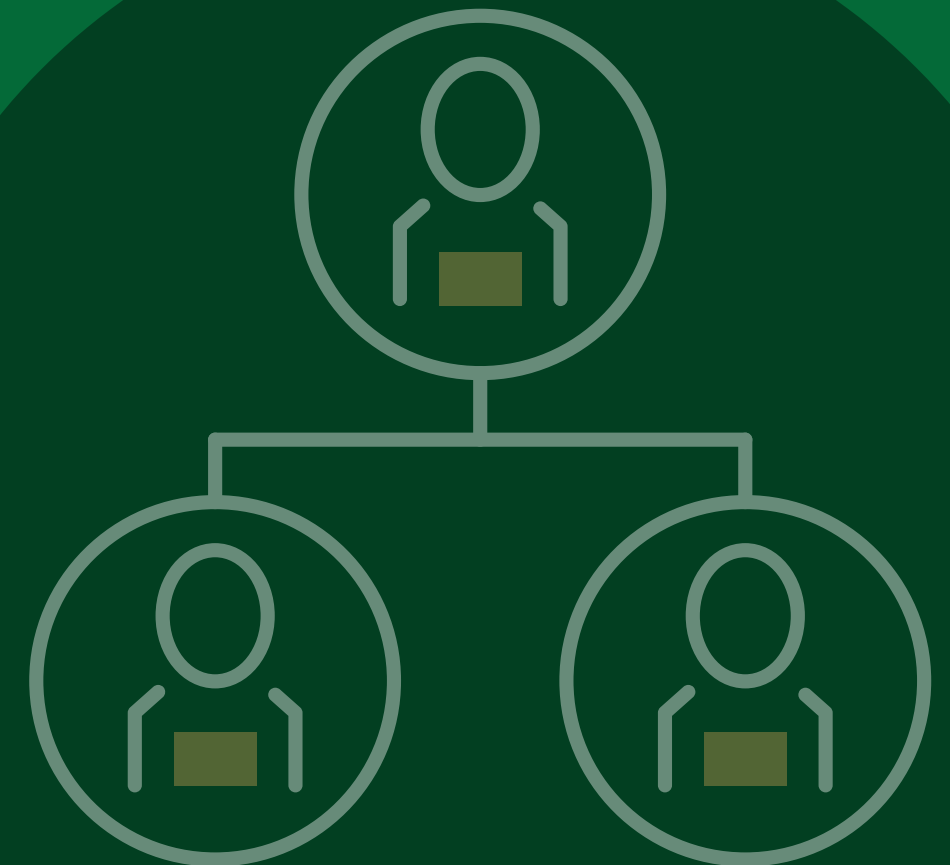
- Birth and early development
- Education:
 - Difficulty concentrating
 - Difficulty completing school on time
- Current employment status and prior occupations
- Marital status, children, close supports
- Living situation
- Legal status (No longer part of the Dx)
- Current Stressors



Patient Evaluation

Family History

- Substance use disorders
- Other psychiatric conditions
- Other medical disorders



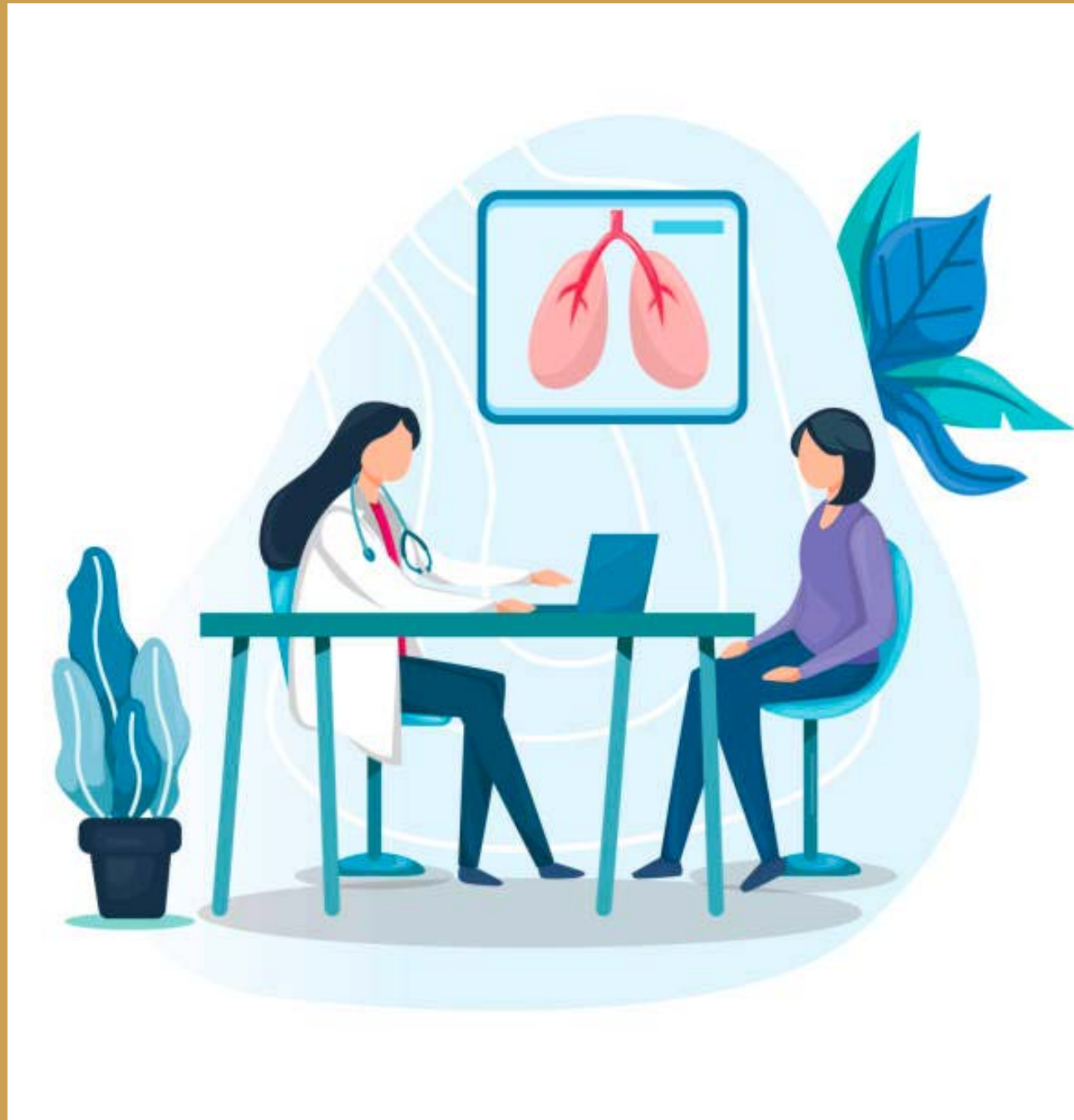
Patient Evaluation

Substance Use History:

- Ask about all substances:
 - Nicotine
 - Opioids: prescription opioids, non-prescribed opioids, heroin
 - Alcohol, marijuana
 - Hallucinogens, sedative/hypnotics, stimulants, other

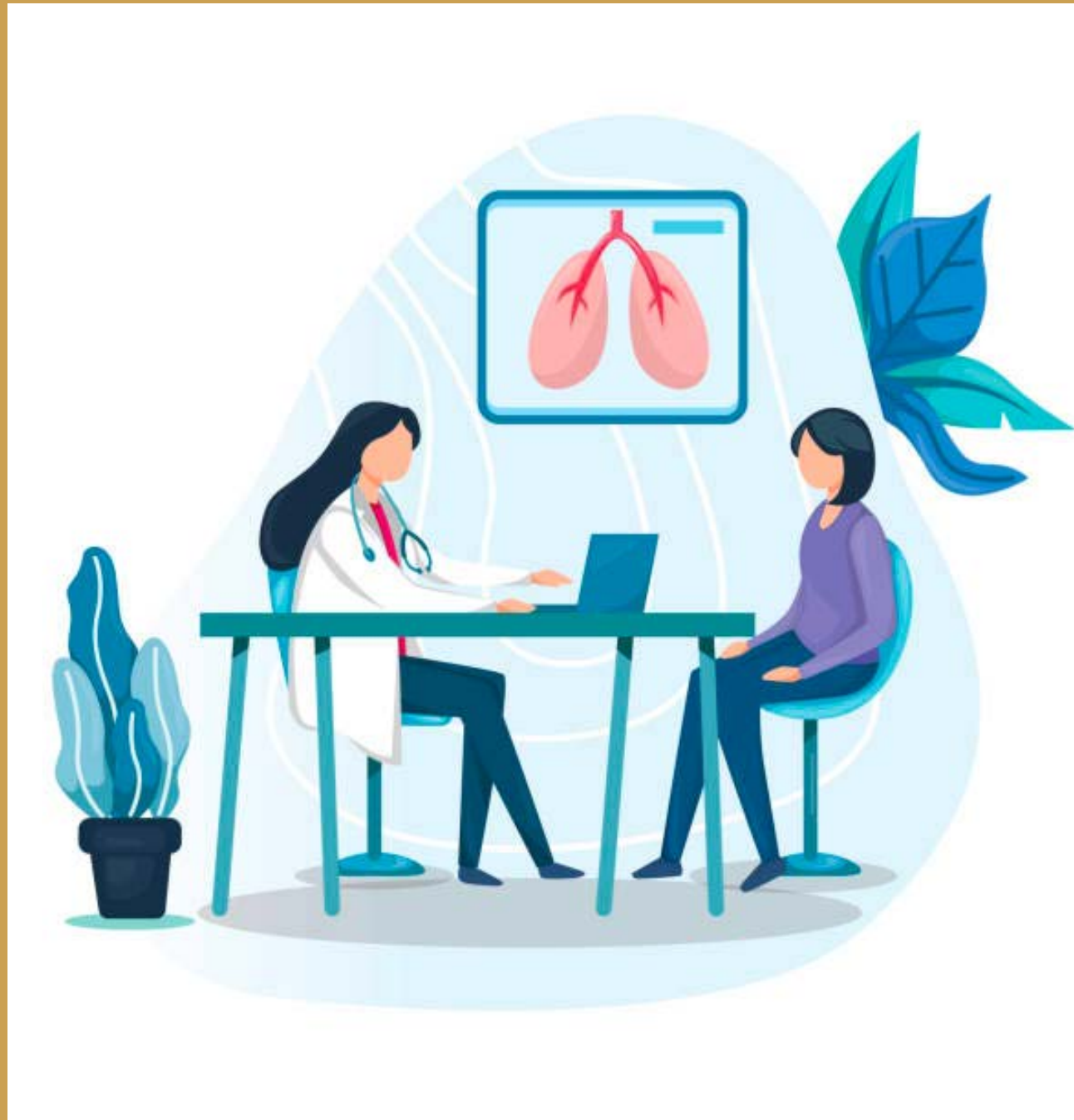


Case Encounter: Jane



- History of alcohol use disorder. Drank 1 bottle of wine daily for six years. History of delirium tremens with detox.
- Treated for alcohol use disorder with residential detoxification, 30 day inpatient stay, 6 months of outpatient treatment. No SUD treatment in the past 3 years. She has not drunk any alcohol in the past 3.5 years. But has used opiates daily for the past year.

Case Encounter: Jane

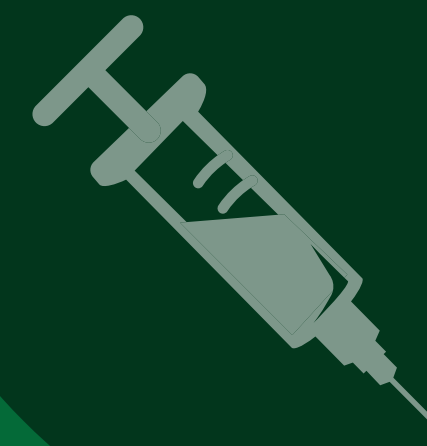


- Completed 12th grade and attended cosmetology school.
- Previously worked full-time as a hair stylist but is currently unemployed. Lost her job due to ongoing health issues.
- Divorced, no children
- Father has a history of alcohol use disorder
- paternal grandfather completed suicide

Patient Evaluation

Substance Use History:

- Age at first use
- Determine patterns of use over time:
 - Frequency
 - Amount
 - Route
- Assess recent use (past several weeks)
- Cravings and control:
 - Assess temporality and circumstances
 - Determine if patient sees loss of control over use



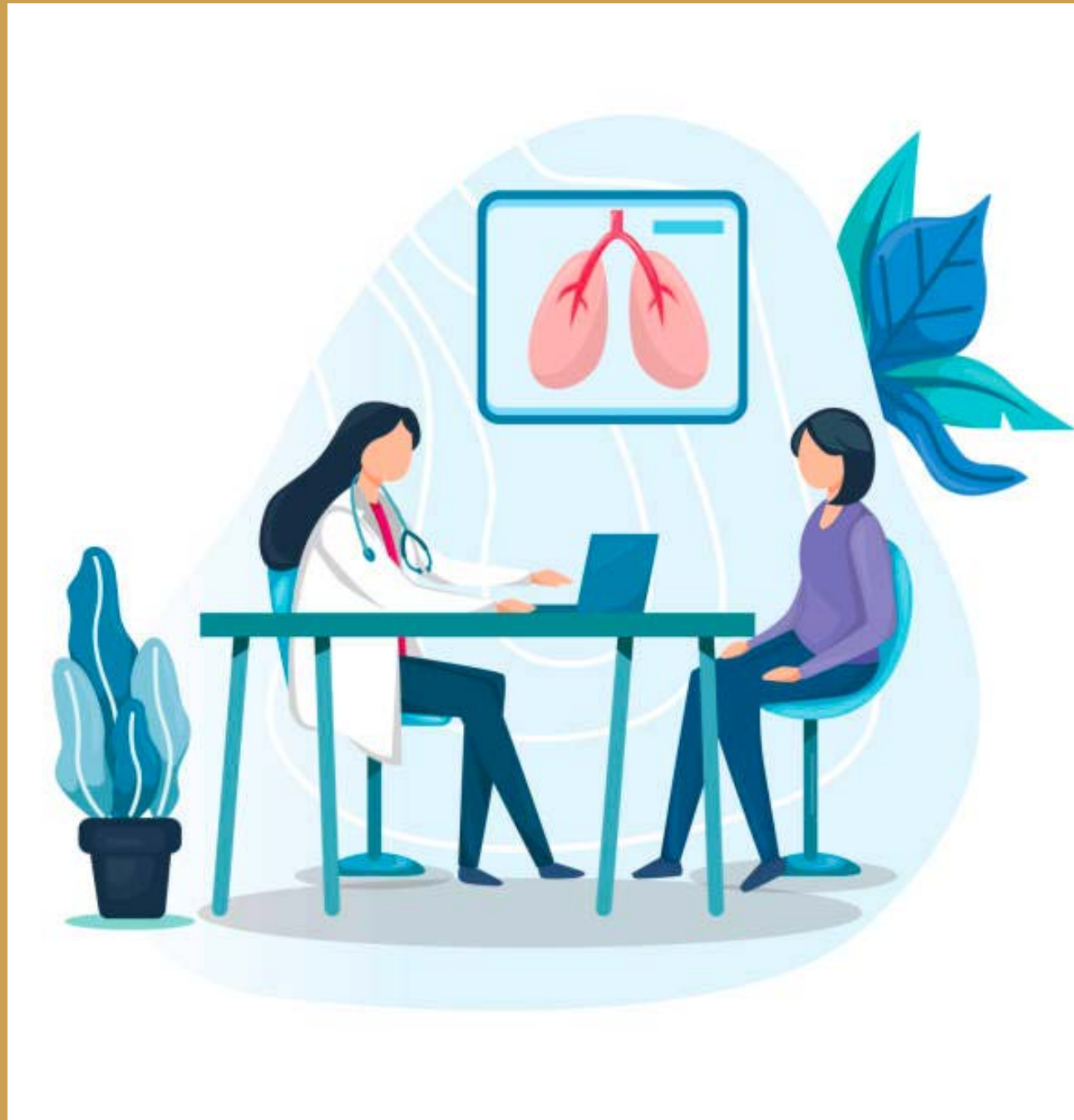
Patient Evaluation

Substance Use History: Return to Use

- Return to use/attempts to abstain:
 - Determine if the patient has tried to abstain
 - What happened?
 - What helped?
- Longest period of abstinence
- Identify triggers to relapse
- History of MOUD in the past



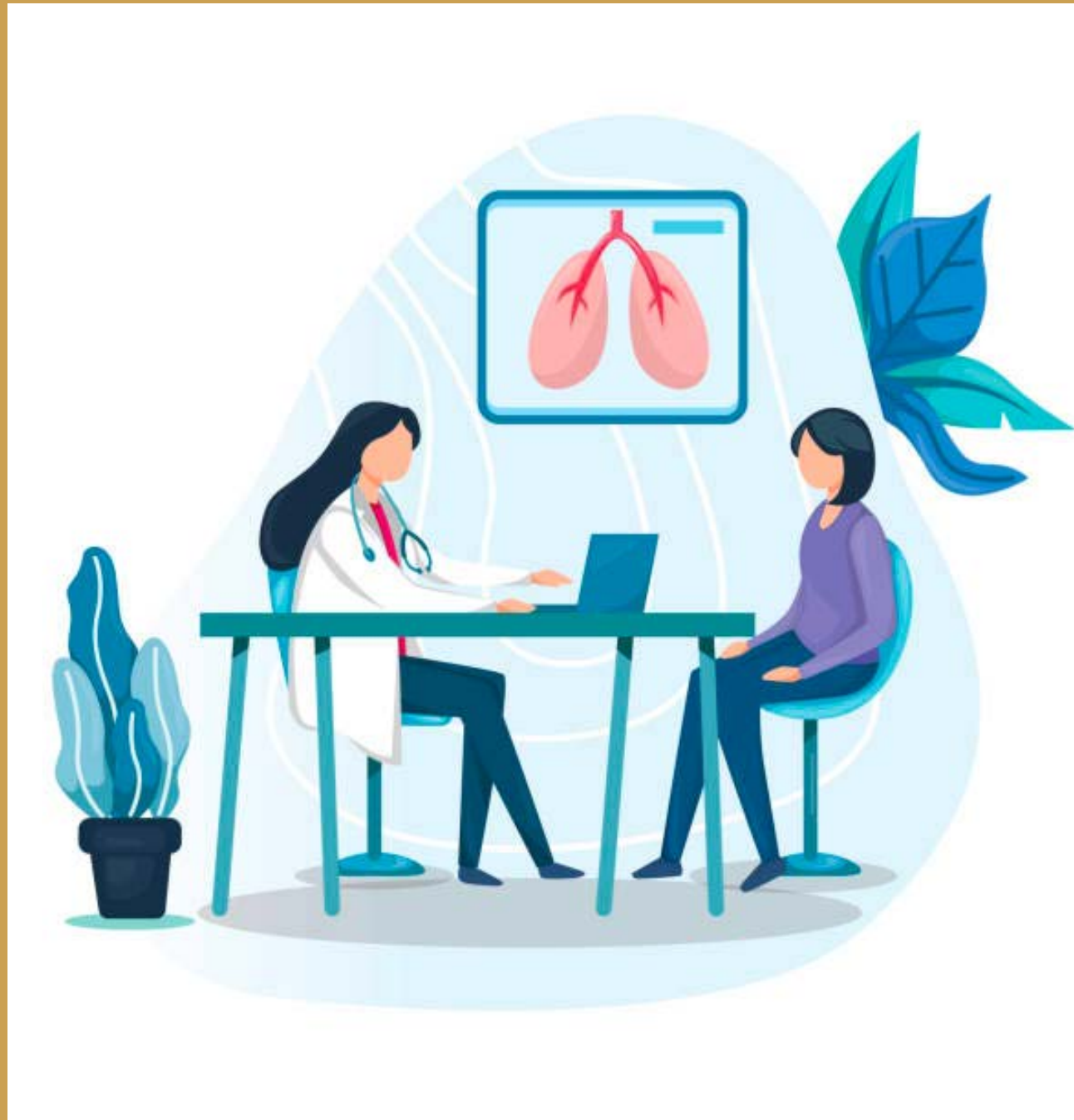
Case Encounter: Jane



SUD history:

- uses cannabis daily, started smoking cannabis at age 15.
- Started drinking alcohol around age 18
- denies any use of stimulants
- Opioid use: started with opioid pills, about two years ago, eventually progressed to IV fentanyl; has a history of three overdoses. Injects multiple times daily.

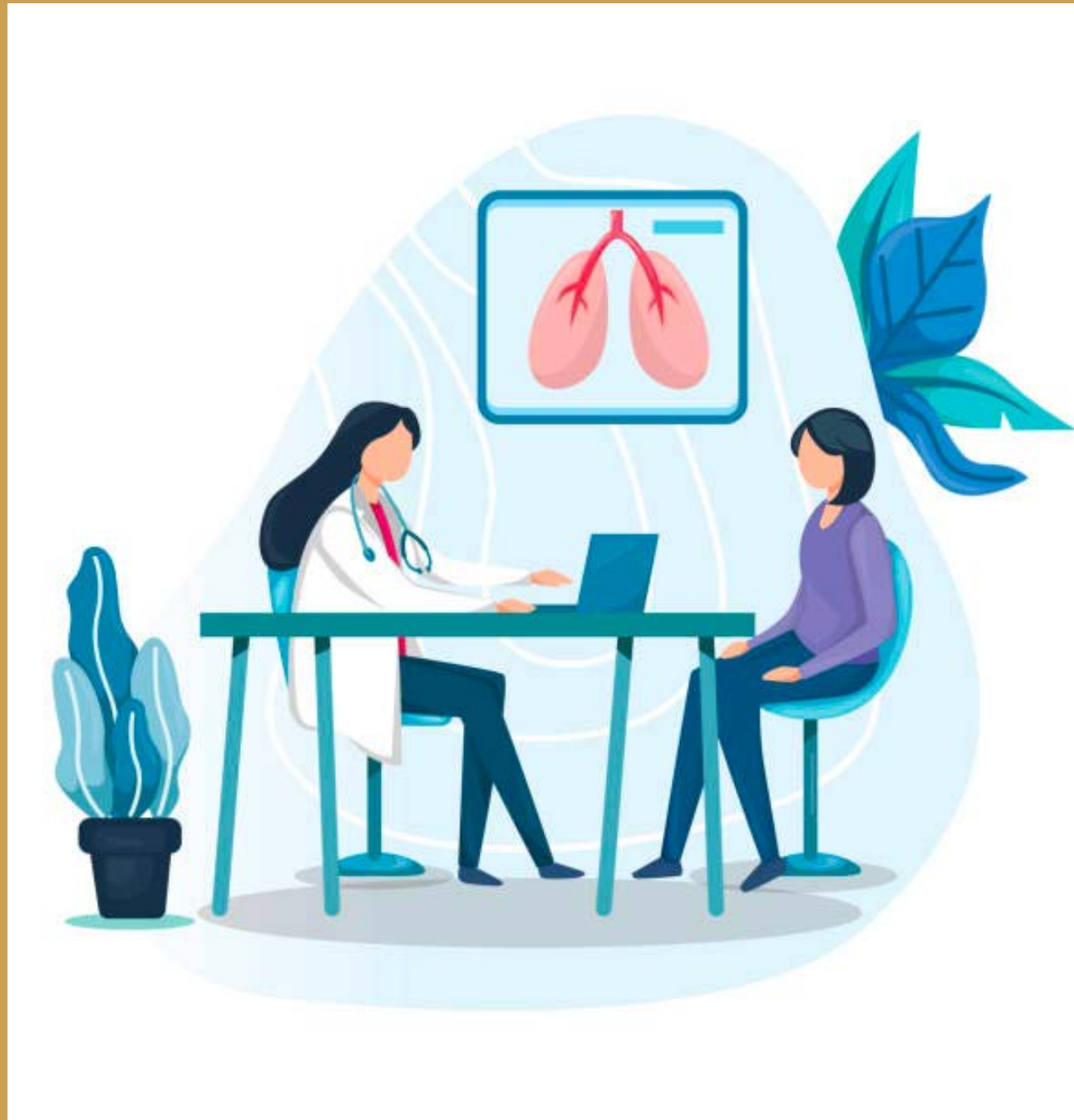
Case Encounter: Jane



SUD History:

- History of one inpatient residential treatment center for OUD two years ago.
- After this, she was previously on extended-release naltrexone and did well on this for 6 months until insurance stopped paying for it, returned to daily use about one month later.

Case Encounter: Jane



SUD History:

- She endorses cravings daily and has tried to quit on her own many times, but was unable to tolerate withdrawal symptoms.
- She wants to go back to work but spends much of her day trying to get well/reduce withdrawal symptoms
- She mourns the loss of a significant other who broke up with her due to her drug use.

Patient Evaluation

Substance Use History:

History of Previous Treatment

- Treatment episodes:
 - Response to treatment
 - Attitudes towards various treatment settings and mutual support groups (AA, NA etc.)
 - Length of abstinence



Patient Evaluation

Substance Use History: Effects and Consequences

- Tolerance, intoxication, withdrawal:
 - Explain what is meant by tolerance
 - Determine the patient's tolerance and withdrawal history
 - Ask about complications associated with intoxication and withdrawal



Patient Evaluation

Substance Use History: Effects and Consequences

- Consequences of use:
 - Determine current and past levels of functioning
 - Aberrant behaviors (e.g. sedation, deterioration in function)
- Identify consequences:
 - Medical
 - Family
 - Employment
 - Legal
 - Psychiatric
 - Other

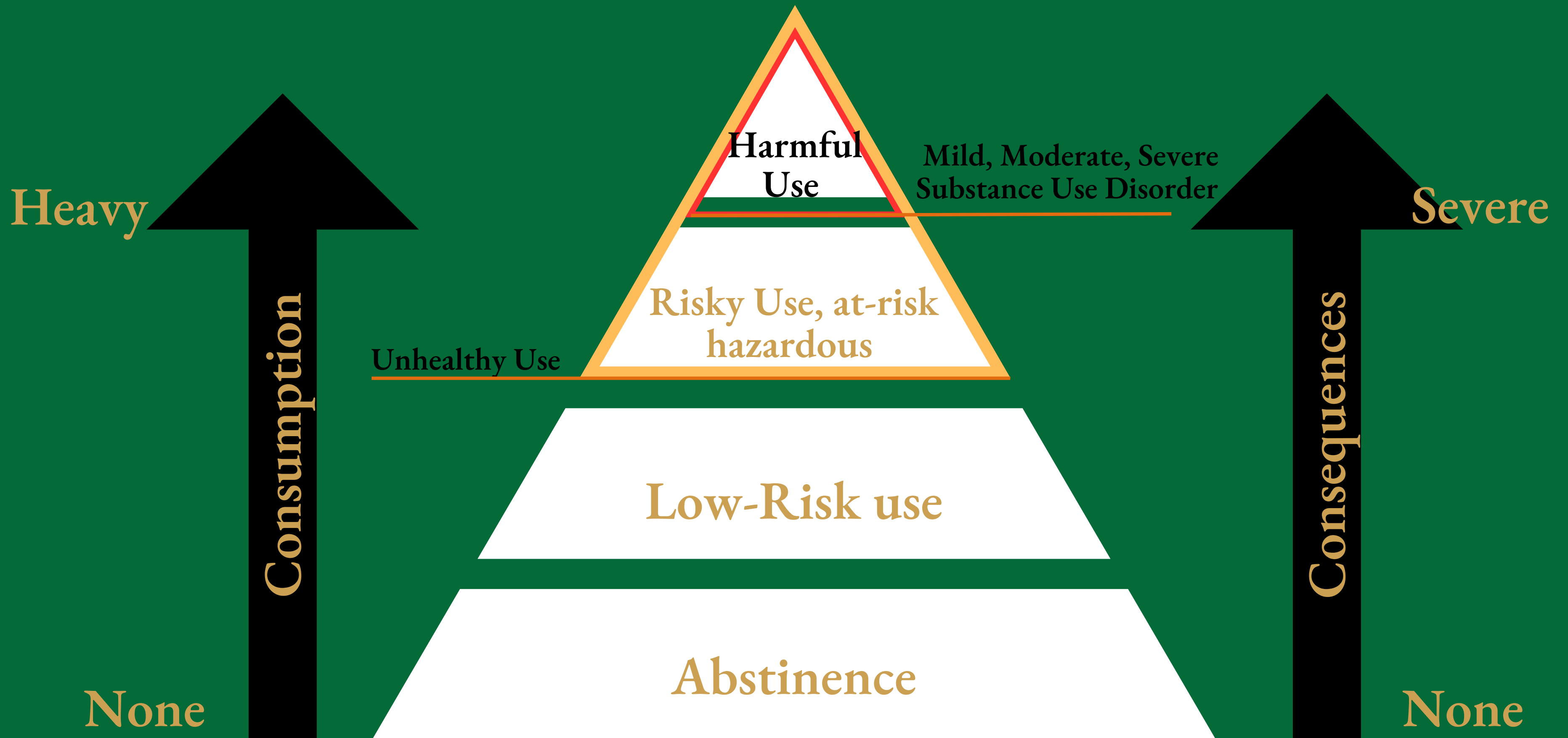




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DSM-5

Spectrum of Substance Use



Alcohol Use
Substance Use
Urine + Substance
Urine neg Substance



Alcohol Use Disorder
Substance Use Disorder
Substance Use Disorder
No SUD



DSM-5 Criteria

- Impaired Control
 - Larger amounts, longer time
 - Inability to cut back
 - More time spent, getting, using, recovering
 - Craving
 - Social Impairment
 - Failure to fulfill major role obligations
 - Social or interpersonal problems related to use
 - Important social activities given up to use.
- Risky use
 - Physically hazardous use
 - Continued use despite associated recurrent physical or psychological problems.
- Pharmacological
 - Tolerance
 - Withdrawal
 -



DSM V Criteria

- Impaired Control
 - Larger amounts, longer time
 - Inability to cutback
 - More time spent, getting, using, recovering
 - Craving
 - Social Impairment
 - Failure to fulfill major role obligations
 - Social or interpersonal problems related to use
 - Important social activities given up to use.
- Risky use
 - Physically hazardous use
 - Continued use despite associated recurrent physical or psychological problems.
- Pharmacological
 - Tolerance
 - Withdrawal

- **A substance use disorder is defined as having 2 or more of these symptoms in the past year**
- **Tolerance and withdrawal criteria are not considered when taken appropriately by Rx.**
- **Severity is related by the number of symptoms.**

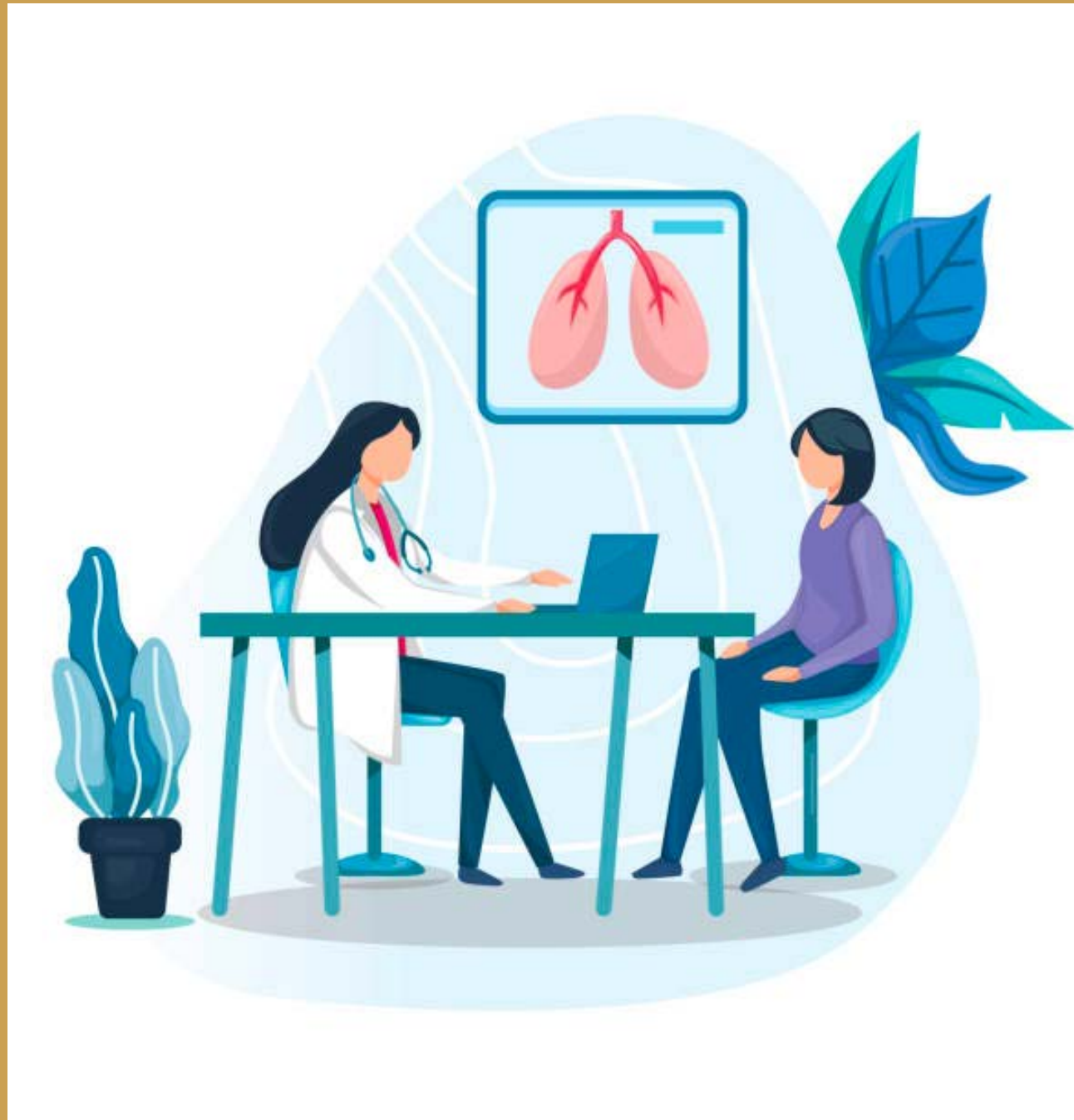
2-3 = mild

4-5 = moderate

6+ = severe



Case Encounter: Jane



What is Jane's DSM-5 diagnosis?

- She endorses cravings daily and has tried to quit on her own many times, but was unable to tolerate withdrawal symptoms.
- She wants to go back to work but spends much of her day trying to get well/reduce withdrawal symptoms
- She mourns the loss of a significant other who broke up with her due to her drug use.

DSM V Criteria

- Impaired Control
 - Larger amounts, longer time
 - Inability to cutback
 - More time spent, getting, using, recovering
 - Craving
 - Social Impairment
 - Failure to fulfill major role obligations
 - Social or interpersonal problems related to use
 - Important social activities given up to use.
 - Risky use
 - Physically hazardous use
 - Continued use despite associated recurrent physical or psychological problems.
 - Pharmacological
 - Tolerance
 - Withdrawal
- 2-3 = mild**
4-5 = moderate
6+ = severe





Legal Consequences

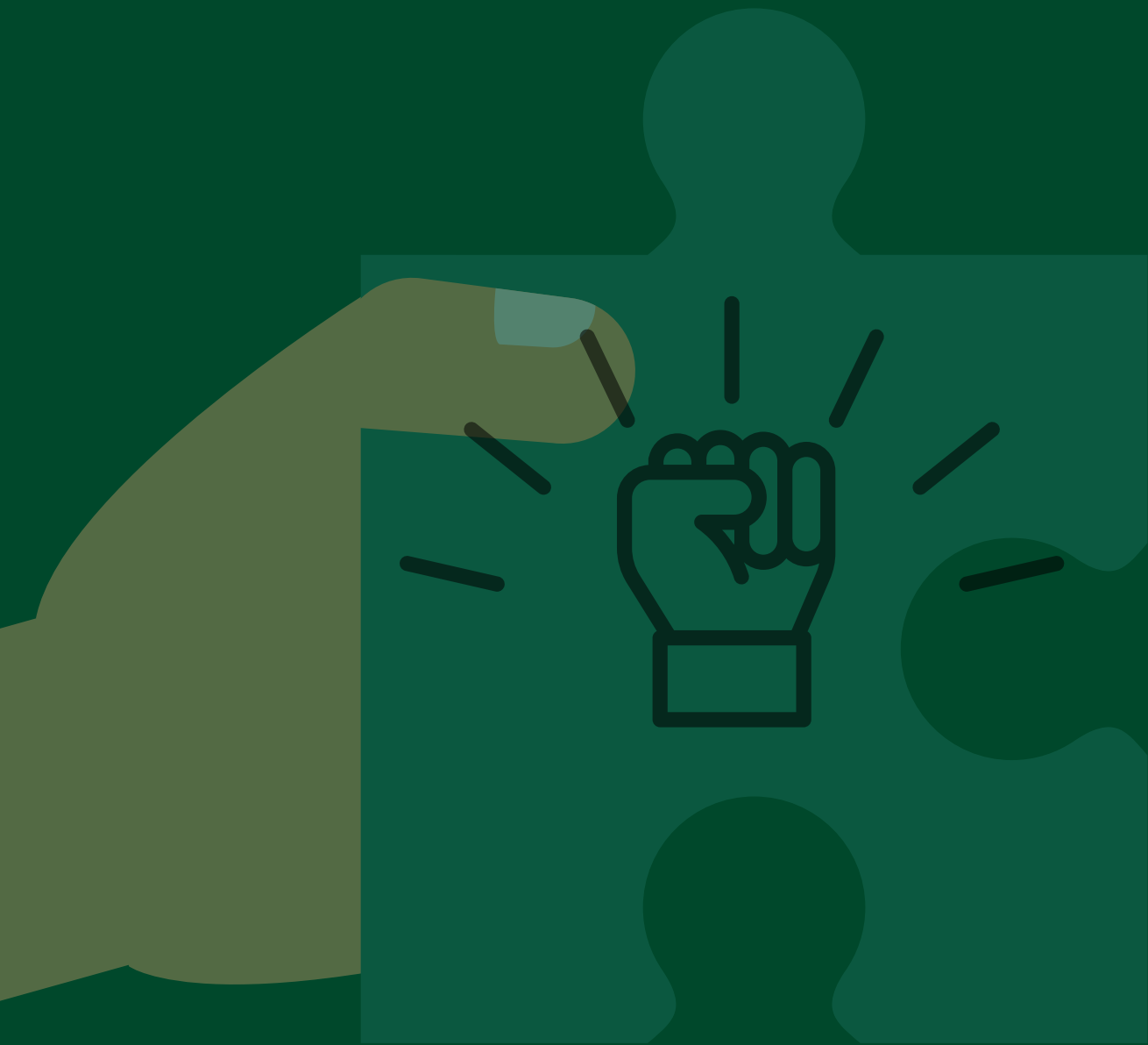
- ✦ Legal issues are **NOT** part of the DSM 5
- ✦ Removal from DSM IV to DSM 5
- ✦ Due to known biases in legal issues in persons who use substances



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Motivational Interviewing

MOTIVATIONAL INTERVIEWING



- Developed by Miller and Rollnick in the 80's
- Collaborative conversation style for strengthening a person's motivation and commitment to change.
- Establishing a spirit of acceptance and compassion.
- Person-Centered counseling style for addressing the common problem of ambivalence about change.

MOTIVATIONAL INTERVIEWING

Often our jobs as clinicians are to discuss behavior change with our patients

You should stop
smoking

I've tried before
and it never
works



MOTIVATIONAL INTERVIEWING

Often our jobs as clinicians are to discuss behavior change with our patients

You should stop
smoking

Smoking is my stress relief and
my job is too stressful right
now to quit



MOTIVATIONAL INTERVIEWING

Often our jobs as clinicians are to discuss behavior change with our patients

You should stop
smoking

My boyfriend smokes
and I can't quit unless
he does too...



MOTIVATIONAL INTERVIEWING

Often our jobs as clinicians are to discuss behavior change with our patients

This is so frustrating. I feel incompetent. Why can't I make her understand?



MOTIVATIONAL INTERVIEWING

Often our jobs as clinicians are to discuss behavior change with our patients

Well, I feel powerless.
This patient is
noncompliant.



MOTIVATIONAL INTERVIEWING

Often our jobs as clinicians are to discuss behavior change with our patients

There's nothing I can do, she won't listen. I am just wasting my time.



MOTIVATIONAL INTERVIEWING

- MI helps you feel less frustrated as a clinician
- It helps you feel more effective in creating behavior change
- MI is a guiding style of language.
- Evokes the patient's reasons for change



MOTIVATIONAL INTERVIEWING

- MI is NOT psychotherapy
- It can be incorporated into almost every setting
- It can take just a few minutes
- Does not need specialized training - BUT you do get better with practice!
- Evidence-based

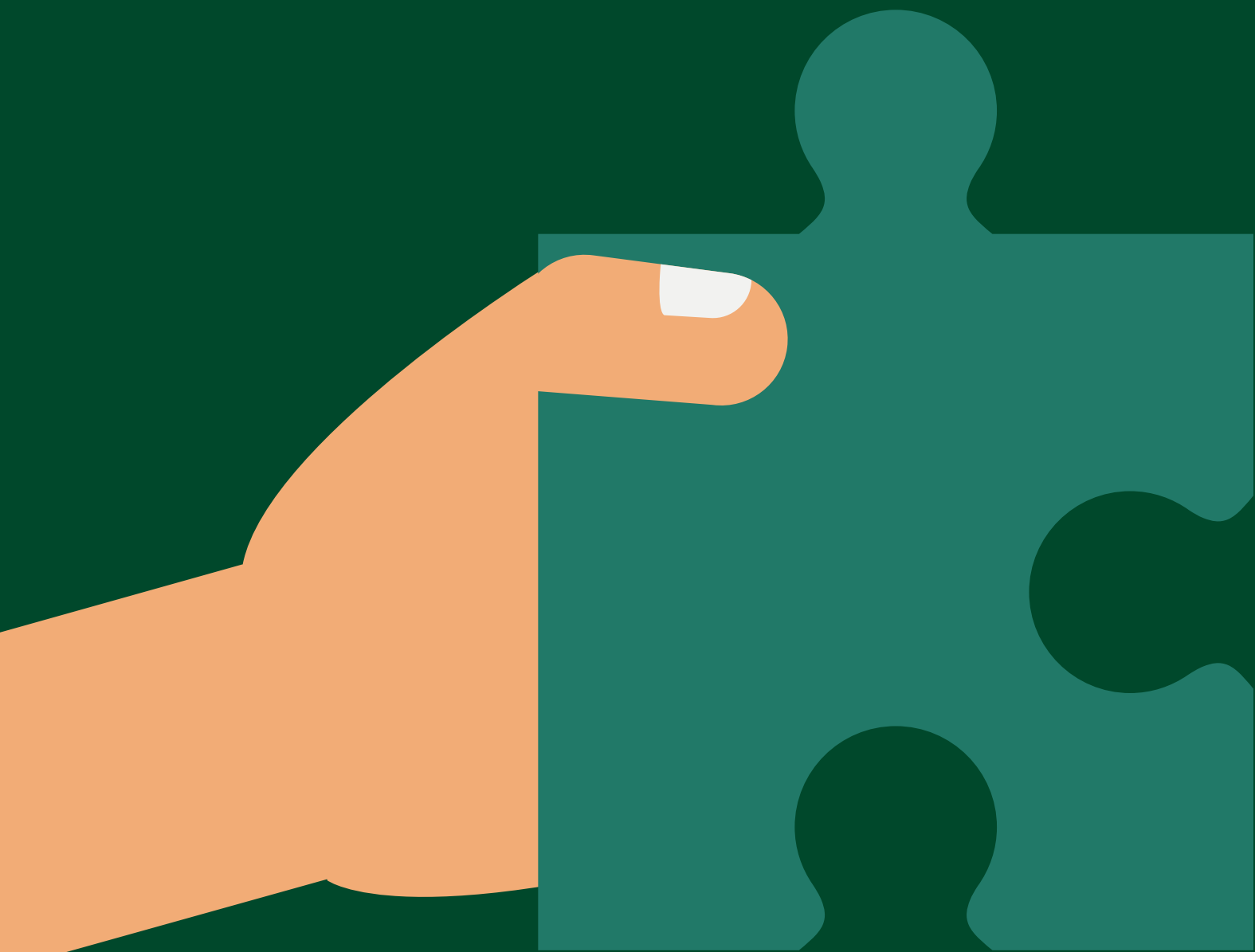


MOTIVATIONAL INTERVIEWING

Four Key Principles of MI



MI SKILLS



○ OPEN ENDED QUESTIONS

○ AFFIRMATIONS

○ REFLECTIVE LISTENING

○ SUMMARIZING

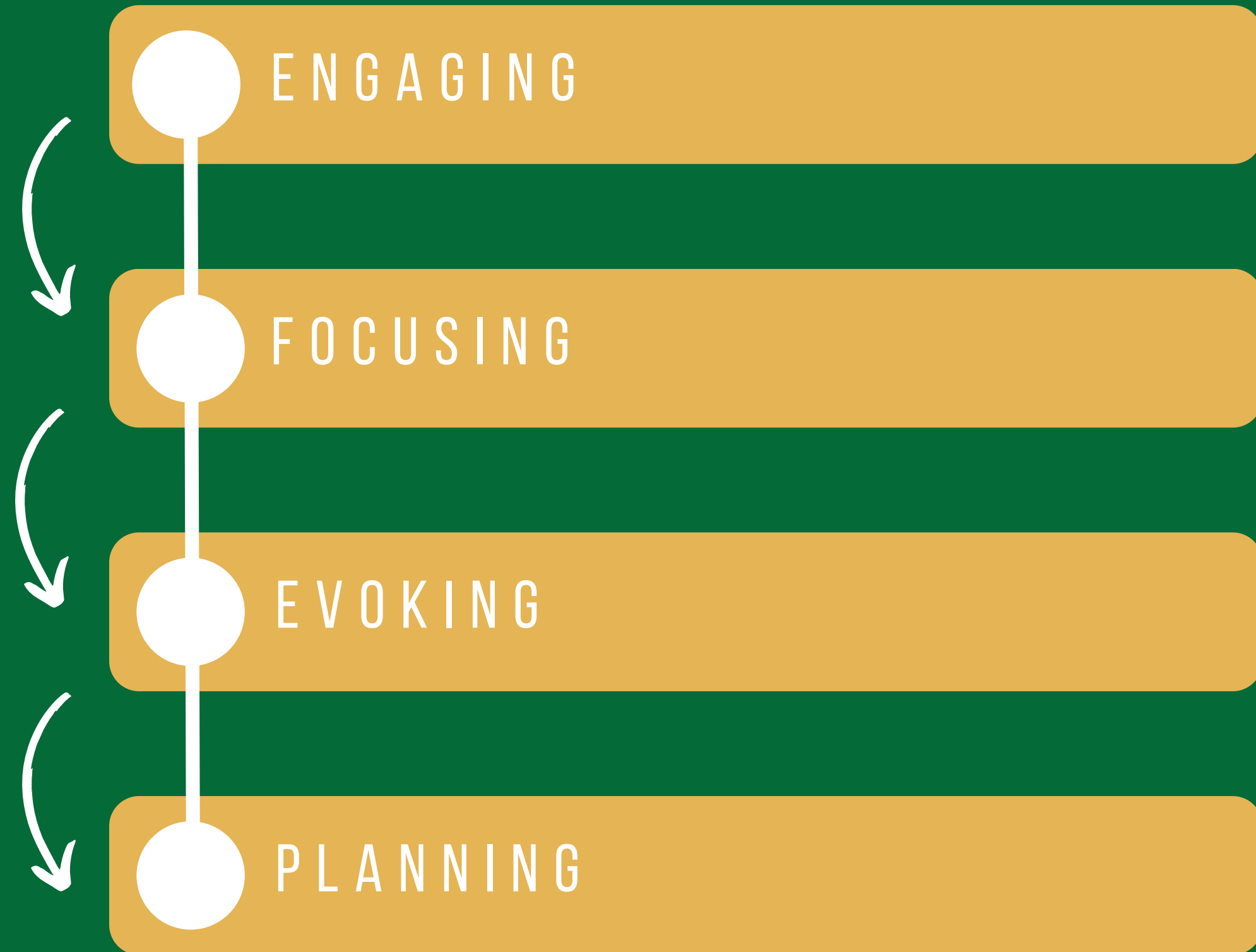
○ INFORMING AND ADVISING

(ONLY DONE WITH PATIENT REQUEST OR PERMISSION)

MI PROCESS

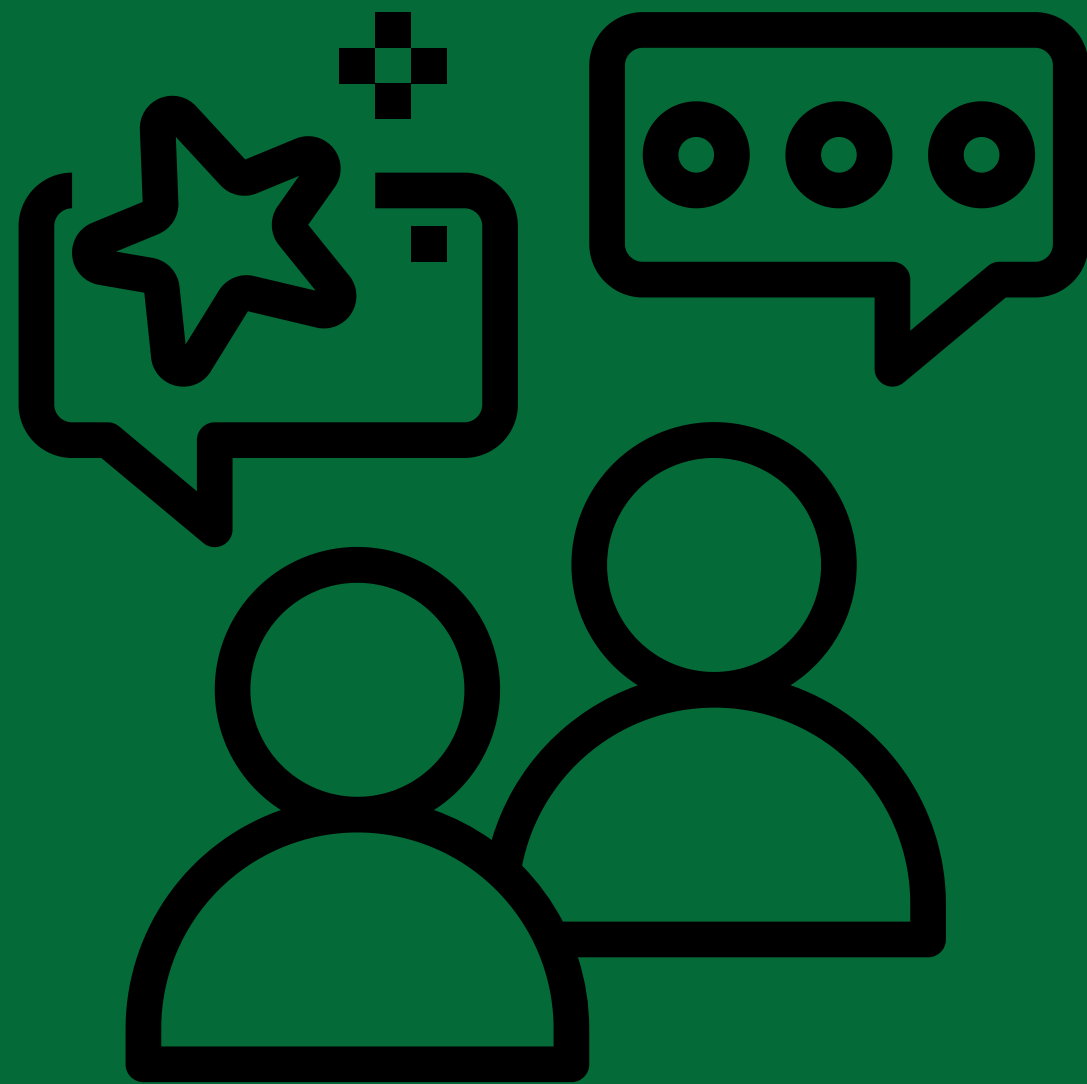
These 4 processes can be completed in the same visit, but also iteratively over multiple visits and over many encounters

However, there should be no expectation that a single brief conversation alone will change people's behavior.



MI TIPS TO ENGAGE

ENGAGING



● Would it be okay if we spent a few minutes talking about your drug use?

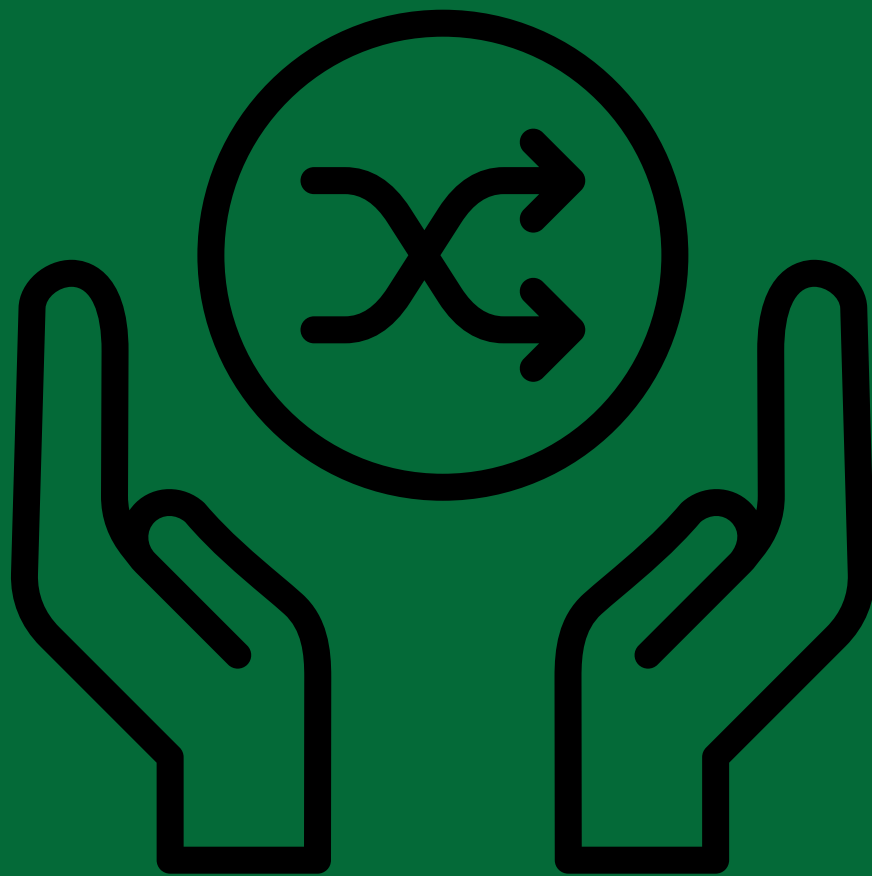
● Tell me a little bit about how your drug use fits into your life

● Help me understand - what are some parts about using [substance] that you like?

● What are some things about using [substance] that you don't like?



- What goals do you have?
- What do you want to focus upon today?
(If they don't have any ideas, you can suggest!)
- This is where you can explore the ambivalence!
- Ask yourself: Do I have different aspirations for change for this person?
Are we working together with a common purpose?



● What are your reasons for wanting to change?

● Is the reluctance more about confidence or importance change? Ask them about how confident they are, how important this might be to them!

● What change talk am I hearing? (Reflect back what they say)

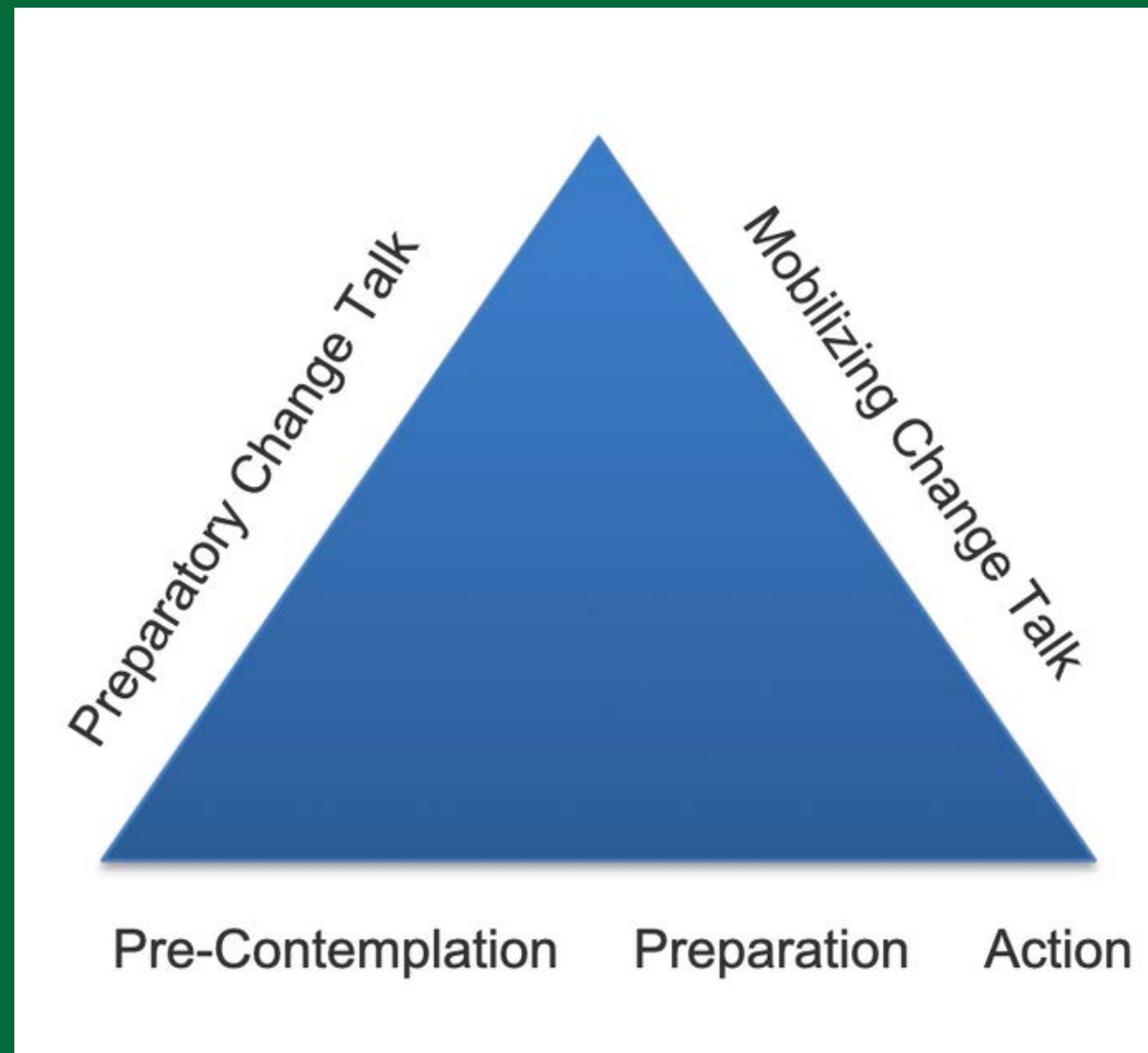
● Am I moving too fast in a particular direction?



- What would be a reasonable next step towards change?
- What would help you move forward?
- What barriers might stand in the way?
- Is there any additional information you might need?
- What support do you have in place?

MOTIVATIONAL INTERVIEWING

AMBIVALENCE



Ambivalence is a normal step on the road to change.

Needs to be explored not confronted.

Can involve simultaneously conflicting motivations.

Contemplating change involves self talk, thinking about the pros and cons of available alternatives.

MOTIVATIONAL INTERVIEWING

AMBIVALENCE



Ask about fears and beliefs about medications. Provide psychoeducation and remain honest.

Reflect that these feelings of ambivalence can cause distress/discomfort.

Recognize and acknowledge fears

- change is scary
- overwhelming feelings

MOTIVATIONAL INTERVIEWING



EXERCISE

Partner up!

Work with a partner and practice your skills.

One person plays a health care professional and the other plays a person who smokes 1 pack per day of cigarettes.



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Harm Reduction



What is Harm Reduction?



What is Harm Reduction?

The Intersection of Prevention & Harm Reduction Efforts

PREVENTION

PRIMARY

Preventing the initial use of or the delay of initial substance use

SECONDARY

Early detection of or reduction of substance use once problems have already begun

TERTIARY

Reducing substance use problems or harms to prevent further deterioration or death.

HARM REDUCTION

- Harm reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use.
- It is also a movement for social justice, built on a belief in, and respect for, the rights of people who use drugs.

Principles of Harm Reduction



- Accepts that drug use is a part of our world.
- Drug use is complex.
- Emphasizes quality of life.
- Calls for non-judgmental, non-coercive services.
- Ensures that people who use drugs have a voice.
- Empowers people who use drugs as the primary agents of harm reduction
- Recognizes that the realities of poverty, class, racism, social isolation, past trauma, sex-based discrimination, and other social inequalities
- Does not attempt to minimize or ignore the real and tragic harm and danger that can be associated with illicit drug use

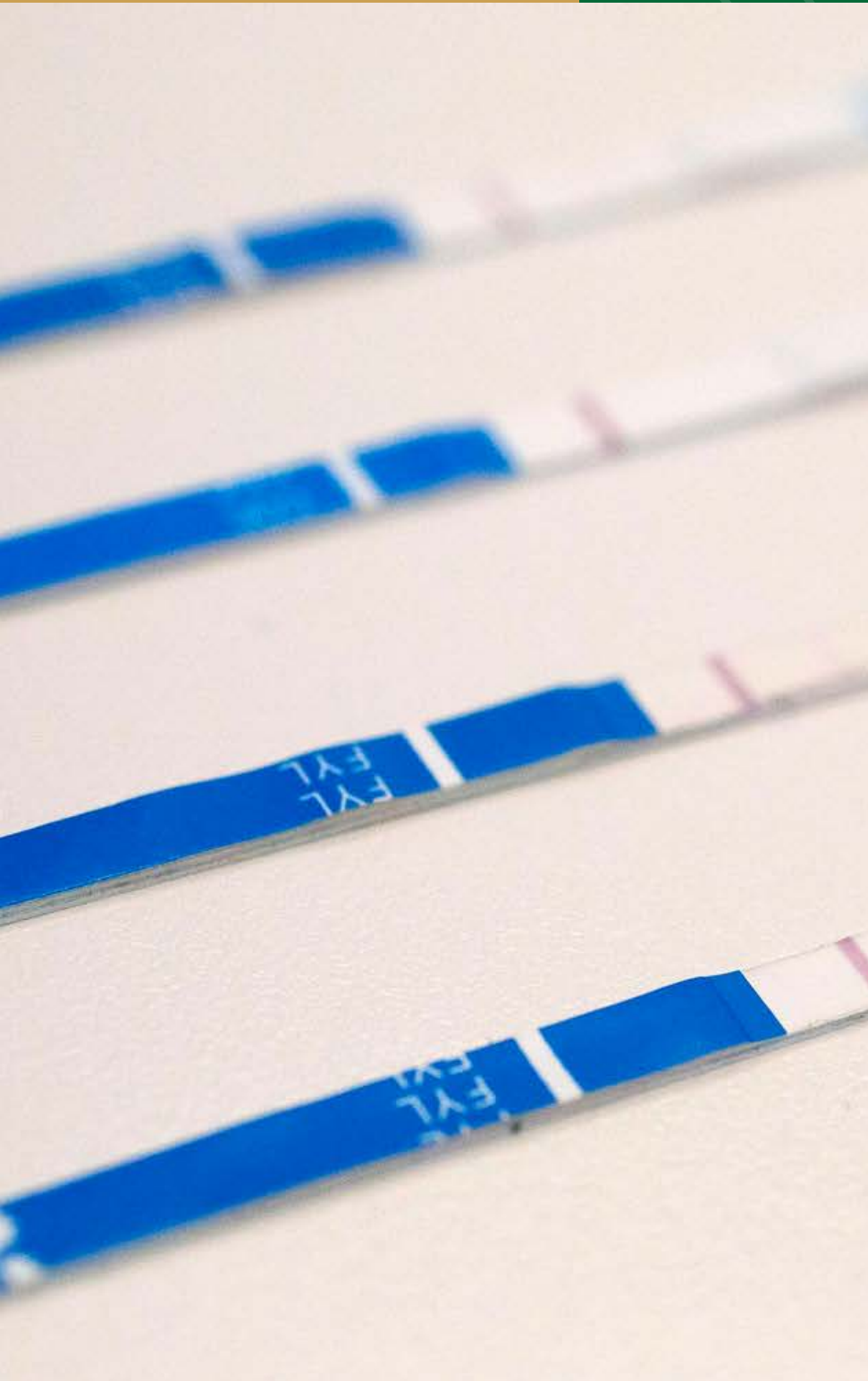
Putting Harm Reduction into Practice

- Assessing your patient's goals
- Low barrier access (i.e. MOUD)
- Developing a non-stigmatizing culture
- Promoting patient autonomy




Harm Reduction for OUD

- Connect individuals to overdose education, counseling, and referral to treatment for infectious diseases/SUD
- Distribute opioid overdose reversal medications (e.g., naloxone) to individuals at risk of overdose, or to those who are likely to respond to an overdose.
- Reduce infectious disease transmission among people who use drugs (including those who inject drugs) by equipping them with sterile supplies, accurate information and facilitating referrals to resources.
- Peer support
- Safe Injection Sites



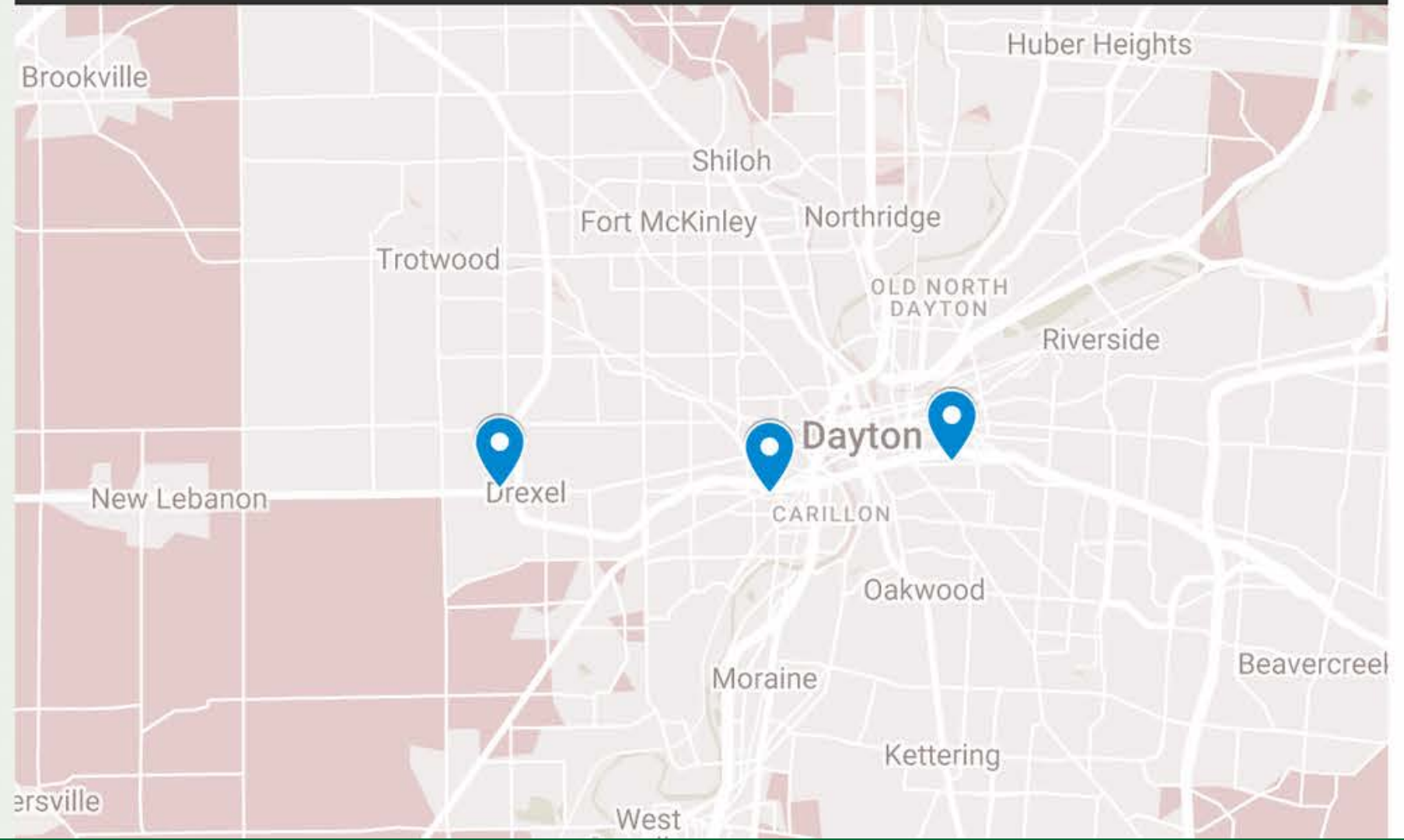
Needle Exchange for OUD



 **Carepoint Locations** ★
PublicHealthDMC
[This map was made with Google My Maps. Create your own.](#)

Locations

- Vogel Health Center, 6175 W. Third St., Dayton, OH on Tuesdays from 10am - 5:00 pm & Fridays from 9:00 am to 3:30 pm.
- Carepoint Mobile Unit will be located on Dover Street near the East End Community Services every Wednesday from 10am - 1pm
- CarePoint Mobile Unit on Willard Street behind the old DayMont Behavioral Health Building every Monday 10:00 a.m. - 3:30 p.m.



Ethical Framework of Harm Reduction

Beneficence

Doing incremental good is just fine.

Autonomy

Honoring patient preference more likely to occur when practicing harm reduction.

Non-maleficence

Harm reduction intentionally promotes practices to avert the harms of drug use.

Justice

Promoting health equity through low-barrier access to evidence-based treatments. Recognizing broad and multifaceted contexts of addiction.

HARM REDUCTION



EXERCISE

Partner up!

Work with a partner and practice your skills.

Switch roles this time!

One person plays a health care professional and the other plays a person who injects IV opioids daily but does NOT want to quit. This time, as the health care professional, discuss ways to minimize harms **WITHOUT** cessation!

Board Review Question

A 26-year-old patient is brought to the emergency department due to psychomotor retardation, drowsiness and slurred speech. On physical examination the patient's pupils are noted to be constricted. Intoxication with which of the following substances is most likely?

- A. Alcohol
- B. Opioids
- C. Cocaine
- D. Amphetamines
- E. Benzodiazepines

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Opioid Use Disorder

Tolerance to Opioid Effects



✦ With repeated exposure to opioids, tolerance (needing more to produce the same effect) develops.

✦ Tolerance involves changes in receptor numbers and functions.

✦ Tolerance develops at different rates, and to different extents, for different effects:

Rapid Tolerance

- sedation
- euphoria
- respiratory depression
- nausea

Little or no tolerance

- constipation
- pupil constriction

✦ Tolerance is **LOST** while abstaining from opioids for extended period, including during treatment with an opioid antagonist (i.e. naltrexone)

Opioid Intoxication Signs and Symptoms

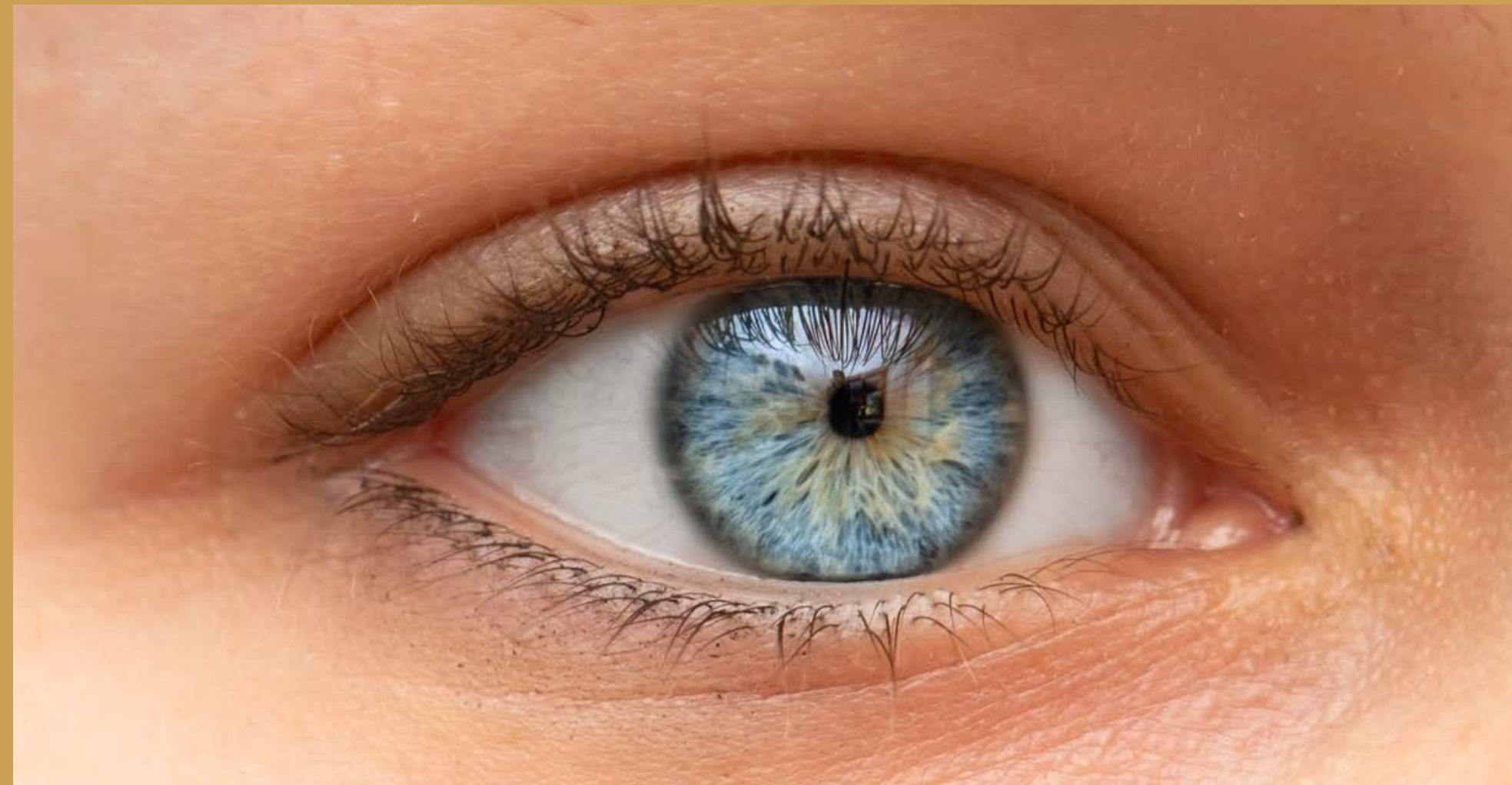
- ✦ Meiosis (constricted pupils)
- ✦ Bradycardia
- ✦ Hypotension
- ✦ Respiratory depression (shallow and short breathing)
- ✦ Weight Loss
- ✦ Frequent nose bleeds (if heroin is snorted)
- ✦ Hypothermia
- ✦ Sedation
- ✦ Hypokinetic (slowed movement)
- ✦ Mood Swings (euphoria, disinhibited)
- ✦ Constipation
- ✦ Confusion/slurred speech
- ✦ Track marks on skin



Opioid Overdose Signs and Symptoms

Signs

- ✦ Decreased level of consciousness may lead to unresponsiveness
- ✦ Pinpoint pupils
- ✦ Respiratory depression
- ✦ Slowed or stopped breathing
- ✦ Cyanosis



Opioid Overdose Treatment

Treatment

- ✦ Naloxone:
- ✦ Nasal Spray
- ✦ Prefilled auto-injection device
- ✦ Generic injectable products for nasal atomizer, intravenous, intramuscular or subcutaneous use



Opioid Withdrawal

- ✦ Stopping opioids abruptly after becoming physically dependent leads to a spontaneous withdrawal syndrome.
- ✦ Administering an opioid antagonist (naloxone/naltrexone), or a high affinity partial agonist (buprenorphine) may result in precipitated withdrawal when physically dependent on full agonist opioids.



Opioid Withdrawal Signs and Symptoms

Signs

- ✦ Tachycardia
- ✦ Hypertension
- ✦ Hyperthermia
- ✦ Insomnia, yawning
- ✦ Mydriasis (dilated pupils)
- ✦ Hyperreflexia
- ✦ Tearing, runny nose
- ✦ Sweating
- ✦ Piloerection "gooseflesh"
- ✦ Muscle Spasms

Symptoms

- ✦ Abdominal Cramps
- ✦ Nausea
- ✦ Vomiting
- ✦ Diarrhea
- ✦ Muscle/Bone Aches
- ✦ Anxiety



Opioid Withdrawal Timing of Symptoms

- ✦ All opioids produce similar withdrawal symptoms when stopped abruptly.

Severity varies with the amount and duration of use.

- ✦ Timing of withdrawal symptoms depends on the opioid:

With longer-acting opioids, symptoms usually begin later and last longer.

Opioids Used	Onset of Withdrawal	Symptoms Peak	Duration of Withdrawal
Short-acting opioids (e.g. heroin, oxycodone)	6-12 hours	36-72	about 5 days
Long-acting opioids (e.gg. methadone)	36-48 hours	~72 hours	up to 3 weeks

Treatment Goals

✦ Range of treatment goals

Minimization of
harms from
ongoing use



Sustained recovery
with abstinence
from all substances

✦ Treatment Options

- Medication for Opioid Use Disorder (MOUD); FDA approve options include:
 - Buprenorphine: Partial Agonist at the mu-receptor
 - Methadone: Full Agonist at the mu-receptor
 - Naltrexone/Naloxone: Antagonists at the mu-receptor
- Behaviorally-Oriented Treatment



Opioid Receptors and Physiology

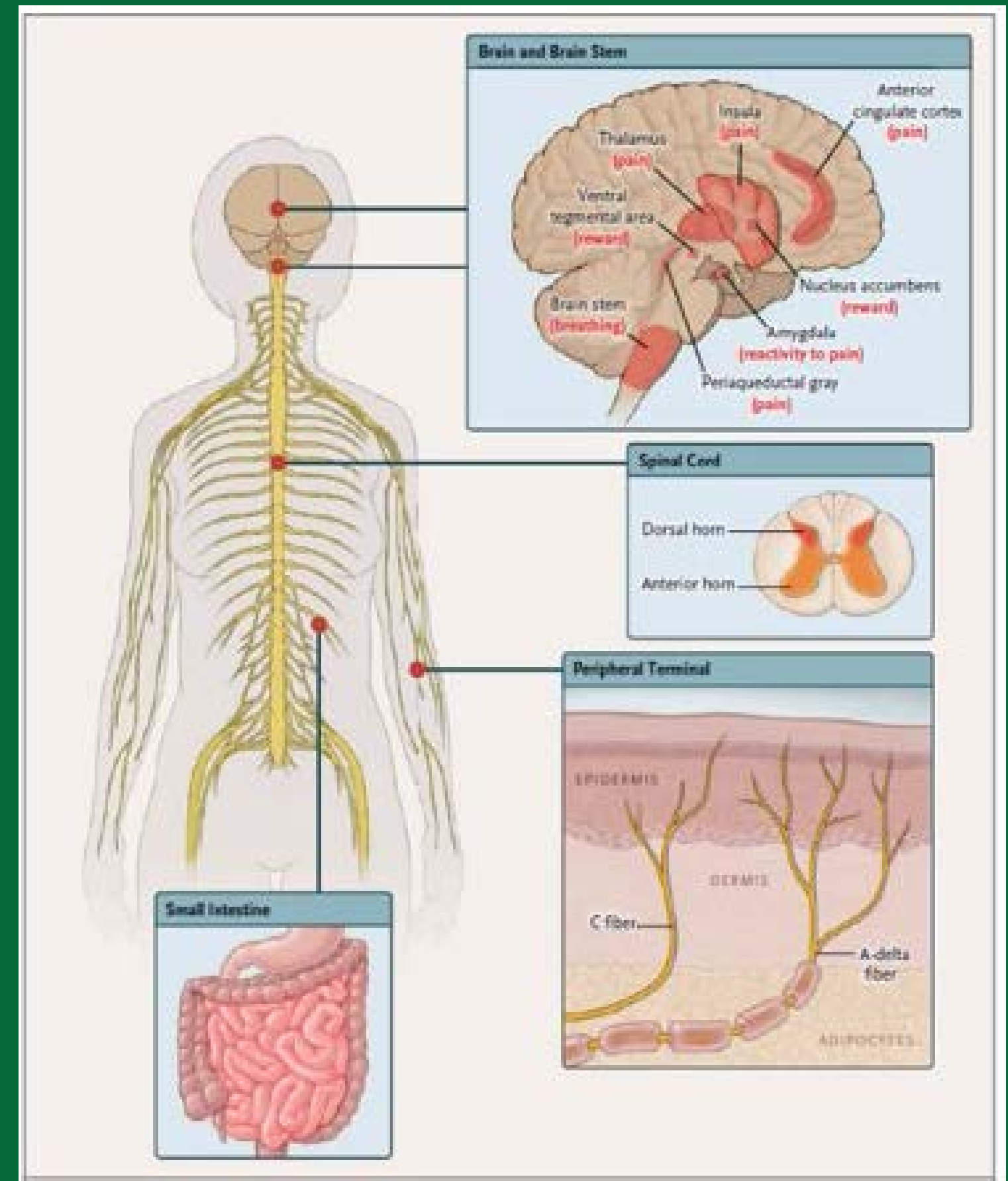
- ✦ Humans have at least three types of opioid receptors
- ✦ Endogenous opioids (produced naturally in the body):
Part of normal physiologic responses to injury, pain and stress

Opioids Receptors	Endogenous Ligands
mu	Endorphins
kappa	Dynorphins
delta	Enkephalins

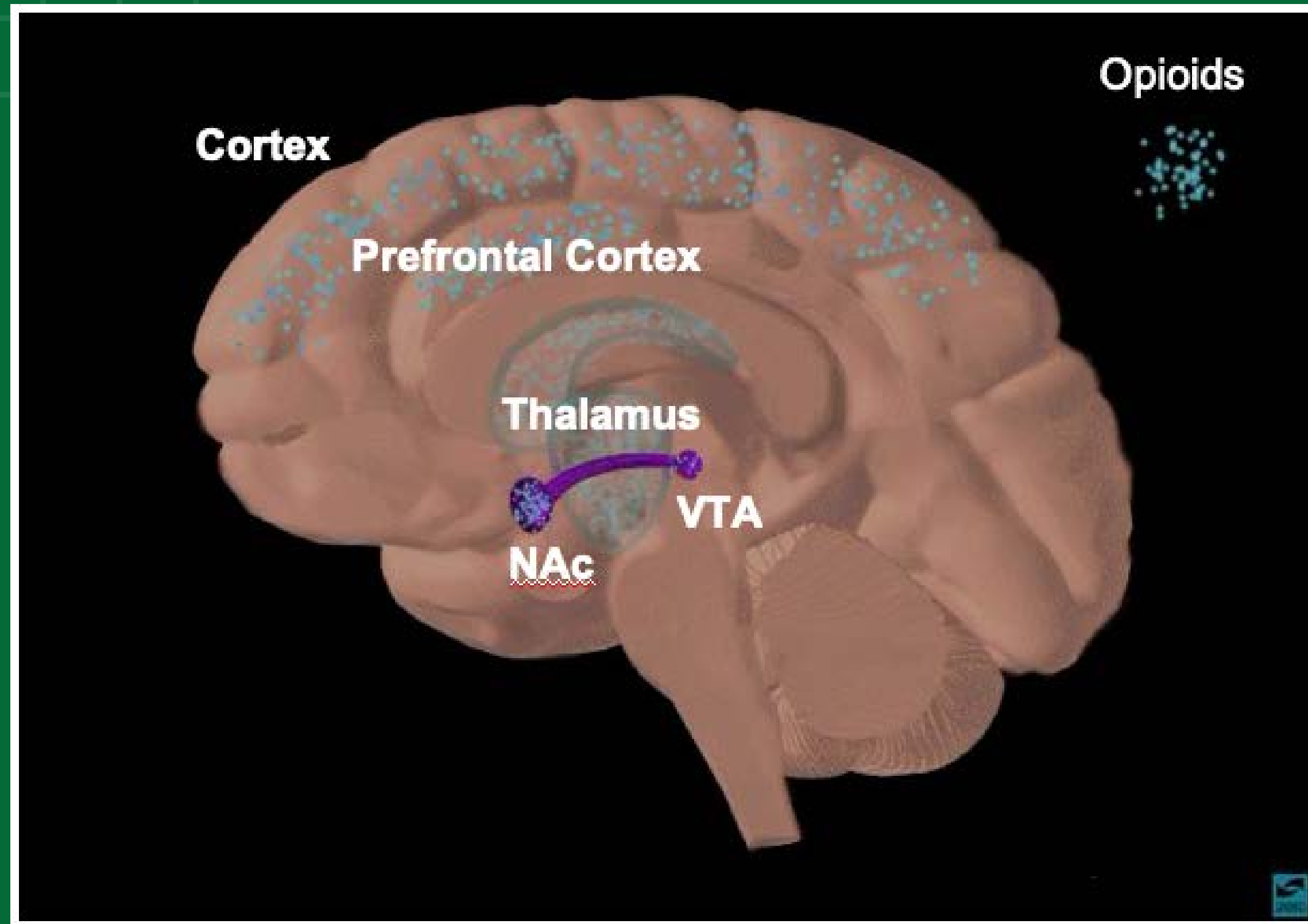
- ✦ Most of the clinically significant effects of prescribed and illicit opioids are attributed to activity at the mu receptor

Mu Opioid Receptor Locations

- ✦ Main target for Opioids are Mu Receptors
- ✦ Densely concentrated in:
 - Brain regions associated with:
 - pain perception
 - reward pathways
 - respiratory function
 - Spinal cord
 - GI system
 - Peripheral regions



Opioid Binding in the CNS



Physiologic Effects of Opioids

Activation of mu receptors in the central nervous system results in:

- analgesia
- sedation
- euphoria
- pupil constriction
- decreased respiration
- decreased heart rate
- nausea

→ potentially lethal in overdose

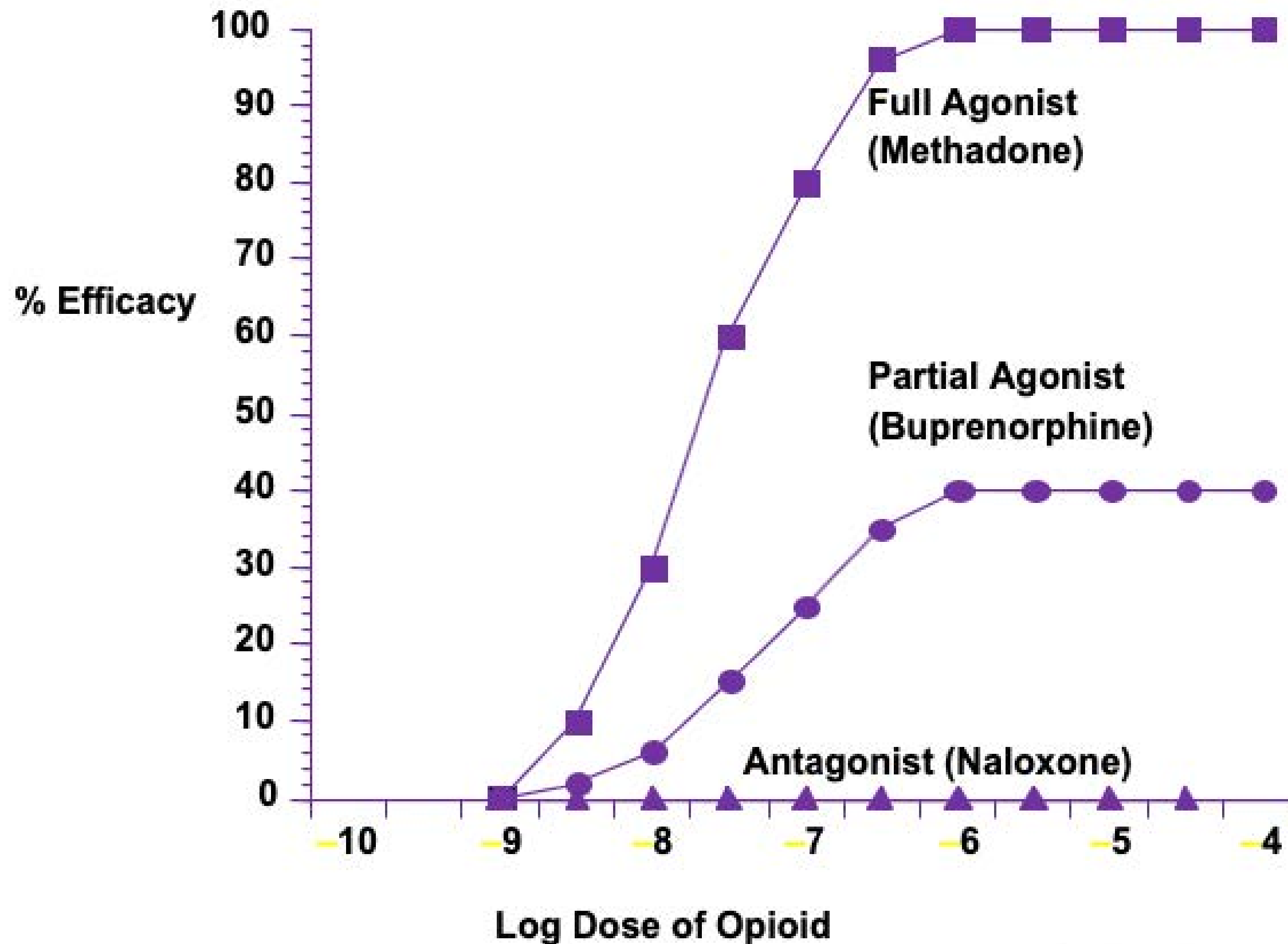
Activation in the gut decreases motility and can cause constipation

Activation in peripheral tissues contributes to analgesic effects and modulates inflammatory responses

Medication for Opioid Use Disorder (MOUD)

	Methadone	Buprenorphine	Naltrexone (IM) (PO)
Mechanism of Action	Full Agonist on Opioid Receptor	Partial Agonist on mu Opioid Receptor	Antagonist on Opioid Receptor
Dosing	80mg-100mg (usual dose)	4-24 mg FDA approved; 16 mg target dose. Some patient may benefit from higher doses.	380 mg Depot Injection 50 mg tablet
Advantages	<ul style="list-style-type: none"> • Provided in a highly structure supervised setting where additional services can be provided on-site and diversion is unlikely • May be effective for those that have not benefited sufficiently from agonists or antagonists. 	<ul style="list-style-type: none"> • Improved safety over full agonists. • Available by prescription from qualified provider. 	<ul style="list-style-type: none"> • No addictive potential or risk of diversion. • Available by prescription • Preferred by individual seeking to avoid anyopioids. • Long acting injectable shown to be significantly more effective due to improved adherence.

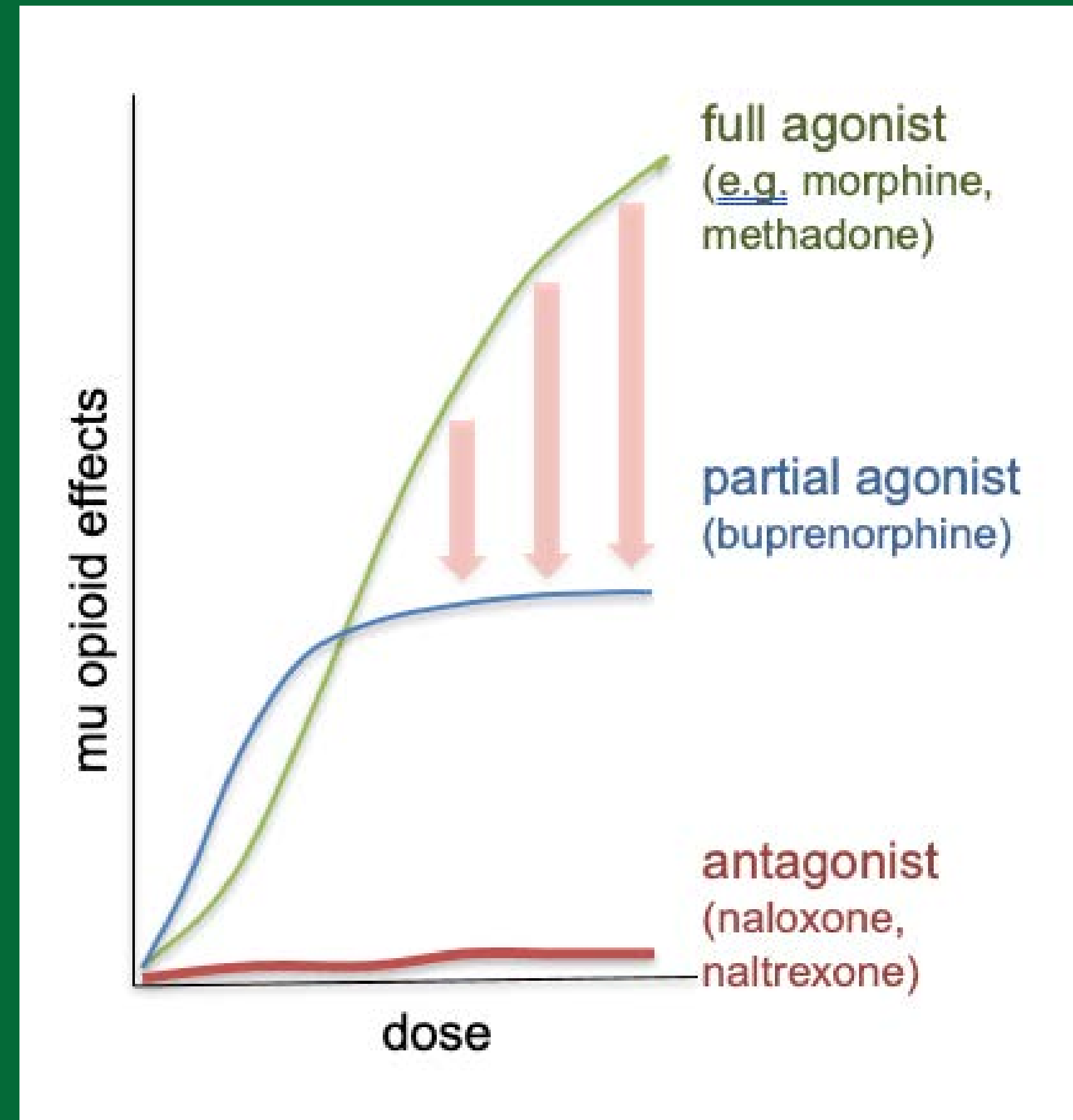
Opioid Ligand Pharmacology



Precipitated Withdrawal

Because of its high affinity for mu opioid receptors, buprenorphine can displace other agonists (such as heroin, methadone) that are already present.

The sudden drop from full-agonist to partial-agonist stimulation of opioid receptors can cause sudden withdrawal symptoms, a condition known as precipitated withdrawal.



Concurrent Substance Use



✦ Alcohol

- A sedative hypnotic
- Patients should be cautioned to avoid all sedative-hypnotics while taking buprenorphine.
 - Note: Essential to assess for use, intoxication , and withdrawal from sedative-hypnotics.

✦ Other Drugs (e.g. marijuana or cocaine):

- Not an absolute contraindication to buprenorphine treatment
- Important to assess for a use disorder, willingness to abstain, and document the discussion.

Diversion during OBOT



Evidence of possible diversion:

- Inconsistent urine toxicology screening results:
 - Absence of any buprenorphine or norbuprenorphine
 - Presence of buprenorphine with an absence of norbuprenorphine metabolite in urine screen (Could indicate tampering with the integrity of the urine sample)

Management of diversion:

- more frequent testing
- small prescriptions quantities
- increase support (e.g. more frequent appointments)
- Having a discussion with your patient



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Testing

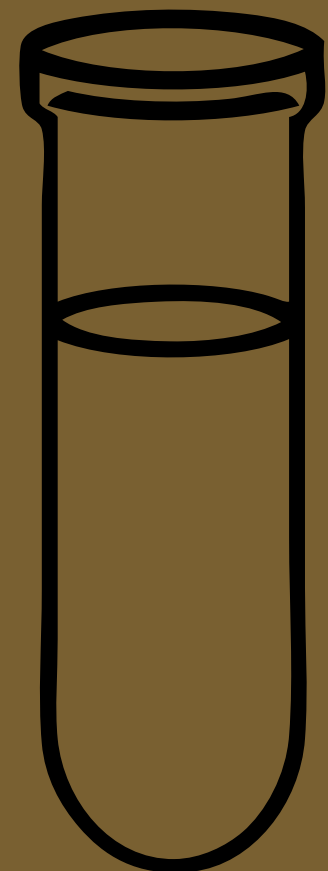
Laboratory Testing

Baseline Labs

- ✦ Pregnancy Test (All women of child bearing age)
- ✦ Urine Drug Screening Including Buprenorphine and Fentanyl

Recommended Labs (Case by Case and Provider Preference)

- ✦ CBC (with differential) and platelet count
- ✦ Serum Electrolytes
- ✦ HIV
- ✦ Hepatitis C & B
- ✦ LFT's (GGT, AST, ALT, PT, INR, albumin)
- ✦ TB
- ✦ Consider testing for STI's



Initial UDS for MOUD Patients

- Point of care testing
 - Screening for:
 - Opiates
 - Marijuana
 - Cocaine
 - Amphetamines
 - Benzodiazepine
 - Alcohol bio-markers *
- Confirmation
 - On all new patients
 - On positive POC
- Adjunctive Testing
 - Pregnancy (all women of childbearing age)
 - Fentanyl (no current CLIA waived test available)



General Goals of Drug Testing in Office Based Treatment



Important and routine component of treatment.

Testing is not meant to "catch" the patient.

Inappropriate test results **should NOT** simply lead to discharge from treatment, but an opportunity for discussion.



Develop Basic Familiarity with Lab Testing

- Local Laboratory: Know your test
 - General methodology used
 - Report forms used
 - Drugs screened in a routine panel
 - Other drug tests performed at the laboratory
 - Sensitive of the test
 - Cutoff levels for reporting positive or negative test results
 - Personnel who can answer questions and provide other useful information
- Consider costs of screening and confirmatory testing



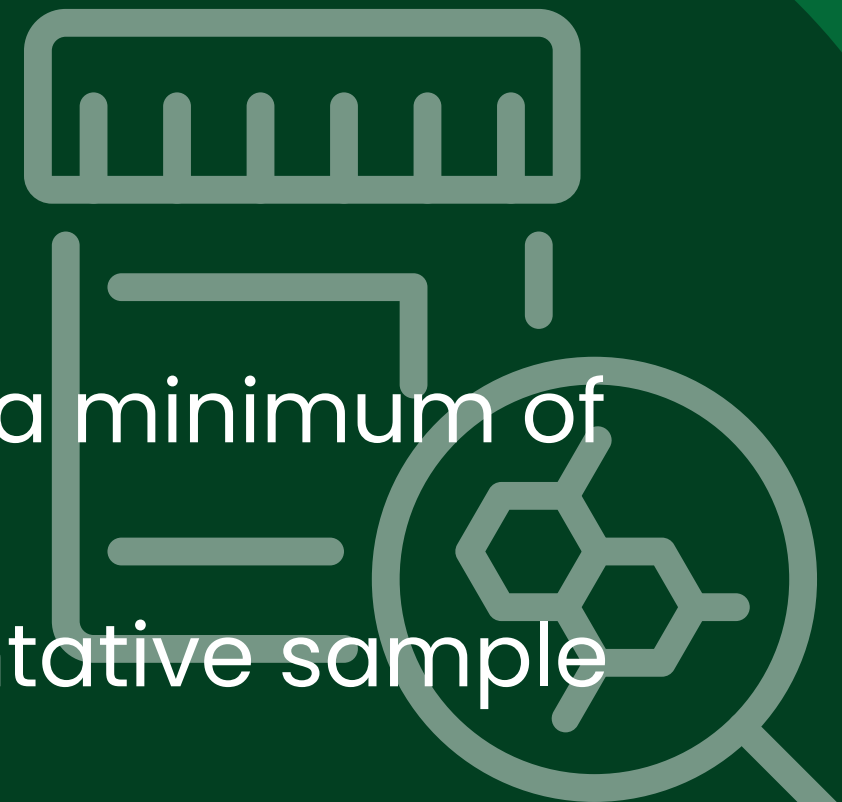
Test Metrics

- Urine is the most common matrix in current clinical practice.
 - availability,
 - sensitivity and specificity,
 - ability to detect substance use over periods of time

Matrix	Time*					
Breath	[Shaded]	[White]				
Blood	[Dark Gray]	[White]				
Oral Fluid	[Light Gray]		[White]			
Urine	[White]	[Dark Gray]			[White]	
Sweat†	[White]	[Dark Gray]	[White]			
Hair‡	[White]		[Black]			
Meconium	[White]			[Light Gray]		[White]
	Minutes	Hours	Days	Weeks	Months	Years

Frequency of Urine Drug Testing (UDT)

- No strict guidelines or specific evidence to guide the frequency of UDT.
- Depends on several factors:
 - Stage of Treatment [Initial vs. Maintenance]
 - Monthly testing has been suggested as a minimum
 - More frequent testing, e.g. weekly,
 - Early in treatment
 - Concerns of diversion or recurrence of substance use
 - Stability of patient [Treatment adherent vs. Recent Relapse]
- Half-life of drugs being tested
- Treatment setting
 - Office-based Opioid Treatment [OBOT]
 - Opioid Treatment Programs [OTP]: Federal law mandates a minimum of eight drug tests per year
- Random testing, may be recommended to obtain a representative sample



Screening and Confirmatory Tests



Screening Tests

- Relatively rapid, inexpensive methods, usually based on immunoassay.
- Can be performed in a lab, or using kits for onsite point-of-care testing (POCT).
- Results are considered presumptive until confirmed by a more definitive test.

Confirmatory Tests

- Use more expensive, time-consuming methods that combine chromatography and spectrometry.
- Likely performed in a certified lab - so may take longer to return to provider.
- More precise and more specific than screening tests, and thus their results are considered definitive.

Screening and Confirmatory Tests

- A common clinical approach:
 - screening tests; a panel of commonly-used substances
 - perform confirmatory tests for positive results when accuracy is important for treatment planning
- Consider periodic confirmatory testing
- Confirmatory testing is not necessary in every case
- Fentanyl!

Common Tests

Substance	Duration
Alcohol Ethyl glucuronide	7-12 Hours 2-5 Days
Amphetamine	2 days
Benzodiazepines (short-acting, e.g. lorazepam) Benzodiazepines (long-acting, e.g. diazepam)	3 days 30 days
Buprenorphine	4-10 days
Cocaine	2-4 days
Ethyl glucuronide	2-6 days
Heroin or morphine	1-3 days
Marijuana (single use) Marijuana (chronic use)	3 days 30+ days
Opioids	2-4 days

Goals of Evaluation

Goals	Details
Therapeutic Alliance	<ul style="list-style-type: none"> • Non-judgmental, understanding, respectful • Use Language fo recovery • Shared goal-setting
Collateral Information	<ul style="list-style-type: none"> • Prescription Monitoring Programs • Other Treatment Providers
Comprehensive Assessment	<ul style="list-style-type: none"> • Medical, Psychiatric, Review/Perform Lab Tests, Physical Exam • *A comprehensive assessment may not be attainable on the first evaluation. Understanding the limitations of your program or setting in gathering information should be balanced with maintaining safety.
Signs of Withdrawal	<ul style="list-style-type: none"> • Clinical Opioid Withdrawal Scale (COWS)
Diagnostic Clarification of Substance Use Disorder	<ul style="list-style-type: none"> • DSM-Criteria with <ul style="list-style-type: none"> ◦ Descriptor: Use Disorder; Intoxication; Withdrawal ◦ Specifiers: In early remission; in sustained remission; in a controlled environment ◦ Severity: Mild, Moderate, Severe
Risk Assessment	<ul style="list-style-type: none"> • Active Suicidal Ideation; Homicidal Ideation; Overdose
Assessment of Appropriateness	<ul style="list-style-type: none"> • Buprenorphine Treatment (any contraindications) • Is OBOT appropriate for patient at this time
Plan	<ul style="list-style-type: none"> • MAT; Therapy; Referrals; Safety Measures

Supporting Recovery

General Approach

- Use good prescribing and monitoring techniques to reduce the possibility of diversion
- Patient-Centered, patient-directed, consideration for patient's autonomy, focus on increasing strengths rather than reducing deficits, participation in community resources
- Inclusive in data gathering
- Flexible yet consistent

Limits and Contingencies

- Accountability: Clearly define examples and consequences
- Alternative options:
 - Increased frequency of visits, tests
 - Change in dosing
 - Referral to higher level of care



Meeting people where they're at...

Recovery is a journey and harm reduction is one way we can walk with people on that journey.

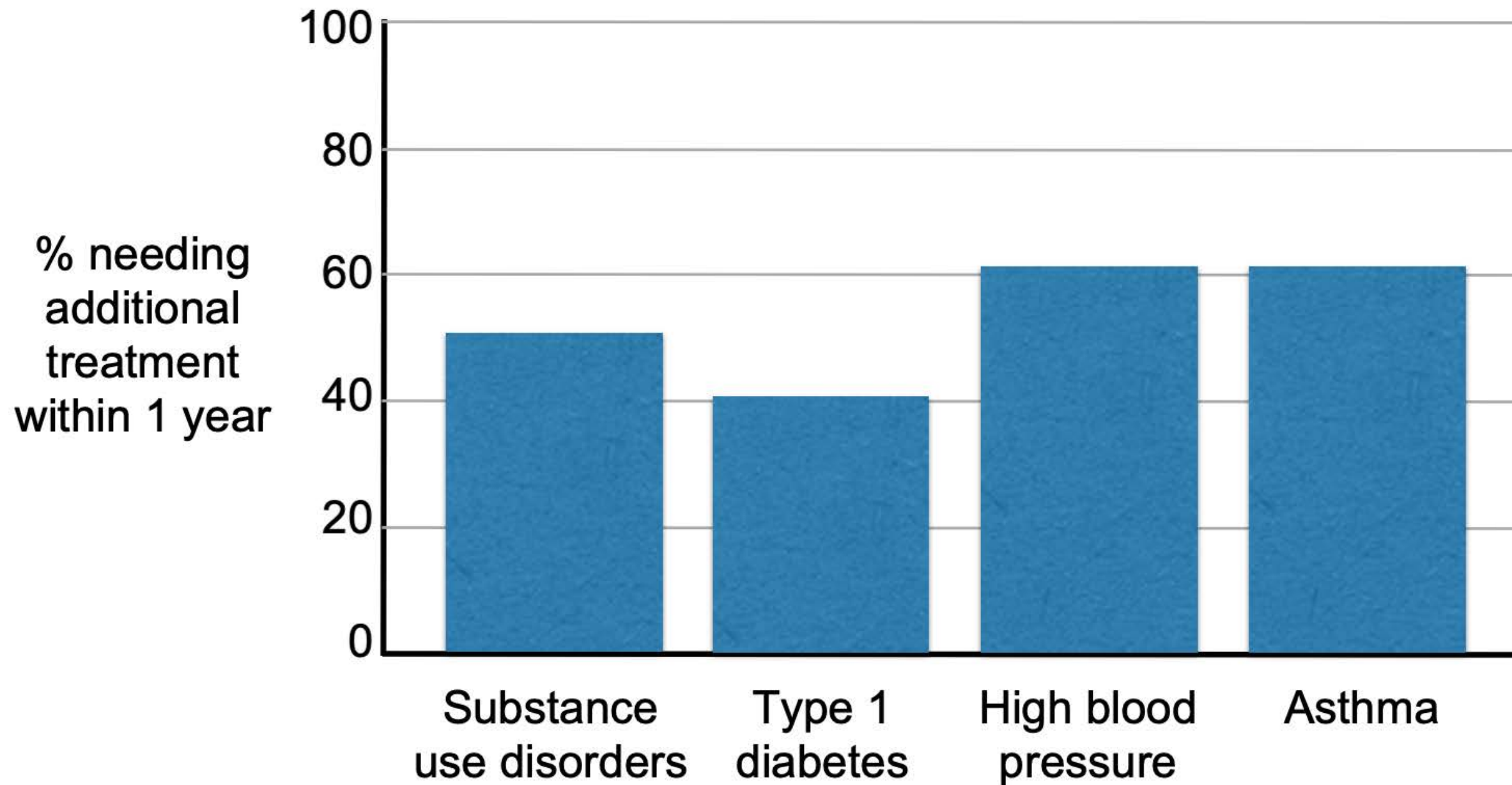
- Helps ensure no one gets left behind.

Respects each patient's unique needs, culture, values and preferences

- Support patients in managing and organizing care at a level the patient chooses.

Consistent with medical ethics of Autonomy, Beneficence, Non-maleficence, and Justice.

Treatment Adherence Comparison



Treatment adherence is similar to other chronic condition.



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Buprenorphine

Major Features of Buprenorphine

Partial agonist at the mu receptor

- Comparatively minimal respiratory suppression and unlikely to lead to fatal respiratory suppression even at high doses
- Schedule III

Long Acting

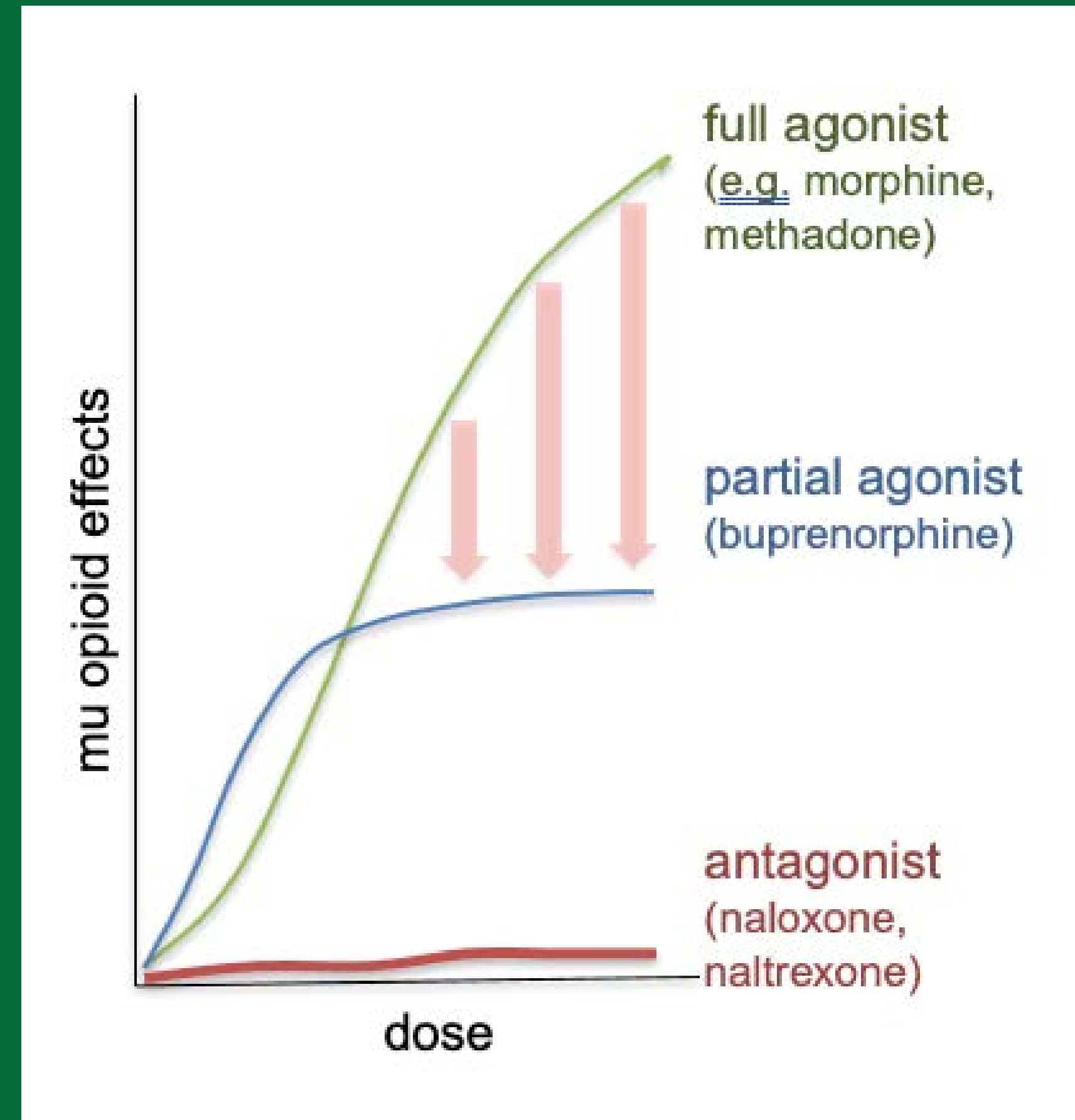
- Half-Life ~ 24–36 hours

High Affinity for mu receptor

- *Block* other opioids
- *Displaces* other opioids
 - Can precipitate withdrawal

Slow dissociation from mu receptor

- *Stays on receptor for a long time*



Buprenorphine

- Semi-synthetic analogue of thebaine
- Metabolized in the liver, mainly by cytochrome
- P450 3A4 (CYP3A4), and has a less-active metabolite, norbuprenorphine
- Most buprenorphine is excreted into the biliary tract, but small fractions enter the urine and are detectable in urine drug tests
- Because of extensive first-pass metabolism, buprenorphine has poor oral bioavailability when swallowed (<5%),
 - all therapeutic formulations use other routes
- Sublingual administration bypasses first-pass metabolism and allows bioavailability around 30%



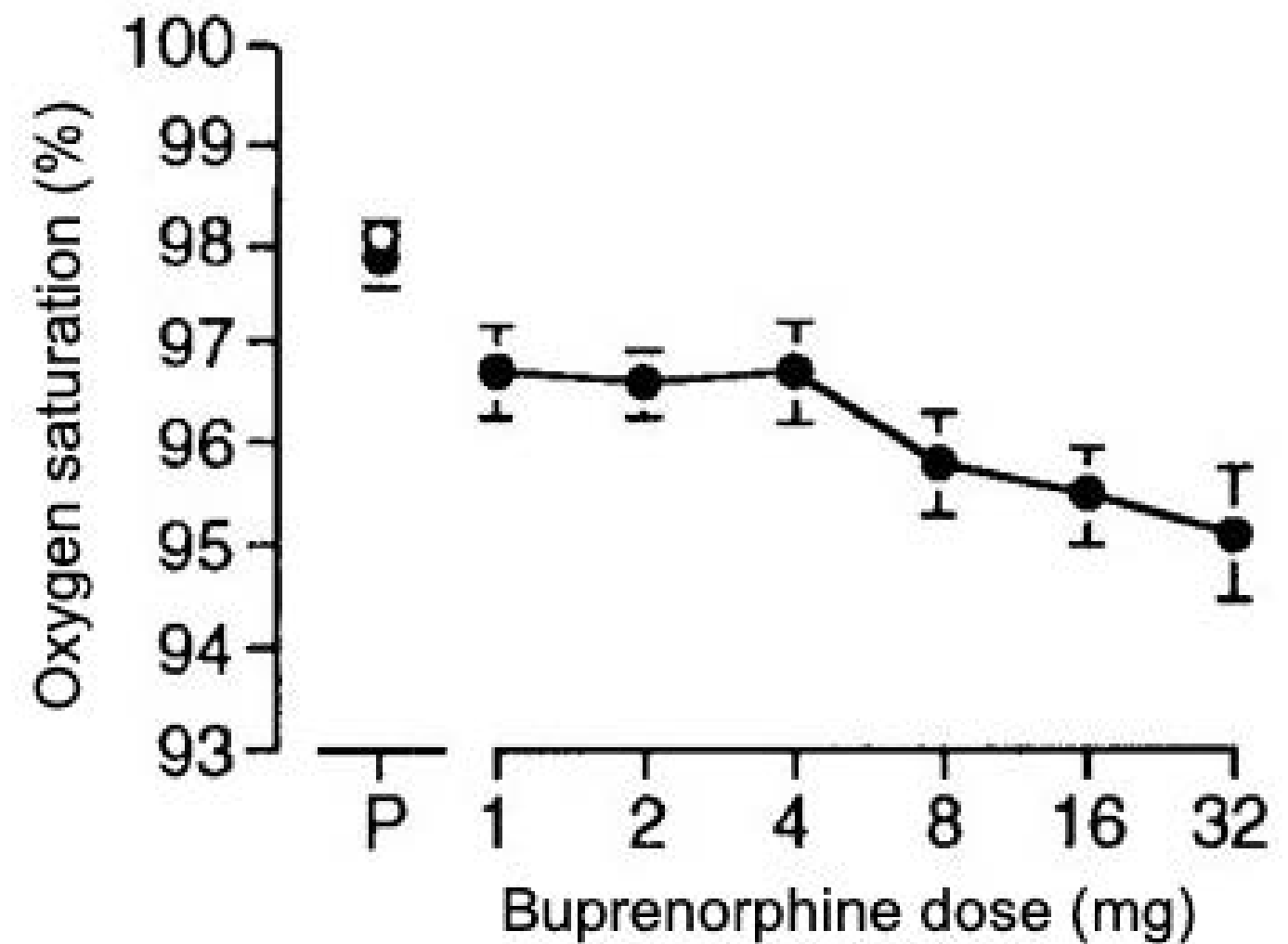
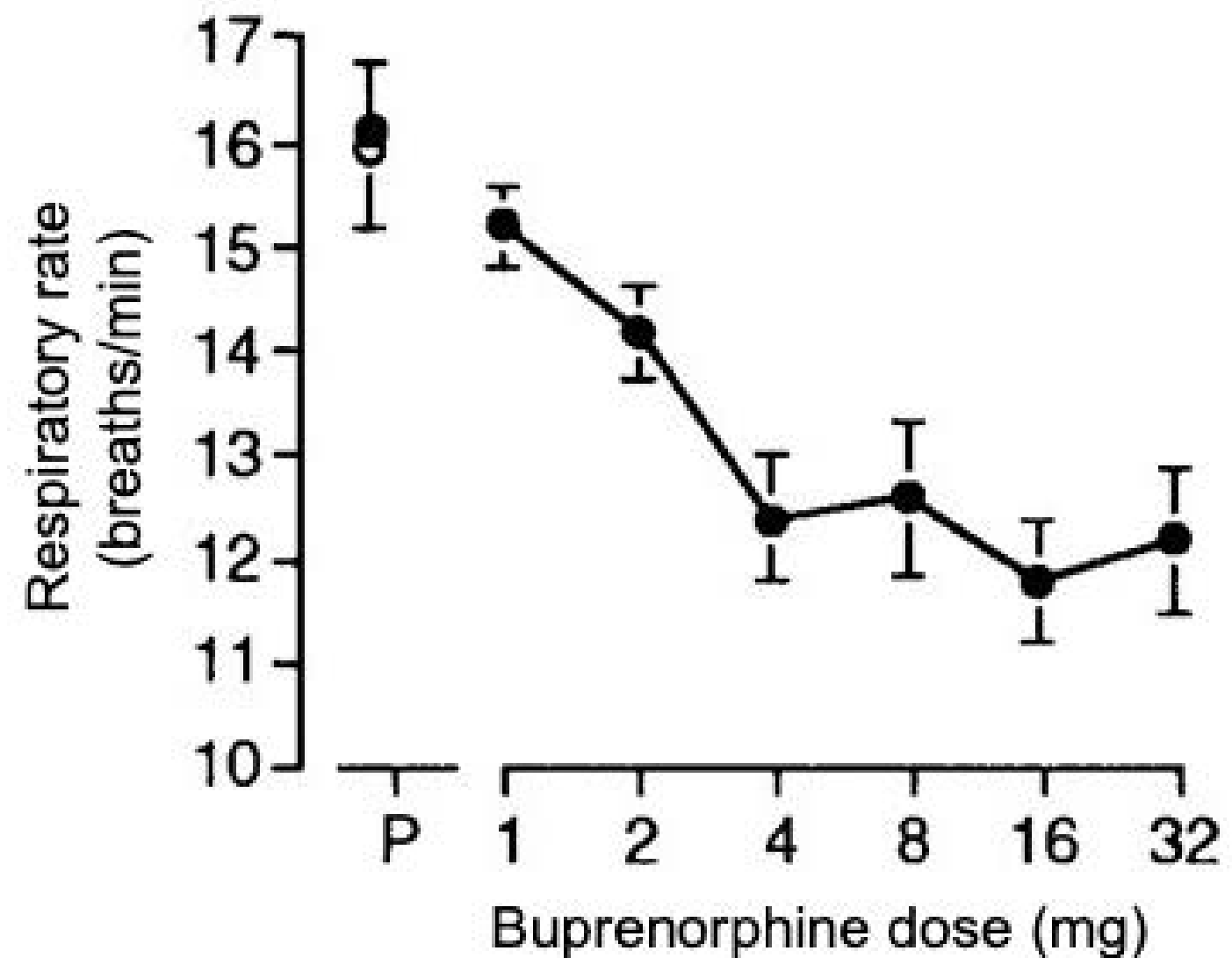
How does Buprenorphine work for OUDs?

- High affinity for, and slow dissociation from the mu receptor leads to:
 - Prevention of withdrawal symptoms
 - Decreased cravings
 - Decreased effects of other opioids
- However, it is unlikely to block *all* effects from an opioid taken after initiation of buprenorphine treatment:
 - Because binding to mu receptors is a dynamic process; while effects may be less, they are not likely to be completely eliminated.



Buprenorphine Dosing: Safety

- Nearly all fatal poisonings involve multiple substances.



- Cognitive and psychomotor effects appear to be negligible.

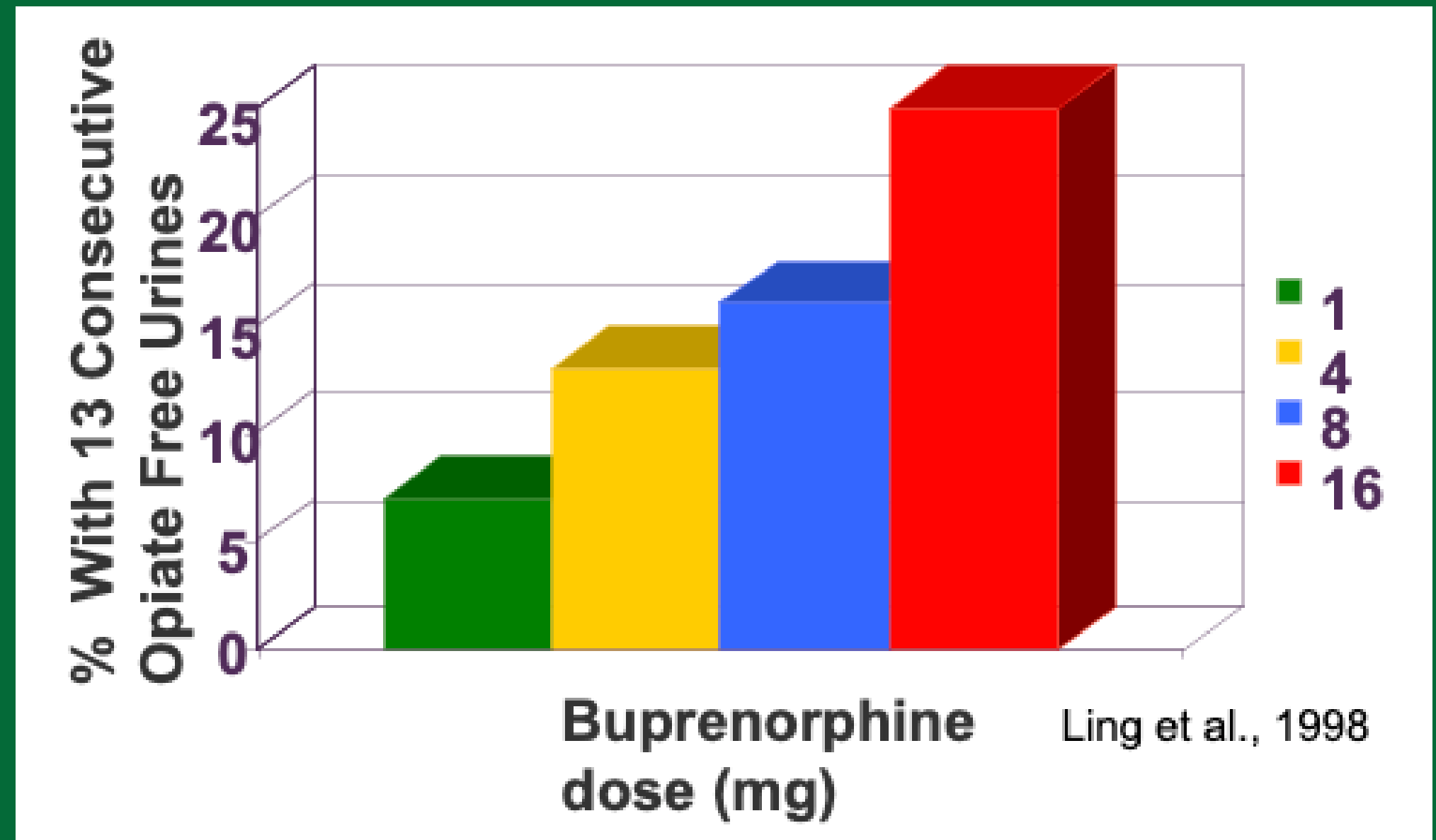
Rationale for the Combination of Buprenorphine with Naloxone

- When used as prescribed (sublingual or buccal administration), there is minimal bioavailability of naloxone
- Compared to buprenorphine alone, the buprenorphine/naloxone combination if injected:
 - is more likely to be experienced as a “bad drug” or precipitate withdrawal in persons physically dependent on opioids.
 - will prolong the onset of buprenorphine, and a primary driver of injection drug use is the speed in which a drug gets to the brain.
 - initially will produce less euphoria (similar to placebo) in those who are physically dependent on opioids
 - per prescription, is less likely to be diverted



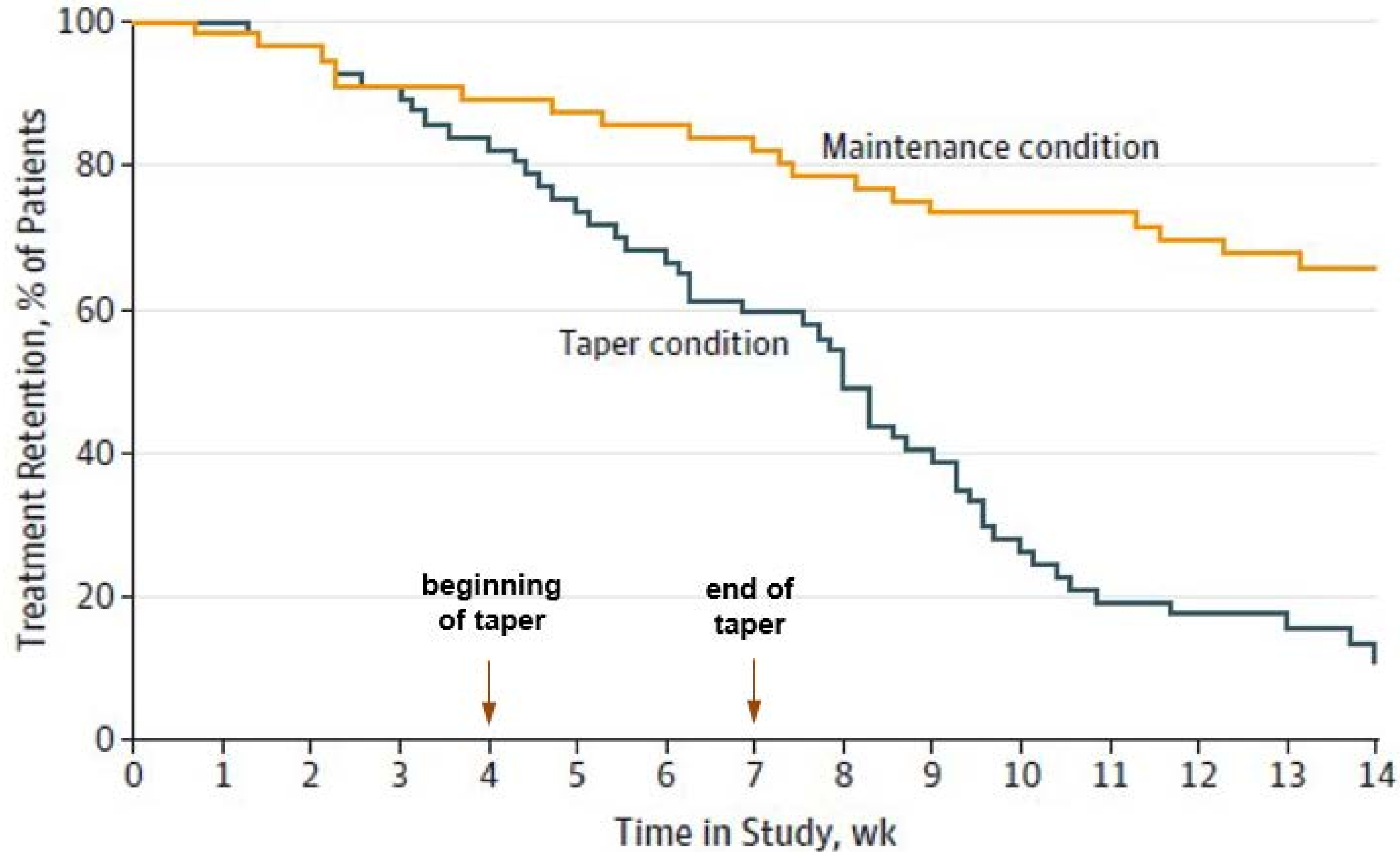
Buprenorphine Dosing: Efficacy

- Findings of a 2019 systematic review:
 - Withdrawal stabilization will often take place between **4 and 16 mg**.
 - Daily doses from **8 up to 32 mg** may be necessary to provide adequate opioid receptor blockade, thus attenuate craving and response to other opioids.



- There was no clear evidence regarding BUP dose on treatment retention or illicit opioid use.
- **Conclusion: BUP dose in treatment of OUD should be individualized based on a continuous benefit-risk assessment.**

Buprenorphine: Maintenance vs. Taper



Buprenorphine Formulations for Opioid Use Disorder

Content	Route	Product	Available Doses	Equivalent Dose
With Naloxone	Sublingual	Film - Suboxone	2mg Bup/0.5mg Nx	
			4mg Bup/1mg NX	
			8mg Bup/2mg Nx	8mg
			12mg Bup/3mg Nx	
	Sublingual	Tablet - Generic	2mg Bup/ 0.5mg Nx	
			8mg Bup/2mg Nx	8mg
	Sublingual	Tablet - Zubsolv	1.4mg Bup/0.36mg Nx	
			2.9mg Bup/0.7mg Nx	
			5.7mg Bup/1.4mg Nx	5.7mg
8.6 Bup/2.1mg Nx				
11.4mg Bup/ 2.6mg Nx				
Sublingual	Film - Cassipa <u>Cassipa</u>	16mg Bup/4mg Nx	one half a film	
Mono-product	Sublingual	Tablet - Generic	2mg Bup	
			8mg Bup	8mg
	Subcutaneous	Sublocade	100mg	approx. 8 mg
			300mg	approx. 18 mg

Buprenorphine Formulations

- Choice of formulations is based on:
 - Insurance/Third party payer considerations
 - Patient preferences
 - Safety
 - Diversion potential
- Formulations:
 - Sublingual films
 - Tablets
 - Subcutaneous depot injection
- All the approved forms have demonstrated similar efficacy for treating opioid use disorder
- NOTE: Buprenorphine formulations by transdermal (via patch), intravenous (via injection), and sublingual delivery are available for analgesic use. These specific products are not approved for treating OUDs



Depot forms of Buprenorphine

- Two depot products approved by the FDA
 - **Sublocade** – subcutaneous injections
 - 100mg and 300mg monthly doses available
 - Patient needs to be stabilized on 8mg for at least a week.
 - There are protocols being evaluated outside this approved procedure now being trialed, e.g., ED administration.
 - Given by subcutaneous injection in the abdominal region.
 - Recommendation: two 300mg injections a month a part then 100mg monthly.
 - There are various trials underway looking at the use of this medication in alternative settings, e.g., emergency dept., and the need for SL supplement during stabilization.

Pharmacokinetic Interactions Involving Buprenorphine

- Buprenorphine and methadone are metabolized in the liver by cytochrome **P450 3A4 (CYP3A4)**, and drugs that increase or decrease activity of this enzyme can affect serum levels of buprenorphine and methadone
 - CYP3A4 inhibitors may increase bup/meth levels and lead to greater effects, such as sedation or nausea
 - CYP3A4 inducers can decrease bup/meth levels, leading to loss of therapeutic effects (e.g. return of withdrawal or craving)
- Buprenorphine has many potential pharmacokinetic interactions, but few have been shown to be clinically significant

Pharmacodynamic Interactions Involving Buprenorphine

- Generally safe in combination with most other medications
- May have additive or synergistic effects with other central nervous system depressants, including benzodiazepines and alcohol
- It also has more complicated interactions with other opioids, with effects that vary depending on:
 - The degree of physiologic dependence of the user
 - Order in which the substances are used
 - Amount of time slowing for clearance of the full opioid.
- No clinically significant association of buprenorphine with prolonged QTc interval, in contrast to methadone

Buprenorphine and Other Opioids

Buprenorphine followed by an agonist	Buprenorphine remains on the receptor and effect of agonist is decreased
Agonist followed by buprenorphine	Buprenorphine displaces full agonist Can precipitate withdrawal
Buprenorphine followed by antagonist	<ul style="list-style-type: none">• Buprenorphine affinity will challenge the antagonist and stay on the receptor• Given together antagonists will result in a slower onset of buprenorphine• Naltrexone will over time precipitate withdrawal

Buprenorphine and Benzodiazepines

- Benzodiazepines are present in many fatal poisonings involving buprenorphine.
 - Human studies: minimal effects on respiration when both are taken at therapeutic doses.
 - Animal studies: At elevated doses benzodiazepines may also suppress respirations allowing buprenorphine to produce fatal respiratory suppression in overdose.
- Used as prescribed benzodiazepines in combination with buprenorphine have been associated with more accidental injuries, but not with other safety or treatment outcomes.

Changes in FDA Recommendations

08/2016

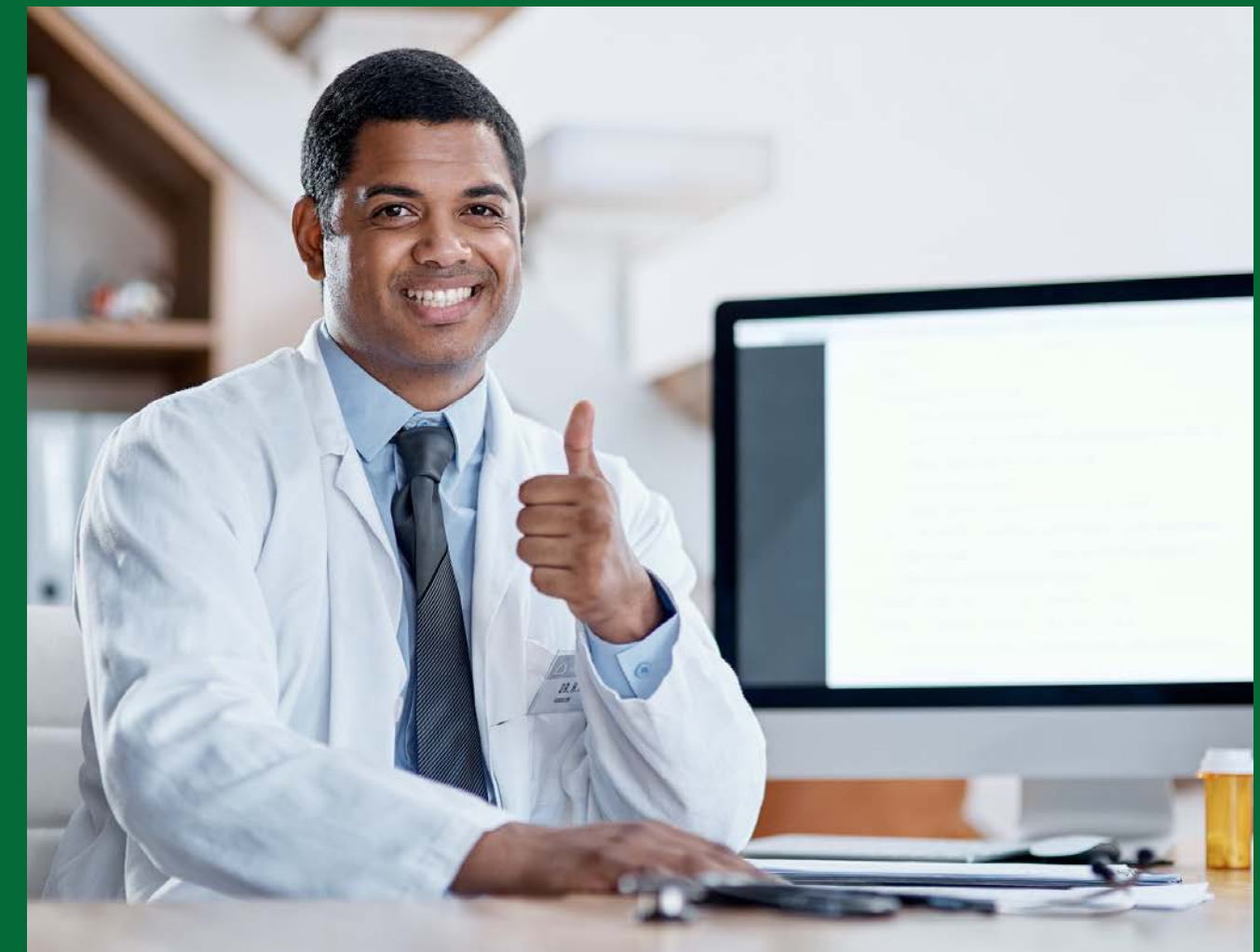
- Boxed Warning for combined use of opioid medicines with benzodiazepines or other CNS Depressants (e.g. Alcohol)
- Risks of slowed or difficult breathing; Sedation; Death

09/2017

- Buprenorphine and methadone should not be withheld from patients taking benzodiazepines or other drugs that depress the central nervous system (CNS).
- The combined use of these drugs increases the risk of serious side effects; however, the harm caused by untreated opioid addiction can outweigh these risks.
- Careful medication management by health care professionals can reduce these risks.

FDA Guidance for Health Care Professionals

- Take precautions and develop a treatment plan when buprenorphine or methadone is used in combination with benzodiazepines or other CNS depressants:
 - Educate patients about the serious risks of combined use, including overdose and death
 - Taper the benzodiazepine or CNS depressant to discontinuation if possible.
 - Verify the diagnosis if a patient is receiving prescribed benzodiazepines or other CNS depressants for anxiety or insomnia, and consider other treatment options for these conditions.
 - Coordinate care to ensure other prescribers are aware of the patient's buprenorphine or methadone treatment.
 - Monitor for illicit drug use, including urine or blood screening



Buprenorphine and Alcohol

- Overall recommendation is to generally avoid CNS depressants with buprenorphine
- Some evidence that treatment with buprenorphine can help decrease craving for alcohol,
- Alcohol use disorder is associated with higher rates of relapse to opioid use





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Co-Occurring Disorders - Psychiatric Conditions

Depressive and Anxiety Symptoms

- Mood instability and anxiety symptoms are common at treatment entry.
- Symptoms may resolve within few days of stable SUD treatment
- Symptoms that persist beyond acute intoxication and withdrawal can be worthwhile targets for treatment:
 - For example, with Selective Serotonin Reuptake Inhibitors



Trauma and Substance Use D/O

Strong association between trauma and SUD

Patients with PTSD are up to 14 times more likely to have a SUD than patients without PTSD (Chilcoat & Menard, 2003)

Among patients seeking treatment for SUDs, lifetime PTSD rates range between 30% – 60% (McCauley, 2012)

We also know that not everyone with a history of trauma develops PTSD and similarly not everyone who tries a substance develops a SUD.

There are multiple theories about the reasons for the high co-occurrence of SUD and PTSD



Mental Health Conditions and Substance Use Disorders

- Co-occurring illness is more difficult to treat than either individual disorder.
- Treatment should include both concurrently.
 - Combination of psychotherapeutic and pharmacologic management is most effective.
- Adverse Childhood Experiences (including abuse, neglect, household dysfunction) and SUD have a graded relationship



Treatment of Co-Occurring Psychiatric Disorders

- Attempt to facilitate treatment in an integrated care setting.
- Treat the co-occurring illnesses as equally important to manage.
- Reduction in use and for many abstinence, however, will be important in establishing improvement of symptoms (neurobiologic stabilization) and will often also improve adherence to psychotherapeutic and medication treatment recommendations.

Patient Management

- Structured therapies can be helpful in establishing recovery
- Facilitate engagement in building a social support network, e.g. NA/AA
- Relapse Prevention: use relapses as learning tools
- Integrate medication management into recovery program



Counseling

- Purpose of psychosocial interventions is to
 - address behaviors that maintain or reinforce drug use
 - address coping strategies
 - improve medication adherence
 - treat co-occurring mental illness that can complicate SUD or trigger a return to use
- Some evidence shows that psychosocial treatment improves adherence and retention but findings are mixed
- Some individuals may not want to enter into counseling but medications should NOT be withheld
- Rule 4731-33-03 | Office-based treatment for opioid addiction does indicate that a psychosocial needs assessment should be done, which can include MI



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Any Questions?