# Opioid Use Disorder and Withdrawal

## A Targeted Focus on Prevention and Treatment

JARON D. RAPER, MD FACEP

# FINANCIAL CONFLICTS:

# Content Outline

**Topics for discussion**

**01** A Brief History of Opioid Use

**02** Opioid Use Disorder

**03** Withdrawal and Treatment

**Opioids**: Includes natural or synthetic chemicals that interact with opioid receptors

**Opiates**: Refers only to natural opioids

**Narcotics**: Technically only refers to opioids, but only used to refer to their nonmedical use

— CDC.GOV

# Opioid Timeline

### The 1800's

- Industrial production of morphine in 1820's
- Hollow bore needle invented in 1855
- Bayer introduces diacetylated morphine or "Heroin" as cough remedy in 1898

### Harrison Narcotic Act of 1914

- By 1870's, physicians began to raise the alarm
- 1910 opioid "street" use was sreading rapidly
- In 1914 the Harrison Narcotic Control Act was passed

### "Opiophobia" 1914-1980's

- Negative stigma was associated with chronic pain, especially if unexplained
- Physicians became reticient to treat pain with opioids until immediately terminal

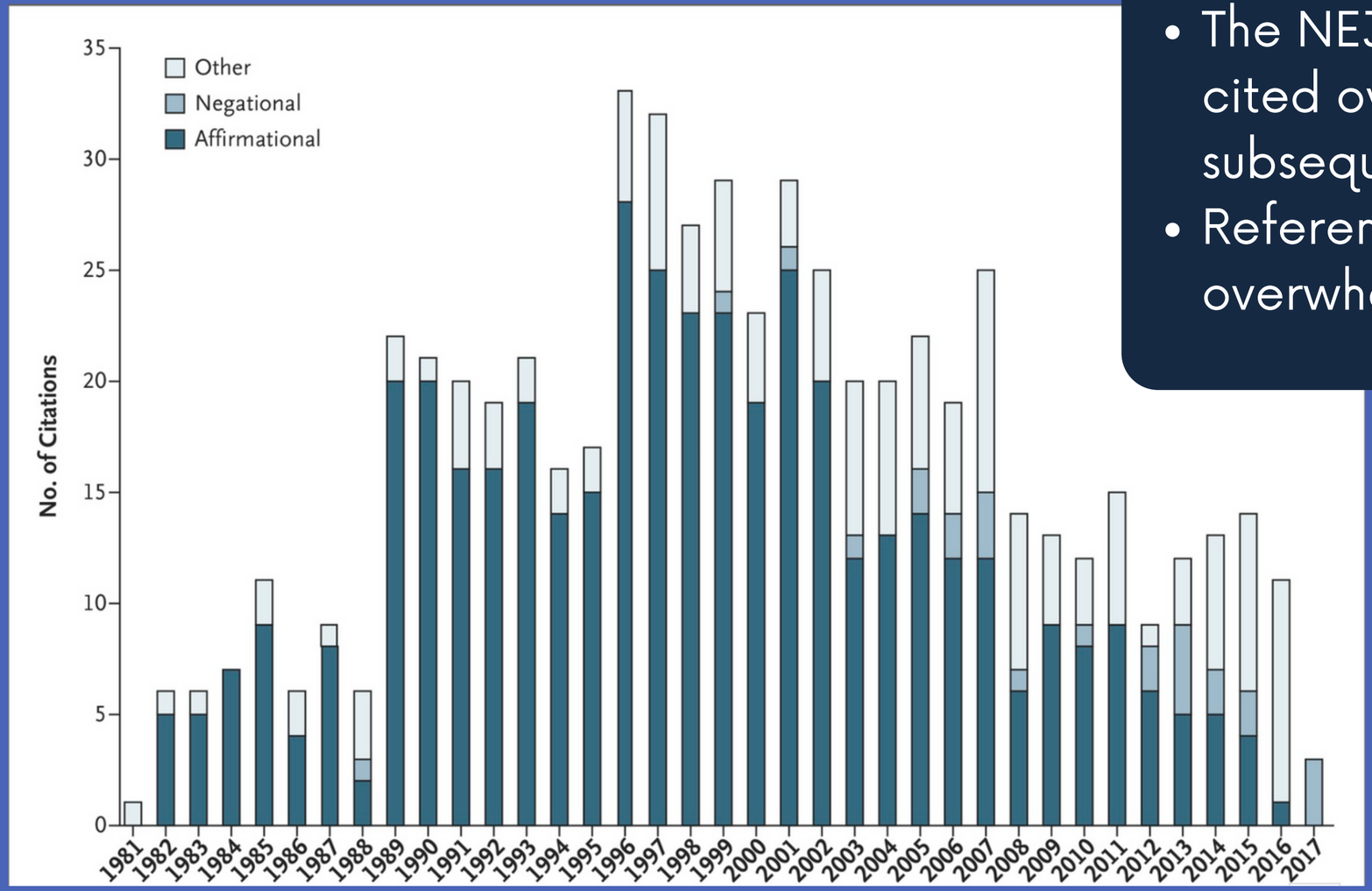
# 1980 Landmark NEJM Article...

**To the editor:**

Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients1 who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients,2 Percodan in one, and hydromorphone in one. **We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.**

**Jane Porter**
**Hershel Jick, M.D.**

# 1980 Landmark NEJM Article...




## The Tide Begins to Turn...

- The NEJM article goes on to be cited over 600 times over the subsequent 37 years
- References are overwhelmingling affirmational

# Opioid Timeline (Cont.)

### Oxycontin 1995

- FDA approves Oxycontin 1995
- Purdue Markets the drug as less addictive
- 1995-2001 Oxycontin generates 2.8 billion (90% revenue)
- 1997-2002, prescriptions increased from 670,000 to 6.2 million

### Pain as the 5th Vital Sign 1995

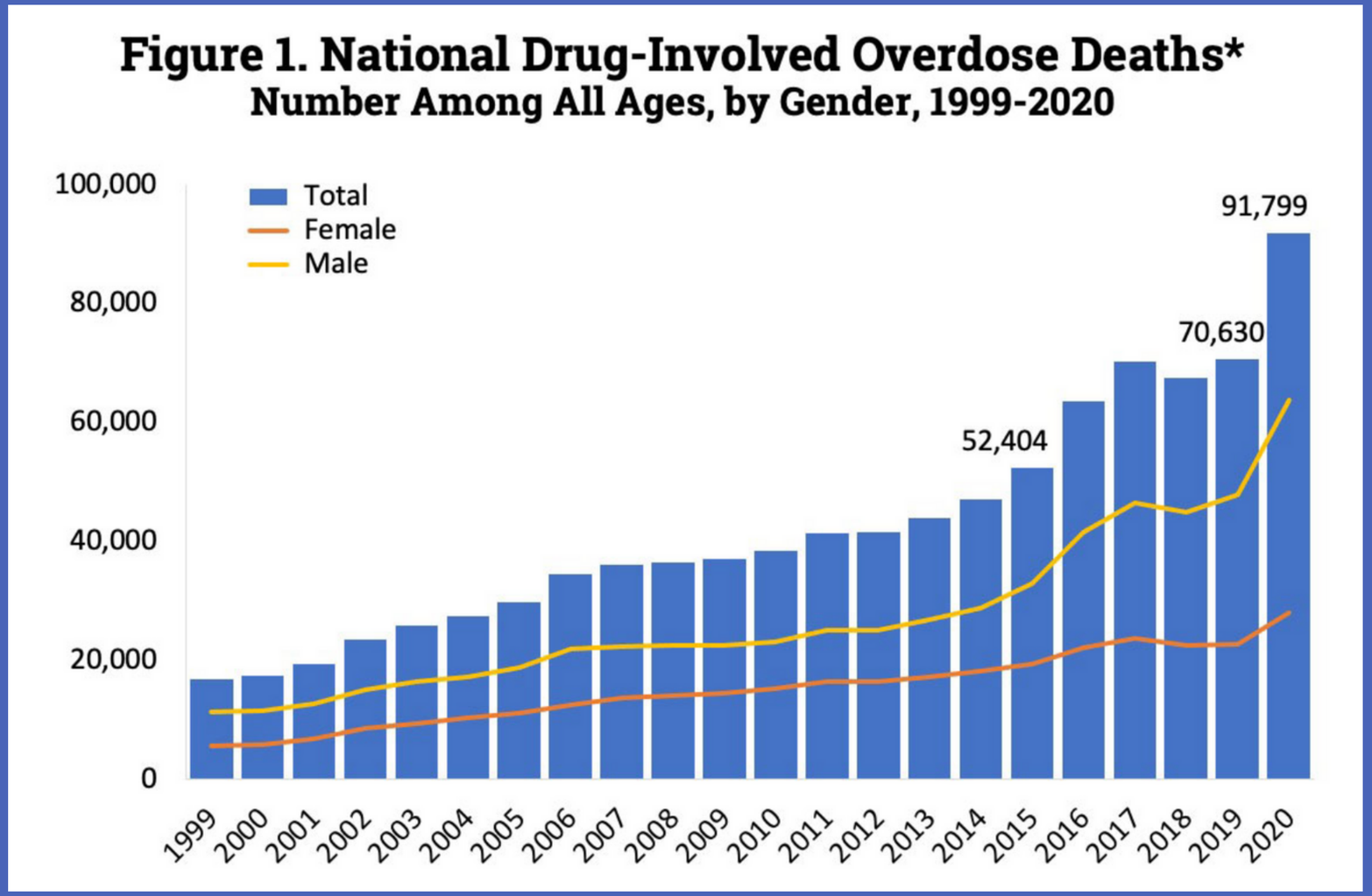
- American Pain Society, and VA shortly therafter adopt the 5th vital sign as standard
- TJC pushes for quantitative pain assessments
- DEA and federation of state medical boards promise less regulation

### Nonmalginant Pain 1997

- Opioids for cancer pain standard treatment since the 80's
- Opioids for "nonmalignant" pain
- "opioid tolerance, physical dependence or addiction seldom cause difficulties"

# The Current State of the Pandemic

- Drug involved overdose deaths have been increasing in every year since 1999 (except 2018)
- National emergency declared in 2016
- Simultaneous substantial increases in funding for OUD



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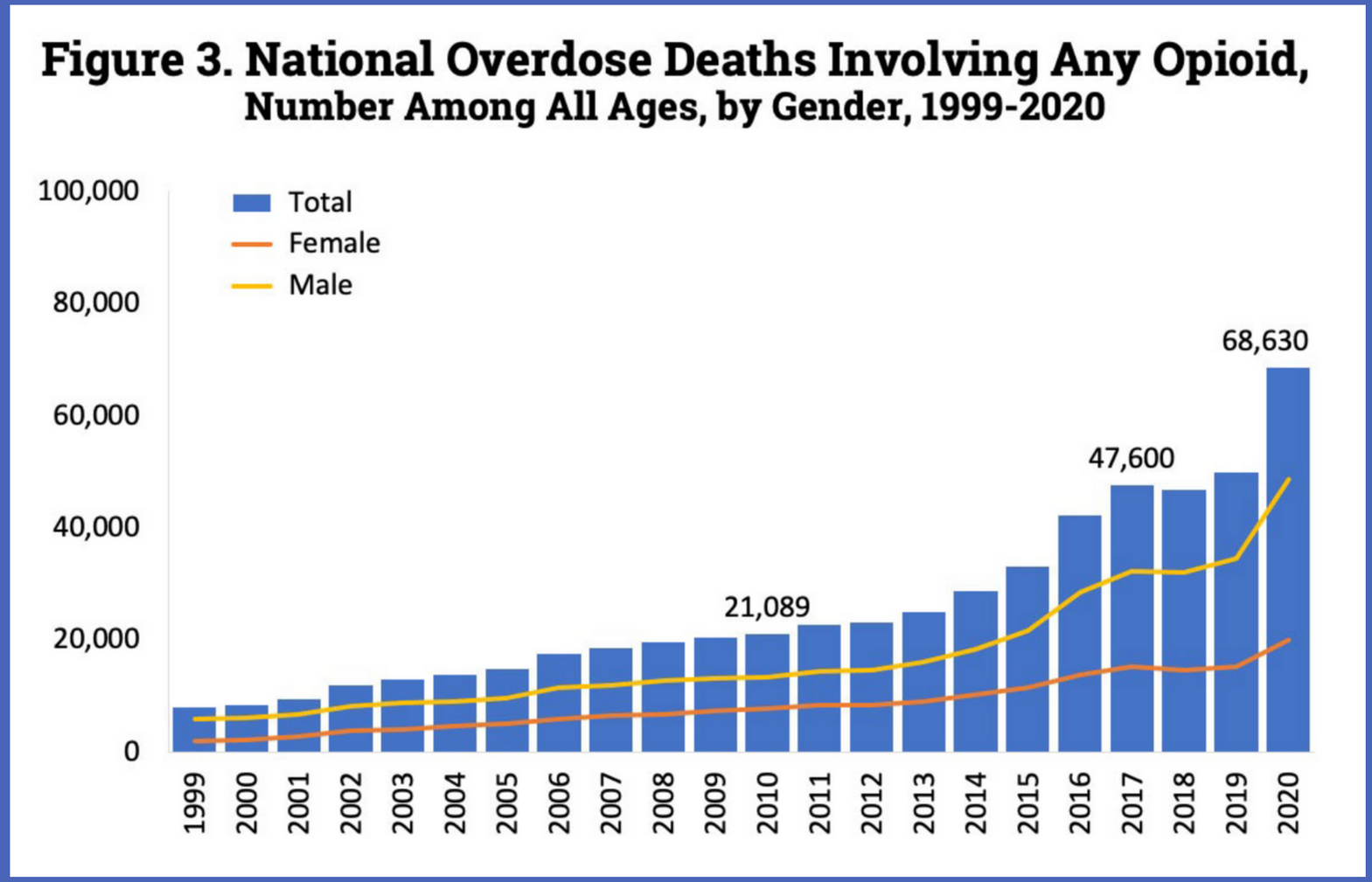
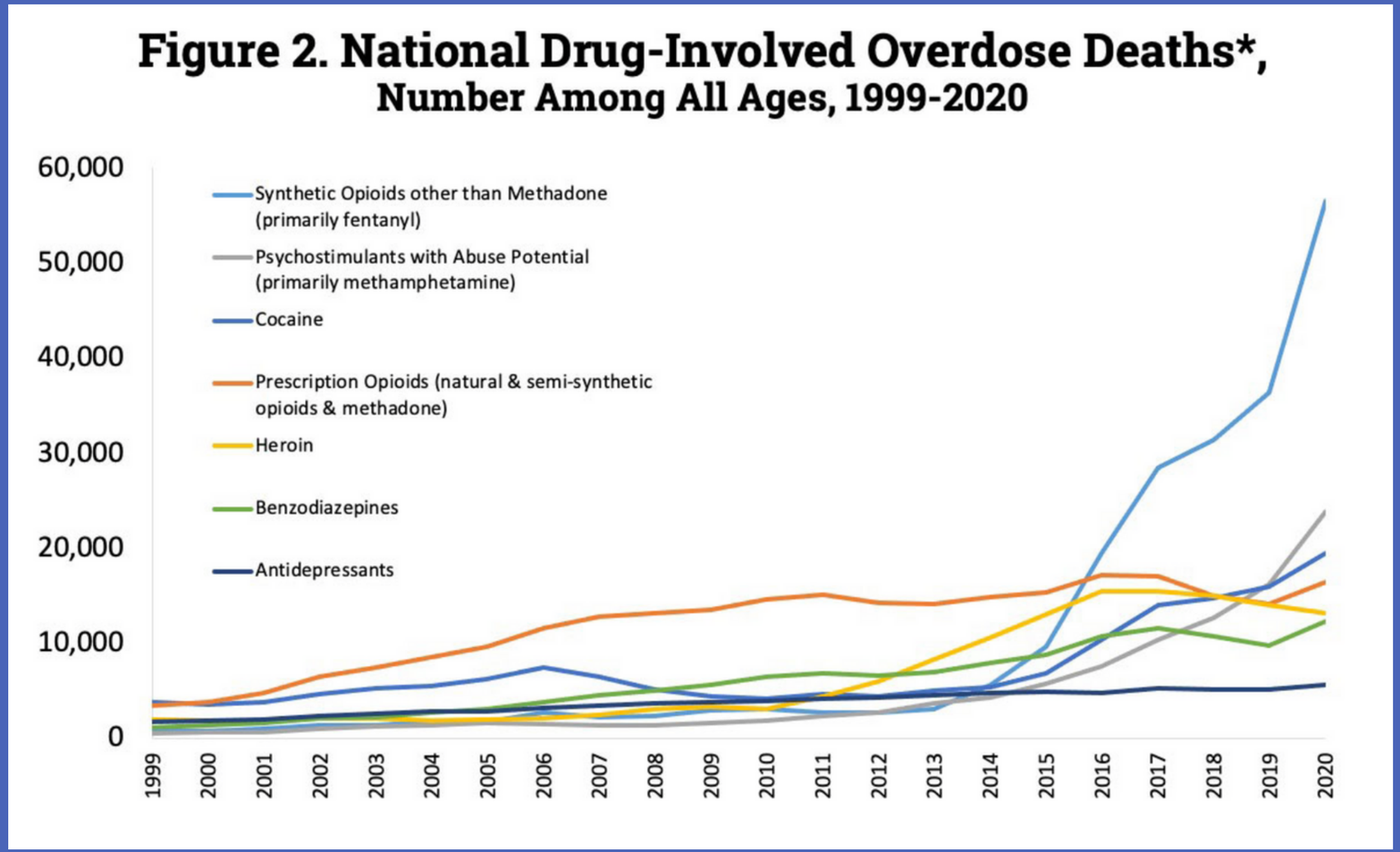


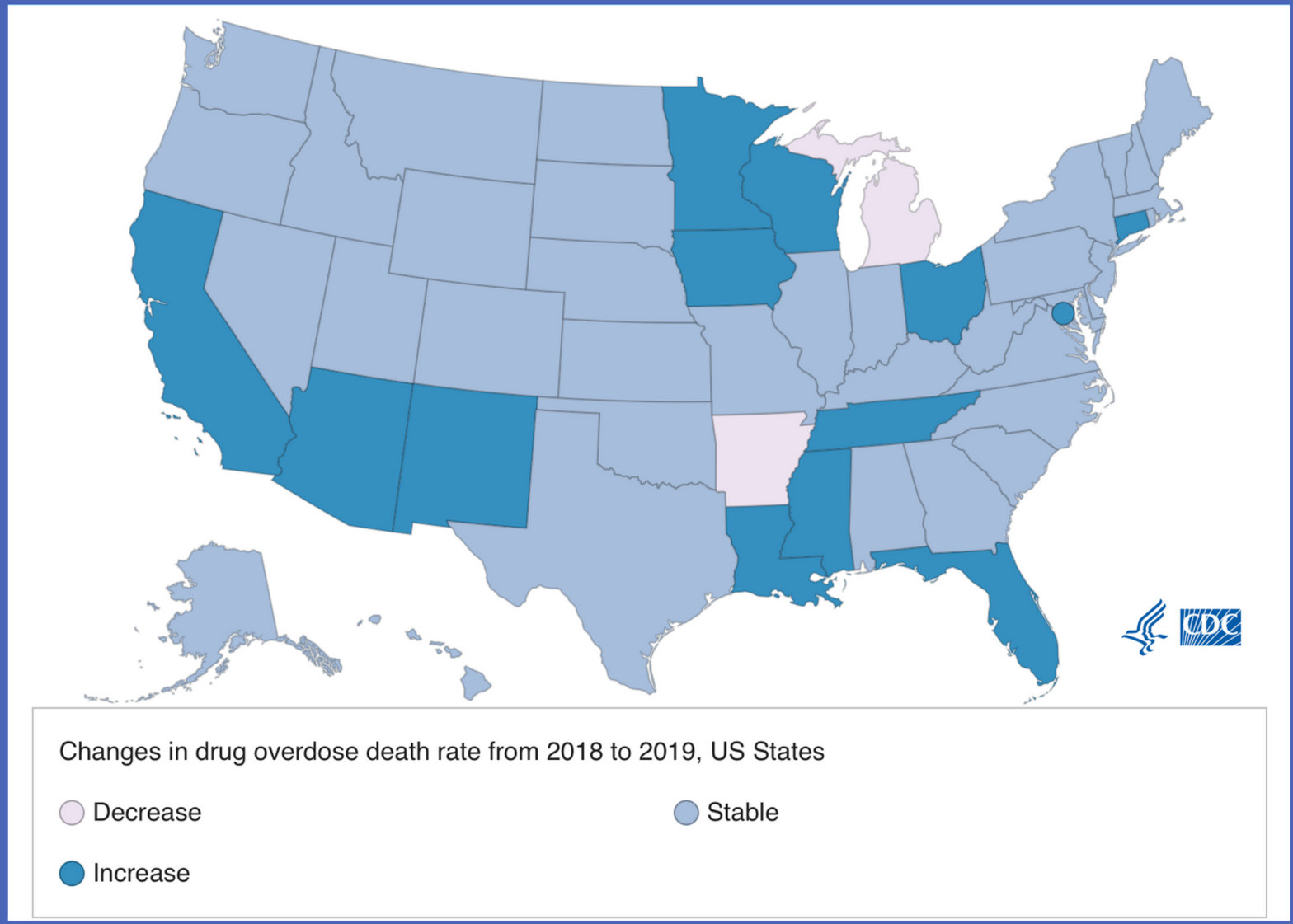
# The Current State of the Pandemic

- Rx opioid related overdose deaths have downtrended recently
- Fentanyl related overdose deaths have accelerated rapidly
- Psychostimulants/Cocaine also on the rise



# The Current State of the Pandemic

- Only two states saw a significant drop in overdose death rates
- The southwest and southeast saw significant increases
- Alabama saw stabilization of rates for the last few years, without decline



# So Where Are We Today?

- In 2020, we lost over 91,000 people to overdose deaths in the US alone
- 60,000 of those deaths were due to Opioids
- No state saw a decline in opioid related overdose from 2018-2019

# HOW DO WE MOVE FORWARD?

"The best ways to prevent opioid overdose deaths are to **improve opioid prescribing, reduce exposure to opioids, prevent misuse, and treat opioid use disorder**"

-cdc.gov

# Consider a Case: John Nelson

## "Back Pain"

John fell at work 3 years ago and developed significant back pain as a result.  He's been treated with 45 mg extended release morphine ever since.  John just moved to the area, but he's running out of his medications  and beginning to feel nauseated, having loose stools, and worsening back pain, so he came to see you today.

On further questioning, John reports that he's had these symptoms before when he tried to cut his pill usage, but symptoms are so severe this time that he's had to miss work this week.

# Consider a Case: John Nelson

**"Back Pain"**

What is John's diagnosis?

Opioid Use Disorder

# Defining Opioid Use Disorder (1 of 2)

## (Previously Dependence/Addiction)

**Must have ≥2 of the following over 12 month period:**

- Opioids taken in larger amounts or over a longer period than intended.
- There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
- A great deal of time is spent in activities necessary to obtain , use or recover from opioid effects.
- Craving, or a strong desire or urge to use opioids.
- Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.

# Defining Opioid Use Disorder (2 of 2)

## (Previously Dependence/Addiction)

**Must have ≥2 of the following over 12 month period:**

- Recurrent opioid use resulting in a failure to fulfill major role obligations
- Important social, occupational, or recreational activities are given up or reduced
- Recurrent opioid use in situations in which it is physically hazardous.
- Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
- Exhibits tolerance (discussed in the next section).
- Exhibits withdrawal (discussed in the next section).

# TOLERANCE

A need for markedly increased amounts of opioids to achieve intoxication or desired effect

**OR**

A markedly diminished effect with continued use of the same amount of an opioid

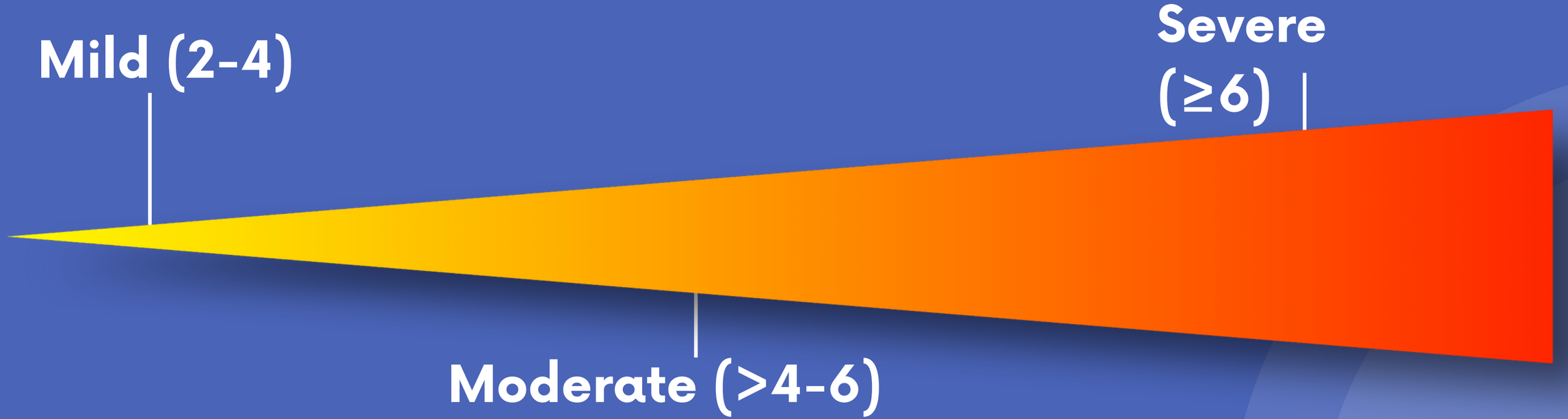
# WITHDRAWAL

Either:
1) Cessation/reduction of opioid use that has been heavy and prolonged, or
2) administration of an opioid antagonist after a period of opioid use

**AND**

Three (or more) of the following: dysphoric mood; nausea/vomiting; muscle aches; lacrimation or rhinorrhea; pupillary dilation, piloerection, or sweating; diarrhea; yawning; fever; or insomnia

# The Spectrum of Opioid Use Disorder



# Next Steps

**Communicate** + **Evaluate for Treatment**

# Communication Strategies

**Start with Compassion:**

- Acknowledge the patient's struggle
- Explicitly state your motivations
- Normalizing statements may be helpful

# Communication Strategies

**The Medicine is the Problem:**

- Complication of Therapy
- Risk to Health is Substantial
- Name the Diagnosis/Treatment Options

# Evaluating for Treatment

**A multi-stage approach**

**Determine Severity**

Mild/Moderate/Severe

**Overdose Risk**

Review HHS guidelines on who should get an Rx for naloxone

**Identify Co-Occuring Conditions**

COPD, concomitant Benzo use, Depression, etc.

**Prior Attempts at Treatment**

Prior Rx, Strategies Used, etc.

**Impact on Function**

Consider Physical and Psychological

## MORPHINE MILLIGRAM EQUIVALENTS

# 50 MME/day are 2x as likely to overdose compared to 20 MME/day

Overdose risk continues to increase as MME increases

# Calculating MME's

**Speaking a Common Language**

| 1 MME | 5 MME | 7.5 MME | 4 MME | 30 MME |
|---|---|---|---|---|
| 1 mg Morphine | 5 mg Hydrocodone | 5 mg Oxycodone | 1 mg Hydromorphone | 12.5 mcg Fentanyl (Patch) |

# The Prescription Drug Monitoring Program

## Statewide Electronic Database

**BENEFITS**

- Identify patients with multiple prescribers
- Calculate the total MME
- Identify patients with other high risk Rx's

**WHEN TO CHECK**

- at least every 3 months
- Before every new opioid prescription

# Acute Pain: New Opioid Rx Guideline

## Procedure Specific Recommendations

- Panel included surgeons, residents, NP's, pharmacists and their patients
- In terms of Oxycodone 5 mg
- No Rx >20 tablets

| Procedure | Range (minimum-maximum) |
|---|---|
| General surgery | |
| Laparoscopic cholecystectomy (procedure 1)* | 0—10 |
| Laparoscopic inguinal hernia repair, unilateral (procedure 2)* | 0—15 |
| Open inguinal hernia repair, unilateral (procedure 3)* | 0—10 |
| Open umbilical hernia repair | 0—15 |
| Breast surgery | |
| Partial mastectomy without sentinel lymph node biopsy (procedure 4)* | 0—10 |
| Partial mastectomy with sentinel lymph node biopsy (procedure 5)* | 0—15 |
| Thoracic surgery | |
| Video-assisted thoracoscopic wedge resection | 0—20 |
| Orthopaedic surgery | |
| Arthroscopic partial meniscectomy | 0—10 |
| Arthroscopic ACL/PCL repair | 0—20 |
| Arthroscopic rotator cuff repair | 0—20 |
| ORIF of the ankle | 0—20 |
| Gynecologic surgery and obstetric delivery | |
| Open hysterectomy | 0—20 |
| Minimally invasive hysterectomy | 0—10 |
| Uncomplicated cesarean delivery | 0—10 |
| Uncomplicated vaginal delivery | 0 |
| Urologic surgery | |
| Robotic retropubic prostatectomy | 0—10 |
| Otolaryngology | |
| Thyroidectomy, partial or total | 0—15 |
| Cochlear implant | 0 |
| Cardiac surgery | |
| Coronary artery bypass grafting | 0—20 |
| Cardiac catheterization | 0 |

Panel members included surgeons, surgical residents, pain specialists, surgical nurse practitioners, patients, and pharmacists.

# What about Chronic Pain?

## Opioid Risk Tool

| Mark each box that applies | Female | Male |
|---|---|---|
| **Family history of substance abuse** | | |
| Alcohol | 1 | 3 |
| Illegal drugs | 2 | 3 |
| Rx drugs | 4 | 4 |
| **Personal history of substance abuse** | | |
| Alcohol | 3 | 3 |
| Illegal drugs | 4 | 4 |
| Rx drugs | 5 | 5 |
| **Age between 16—45 years** | 1 | 1 |
| **History of preadolescent sexual abuse** | 3 | 0 |
| **Psychological disease** | | |
| ADD, OCD, bipolar, schizophrenia | 2 | 2 |
| Depression | 1 | 1 |
| **Scoring totals** | | |

**For Adult Patients with Chronic Pain**

- <4 = Low Risk
- 4 - 7 = Moderate Risk
- >7 = High risk

# PRESCRIBING NALOXONE

**<1% of Patients who should be given a Naloxone Rx recieve one**

So Who Needs an Rx for Naloxone?

# Provide naloxone Rx if:

**The patient is prescribed opioids AND...**

## 50 MME/Day or Greater

eg. 5mg Hydrocodone Q3H = 40 MME/Day

## PMH Resp. Disease

eg. COPD, OSA, PHTN, etc.

## Simult. benzo Rx

eg. clonazepam, lorazepam

## Substance use disorder or MH disorder

eg. excessive alcohol use, depression

# Provide naloxone Rx if:

**The patient is high risk for <u>EXPERIENCING or RESPONDING</u> to opioid overdose including individuals...**

### Illicit opioid use/misusing Rx opioids

eg. family member, police officer, etc

### Using stimulants

eg. methamphetamine, cocaine, etc

### Receiving treatment for OUD

eg. beprenorphine, methadone, naltrexone

### OUD and recent loss of tolerance

eg. recent incarceration, rehab, etc.

# Treating Opioid Use Disorder

When and How to Taper

+

Treatment & Recovery

# Patients on Long-Term Opiates

## When To Consider a Taper:

- Pain improves
- Patient request
- A higher dose is not more effective
- Evidence of opioid misuse
- Side effects that diminish quality of life/impair function
- Overdose or other acute event
- Warning signs: confusion, slurred speech, sedation
- Other Rx or medical conditions that increase risk
- Prolonged treatment without clear benefit vs. harm

# Tapering Opioids

## Tips for success:

### Consider The Individual

Avoid insisting on opioid tapering or discontinuation when opioid use may be warranted (e.g., treatment of cancer pain, pain at the end of life)

### Collaborate With The Patient

Serious risks to noncollaborative tapering exist, including acute withdrawal, pain exacerbation, anxiety, depression, suicidal ideation, self-harm, ruptured trust, and patients seeking opioids from high-risk sources

### Avoid Dismissal From Care

This practice puts patients at high risk and misses opportunities to provide life-saving interventions, such as medication-assisted treatment for opioid use disorder

# Supporting The Taper

## Multimodal Pain Therapy

- Nonpharmacologic and pharmacologic treatments before and during

## Manage Concommitant MH Disorders

- Depressive symptoms predict dropout, and MH disorders can be common in patients with painful conditions
- Consider behavior health provider involvement

## Treatment and Recovery

- Assess for Opioid Use Disorder (OUD) and offer or arrange for medications for treatment

# The Slow Taper

## 10% Per Month or Slower

- Often better tolerated than rapid
- Allow for gradual adjustments
- Duration of taper may exceed > 1 year
- Best when use is >1 year

# The Fast Taper

## 10% Per Week or Slower

- 10% reduction of the original dose
- When 30% of the original dose is reached, decrease by 10% of the remaining dose
- More effective when use duration is months, not years

# Defining Opioid Use Disorder

## DSMV Criteria

### Severity Classification

- 2-3 = Mild
- 4 - 5 = Moderate
- >5 = Severe

| |
|---|
| Opioids are often taken in larger amounts or over a longer period of time than intended. |
| There is a persistent desire or unsuccessful efforts to cut down or control opioid use. |
| A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects. |
| Craving, or a strong desire to use opioids. |
| Recurrent opioid use resulting in failure to fulfill major role obligations at work, school or home. |
| Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids. |
| Important social, occupational or recreational activities are given up or reduced because of opioid use. |
| Recurrent opioid use in situations in which it is physically hazardous |
| Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by opioids. |
| *Tolerance, as defined by either of the following:<br>(a) a need for markedly increased amounts of opioids to achieve intoxication or desired effect<br>(b) markedly diminished effect with continued use of the same amount of an opioid |
| *Withdrawal, as manifested by either of the following:<br>(a) the characteristic opioid withdrawal syndrome<br>(b) the same (or a closely related) substance are taken to relieve or avoid withdrawal symptoms |

# Treatment and Prevention

## Naltrexone

- Receptor antagonist
- No abuse potetial or street value
- Increases sobriety, decreases overdose frequency
- Compliance is a major challenge

## Buprenorphine

- Partial agonist
- Excellent compliance rates
- Increased sobriety, decreased criminal activity, decreased overdose frequency
- As of April 2021, X-waiver no longer required

## Methadone

- Full agonist
- Reduces illicit use, overdose death, criminality, ID transmission
- Sigificant street value, high overdose risk

# Naltrexone

## Special Considerations

- PO (daily) and IM (monthly) options
- No regulatory requirements
- DO NOT START in pregnant patients
- Patient's should be abstinent 7-14 days before first dose
- Best used in highly motivated patients
- Good option if occupations don't allow opioid agonists/partial agonists

# Methadone

## Special Considerations

- Requires frequent (daily) in-person visits
- Dispensed on-site
- Big regulatory requirements
  - OTP accreditation (SAMHSA)
- Inconvenient for everyone

# Buprenorphine

## Special Considerations

- PO, and Injectable/Implantable options
- Monthly visits
- Patients should be in mild/moderate withdrawal to start
    - Can precipitate withdrawal
- Lower oversdose risk than methadone
- Anyone with DEA license can prescribe

# Takeaways

## Diagnosing OUD

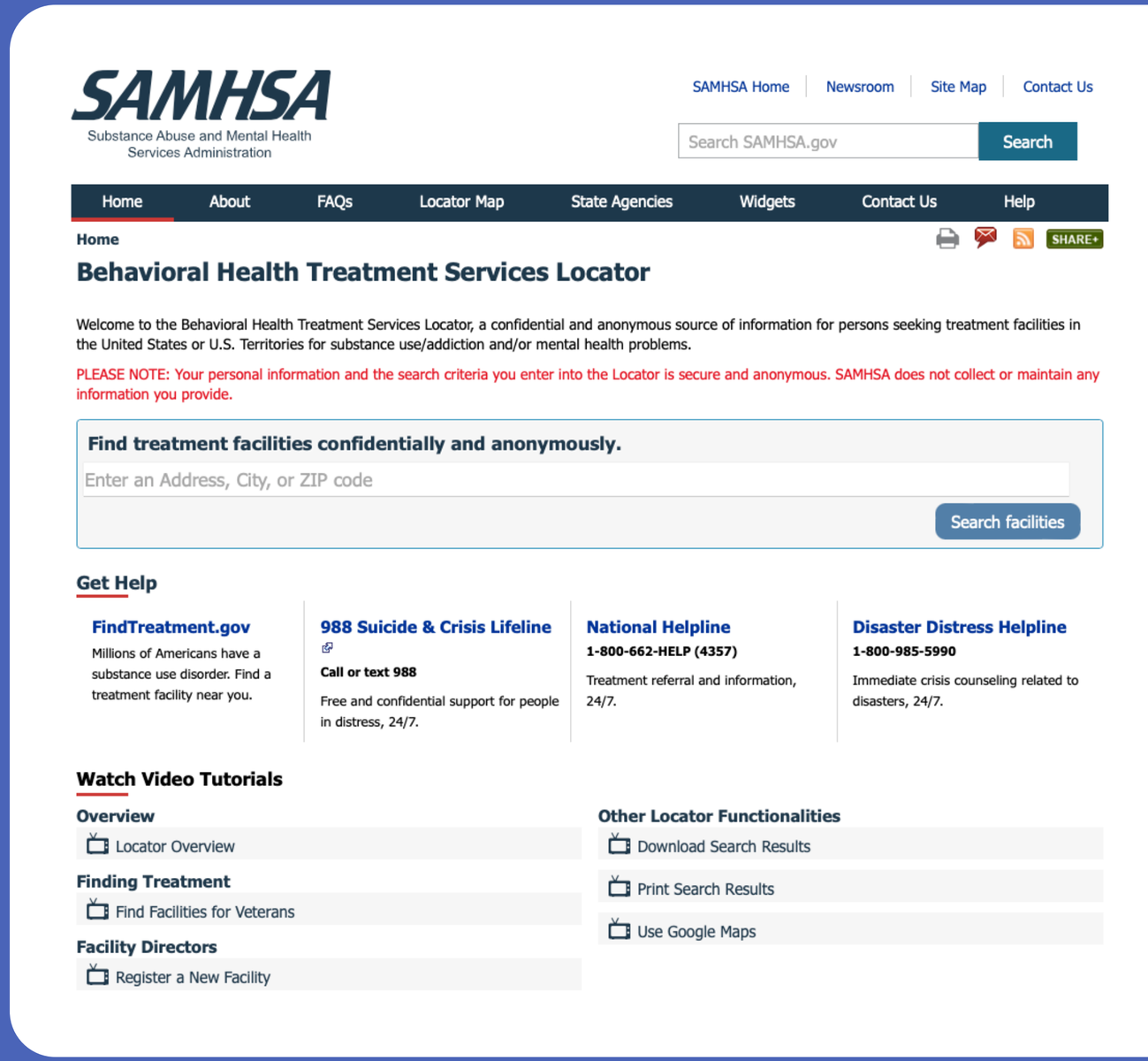
- Determining Severity
- Overdose Risk
- Co-Occuring Conditions
- Prior Treatment
- Impact on Function

## Treating OUD

- When and How to Taper
- Treatment & Recovery

# Additional Resources

## https://findtreatment.samhsa.gov



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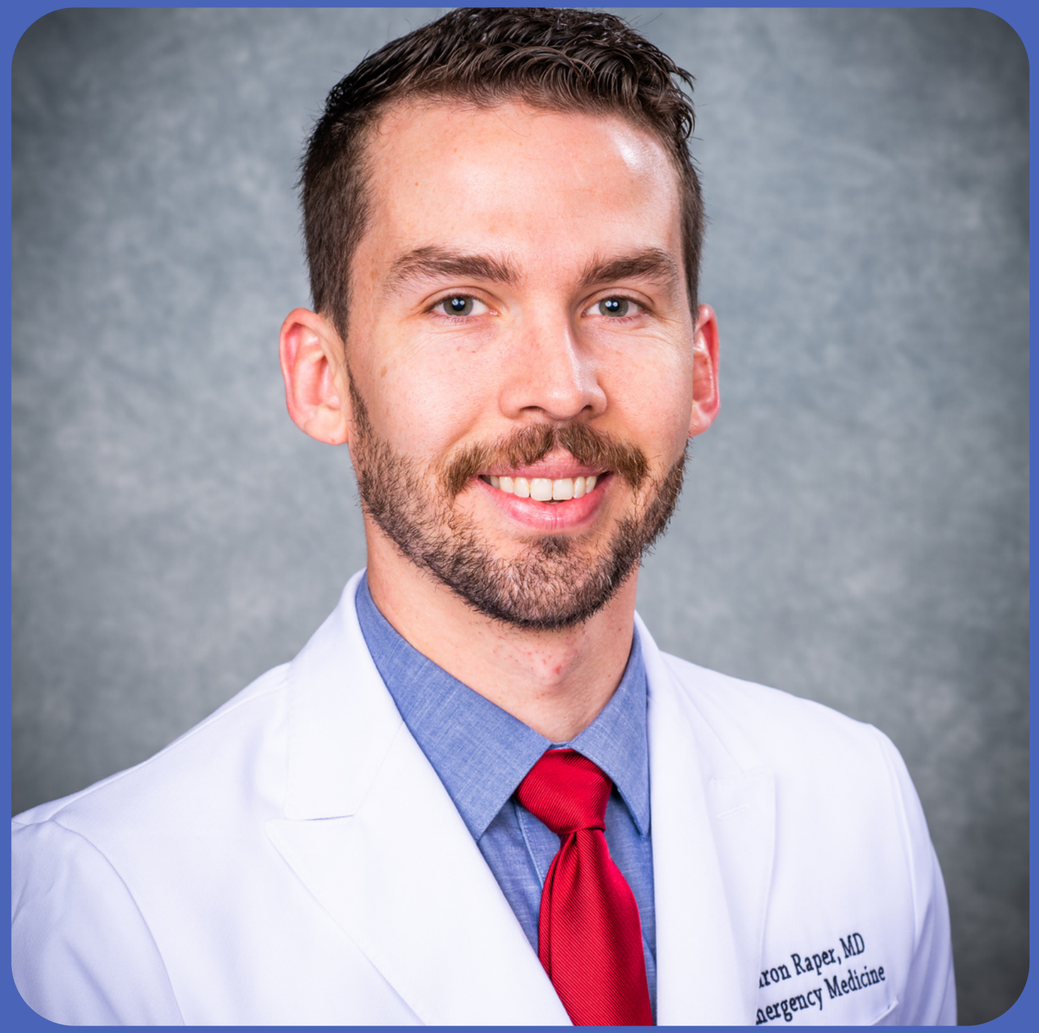


**Phone Number**

205-934-3640

**Email Address**

jaronraper@gmail.com

**Twitter**

@JaronRaperMD