The Epidemic of Opioid Abuse: How It Happened and What the Courts Can Do about It

Brian L. Meyer, Ph.D. , LCP

PTSD-SUD Specialist

Central Virginia VA Health Care System

Assistant Professor, Dept. of Psychiatry

Virginia Commonwealth University

Richmond, Virginia

September 14, 2020

Disclaimer

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The author does not have any conflicts of interest to disclose.

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The Opioid Crisis

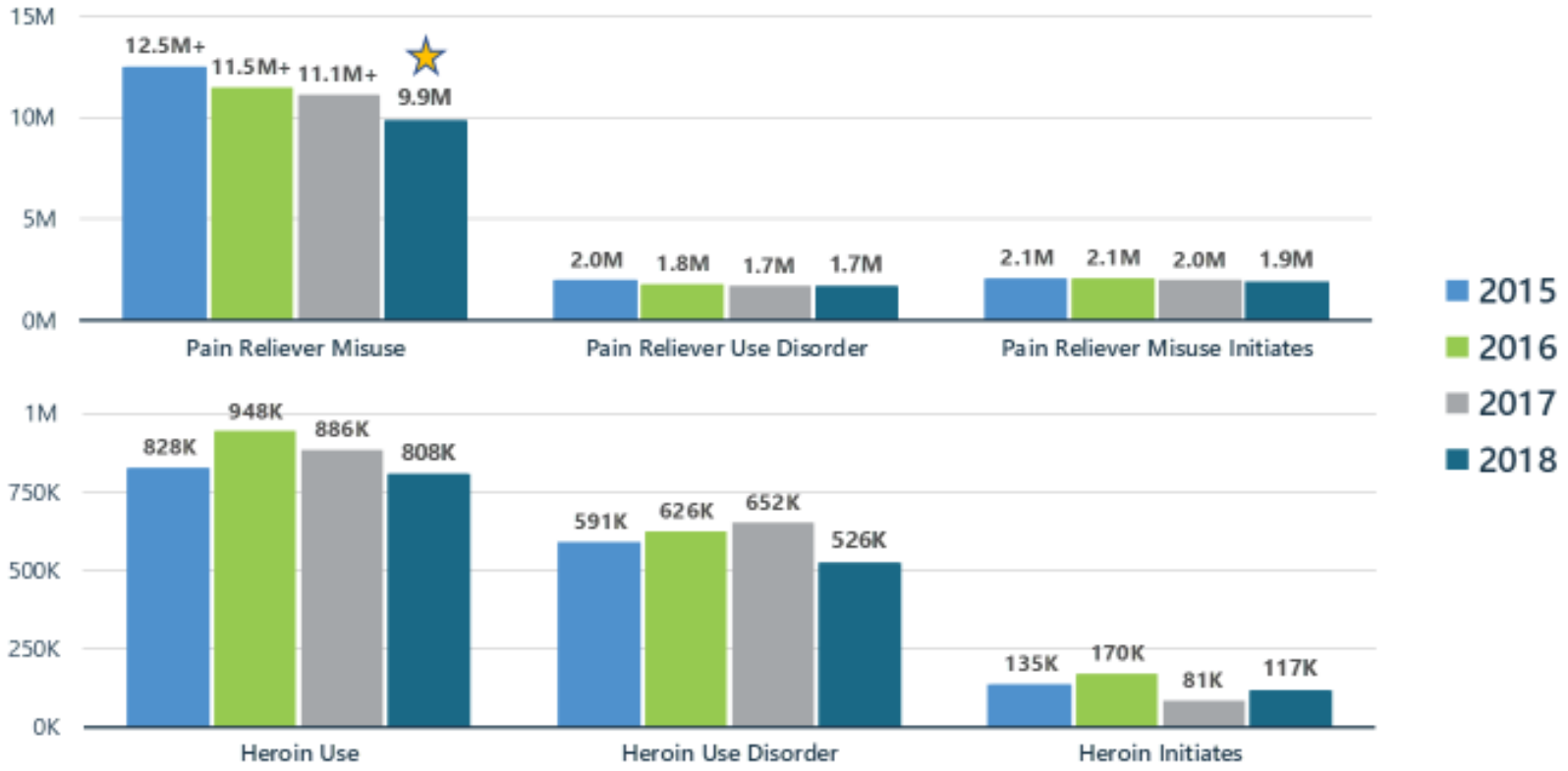
The Brutal Facts of the Crisis

- There were 51.4 opioid prescriptions per 100 people in 2018 (CDC, 2020)
  - This is a decrease from a high of 81.3 per 100 people in 2012
- 10.3 million people (3.7% of population) misused prescription opioids

NSDUH, 2018

Prescription Pain Reliever Misuse and Heroin Use

PAST YEAR, 2015-2018 NSDUH, 12+



+ Difference between this estimate and the 2018 estimate is statistically significant at the .05 level.

SAMHSA
Substance Abuse and Mental Health Services Administration

The Brutal Facts of the Crisis

- In 2016, 1.27 million ER visits and hospital stays were due to opioid related problems (Price, HHS, 2017)
- In 2018, 49,068 Americans died of opioid overdoses (NIDA, 2018)
  - That's 134 deaths every day
  - That's one every 11 minutes

12 Month-ending Provisional Number of Drug Overdose Deaths

Based on data available for analysis on: 8/2/2020

Figure 1a. 12 Month-ending Provisional Counts of Drug Overdose Deaths: United States

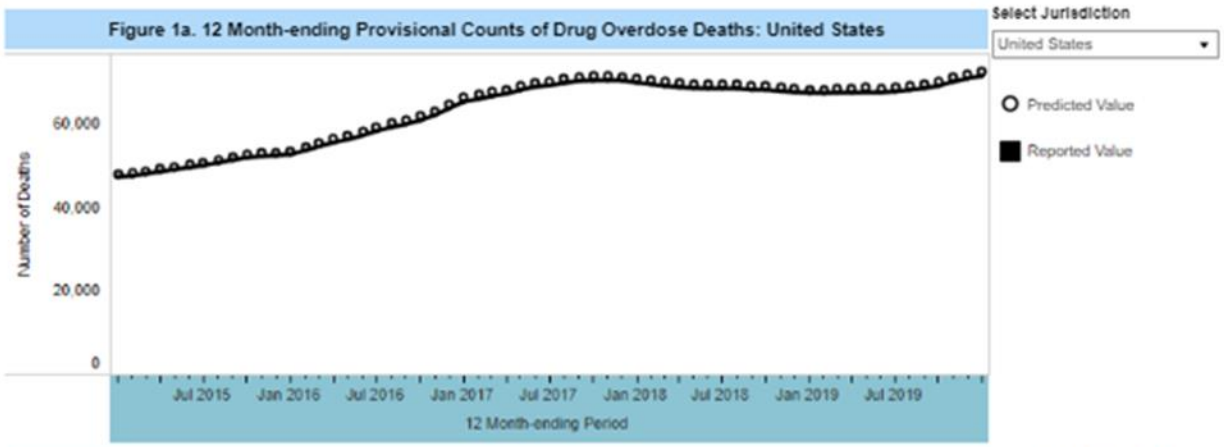
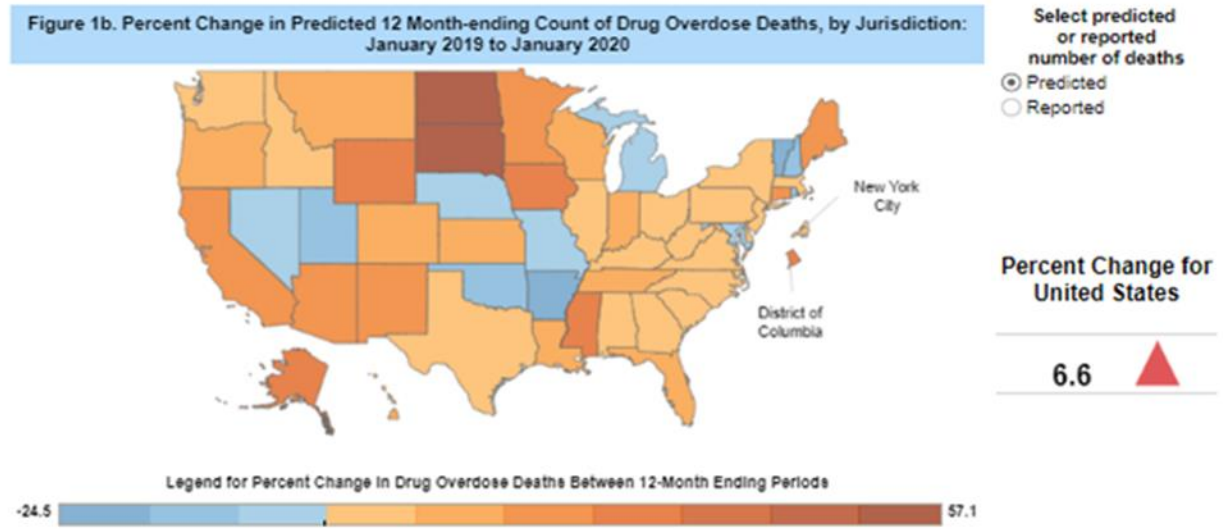


Figure 1b. Percent Change in Predicted 12 Month-ending Count of Drug Overdose Deaths, by Jurisdiction: January 2019 to January 2020



NOTES: *Reported* provisional counts for 12-month ending periods are the number of deaths received and processed for the 12-month period ending in the month indicated. Drug overdose deaths are often initially reported with no cause of death (pending investigation), because they require lengthy investigation, including toxicology testing. Reported provisional counts may not include all deaths that occurred during a given time period. Therefore, they should not be considered comparable with final data and are subject to change. *Predicted* provisional counts represent estimates of the number of deaths adjusted for incomplete reporting (see **Technical notes**). Deaths are classified by the reporting jurisdiction in which the death occurred. Percent change refers to the relative difference between the reported or predicted provisional numbers of deaths due to drug overdose occurring in the 12-month period ending in the month indicated compared with the 12-month period ending in the same month of the previous year. Drug overdose deaths are identified using ICD-10 underlying cause-of-death codes: X40–X44, X60–X64, X85, and Y10–Y14.

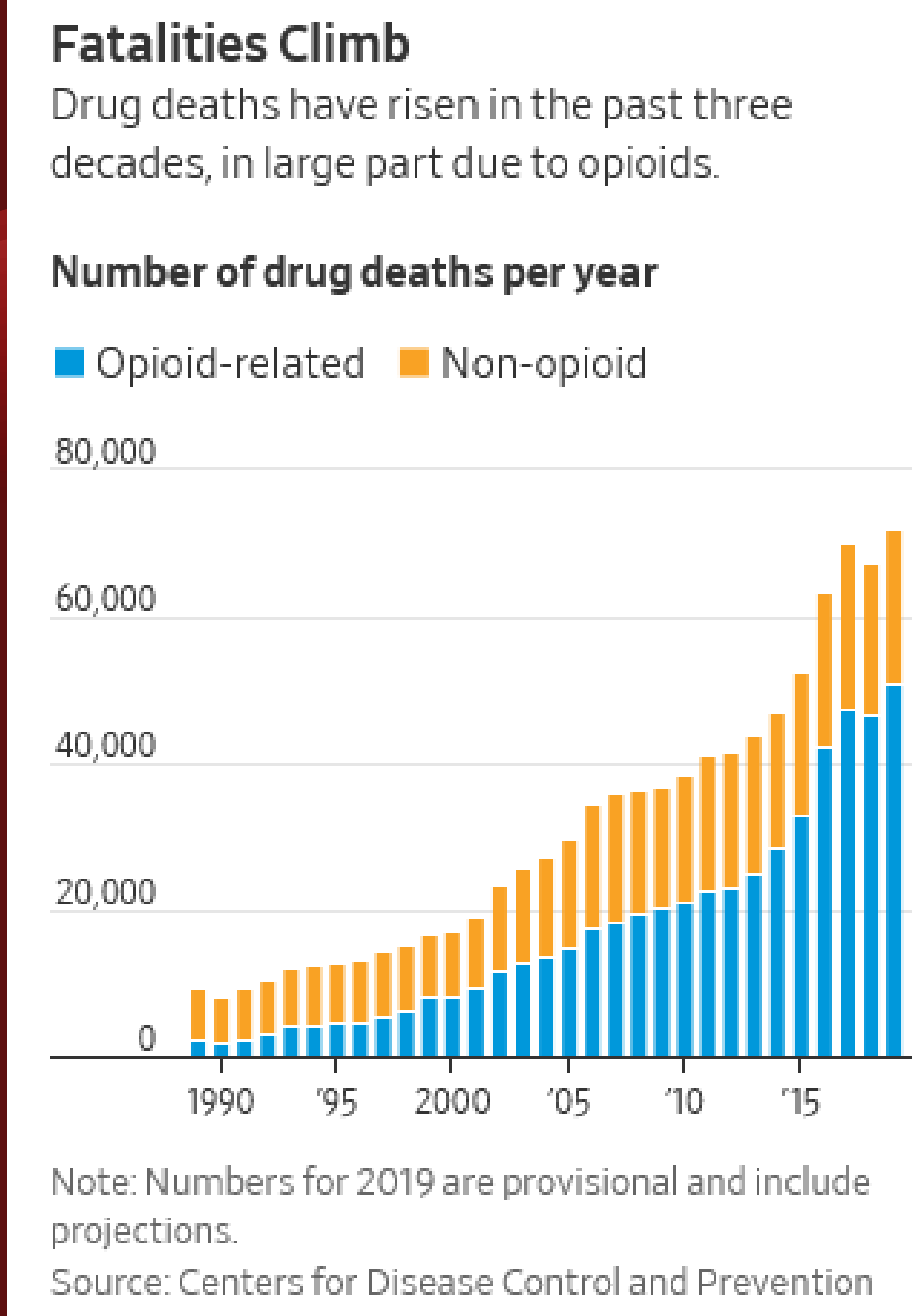
+ableau

12 Month-ending Provisional Counts of Drug Overdose Deaths - The following data tables describe the currently displayed dashboard

- Georgia predict
  deaths from 1/2
  to 1/2020: **+0.1**
- This number ha
  underreported

National Center for
Statistics, 8/2/2020

Drug and Opioid Fatalities 1990-2019



The Effects of COVID-19 on Opioid Overdose Deaths

- Every 1% increase in unemployment results in a 3.9% increase in opioid overdose deaths (Hollingsworth et al., 2017)
- A recent American Medical Association review of news reports from 40 states found that opioid overdoses have increased in 29 states in 2020 (AMA, 8/14/20)
- A just-completed *Wall Street Journal* survey found that 21 of 30 of the largest counties in the country have increases in overdose deaths (WSJ, 9/8/2020)
- A CDC survey found that 13.3% of respondents in the week June 24-30 either started or increased their substance abuse in response to COVID-19 stresses (MMWR, CDC, 8/14/20)

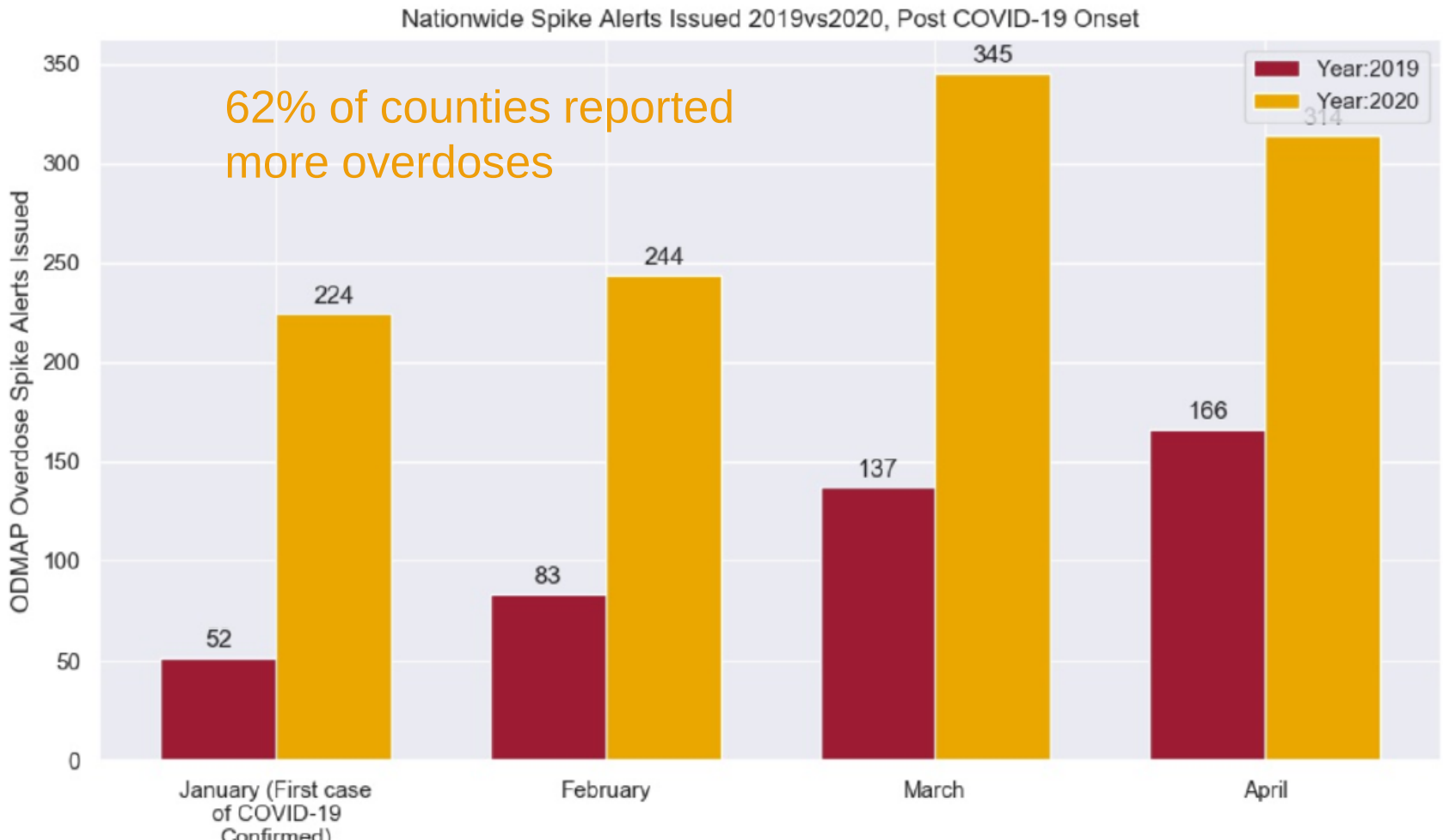
The Effects of COVID-19 on Opioid Overdose Deaths

- The White House Office of Drug Policy found an 11.4% increase in year-over-year opioid fatalities in the first four months of 2020 (Politico, 7/2/20)
- COVID-19 has also:
  - Shuttered addiction treatment centers
  - Made daily methadone pickups extremely difficult
  - Closed in-person peer group meetings
  - Isolated people more
  - Increased unemployment
  - Increased depression and anxiety by 30% (CDC, 8/14/20)
  - All of these factors exacerbate the likelihood of relapses and overdoses

Overdoses Increased by 18% during COVID-19

ODMAP
OVERDOSE DETECTION
MAPPING APPLICATION PROGRAM

Figure 1: National ODMAP Submissions January-April 2019 and 2020 Comparison



The Crisis Is Worse Than the Current Numbers Say

- Some people do not want to admit to researchers that they misuse drugs, especially illegal drugs
- NSDUH data do not count people who are homeless or incarcerated, who are more likely to misuse drugs
  - Humphreys (2017) estimates that the opioid misuse rate could be 2-3 times greater
- The death rates underestimate the actual figures by 24-28% because many death certificates involving drug overdoses do not specify the type of drug (Boslett et al., 2020; Ruhm, 2017)

How We Got Here


PAIN

Pain and Opioid Use

- 126 million Americans (55.8%) report some pain over the previous three months (Nahin, 2012)
- 25.3 million, or 11.2%, report chronic pain (Nahin, 2012)
- The most common reason for opioid misuse is pain, accounting for 63.4% of opioid misusers (NSDUH, 2017)

The History of Pain Treatment in the U.S.

The Introduction of Opium

When pain began to be seen as a medical problem, physicians turned to opium, a substance derived from the poppy flower.

The Introduction of Opium

Laudanum - a mixture of opium in sherry - was introduced by Thomas Sydenham in 1680 and became very popular.

Pain Treatment in the Civil War

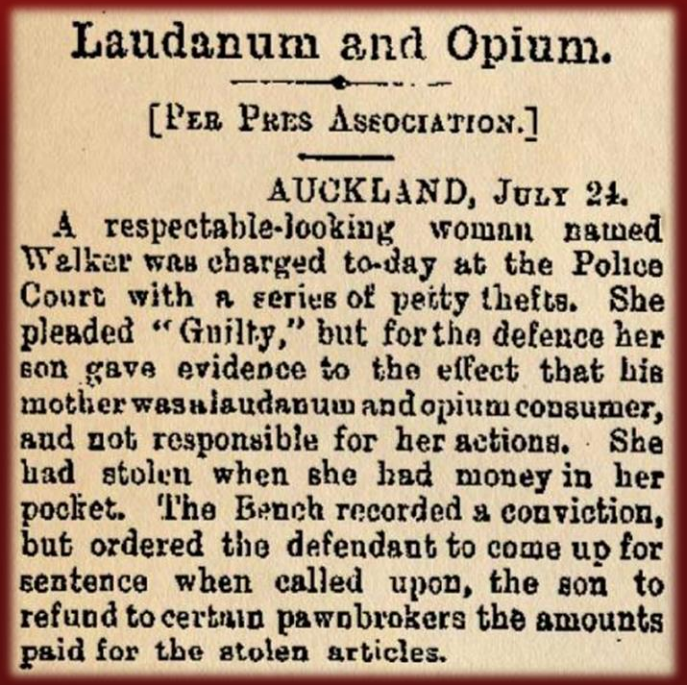
- A Federal surgeon devised a speedy sick call method. He performed diagnosis from horseback, dispensing morphine powder by pouring it into his hand and letting the patient lick it.

Civil War Times May 1988

Women and Opiates

In the late 19th century laudanum was being marketed to middle-class women as a medical pick-me-up for "female problems."

Epidemiological studies conducted in Michigan, Iowa, and Chicago between 1878 and 1885 reported that at least 60% of the morphine and opium addicts were women.



Laudanum and Opium.

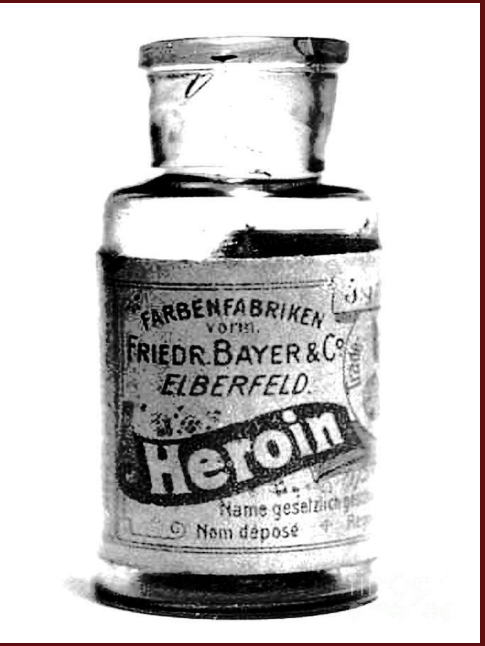
[Per Pres Association.]

AUCKLAND, July 24.

A respectable-looking woman named Walker was charged to-day at the Police Court with a series of petty thefts. She pleaded "Guilty," but for the defence her son gave evidence to the effect that his mother was a laudanum and opium consumer, and not responsible for her actions. She had stolen when she had money in her pocket. The Bench recorded a conviction, but ordered the defendant to come up for sentence when called upon, the son to refund to certain pawnbrokers the amounts paid for the stolen articles.

Attempts to Create a Non-Addictive Opiate

- In 1804, Friedrich Serturner was able to isolate the active ingredient in opium, which he named Morphine. This was touted as the solution to opium addiction.
  - By the end of the century, there were as many people addicted to morphine as there were to opium.
- In 1897, Felix Hoffman developed a new alternative for the Bayer company. It was called Heroin.



The First War against Drugs

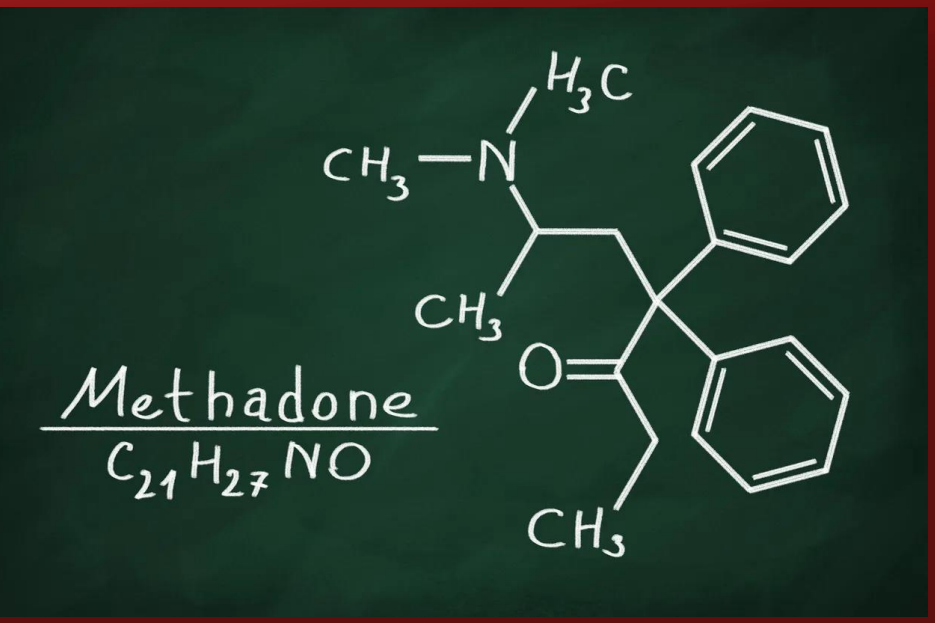
1905
U.S. Congress banned opium.

1906
U.S. Congress passed the Pure Food and Drug Act requiring contents labeling on patent medicines by pharmaceutical companies. As a result, the availability of opiates and the number of opiate consumers significantly declined.

1909
The first federal drug prohibition in the U.S. outlawed the importation of opium.

Markel, 2011

The First Synthetic Opioid: Methadone



- Methadone was developed in Germany in 1937 to combat Germany's opium shortage
- It began to be used in the United States in 1949
- In 1964, it began to be used to treat heroin addiction

The Onset of the Current Opioid Crisis

The Letter

ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients[1] 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.
Boston Collaborative Drug Surveillance Program
Waltham, MA 02154 Boston University Medical Center

1. Jick H, Miettinen OS, Shapiro S, Lewis GP, Siskind Y, Slone D. Comprehensive drug surveillance. JAMA. 1970; 213:1455-60.
2. Miller RR, Jick H. Clinical effects of meperidine in hospitalized medical patients. J Clin Pharmacol. 1978; 18:180-8.

NEJM, 1980

The Study

- 38 patients were maintained on opioid analgesics for non-malignant pain
- Patients used a variety of opioids, including Oxycodone, methadone, levorphanol, and others
- 19 patients were treated for four or more years at the time of evaluation, and 6 for more than 7 years
- The author concluded that long-term use of opioids was safe

Portenoy, R.K., *Pain* (1986)

The Growth of Opioid Use 1986-2010

The Perfect Storm:

- In 1995, the American Pain Society designated pain as the "fifth vital sign"
- Pharmaceutical companies developed newer opioids that they aggressively marketed as less risky
- Minimal training of health care providers in pain and addiction
- Pharmaceutical companies also gave money for provider education

The Growth of Opioid Use 1986-2010

The Perfect Storm, cont.

- Managed Care led to:
  - Less time spent per patient
  - Shrinking primary care reimbursement
  - Lack of funding for substance abuse treatment
  - Lack of funding for biopsychosocial approaches to pain
    - Limitations on Physical Therapy, Cognitive-Behavioral Therapy, and care coordination
- The age of too much information
  - Desensitized patients and providers to risks

The Origin of the Pill Mill

- Pill mills are pain clinics in which there is no diagnosis of pain
  - They sell opioid prescriptions for cash
  - This made opioids freely available
- The pill mill originated in Portsmouth, Ohio
  - The community had been run down by economic changes
- Dr. David Proctor figured out how to hire more doctors from all over the country to sell more prescriptions
- Then they started their own clinics

Quinones, 2015

Other Factors Contributing to the Growth of Opioid Usage

No disciplinary action will be taken against a practitioner based solely on the quantity and/or frequency of opioids prescribed.

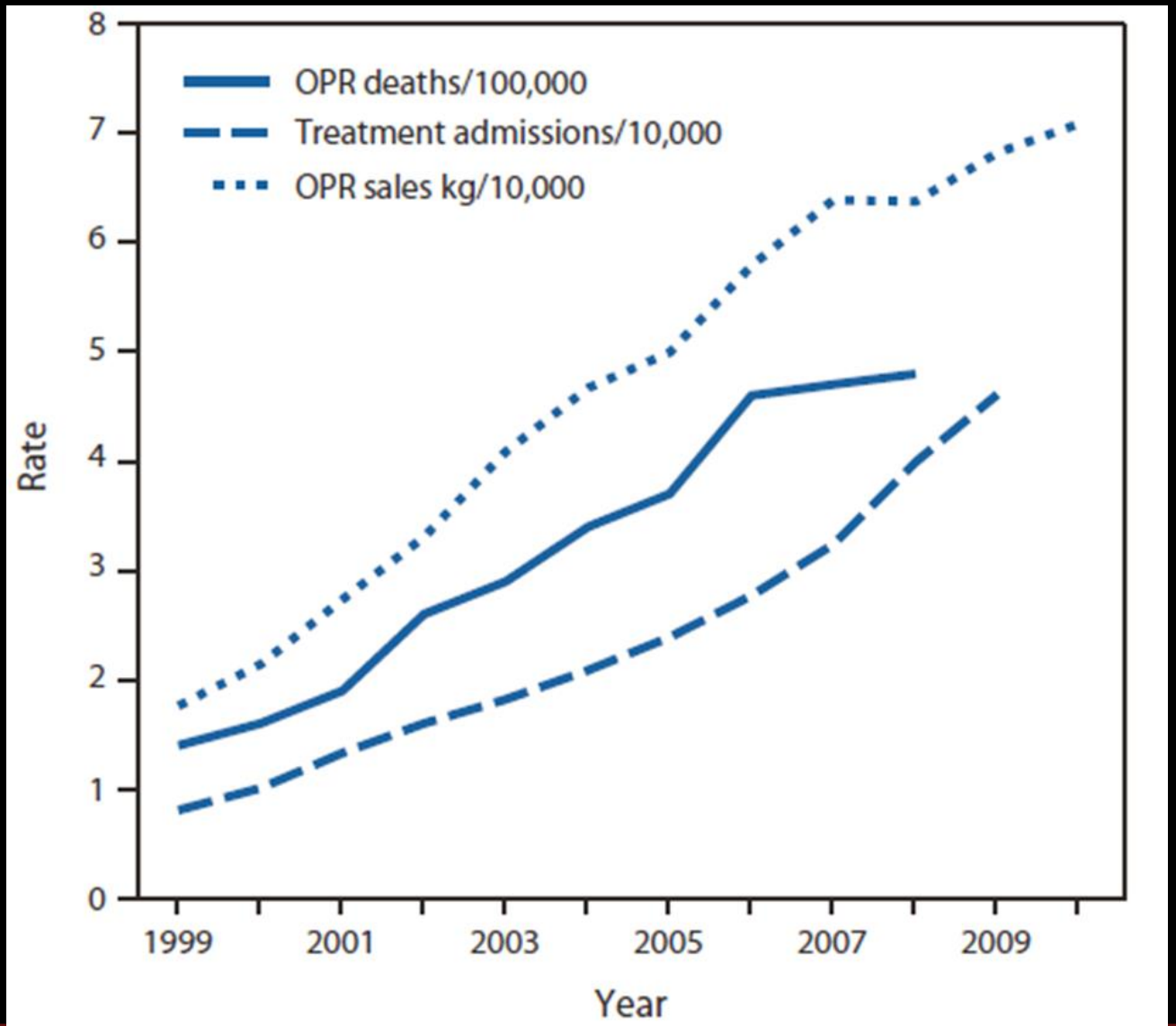
Federation of State Medical Boards of the United States, 1998, model guideline

- In the late 1990s, state medical boards reduced restrictions on laws governing opioid prescriptions
  - Model guidelines prohibited lawsuits based on opioid prescriptions
  - This resulted in a significant increase in prescriptions (Manchikanti et al., 2012)
- JCAHO introduced new pain management standards in 2000 (Phillips, 2000)

The US Consumes Most of the World's Opioids

- The US has 4.6% of the world's population
- We use 99% of the world's supply of hydrocodone, the most commonly prescribed opioid (International Narcotics Control Board, 2008)
- We use 83% o f the world's supply of oxycodone (Ricks, 2012)

The Growth of Opioid Sales, Treatment Admissions, and Deaths

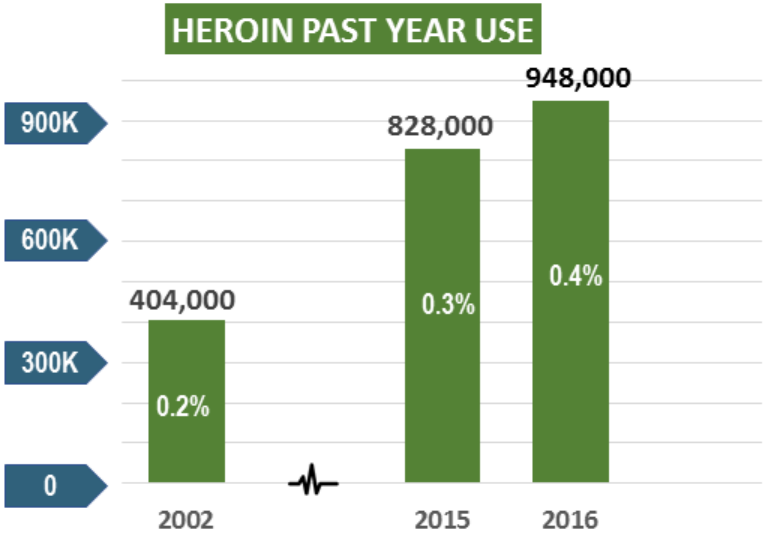


CDC, 2011

From Opioids to Heroin

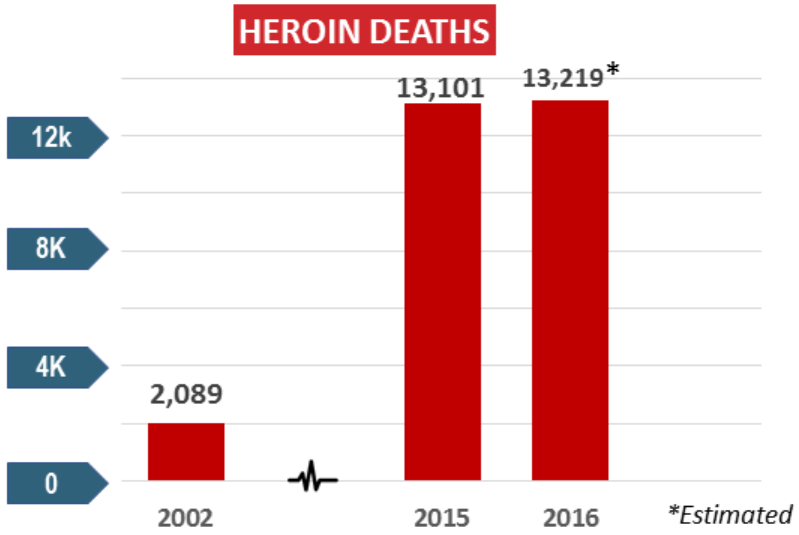
- When opioid access is reduced or eliminated, many people turn to heroin
- Heroin is cheaper than opioid pills on the street
- Heroin use increased 145% from 2007-2014 (CDC, 2015)
- 39-86% of heroin users report abusing opioids before starting heroin (Lankenau et al., 2012: Peavy et al., 2012; Pollini et al., 2011)
- People who become addicted to opioid pills are 40X more likely to develop heroin abuse (MMWR, 2015)

HEROIN DEATHS HAVE SKYROCKETED



230% increase in heroin users

Source: SAMHSA



630% increase in heroin deaths

Source: CDC National Vital Statistics System (NCHS)

The Rise of Fentanyl

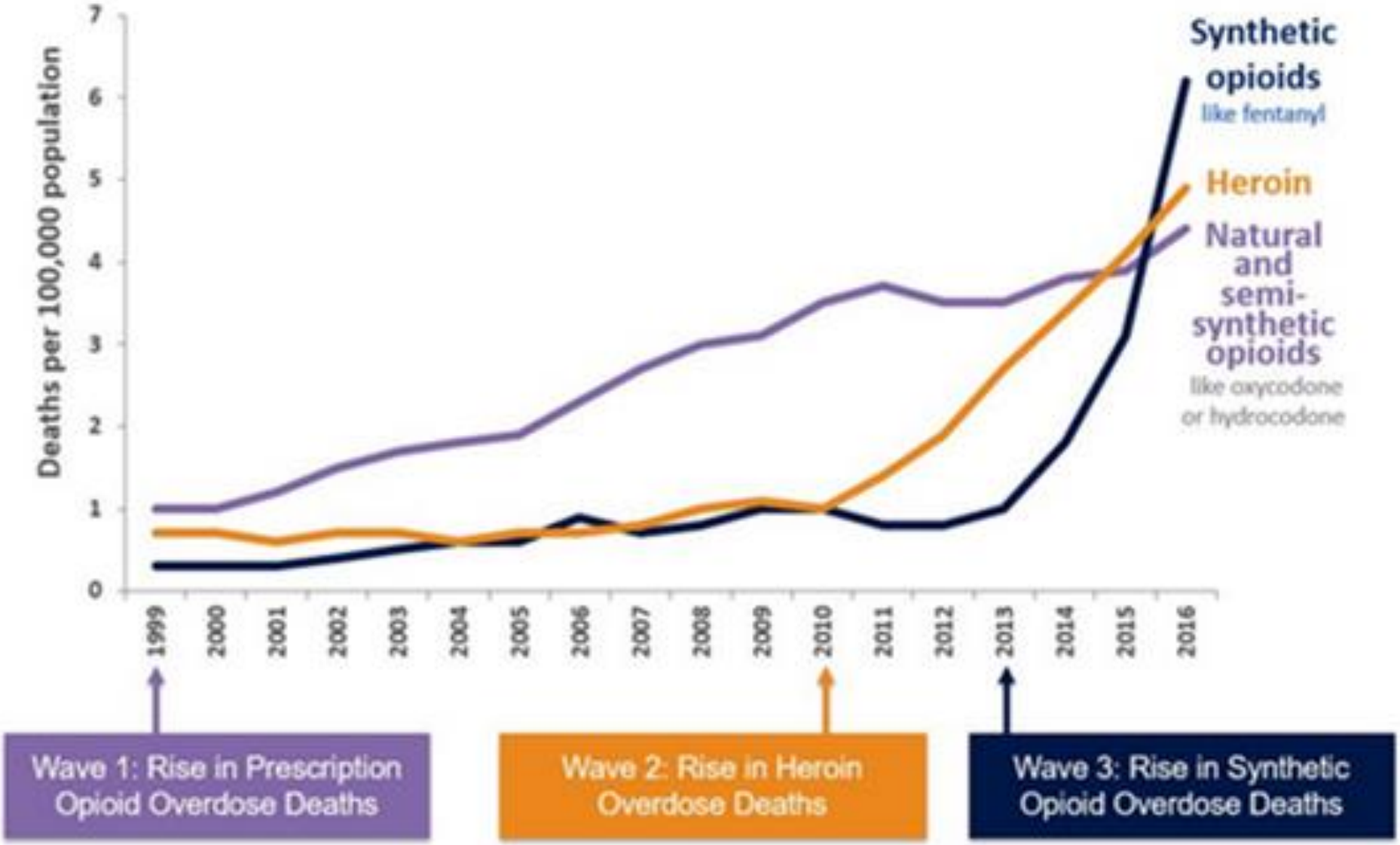
- Fentanyl is 100 X more potent than morphine
- Over 13,000 forensic exhibits of fentanyl were tested by laboratories in the United States in 2015 (National Forensic Laboratory System, 2016)
  - This is an increase of *eight times* from 2006
  - This is an increase of 65 per cent from 2014

The Specter of Carfentanil

- Carfentanil is 10,000 X more potent than morphine
- It is used as an elephant tranquilizer
- It is so potent that skin-to-skin contact with someone who has overdosed on it is enough to make the second person overdose
- In the first six months of 2019, 81.5% of overdose deaths involved opioids (MMWR, CDC, 9/4/20)
  - 72% involved fentanyl or carfentanil

How Much Does It Take to Kill?

3 Waves of the Rise in Opioid Overdose Deaths



CDC, 2018

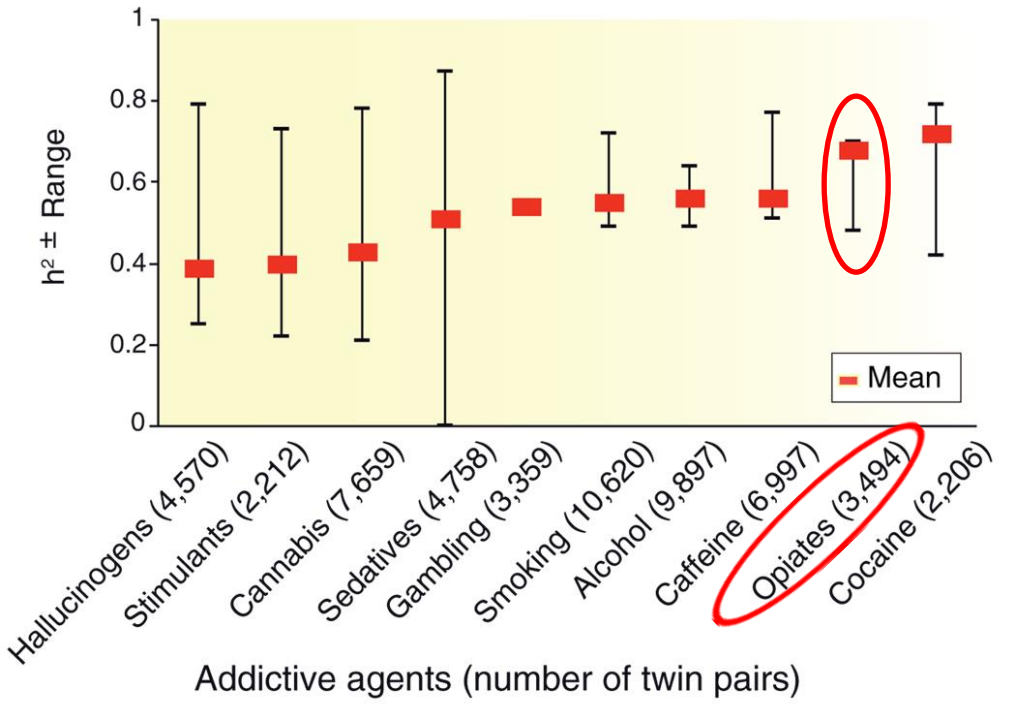
SOURCE: National Vital Statistics System Mortality File.

What the Courts Can Do about the Opioid Crisis

Understand

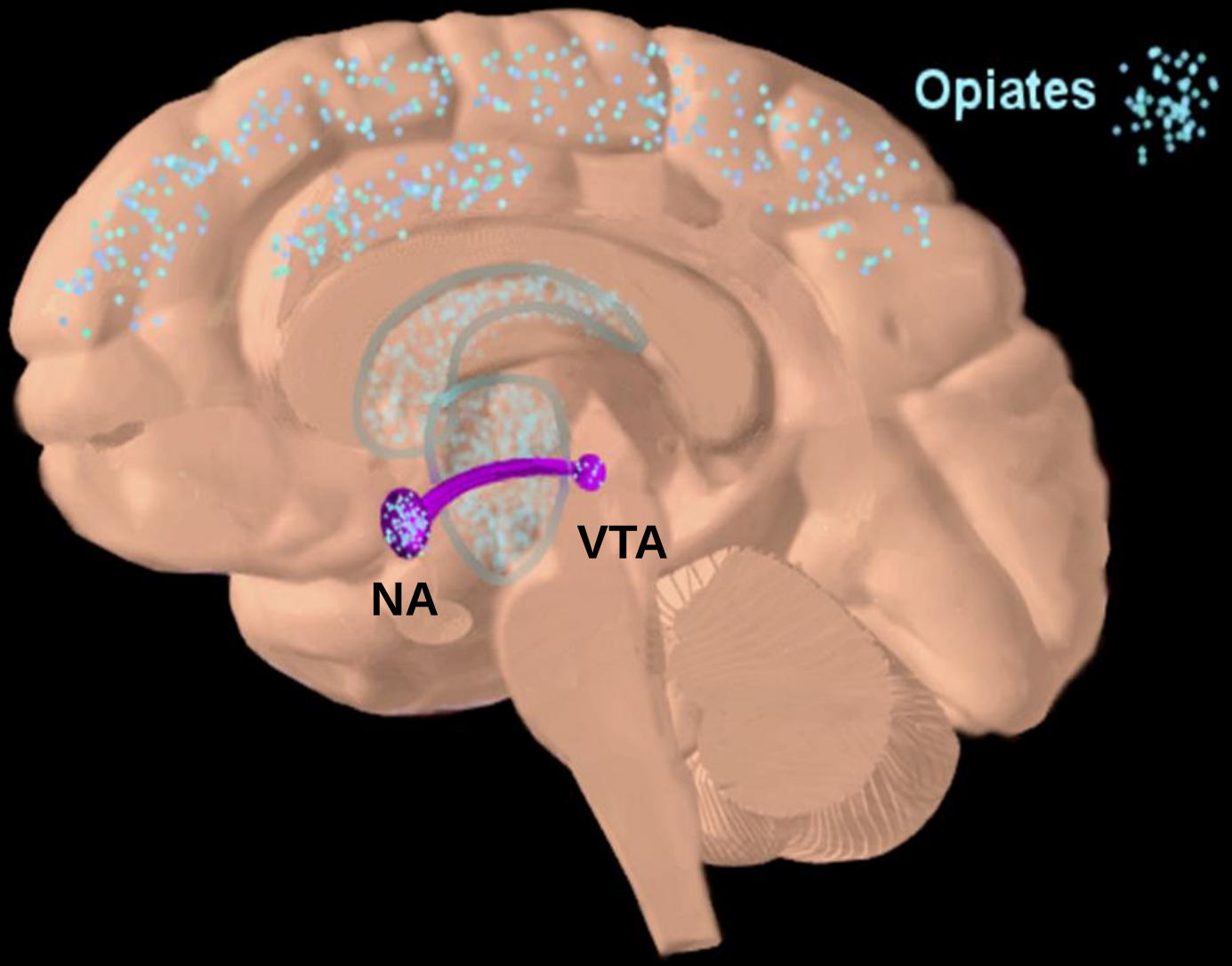
Some of the Problem is Genetic

- Substance abuse runs in families
- The genetic vulnerability to substance abuse can be inherited
- Average addiction risk is 50% genetic, but opiates are higher



Bevilacqua and Goldman, 2009

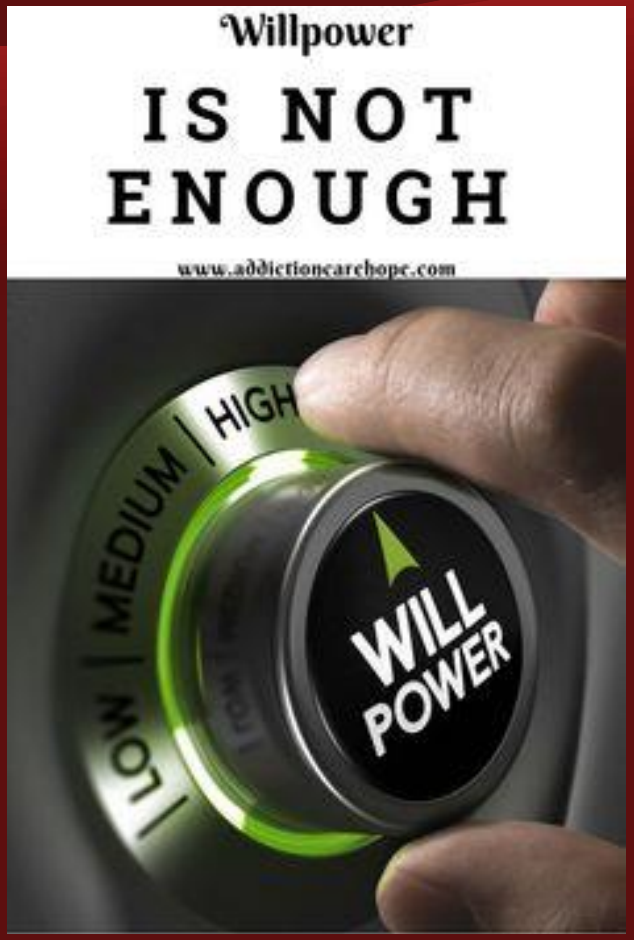
Endogenous Opiate Binding Sites



Opioid Addiction in the Brain

- Opioid misuse causes structural alterations in the brain and motivational system
- These changes prevent self-regulation, despite harmful consequences (West, 2005)
  - This means *opioid use stops being only a choice*

The Implications

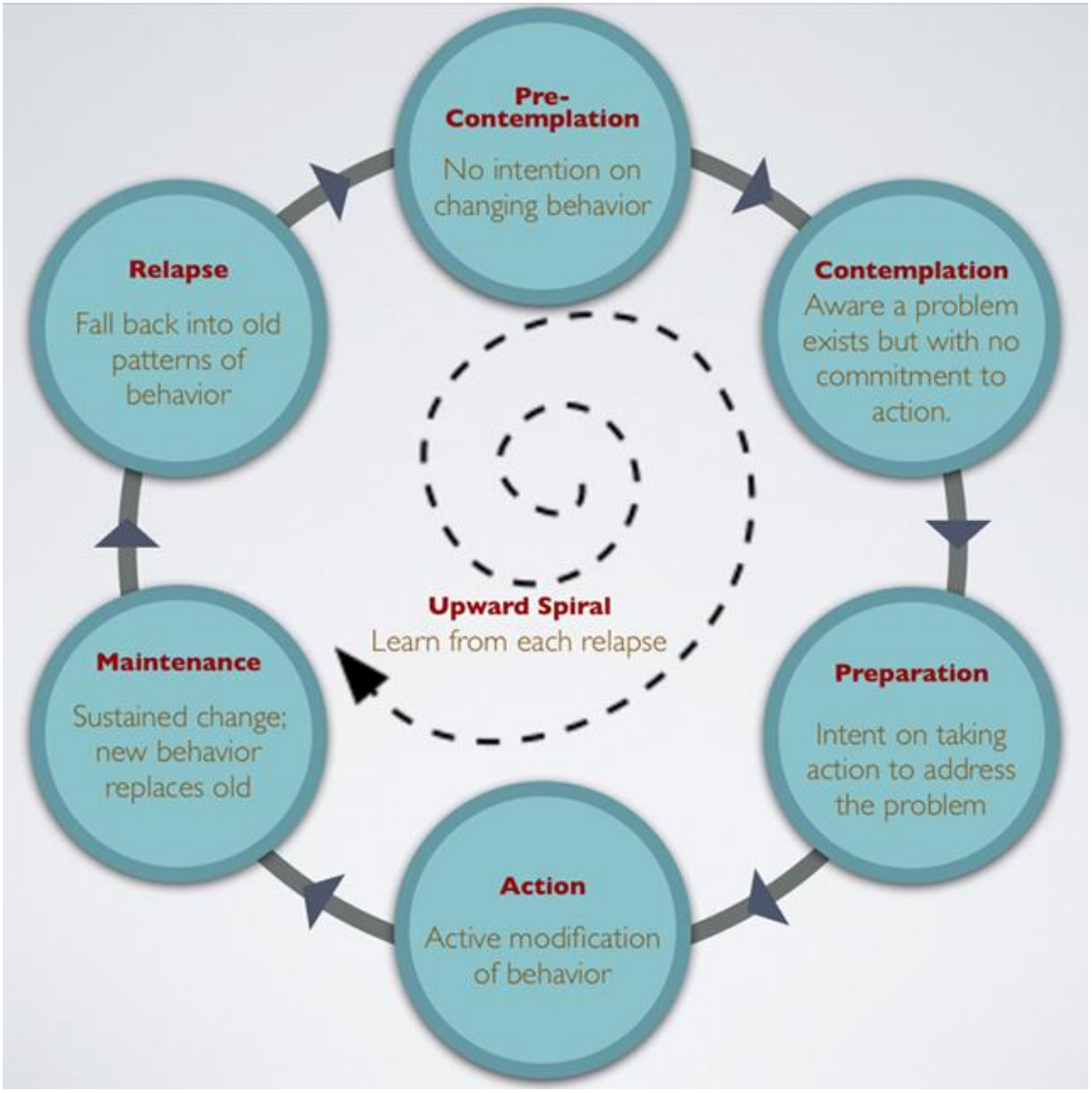


- Addiction often develops at a time when the brain is still developing
  - Substances can make permanent changes in the brain
- We do what our brain tells us to do
- It's not simply a choice or a matter of willpower

The Problem of Hyperalgesia

- Opioid-induced hyperalgesia is one reason why long-term opioid misusers seek increased doses of opioids: they hurt *more*, not less
- This also makes it harder for them to stop using opioids
- By asking them to stop, we are asking them to hurt more

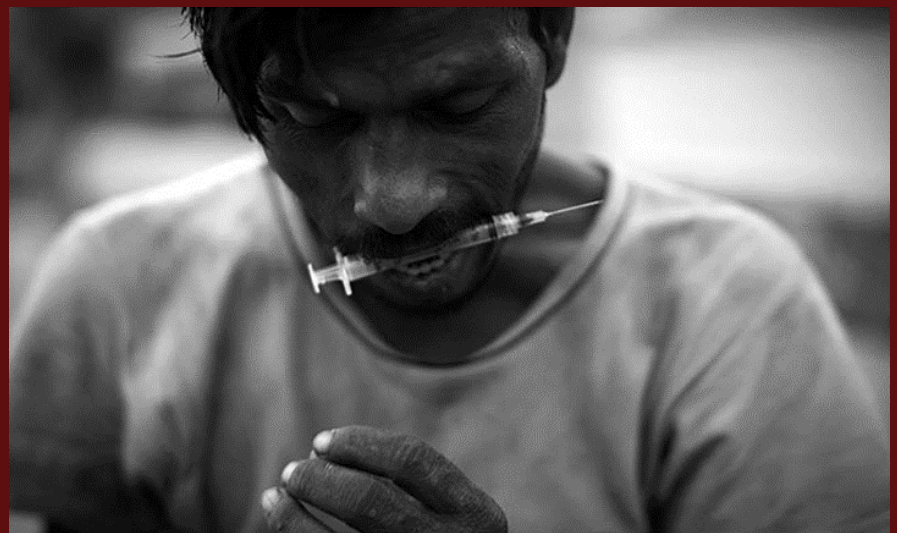
Relapse Is Part of the Process



Prochaska & DiClemente

Relapse Is Part of the Process of Recovery

- The average number of relapses before a person stops using a substance is 7
- The goal is to learn from each relapse
- This does not usually fit with court timelines
- *Do not take relapses personally*



Resist Stigmatizing

Stigma

- The World Health Organization lists drug addiction as the #1 most stigmatized medical condition in the world
  - Alcohol addiction is #4

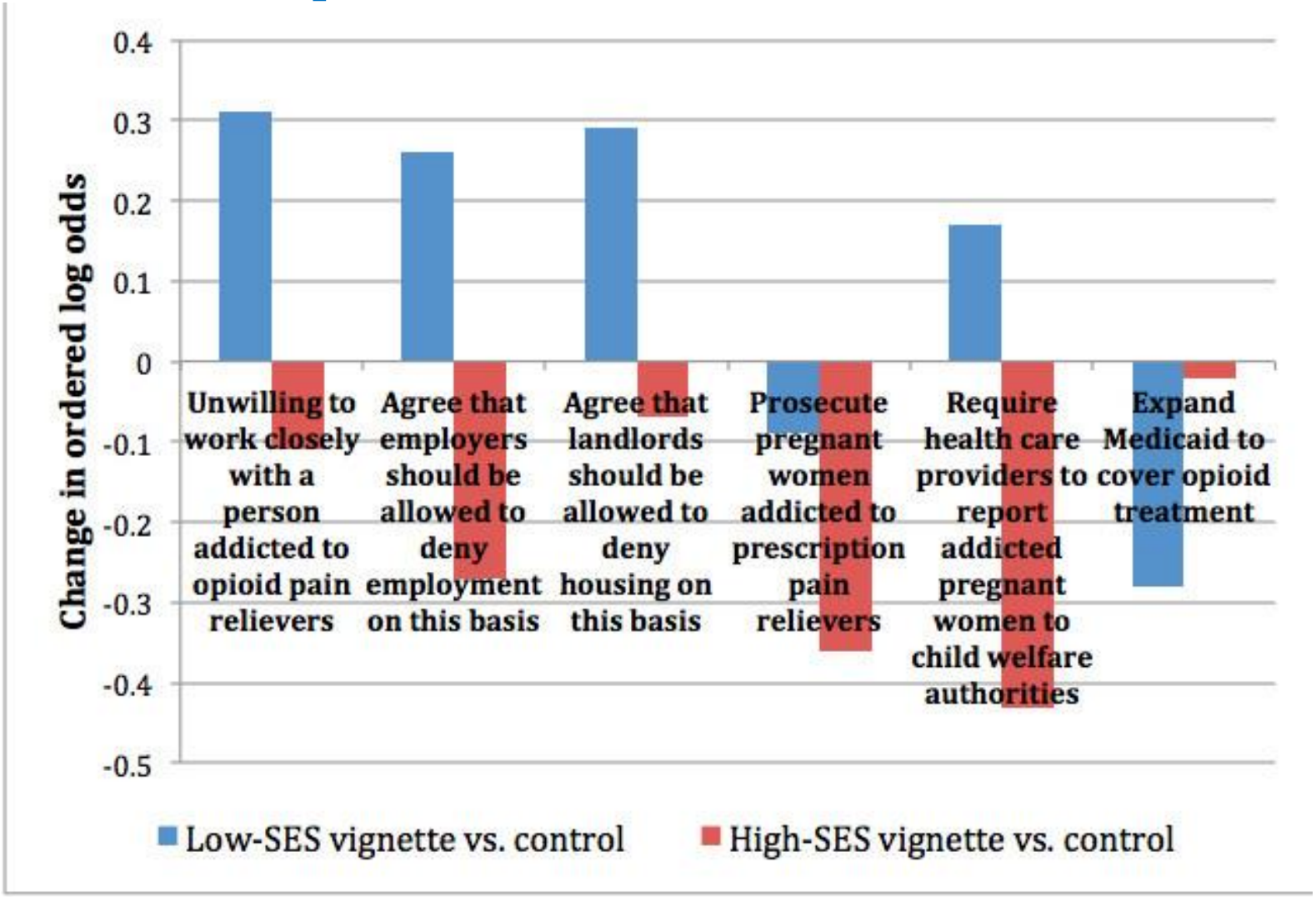
Stigma and Health Care

- Stigma is a major reason why substance misusers do not get treatment (SAMHSA, 2008)
  - It takes 5-6 years after the onset of drug or alcohol dependence to seek help (Wang et al., 2005)
- Health care workers view people with SUDs as more irresponsible, dangerous, aggressive, and untrustworthy (Hopwood et al., 2006)

Shaming Is Common

- Some is conscious, and some is unconscious
- Some shaming can be the result of a person's past history
  - For example, someone with a family member who had a substance abuse problem
- Shame is a central feature of substance abuse
- Shame can drive a person to misuse more substances

People Criticize Low Income Opioid Users More



Kennedy-Hendricks et al., 2016

Opioid Use and Race

- Until recently, the opioid crisis has been largely about white Americans
- In 2015, 27,056 Caucasians died of opioid overdoses, comprising 82% of deaths from opioids
  - 2,741 African-Americans died, or 8%
  - 2,507 Hispanics died, or 8%
- Whites were more likely to be prescribed opioids than African-Americans or Hispanics (Pletcher et al., 2008)
- More attention was paid to opioid misuse as white deaths increased, and it became "a crisis"

Change the Language You Use

Language Can Create Stigma

- Kelly and Westerhoff (2005) studied 516 clinicians
- They used vignettes that were the same, except for the terms "substance use disorder" and "substance abuser"
- Clinicians who read the "substance abuser" vignettes were more likely to agree that character was responsible for substance misuse
- They were also more likely to agree that punitive measures should be taken against the substance misuser

The Language We Use Can Create Problems

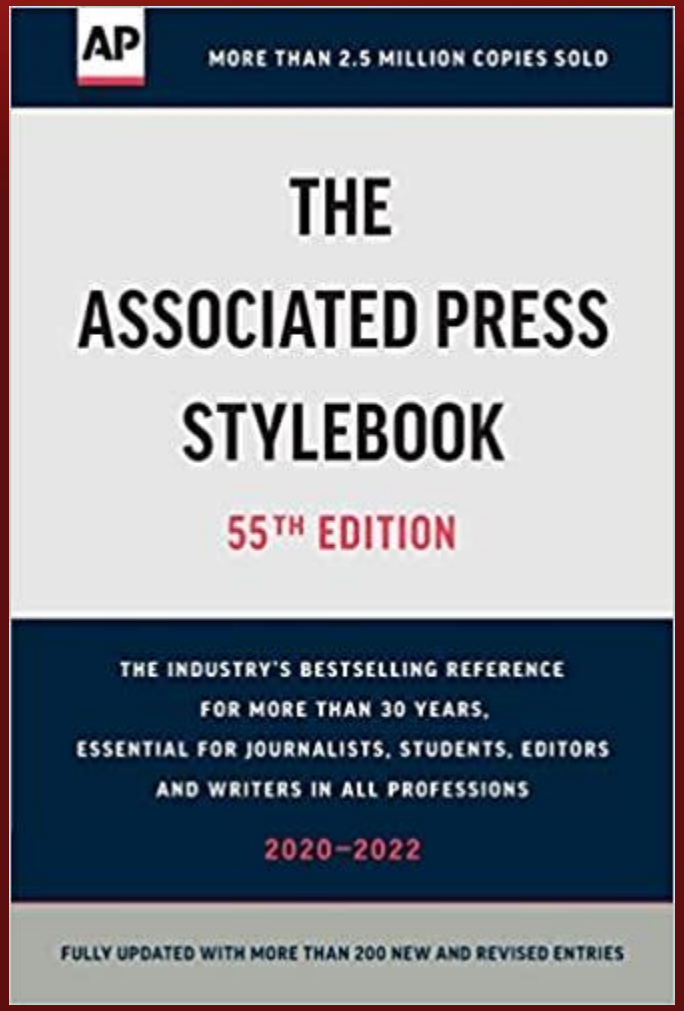
- Language can be definitional
  - For example, "addict" means you are defined by your addiction
- Language can create stigma
  - For example, "dirty urine" means you are a dirty person
- Language can create false causes
  - For example, "You could stop if you wanted to."
  - This example also makes a brain disease into a moral failing
- Language can be shaming
  - For example, "You are a drug addict."

Change Your Language

Harmful	Helpful
"You are an addict."	"You used drugs."
"You should know better."	"These are our expectations."
"You violated your contract."	"You did not meet the terms of your contract."
"Compliance/ noncompliance"	"Adherence/nonadherence"
"Your urine drug screen was dirty."	"Your urine showed the presence of drugs."

A Recent Positive Change

- In June, 2017, the Associated Press Stylebook recommended that journalists use the term "addiction" rather than "substance abuse"
- They also recommended that journalists use the term "person with an addiction" rather than "addict" or "abuser"



Work towards Becoming Trauma-Informed, Then Trauma-Competent

Co-Occurrence of PTSD and Substance Abuse

Co-occurring disorders are the rule rather than the exception.

SAMHSA, 2002

Co-Occurrence of PTSD and Substance Abuse

- PTSD and substance abuse co-occur at a high rate
  - 20-40% of people with PTSD also have SUDs (SAMHSA, 2007)
  - 40-60% of people with SUDs have PTSD
- The presence of either disorder alone increases the risk for the development of the other
- PTSD increases the risk of substance relapse (Norman et al., 2007)
- The combination results in poorer treatment outcomes (Ouimette et al., 2003; Sonne et al., 2003)

Trauma Informed Treatment ≠ Evidence Based Treatment

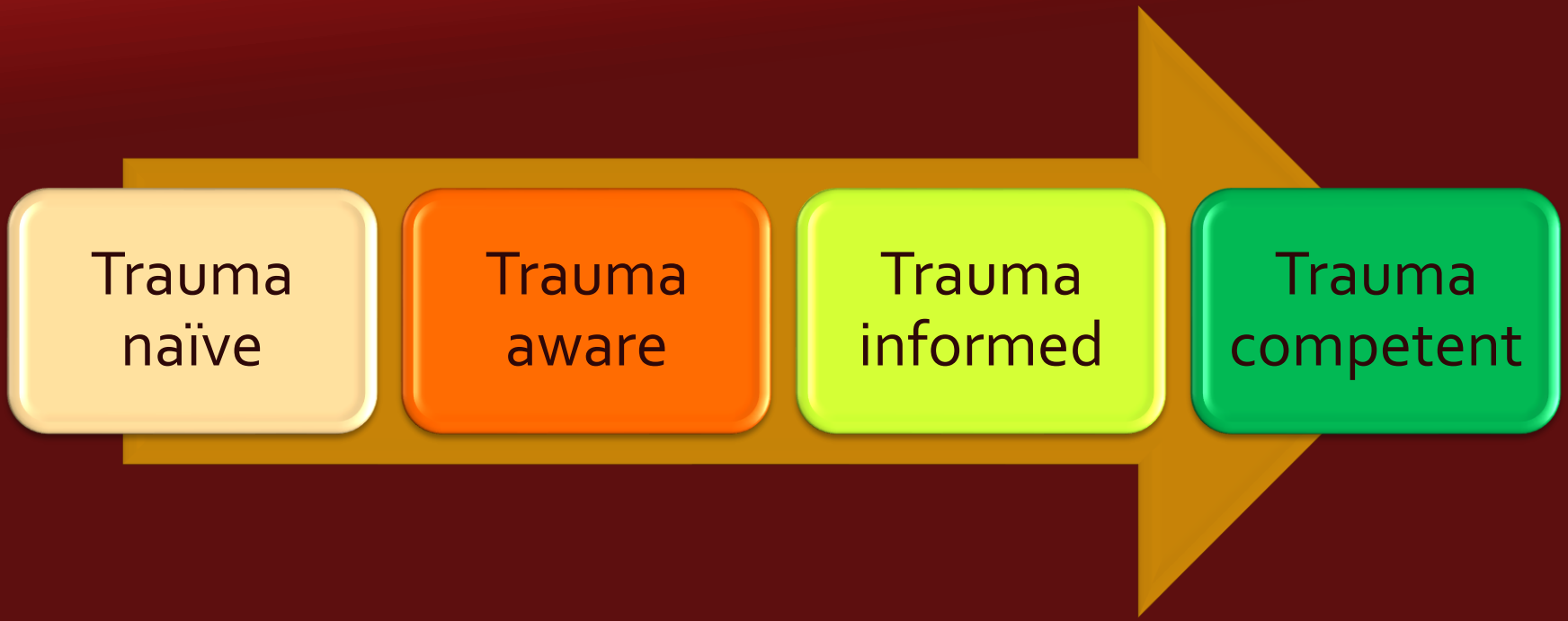
- Trauma-informed treatment means that trauma is taken into account when treating substance abuse
  - *Beyond Trauma: A Healing Journey for Women* by Stephanie Covington

Evidence-based means that research has shown treatment to be effective

- *Seeking Safety* by Lisa Najavits

- Evidence-based and trauma-focused is best

Continuum of Trauma Responsivity



Trauma Competent Courts

- Reconstruct their environments
- Are trauma driven
- Hold regular trauma trainings
- Understand the link between PTSD and substance abuse
- Refer only to evidence-based treatments for trauma and substance abuse
- Verify that clients are receiving evidence-based treatment
- Have mentors

Immediate Abstinence May Not Be Possible for People Who Have Been Traumatized

- If they really are using substances to cope with their trauma, immediate abstinence will leave them defenseless
- They will become flooded by all of their trauma-related memories, thoughts, feelings, nightmares, and body experiences
- This will lead to relapse
- This will lead to punishment
  - Punishment can be re-traumatizing
  - It will make them distrust you more

Order Medication-Assisted Treatment When Available

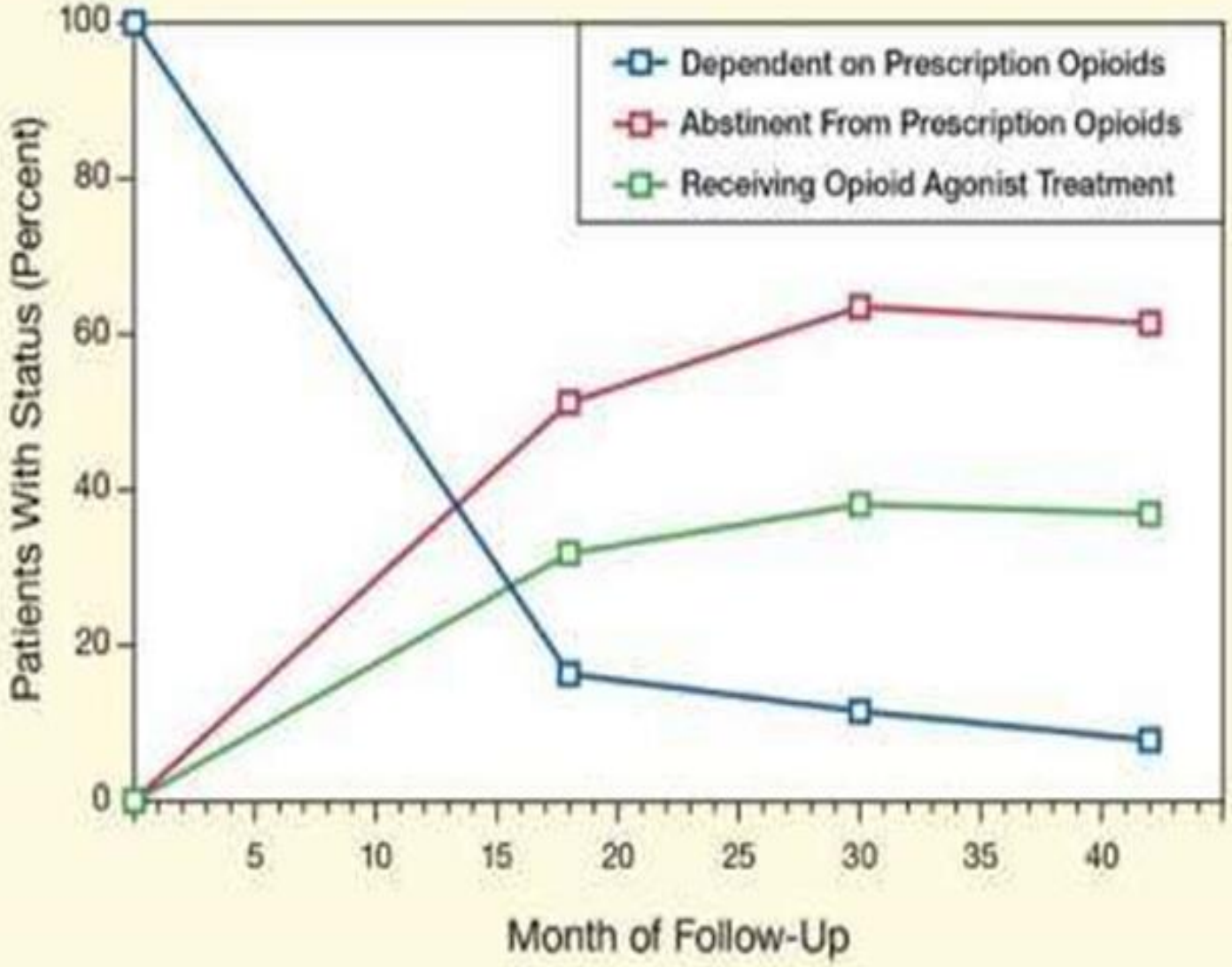
Psychosocial Interventions for Opioid Addiction Are Ineffective by Themselves

- 80% of patients return to regular opioid use within two years after residential treatment (Keen et al., 2001; Kosten & Gorelick, 2002)
- Medically assisted detoxification plus psychosocial support does not result in abstinence beyond initial stabilization (Fullerton et al., 2014; Sees et al., 2000; Ling et al., 2009)
- A Cochrane review concluded that the available evidence does not support psychosocial treatment alone for OUDs (Mayet et al., 2005)
- Medication-assisted therapy is more effective than psychosocial interventions (Fullerton et al., 2014)
  - Methadone maintenance results in greater treatment retention and fewer positive urine drug screens (Mattick et al., 2003)

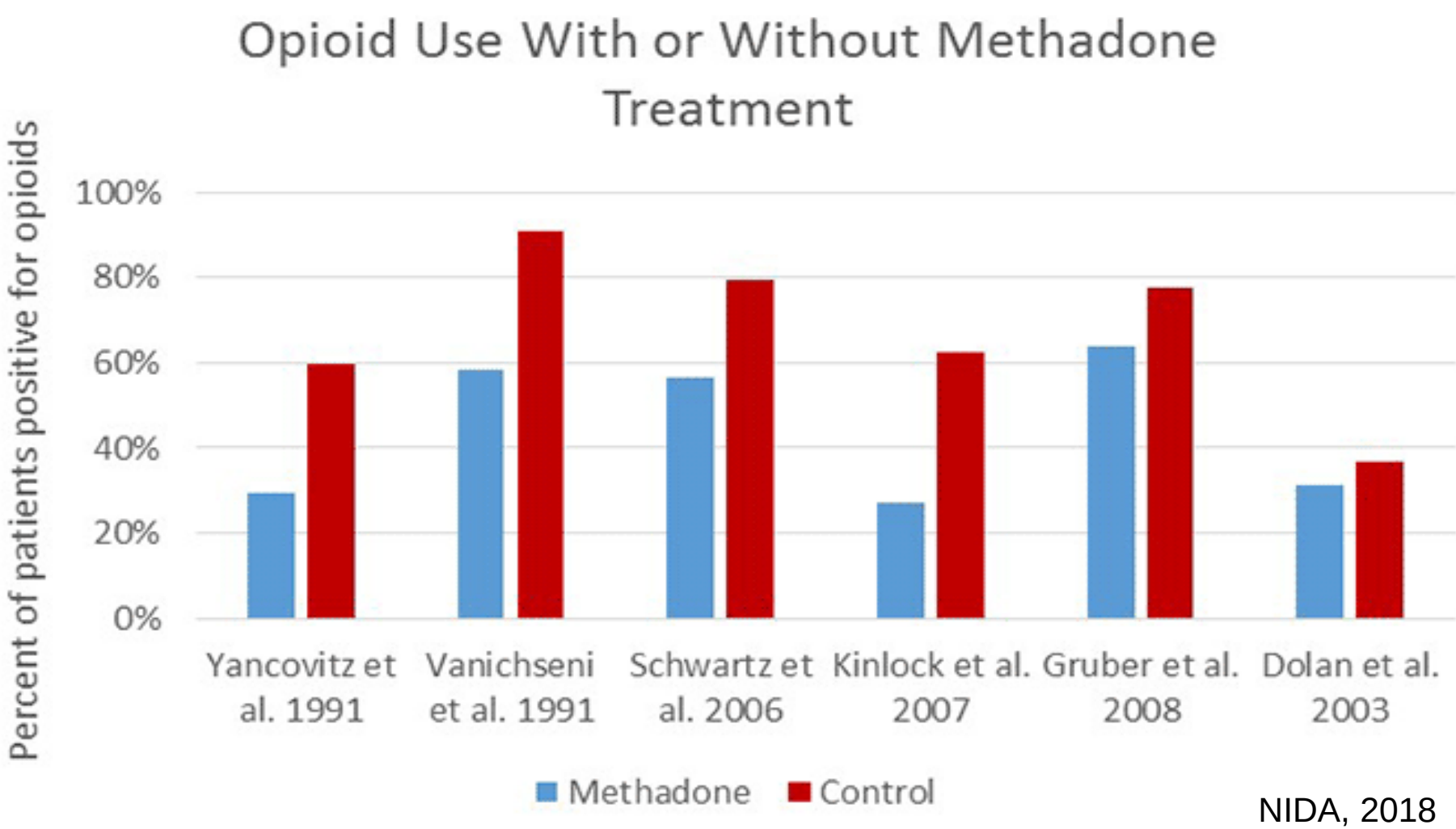
Medication-Assisted Therapy

- Medication-Assisted Therapy is the use of FDA-approved medications to treat opioid, alcohol, and stimulant use disorders
- MAT is the gold standard in Opioid Use Disorder treatment
- The goals of MAT (SAMHSA, 2015) are to:
  - Relieve withdrawal symptoms and psychological cravings
  - Block the euphoric effects of substances
  - Normalize brain chemistry
  - Normalize body functions without substances
- Medications approved for treatment of opioid use disorders:
  - Methadone
  - Buprenorphine or Suboxone (buprenorphine + naloxone)
  - Naltrexone (Vivitrol)

MAT Is Effective



Weiss et al., 2015


Opioid Use With or Without Methadone Treatment
Percent of patients positive for opioids
100%
80%
60%
40%
20%
0%
Yancovitz et al. 1991
Vanichseni et al. 1991
Schwartz et al. 2006
Kinlock et al. 2007
Gruber et al. 2008
Dolan et al. 2003
Methadone
Control

NIDA, 2018

BUPRENORPHINE MAINTENANCE IMPROVES ODDS OF SUCCESSFUL RECOVERY 10-FOLD

Phase 2 Time Point	Observed, No./Total No. (%) [95% Confidence Interval (CI)]	Odds Ratio (95% CI)	P Value
End of treatment	177/360 (49.2) [43.9-54.5]	10.6 (7.2-15.6)	<0.001
8-week posttreatment follow-up	31/360 (8.6) [5.9-12.0]		

Weiss R et al: 2011;Arch Gen Psych

Advantages of MAT

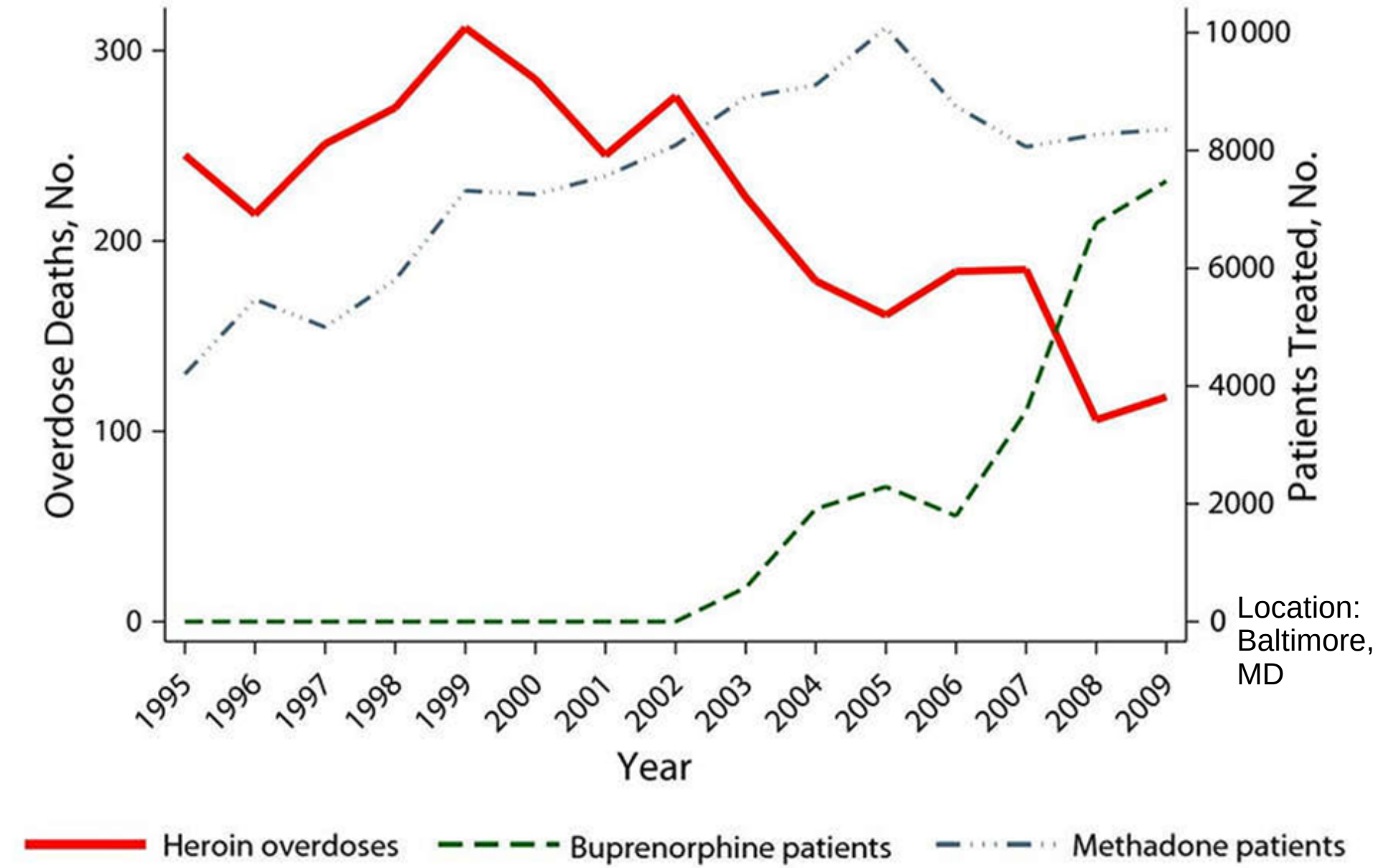
- MAT increases treatment retention
- It decreases illicit opiate use and other criminal activity in people with Substance Use Disorders (SUDs) (Krebs et al., 2017)
- It increases patients' abilities to gain and maintain employment
- It improves birth outcomes among pregnant women with SUDs
- It can lower a person's risk of contracting HIV or Hepatitis C by reducing the potential for relapse (NIDA, 2012)
- It is cost effective and provides more health benefits than treatment without medication (Connock et al., 2007)
- **MAT saves lives**

SAMHSA, 2015

MAT Saves Lives

- Buprenorphine and Methadone save lives (Wikner et al., 2014)
- Buprenorphine and Methadone reduce mortality rates by two-thirds (Sordo et al, 2017)
- Naltrexone also saves lives (Krupitsky et al., 2013)

MAT REDUCES HEROIN OD DEATHS



Schwartz et al., 2013

Current Usage of MAT Is Limited

- Only 21% of people with Opioid Use Disorders receive treatment (SAMHSA, 2016)
- The proportion of heroin admissions that received MAT declined from 35% in 2002 to 28% in 2012 (SAMHSA, 2014)
- Less than half of privately-funded SUDs treatment programs offer MAT, and only 1/3 of patients with OUDs actually receive it (ACOG & ASAM, 2012)
- Almost all states have insufficient treatment capacity to provide MAT to all patients with OUDs (Knudsen et al., 2011)
- Stigma prevents many people from using MAT (Frank, 2011)
- Only small numbers of primary care providers are willing to prescribe it

A Few Points about MAT

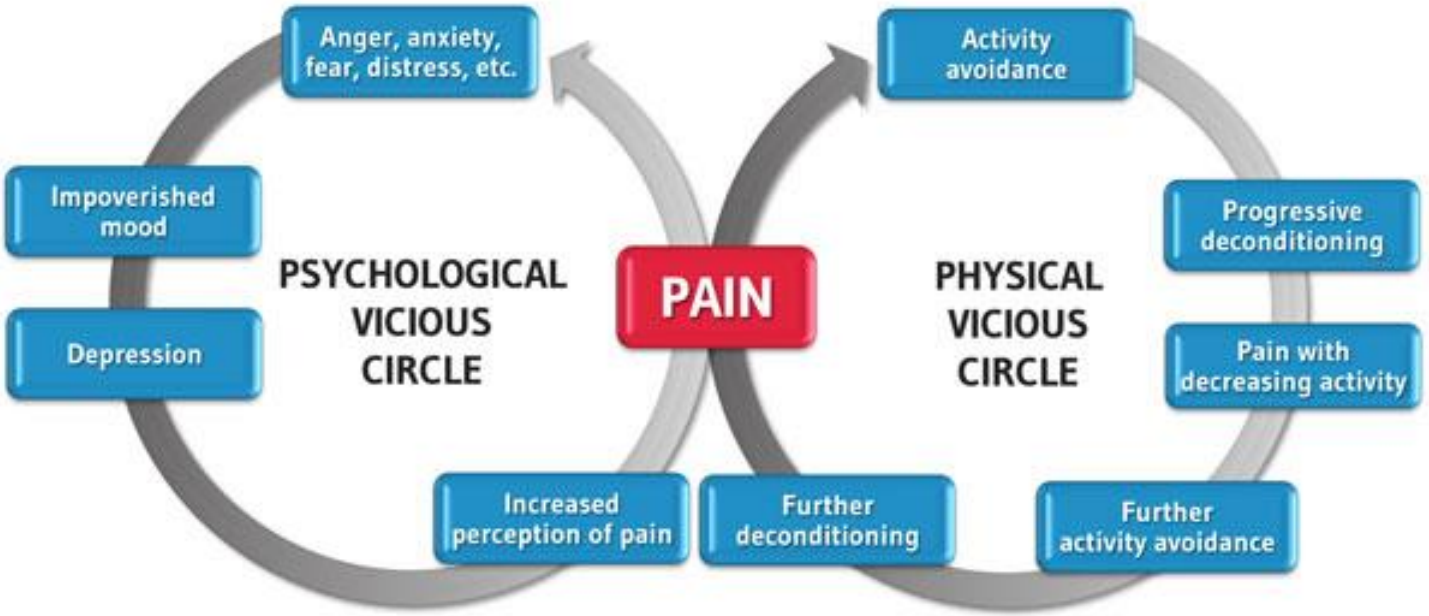
- In 2005, the World Health Organization added methadone and buprenorphine to its list of essential medicines
- Relapse rates for methadone (Weiss et al., 2011; Woody Et al., 2008) and buprenorphine (Magura & Rosenblum, 2001; Masson et al., 2004) are high if treatment is discontinued
  - Therefore, they probably have to be taken on a lifelong basis
  - There are no data about who may be able to successfully discontinue without relapsing
  - Clinicians must monitor them closely when tapering
    - This is especially true because their tolerance has decreased, so they are at more risk of overdosing

MAT Means Medication-Assisted

- Medication-Assisted Treatment means just that: Medication-*Assisted*
  - Treatment is more effective when medication is combined with therapy (NIDA, 2018)
  - Psychosocial treatment is still necessary for recovery, to build a life worth living
- Medication keeps them alive to give them the chance

Order Chronic Pain Treatment

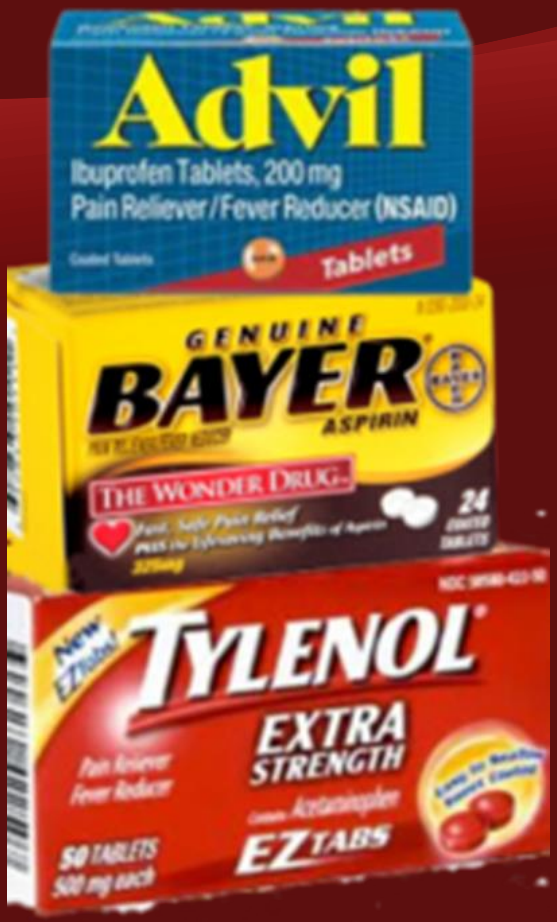
The Pain Cycle



Non-Opioid Pain Management Strategies

- Medications
- Topical medications
- Medical options
- Physical therapies
- Psychotherapies
- Integrative health approaches

Medications for Pain



- Acetaminophen
  - Acetaminophen and NSAIDs are as effective as opioids for chronic back pain or hip or knee osteoarthritis pain (Krebs et al., 2018)
- NSAIDs
- Antidepressants
  - Tricyclic antidepressants and Venlafaxine significantly reduce neuropathic pain (Saarto & Wiffen, 2007)
- Anticonvulsants

Topical Medications for Pain

- Lidocaine
- Menthol/Analgesic Cream
- Capsaicin Cream
  - For muscle and joint pain
  - For neuralgia caused by shingles
- Topical NSAIDS

The Importance of Treating Sleep

- Pain is the #1 medical cause of insomnia
  - Of those with chronic pain, 65% have insomnia
  - People with insomnia have higher pain sensitivity (Sivertsen et al., 2015)
- Opioids cause sleep disruption (Morasco et al., 2014)
- Treat with sleep medications like Trazodone or Mirtazepine
- Treat with Cognitive-Behavioral Therapy for Insomnia (Perlis et al., 2008)

Medical Strategies

- Orthopedic consultation
- Prosthetic devices
- Surgery
- TENS Units
- Nerve stimulation
- Alpha-Stim
- Prolotherapy
- Interventional pain management
- Blocking or burning nerves

Physical Therapies

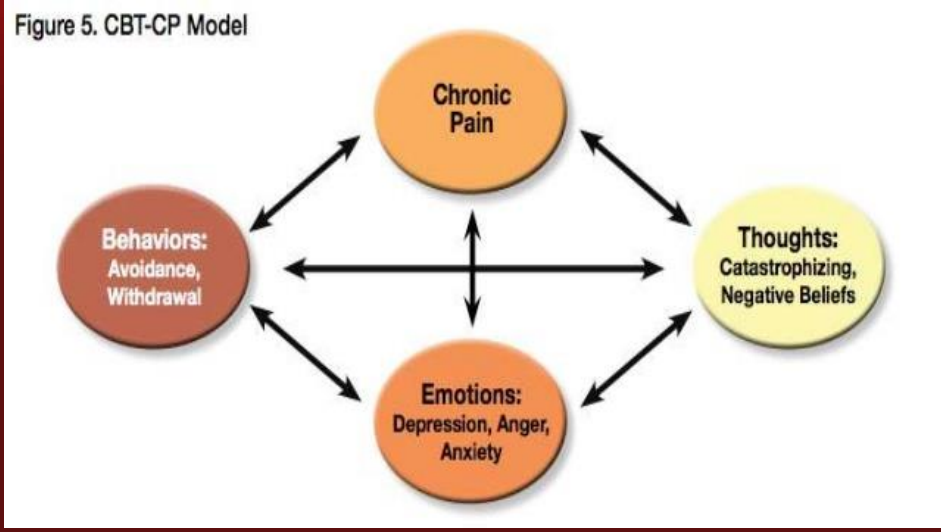
- Physical therapy
- Occupational therapy
- Hydrotherapy
- Chiropractic care
- Stretching
- Therapeutic massage
- Heat
- Cold
- Exercise for weight loss

Psychotherapy

- Cognitive-Behavioral Therapy for Pain
- Cognitive-Behavioral Therapy for Insomnia
- Psychotherapy for Co-Morbid Disorders

CBT for Chronic Pain

- Pain-related beliefs increase pain intensity, physical disability, and activity limitations (Gatchel et al., 2007)
- Pain catastrophizing decreases physical and psychosocial functioning (Edwards et al, 2011)
- 8-10 sessions focusing on areas such as:
  - Automatic thoughts
  - Cognitive restructuring
  - Pain beliefs
  - Progressive muscle relaxation
  - Coping self-statements



- CBT for chronic pain is effective (Ehde et al., 2014; Williams et al., 2012)

CBT for Insomnia

- Cognitive-Behavioral Therapy for Insomnia (Perlis et al., 2008)
  - Psychoeducation about sleep and what interferes with it
  - Sleep restriction
  - Stress management
  - Cognitive restructuring
  - Relapse prevention

Psychotherapy for Co-Morbid Disorders

- Chronic pain is often co-morbid with:
  - PTSD (Otis et al., 2003; Sharp & Harvey, 2001; Shepherd et al., 2001; Villanoe et al., 2007)
  - Anxiety (Von Korff et al., 2005)
  - Depression (Fishbain et al., 1997)
  - Substance Use Disorders (Atkinson et al., 1991; Mertens et al., 2003; Sheu et al., 2008)
- All of these require integrated or simultaneous treatment, otherwise efforts to treat the pain and/or the addiction are likely to fail

Integrative Health Approaches

- Mindfulness meditation
- Yoga
- Acupuncture
- Tai Chi
- Biofeedback
- Anti-inflammatory diet

Mindfulness-Based Stress Reduction

- Combines mindfulness meditation and gentle yoga (Kabat-Zinn, 1990)
- Eight 2.5 hour weekly group sessions
  - Usually includes a full-day meditation retreat
- Groups of up to 25 people
- MBSR reduces chronic pain (Kabat-Zinn, 2015)

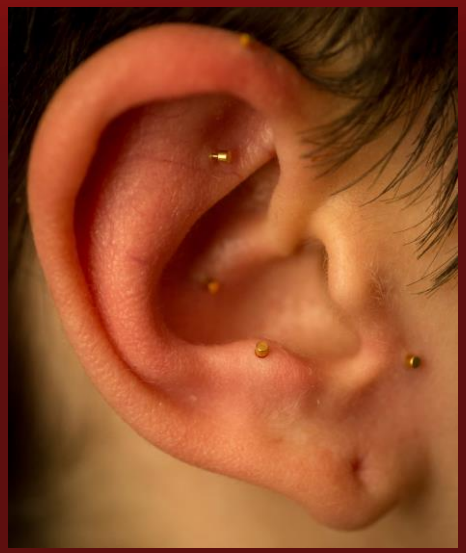
Even Dogs Do It

Yoga for Chronic Pain

- Review article from American Pain Society & American College of Physicians found three high-quality trials on low back pain (Chou & Hoyt Huffman, 2007)
  - Reductions in functional disability, not necessarily pain
- QUERI Evidence Map of Yoga (2014) found:
  - Yoga is relatively safe
  - Yoga results in significant reductions in lower back pain and depression

Dogs Do Yoga, Too

Acupuncture



- A recent meta-analysis (Vickers et al, 2018) found that:
  - Acupuncture is effective for the treatment of chronic musculoskeletal, headache, and osteoarthritis pain
  - Treatment effects persist for over 12 months
  - These results cannot be explained by placebo effects
- It is believed to work by releasing endorphins
- Five point auricular Battlefield Acupuncture also works (Niemtzow, 2001)

Tai Chi

- Tai chi is a low-impact, slow-motion, mind-body exercise that combines breath control, meditation, and movements to stretch and strengthen muscles
- A recent meta-analysis found Tai Chi effective for osteoarthritis and chronic low back pain (Kong et al., 2016)

Biofeedback

- In biofeedback, patients learn to use their minds to control automatic body functions
- Sensors are placed on the body to monitor breathing, perspiration, skin temperature, blood pressure, and heartbeat
- These are attached to a monitoring device with flashing lights or beeps
- Biofeedback works by helping patients to relax their contracted muscles
- Biofeedback decreases low back pain for up to 8 months (Sielski, 2017)

Anti-Inflammatory Diet

Eat less

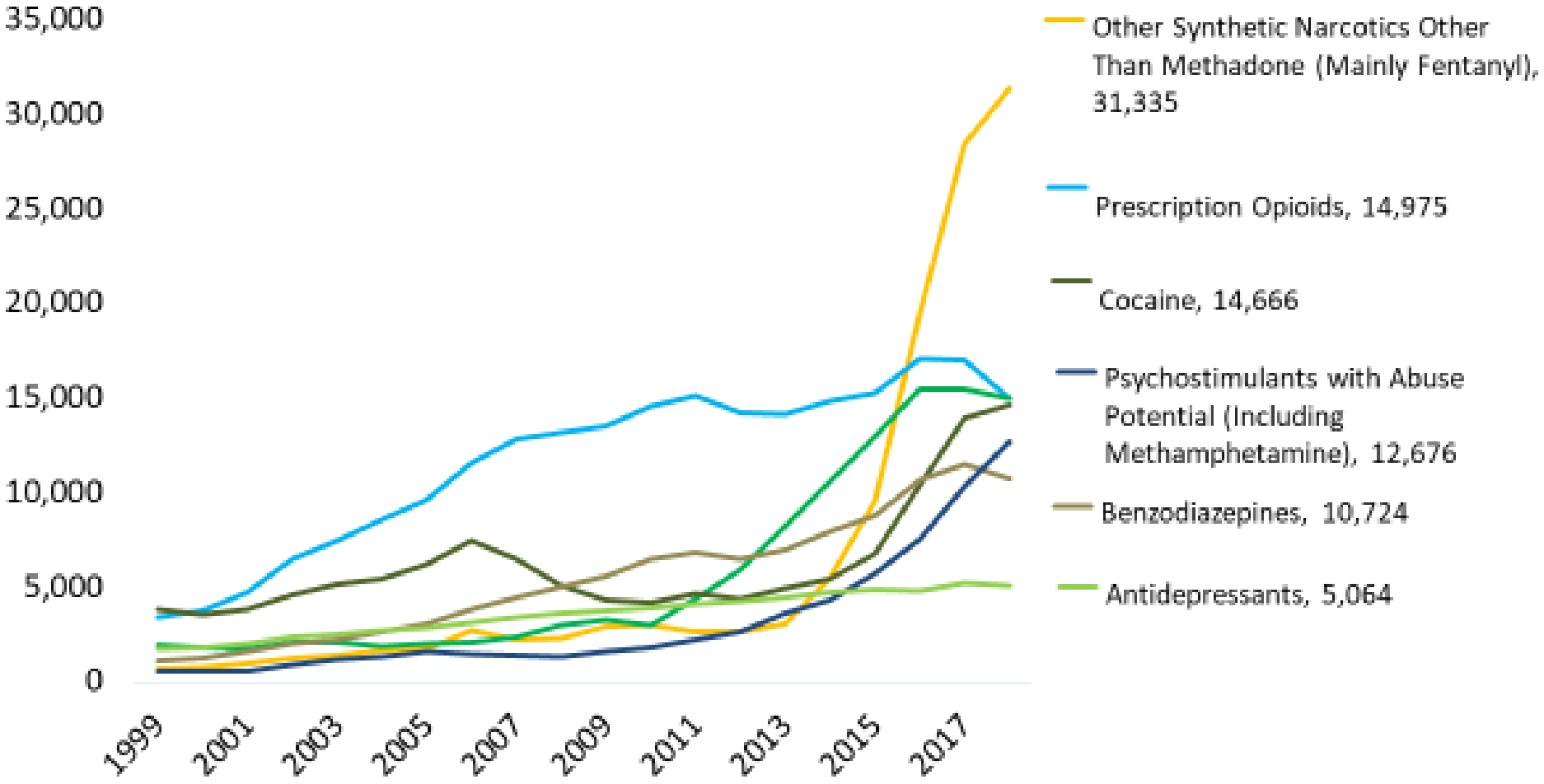
- Fats and oils
- Fried foods
- Red meats
- Sugars
- Simple carbohydrates
- These feed inflammation, which increases pain

Eat more

- Olive oil
- Cold water fish
- Leafy green vegetables
- Berries
- Complex carbohydrates
- These contain Omega 3 fats and antioxidants, which fight inflammation, thereby decreasing pain

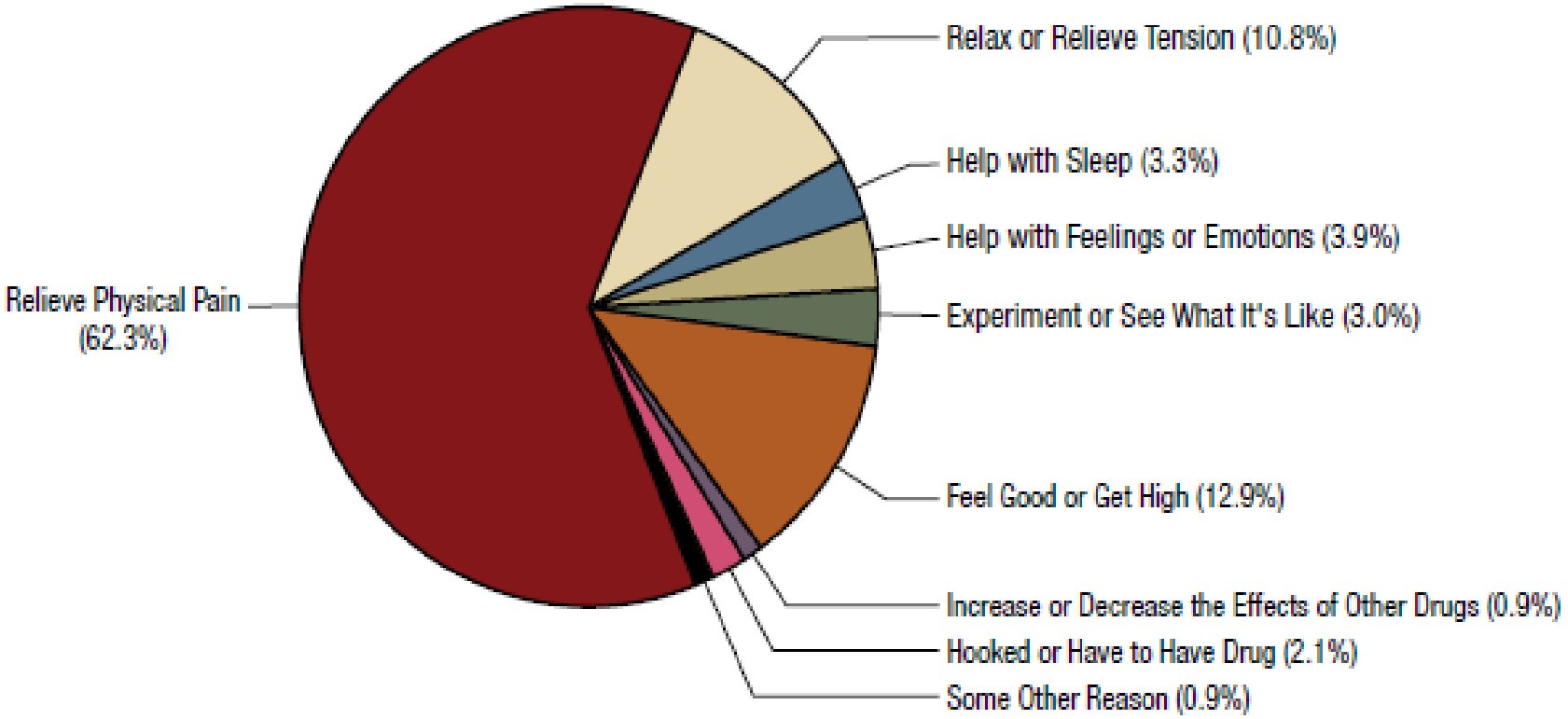
A Complex Crisis

Figure 2. National Drug Overdose Deaths Number Among All Ages, 1999-2018



Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2018 on CDC WONDER Online Database, released January, 2019

Figure 33. Main Reason for the Most Recent Prescription Pain Reliever Misuse among People Aged 12 or Older Who Misused Prescription Pain Relievers in the Past Year: Percentages, 2016

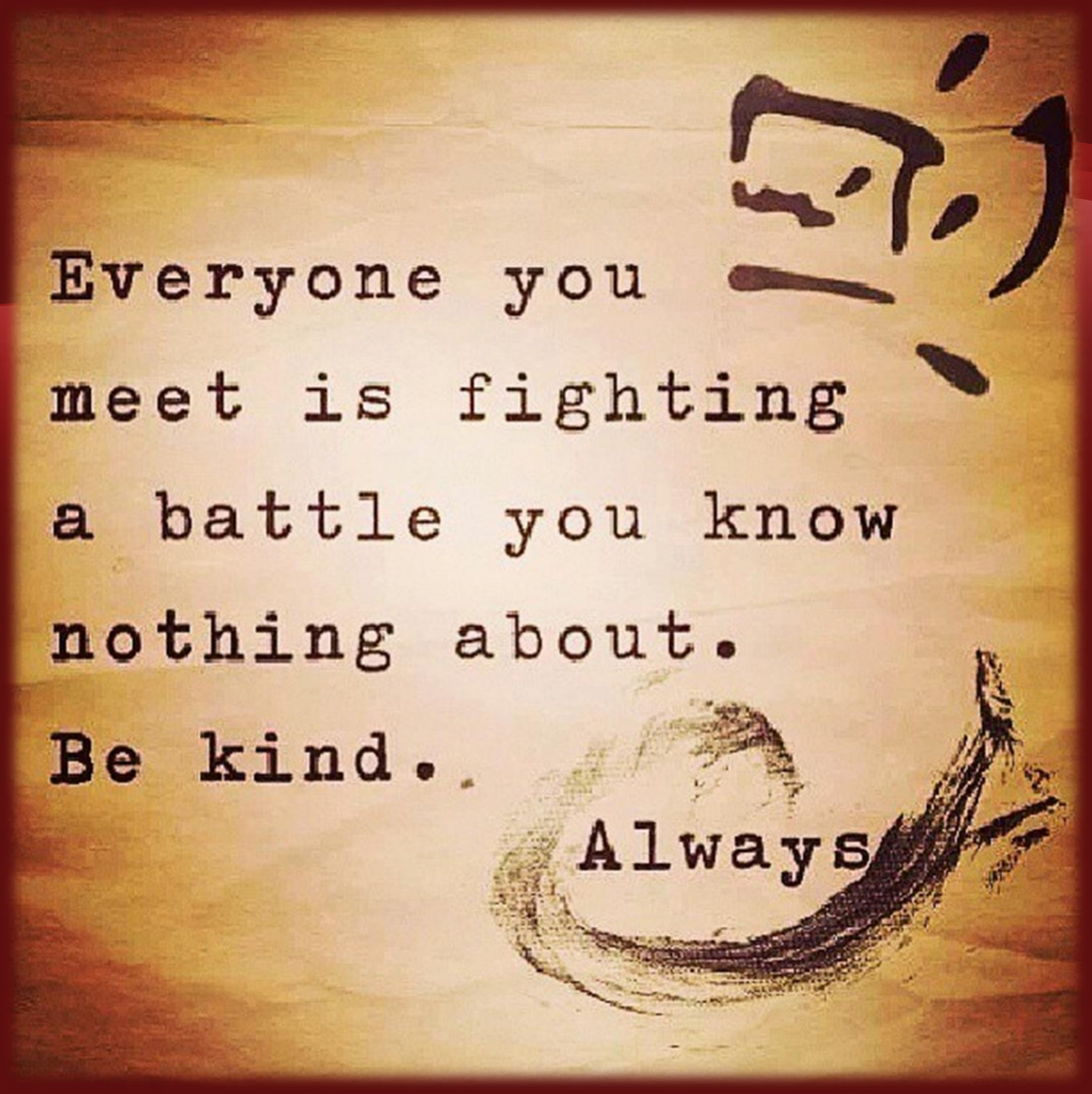


11.5 Million People Aged 12 or Older Who Misused Prescription Pain Relievers in the Past Year

Note: The percentages do not add to 100 percent due to rounding.

It Doesn't Always Begin with Pain

- More than 3/4 of those who misuse pain medications had already used other drugs, including benzodiazepines and inhalants, before they misused opioid pain medications (NSDUH, 2014)
- There is increasing evidence of heroin as the *first* opioid that is abused (Cicero et al., 2017)
  - In 2005, 8% of opioid initiators started with heroin
  - In 2015, 33.3% started with heroin
- Only 22.1% of opioid misusers get their pain medications from their doctors (SAMHSA, 2017)
  - They are not pain patients
  - Many of them are young


Everyone you
meet is fighting
a battle you know
nothing about.
Be kind.
Always

Resources

Books

- *Dreamland* (2016), by Sam Quinones
- *Dopesick: Dealers, Doctors, and the Drug Company That Addicted America* (2019), by Beth Macy

SAMHSA MAT Resources

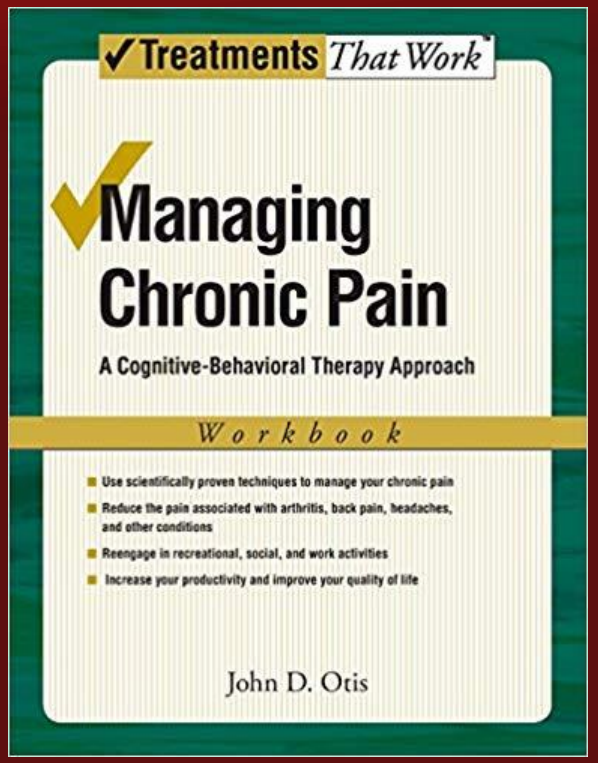
- *TIP 43: Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs: Inservice Training*, SAMHSA https://store.samhsa.gov/shin/content/SMA09-4341/SMA09-4341.pdf
- *Tip 63: Medications for Opioid Use Disorder*, SAMHSA https://store.samhsa.gov/product/TIP-63-Medications-for-Opioid-Use-Disorder-Full-Document-Including-Executive-Summary-and-Parts-1-5-/SMA18-5063FULLDOC

Medication-Assisted Therapy

- *Medication-Assisted Treatment for Opioid Use Disorders in Drug Courts*, by Benjamin Nordstrom and Douglas Marlowe, NDCI Fact Sheet, August, 2016
- *Medication-Assisted Treatment for Opioid Use Disorder in the Justice System*, AATOD Fact Sheet, October, 2017
- *Adult Drug Courts and Medication-Assisted Treatment for Opioid Dependence*, SAMHSA In Brief, Summer, 2014
- *Treating Comorbid Opioid Use Disorder in Chronic Pain*, by Annette Matthews and Jonathan Fellers, eds.

CBT for Chronic Pain

- Managing Chronic Pain: A Cognitive-Behavioral Approach Therapist Guide by John Otis
- Managing Chronic Pain: A Cognitive-Behavioral Approach Workbook by John Otis
- Free manual at https://www.va.gov/painmanagement/docs/cbt-cp_therapist_manual.pdf
- Free online CBT-CP program at http://www.cbt.drwilderman.com/



Cognitive-Behavioral Therapy for Insomnia

- *Cognitive Behavioral Treatment of Insomnia: A Session-by-Session Guide* (2008), by Michael L. Perlis, Carla Jungquist, Michael T. Smith, and Donn Posner
- *Overcoming Insomnia: A Cognitive-Behavioral Therapy Approach Workbook* (2008), Jack Edinger and Colleen Carney

MBSR Books

- *Full Catastrophe Living, 2nd ed.*(2013), Jon Kabat-Zinn
- *Mindfulness for Beginners: Reclaiming the Present Moment - and Your Life (*2011), Jon Kabat-Zinn
- *A Mindfulness-Based Stress Reduction Workbook* (2010), Bob Stahl, Elisha Goldstein, Saki Santorelli and Jon Kabat-Zinn
- *The MBSR Home Study Course* (2016), Saki Santorelli and Florence Meleo-Meyer

Online MBSR Courses

- Free online MBSR course: http://palousemindfulness.com/selfguidedMBSR.html
- Online video course: http://www.soundstrue.com/store/the-mbsr-online-course-3226.html

Online Guided Mindfulness Meditations

- http://www.va.gov/PATIENTCENTEREDCARE/resources/multimedia/index.asp
- https://med.virginia.edu/mindfulness-center/
- http://www.fammed.wisc.edu/mindfulness-meditation-podcast-series/
- http://health.ucsd.edu/specialtes/mindfulness/programs/mbsr/Pages/audio.aspx
- http://marc.ucla.edu/body.cfm?id=22

Apps

- My Life (formerly Stop, Breathe, and Think

- Mindfulness Coach

- CBT for Insomnia

Contact:

Brian L. Meyer, Ph.D.
brianlmeyerphd@gmail.com