

March 24, 2021



A Social Emergency Medicine Approach to Opioid Use Disorder

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Brown Emergency Medicine



DISCLOSURES

I have no financial conflicts of interest to disclose





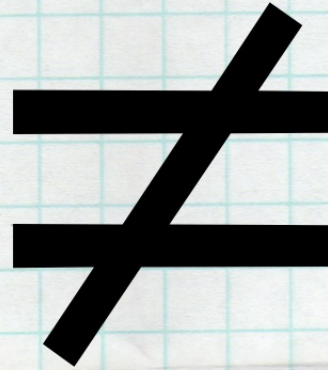
1. Define addiction and opioid use disorder
2. Describe a social emergency medicine approach to emergency department patients with opioid use disorder
3. Understand current drug law and policy and resulting racial inequities
4. Describe emergency department harm reduction and treatment initiatives to reduce morbidity and mortality of patients with opioid use disorder



Substance Use & Addiction



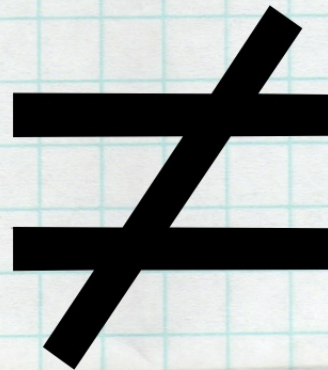
USE



USE
DISORDER

DOES NOT
EQUAL

DEPENDENCE



ADDICTION



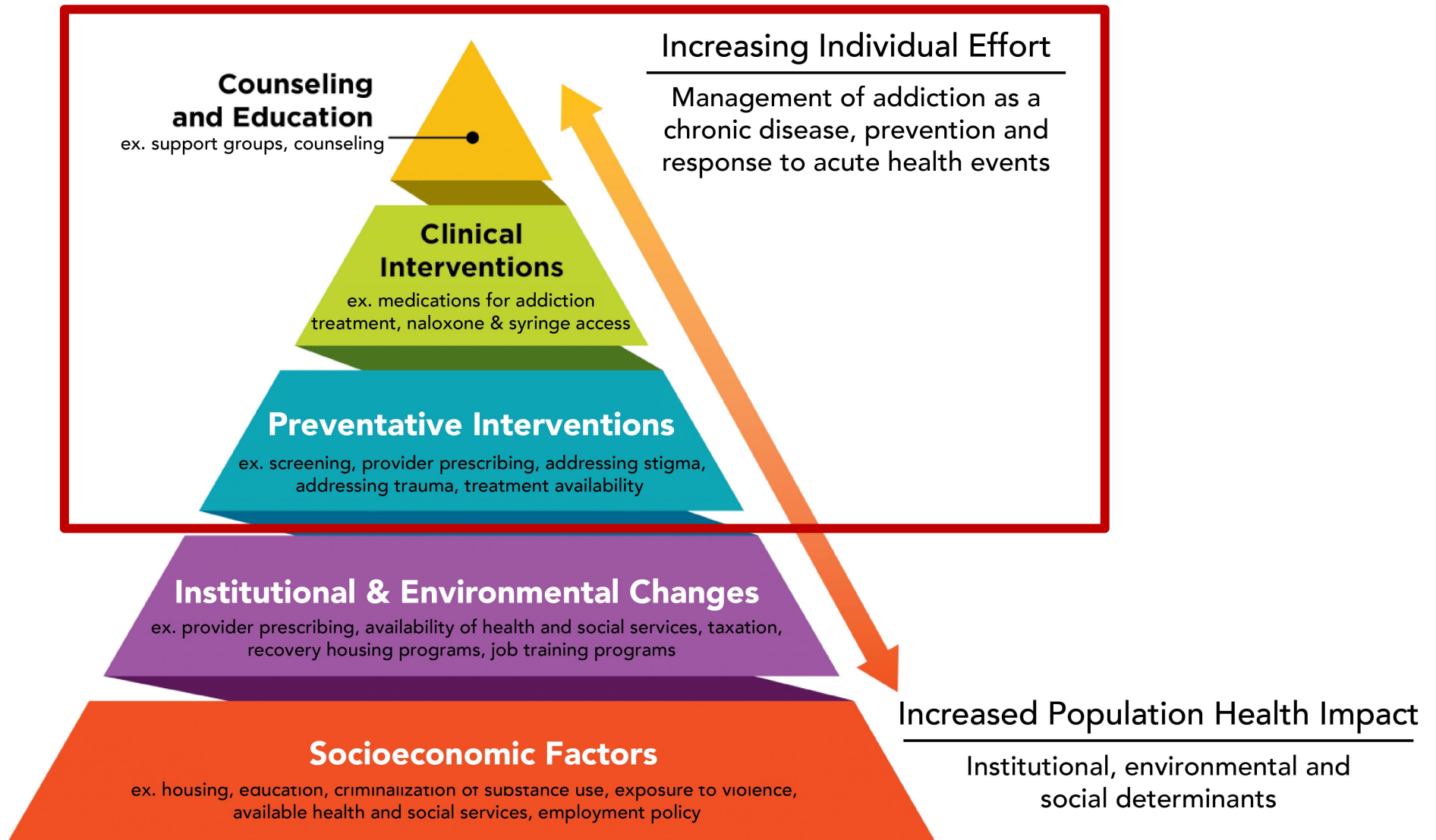


a specified
addiction. 1. T
substance, es
dr

A treatable, chronic disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.



HEALTH IMPACT PYRAMID



OUD SOCIAL ECOLOGICAL MODEL



Improving laws and policies that shape community conditions



UPSTREAM

Social and Institutional Inequalities

Racism, discrimination, classism, poverty, ableism, sexism

Addressing individuals' social needs



MIDSTREAM

Living Conditions

Housing, transportation, violence, access to good jobs and education, exposure to toxins, income

Addressing health outcomes



DOWNSTREAM

Health Outcomes, Symptoms

Poor nutrition, chronic disease, communicable disease, toxic stress, infant mortality, life expectancy



MassBudget
Massachusetts Budget and Policy Center



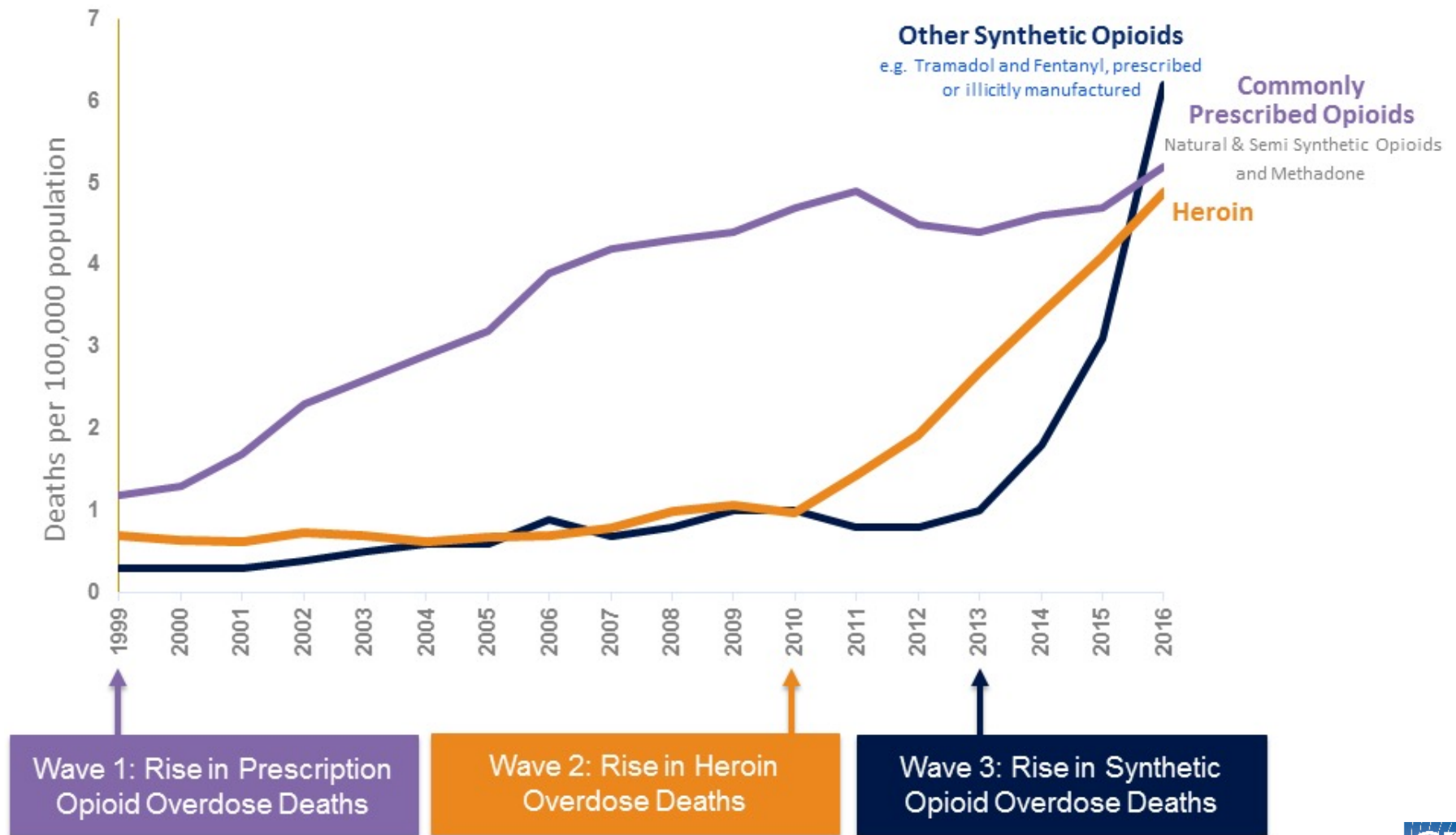
1

DRUG SUPPLY



RISING OVERDOSE DEATHS

3 Waves of the Rise in Opioid Overdose Deaths



SOURCE: National Vital Statistics System Mortality File.

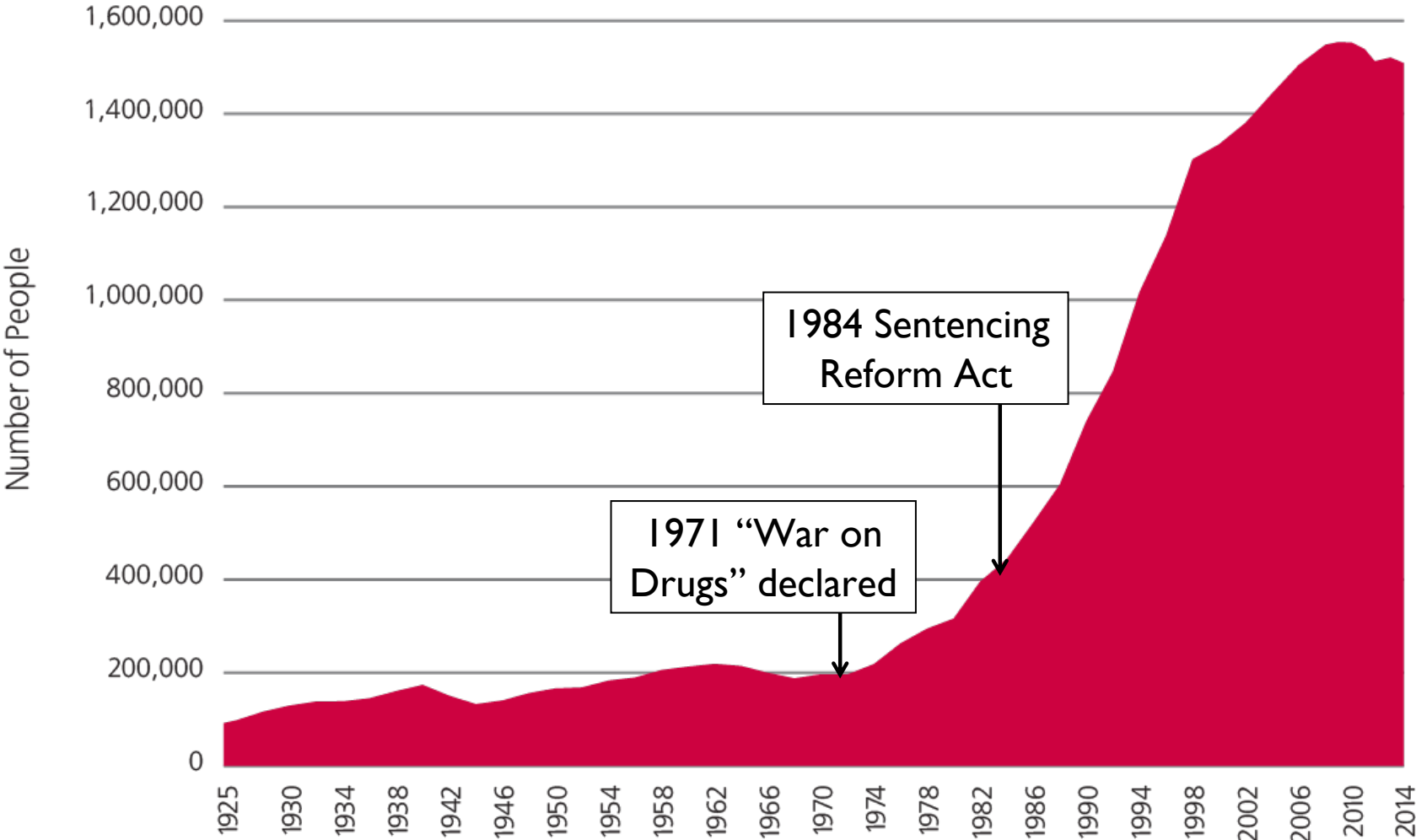
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DRUG POLICY



DRUG CRIMINALIZATION

U.S. State and Federal Prison Population, 1925-2014

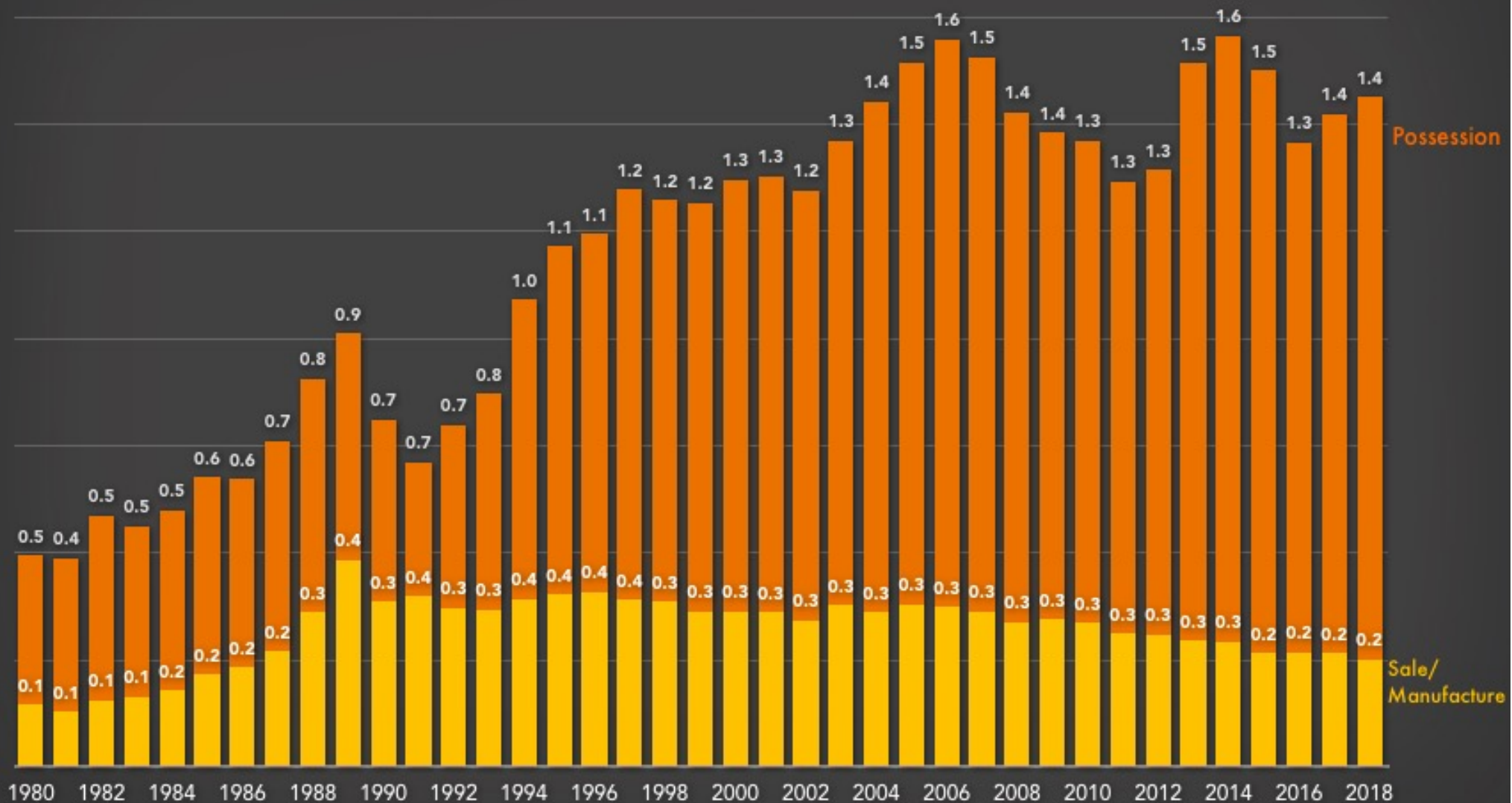


Source: Bureau of Justice Statistics *Prisoners Series*.



There are over 1 million drug possession arrests each year

There are 6 times as many arrests for drug possession as for drug sales.
(Arrests in millions, 1980–2018)



THE NEW JIM CROW

FIGURE 6A.

Rates of Drug Use and Sales, by Race

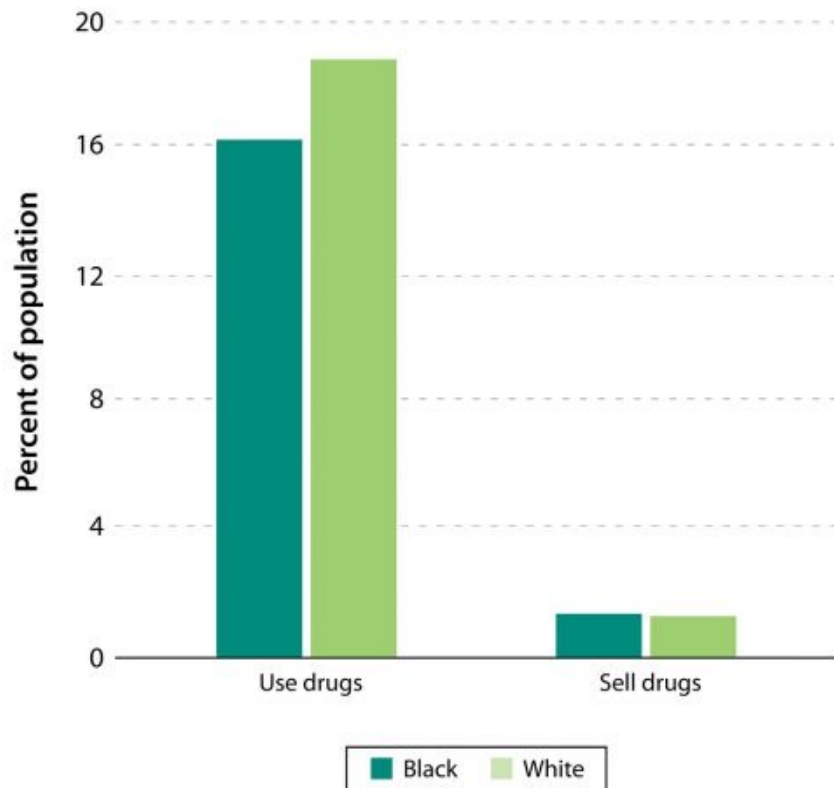
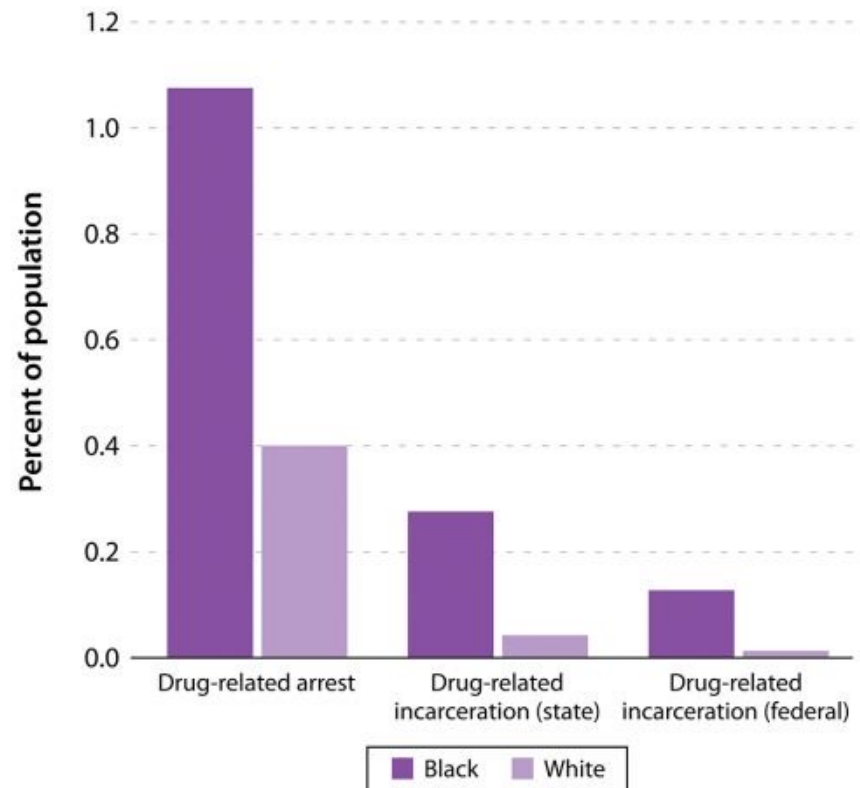


FIGURE 6B.

Rates of Drug-Related Criminal Justice Measures, by Race



Source: BLS n.d.c; Carson 2015; Census Bureau n.d.; FBI 2015; authors' calculations.



PORTUGAL



SINCE THE EARLY '90S, THE 100,000 "PROBLEMATIC" DRUG USERS IN THE COUNTRY HAVE BEEN REDUCED BY HALF.



IN 1999 6,040 PEOPLE WERE IN DRUG TREATMENT



IN 2003 14,877 PEOPLE WERE IN DRUG TREATMENT



X10,000 = 40,000 PORTUGUESE ARE NOW IN DRUG TREATMENT.
AS OPPOSED TO INCARCERATION.

Then & Now Portugal's Drug Decriminalization

Key developments since Portugal decriminalized drugs in 2001

Overdose deaths

1999 369

2016 30

New HIV diagnoses due to injecting

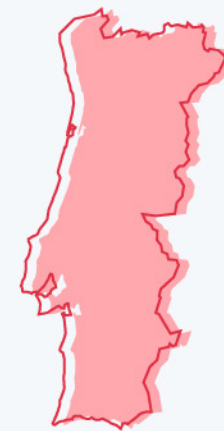
2000 907

2017 18

Number of people incarcerated for drug offences

1999 3,863

2017 1,140

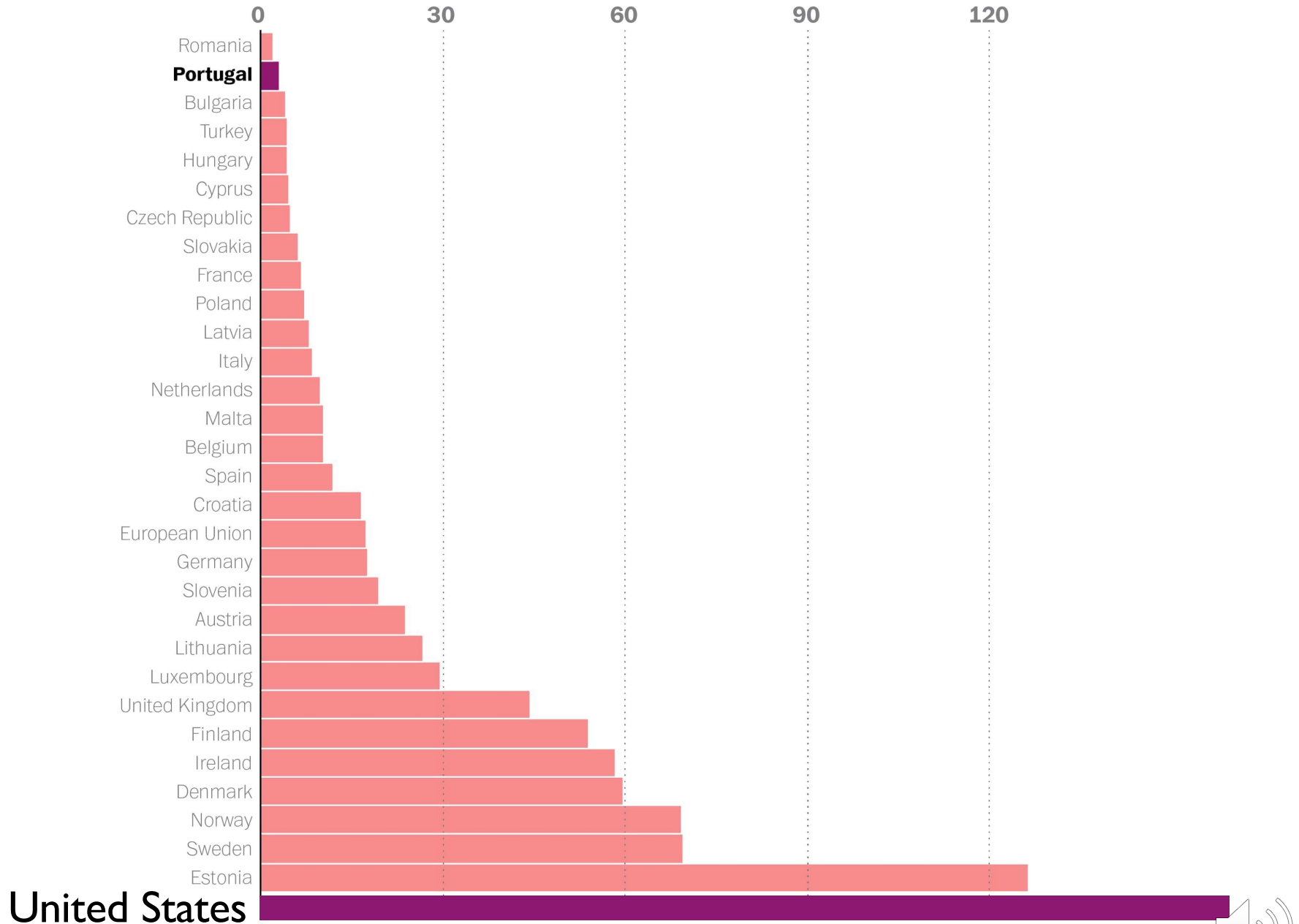


Sources: TheLancet, drugpolicy.org, EMCDDA, VHPA



Drugs rarely kill anyone in Portugal.

Drug-induced deaths of people aged 15-64, per million population.



Improving laws and policies that shape community conditions



UPSTREAM

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Poor nutrition, chronic disease, communicable disease, toxic stress, infant mortality, life expectancy



MassBudget
Massachusetts Budget and Policy Center



3

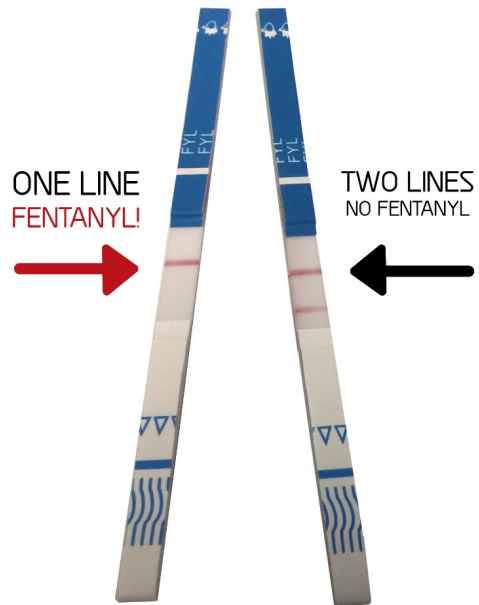
HARM REDUCTION & TREATMENT
ACCESS



HARM REDUCTION PRINCIPLES

- Health & Dignity
- Person-centered
- Participant involved
- Recognize Inequalities & Injustices
- Respect Autonomy
- Pragmatism/realism





In 2016,

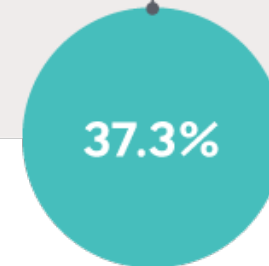
20.1
MILLION
AMERICANS

over age 12 had a substance use disorder (related to alcohol or illicit drug use),



—one of five—received any substance use treatment.

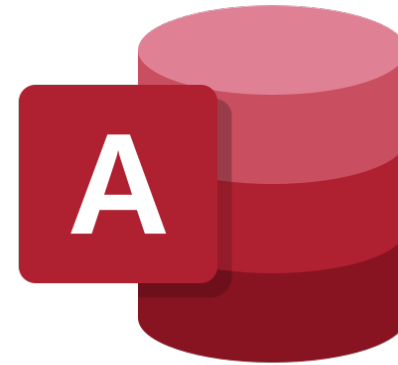
A survey of people diagnosed with substance or alcohol use disorder found that more were willing to enter treatment in primary care settings than in specialty drug treatment centers.



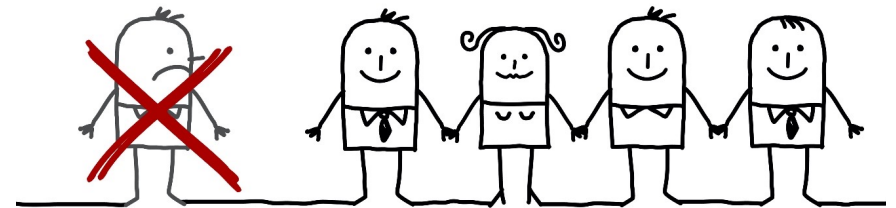
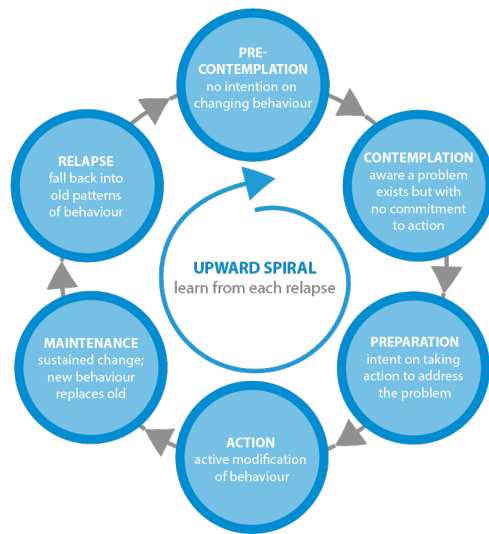
Primary care settings



Specialty drug treatment centers



STAGES OF CHANGE



SAY THIS

NOT THAT

Person with a substance use disorder

Person living in recovery

Person living with an addiction

Person arrested for drug violation

Chooses not to at this point

Medication is a treatment tool

Had a setback

Maintained recovery

Positive drug screen

Addict, junkie, druggie

Ex-addict

Battling/suffering from an addiction

Drug offender

Non-compliant/bombed out

Medication is a crutch

Relapsed

Stayed clean

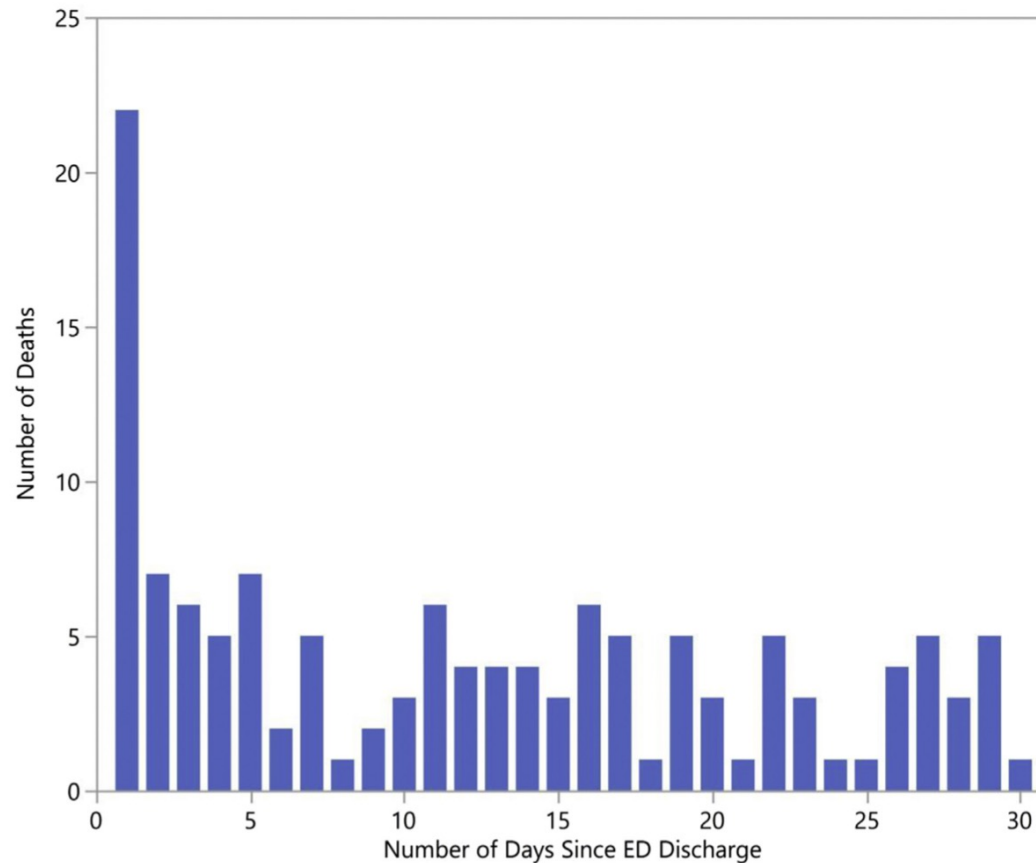
Dirty drug screen



One-Year Mortality of Patients After Emergency Department Treatment for Nonfatal Opioid Overdose

Scott G. Weiner, MD, MPH*; Olesya Baker, PhD; Dana Bernson, MPH; Jeremiah D. Schuur, MD, MHS

*Corresponding Author. E-mail: sweiner@bwh.harvard.edu, Twitter: [@scottweinermd](https://twitter.com/scottweinermd).



Risk of Death
0.25% 2 days
1.1% 1 month
5.5% 1 year

Figure 2. Number of deaths after ED treatment for nonfatal overdose by number of days after discharge in the first month, by day (n=130).



One-Year Mortality of Patients After Emergency Department Treatment for Nonfatal Opioid Overdose

Scott G. Weiner, MD, MPH*; Olesya Baker, PhD; Dana Bernson, MPH; Jeremiah D. Schuur, MD, MHS

**Corresponding Author. E-mail: sweiner@bwh.harvard.edu, Twitter: [@scottweinermd](https://twitter.com/scottweinermd).*

4x

Risk of myocardial infarction or death in patients with moderate risk chest pain (HEART score 4-6)

2x

Risk of myocardial infarction or death in patients with high-risk chest pain (HEART score >6)



HOW OUD MEDICATIONS WORK



Methadone



*Full agonist:
generates effect*

Buprenorphine



*Partial agonist:
generates limited effect*

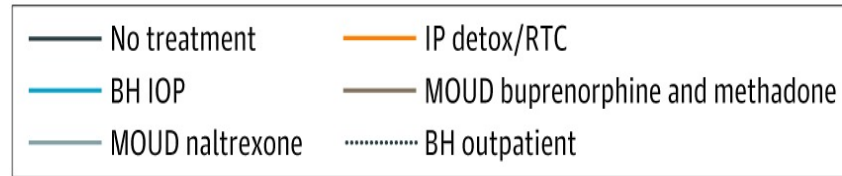
Naltrexone



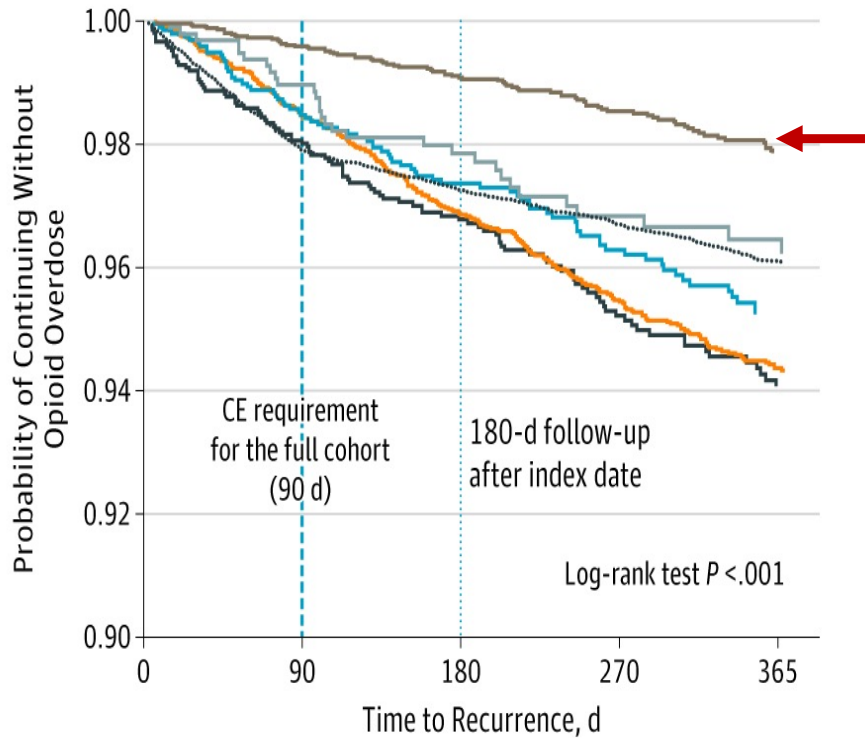
*Antagonist:
blocks effect*



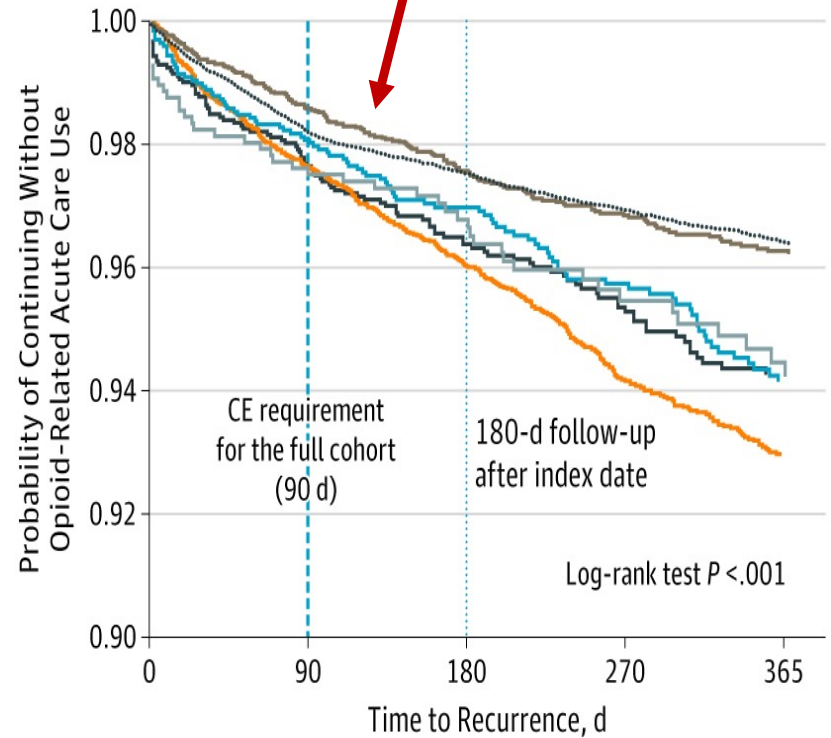
MOUD reduces overdose, acute care use



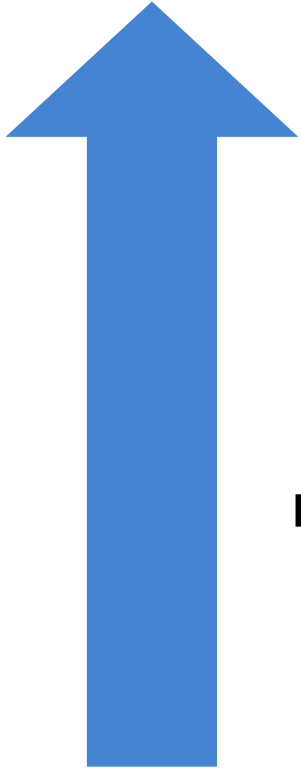
A Opioid overdose at 3 mo



B Acute care use at 3 mo



MEDICATION FOR OUD



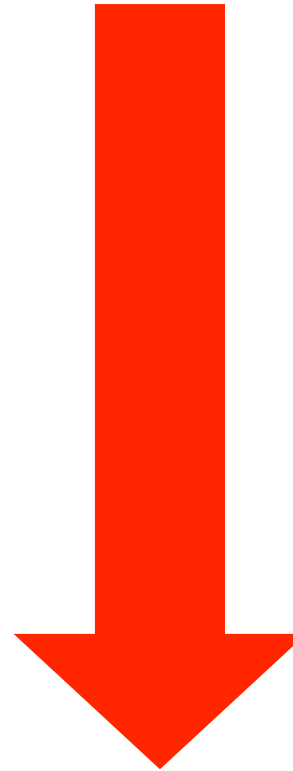
Survival

Treatment retention

Ability to gain &
maintain employment

Birth outcomes

Quality of life



Overdose

Mortality

HIV & HCV

Infections

Crime



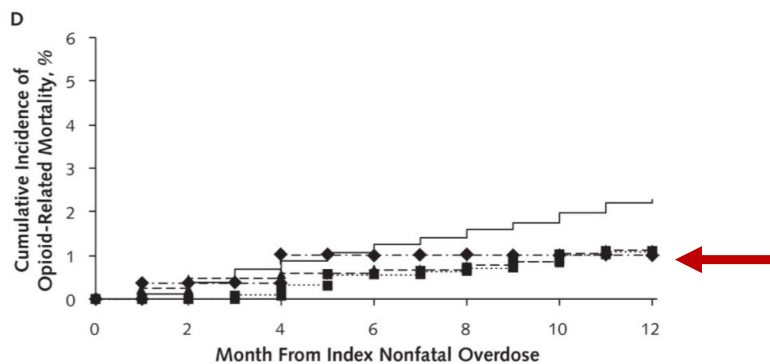
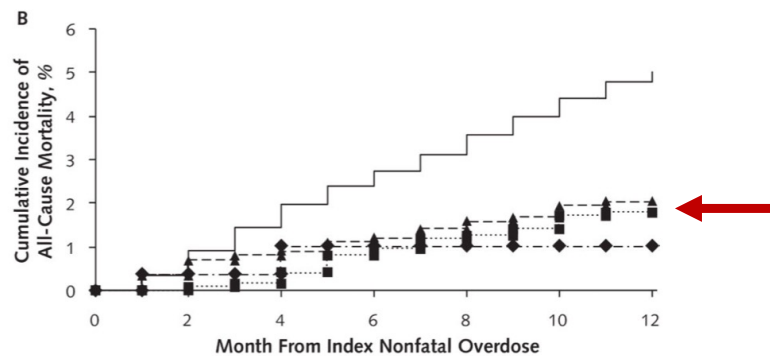
Medication for Opioid Use Disorder After Nonfatal Opioid Overdose and Association With Mortality

A Cohort Study

Marc R. Larochelle, MD, MPH , Dana Bernson, MPH, Thomas Land, PhD, Thomas J. Stopka, PhD, MHS, Na Wang, MA,

Ziming Xuan, ScD, SM, Sarah M. Bagley, MD, MSc, Jane M. Liebschutz, MD, MPH, Alexander Y. Walley, MD, MSc [View](#)

Secondary Exposure Classification: On Treatment†



—◆— Naltrexone — No MOUD

Adjusted Hazard Ratio

	All Cause Mortality	Opioid-Related Mortality
Methadone	0.37 (0.24–0.59)	0.32 (0.17–0.59)
Buprenorphine	0.35 (0.23–0.53)	0.31 (0.18–0.54)

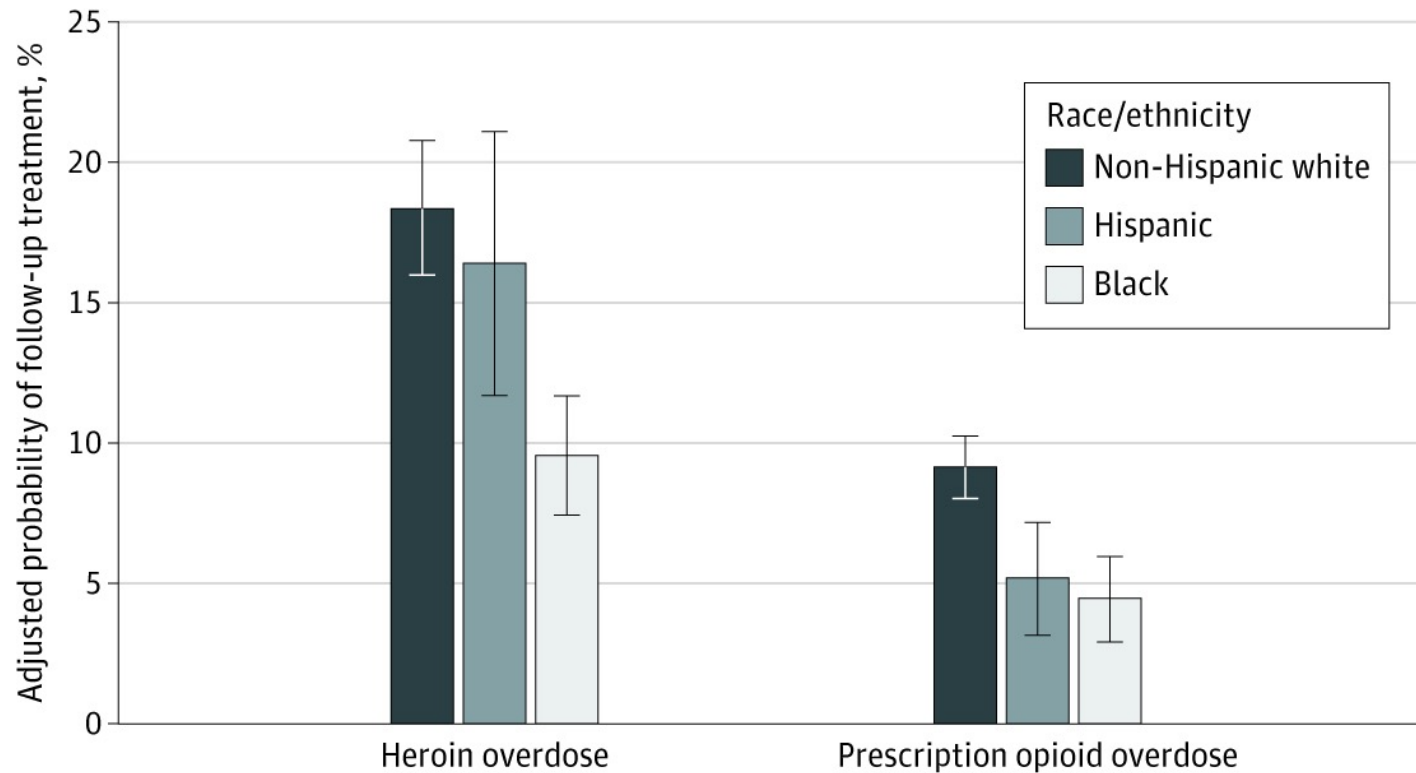
Figure 3. Extended Kaplan–Meier cumulative incidence of all-cause mortality (A and B) and opioid-related mortality (C and D), by monthly exposure to MOUD after index overdose.



Incidence of Treatment for Opioid Use Disorder Following Nonfatal Overdose in Commercially Insured Patients

Austin S. Kilaru, MD, MSHP; Aria Xiong, MS; Margaret Lowenstein, MD, MPhil; Zachary F. Meisel, MD, MPH, MSHP; Jeanmarie Perrone, MD; Utsha Khatri, MD; Nandita Mitra, PhD; M. Kit Delgado, MD, MS

Average Adjusted Probability of Follow-up Treatment After Opioid Overdose, by Overdose Type and Race/Ethnicity



How we approach substance use is a racial equity issue.





EMERGENCY DEPARTMENT CARE





Role of the ED

Time sensitive
treatment
and stabilization

Acute Diagnostic
Center

Healthcare Access
and Treatment
Linkage





ED OUD Care

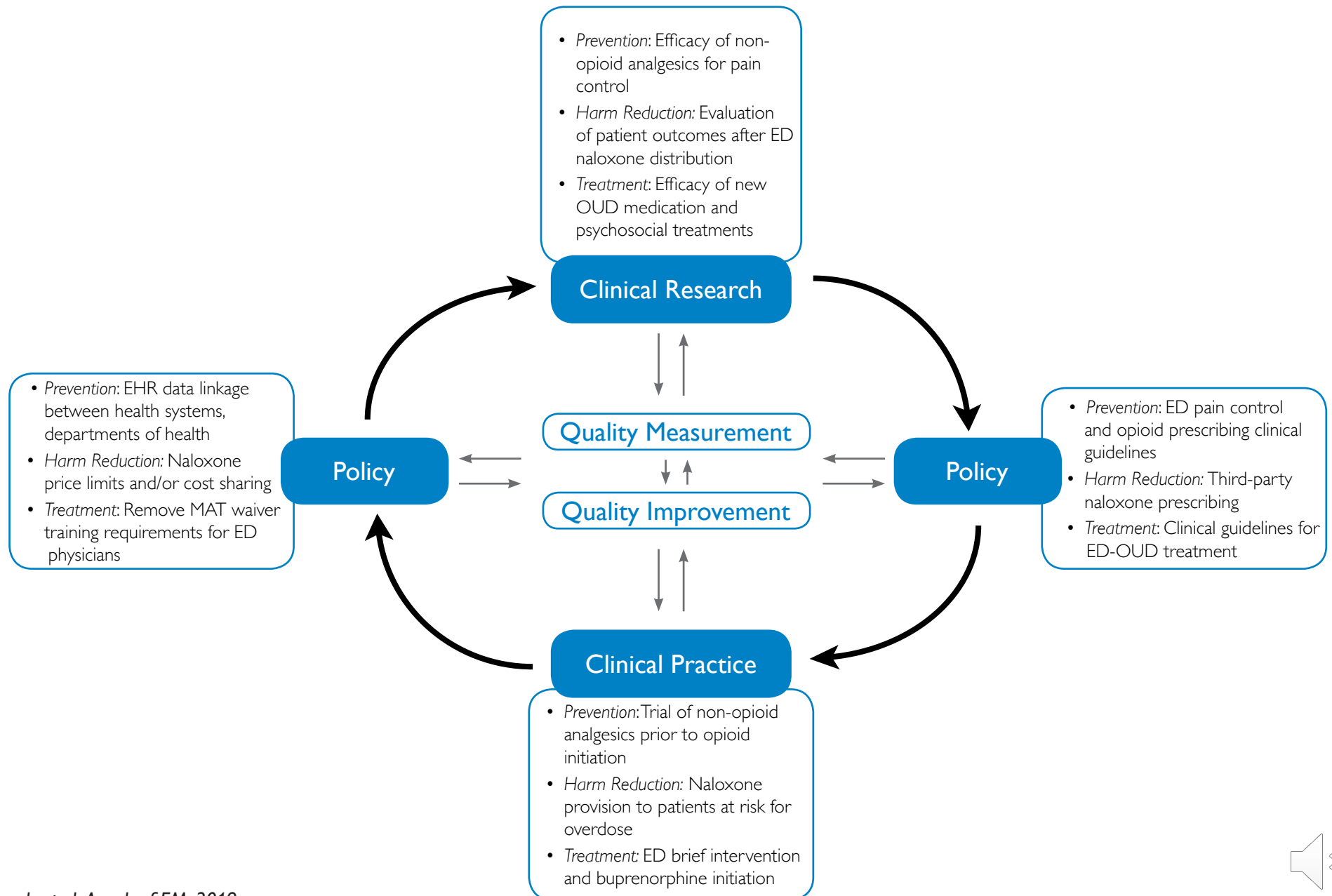
Prevention

Harm Reduction

Treatment



ED OUD PRACTICE, RESEARCH, POLICY



Improving laws and policies that shape community conditions



UPSTREAM

Social and Institutional Inequalities

Racism, discrimination, classism, poverty, ableism, sexism

Addressing individuals' social needs



MIDSTREAM

Living Conditions

Housing, transportation, violence, access to good jobs and education, exposure to toxins, income

Addressing health outcomes

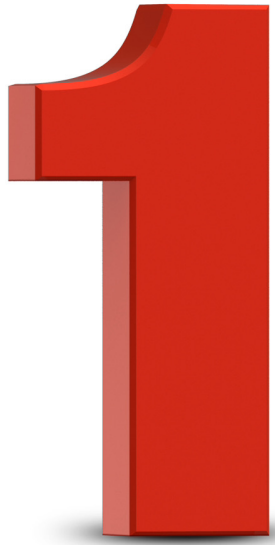


DOWNSTREAM

Health Outcomes, Symptoms

Poor nutrition, chronic disease, communicable disease, toxic stress, infant mortality, life expectancy





PATIENT ASSESSMENT



PATIENT ENGAGEMENT

FIVE PRINCIPLES OF MOTIVATIONAL INTERVIEWING



Express empathy
for the client

Develop discrepancy
between the client's goals
and values and their current
behavior, particularly
regarding substance use



Avoid argumentation
and direct
confrontation

Roll with client
resistance, instead
of fighting it



Support the client's
self-efficacy, or
their belief that
they can change

0 1 2 3 4 5 6 7 8 9 10

The Willingness Ruler

measures how willing a person is to take an action

0 1 2 3 4 5 6 7 8 9 10

The Confidence Ruler

*measures how confident a person is in his / her ability to
perform or take the action*

0 1 2 3 4 5 6 7 8 9 10

The Readiness Ruler

measures how ready the person is to take the action

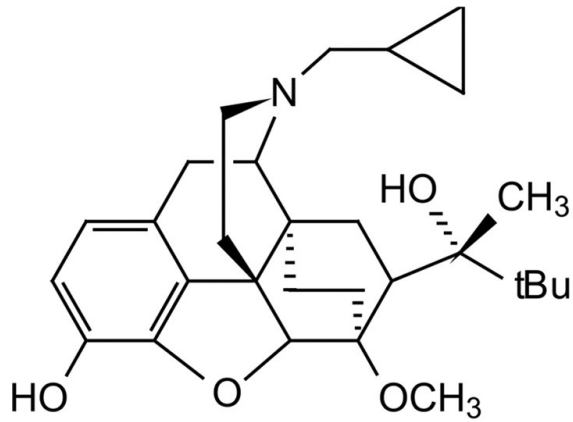
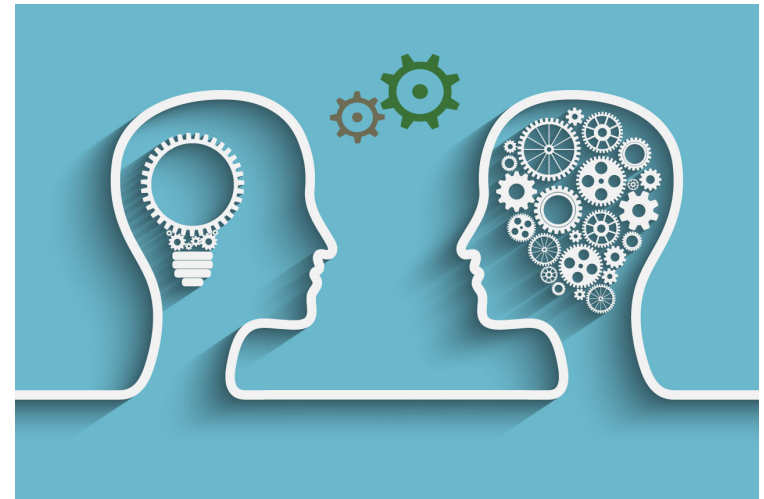


2

MEET PATIENTS WHERE THEY ARE





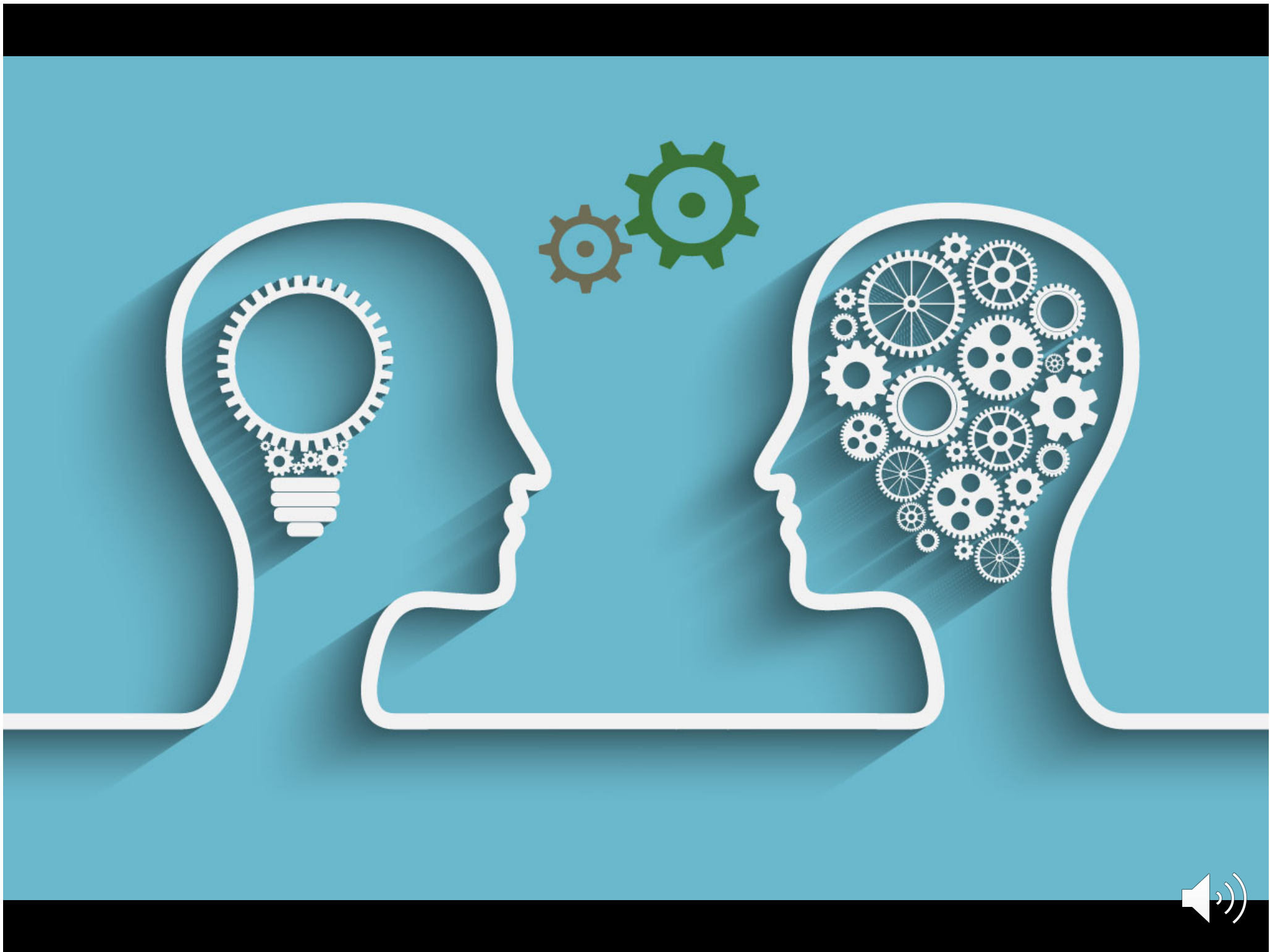


buprenorphine

	THURSDAY, DEC. 29	363/2	FRIDAY, DEC. 30	364/1	SATURDAY, DEC. 31	365/0
7			7		7	
:15			:15		:15	
:30			:30		:30	
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8			8		8	
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9			9		9	
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10			10		10	
:15			:15		:15	
:30			:30		:30	
:45			:45		:45	
11			11		11	

to **JANUARY 1**







Psychosocial Support

Behavioral Health

Medication for Opioid Use Disorder

Social Determinants of Health



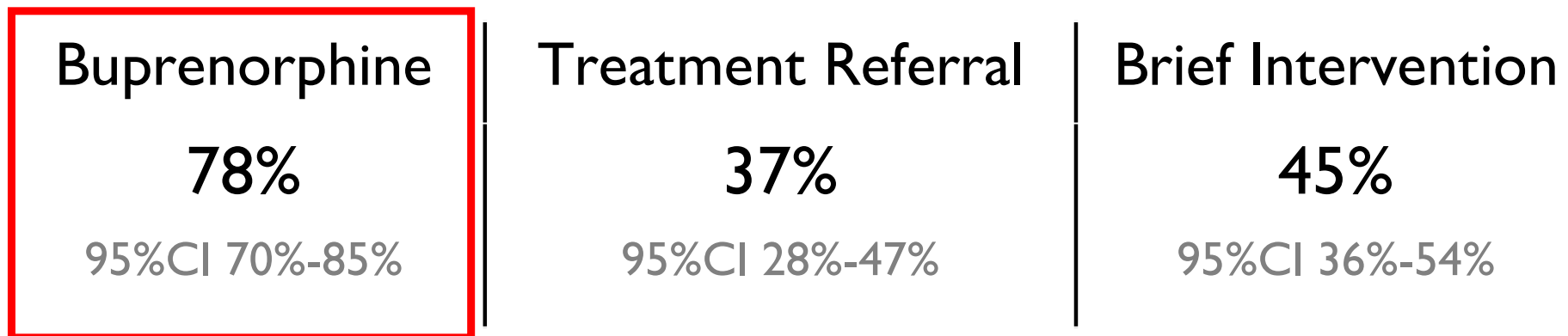
Original Investigation

Emergency Department–Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence

A Randomized Clinical Trial

Gail D’Onofrio, MD, MS; Patrick G. O’Connor, MD, MPH; Michael V. Pantalon, PhD; Marek C. Chawarski, PhD; Susan H. Busch, PhD; Patricia H. Owens, MS; Steven L. Bernstein, MD; David A. Fiellin, MD

30 day treatment enrollment



Barriers and Facilitators to Clinician Readiness to Provide Emergency Department–Initiated Buprenorphine

Kathryn F. Hawk, MD; Gail D'Onofrio, MD; Marek C. Chawarski, PhD; Patrick G. O'Connor, MD; Ethan Cowan, MD; Michael S. Lyons, MD; Lynne Richardson, MD; Richard E. Rothman, MD; Lauren K. Whiteside, MD; Patricia H. Owens, MS; Shara H. Martel, MPH; Edouard Coupet Jr, MD; Michael Pantaloni, PhD; Leslie Curry, PhD; David A. Fiellin, MD; E. Jennifer Edelman, MD



- Lack of training & experience
- Outpatient treatment availability
- Competing needs for time and resources



- Education and training
- Local departmental protocols
- Feedback on patient experiences and gaps in quality of care.



NOT JUST FOR ACADEMIA

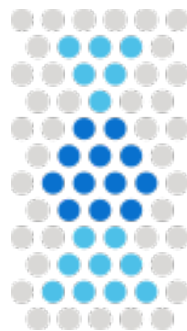
Implementation of emergency department–initiated buprenorphine for opioid use disorder in a rural southern state

Carolyn Bogan^{a,*}, Lindsey Jennings^b, Louise Haynes^a, Kelly Barth^c, Angela Moreland^d, Marla Oros^e, Sara Goldsby^f, Suzanne Lane^a, Chanda Funcell^g, Kathleen Brady^a

Journal of Substance Abuse Treatment 112 (2020) 73–78

Treating Opioid Withdrawal With Buprenorphine in a Community Hospital Emergency Department: An Outreach Program

Frank J. Edwards, MD^{*}; Robert Wicelinski, DO; Nicholas Gallagher, DO; Alice McKinzie, DO; Ryan White, DO;
Ann Domingos, LCSW-R, CASAC



NEW YORK
MATTERS
Medication Assisted Treatment & Emergency Referrals



CTN-99 ED-INNOVATION



ED OUD CARE



Reducing Opioid-Associated Harm through safer prescribing and the implementation of evidence-based interventions



ALiEM
TreatOUD



Buprenorphine use in the Emergency Department Tool



SOCIAL EM APPROACH TO SUD

Improving laws and policies that shape community conditions



UPSTREAM

Social and Institutional Inequalities

Drug Policy

Addressing individuals' social needs



MIDSTREAM

ED CHW/Peers
ED-community initiatives

Addressing health outcomes



DOWNSTREAM

Harm Reduction
Buprenorphine
Treatment Linkage



TAKE HOME POINTS



- Addictions are complex biopsychosocial diseases
- Upstream, policy changes will have largest public health impact
- Current policies produce structural racial inequities in treatment access, incarceration
- ED has important role in providing access to harm reduction and addiction treatment to address current gaps and improve health outcomes



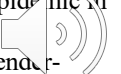
Thank You

Questions?
elizabeth_samuels@brown.edu



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