Elevating California Emergency Departments to Reduce Overdose deaths

Best practices in the care of people who use drugs

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CA BRIDGE

No financial disclosures.

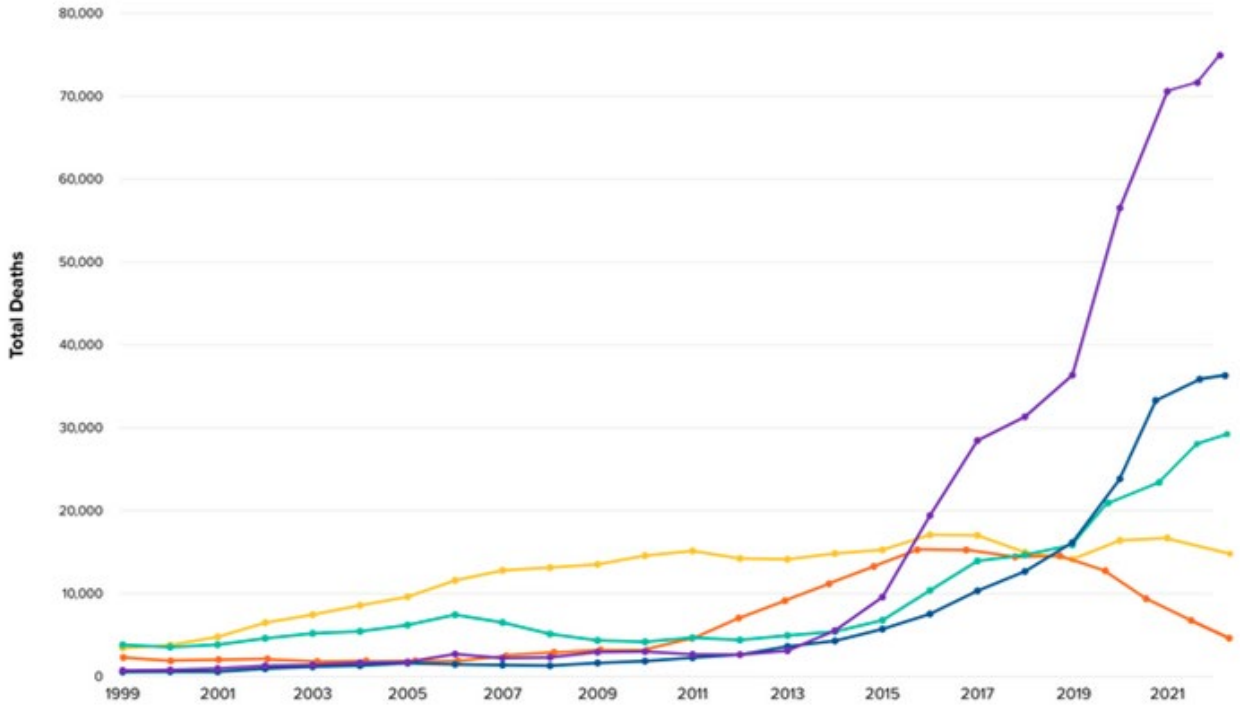
Although we may use brand and generic drug names interchangeably throughout this presentation, we do not promote the use of specific branded drugs.

Learning Objectives

After participating in this session, attendees should be able to:

- Appreciate that opioid use disorder (OUD) is a chronic disease with a biologic mechanism.
- Identify the importance of treating overdose and OUD with evidence-based medications.
- Outline barriers and facilitators to treatment for people who use drugs.
- Define the role of a Substance Use Navigator in treating people who use drugs.

Overdose Deaths Have Risen Dramatically



Synthetic opioids excluding methadone overdose deaths increased **103-fold**

Psychostimulants with abuse potential (primarily methamphetamine) overdose deaths increased **64-fold**

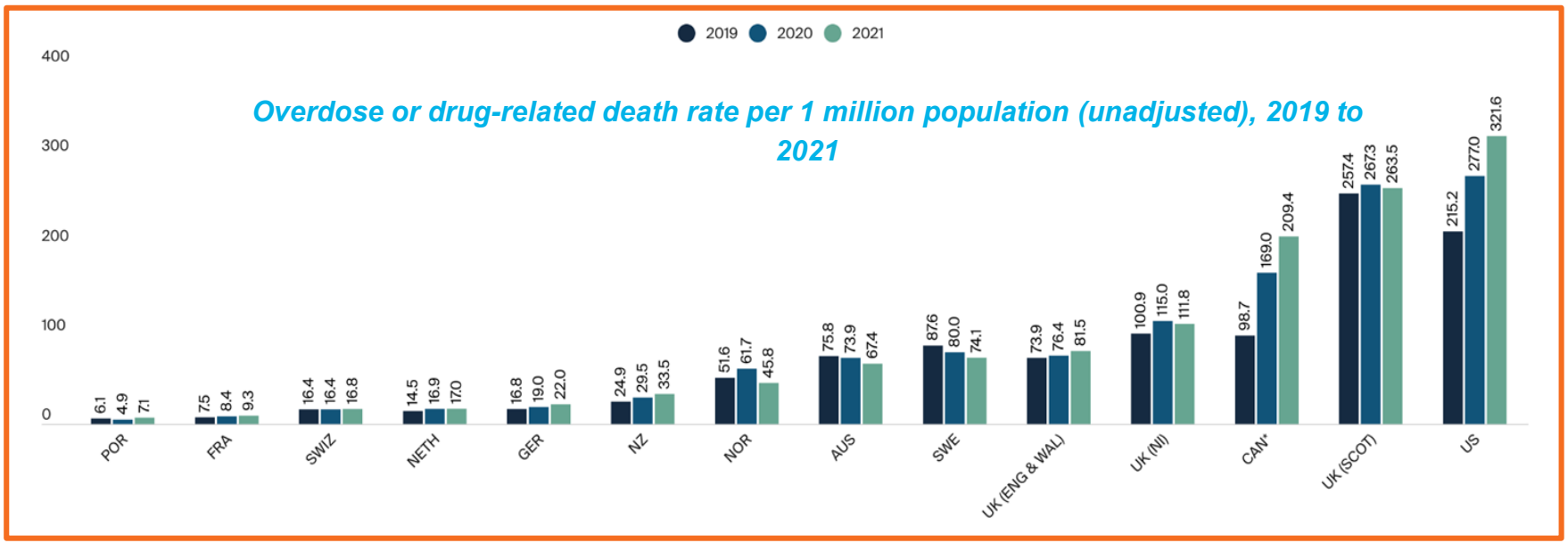
Cocaine overdose deaths increased **7.6-fold**

Rx opioid overdose deaths increased **4.1-fold**

Heroin overdose deaths increased **2.5-fold**

U.S. Department of Health & Human Services, 2023

Overdose deaths from all drug types are much higher in the U.S. than most other high-income countries and have increased rapidly since 2019.



Notes: * *CAN deaths refer to "apparent opioid toxicity deaths" only. Data: AUS — National Drug and Alcohol Research Centre; CAN — Public Health Agency of Canada; FRA — Drug and Substance Abuse-Related Deaths (DRAMES); GER — Federal Government Commissioner for Addiction and Drug Issues; NETH — National Drug Monitor; NZ – NZ Drug Foundation; NOR – Norwegian Institute of Public Health; POR – Serviço de Intervenção nos Comportamentos Aditivos e nas Dependências (SICAD); SWE — National Board of Health and Welfare (Socialstyrelsen); SWIZ — Federal Office of Public Health; UK (ENG & WAL) — Office for National Statistics (ONS); UK (NI) — Northern Ireland Statistics and Research Agency; UK (SCOT) — National Records of Scotland; US — Centers for Disease Control and Prevention.* Source: Evan D. Gumas and Jesse C. Baumgartner, "U.S. Overdose Deaths Remain Higher Than in Other Countries — How Harm-Reduction Programs Could Help," *To the Point* (blog), Commonwealth Fund, June 22, 2023. https://doi.org/10.26099/0eb5-9d85

The percentage of overdose deaths caused by synthetic opioids (e.g., fentanyl) is much higher in the U.S. than in other peer countries with available data.

Percent (%) of overall overdose or drug-related deaths that involved synthetic opioids, 2021

Download data

Notes: Synthetic opioid deaths generally include those under ICD-10 code T40.4, "Synthetic opioids other than methadone," e.g., fentanyl and tramadol. See the appendix for details on data sources and differences in synthetic opioid-related mortality definitions between countries.
Data: AUS — National Drug and Alcohol Research Centre; NOR — Norwegian Institute of Public Health; SCOT — National Records of Scotland; SWE — National Board of Health and Welfare (Socialstyrelsen); US — Centers for Disease Control and Prevention.

Source: Evan D. Gumas and Jesse C. Baumgartner, "U.S. Overdose Deaths Remain Higher Than in Other Countries — How Harm-Reduction Programs Could Help," *To the Point* (blog), Commonwealth Fund, June 22, 2023. https://doi.org/10.26099/0eb5-9d85

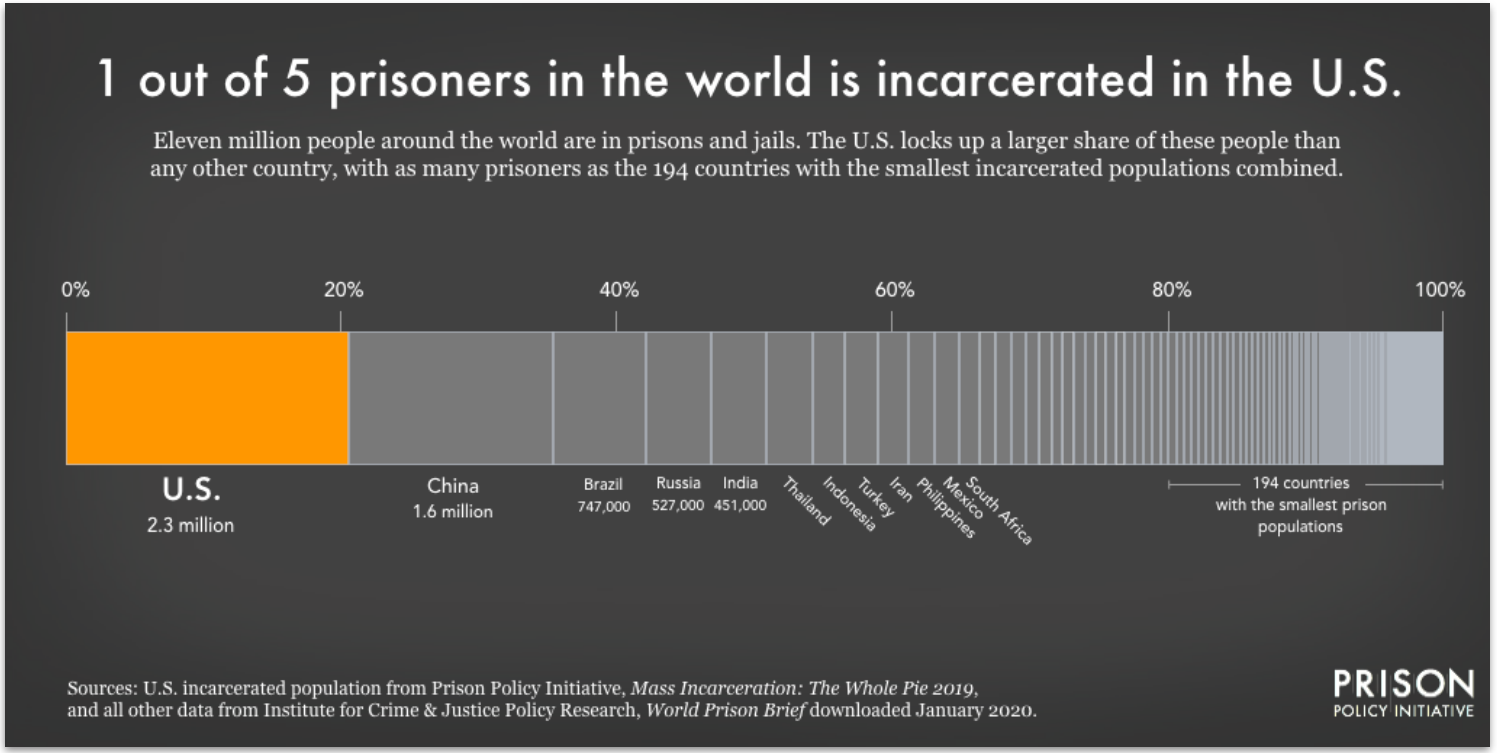
Impact of SUD in Society

Overdose Deaths

"...more than the toll of car accidents and guns combined.

Overdose deaths have more than doubled

United States of Incarceration



United States Incarceration Rates

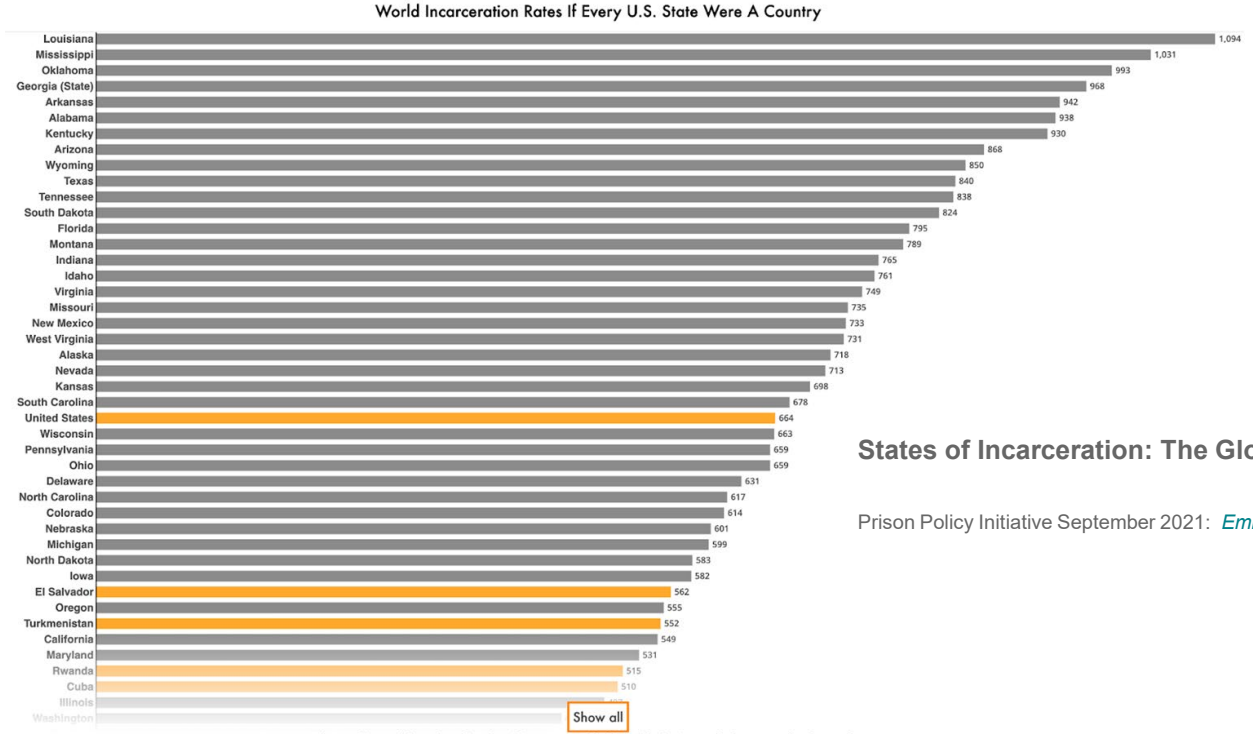
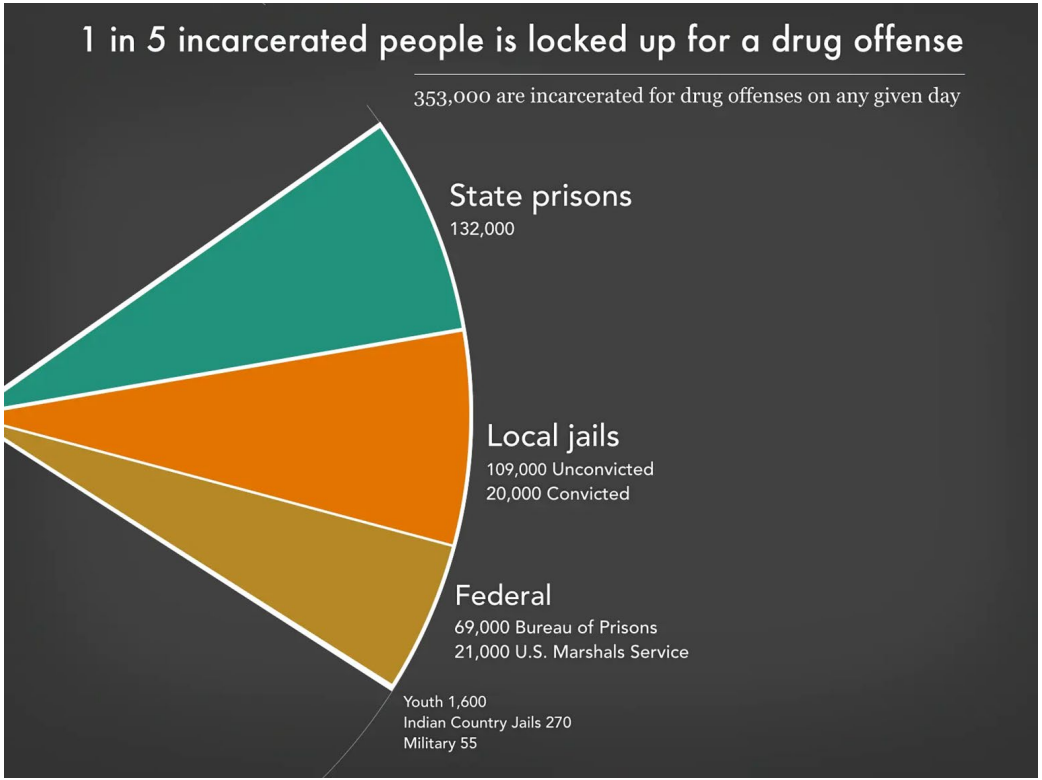


Figure 1. This graph shows the number of people in state prisons, local jails, federal prisons, and other systems of confinement from each U.S. state per 100,000 people in that state and the incarceration rate per 100,000 in all countries with a total population of at least 500,000.

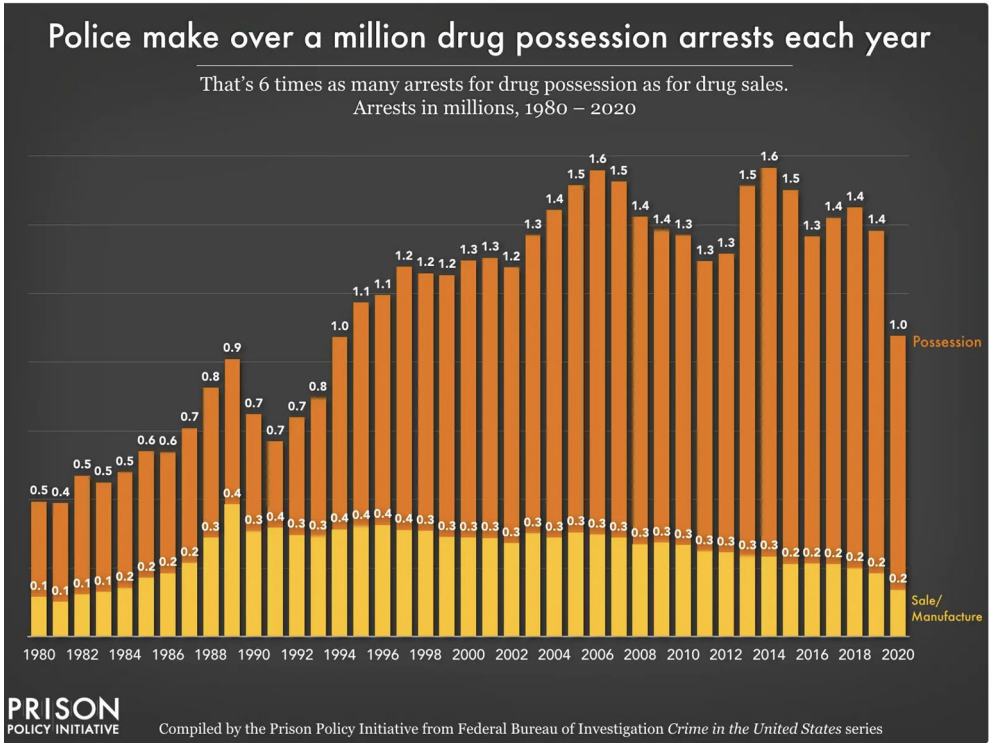
States of Incarceration: The Global Context 2021

Prison Policy Initiative September 2021: *Emily Widra and Tiana Herring*

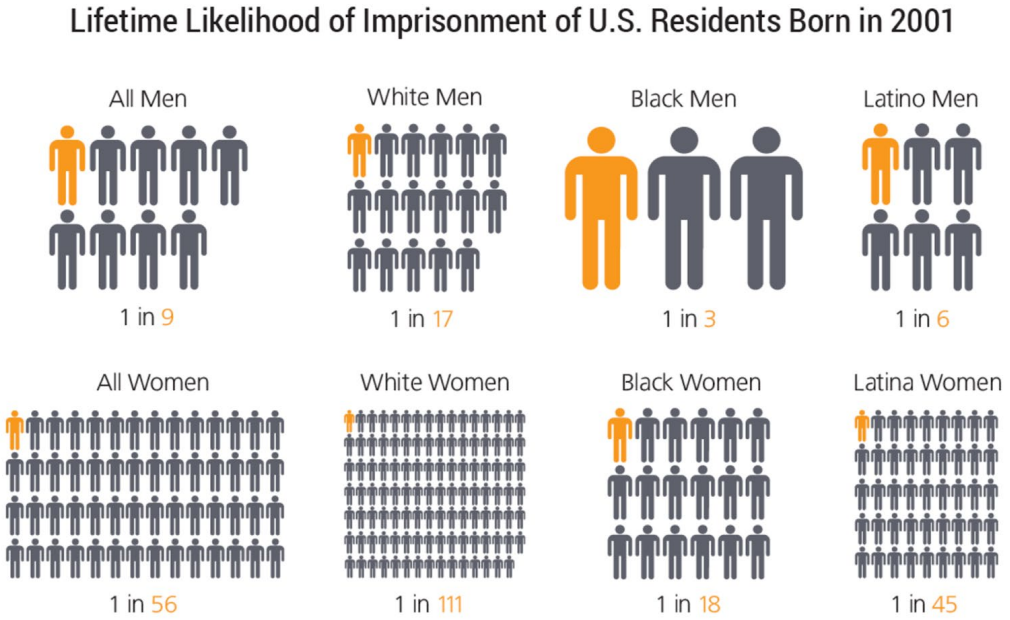
Drug Addiction Contributes to Mass Incarceration



Stigma of Arrest



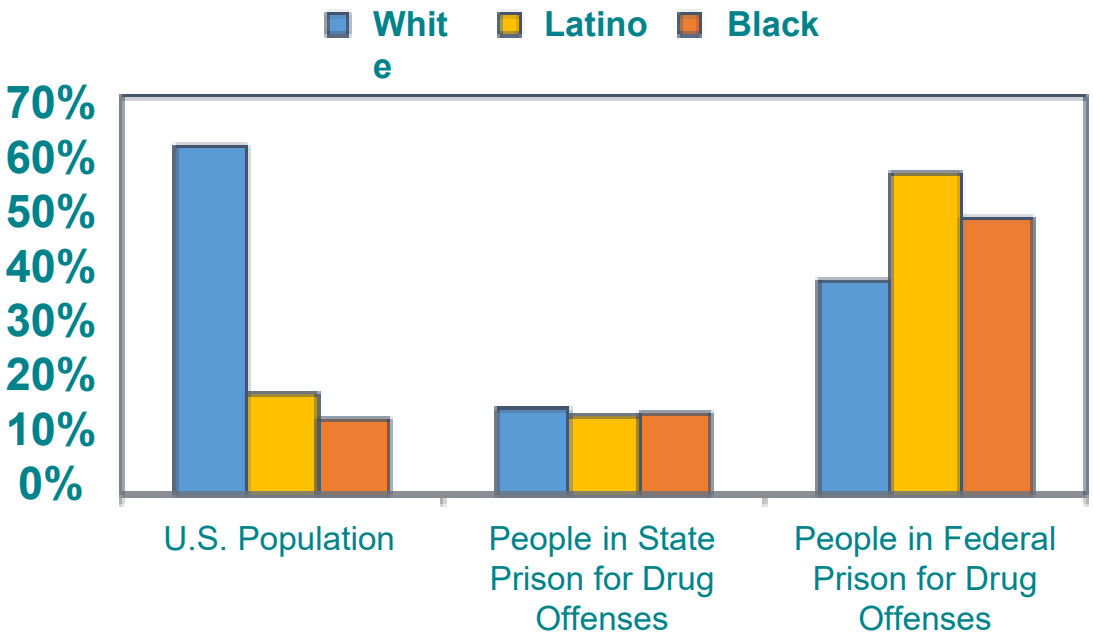
Racial and Gender Disparities



Source: Bonczar, T. (2003). *Prevalence of Imprisonment in the U.S. Population, 1974-2001.* Washington, DC: Bureau of Justice Statistics.

THE SENTENCING PROJECT

Disproportionate Impact of Drug Laws on Black and Latino Communities



Sources: U.S. Census Bureau; Bureau of Justice Statistics.

What comes to mind when you hear “treatment?”

Detox?

Therapy?

12 step programs?

Detoxification Doesn’t Last

Chutuape et al., 2001

Barriers to Care

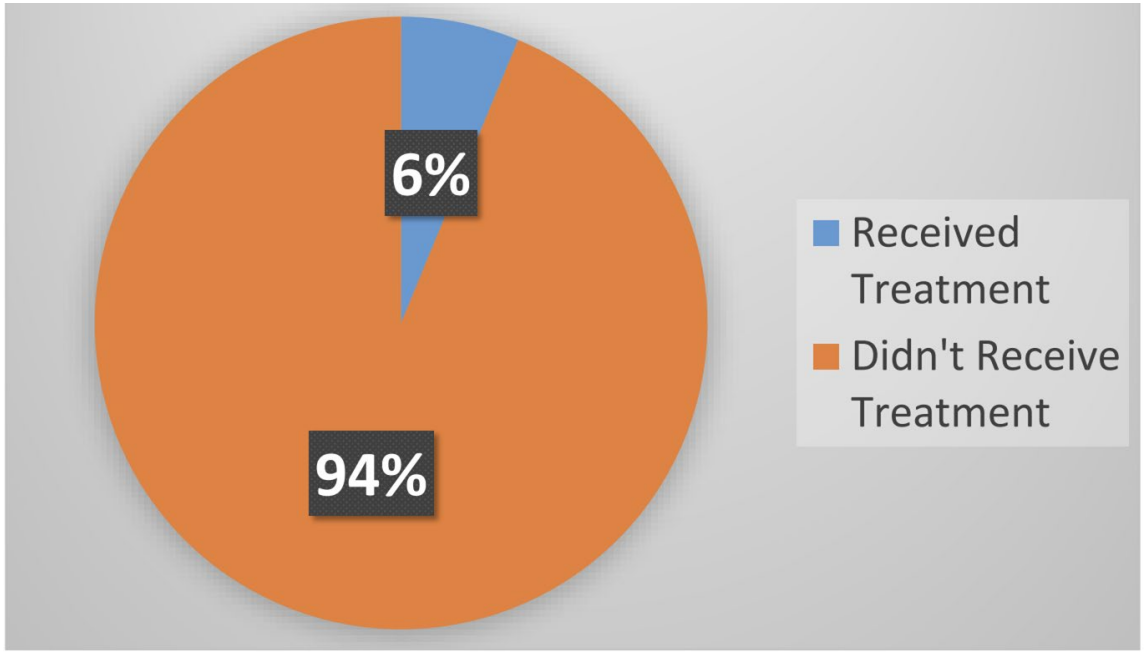
Impact of SUD in the Hospital

- 1 in 11 Emergency Department (ED) visits are made by adults with a substance use disorder (SUD).
- 11.9% of all hospitalized patients have a SUD, many of which are unrecognized or undertreated.
- Admitted patients with substance use have longer lengths of stay and higher rates of readmission.

About 49 million Americans aged 12 or older, or 17% of the population, have a substance use disorder.

Source: Substance Abuse and Mental Health Services Administration. (2023). Key substance use and mental health indicators in the United States: Results from the 2022 National Survey on Drug Use and Health. Retrieved from: https://www.samhsa.gov/newsroom/press-announcements/20231113/hhs-samhsa-release-2022-nsduh-data

Receipt of Any Substance Use Treatment Among People with a Past Year SUD



Substance Abuse and Mental Health Services Administration. (2022). *Key substance use and mental health indicators in the United States: Results from the 2021 National Survey on Drug Use and Health* (HHS Publication No. PEP22-07-01-005, NSDUH Series H-57). Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. https://www.samhsa.gov/data/report/2021-nsduh-annual-national-report

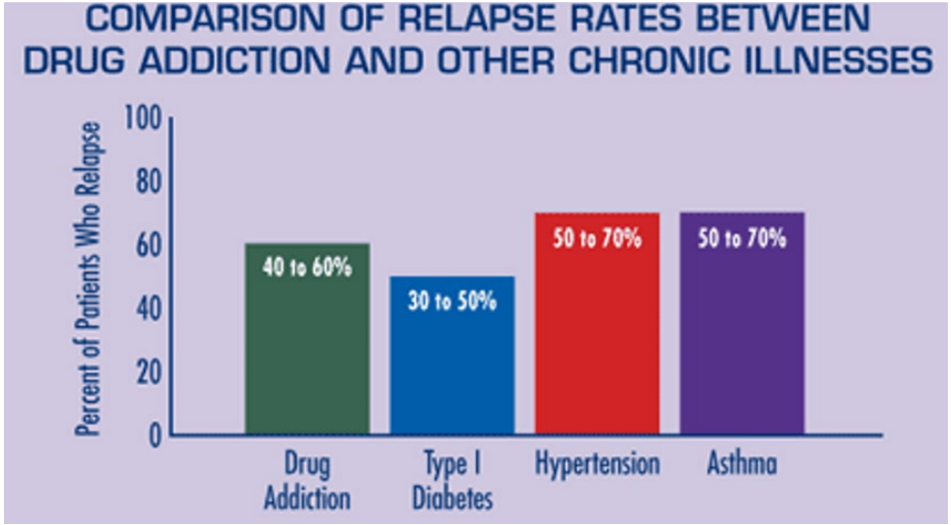
In 2021, of 2.5 million Americans with OUD, only about 22% (1 in 5) received any type of FDA approved medication as part of their treatment.

Jones CM et al.Use of Medication for Opioid Use Disorder Among Adults With Past-Year Opioid Use Disorder in the US, 2021. JAMA Netw Open. 2023;6(8):e2327488.

Addiction is NOT a moral failing.

It is a chronic disease that requires medical treatment.

Opioid Use Disorder as a Disease

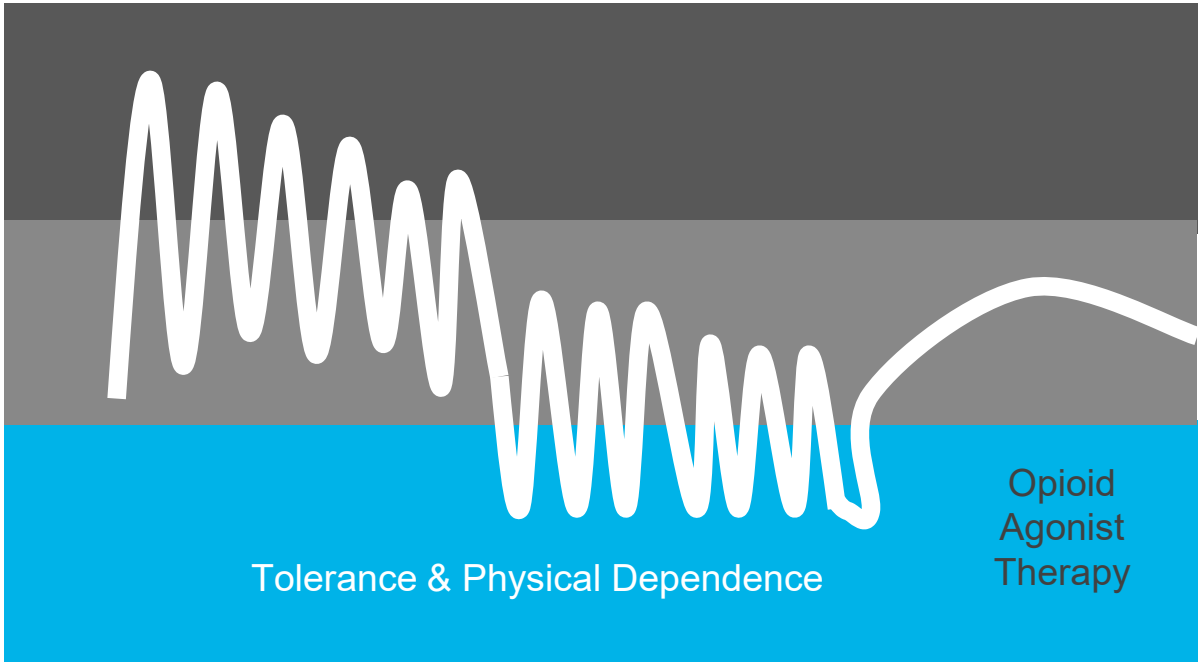


Similar to diabetes and hypertension

- Biologically mediated
- Psychologically mediated
- Socially mediated
- Lifestyle changes may help
- Symptoms are relapsing and remitting
- Meds may be necessary for life

McLellan A, Lewis D, O'Brien C, Kleber H. Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation. JAMA 2000;284(13):1689-1695

Opioid Use Natural Progression



The ED is the Ultimate Safety Net

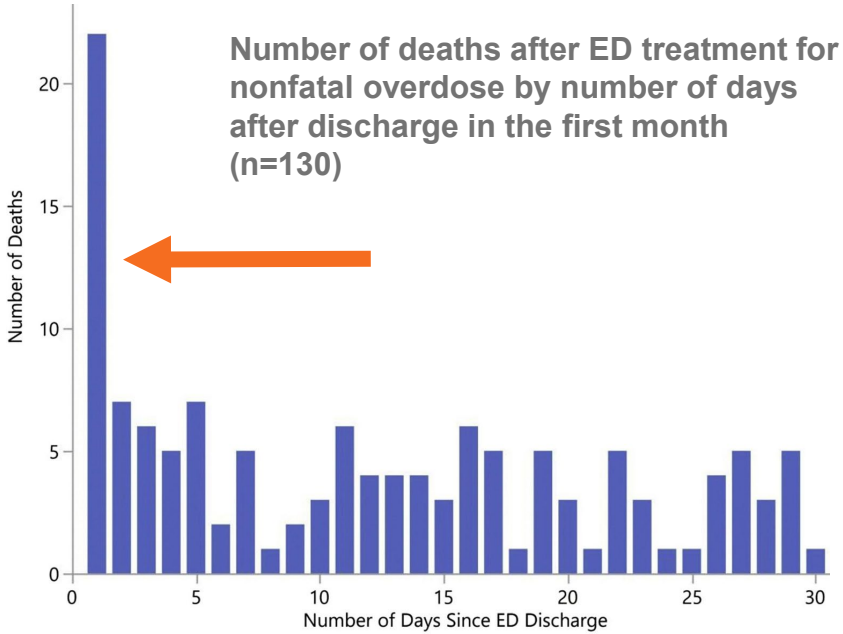
- Visible, easily accessible, and near public transport
- Offer all-hours access, acute psychiatric stabilization, same-day treatment, and navigation to ongoing care
- Critical link to shelters and community treatment programs

OUD is an Emergency

Study: Patients treated in Massachusetts EDs for opioid overdose 2011-2015

Significant increase in mortality risk post-ED discharge

- 20% of patients that died did so in the first month
- 22% of those that died in the first month **died within the first 2 days**



Weiner, S. G., Baker, O., Bernson, D., & Schuur, J. D. (2020). One-Year Mortality of Patients After Emergency Department Treatment for Nonfatal Opioid Overdose. Annals of emergency medicine, 75(1), 13–17. https://doi.org/10.1016/j.annemergmed.2019.04.020

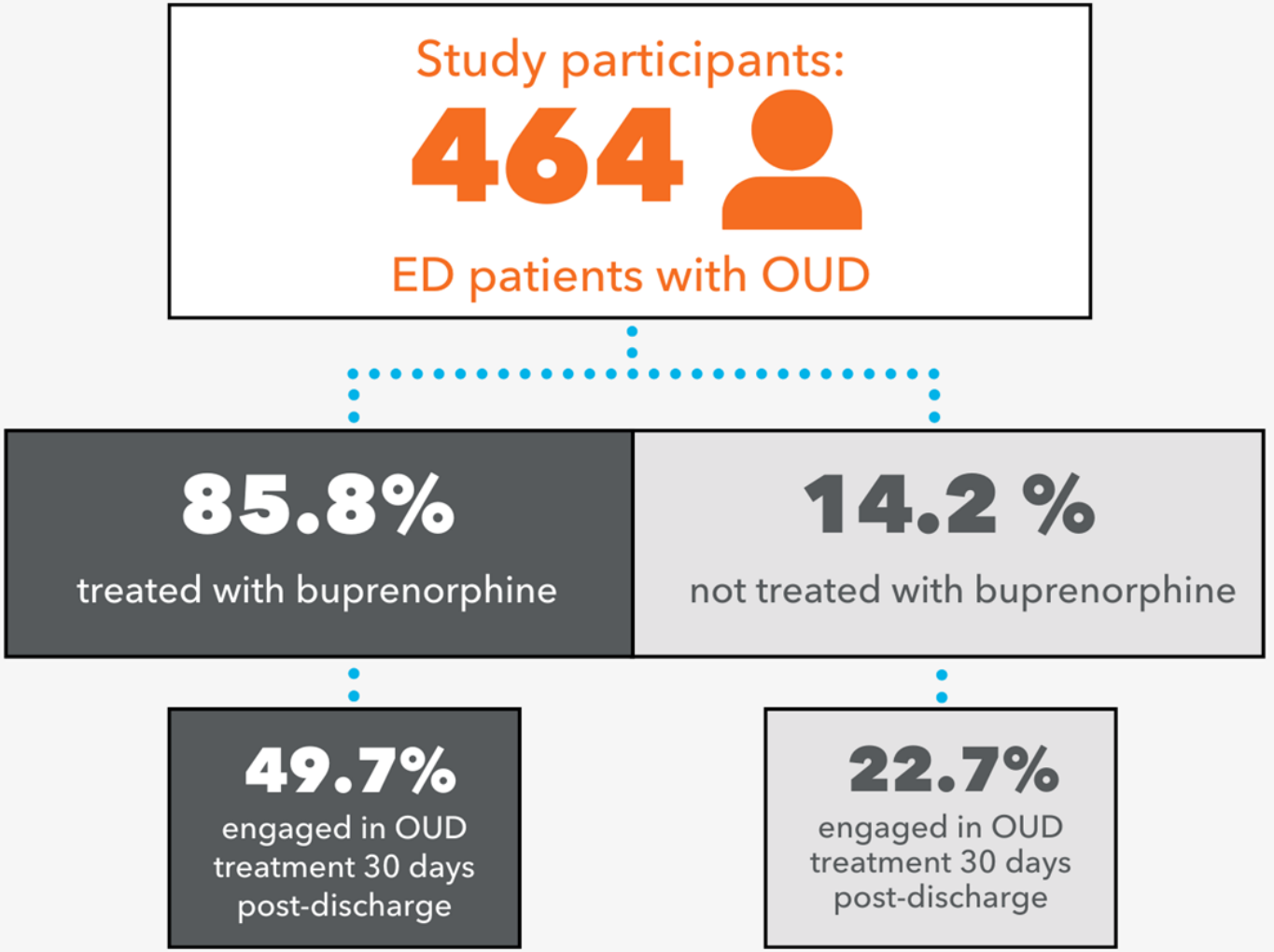
NEW CA BRIDGE STUDY

Emergency Department Buprenorphine Linked to Sustained Opioid Use Disorder Treatment

New research underscores the significant role EDs can play in reducing overdose deaths.

KEY FINDING:

If treatment was started in the ED, patients with opioid use disorder (OUD) were twice as likely to continue medical treatment for addiction after leaving the ED.


Study participants:
464
ED patients with OUD
85.8%
treated with buprenorphine
14.2 %
not treated with buprenorphine
49.7%
engaged in OUD treatment 30 days post-discharge
22.7%
engaged in OUD treatment 30 days post-discharge

There's a simple message here:
If you offer buprenorphine treatment to people struggling with opioid use disorder in the ED setting, most are interested in treatment, and when you start that treatment, right then and there with strong community partners to continue treatment, they do really well.

Andrew Herring, M.D

Co-Founder of CA Bridge and
Principal Investigator

Major Features of Buprenorphine

Treats withdrawal, craving, & overdose

Safe & effective for treating OUD

Partial agonist

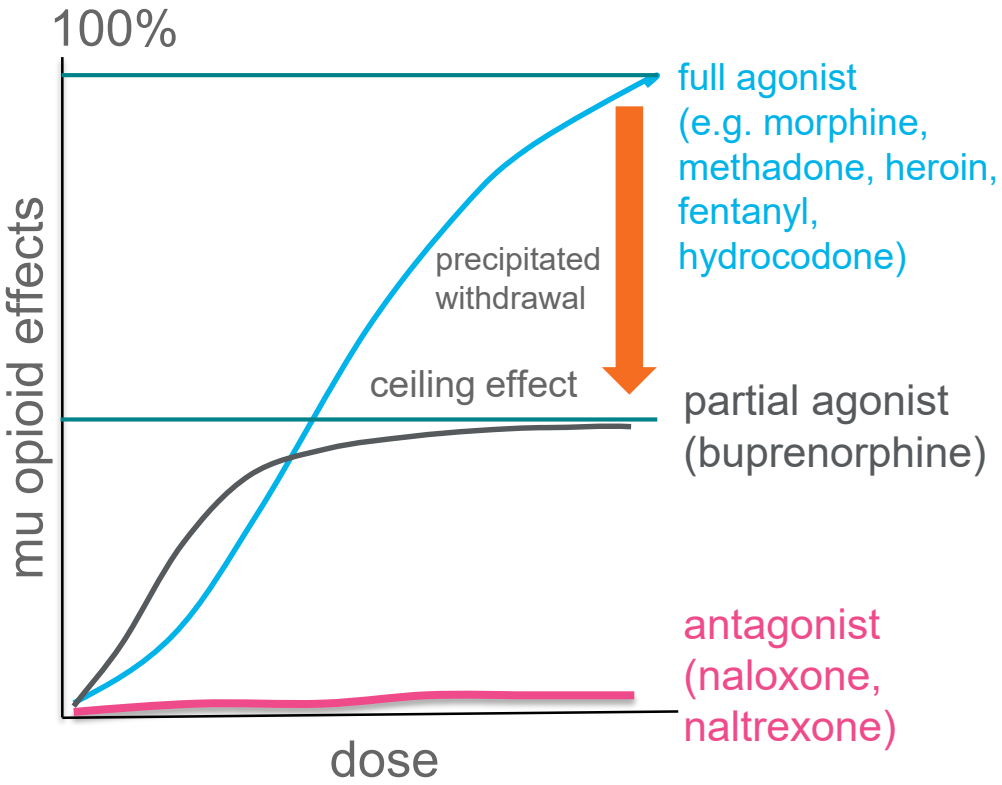
- Ceiling effect:
  - Respiratory depression
  - Sedation
- No ceiling effect:
  - Analgesia

High affinity

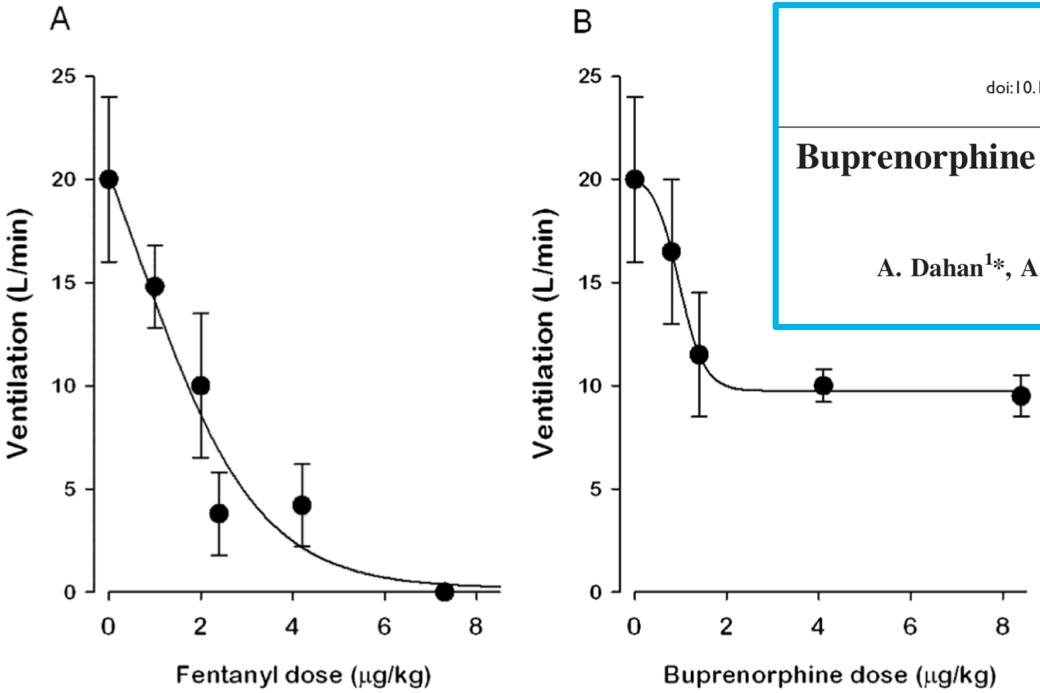
- Blocks other opioids
- Displaces other opioids
- Can precipitate withdrawal

Long acting

- Half-life ~ 24-36 Hours



Ceiling on Respiratory Depression



British Journal of Anaesthesia **96 (5)**: 627–32 (2006)
doi:10.1093/bja/ael051 Advance Access publication March 17, 2006

BJA

Buprenorphine induces ceiling in respiratory depression but not in analgesia

A. Dahan[1]*, A. Yassen[2], R. Romberg[1], E. Sarton[1], L. Teppema[1], E. Olofsen[1] and M. Danhof[2]

The Numbers for Success

Number Needed to Treat	
Aspirin in ST-elevation myocardial infarction	**42** to save a life
Steroids in chronic obstructive pulmonary disease (COPD)	**10** to prevent treatment failure
Defibrillation in cardiac arrest	**2.5** to save a life
Buprenorphine in opioid use disorder	**2 to retain in treatment**

https://clincalc.com/Stats/NNT.aspx

NNT by Buprenorphine Dose

NNT	Buprenorphine Dose
1 in 4	*using low dose buprenorphine (2 to 6 mg)*
1 in 3	*using medium dose buprenorphine (7 to 16 mg)*
1 in 2	*using high dose buprenorphine (≥ 16 mg)*

Mattick RP et al. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. Cochrane Database Syst Rev. 2014;(2):CD002207.

Who is the first person a patient interacts with in your practice setting?

Taking Action: Focus on Structure/Policy

Who makes it in?

- Invitations to care
- Justice involved
- Knowledge of resources
- Fear
- Telehealth
- Language barriers

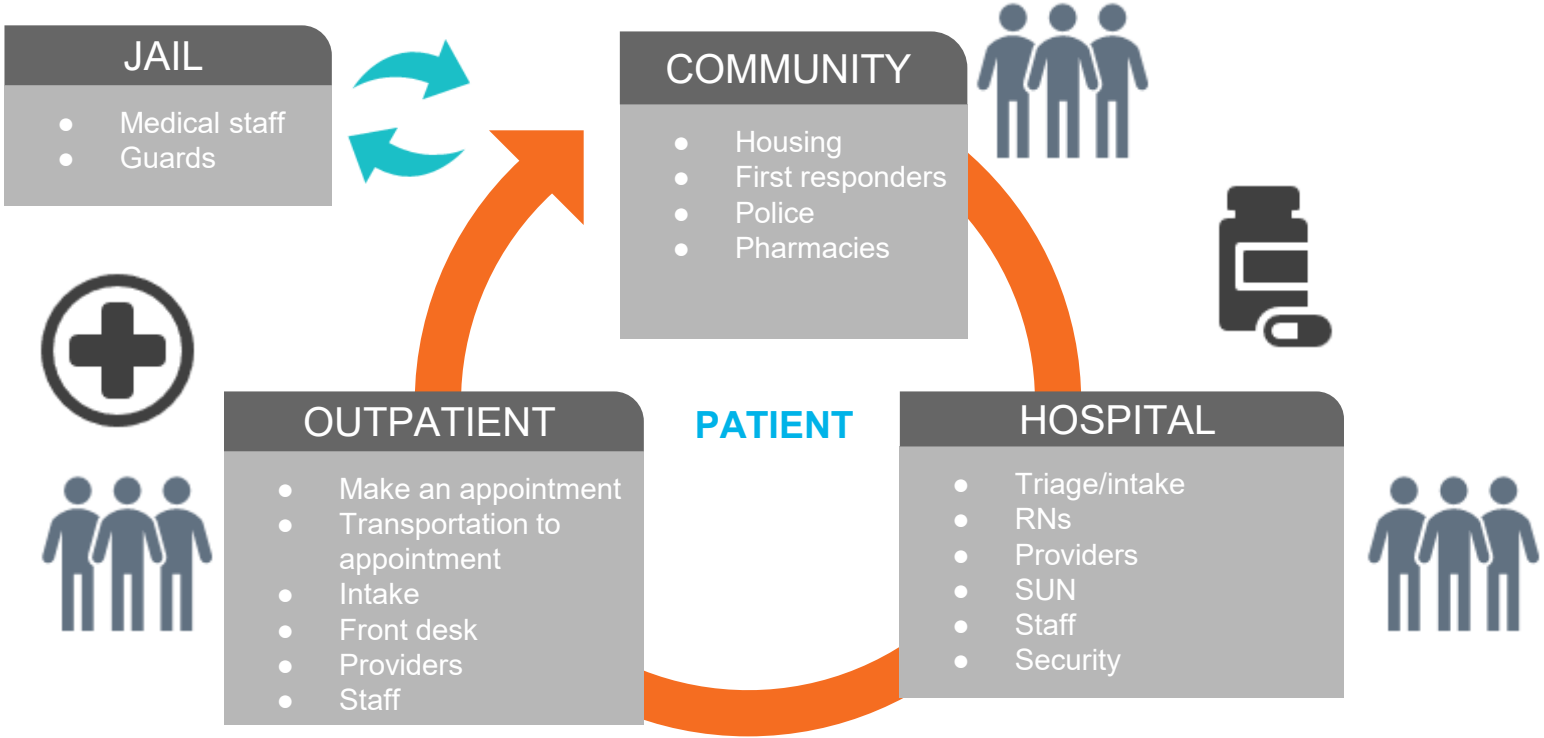
What do they experience?

- How are they treated?
- Who do they see?
- Medications
- Clinical decisions
- Police presence
- Language barriers
- Institutional priorities

Are they retained?

- Insurance coverage
- Jail/prison
- Primary care
- Housing
- Wraparound services
- Language barriers
- Transportation

Systems of Care



CA Bridge Model

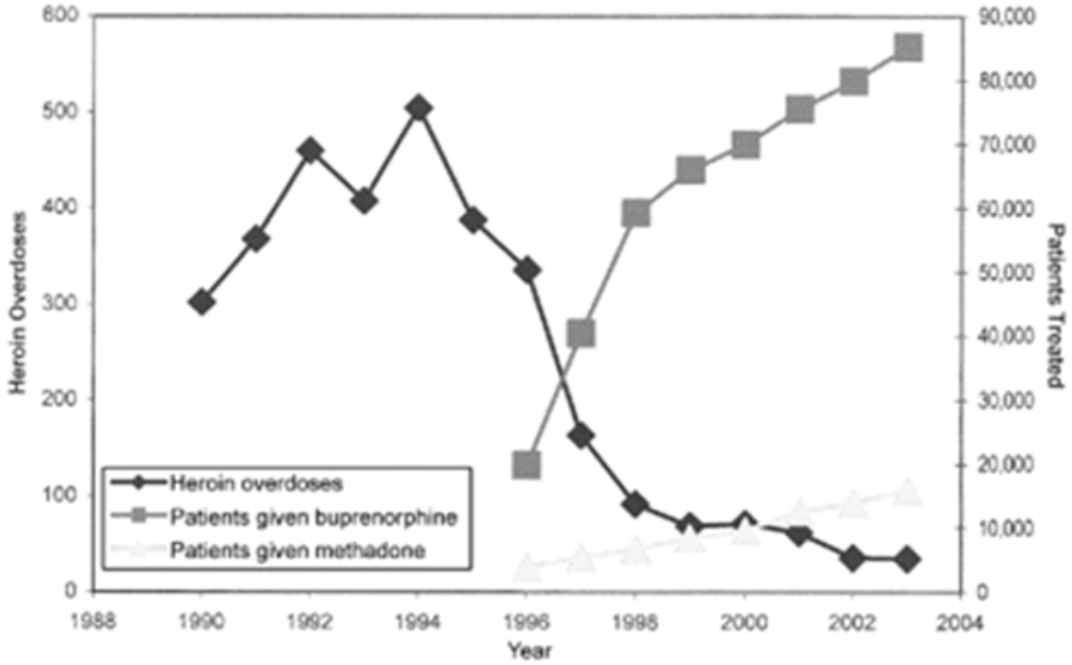
Revolutionizing the System of Care

Low-Barrier Treatment

Connection to Care and Community

Culture of Harm Reduction

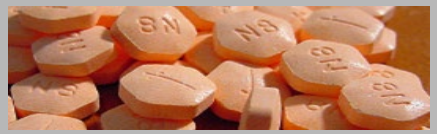
French Field Experience with Buprenorphine



Auriacombe et al., 2004

Buprenorphine

Different Forms



Sublingual (tab, film),
IV, IM, subcutaneous injection, transdermal patch,
± Naloxone

Buprenorphine reduces all-cause mortality by more than 50% over 5 years

Santo et al., 2021

One-year mortality after a non-fatal overdose is similar to STEMI.

Weiner et al., 2019

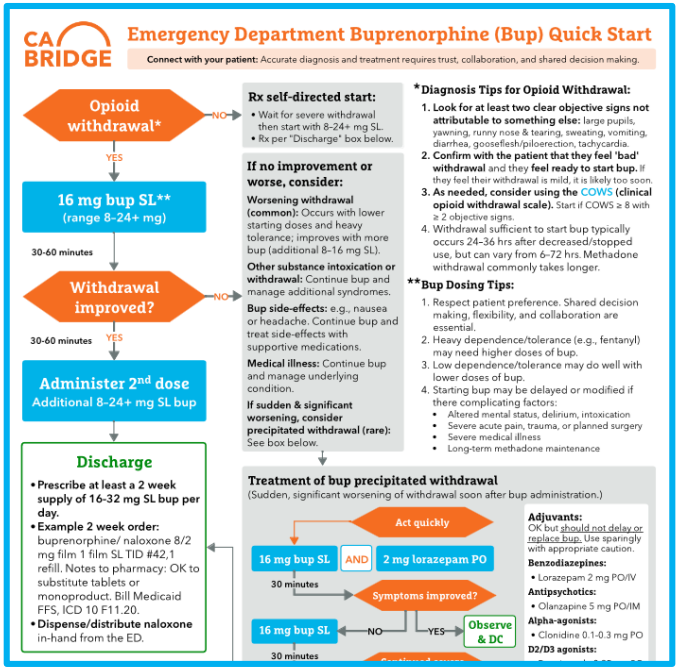
Starting patients on buprenorphine decreases readmissions and minimizes ED utilization.

ED-initiated buprenorphine increases the likelihood of your patient being in treatment in 30 days.

D'Onofrio et al., 2015

Treatment in the Emergency Department

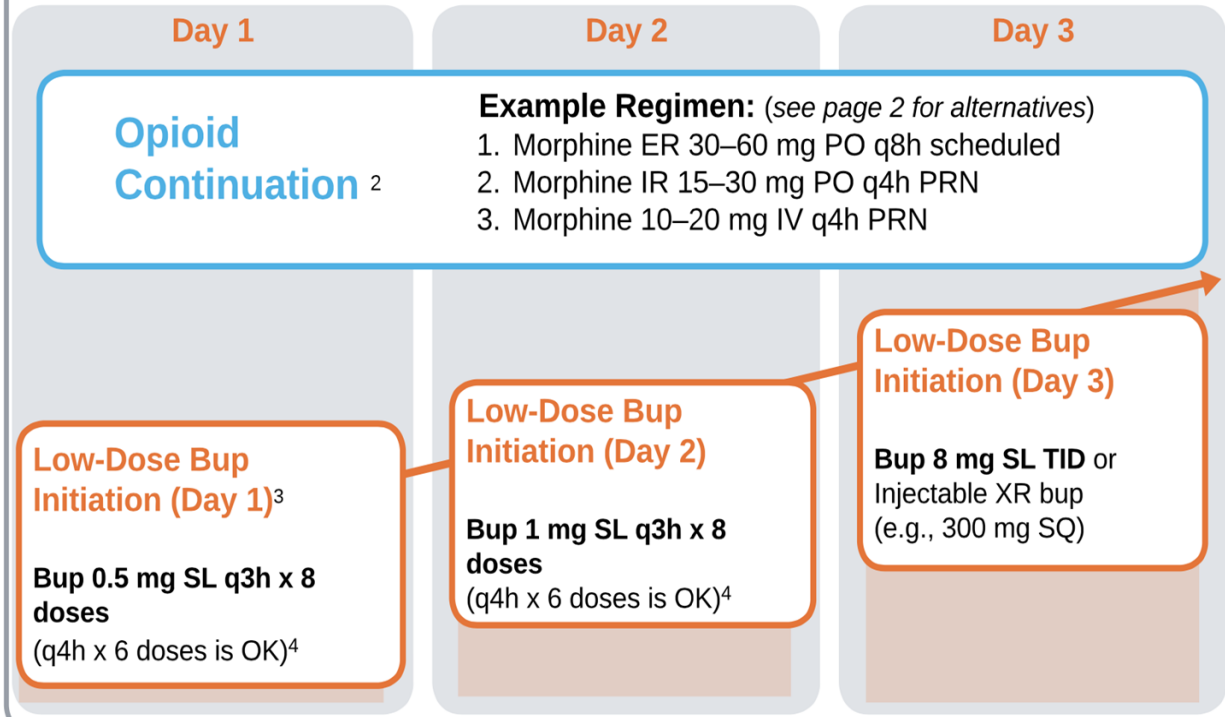
- Medication-first approach
- Dosing matters
- Patient-provider trust



Buprenorphine (Bup) Hospital Start: Low-Dose Bup Initiation with Opioid Continuation

Treatment Bundle Over Three Days[1]

Maximize pain control & withdrawal treatment with opioid analgesics throughout bup initiation



Footnotes

1. A rapid three-day bup up-titration schedule is presented here that may not be appropriate for some patients such as patients receiving high-dose (e.g., ?100 mg daily) methadone. Extend initiation schedule by lengthening the dose interval to q4h, q6h, or q8h+ and/or increasing the number of doses to be given at each step prior to advancing. *Example:* bup 0.5 mg SL q4h for 12 doses. (See page 2 for Example Five Day and Eight Day Ramp schedules.)

2. Opioid Analgesic (full agonist) Dosing: *The doses presented here assume a very high opioid tolerance.* Use clinical judgment to tailor opioid dose to match expected level of opioid tolerance. Morphine doses are presented as a guide for conversion to preferred opioid. (See page 2 for Alternative Full Agonist Opioids.) Combine opioids with a multimodal analgesic strategy for optimized comfort and pain control (e.g., NSAIDs, ketamine, and regional anesthesia. (See CA Bridge Acute Pain Management guide.)

3. Bup Dosing: SL film doses are presented here as a guide for conversion to preferred bup formulation. If quartering a 2 mg SL film is a pharmacy barrier, most patients will tolerate bup 1 mg SL or an alternative formulation can be used. *Example:* bup buccal film 300 mcg, or bup 0.15 mg IV. (See page 2 for Alternative Bup Formulations.)

4. Bup Frequency: *It is OK to hold doses for sleep.* Continue dosing when awake. If nursing capacity limits q3h dosing intervals increasing to q4 or q6 is generally well tolerated. Most patients will tolerate 1-2 missed doses per step.

Patients Can Self-Start on Bup

- Studies show patients' self-rating for withdrawal is similar to COWS
- Instructions mimic hospital start
- Safe, effective option
- Source: Buprenorphine Emergency Department Quick Start

CA BRIDGE

Buprenorphine Self-Start

Guidance for patients starting buprenorphine outside of hospitals or clinics

1. Plan to take a day off and have a place to rest.
2. Stop using and wait until you feel very sick from withdrawals (at least 12 hours is best, if using fentanyl it may take a few days).
3. Dose one or two 8mg tablets or strips UNDER your tongue (total dose of 8-16mg).
4. Repeat dose (another 8mg-16mg) in an hour to feel well.
5. The next day, take 16-32mg (2-4 tablets or films) at one time.

If you have started bup before:

- If it went well, that's great! Just do that again.
- If it was difficult, talk with your care team to figure out what happened and find ways to make it better this time. You may need a different dosing plan than what is listed here.

If you have never started bup before:

- Gather your support team and if possible take a "day off."
- You are going to want space to rest. Don't drive.
- Using cocaine, meth, alcohol or pills makes starting bup harder, and mixing in alcohol or benzos can be dangerous.

If you have a light habit: *(For example, 5 "Norco 10's" a day)*

- Consider a low dose: start with 4mg and stop at 8mg total.
- **WARNING:** Withdrawal will continue if you don't take enough bup.

If you have a heavy habit: *(For example, injecting 2g heroin a day or smoking 1g fentanyl a day)*

- Consider a high dose: start with a first dose of 16mg.
- For most people, the effects of bup max out at around 24-32mg.
- **WARNING:** Too much bup can make you feel sick and sleepy.

Not going well? Have questions? Contact your Navigator for help!

Call or text your Navigator for help at _____

3.28.22

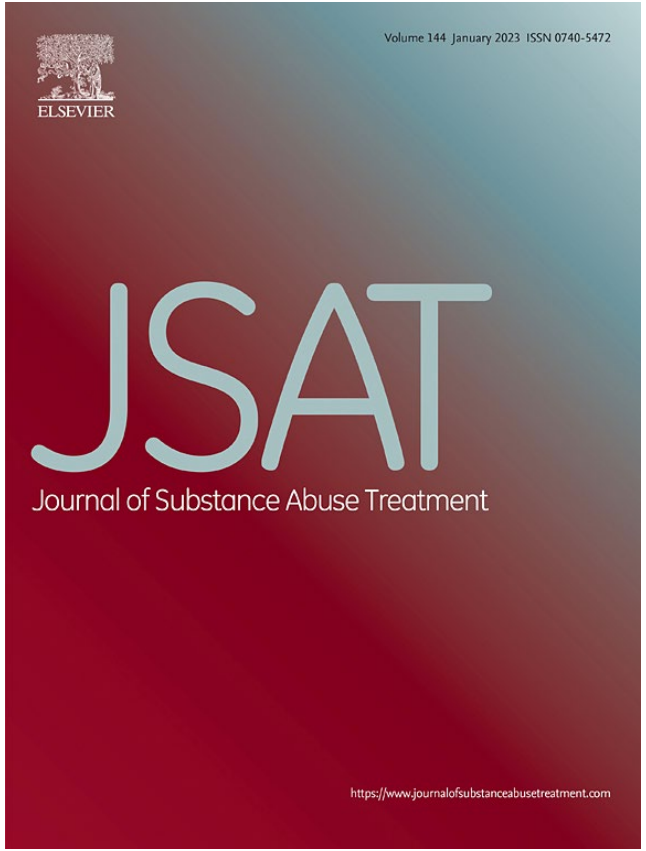
Common Misconceptions

"Patients should be referred to counseling before starting treatment."

"Starting someone on buprenorphine is just trading one addiction for another."

"Starting Bup in the ED takes too long."

"Other patients deserve higher priority."



Buprenorphine in the United States: Motives for Abuse, Misuse, and Diversion

Howard D. Chilcoat | Halle R. Amick | Molly R. Sherwood | Kelly E. Dunn

Reasons for using diverted buprenorphine:

(cited by patients with OUD)

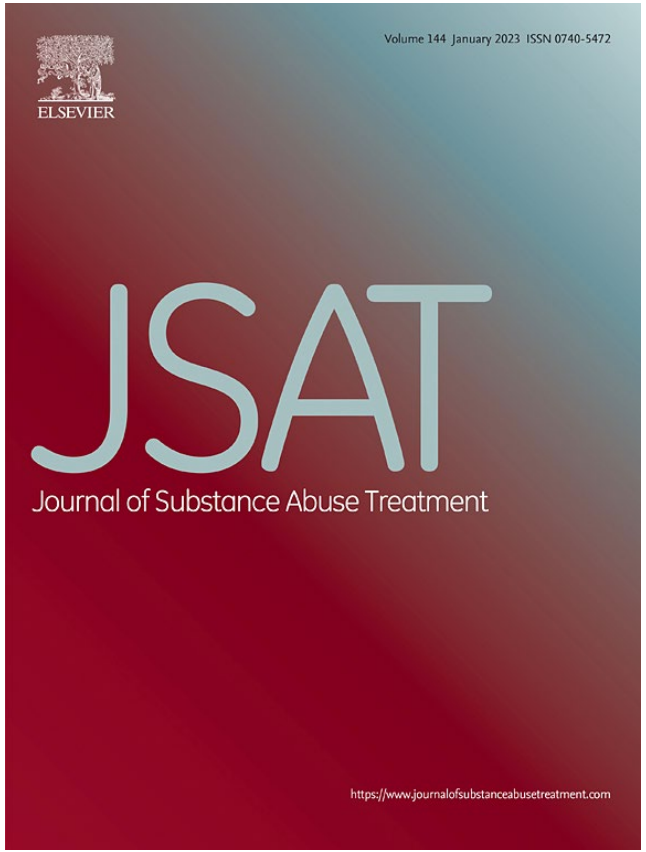
63% – to abstain from other drugs

50% – to treat symptoms of withdrawal

50% – treatment/management of pain

33% – management of psychiatric issues

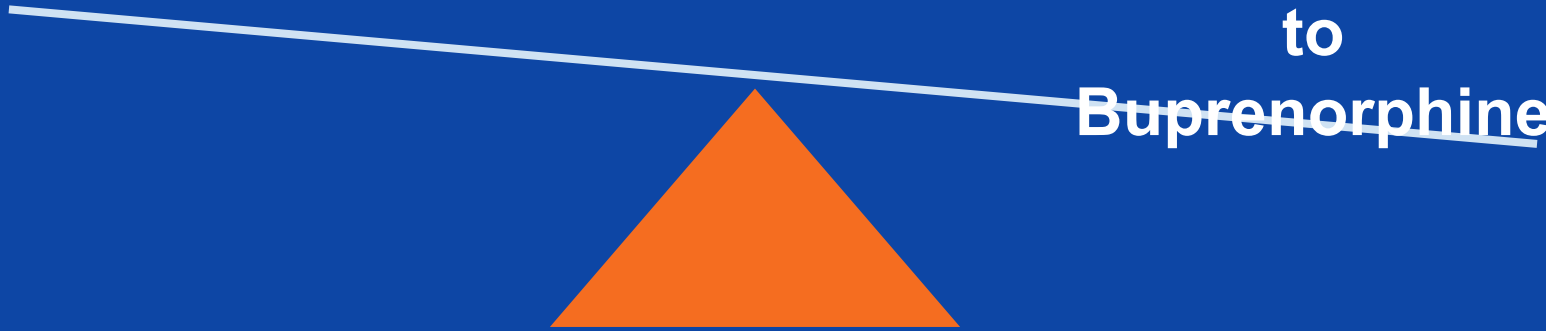
Chilcoat et al., 2019



"The studies in this review consistently suggested that patients using illicit buprenorphine did so to treat symptoms of opioid withdrawal and that lack of formal access to buprenorphine MAT contributed to their illicit buprenorphine use."

Chilcoat et al., 2019

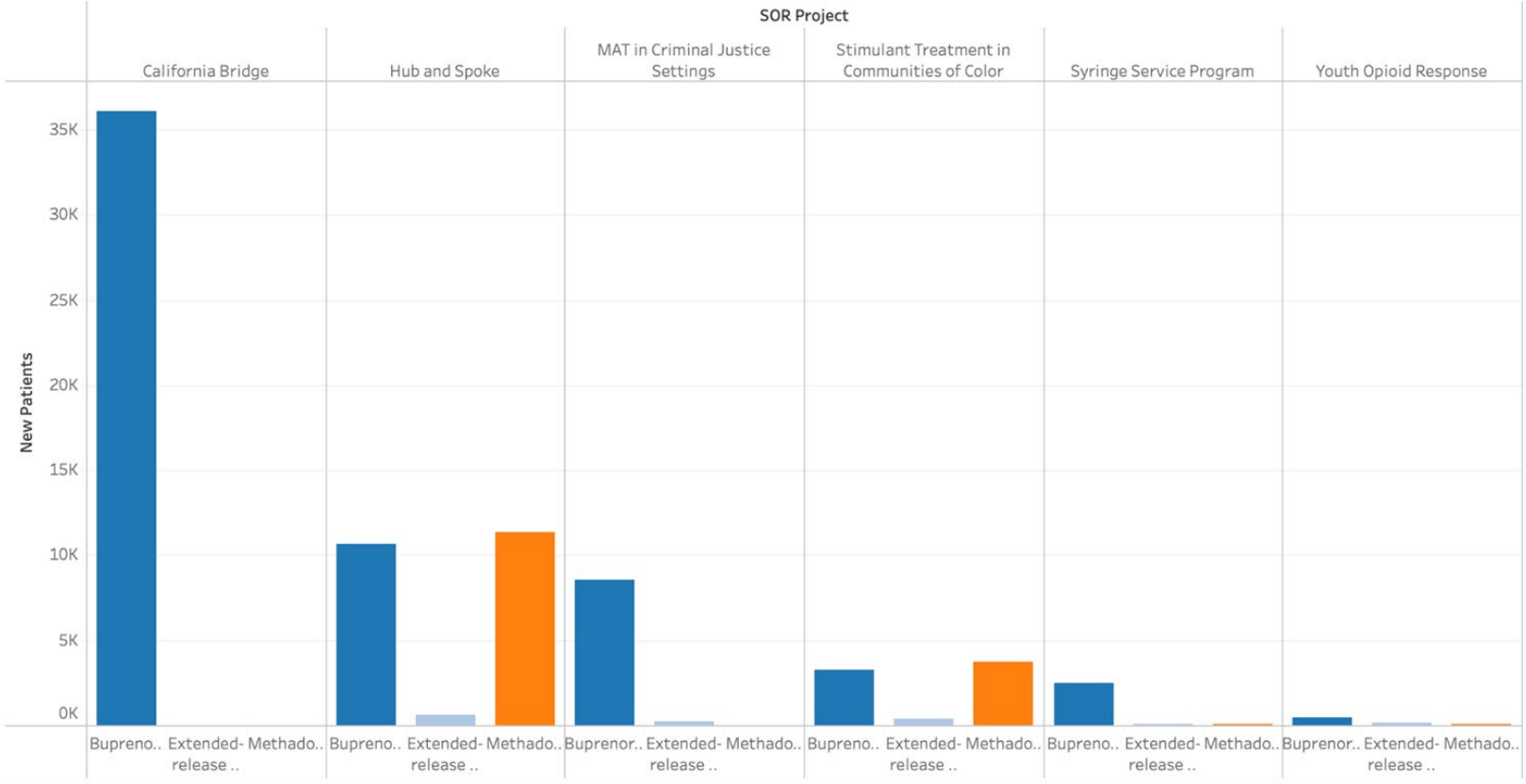
Street Access to Illicit Substances



Medical Access to Buprenorphine

Patients Starting MAT for Opioid Use

Total New Patients Starting MAT for Opioid Use by Project



The CA Bridge Model in Action

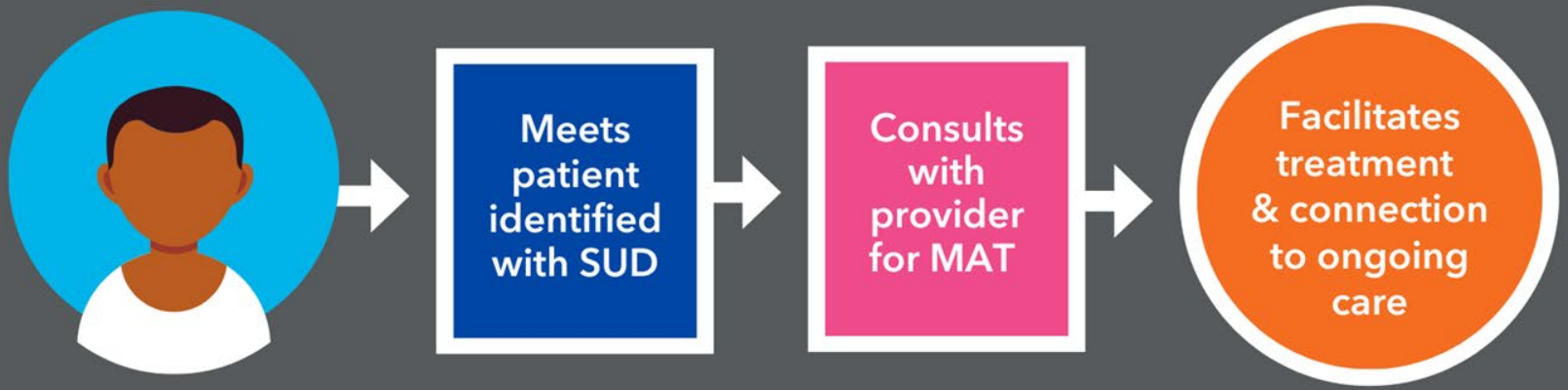
The clinical champion
starts treatment immediately

The navigator
provides education, support and linkage to ongoing treatment

The patient
gets evidence-based care with better outcomes, lower readmissions

The Navigator

guides patients with substance use disorders (SUD) and behavioral health needs through the emergency department to access medication for addiction treatment and ongoing care.

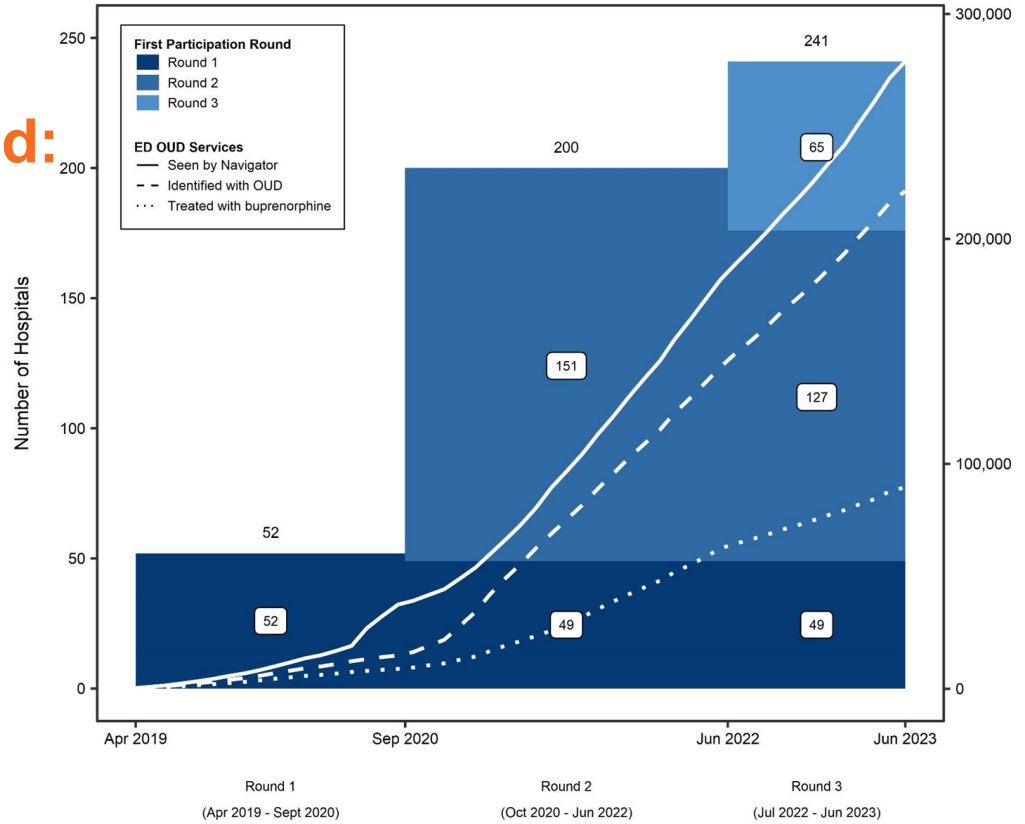


GOAL: Ensure that all people with substance use disorders receive 24/7 high-quality care in every California health system.

CA Bridge reporting hospitals and services by funding round:

April 2019 to June 2023

- 86.7% of round 1 and 2 EDs participated in a subsequent round
- 22.4% (54/241) of total round 3 participating EDs have sustained their patient navigator



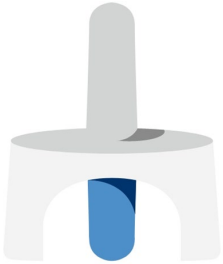
Harm Reduction in Treatment: Best Practices

Patients are safer on bup, for however long that is!

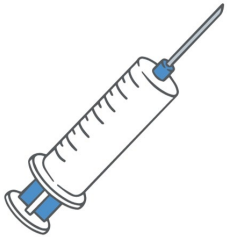
Start treatment even if patients have not continued care in the past.

Harm Reduction in the ED

Safe to discuss substance use.



Tools to stay alive.



Safe from disease and infection.

Care is easy to access.

Harm Reduction in the ED

Remove stigma

Meet patients “where they’re at”

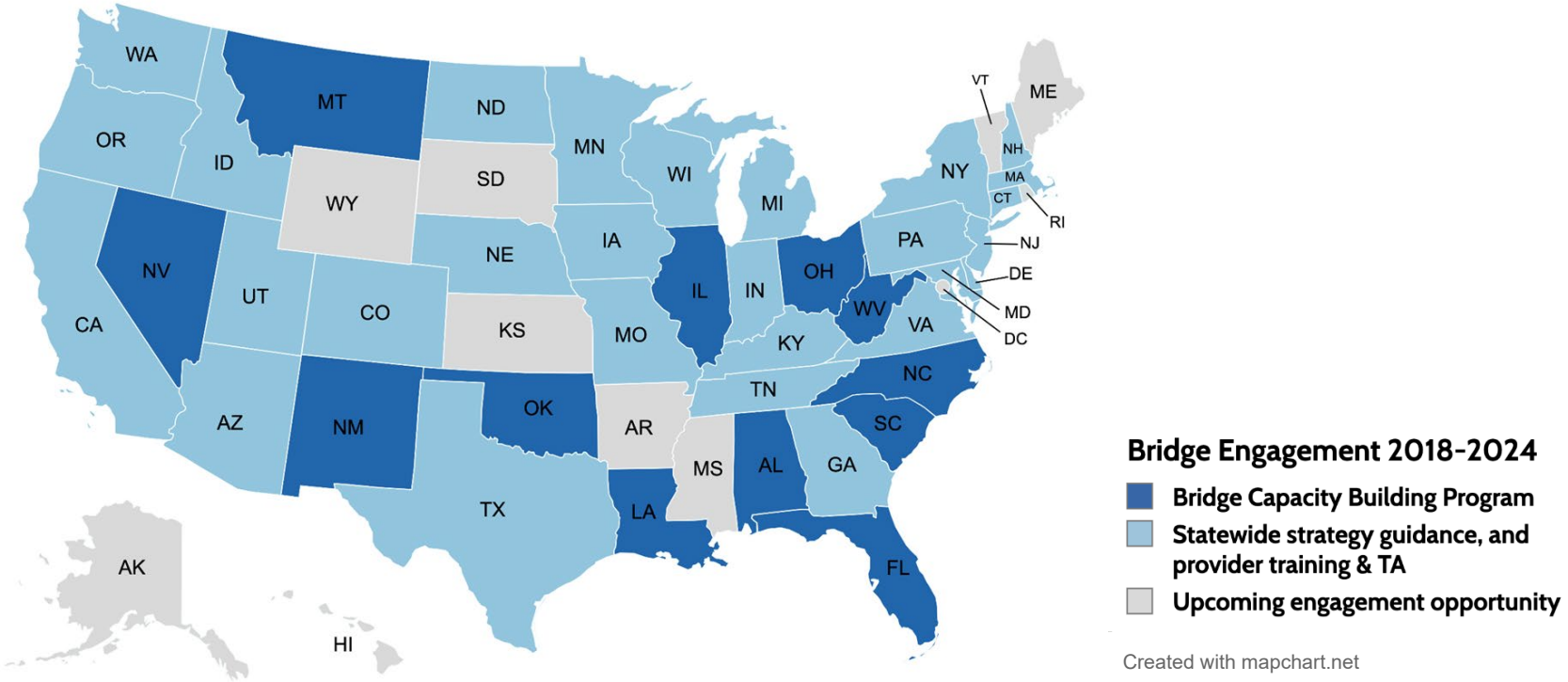
Distribute Naloxone

Treat addiction like any other chronic illness

Harm Reduction is healthcare.

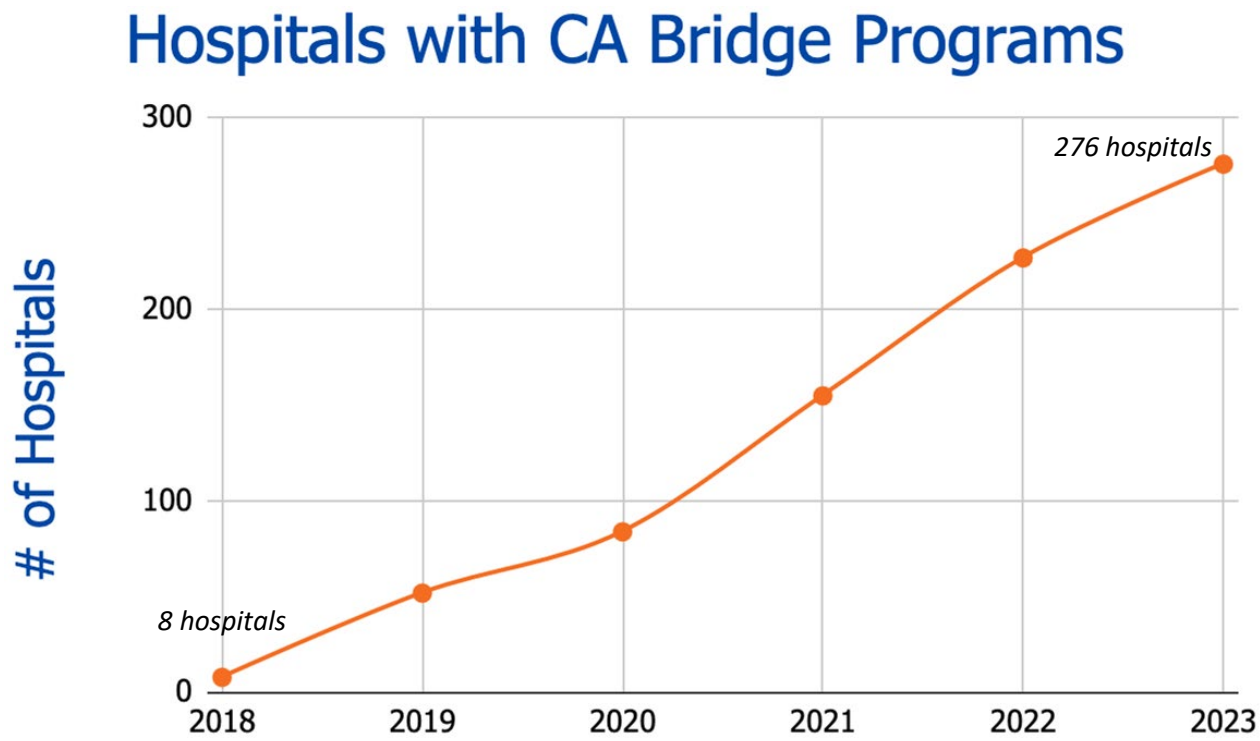
Bridge Goal: 24/7 access to MOUD in EDs in every state by 2027

National Reach as of March 2024



Patient Centered Care

Goal: Universal access to addiction treatment in all EDs in California



Impact in California – *so far*

January 2019 – December 2023

444,875

Patients seen for substance use disorders

364,869

Patients identified with opioid use disorder

138,070

Patients prescribed or administered MAT

271,848

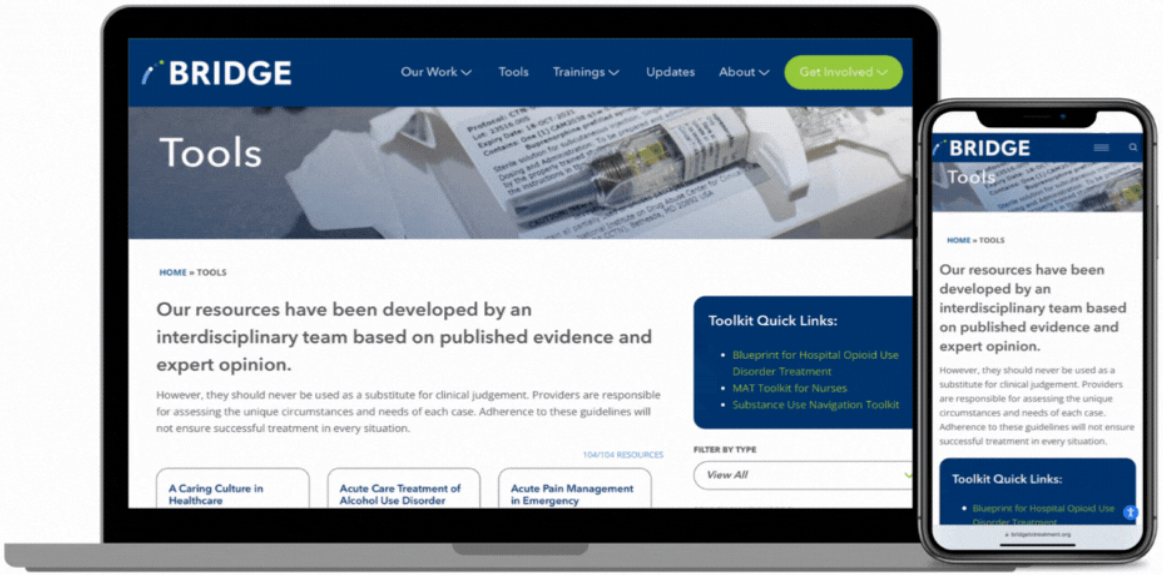
Naloxone kits ordered by hospitals


the ***new***
standard of care

All people deserve rapid access to evidence-based treatment *with dignity.*

Take care of yourself.
Thank you for your work.

Resources


BRIDGE
Our Work
Tools
Trainings
Updates
About
Get Involved
Tools
HOME » TOOLS
Our resources have been developed by an interdisciplinary team based on published evidence and expert opinion.
However, they should never be used as a substitute for clinical judgement. Providers are responsible for assessing the unique circumstances and needs of each case. Adherence to these guidelines will not ensure successful treatment in every situation.
Toolkit Quick Links:
Blueprint for Hospital Opioid Use Disorder Treatment
MAT Toolkit for Nurses
Substance Use Navigation Toolkit
104/104 RESOURCES
FILTER BY TYPE
View All
A Caring Culture in Healthcare
Acute Care Treatment of Alcohol Use Disorder
Acute Pain Management in Emergency

Read the full study!

tinyurl.com/CABridgeBUPStudy

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