

# Does that look like a pipe to you?

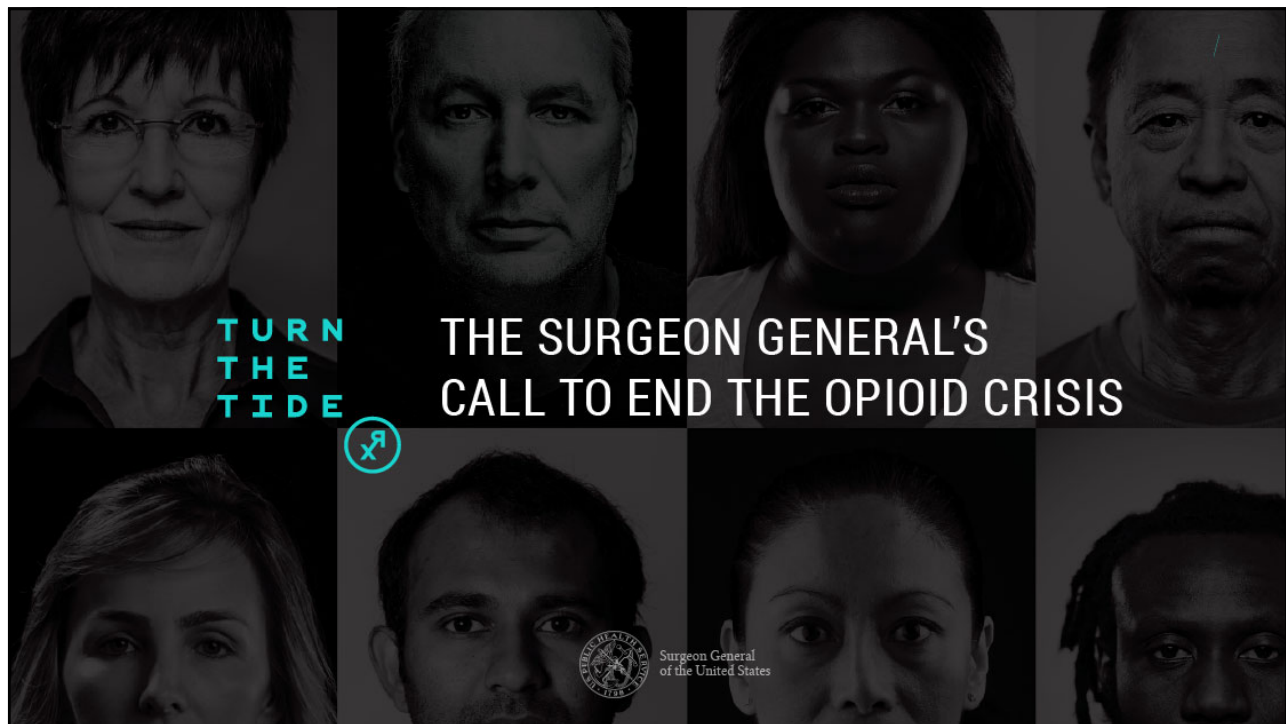
## Treatment of Opioid Use Disorder Among Justice-Involved Individuals

Marce Abare MD MPH

Medical Director, Reentry Mobile Medical Unit  
Valley Homeless Healthcare Program

## Thanks to contributions and slides from:

Gail D'Onofrio, MD MS  
Nicholas Chadi, MD MPH  
Avik Chatterjee, MD MPH  
Leslie Green, MSW LICSW  
Evan Malkiewich, LCSW  
**AMERSA 2019**



**20.3 million Americans > 12 years of age  
have a substance use disorder**

**2.0 million have a opioid use disorder**

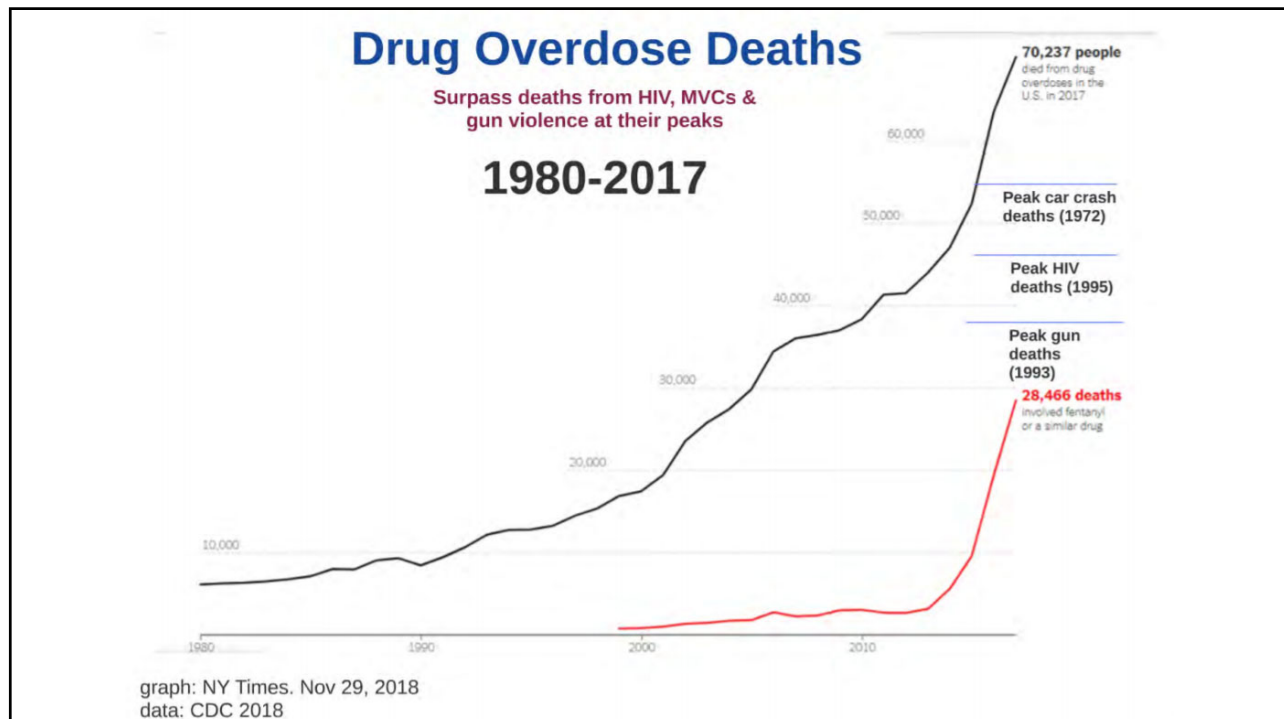
**9.9 million report non-medical use of  
pain relievers in the past year**

*NSDUH, 2018*

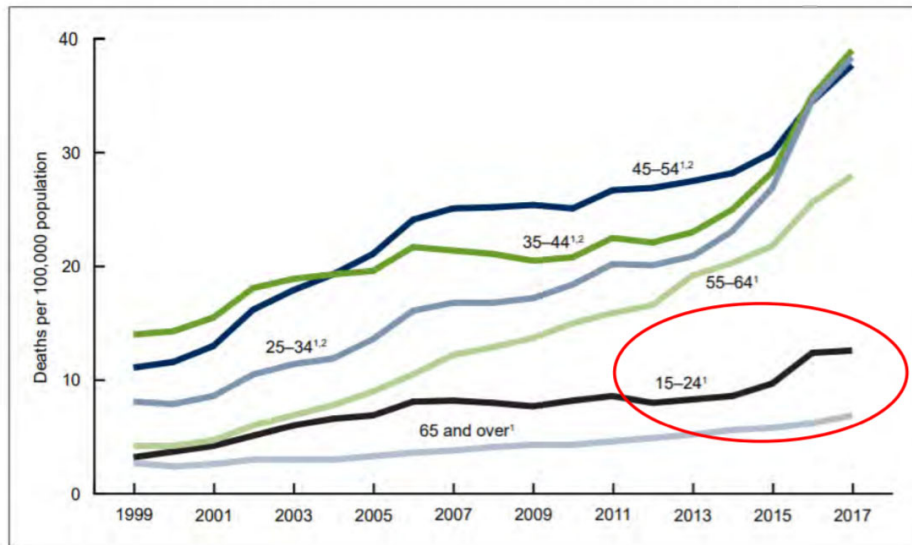
More than  
**249,000,000**

prescriptions for opioids were written in 2013 –  
enough for every adult in America to have a bottle of  
pills

Turnthetiderx.org

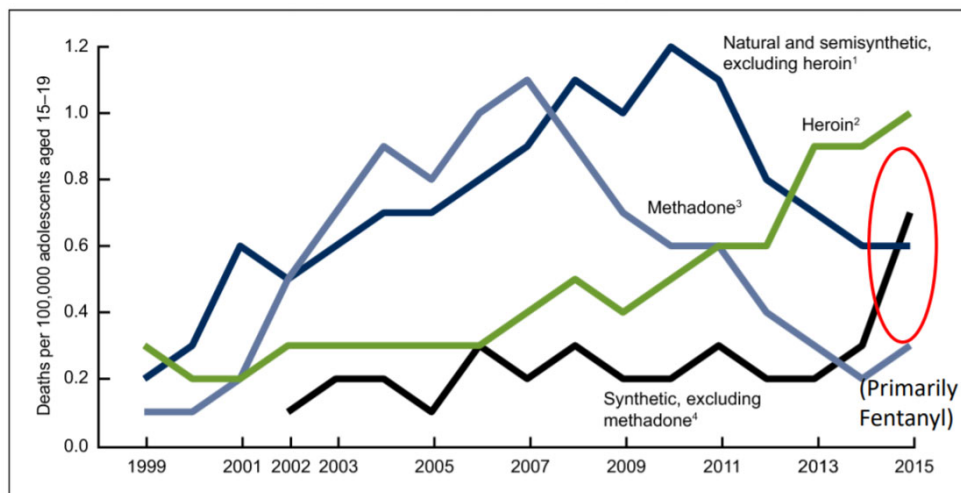


## Drug overdose deaths in the US (1999-2017)



Hedegaard H, Miniño AM, Warner M. Drug overdose deaths in the United States, 1999–2017. NCHS Data Brief, no 329. Hyattsville, MD: National Center for Health Statistics. 2018.

## Opioid overdose deaths among adolescents 15-19 years, 1999-2015



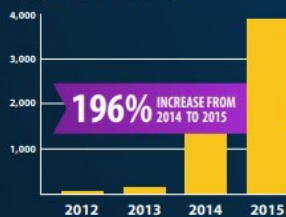
NCHS, National Vital Statistics System, Mortality, 2017.

## FENTANYL: Overdoses On The Rise

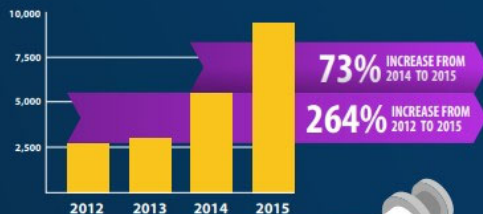
Fentanyl is a synthetic opioid approved for treating severe pain, such as advanced cancer pain. Illicitly manufactured fentanyl is the main driver of recent increases in synthetic opioid deaths.



Ohio Drug Submissions Testing Positive for Illicitly Manufactured Fentanyl

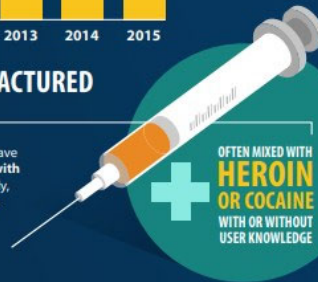


### SYNTHETIC OPIOID DEATHS ACROSS THE U.S.



### ILICITLY MANUFACTURED FENTANYL

Although prescription rates have fallen, overdoses associated with fentanyl have risen dramatically, contributing to a sharp spike in synthetic opioid deaths.

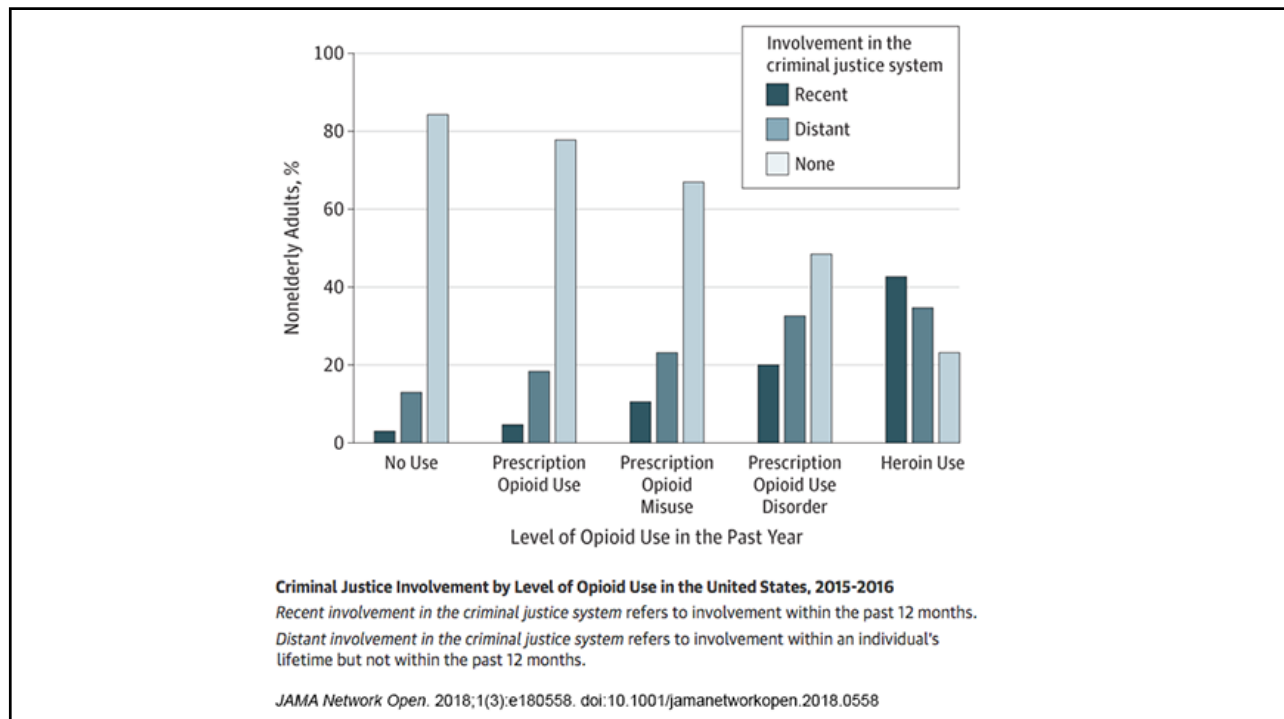
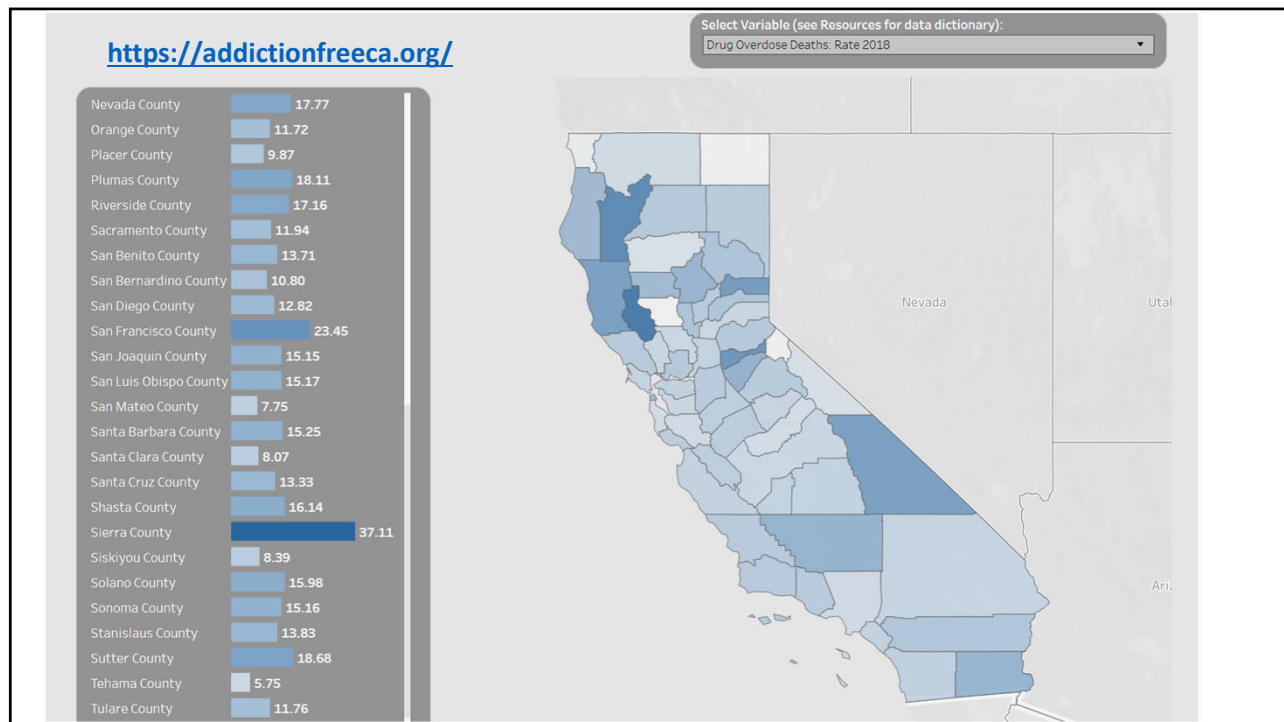


Source: CDC

**Every day, more than 130 people in the U.S. die after overdosing on opioids.**

CDC, 2018 Data





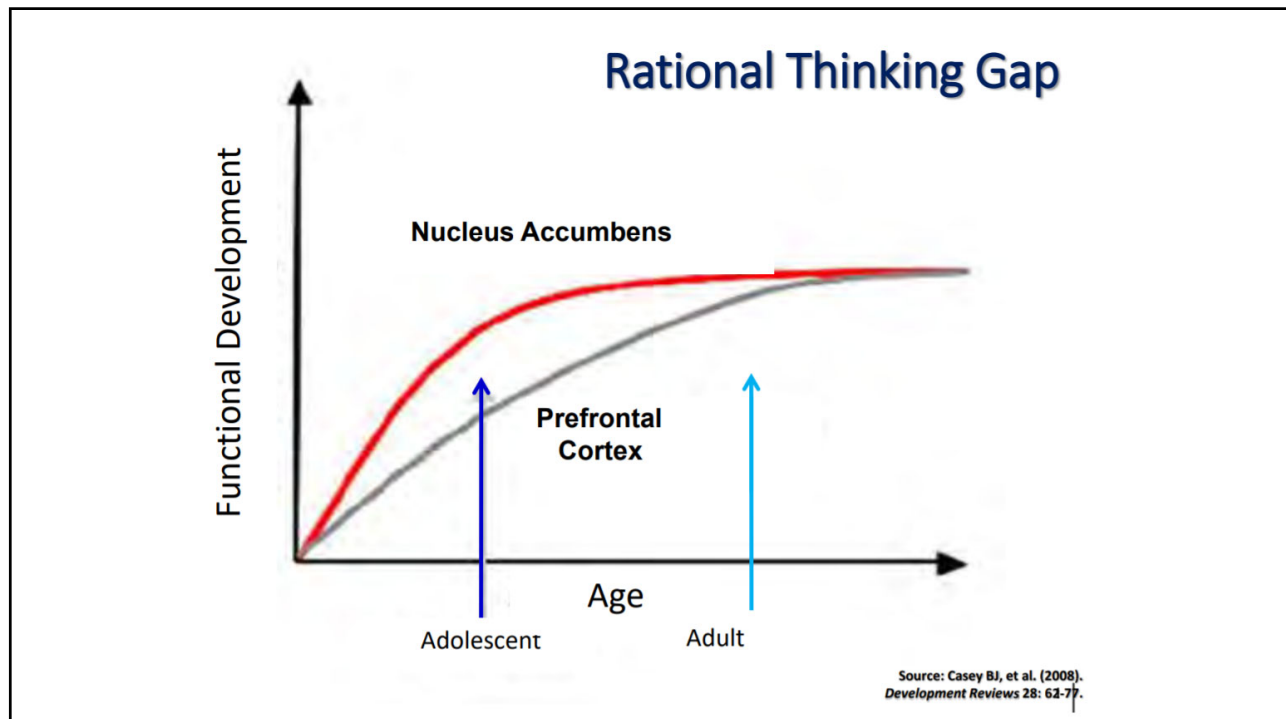
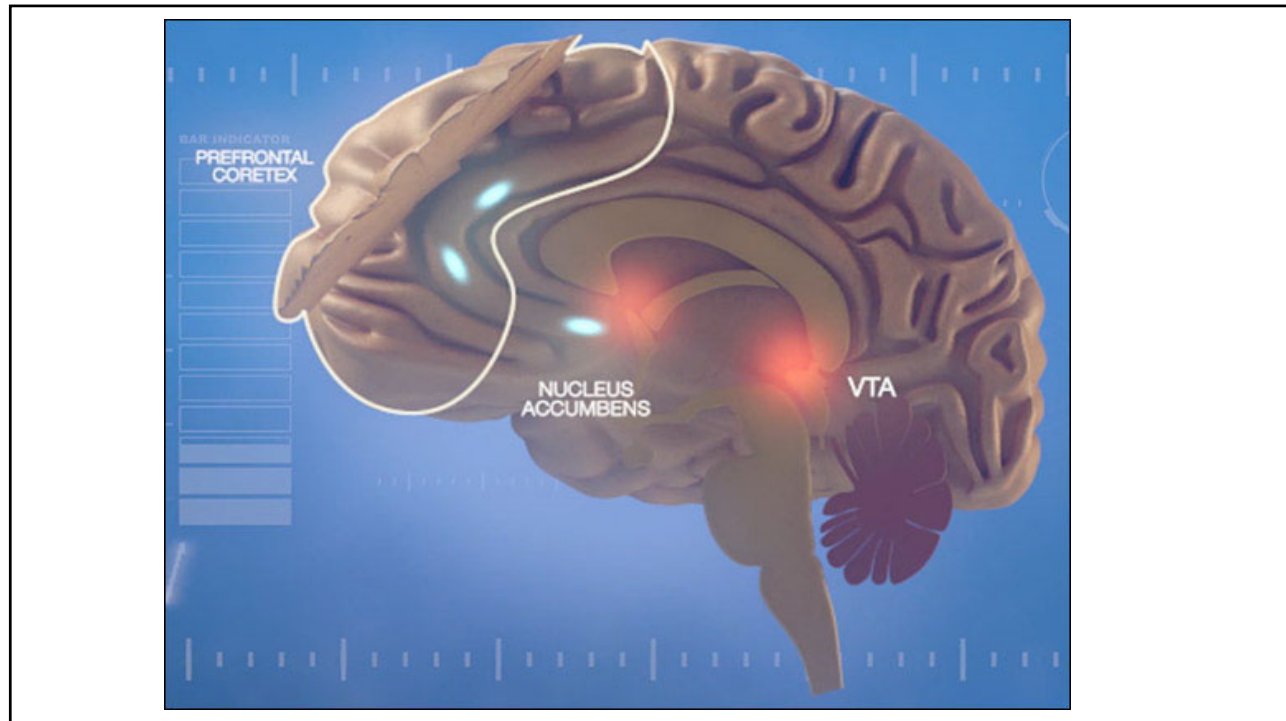
## Agenda

- Problem: Opioid Crisis
- Neurobiology
- Addiction is more than a brain disease....
- Solutions: MOUD methadone, buprenorphine, naltrexone
- Treatment availability

## Acronyms

- MAT – medication-assisted therapy
- MOUD – medications for opioid use disorder
- OAT – opioid agonist treatment
- MMT – methadone maintenance therapy
- NTP – narcotics treatment program
- OTP – opioid treatment program

Addiction – a chronic, relapsing brain disease that is characterized by **compulsive** drug seeking and **use, despite harmful** consequences

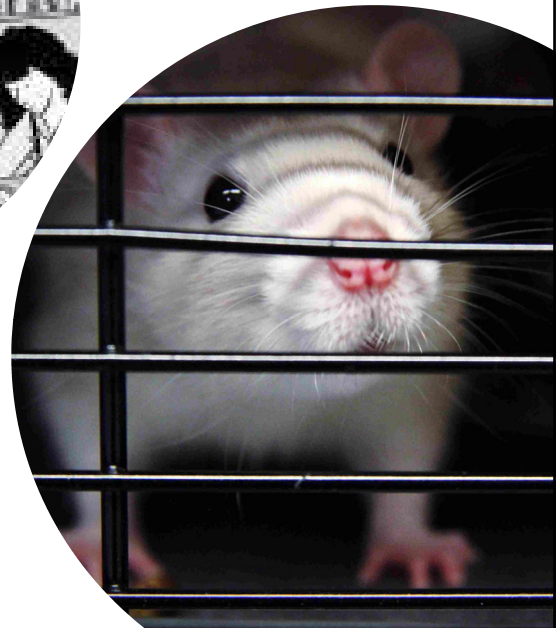
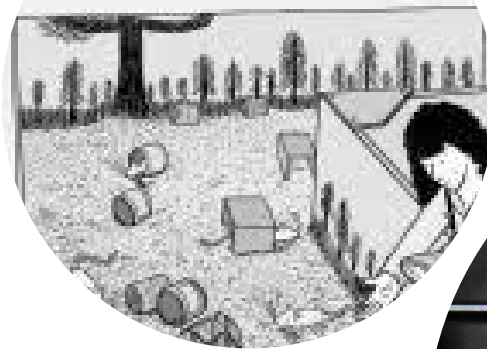




## Developmental Considerations

- Higher rates of polysubstance use
- Tendency to not disclose or minimize withdrawal symptoms
- Reduced tendency to seek treatment
  - Perception that they may face fewer consequences
  - Drug use among their peers
  - Normalization of drug use
- Lack of maturity needed for recognizing substance use as a problem

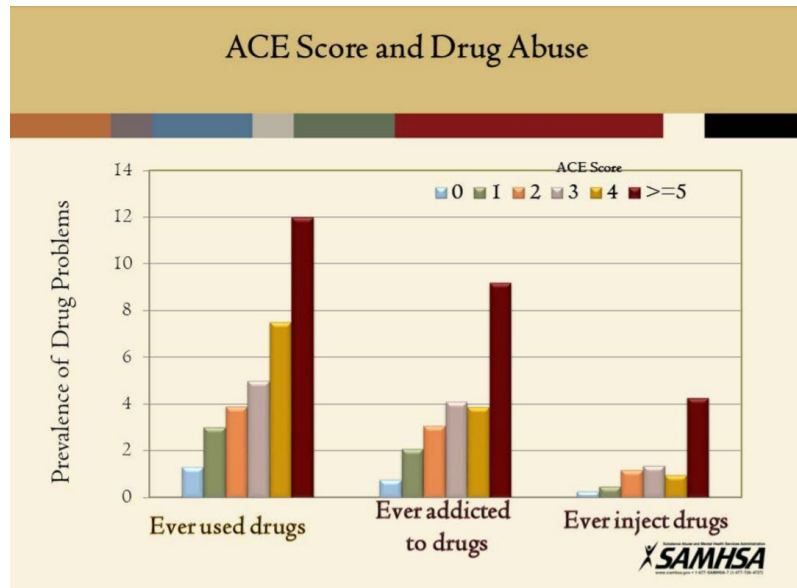
Source: Hering, et al. Treatment of Opioid Use Disorder for Youth,  
British Columbia Centre on Substance Use, 2018



Rat Park

## Adverse Childhood Experiences Study

- ACE score association with adult addiction
- 4 or more result in multiple risk factors for chronic diseases or diseases themselves
- 6 or more results in a **20-year decrease** in life expectancy



## If Addiction Is a Disease, Why Is Relapsing a Crime?



May 29, 2018  
New York Times  
Nytimes.com

THE NEW ENGLAND JOURNAL OF MEDICINE

## SPECIAL ARTICLE

## Release from Prison — A High Risk of Death for Former Inmates

Ingrid A. Binswanger, M.D., Marc F. Stern, M.D., Richard A. Deyo, M.D.,  
Patrick J. Heagerty, Ph.D., Allen Cheadle, Ph.D., Joann G. Elmore, M.D.,  
and Thomas D. Koepsell, M.D.

## ABSTRACT

## BACKGROUND

The U.S. population of former prison inmates is large and growing. The period immediately after release may be challenging for former inmates and may involve substantial health risks. We studied the risk of death among former inmates soon after their release from Washington State prisons.

## METHODS

We conducted a retrospective cohort study of all inmates released from the Washington State Department of Corrections from July 1999 through December 2003. Prison records were linked to the National Death Index. Data for comparison with Washington State residents were obtained from the Wide-ranging OnLine Data for Epidemiologic Research system of the Centers for Disease Control and Prevention. Mortality rates among former inmates were compared with those among other state residents with the use of indirect standardization and adjustment for age, sex, and race.

## RESULTS

Of 30,237 released inmates, 443 died during a mean follow-up period of 1.9 years. The overall mortality rate was 777 deaths per 100,000 person-years. The adjusted risk of death among former inmates was 3.5 times that among other state residents (95% confidence interval [CI], 3.2 to 3.8). During the first 2 weeks after release, the risk of death among former inmates was 12.7 (95% CI, 9.2 to 17.4) times that among other state residents, with a markedly elevated relative risk of death from drug overdose (129; 95% CI, 89 to 186). The leading causes of death among former inmates were drug overdose, cardiovascular disease, homicide, and suicide.

## CONCLUSIONS

Former prison inmates were at high risk for death after release from prison, particularly during the first 2 weeks. Interventions are necessary to reduce the risk of death after release from prison.

From the Puget Sound Veterans Affairs Medical Center, Seattle (I.A.B., T.D.K.); the Departments of Medicine (I.A.B., R.A.D., J.G.E.), Health Services (I.A.B., R.A.D., A.C., T.D.K.), Biostatistics (P.J.H.), and Epidemiology (J.G.E., T.D.K.), University of Washington, Seattle; the Department of Medicine, University of Colorado at Denver and the Health Sciences Center, Denver (I.A.B.); and the Washington State Department of Corrections, Olympia (M.F.S.). Address reprint requests to Dr. Binswanger at the Department of Medicine, Division of General Internal Medicine, University of Colorado at Denver and the Health Sciences Center, 4200 E. Ninth Ave., 8180, Denver, CO 80262, or at [ingrid.binswanger@uchsc.edu](mailto:ingrid.binswanger@uchsc.edu).

N Engl J Med 2007;356:157-65.  
Copyright © 2007 Massachusetts Medical Society.

## RESULTS

Of 30,237 released inmates, 443 died during a mean follow-up period of 1.9 years. The overall mortality rate was 777 deaths per 100,000 person-years. The adjusted risk of death among former inmates was 3.5 times that among other state residents (95% confidence interval [CI], 3.2 to 3.8). During the first 2 weeks after release, the risk of death among former inmates was 12.7 (95% CI, 9.2 to 17.4) times that among other state residents, with a markedly elevated relative risk of death from drug overdose (129; 95% CI, 89 to 186). The leading causes of death among former inmates were drug overdose, cardiovascular disease, homicide, and suicide.

**We Know...**

## **Treatment Works**

### **Key Principles of Youth OUD Treatment**

1. Early intervention
2. Recovery-oriented care
3. Multiple approaches of varying intensity
4. Full range of treatments should be offered (including medication)
5. Individually tailored treatment approaches
6. Psychosocial treatment interventions (involving families when possible)
7. Continuity of care between care settings (age-related)
8. Address co-occurring/concurrent disorders
9. Harm reduction

Source: Hering, et al. Treatment of Opioid Use Disorder for Youth,  
British Columbia Centre on Substance Use, 2018

# Medications to Treat Opioid Use Disorder

## Goals

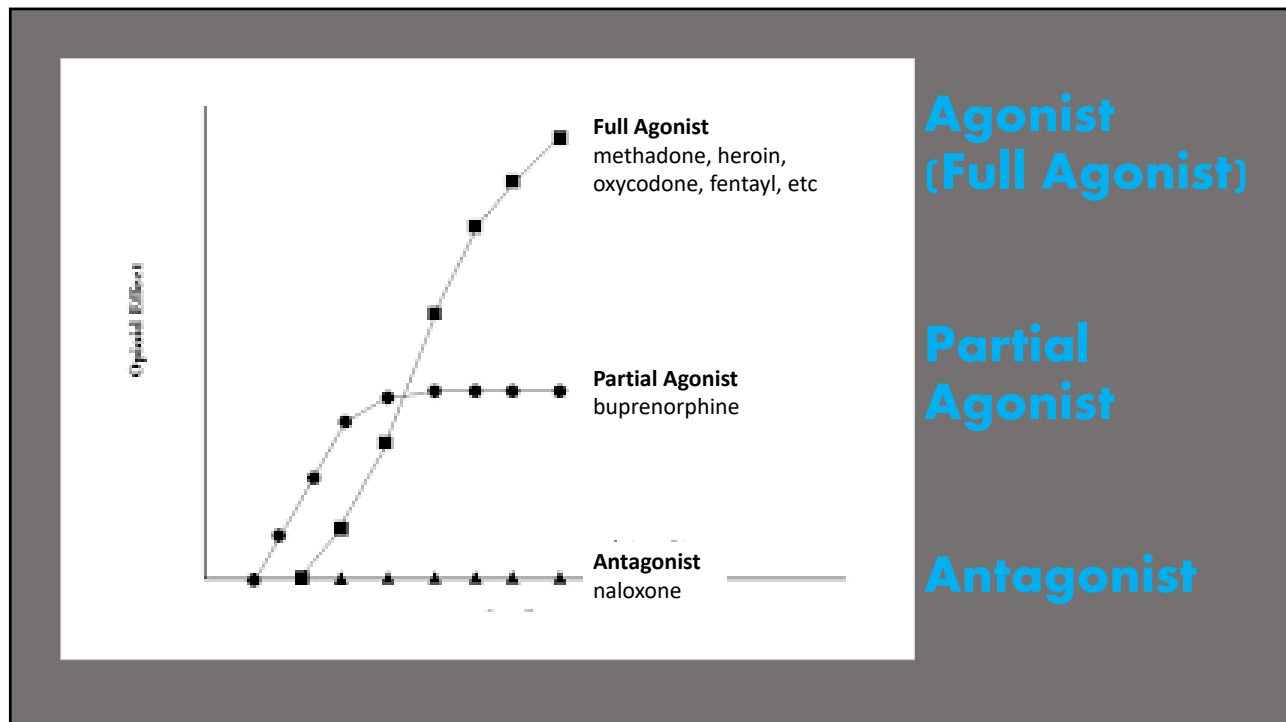
- Alleviate signs/symptoms of physical withdrawal
- Opioid receptor blockade
- Diminish drug craving
- Normalize and stabilize perturbed brain neurochemistry

## Options

- **Opioid Antagonist**
  - **Naltrexone** (full opioid antagonist)
- **Opioid Agonist**
  - **Methadone** (full opioid agonist)
  - **Buprenorphine** (partial opioid agonist)


Characteristics of Medications for Opioid-Addiction Treatment.			
Characteristic	Methadone	Buprenorphine	Naltrexone
Brand names	Dolophine, Methadose	Subutex, Suboxone, Zubsolv	Depade, ReVia, Vivitrol
Class	Agonist (fully activates opioid receptors)	Partial agonist (activates opioid receptors but produces a diminished response even with full occupancy)	Antagonist (blocks the opioid receptors and interferes with the rewarding and analgesic effects of opioids)
Dose and effects	Taken once per day orally to reduce opioid cravings and withdrawal symptoms	Taken orally or sublingually (usually once a day) to relieve opioid cravings and withdrawal symptoms	Taken orally or by injection to diminish the reinforcing effects of opioids (potentially extinguishing the association between conditioned stimuli and opioid use)
Advantages	High strength and efficacy as long as oral dosing (which slows brain uptake and reduces euphoria) is adhered to; excellent option for patients who have no response to other medications	Eligible to be prescribed by certified physicians, which eliminates the need to visit specialized treatment clinics and thus widens availability	Not addictive or sedating and does not result in physical dependence; a recently approved depot injection formulation, Vivitrol, eliminates need for daily dosing
Disadvantages	Mostly available through approved outpatient treatment programs, which patients must visit daily	Subutex has measurable abuse liability; Suboxone diminishes this risk by including naloxone, an antagonist that induces withdrawal if the drug is injected	Poor patient compliance (but Vivitrol should improve compliance); initiation requires attaining prolonged (e.g., 7-day) abstinence, during which withdrawal, relapse, and early dropout may occur





# Evidence



RESEARCH



**Cochrane Library**  
Cochrane Database of Systematic Reviews

**Methadone & Buprenorphine  
equally effective**

31 trials, 5430 participants

**Opioid use**

**Retention in treatment**

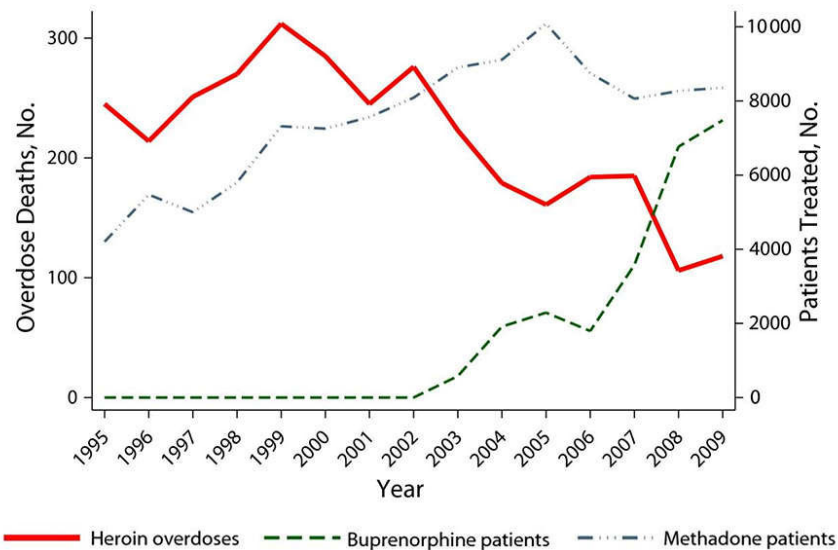
"Present evidence suggests that adding psychosocial support does not change the effectiveness of retention in treatment and opioid use during treatment."

Mattick et al., 2014

Amato et al., 2011

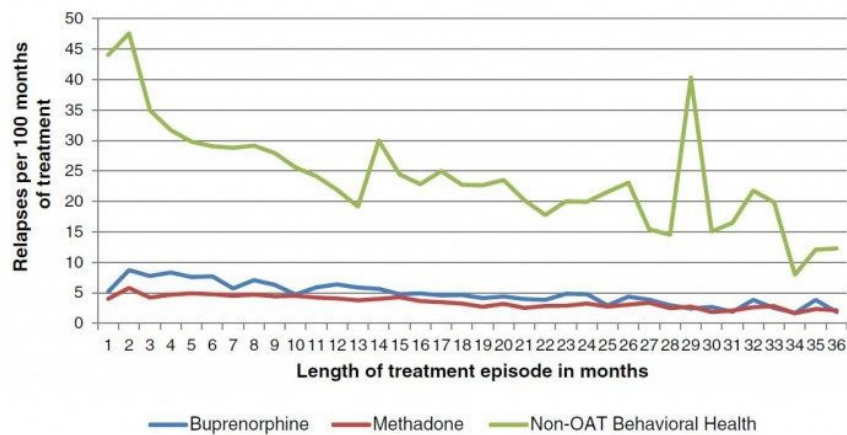


## MAT REDUCES HEROIN OD DEATHS



National Institute on Drug Abuse. 2010

<https://www.drugabuse.gov/publications/effective-treatments-opioid-addiction/effective-treatments-opioid-addiction>



**Fig. 1.** Relapses during treatment among MassHealth members who received treatment for opioid addiction between 2003 and 2010<sup>1</sup>. <sup>1</sup> N = 18,866 episodes of buprenorphine treatment, 24,309 episodes of methadone treatment and 31,220 episodes of non-OAT behavioral health treatment in month 1. 33% of buprenorphine episodes, 52% of methadone episodes, and 12% of non-OAT treatment episodes lasted 12 months or more. 13% of buprenorphine treatment episodes, 27% of methadone episodes, and 1% of non-OAT treatment episodes lasted 24 months or longer.

<https://www.recoveryanswers.org/research-post/buprenorphine-methadone-treatment-among-medicaid-members-reducing-relapse-health-care-costs/>

## Research Letter

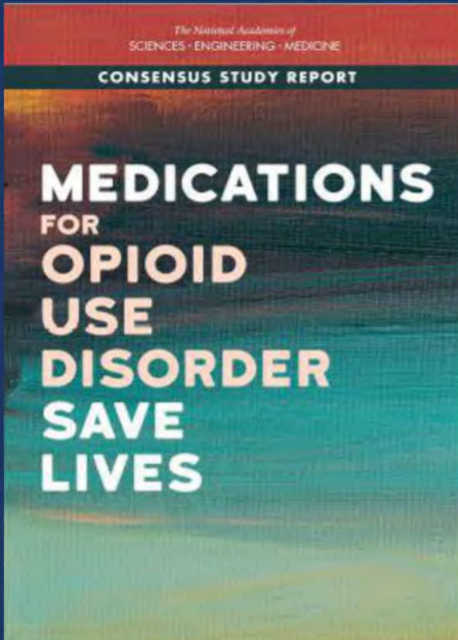
FREE

April 2018

# Postincarceration Fatal Overdoses After Implementing Medications for Addiction Treatment in a Statewide Correctional System

Traci C. Green, PhD, MSc<sup>1,2,3,4</sup>; Jennifer Clarke, MD<sup>3,5,6</sup>; Lauren Brinkley-Rubinstein, PhD<sup>7</sup>; [et al](#)

[» Author Affiliations](#) | [Article Information](#)

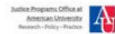


The cover of the report features a dark blue background with a textured, painterly effect. The title 'MEDICATIONS FOR OPIOID USE DISORDER SAVE LIVES' is prominently displayed in white and yellow text. Above the title, it says 'The National Academies of SCIENCES • ENGINEERING • MEDICINE' and 'CONSENSUS STUDY REPORT'.

- ✓ OUD is a treatable chronic brain disease
- ✓ FDA-approved medications to treat OUD are effective and save lives
- ✓ Long-term retention on MOUD is associated with improved outcomes
- ✓ A lack of availability of behavioral interventions is not justification to withhold MOUD
- ✓ Most people who could benefit from MOUD do not receive it, and access is inequitable
- ✓ Withholding or failing to have available all classes of FDA-approved MOUD in any care or justice setting is denying appropriate medical treatment
- ✓ Confronting the major barriers to use of MOUD is critical to addressing the opioid crisis

Sponsors: National Institute on Drug Abuse (NIDA)  
Substance Abuse and Mental Health Services Administration (SAMHSA)

## MOUD Policy Statements



Joint Public Correctional  
Policy was unanimously  
ratified by the American  
Correctional Association  
Delegate Assembly at the  
2018 Winter Conference in  
Orlando, FL. on  
Jan. 9, 2018



### JOINT PUBLIC CORRECTIONAL POLICY ON THE TREATMENT OF OPIOID USE DISORDERS FOR JUSTICE INVOLVED INDIVIDUALS

2018-2

#### Introduction:

Seventeen to nineteen percent of individuals in America's jail and state prison systems have regularly used heroin or opioids prior to incarceration.<sup>i</sup> While release from jail and prison is associated with a dramatic increase in death from opioid overdose among those with untreated opioid use disorder (OUD), there are considerable data to show that treatment with opioid agonists and partial agonists reduce deaths and improves outcomes for those with opioid use disorders.<sup>ii,iii</sup> Preliminary data suggest that treatment with an opioid antagonist also reduces overdose.<sup>iv</sup> As a result, the 2017 bipartisan Presidential Commission on "Combating Drug Addiction and the Opioid Crisis" has recommended increased usage of medications for addiction treatment (MAT) in correctional settings.<sup>v</sup>

## RESEARCH ARTICLE

## BEHAVIORAL HEALTH CARE

HEALTH AFFAIRS &gt; VOL. 36, NO. 12 : BEHAVIORAL HEALTH, PROVIDER PAYMENT &amp; MORE

## Only One In Twenty Justice-Referred Adults In Specialty Treatment For Opioid Use Receive Methadone Or Buprenorphine

Noa Krawczyk, Caroline E. Picher, Kenneth A. Feder, and Brendan Saloner

AFFILIATIONS ▾

PUBLISHED: DECEMBER 2017 No Access

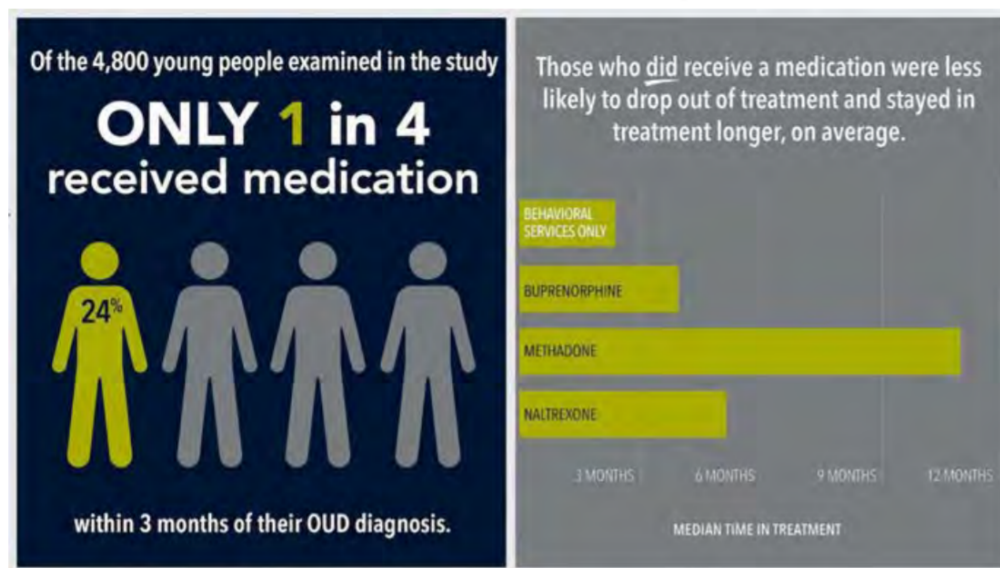
<https://doi.org/10.1377/hlthaff.2017.0890>

🔒 PERMISSIONS

↩ SHARE

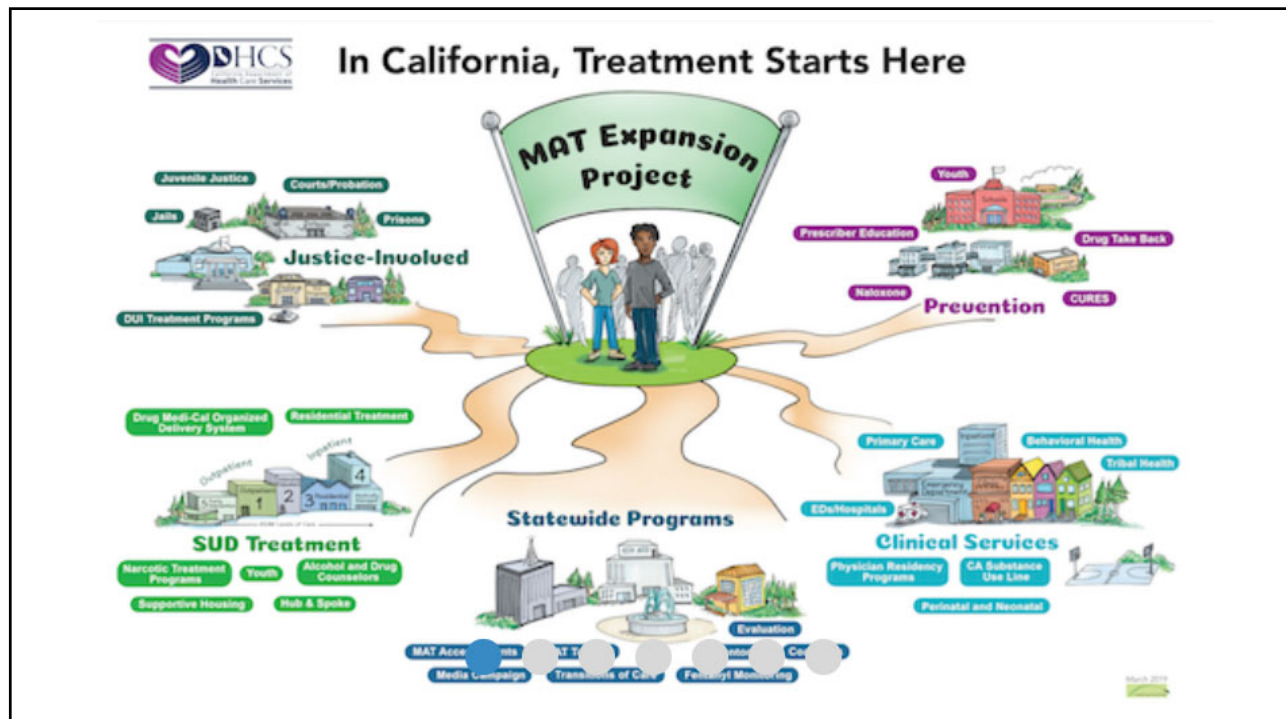
🔧 TOOLS

### Treatment barriers: youth



Source: Hadland et al. Receipt of Timely Addiction Treatment and Association of Early Medication Treatment With Retention in Care Among Youths With Opioid Use Disorder, JAMA Pediatrics, 2018





## References

- <https://crimlawandpolicy.wordpress.com/2019/05/23/the-dangers-of-repressed-trauma-marios-story-of-overcoming-adverse-childhood-experiences/>
- Casey, 2008. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2500212/>
- Hering, 2018. <https://www.bccsu.ca/wp-content/uploads/2018/06/OD-Youth.pdf>
- <https://www.>
- National Institute on Drug Abuse, California Opioid Summary. March 2019 updated. <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-summaries-by-state/california-opioid-summaryclaytonbehavioral.com/the-overdose-epidemic>
- <https://www.recoveryanswers.org/research-post/buprenorphine-methadone-treatment-among-medicaid-members-reducing-relapse-health-care-costs/>
- <https://www.drugabuse.gov/publications/effective-treatments-opioid-addiction/effective-treatments-opioid-addiction>
- Sordo, 2017. <https://www.bmj.com/content/bmj/357/bmj.j1550.full.pdf>
- Mattick, 2014. <https://www.ncbi.nlm.nih.gov/pubmed/24500948>
- Clark, 2015. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4560989/>
- Opioid Overdose Data Analysis and Resources. CDC 2019. <https://www.cdc.gov/drugoverdose/data/analysis.html>



## Re-entry Intake Form

Today's Date:		Last location of incarceration (circle):		Jail	Prison
Name (Last, First):		Approximate date of most recent release:		/	/
DOB:		While in custody, were you seen regularly by a custody health doctor?		Y	N
MRN:		Do you have a regular medical doctor in the community?		Y	N

Supervision Status: (circle which apply)	AB109/PRCS	1170(h) MS	CASU	State Parole	Probation	Pre-Trial	Other _____
---	------------	---------------	------	-----------------	-----------	-----------	-------------

Living Situation: (circle which apply)	Your own home or apartment	Homeless	Friends	Family	Rehab/THU	Shelter	Automobile	Streets
---	-------------------------------	----------	---------	--------	-----------	---------	------------	---------

In general, I feel that my health is:	Very good	Good	Poor	Very Poor
---------------------------------------	-----------	------	------	-----------

How many different prescribed medications do you take on a daily basis?	0	1	2	3	>3
---	---	---	---	---	----

## Re-entry form (cont)

Do you have any of the chronic medical diseases listed below (check all that apply):							
<input type="checkbox"/> Asthma/COPD	<input type="checkbox"/> High blood pressure	<input type="checkbox"/> High Cholesterol	<input type="checkbox"/> Diabetes				
<input type="checkbox"/> Depression	<input type="checkbox"/> Anxiety	<input type="checkbox"/> Bipolar	<input type="checkbox"/> Schizophrenia				
<input type="checkbox"/> Post-traumatic stress disorder (PTSD)	<input type="checkbox"/> Chronic pain requiring daily medication	<input type="checkbox"/> Hepatitis C	<input type="checkbox"/> HIV/AIDS				

Have you been bothered recently by any of the following symptoms?								
Breathing Problems	Yes	No	Anxiety	Yes	No	Depression	Yes	No
Sleep Problems	Yes	No	Issues with Anger	Yes	No	Vision Problems	Yes	No

	Substance Use History							
	Cocaine		Heroin		Methamphetamine		Excessive alcohol	
Ever used? (circle all that apply)	Yes	No	Yes	No	Yes	No	Yes	No
Use in last year?	Yes	No	Yes	No	Yes	No	Yes	No

Have you been to the <b>emergency room</b> of a hospital since your most recent release?	Yes	No
Have you been to the <b>emergency room</b> of a hospital in the last year?	Yes	No

## Summary Statistics – Approx. 1,100 Respondents

Regular Doctor Visits		Emergency Room Visits	
In Custody	In Community	Since Release	In Last Year
61.7%	18.0%	18.1%	39.6%

Self Identified Chronic Medical Diseases					
Asthma/COPD	Diabetes	Cholesterol	High Blood Press	Depression	Bipolar
14.3%	6.6%	7.6%	18.8%	43.1%	23.7%
1.5%	11.0%	18.1%	25.9%	43.8%	10.8%
HIV/AIDS	Hep C	Chron Pain	PTSD	Anxiety	Schizophrenia

Recently Bothered by the Following Systems					
Breathing	Anxiety	Depression	Sleep Issues	Anger	Vision
18.6%	52.7%	48.5%	46.6%	25.4%	35.8%

Self Identified Drug Use							
Cocaine		Heroin		Methamphetamins		Alcohol	
Ever Used	In Last Year	Ever Used	In Last Year	Ever Used	In Last Year	Ever Used	In Last Year
51.4%	12.1%	21.0%	8.6%	70.5%	44.3%	46.9%	28.2%