MASSACHUSETTS GENERAL HOSPITAL
PSYCHIATRY ACADEMY

Overview of Opioid Use Disorder

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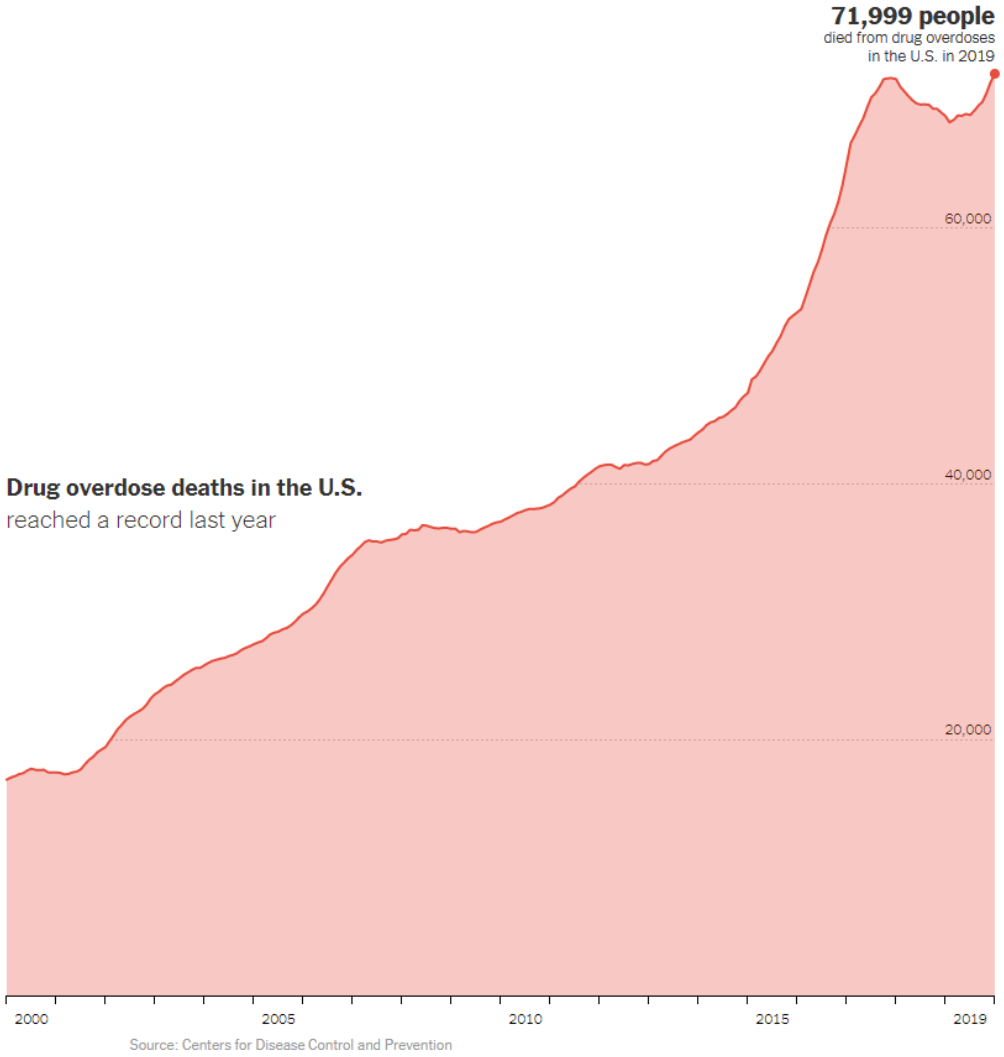
Disclosures

My spouse/partner and I have the following relevant financial relationship with a commercial interest to disclose:

UpToDate/Author

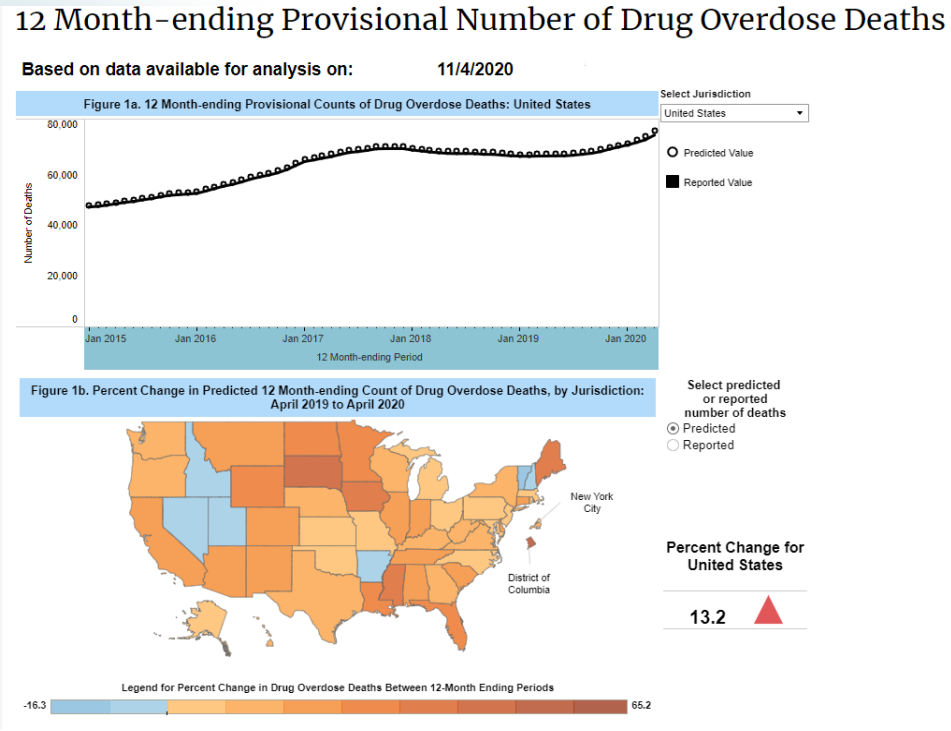
Springer/Textbook author

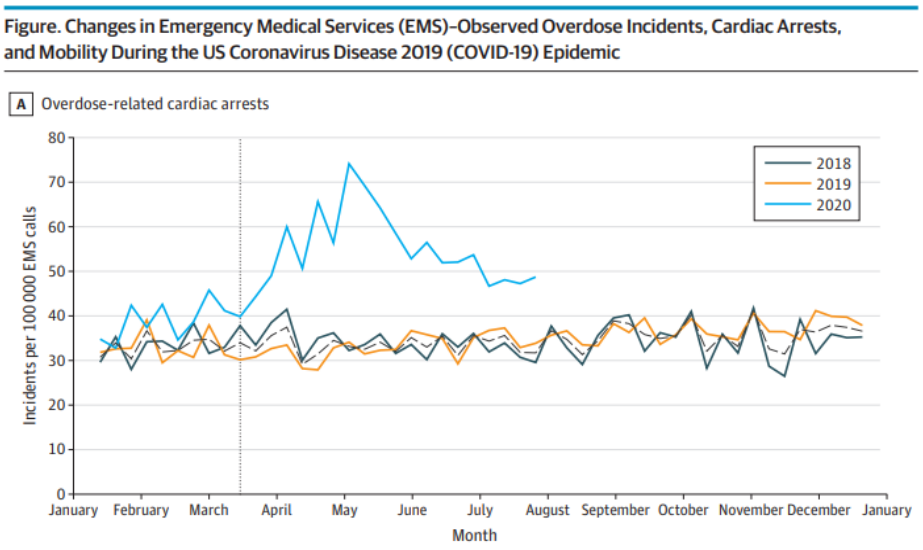
Celero systems/Scientific advisor



A Public Health Crisis Due to Inadequate Care & Treatment

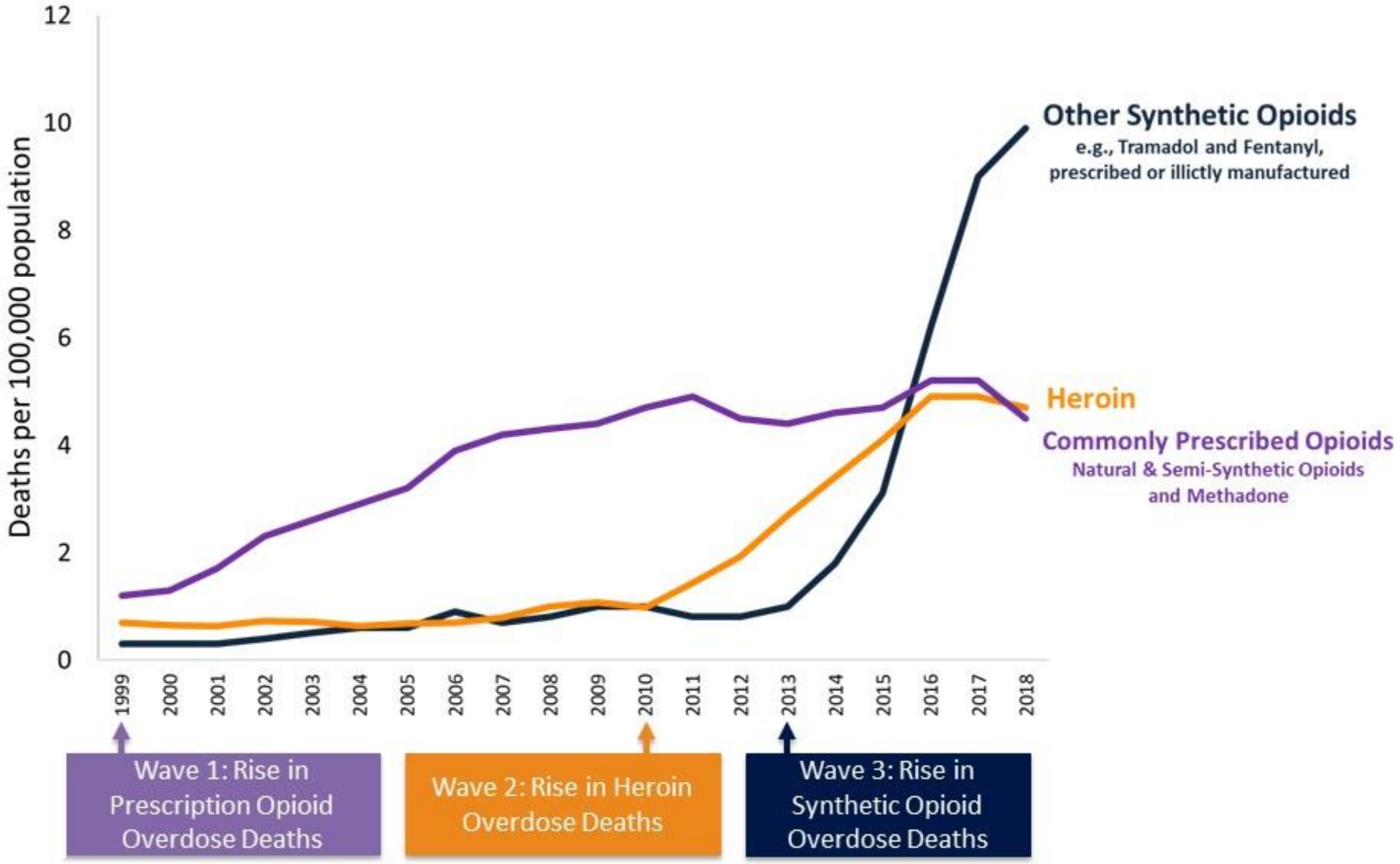
Overdose Surge Amidst COVID





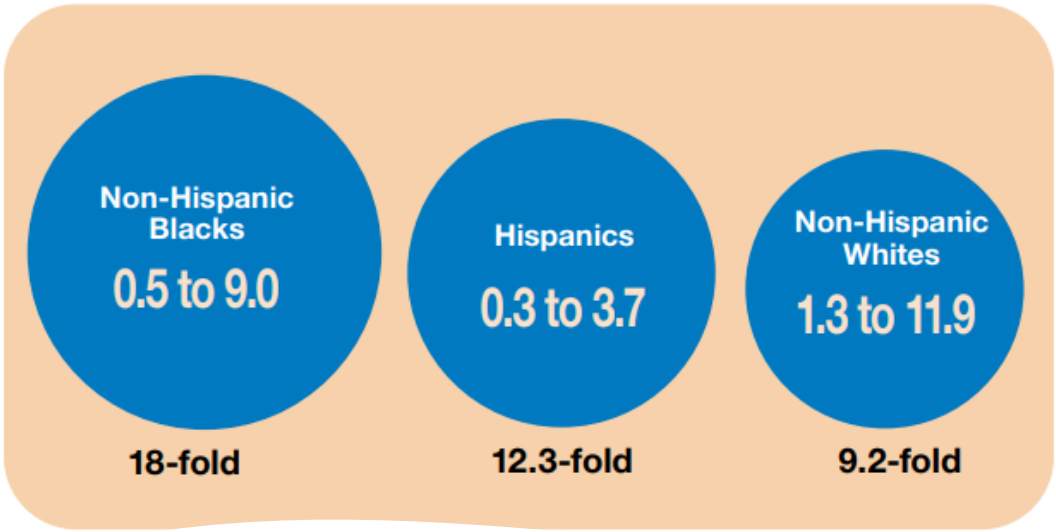
https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm
Friedman J, Beletsky L, Schriger DL. JAMA Psychiatry. 2020 Dec 3:e204218.

3 Waves of the Rise in Opioid Overdose Deaths



SOURCE: National Vital Statistics System Mortality File.

Figure 2. Magnitude of increase in drug overdose deaths involving synthetic opioids other than methadone per 100,000 population, by ethnicity, 2013-2017



Evolution of the Drug Overdose Epidemic

- Opioids involved in over two-thirds of overdose deaths
- Illicitly manufactured fentanyl driving increase, while heroin and prescription-opioid related deaths remained stable
- Rates of overdose deaths from cocaine and stimulants increasing
- Magnitude of change greatest amongst Black Americans

Scholl L, et al. MMWR Morb Mortal Wkly Rep 2019;67:1419–1427.
https://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/nhqrdr/dataspotlight-opioid.pdf

Racism & Drug Policy

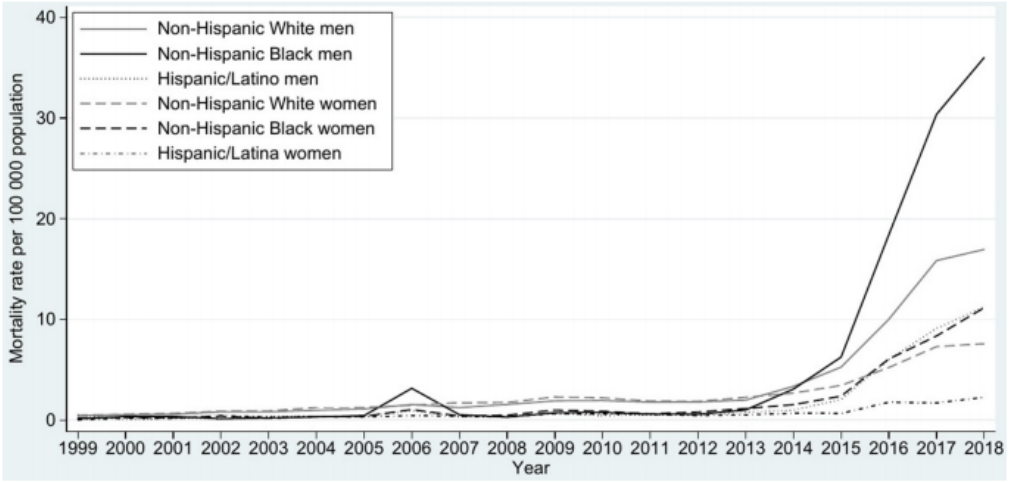
- People of color experience discrimination at every stage of the criminal legal system
- More likely to be stopped, searched, arrested, convicted, & harshly sentenced for drug law violations
- Majority of people in federal and state prison for drug offenses are Black or Latinx

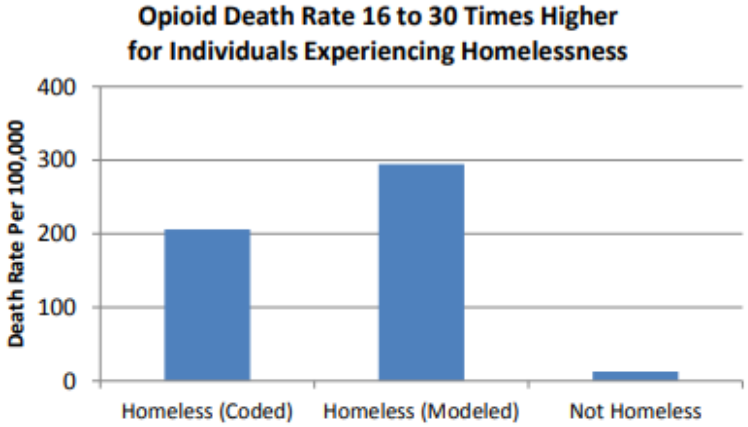
NEGRO COCAINE "FIENDS" ARE A NEW SOUTHERN MENACE

Murder and Insanity Increasing Among Lower Class Blacks Because They Have Taken to "Sniffing" Since Deprived of Whisky by Prohibition.

Overdose *Does* Discriminate

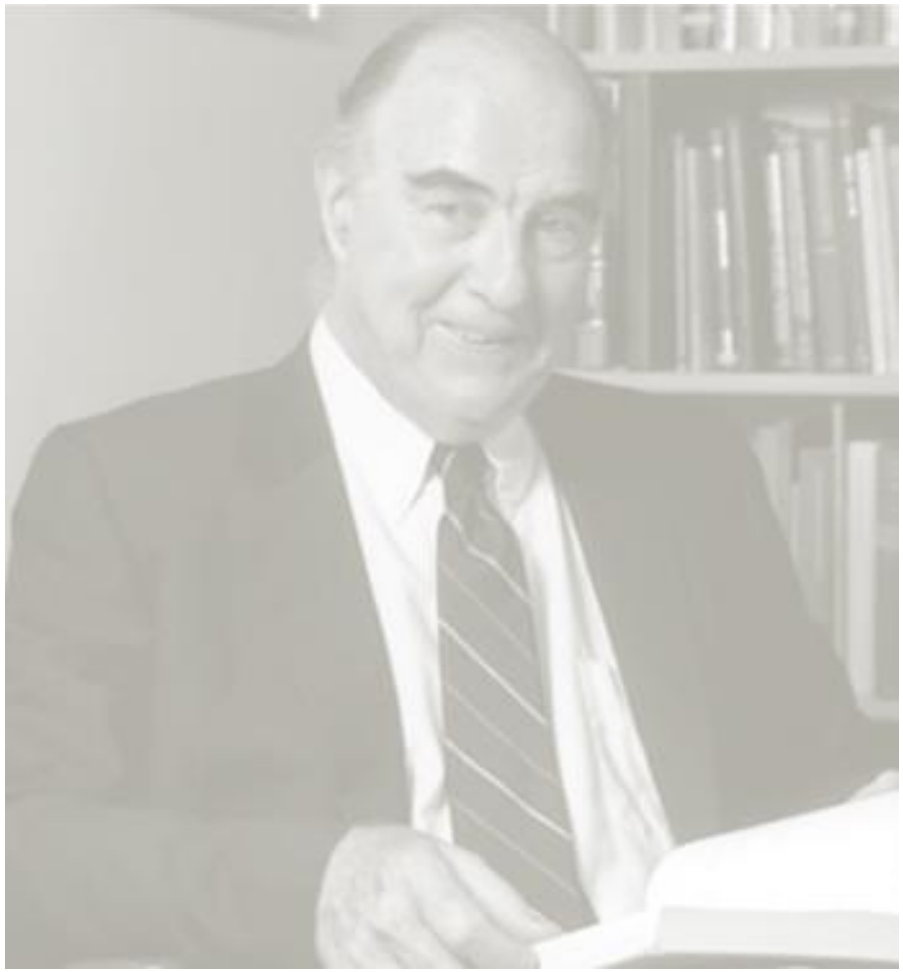
- Those at greatest risk of death often most marginalized
- People experiencing incarceration 120 x higher & unhoused 16-30 x higher rates of overdose death
- Greatest increase in fentanyl related overdose death has been among Black men





MA DPH. https://www.mass.gov/files/documents/2017/08/31/legislative-report-chapter-55-aug-2017.pdf
Hoopsick R et al. Public Health Reports 2020 Nov 19;33354920968806.

Stereotypes of Addiction Impact Practice and Policy



"For me the most educational experience of the past three decades was to learn that the traditional image of the [person with addiction as having] weak character, hedonistic, unreliable, depraved, and dangerous is totally false. This myth, believed by the majority of the medical profession and the general public, has distorted public policy for seventy years."

Dr. Dole

Dole, VP. Drug and Alcohol Review. 1994; 13: pp. 3-4.

Making a diagnosis of opioid use disorder

A problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period.

1. Opioids taken in larger amounts or over a longer period of time than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
3. A great deal of time spent in activities to obtain, use, or recover from opioids.
4. Craving, or a strong desire or urge to use opioids.
5. Recurrent opioid use resulting in a failure to fulfill major role obligations.
6. Continued opioid use despite having persistent or recurrent social or interpersonal problems.
7. Important social, occupational, or recreational activities are given up or reduced.
8. Recurrent opioid use in situations in which it is physically hazardous.
9. Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that's likely to have been caused or exacerbated by the substance.
10. Tolerance*
11. Withdrawal*

Components of effective treatment

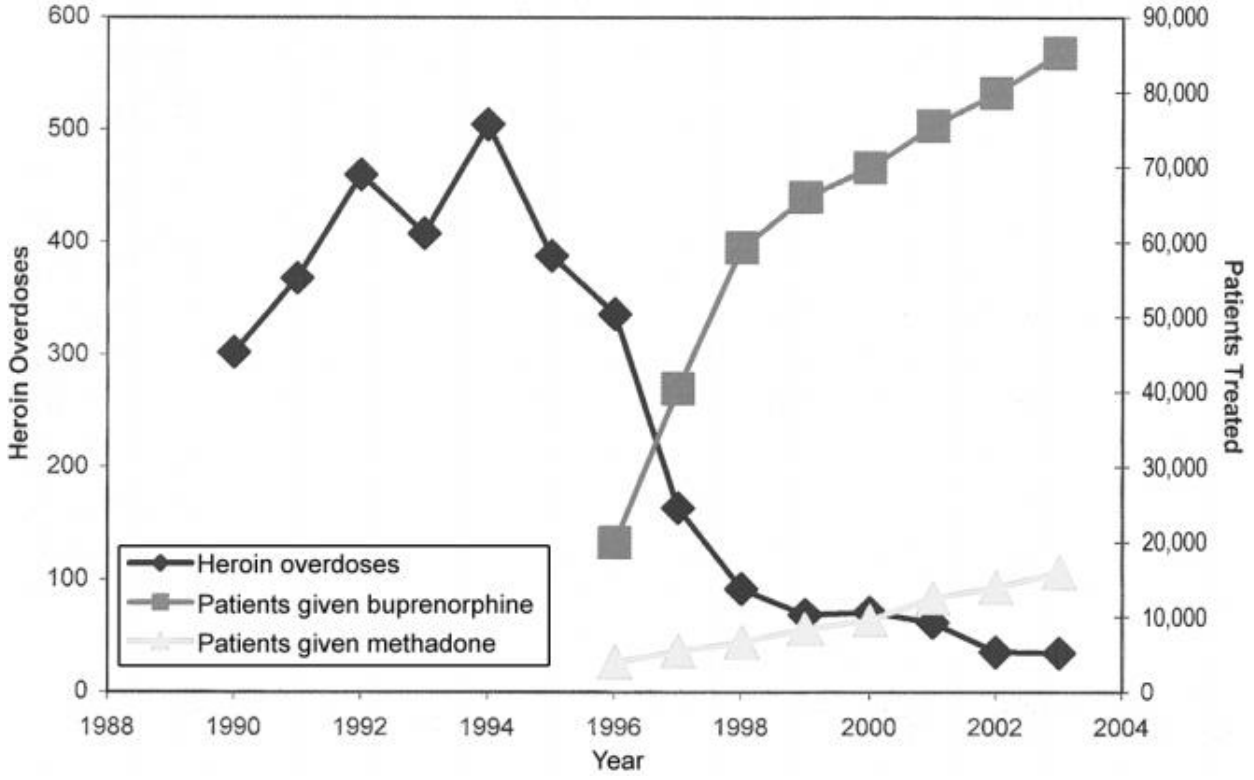
Medication

Psychosocial interventions

Recovery supports

Harm reduction

Expansion of access to opioid agonist therapy saves lives



- France expanded access to buprenorphine
- No required physician training, no patient limits, no toxicology or counseling requirements
- ~90,000 pts treated w/ buprenorphine, 10,000 w/ methadone
- 5-fold reduction in heroin overdose deaths, 6-fold reduction in active IDU, HIV prevalence among PWID decreased from 40% to 20%

Carrieri MP, Amass L, Lucas GM, Vlahov D, Wodak A, Woody GE. *Clin Infect Dis*. 2006;43 Suppl 4:S197–S215. doi:10.1086/508184

Methadone and buprenorphine reduce mortality

All cause **mortality rates (per 1000 person years):**

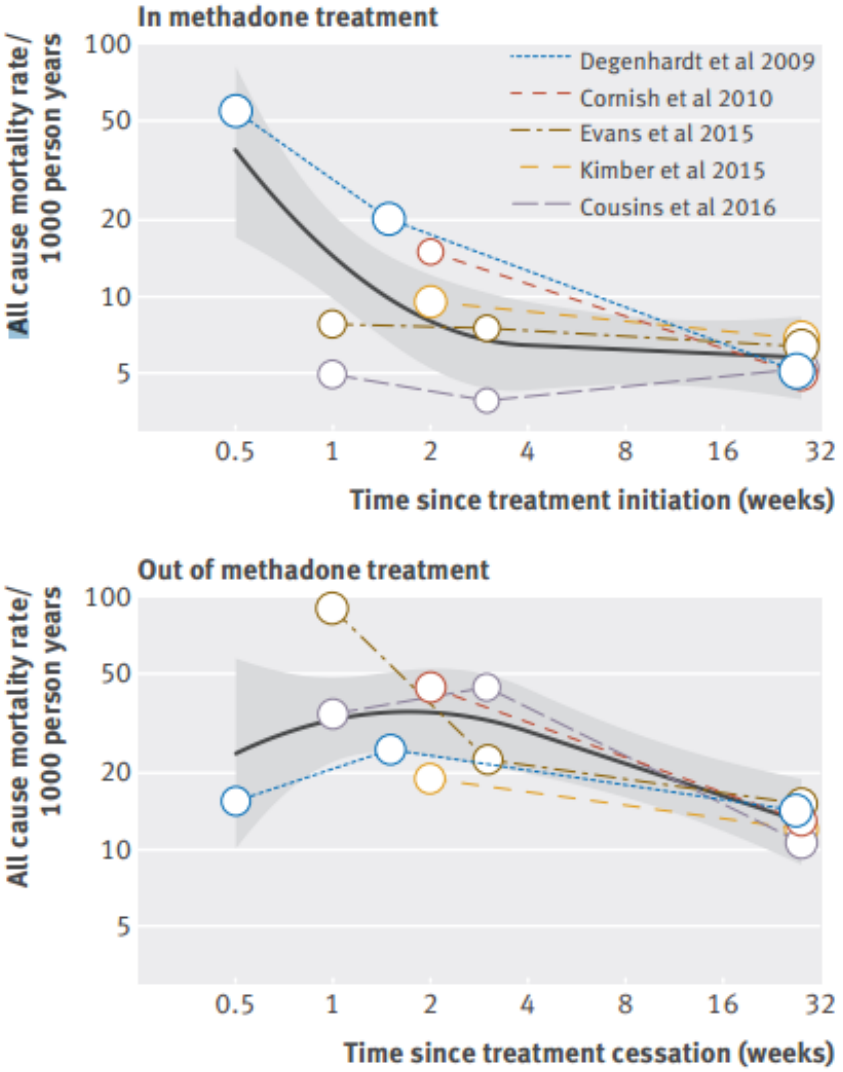
- In methadone treatment: 11.3
- Out of methadone treatment: 36.1

- In buprenorphine treatment: 4.3
- Out of buprenorphine treatment: 9.5

Overdose **mortality rates:**

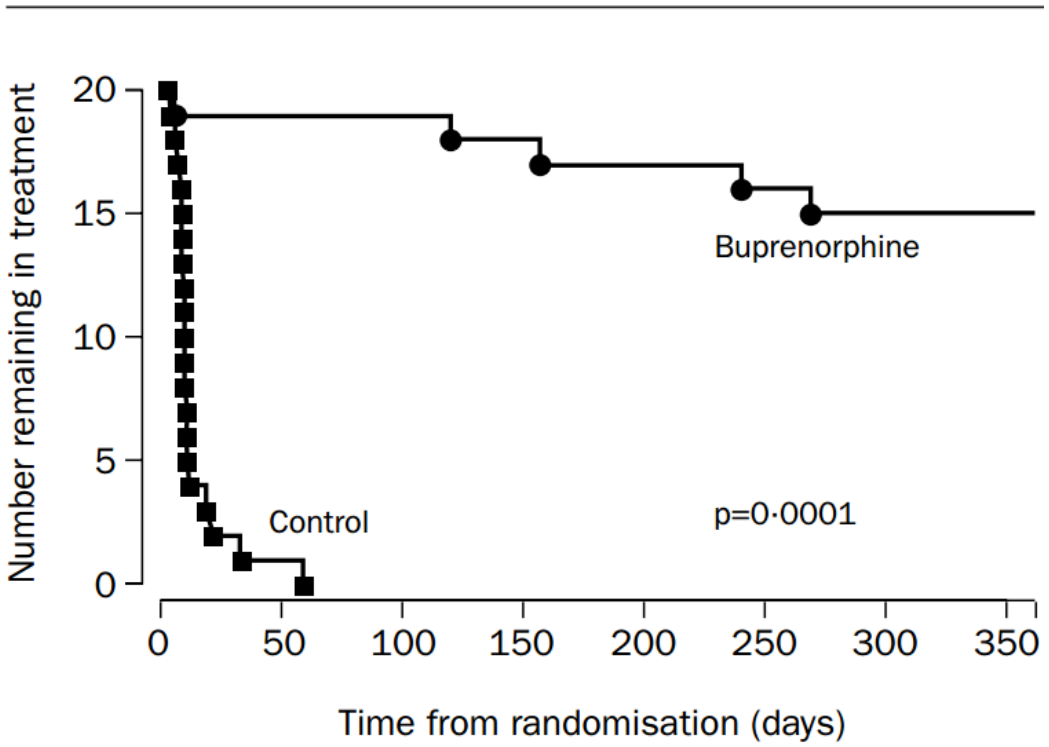
- In methadone treatment: 2.6
- Out of methadone treatment: 12.7

- In buprenorphine treatment: 1.4
- Out of buprenorphine treatment: 4.6



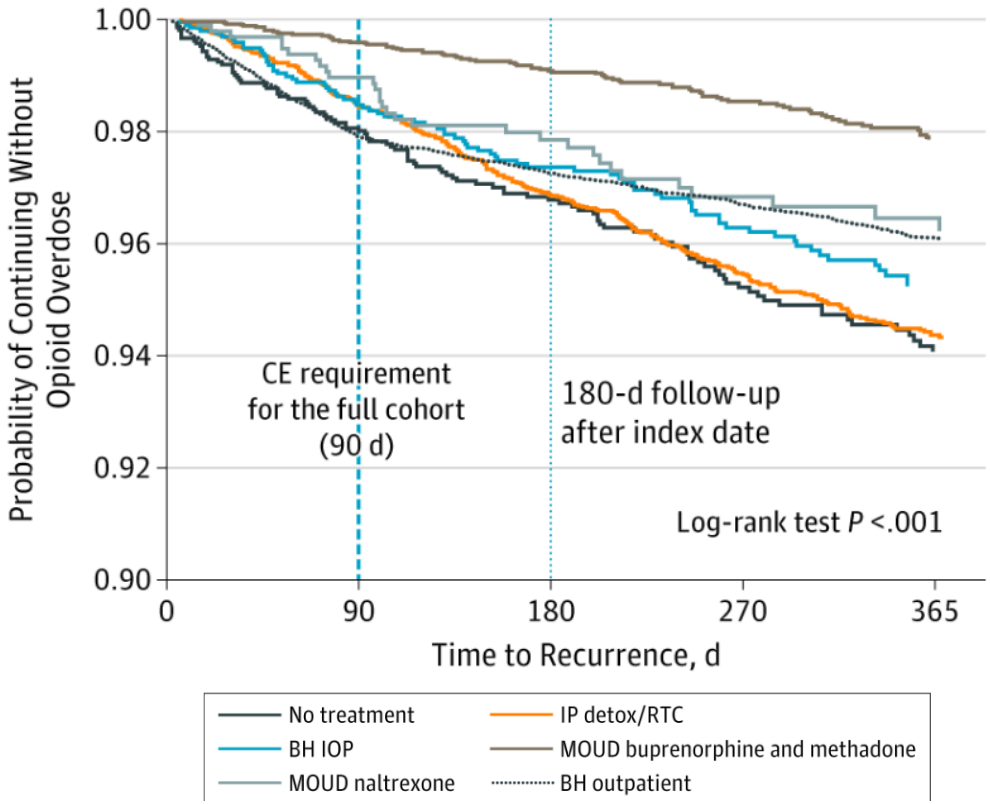
Sordo L, Barrio G, Bravo MJ, et al. *BMJ*. 2017;357:j1550. Published 2017 Apr 26.

Not all treatment pathways are equally effective: Informed decision making for patients crucial



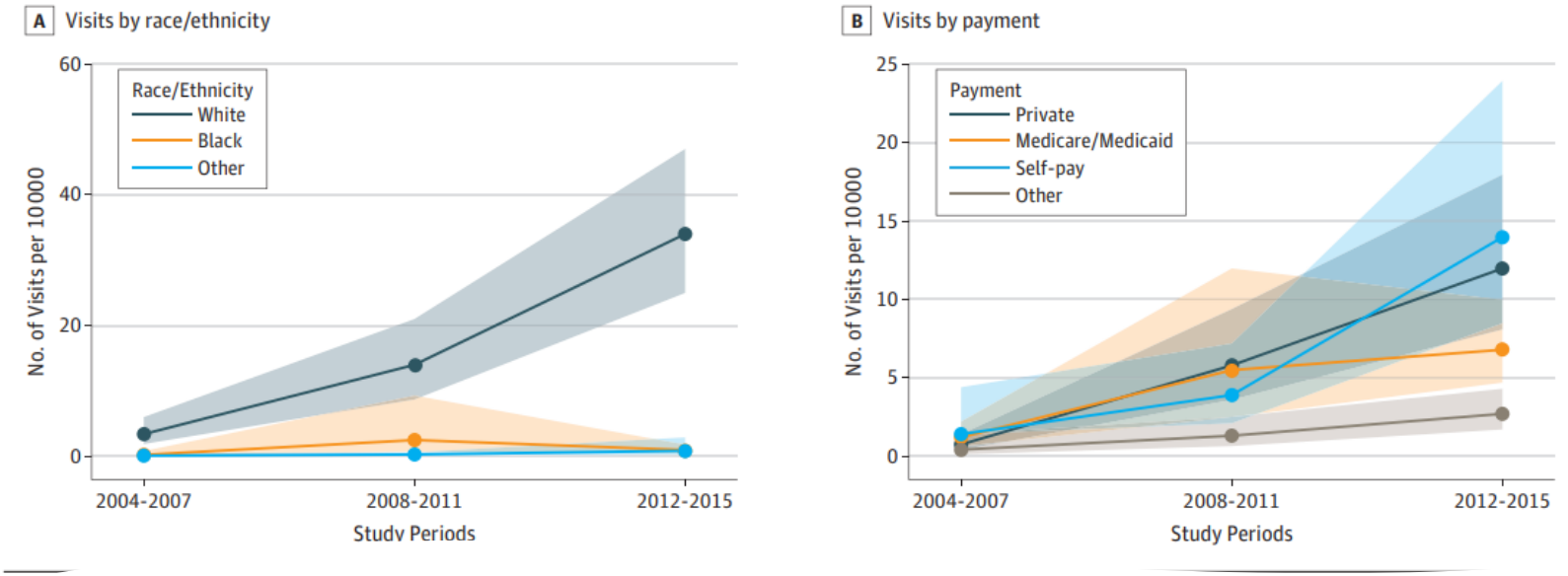
Kakko et al. The Lancet, Volume 361, Issue 9358, 2003, 662 - 668

Only methadone/buprenorphine assoc w/ reduced OD



Wakeman SE, Larochelle MR, Ameli O, et al. *JAMA Netw Open.* 2020;3(2):e1920622.

Figure. Buprenorphine Visits by Race/Ethnicity and Payment Type, 2004-2015



Racism & Access to effective Treatment

From 2012 to 2015, buprenorphine prescriptions received at more visits by white patients than patients of other races/ ethnicities (12.7 million vs 363 000)

Black patients had lower odds of receiving buprenorphine prescription at their visits (adjusted odds ratio, 0.23; 95% CI, 0.13-0.44)

Lagisetty PA, Ross R, Bohnert A, Clay M, Maust DT *JAMA Psychiatry*. 2019;76(9):979-981.

Similar to Management of Diabetes or HIV

- Goal is to prevent acute and chronic complications
- Individualized treatment plans and goals
- Treatment includes:
  - Medication
  - Behavioral support
  - Lifestyle changes
  - Regular monitoring for complications

Details of Treatment

- Agonist treatment: daily methadone or buprenorphine
  - Stable level of opioid effect experienced as “normal”
  - Requires waivered prescriber or opioid treatment program (in US)
- The aims of agonist maintenance treatment include:
  - Reduction or cessation of ongoing opioid use and associated risks
  - Improvement in psychological and physical health, quality of life, functional status
- Antagonist treatment consists of once monthly injection
  - Anyone can prescribe naltrexone

Details of Treatment: Dosing

Methadone Dosing	Withdrawal management ~40 mg daily, higher dose needed for craving >60 mg/day more effective than lower dosages Significant interindividual variation in pharmacokinetics and pharmacodynamics
Buprenorphine Dosing	Higher retention rates and abstinence associated with doses >16 mg At higher doses, likely as effective as methadone (retention may be slightly better with methadone)
Naltrexone Dosing	PO naltrexone not effective for OUD (poor adherence) IM dosing is 380 mg monthly

Choice of Medication

- Patient preference and prior experience crucial
  - Most effective medication is the one they will take!

- Structure of OTPs can facilitate engagement for some patients and serve as a barrier for others
  - *"I think I'd probably do better with methadone as far as cravings go…If you were to give me a choice, if I could have like an outpatient prescription for methadone, that would be ideal. I just don't want to go there every single day to that place. I don't think it would actually work with my schedule…my job should be at the top of my list of importance."*

- Naltrexone: Less effective than opioid agonist therapy for OUD for all comers.
  - For sub-group of patients who are able to complete medically supervised withdrawal and start naltrexone, seems to be non-inferior

- Special circumstances:
  - Severe co-occurring pain: Possibly methadone, but growing experience with bupe for pain
  - Pregnancy: bupe assoc w/ better neonatal outcomes, methadone better retention for mom
  - Prolonged QTc: Buprenorphine

Wakeman SE. *JAMA*. 2020;10.1001/jama.2020.4104.
Yarborough BJ, Stumbo SP, McCarty D, Mertens J, Weisner C, Green CA. *Drug Alcohol Depend*. 2016;160:112-118.

Buprenorphine Effective With or Without Adjunctive Behavioral Treatments

- RCT of behavioral treatment in addition to buprenorphine x 16 weeks: Cognitive Behavioral vs contingency management vs both vs medication management alone

- No differences in treatment retention, opioid use, or other drug use

Ling et al. *Addiction*. 2013 October ; 108(10)

NASEM Consensus Report

Lack of availability or utilization of behavioral interventions is not a sufficient justification to withhold medications to treat opioid use disorder.

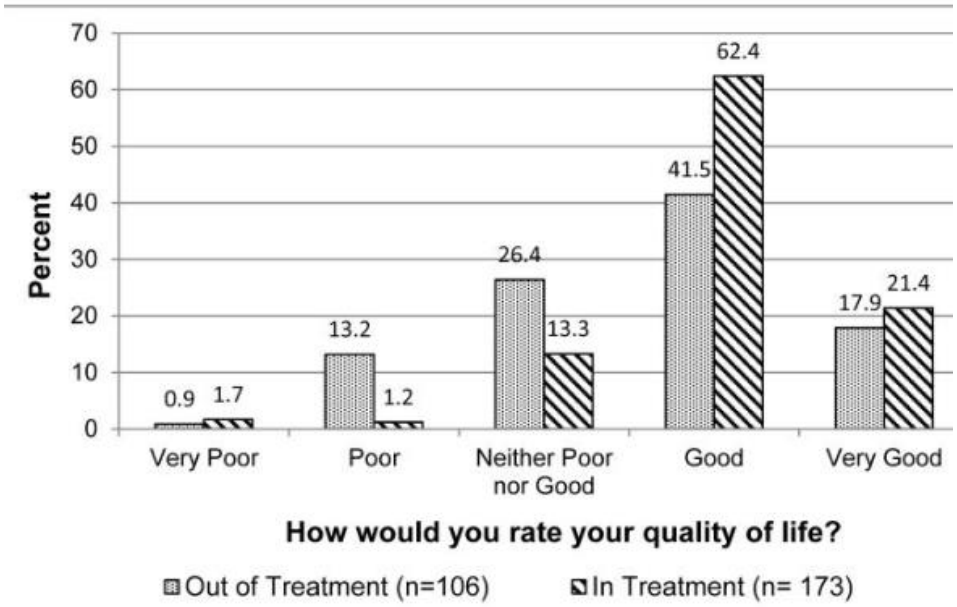
Behavioral interventions, in addition to medical management, do not appear to be necessary as treatment in all cases. Some people may do well with medication and medical management alone. However, evidence-based behavioral interventions can be useful in engaging people with OUD in treatment, retaining them in treatment, improving outcomes, and helping them resume a healthy functioning life. There is inadequate evidence about which behavioral interventions provided in conjunction with medications for OUD are most helpful for which patients, including evidence on how effective peer support is; more research is needed to address this knowledge deficit.

Caring for Patients with OUD: Key Questions

- Would I respond this way to a patient with another medical condition?
- Are there ways in which our approaches/policies may actually cause harm?
- How can I identify, acknowledge, and support this patient's most pressing needs?

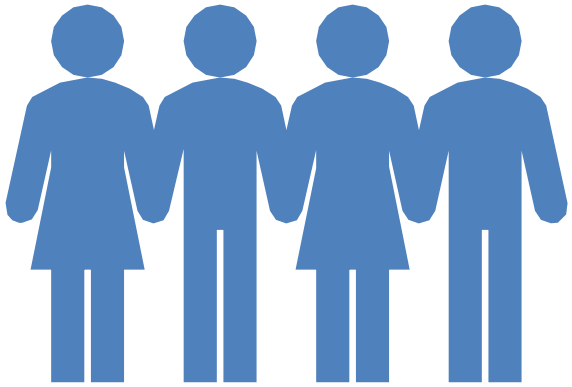
Treatment Retention Has Benefit Irrespective of Toxicology Results

- Treatment retention strongly associated with quality of life
- Toxicology results *not* associated with QoL, however patient self-report of substance use was inversely related with QoL



Mitchell SG. J Psychoactive Drugs. 2015 Apr-Jun;47(2):149-57

Structure & Delivery of Care Crucial for Retention



Low-threshold care aims to reduce barriers through less stringent eligibility criteria to broaden potential reach

- Patients fall out of care when they are not welcomed back:
  - "You could only miss 14 days in a row…to stay on it. And I came back like the 15th day. So they told me I was no longer eligible."
- Patients report staff who "worked with" them and were "nice," "caring," & "respectful" offered support and encouragement were important factors in sticking with treatment:
  - "They showed me that there's a light at the end of that tunnel. There's hope. You hear that? There's hope!"

Teruya C. J Psychoactive Drugs. 2014 Nov-Dec;46(5):412-26.

NASEM Consensus Report

Conclusion 6:
Medication-based treatment is effective across all treatment settings studied to date. Withholding or failing to have available all classes of U.S. Food and Drug Administration–approved medication for the treatment of opioid use disorder in any care or criminal justice setting is denying appropriate medical treatment.

Treatment with FDA-approved medications is clearly effective in a broader range of care settings (e.g., office-based care settings, acute care, and criminal justice settings) than is currently the norm. There is no scientific evidence that justifies withholding medications from OUD patients in any setting or denying social services (e.g., housing, income supports) to individuals on medication for OUD. Therefore, to withhold treatment or deny services under these circumstances is unethical.

Systems Based Checklist

1

Prevention

- Thoughtful prescribing
- Address risk factors for development of OUD
- Screening, early intervention

2

Treatment

- Immediate access to MOUD
- Integration into all settings
- Low threshold care models
- Reduce stigma

3

Harm Reduction

- Naloxone
- Syringe service programs
- Supervised consumption
- Safe supply

Thank you!

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