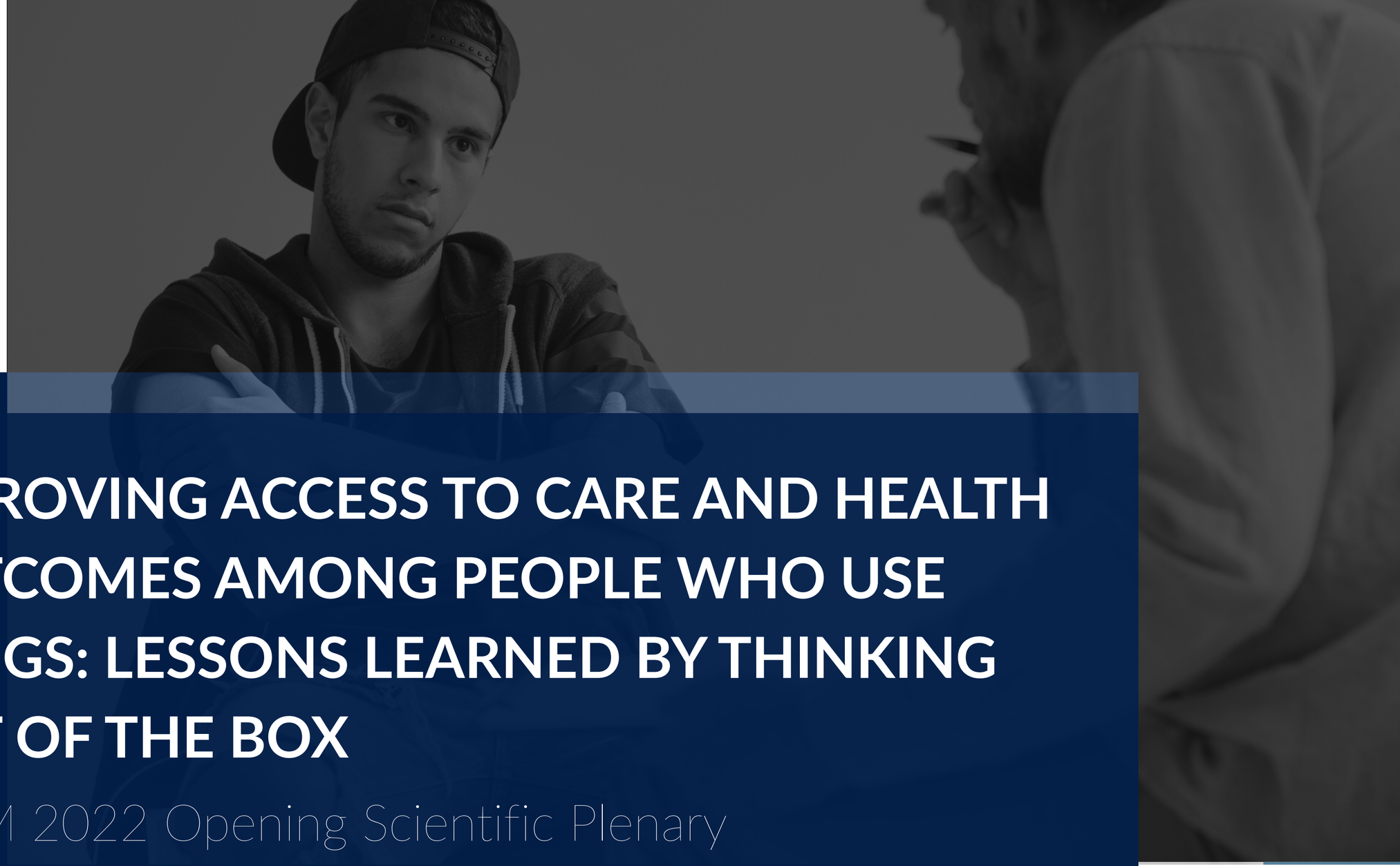

IMPROVING ACCESS TO CARE AND HEALTH OUTCOMES AMONG PEOPLE WHO USE DRUGS: LESSONS LEARNED BY THINKING OUT OF THE BOX

ASAM 2022 Opening Scientific Plenary

#ASAMAnnual2022

Disclosure Information

Chinazo Cunningham, MD, MS

Improving access to care and health outcomes among people who use drugs: Lessons learned by thinking out of the box

Friday, April 1, 2022 8:30 – 10:00 AM

No Disclosures

LEARNING OBJECTIVES

LEARNING OBJECTIVE 1

To understand different career paths and opportunities in addiction medicine

LEARNING OBJECTIVE 2

To explore key changes to the future of addiction medicine

Outline

CHAPTER 1

The HIV epidemic

CHAPTER 2

The opioid & overdose epidemics

CHAPTER 3

Legalization of cannabis

CHAPTER 4

Public health

Within each chapter:

- *Addressing community needs and inequities*
- *Program development & health care delivery*
- *Research*
- *Advocacy for policy changes*

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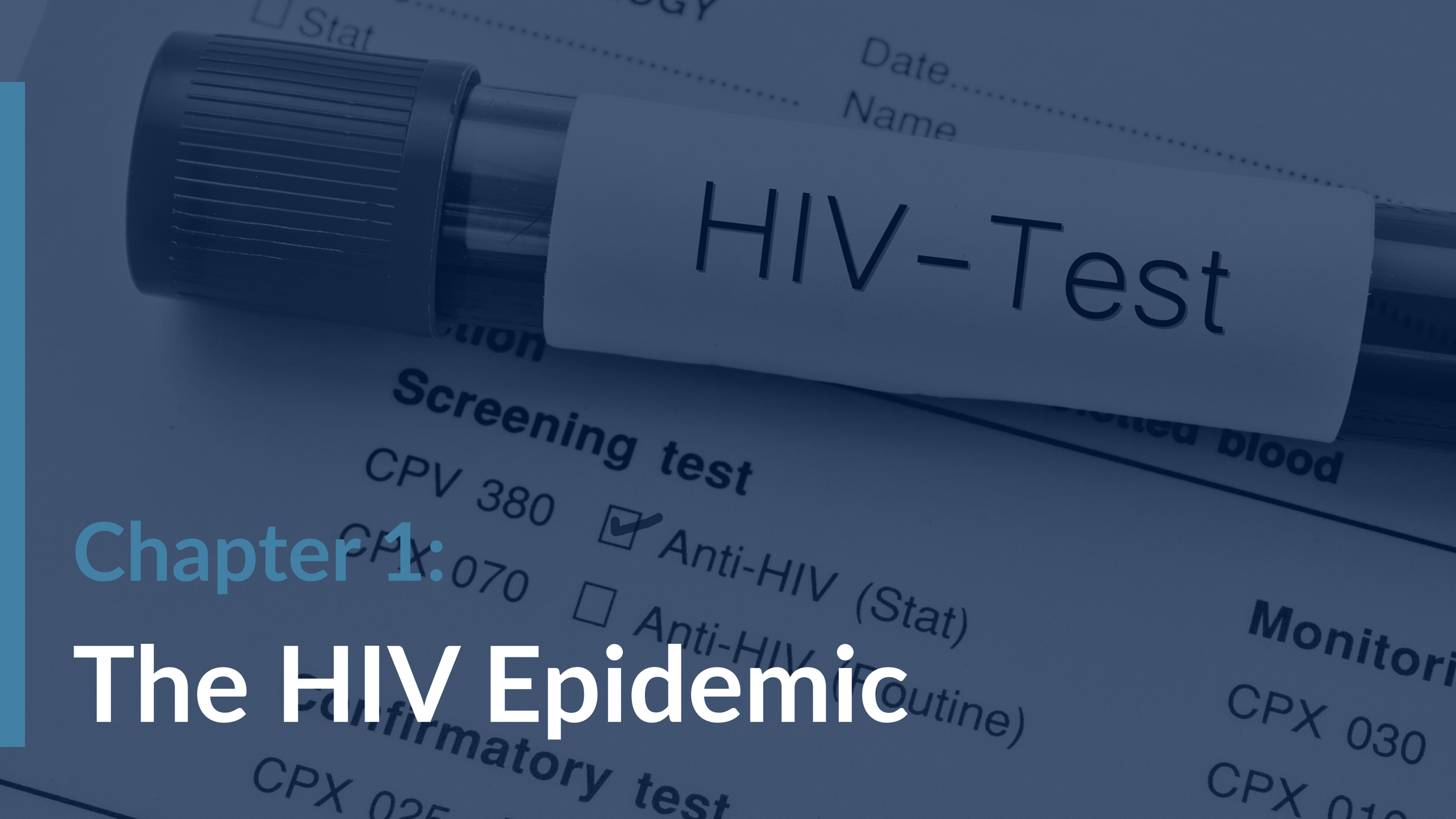

Chapter 1:
The HIV Epidemic

My Path

EDUCATOR

↓

INVESTIGATOR

↓

PUBLIC HEALTH

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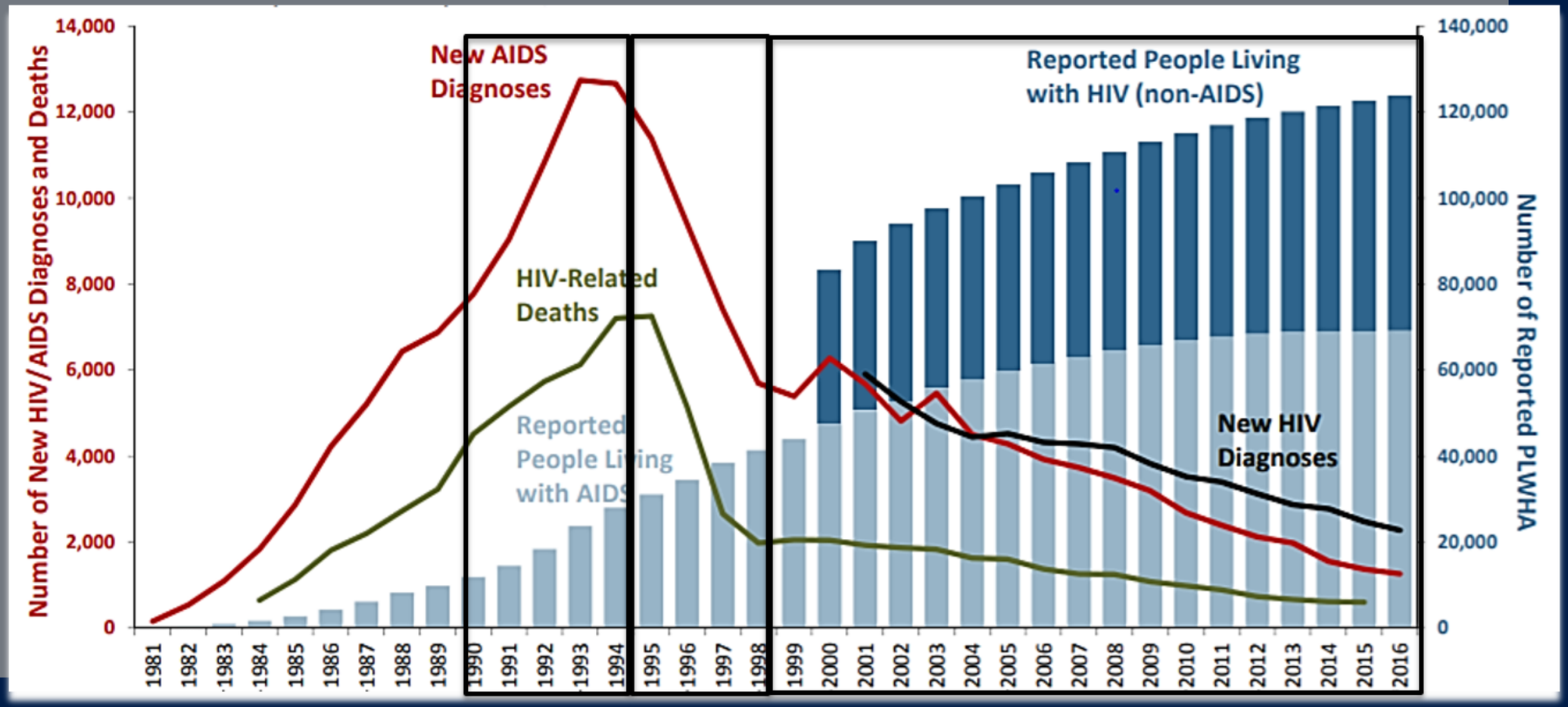
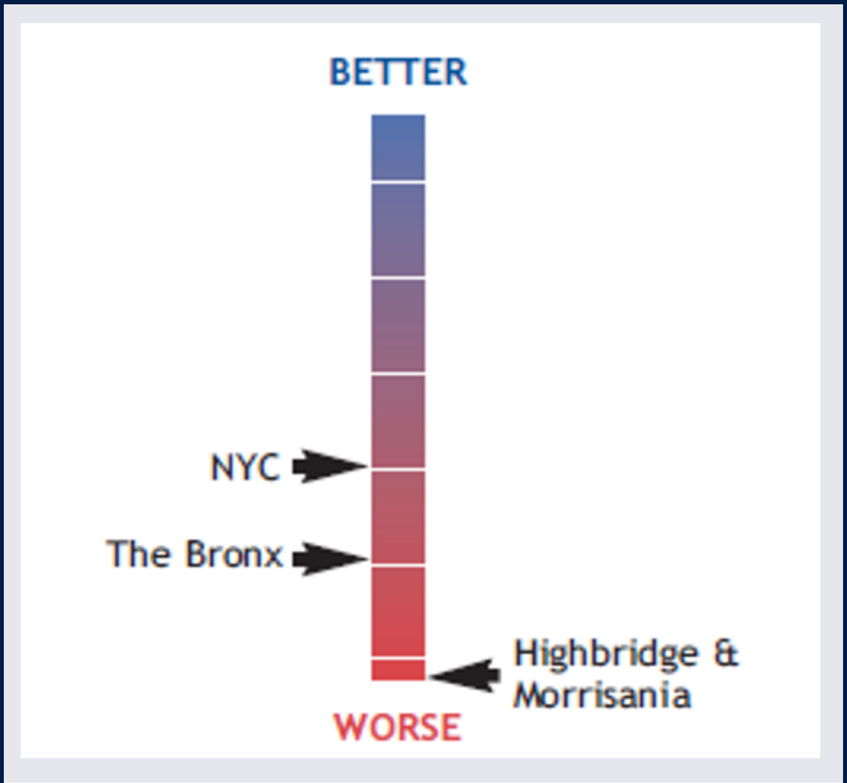
HIV Epidemic in NYC, 1981-2016

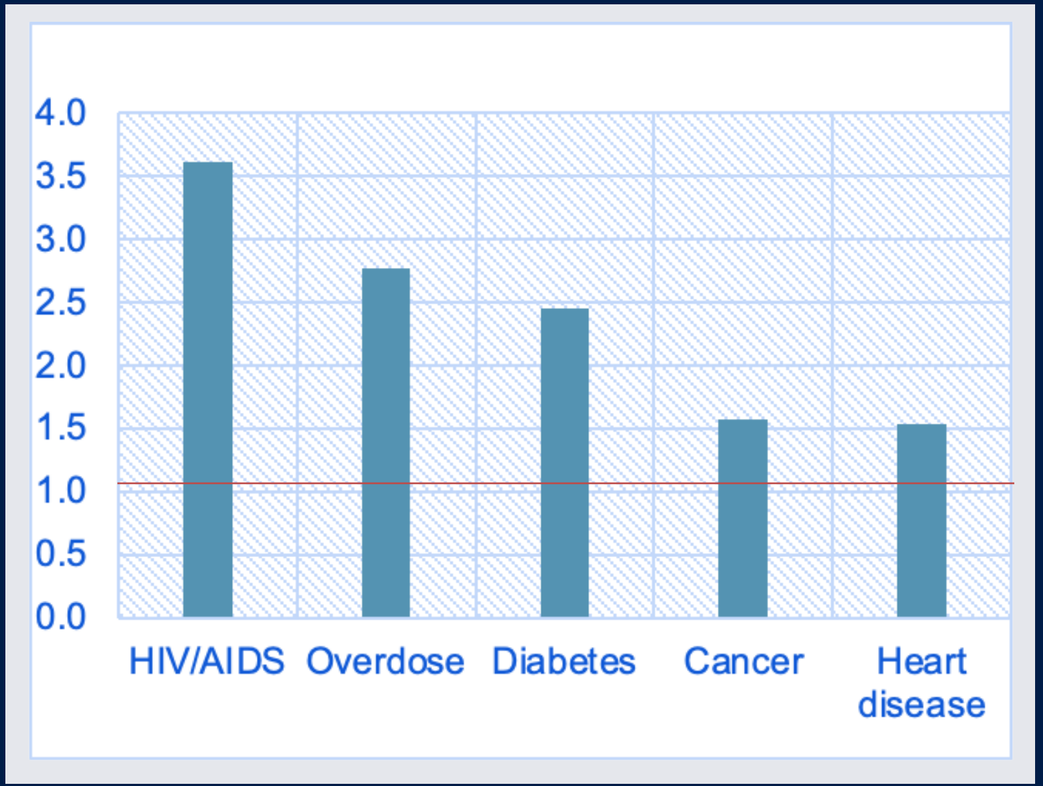


HIV Surveillance Annual Report, 2016. NYC DOHMH

HIV & Overdose Fueling Premature Deaths in the South Bronx, 2000



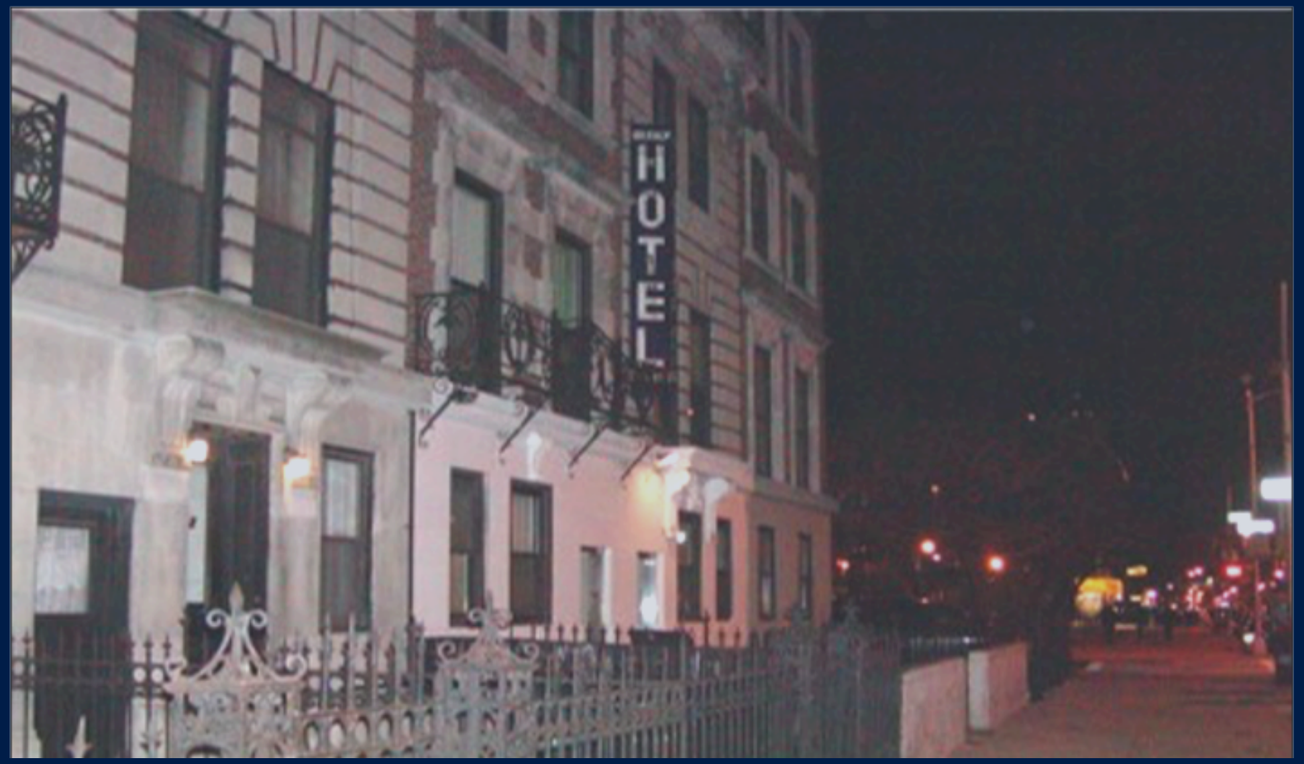
Premature death by NYC Neighborhood

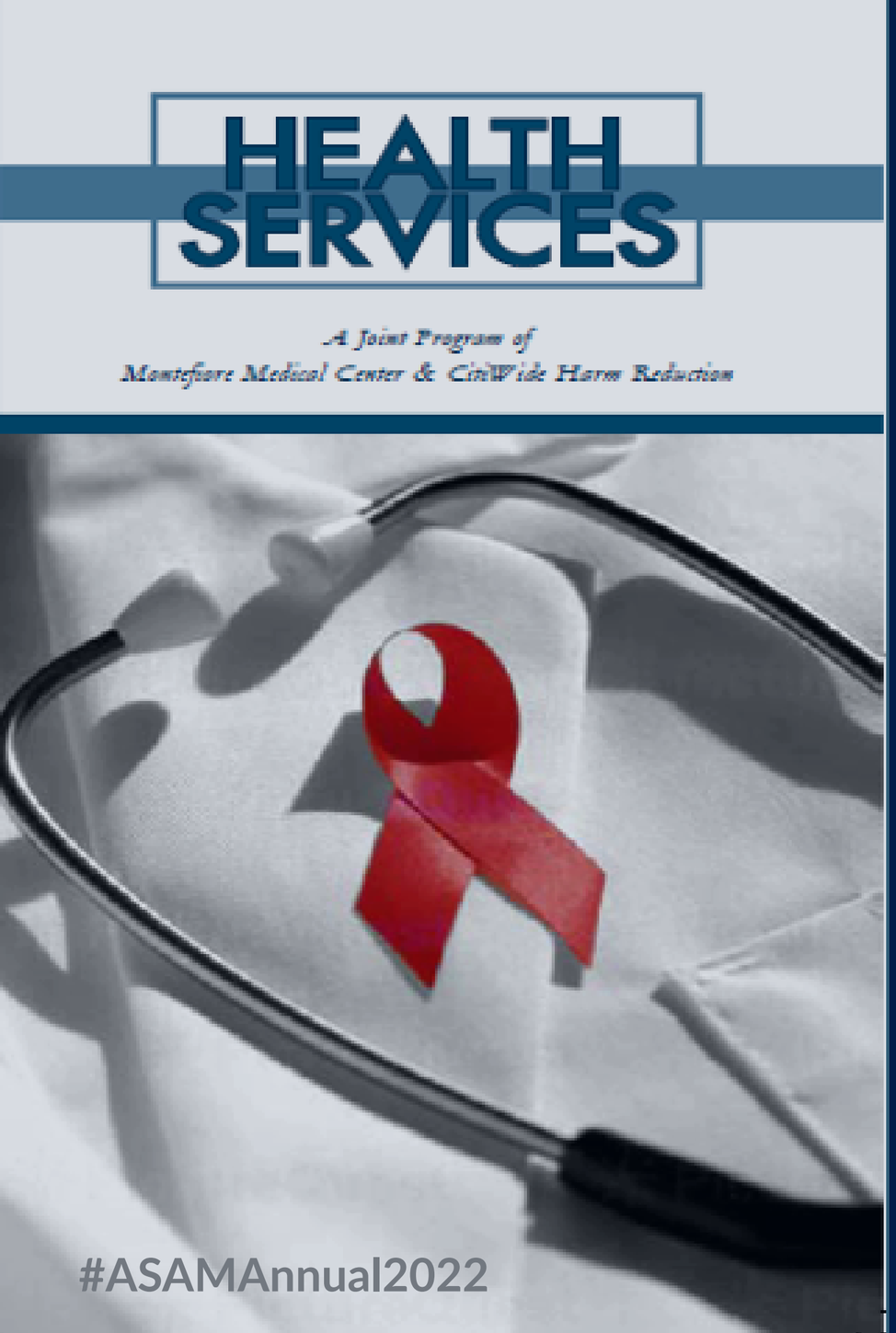


Causes of Premature Death in a South Bronx neighborhood compared to NYC

NYC DOHMH, Community Health Profiles, 2000


CitiWide
HARM
REDUCTION


HOTEL



Delivering Care Out of the Box: The Evolution of an HIV Harm Reduction Medical Program

Pamela A. Mund, MD
Daliah Heller, MPH
Paul Meissner, MSPH
David W. Matthews
Michael Hill, FNP, NPP
Chinazo O. Cunningham, MD, MS

Type and Pattern of Illicit Drug Use and Access to Health Care Services for HIV-Infected People

NANCY L. SOHLER, Ph.D., M.P.H.,[1] MITCHELL D. WONG, M.D., Ph.D.,[3] WILLIAM E. CUNNINGHAM, M.D., M.P.H.,[3] HOWARD CABRAL, Ph.D.,[2] MARI-LYNN DRAINONI, Ph.D.,[2] and CHINAZO O. CUNNINGHAM, M.D.[4]

An Invisible Barrier to Integrating HIV Primary Care with Harm Reduction Services: Philosophical Clashes Between the Harm Reduction and Medical Models

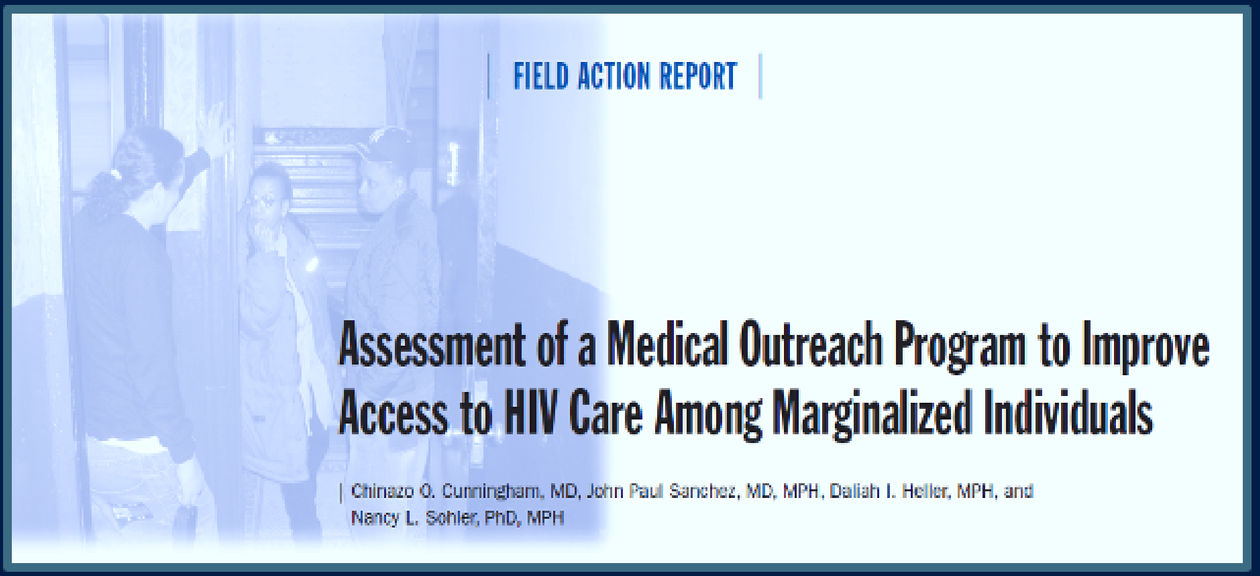
Daliah Heller, MPH[a]
Kate McCoy, PhD[b]
Chinazo Cunningham, MD[b]

SYNOPSIS

Overall AIDS mortality in the United States has declined in recent years, but declines have not been consistent across all populations. Due to an array of

Outreach Program Contacts: Do They Increase the Likelihood of Engagement and Retention in HIV Primary Care for Hard-to-Reach Patients?

HOWARD J. CABRAL, Ph.D., M.P.H.,[1] CAROL TOBIAS, M.M.H.S.,[1] SERENA RAJABIUN, M.A., M.P.H.,[1] NANCY SOHLER, Ph.D., M.P.H.,[2] CHINAZO CUNNINGHAM, M.D.,[3] MITCHELL WONG, M.D., Ph.D.,[4] and WILLIAM CUNNINGHAM, M.D., M.P.H.[5]



Program Characteristics Associated with Kept Appointments in a Bronx Medical Outreach Program (N=2272 appointments)			
	Total N	n (%)	AOR (95% CI)
Type of appointment			
Same-day or walk-in	737	309 (41.9)	1.69 (1.38, 2.08)
Future	1535	357 (23.3)	1.0
Location of future appointment			
SRO hotel room	302	32 (10.6)	0.40 (0.24, 0.65)
Community clinic	362	80 (22.1)	0.77 (0.54, 1.10)
CBO's drop-in center	871	245 (28.1)	1.0
Person making future appointment			
Non-medical provider/peer	746	214 (28.7)	1.38 (1.05, 1.80)
Medical provider	789	143 (18.1)	1.0

SRO=single-room occupancy; CBO=community-based organization

Cunningham CO, et. al., Am J Public Health. 2007

Appointments were most likely to be kept if in the CBO drop-in center and if made by a non-medical provider.

Outreach & Access to Care

Association Between the Quantity of Outreach Contacts and Gaps in HIV Primary Care	
Number of program contacts in first 3 months	Hazard Ratio (95% CI)
0	Reference
1	1.04 (0.78, 1.40)
2-4	1.19 (0.69, 2.08)
5-8	1.10 (0.71, 1.69)
≥9	**0.45 (0.26, 0.78)**

Cabral HJ, et. al., AIDS Patient Care STDs. 2007

Nine or more outreach contacts were associated with less gaps in HIV care.

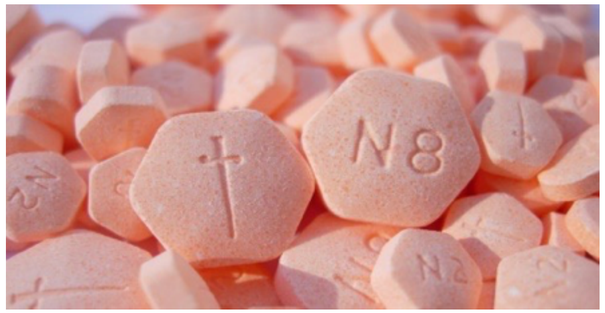
Understanding Harm Reduction

Table 2. Philosophical clashes between the harm reduction and medical models

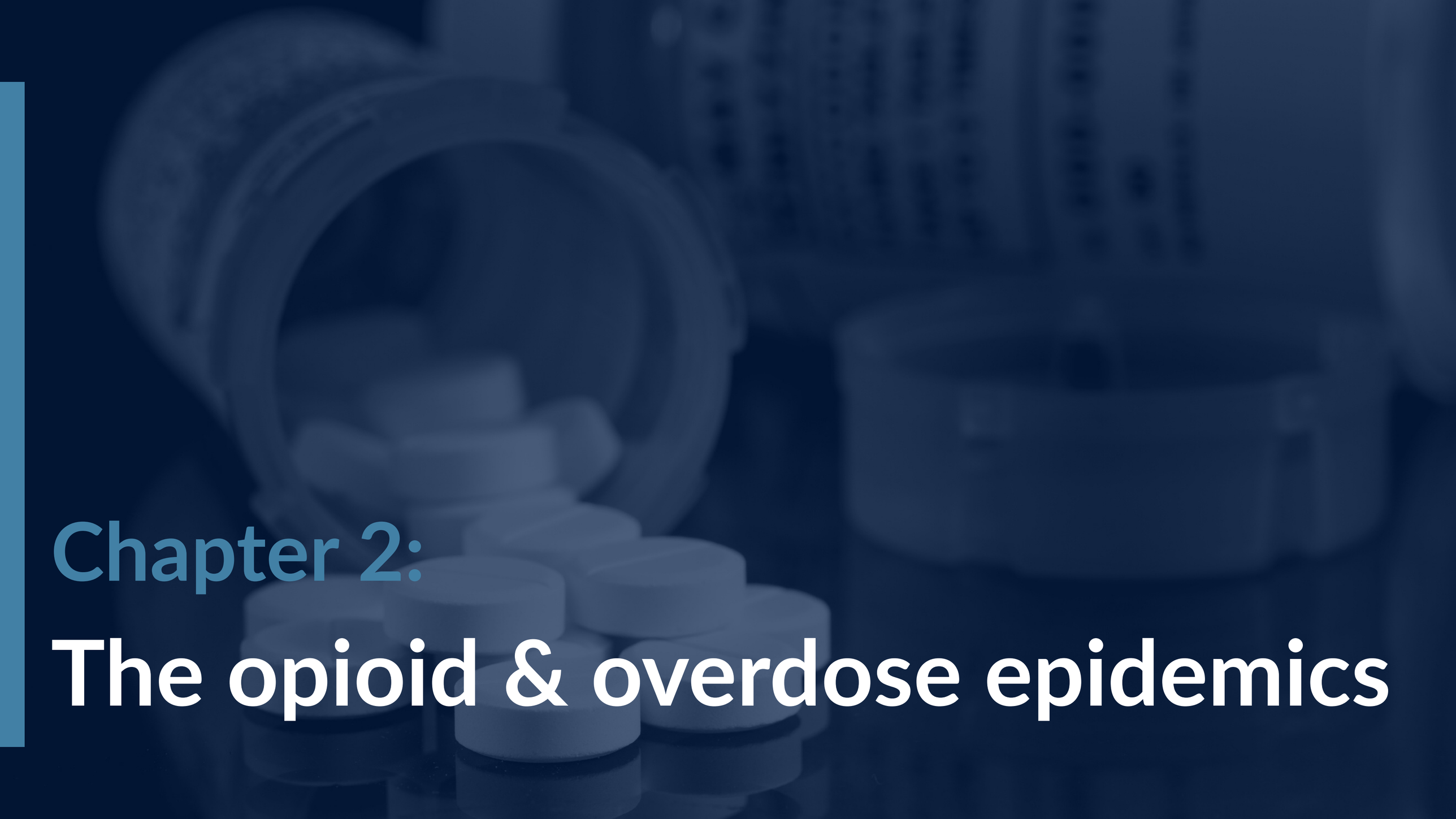
	Harm reduction model	*Medical model*
Structural philosophy	Inclusive, community decisions, process	Hierarchical chain of command
Institutional legitimacy	New, always becoming, in process; controversial	Established early 20th century; acceptance in mainstream society
Theoretical framework for understanding drug use	Drug, set, setting	Pharmacology/disease model
System design	Low threshold for accessing care	Prescribed procedures for getting care; higher threshold
Provider perspective on approach to care	Actively questioning assumptions, avoiding judgmental stance (fluid)	Expert knowledge (discrete)
Provider role	Provide information, collaborative decision-making	Prescribe treatment; seek "compliance" and "adherence"
User role	Understand options, make choices, small changes, reduce harms	Accept and comply with treatment
Locus of control	User-centered	Physician-centered

Heller D, et. al., Public Health Rep. 2004

U.S. drug overdose deaths per year



Emerging Opioid and Overdose Epidemics



Chapter 2:
The opioid & overdose epidemics

Montefiore's Buprenorphine Treatment Program

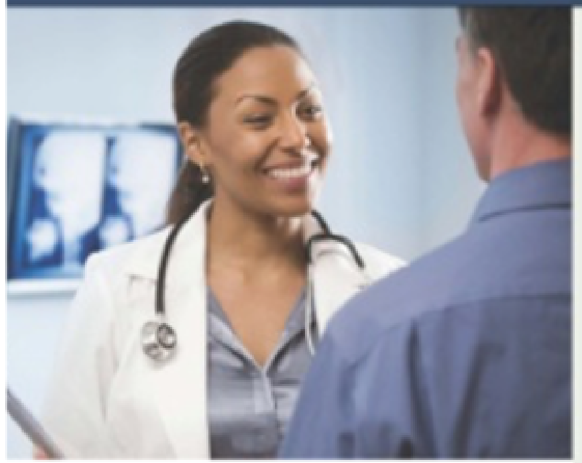
BUPRENORPHINE

Montefiore
THE UNIVERSITY HOSPITAL

EINSTEIN
Albert Einstein College of Medicine
OF YESHIVA UNIVERSITY

If you or someone you know needs help with an addiction to heroin or pain pills, there's a new medicine that may help.

BUPRENORPHINE Is it right for you?



WHAT IS BUPRENORPHINE?

Buprenorphine is a prescription medicine used to treat adults addicted to opiates such as heroin, percocet, oxycontin, morphine and other narcotic painkillers.

HOW DOES BUPRENORPHINE WORK?

When taken by a person addicted to heroin or other opiates, buprenorphine reduces cravings and helps the person remain drug-free, making productive living possible. Buprenorphine can be used to withdraw from heroin or painkillers. It can also be used to help keep a person from relapsing back into a heroin or painkiller addiction.

Buprenorphine is available as a tablet or film. Both are dissolved under the tongue. The tablet is available in two different forms: Subutex, which contains only buprenorphine, and Subox-

THE BENEFITS OF BUPRENORPHINE TREATMENT

- Buprenorphine has a low risk of being abused and is unlikely to cause an overdose.
- Buprenorphine can prevent pain, chills, nausea, and other feelings that come with addiction withdrawal.
- Buprenorphine can block the effects of addictive drugs. For example, heroin taken by a person under buprenorhine treatment will not cause a 'high.' The addition of naloxone in the Suboxone form of buprenorphine prevents the medicine from being abused, as it will cause withdrawal if injected.

HOW CAN YOU GET BUPRENORPHINE TREATMENT?

Buprenorphine treatment can be prescribed by physicians who have been specially trained and have received certification from Federal and State agencies. Ask your doctor if he or she can prescribe buprenorphine or refer you to someone who can.

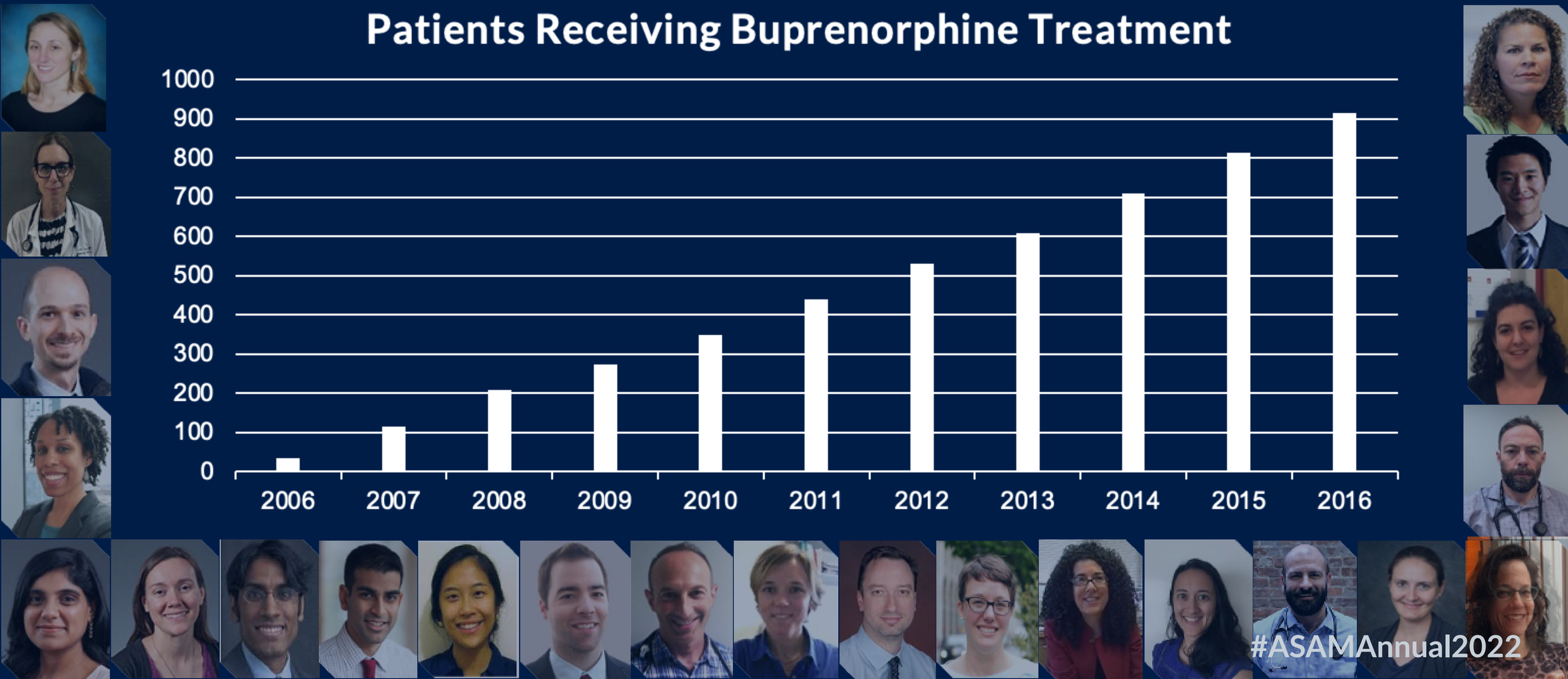
THE CHCC BUPRENORPHINE TREATMENT PROGRAM AND RESEARCH STUDIES

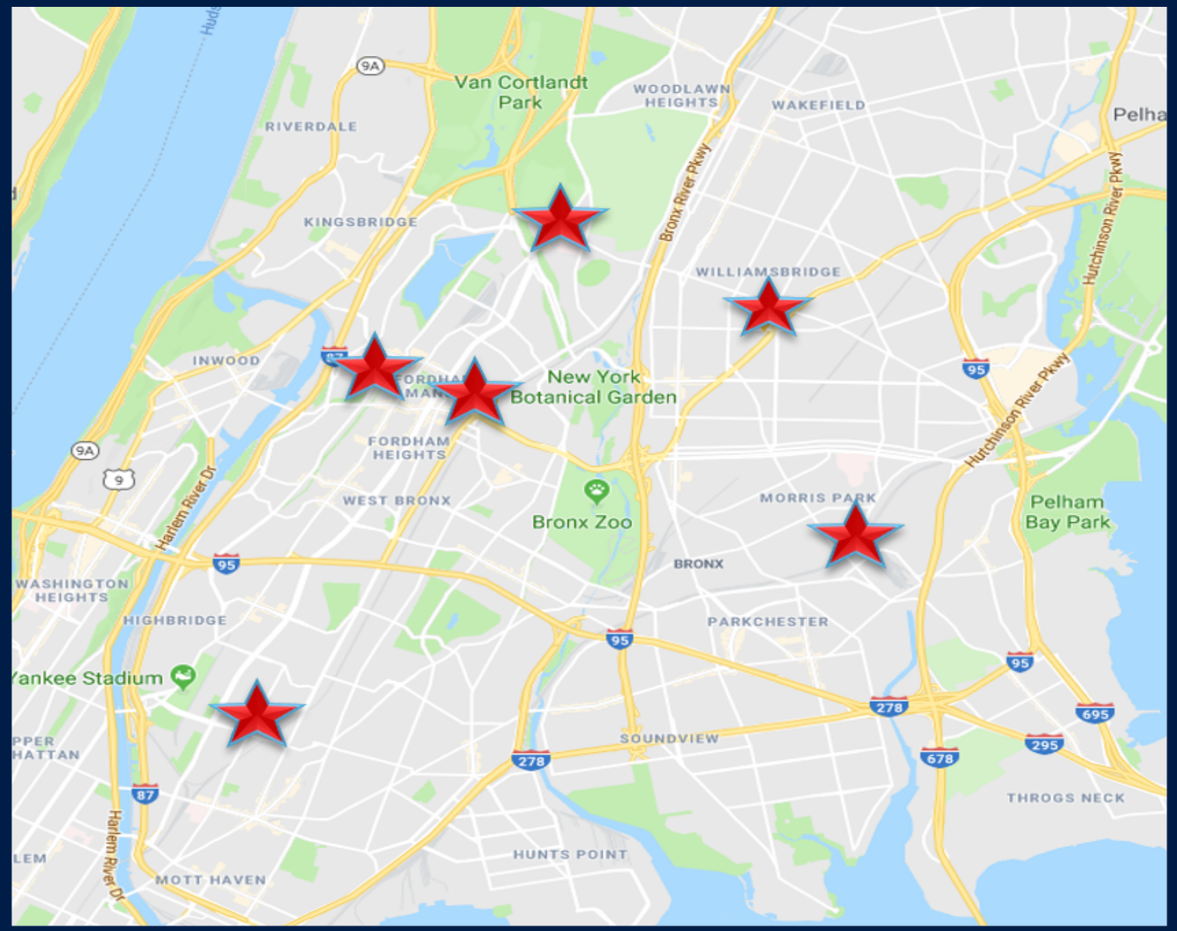
Montefiore's Comprehensive Health Care Center (CHCC) provides buprenorphine treatment to hundreds of people who are addicted to opiates. Many research studies with buprenorphine are also occurring.

If you are addicted to opiates and interested in treatment or research studies with buprenorphine, you may qualify to participate in the treatment program or a research study.

If you or someone you know would like to take advantage of the buprenorphine treatment program or research study, please call 718.410.3559 for buprenorphine treatment information or 718.944.3846 for research study information.

Buprenorphine Treatment Program – 10 years
>900 patients >25 prescribers





Montefiore Buprenorphine Treatment Network

- *6 primary care clinics*
- *1 harm reduction organization*
- *>1300 patients treated*
- *~450 patients active in care*

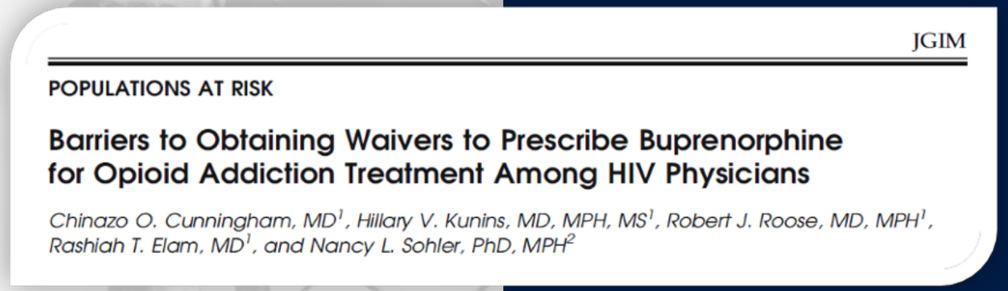
Barriers to Providing Buprenorphine Treatment

Common Barriers

- *Lack of confidence & knowledge*
- *8-hour waiver training requirement*
- *Lack of access to experts*
- *Lack of supportive services*
- *Difficulty referring to alternative treatment*
- *Induction*

Program Response

- *Buprenorphine in residents' curricula and clinics*
- **On-site trainings annually**
- **bupe@montefiore.org**
- **Buprenorphine treatment coordinators**
- **Coordination with opioid treatment programs**
- **Home-based inductions**



JGIM

POPULATIONS AT RISK

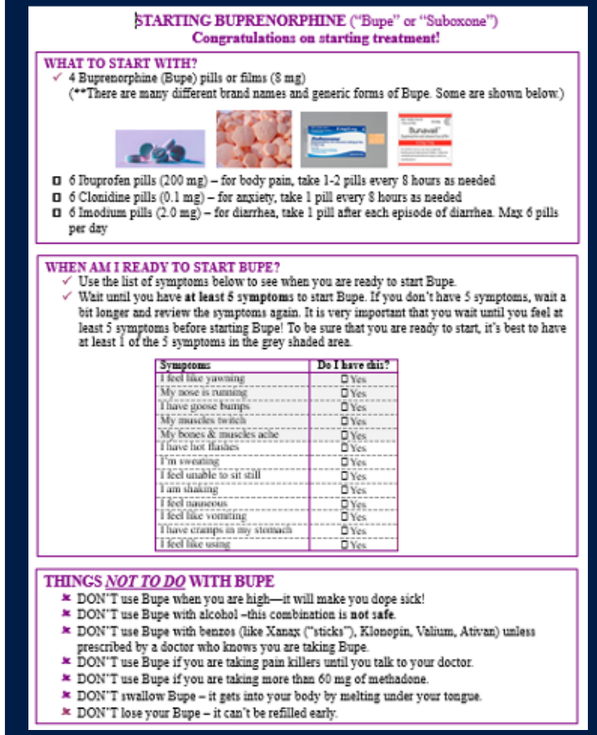
Barriers to Obtaining Waivers to Prescribe Buprenorphine for Opioid Addiction Treatment Among HIV Physicians

Chinazo O. Cunningham, MD[1], Hillary V. Kunins, MD, MPH, MS[1], Robert J. Roose, MD, MPH[1], Rashiah T. Elam, MD[1], and Nancy L. Sohler, PhD, MPH[2]

Cunningham CO, et. al., Fam Med. 2006; Cunningham CO, et. al., J Gen Intern Med. 2007; Netherland J et. al., J Subts Abuse Treat. 2009

Buprenorphine Induction

- *National Guidelines – Office-based Inductions*
  - *Observed, long, intensive process of buprenorphine titration*
- *25% of patients dropped out of care during induction*
- *Home induction "toolkit"*
  - *Buprenorphine*
  - *Ancillary medications*
  - *Instruction sheet*
  - *Teach self-management of chronic disease*



STARTING BUPRENORPHINE ("Bupe" or "Suboxone")
Congratulations on starting treatment!

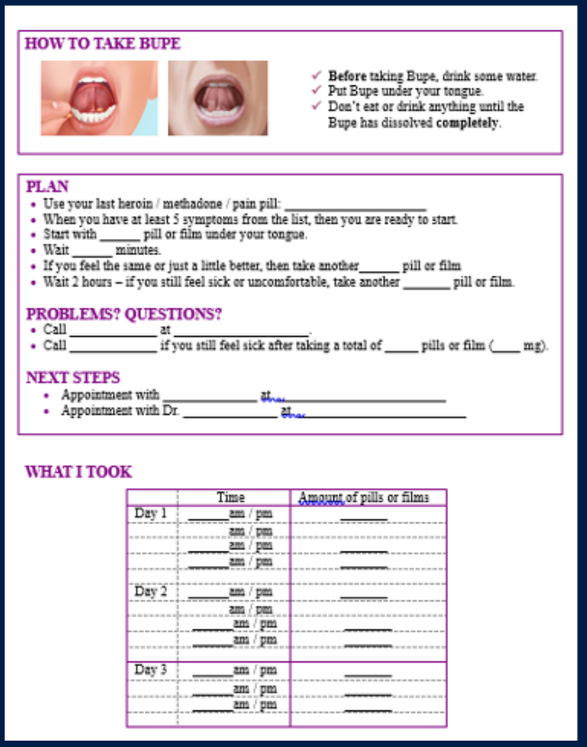
WHAT TO START WITH?
- ✓ 4 Buprenorphine (Bupe) pills or films (8 mg)
  (**There are many different brand names and generic forms of Bupe. Some are shown below:)

- ☐ 6 Ibuprofen pills (200 mg) – for body pain, take 1-2 pills every 8 hours as needed
- ☐ 6 Clonidine pills (0.1 mg) – for anxiety, take 1 pill every 8 hours as needed
- ☐ 6 Imodium pills (2.0 mg) – for diarrhea, take 1 pill after each episode of diarrhea. Max 6 pills per day

WHEN AM I READY TO START BUPE?
- ✓ Use the list of symptoms below to see when you are ready to start Bupe.
- ✓ Wait until you have **at least 5 symptoms** to start Bupe. If you don't have 5 symptoms, wait a bit longer and review the symptoms again. It is very important that you wait until you feel at least 5 symptoms before starting Bupe! To be sure that you are ready to start, it's best to have at least 1 of the 5 symptoms in the grey shaded area.

Symptoms	Do I have this?
I feel like yawning	☐ Yes
My nose is running	☐ Yes
I have goose bumps	☐ Yes
My muscles twitch	☐ Yes
My bones & muscles ache	☐ Yes
I have hot flashes	☐ Yes
I'm sweating	☐ Yes
I feel unable to sit still	☐ Yes
I am shaking	☐ Yes
I feel nauseous	☐ Yes
I feel like vomiting	☐ Yes
I have cramps in my stomach	☐ Yes
I feel like using	☐ Yes

THINGS *NOT TO DO* WITH BUPE
- ✗ DON'T use Bupe when you are high—it will make you dope sick!
- ✗ DON'T use Bupe with alcohol –this combination is **not safe**.
- ✗ DON'T use Bupe with benzos (like Xanax ("sticks"), Klonopin, Valium, Ativan) unless prescribed by a doctor who knows you are taking Bupe.
- ✗ DON'T use Bupe if you are taking pain killers until you talk to your doctor.
- ✗ DON'T use Bupe if you are taking more than 60 mg of methadone.
- ✗ DON'T swallow Bupe – it gets into your body by melting under your tongue.
- ✗ DON'T lose your Bupe – it can't be refilled early.



HOW TO TAKE BUPE

- ✓ **Before** taking Bupe, drink some water.
- ✓ Put Bupe under your tongue.
- ✓ Don't eat or drink anything until the Bupe has dissolved **completely**.

PLAN
- Use your last heroin / methadone / pain pill: _____
- When you have at least 5 symptoms from the list, then you are ready to start.
- Start with _____ pill or film under your tongue.
- Wait _____ minutes.
- If you feel the same or just a little better, then take another_____ pill or film
- Wait 2 hours – if you still feel sick or uncomfortable, take another _____ pill or film.

PROBLEMS? QUESTIONS?
- Call _____ at _____.
- Call _____ if you still feel sick after taking a total of _____ pills or film (____ mg).

NEXT STEPS
- Appointment with _____ at _____
- Appointment with Dr. _____ at _____

WHAT I TOOK

	Time	Amount of pills or films
Day 1	_____ am / pm	_____
	_____ am / pm	
	_____ am / pm	_____
	_____ am / pm	_____
Day 2	_____ am / pm	_____
	_____ am / pm	
	_____ am / pm	_____
	_____ am / pm	_____
Day 3	_____ am / pm	_____
	_____ am / pm	_____
	_____ am / pm	_____

ASAM National Practice Guideline 2015; Sohler NL, et. al., J Subst Abuse Treat. 2010; Cunningham CO, et. al., J Subst Abuse Treat. 2011; Lee JD et. al., J Gen Intern Med. 2009.

Home- vs Office-Based Inductions

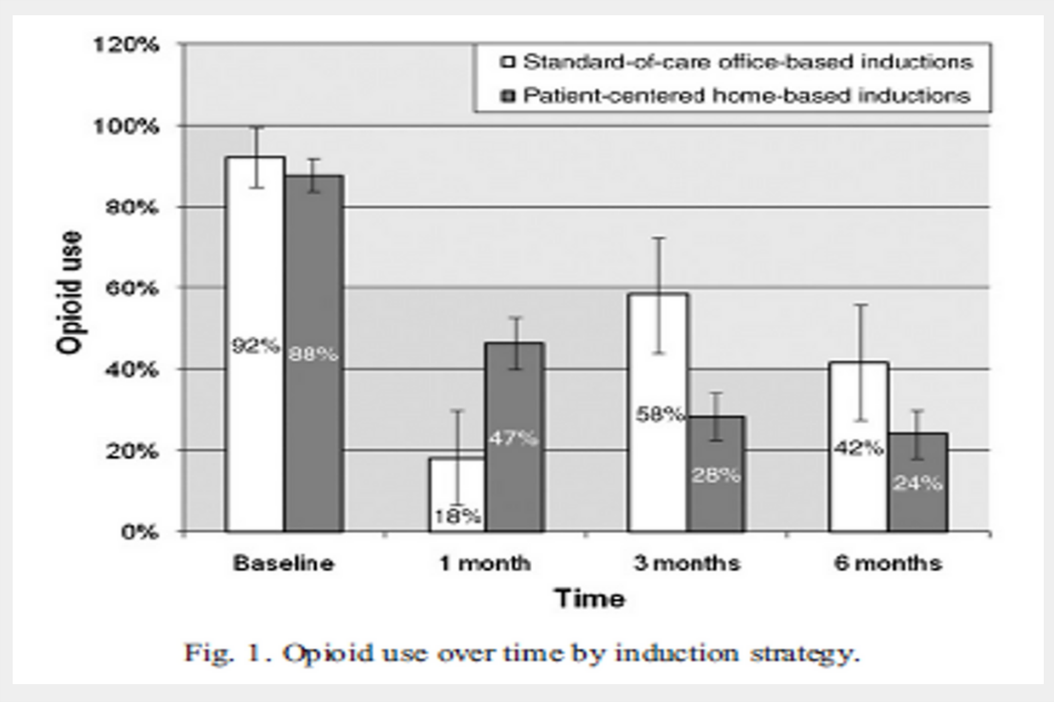


Fig. 1. Opioid use over time by induction strategy.

Similar reduction in opioid use with home- vs office-based inductions

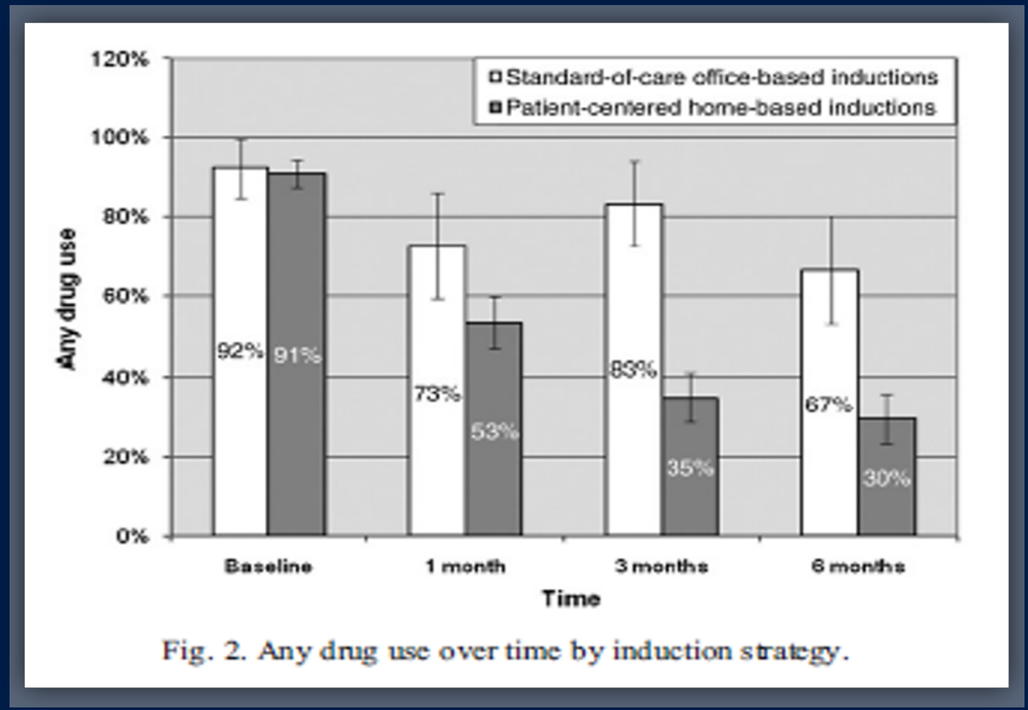


Fig. 2. Any drug use over time by induction strategy.

Greater reduction in any drug use with home- vs office-based inductions

Cunningham CO et. al.,, J Subst. Abuse Treat. 2011

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Buprenorphine outcomes in patients with vs without cocaine use

National Guidelines: caution providing buprenorphine treatment to patients with polysubstance use

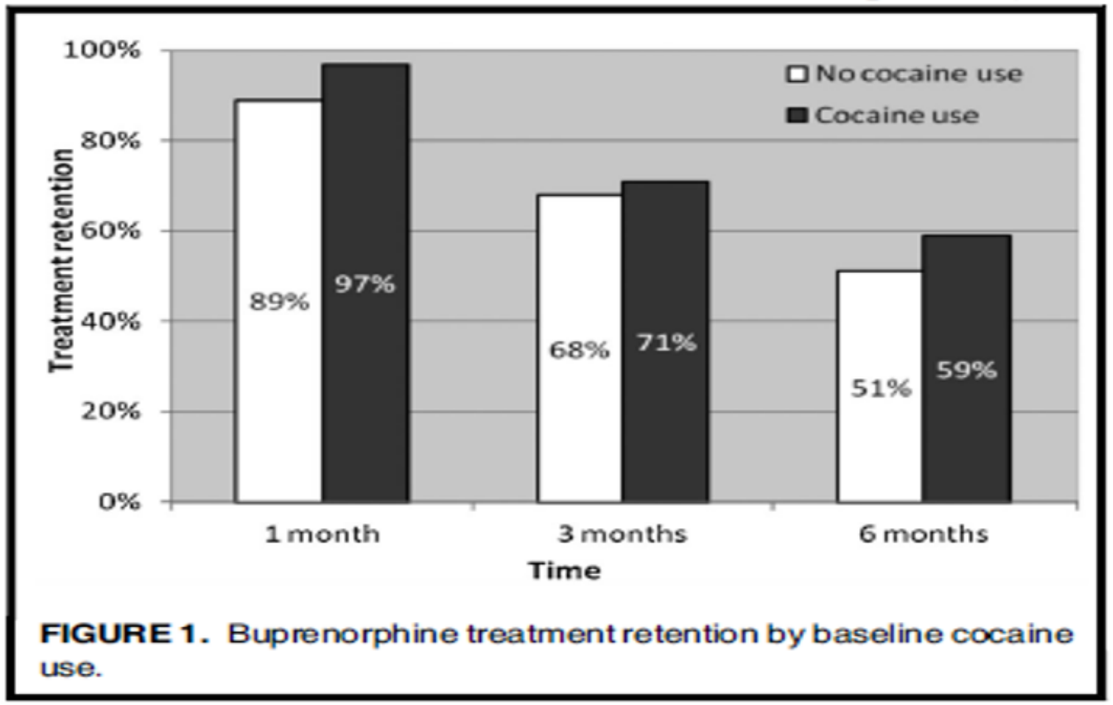

FIGURE 1. Buprenorphine treatment retention by baseline cocaine use.

Similar treatment retention in patients with vs without cocaine use

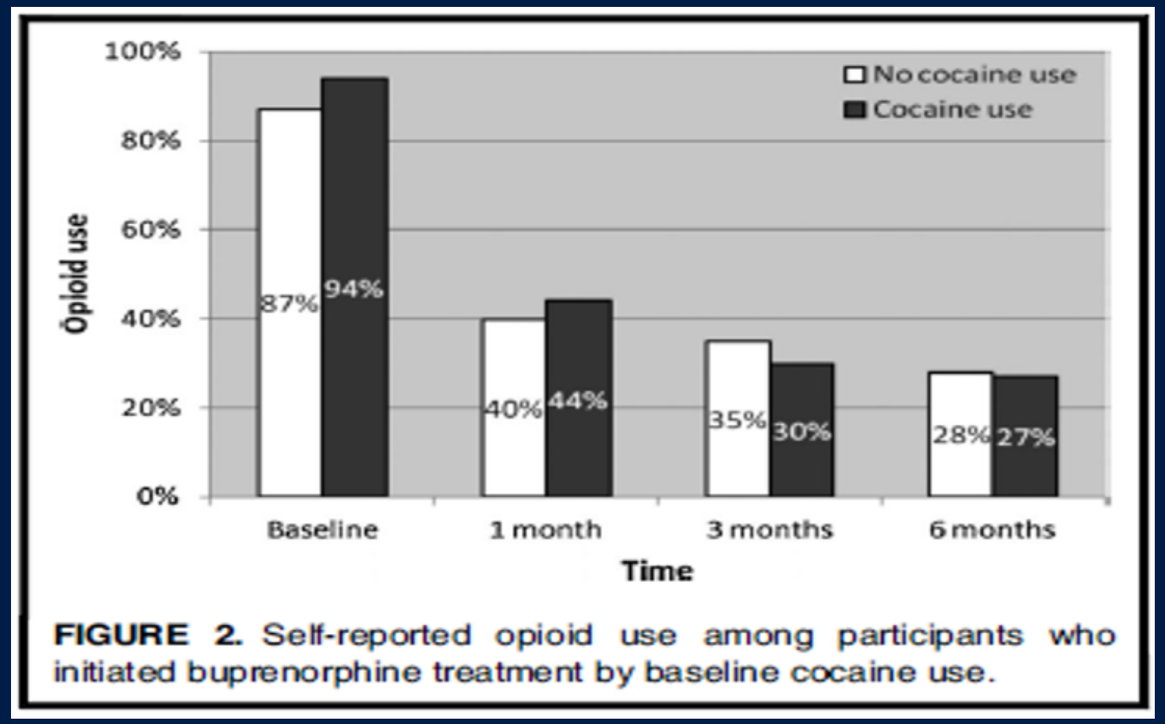

FIGURE 2. Self-reported opioid use among participants who initiated buprenorphine treatment by baseline cocaine use.

Similar opioid use in patients with vs without cocaine use

Cunningham CO, et. al., Am J Addict. 2013

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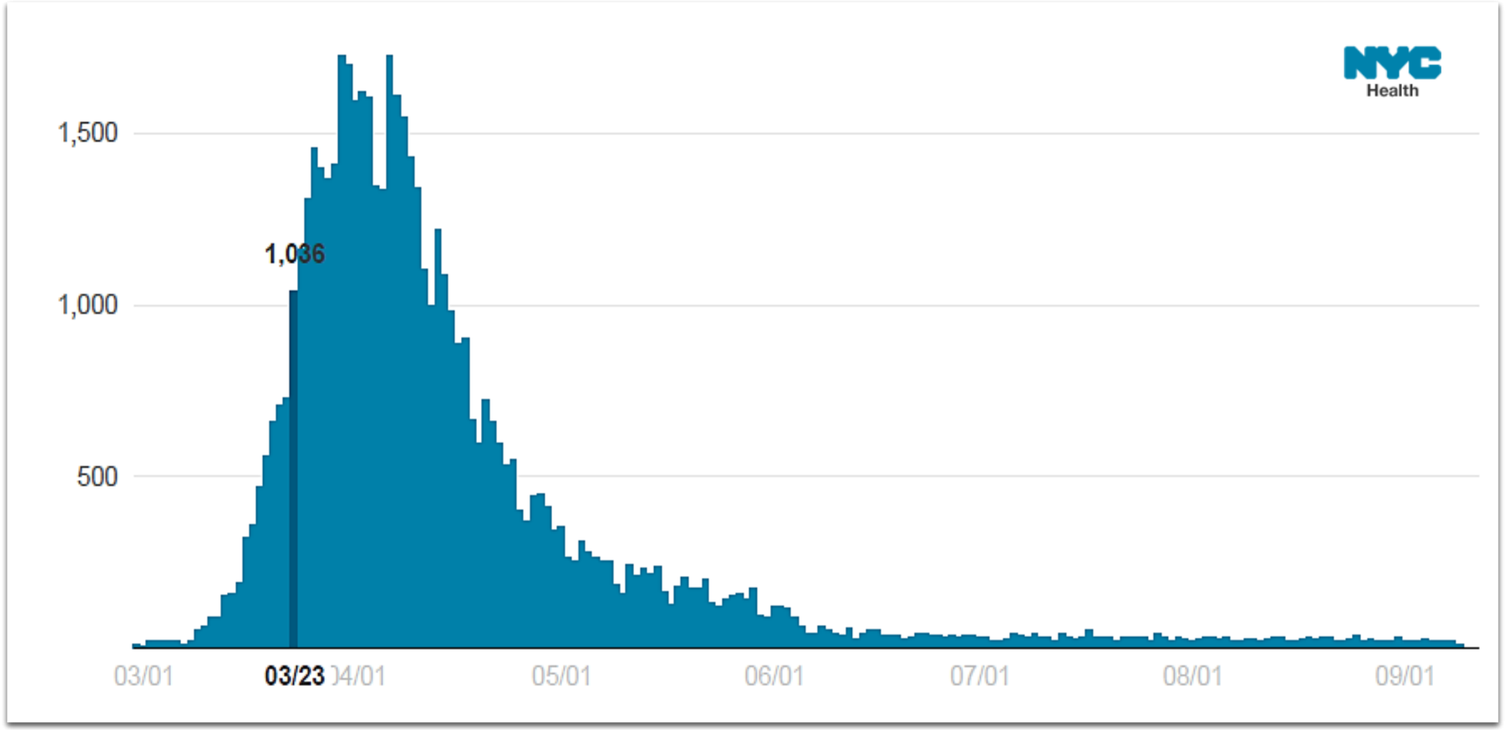
COVID-19 Surge in NYC – March 2020

ON BEING A DOCTOR — Annals of Internal Medicine

COVID-19: The Worst Days of Our Careers

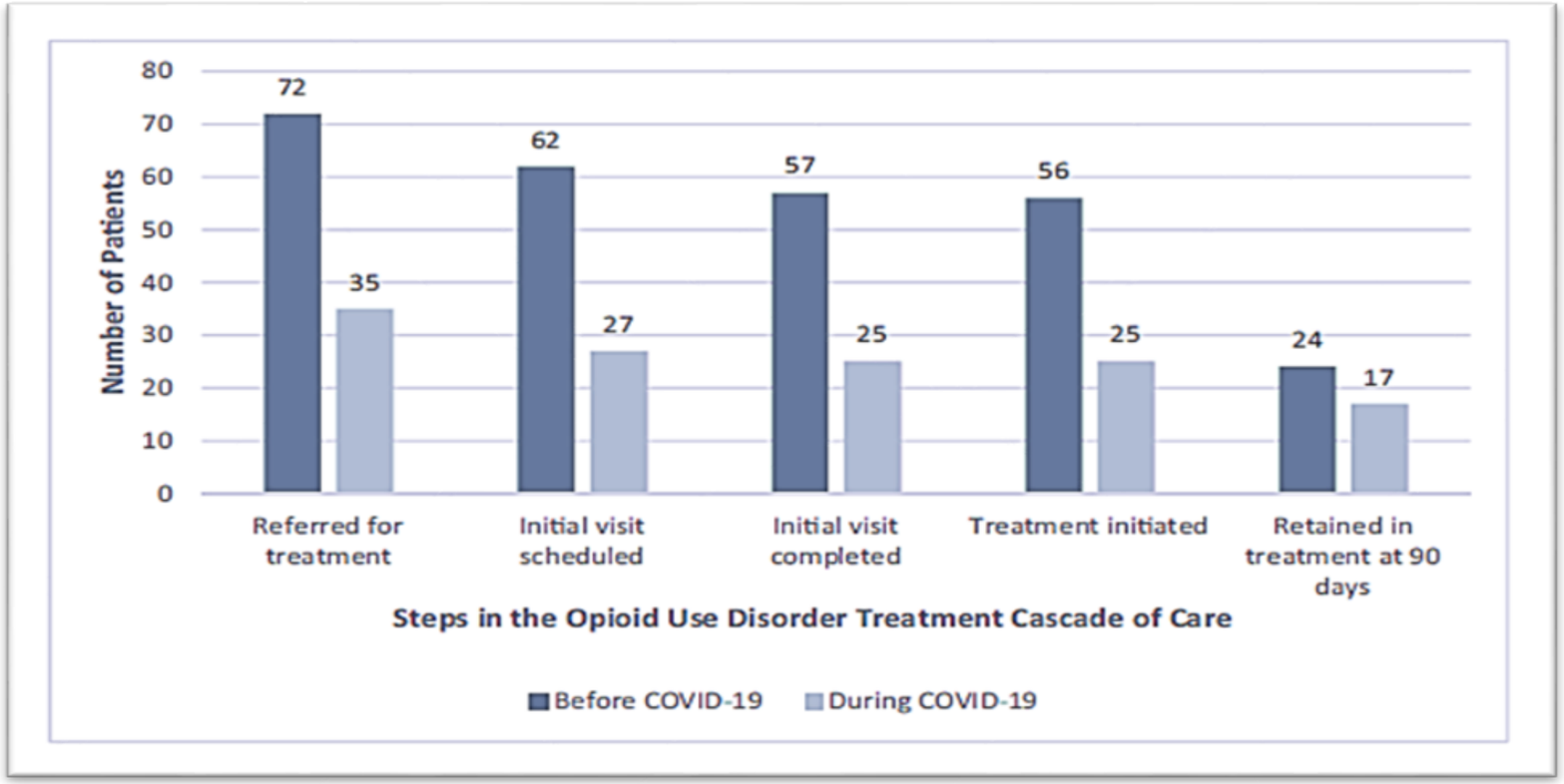


Cunningham CO, et. al., Ann Intern Med. 2020.

Buprenorphine Treatment during the COVID-19 pandemic

	Medical Visits	Prescriptions	Urine Toxicology	Naloxone
Before COVID	In-person visits required for all patients	Prescription duration typically 7-14 days for new and unstable patient	Urine drug screen required at initial visit and at all follow-up visits	Naloxone kits dispensed at initial visit and as needed at follow-up visits
During COVID Surge	In-person visits suspended Telephonic visits conducted for all patients; video whenever possible	Prescription duration of 30 days +/- refills for all patients Deliveries through mail-order if needed	Urine drug screens halted completely Focused on self-report of medication adherence and substance use	Naloxone kits prescribed to local pharmacies or mailed to patients

OUD Cascade of Care Before vs During the COVID-19 Pandemic

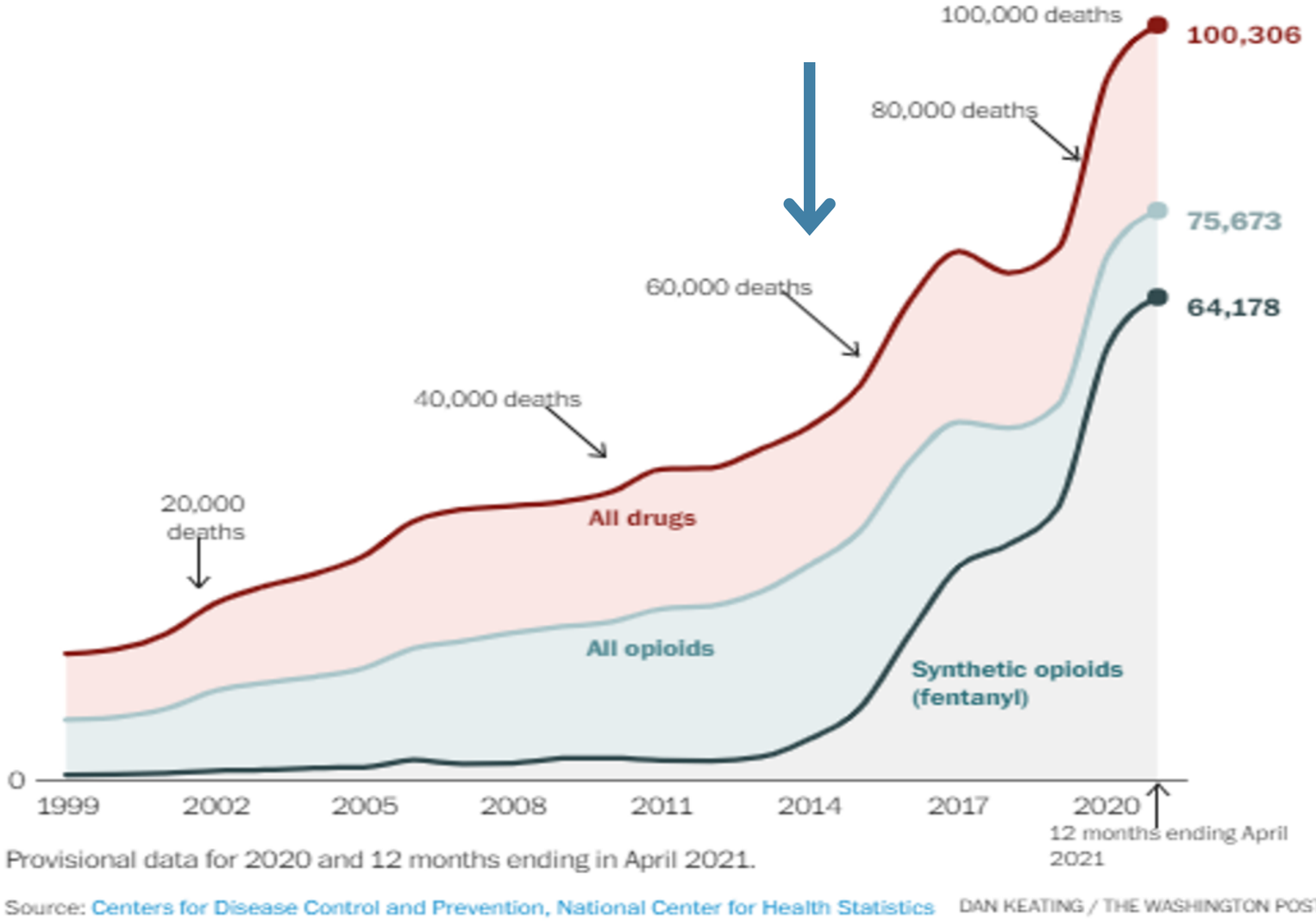


Cunningham CO, et. al., J Subst Abuse Treat. 2021.

- *50% less referrals during the COVID-19 pandemic*
- *OUD cascade of care was similar before vs during the pandemic*
- *Treatment retention was better during the pandemic, likely due to telehealth and prioritizing harm reduction*

The Opioid & Overdose Epidemics

U.S. drug overdose deaths per year



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Chapter 3:
Legalization of cannabis

Cannabis & Opioid Overdose Deaths

Bachhuber MA, et. al., JAMA Int Med. 2014

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Montefiore's Medical Cannabis Program

- *Established in 2017*
- **16 physicians certified >3000 patients**
- **4 clinics in the Bronx**
- **Integrated within primary care**

Ross J, et. al., NEJM Catalyst Innovations in Care Delivery. 2022

Ongoing Studies Examining if Medical Cannabis Reduces Opioid Use in Adults with Chronic Pain

THE MEMO STUDY

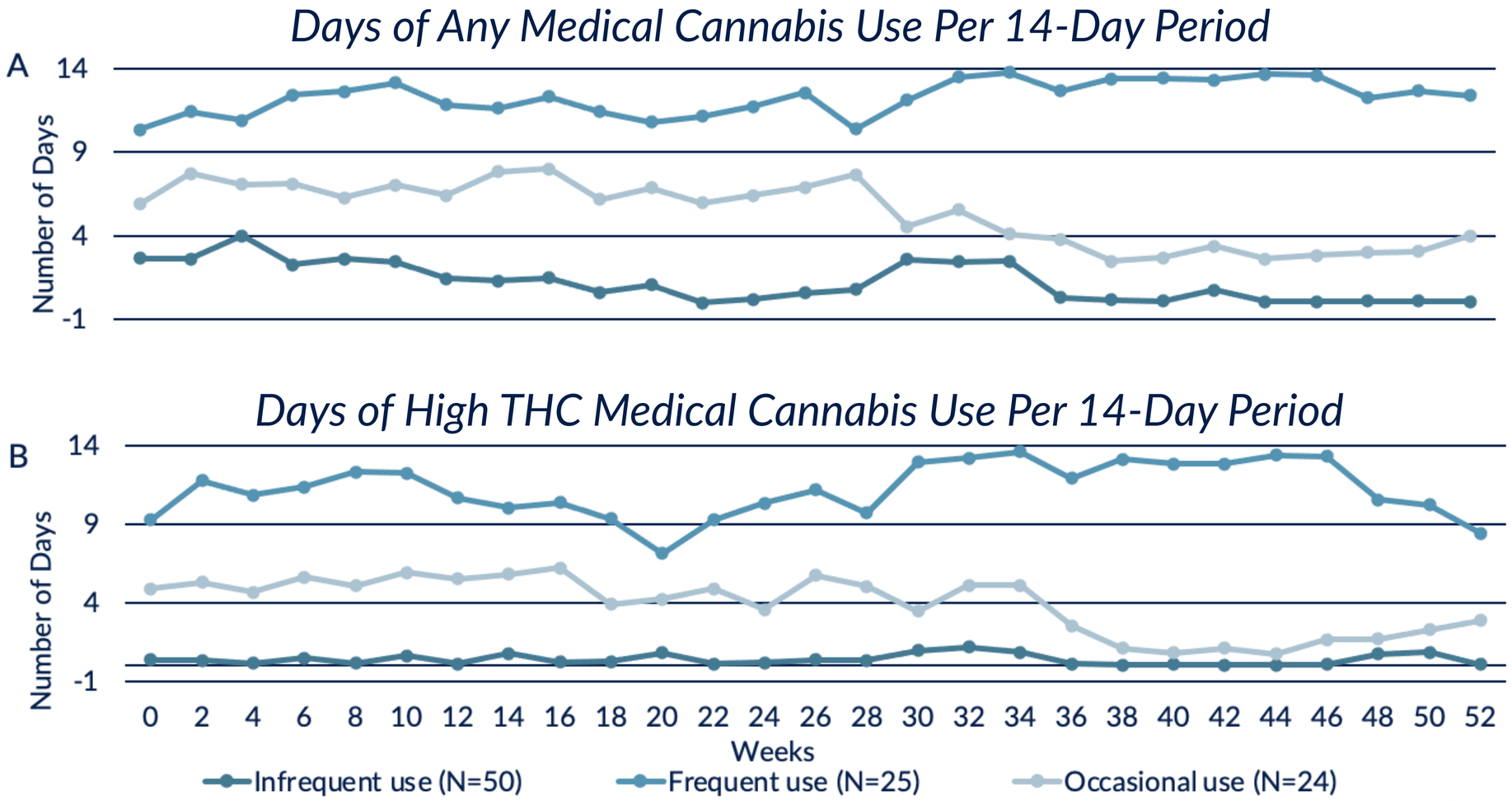
- *Medical Marijuana & Opioid Study*
- **Cohort study of 250 adults followed for 18 months**
- **HIV+ and HIV- adults with chronic pain and newly certified for medical cannabis**

THE RELEAF STUDY

Montefiore EINSTEIN

- *Cohort study of 276 adults randomized to discounted coupons for medical cannabis products*
- **RCT: randomization arm (high THC, equal THC/CBD, high CBD, placebo)**
- **Longitudinal Study: type of medical cannabis use over 14 weeks**

First-year trajectories of any medical cannabis use and high THC use



Ross J, et. al., Pain Medicine. 2021

Comparison of frequent vs infrequent users of any and high THC medical cannabis

Characteristic	Any medical cannabis aOR (95% CI)	High THC medical cannabis aOR (95% CI)
Non-Hispanic white (vs. all else)	**4.6 (1.5-14.3)**	**9.1 (2.3-33.3)**
Employed (vs. not)	0.6 (0.1-4.2)	0.2 (0.03-1.1)
Private insurance (vs. public)	4.2 (0.7-24.8)	5.2 (0.8-35.4)
>7 days of opioid use in the past 14 days (vs. ≤7 days)	1.2 (0.4-3.5)	0.6 (0.2-2.2)
Current smoker (vs. not)	1.1 (0.4-3.3)	3.1 (0.9-10.9)
High PTSD symptoms (vs. not)	1.8 (0.6-5.4)	**7.9 (1.9-32.4)**

Ross J, et al. Pain Medicine. 2021

- *Frequent users of any medical cannabis are most likely to be white*
- *Frequent users of high THC medical cannabis are most likely to be white and have high PTSD symptoms*

Disparities in Availability of Medical Cannabis Services in NY

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- *US with long history of racial/ethnic disparities in cannabis arrests*
- *Expansion of cannabis legalization*
- *To determine disparities in availability of medical cannabis services in NY*
- *Cross-sectional study using publicly available data*
  - *2018 US Census Bureau 5-year American Community Survey*
  - *NY Medical Marijuana Program*
- *Main exposures*
  - *Census tract characteristics (rural-urban classification, race/ethnicity, education, income)*
- *Main outcomes*
  - *>1 medical cannabis certifying provider*
  - *>1 medical cannabis dispensary*

Characteristics of NY Census Tracts with vs without Medical Cannabis Certifying Providers

Characteristic	aOR (95% CI)
Geographic characteristic	
Urban	reference
Suburban	**0.38 (0.25-0.57)**
Rural	1.01 (0.77-1.33)
Percent of Hispanic residents (per 10% increase)	0.98 (0.94-1.03)
Percent of Black residents (per 10% increase)	**0.95 (0.92-0.99)**
Median household income (per $10,000 USD increase)	1.00 (0.98-1.03)
Percent of residents with bachelor's degree or higher (per 10% increase)	**1.30 (1.21-1.38)**

Cunningham CO, et. al., BMC Public Health, in press

In NY, medical cannabis services are least available in neighborhoods with Black residents, and most available in urban neighborhoods with highly educated residents.

Chapter 4:

Public Health

Public Health

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- *Experiences in patient care, program development, and research guide my approach*

- *NYC Department of Health and Mental Hygiene*
  - *One of the largest and oldest municipal public health agencies in the US*

- *NY State Office of Addiction Services and Supports (OASAS)*
  - *Single State Agency that authorizes, funds, and supports addiction treatment in NY*
  - *1,700 programs; 680,000 patients; annual budget of $1.5 billion*

- *Guiding principles*
  - *Harm reduction*
  - *Data-driven approach and evidence-based strategies*
  - *Equity lens*

Overdose Prevention Centers (OPCs)

Gotham Gazette, 3/14/22

- *Evidence-based strategy*
  - *>100 OPCs in 10 countries*
  - *Improves individual and community outcomes*
- *2 OPCs opened in NYC in November 2021*
  - *Operated by a harm reduction organization*
  - *Numerous social and medical services on-site*
  - *No public funding or oversight*
- *Outcomes in first 3 months*
  - *Reversed nearly 200 overdoses*
  - *Used >10,000 times*

New Initiatives at OASAS

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- *Division of Harm Reduction*
- *Expanding access to medication treatment for OUD*
  - *Methadone*
    - *Mobile units*
    - *Medicaid rate changes to encourage less frequent visit/dosing*
  - *Buprenorphine*
    - *No prior authorizations*
  - *Buprenorphine & naloxone*
    - *Program to cover cost for uninsured & underinsured*
    - *Pharmacies must stock 30-day supply*
    - *Standing order (naloxone)*
  - *All medications for OUD*
    - *Must be offered in all jails and prisons*
    - *Must be offered in all certified OASAS programs*

LESSONS LEARNED

- *Guiding Principles:*
  - *Harm reduction, data-driven approach, equity lens*
- *Programs and research should:*
  - *Address needs of patients and communities*
  - *Address inequities*
  - *Inform care and policies*
- *Advocacy for change*
- *Changes in landscape = opportunities*
- *Team approach*

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My Team

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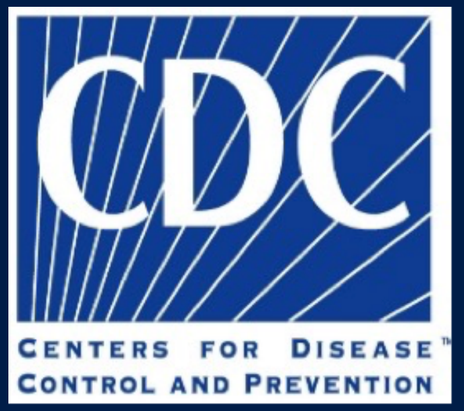
ACKNOWLEDGMENTS



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