

# HIV and HIV risk during the opioid crisis

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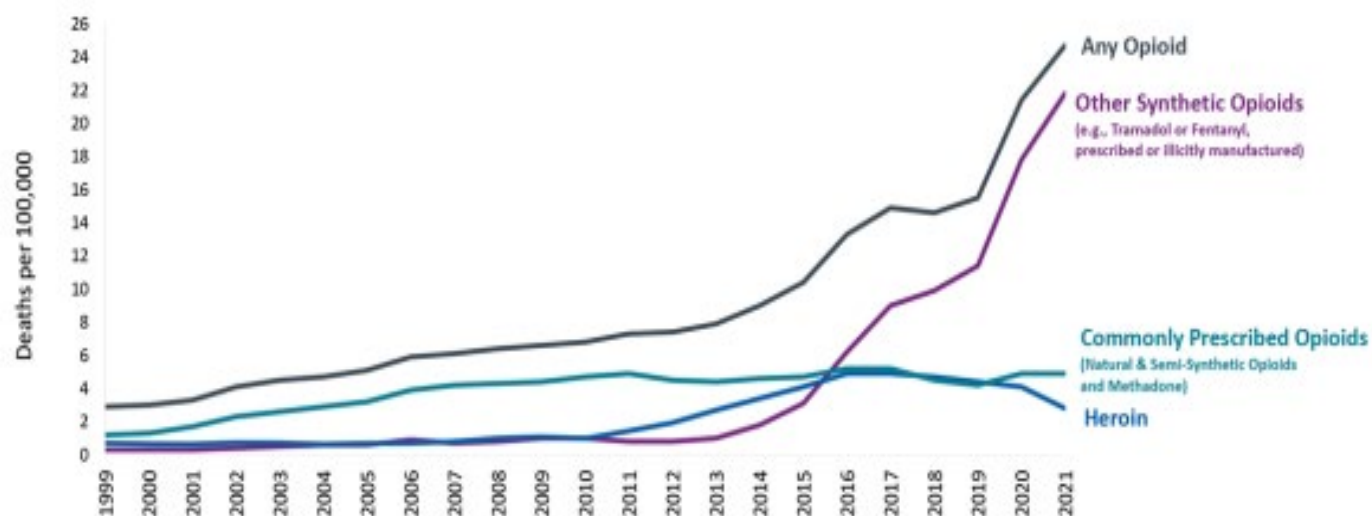
Vice Chief, Faculty Affairs, General Internal Medicine



# Opioid-related overdose deaths

**Wave One – HIV  
infections among  
PWID, 1980s-90s!**

## Three Waves of Opioid Overdose Deaths



↑  
Wave 1: Rise in Prescription Opioid Overdose Deaths Started in the 1990s

↑  
Wave 2: Rise in Heroin Overdose Deaths Started in 2010

↑  
Wave 3: Rise in Synthetic Opioid Overdose Deaths Started in 2013

SOURCE: National Vital Statistics System Mortality File.

# HIV and Opioid Crisis: Overlapping Factors

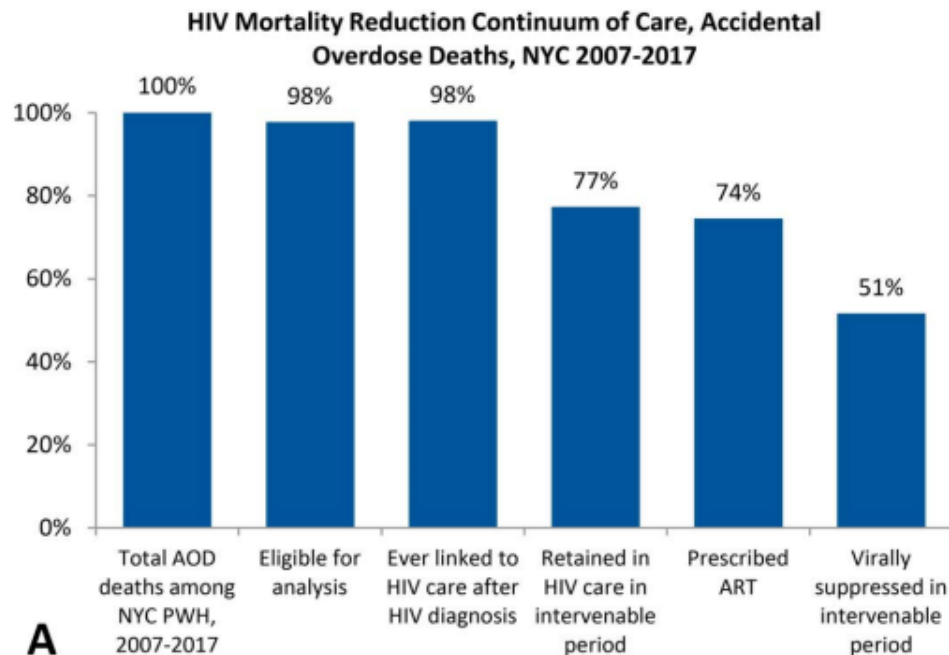
- Injection drug use
- Stimulant and alcohol use
- Trauma
- Comorbid mental health conditions
- Exchanging sex for drugs
- Commercial sex work
- Predominance in urban settings
- Minoritized population
- Structural barriers to prevention and treatment
- High prevalence of pain

# Overdose Mortality in New York City

BRIEF REPORT: EPIDEMIOLOGY

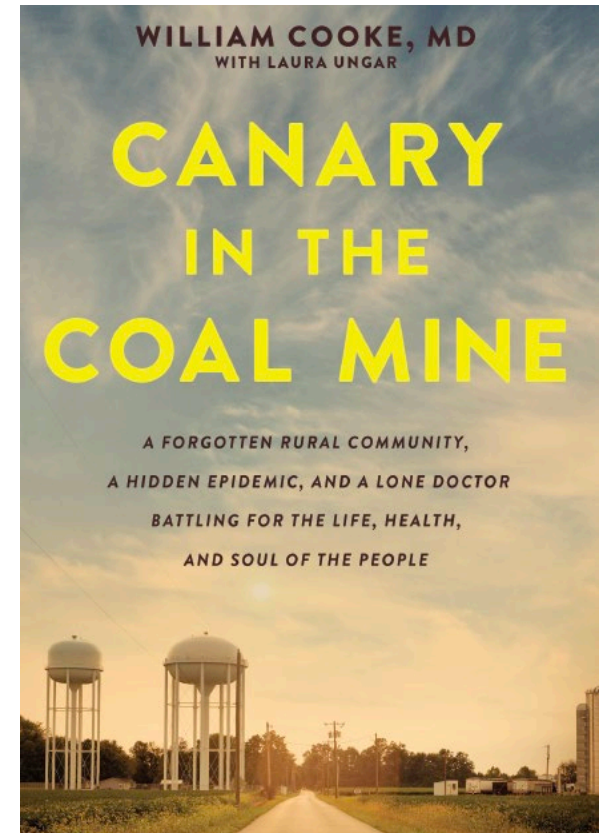
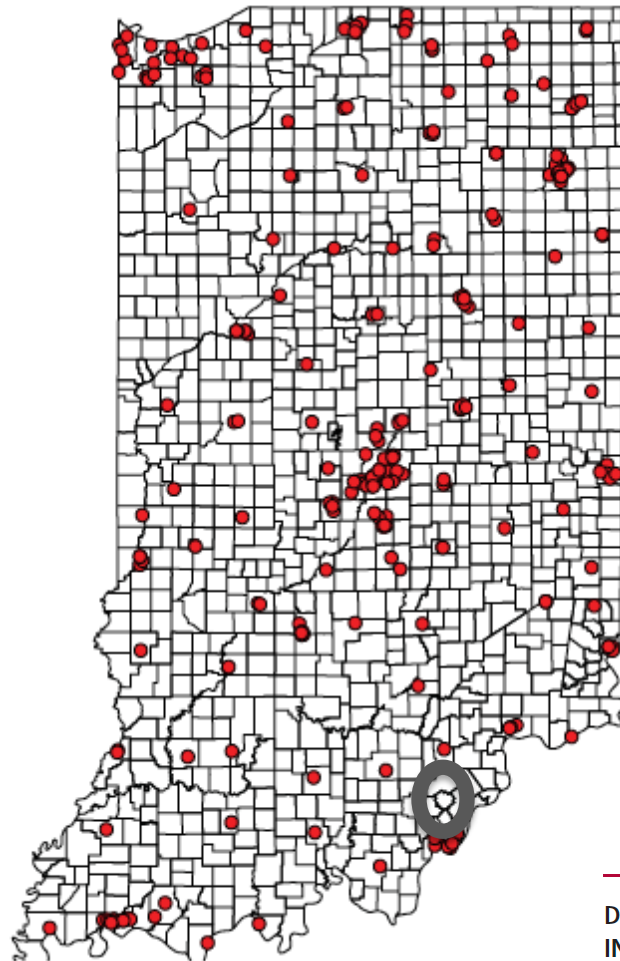
## Drug Overdose Deaths Among People With HIV in New York City, 2007–2017

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Chitra Ramaswamy, MBBS, DcGO, MPH,<sup>a</sup> and Demetre C. Daskalakis, MD, MPH<sup>b</sup>*



# Scott County, Indiana, 2014-2015

Outbreak of 215  
HIV-infections  
due to IDU,  
primarily  
oxycodone  
(Opana)



Dynamics of the HIV outbreak and response in Scott County, IN, USA, 2011-15: a modelling study

Gregg S Gonsalves, Forrest W Crawford

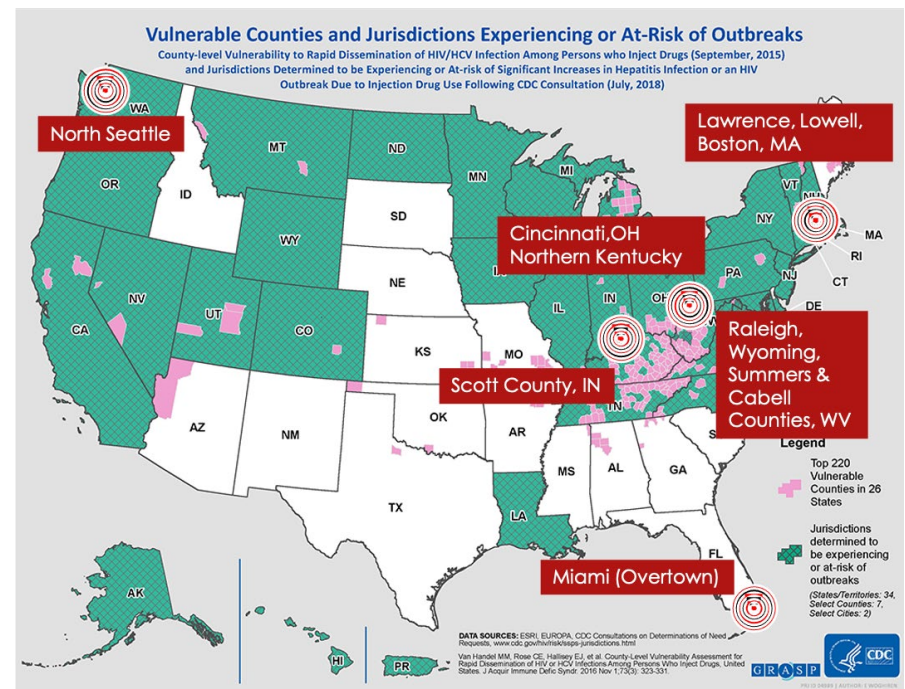
Summary

Background In November, 2014, a cluster of HIV infections was detected among people who inject drugs in [Lancet HIV 2018; 5: e569-77](#)



# Following Scott County

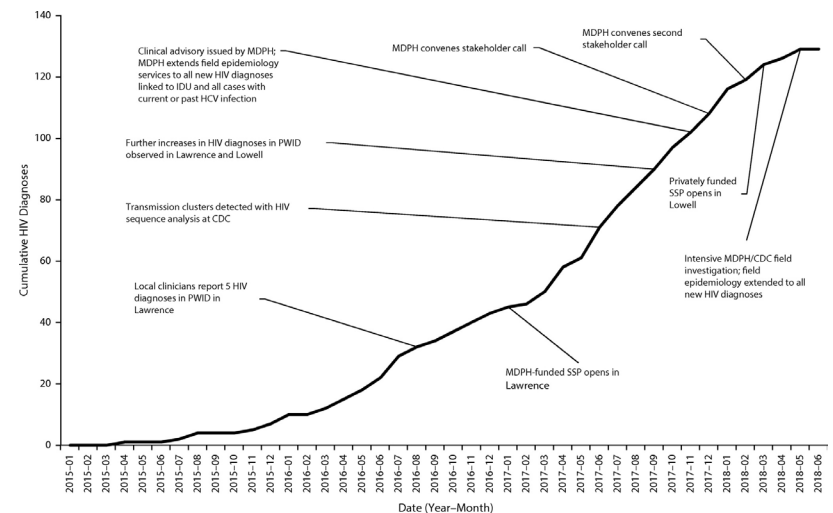
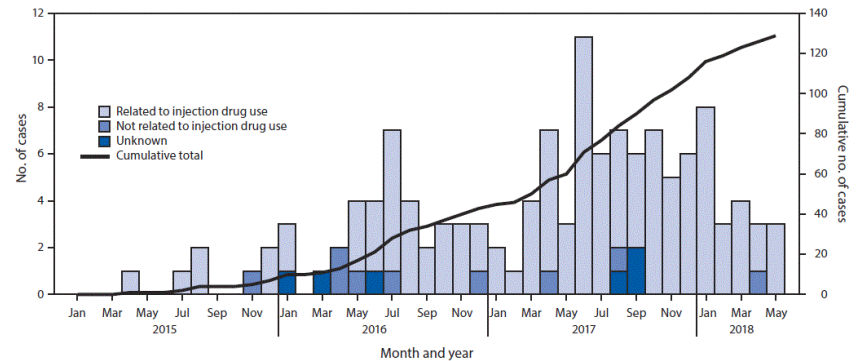
- Since the 2014-2015 outbreak in Scott County, Indiana, there have been several other important outbreaks across the US.
- Some of them did not occur in the places (i.e., pink squares at right) that a CDC analysis suggested were most vulnerable to these kinds of outbreaks.



Slide courtesy of Gregg Gonsalves, PhD

# Lawrence and Lowell, Massachusetts

- From 2015 through 2018, the communities of Lawrence and Lowell, Massachusetts experienced an outbreak of HIV infection among PWID.
- By June 30, 2018, 129 new infections met the case definition of outbreak-associated HIV infection used by the MA Department of Public Health and the US Centers for Disease Control and Prevention in their joint investigation.
- By June 30, 2020, a total of 180 new infections were linked to the outbreak.



*Cumulative HIV Diagnoses and Timeline of Investigation and Response to Outbreak of HIV: Massachusetts, 2015–2018 (Alpren C. AJPH, January 2020)*

Slide courtesy of Gregg Gonsalves, PhD

# HIV and Opioid Crisis: Prevention and Treatment

- PrEP
- Syringe Service Programs
- Naloxone
- Drug Testing
- Skin and wound care
- Integrated HIV and Addiction Treatment
  - Methadone and buprenorphine
  - Treatment for comorbid addiction, medical, mental health
  - Low barrier, trauma-informed care
- Ryan White as model response?



# Impact of buprenorphine on HIV risk

Drug and Alcohol Dependence 139 (2014) 79–85



Contents lists available at ScienceDirect

Drug and Alcohol Dependence

journal homepage: [www.elsevier.com/locate/drugalcdep](http://www.elsevier.com/locate/drugalcdep)



The impact of buprenorphine/naloxone treatment on HIV risk behaviors among HIV-infected, opioid-dependent patients<sup>☆</sup>



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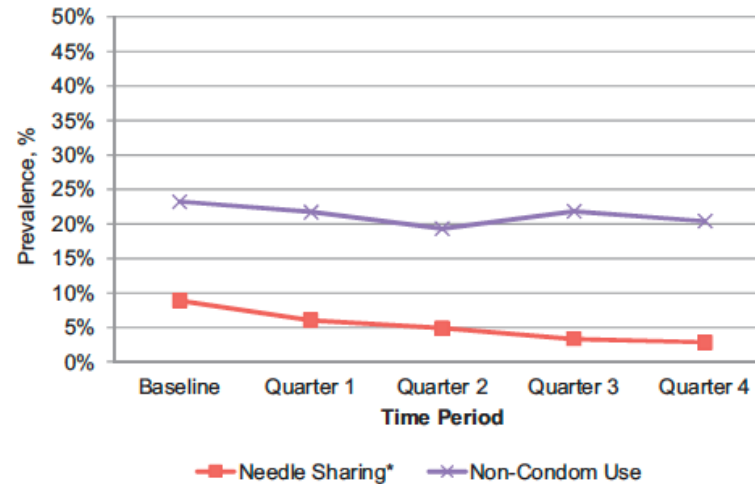


Fig. 1. Prevalence of risk behaviors during the first year after buprenorphine/naloxone initiation,  $n=303$ , 1515 observations. Note: asterisk (\*) indicates  $p<0.05$ .

# Integrated Care

- Integrated HIV and Addiction Treatment
  - HIV prevention and treatment in addiction care settings
  - Addiction treatment in HIV prevention and care settings
- Integration at the level of the program/clinic?
- Integration at the level of the individual clinician?

# Using an Implementation Science Approach

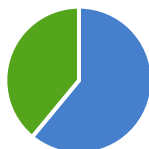


Original Investigation | Substance Use and Addiction

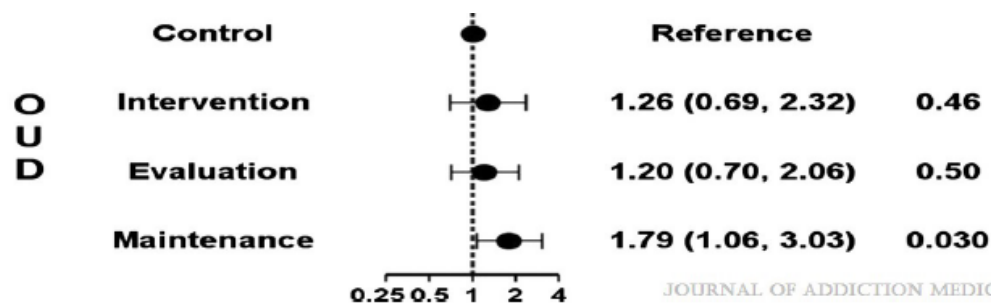
## Effect of Implementation Facilitation to Promote Adoption of Medications for Addiction Treatment in US HIV Clinics A Randomized Clinical Trial

E. Jennifer Edelman, MD, MHS; Geliang Gan, MPH; James Dziura, PhD; Denise Esserman, PhD; Elizabeth Porter, MBA; William C. Becker, MD; Philip A. Chan, MD; Deborah H. Comman, PhD; Christian D. Helfrich, MPH, PhD; Jesse Reynolds, MS; Jessica E. Yager, MD; Kenneth L. Morford, MD; Srinivas B. Muvvala, MD; David A. Fiellin, MD

### Opioid use disorder



■ Ready ■ Not ready



# Summary

- Opioid crisis started earlier than reported
- Opioid and HIV share multiple common factors
- Opportunities for HIV “outbreaks” in both urban and rural settings
- Integrated prevention and treatment makes common sense but takes dedicated implementation efforts to bust silos