



**Board of Trustees Retreat
Understanding and Responding
to the Opioid Crisis**

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Today's Agenda

- Introduction and background to the crisis
- Experts from the University of Kentucky, the Commonwealth, and our community
- Panel 1: Focus on different initiatives around effective treatment for opioid use disorder
- Rapid Research Highlights
- Panel 2: Focus on maternal and child health
- Poster session with UK students and trainees (our next generation of researchers!)



A Vocabulary Primer

- Opioids - include prescription analgesics (e.g., oxycodone, hydrocodone), heroin, and various fentanyl analogs
- Opioid Use Disorder (OUD) - the medical diagnosis of opioid addiction
- Naloxone (Narcan) - the opioid antidote, reverses overdose
- Consequences of injection drug use: HIV, Hepatitis C, and other life-threatening complications

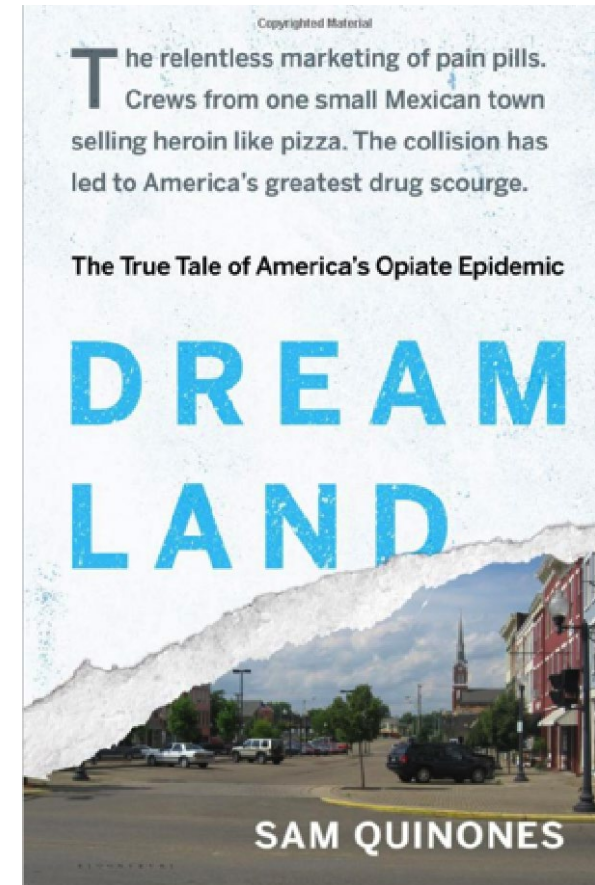
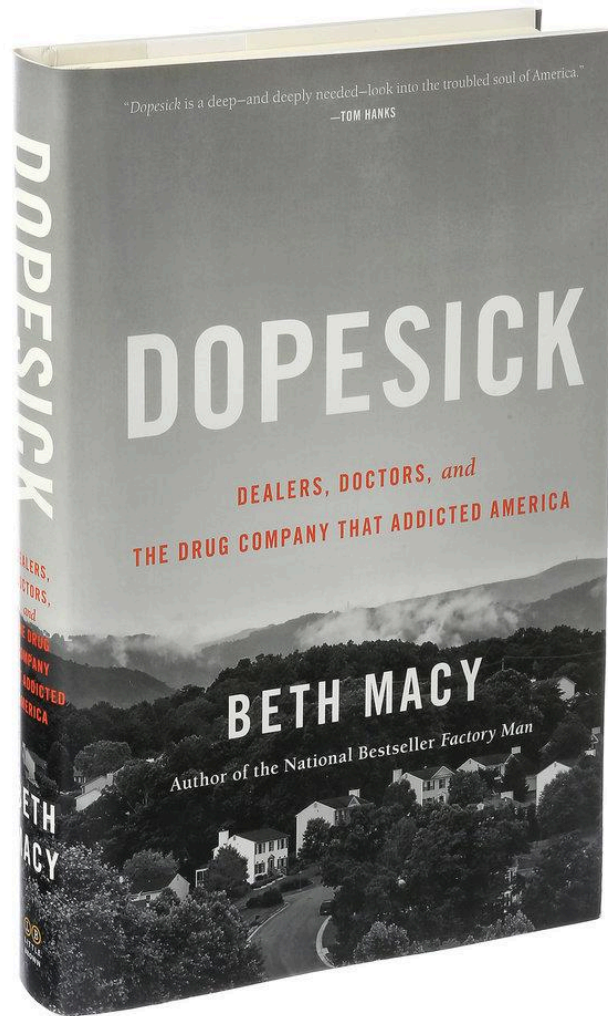


The Roots of the Epidemic

- The current crisis began with expanded prescribing for chronic non-cancer pain and was propelled by unconscionable and greedy pharmaceutical manufacturers, distributors, and sometimes health care providers
- Expanded access created a large population of people exposed to opioids with many going on to develop problematic opioid use
- Opened the door to an expansion of new heroin distribution rings into previously unaffected areas



Documents Big Pharma Role



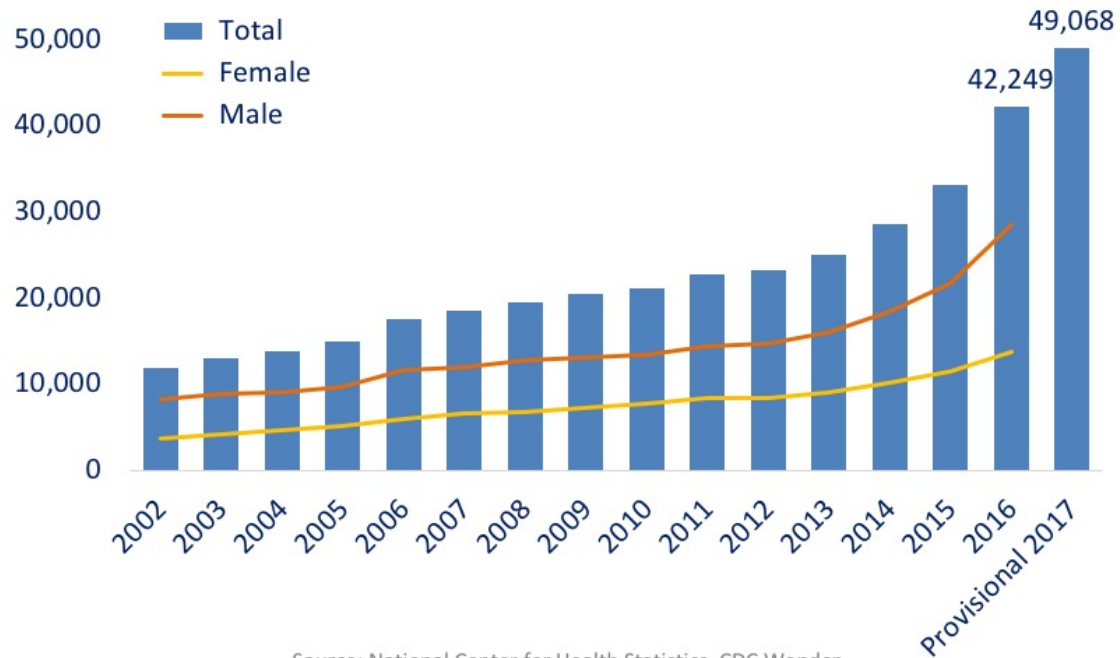
Documents the
expansion of heroin
distribution



>135 People Die Each Day from Opioid Overdose (2017)



National Overdose Deaths Number of Deaths Involving Opioids

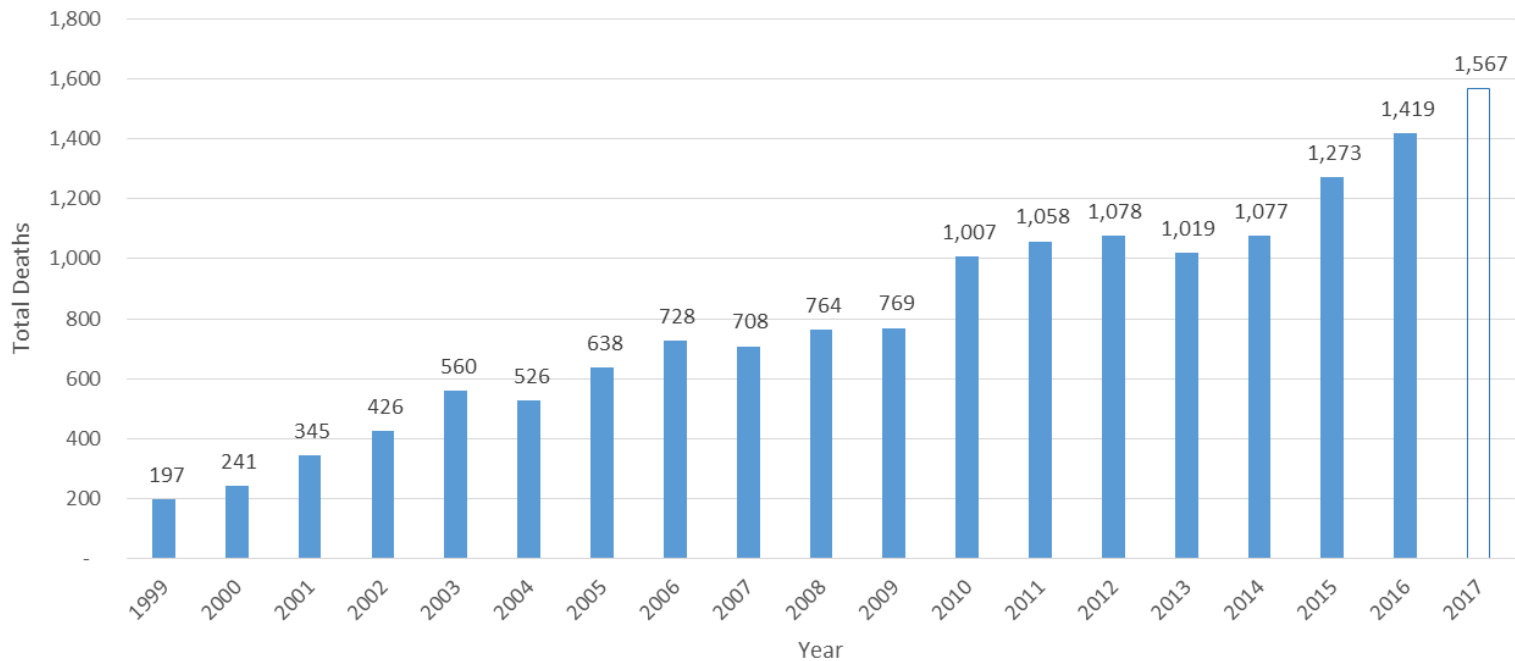


Source: National Center for Health Statistics, CDC Wonder



Opioid Overdose in Kentucky

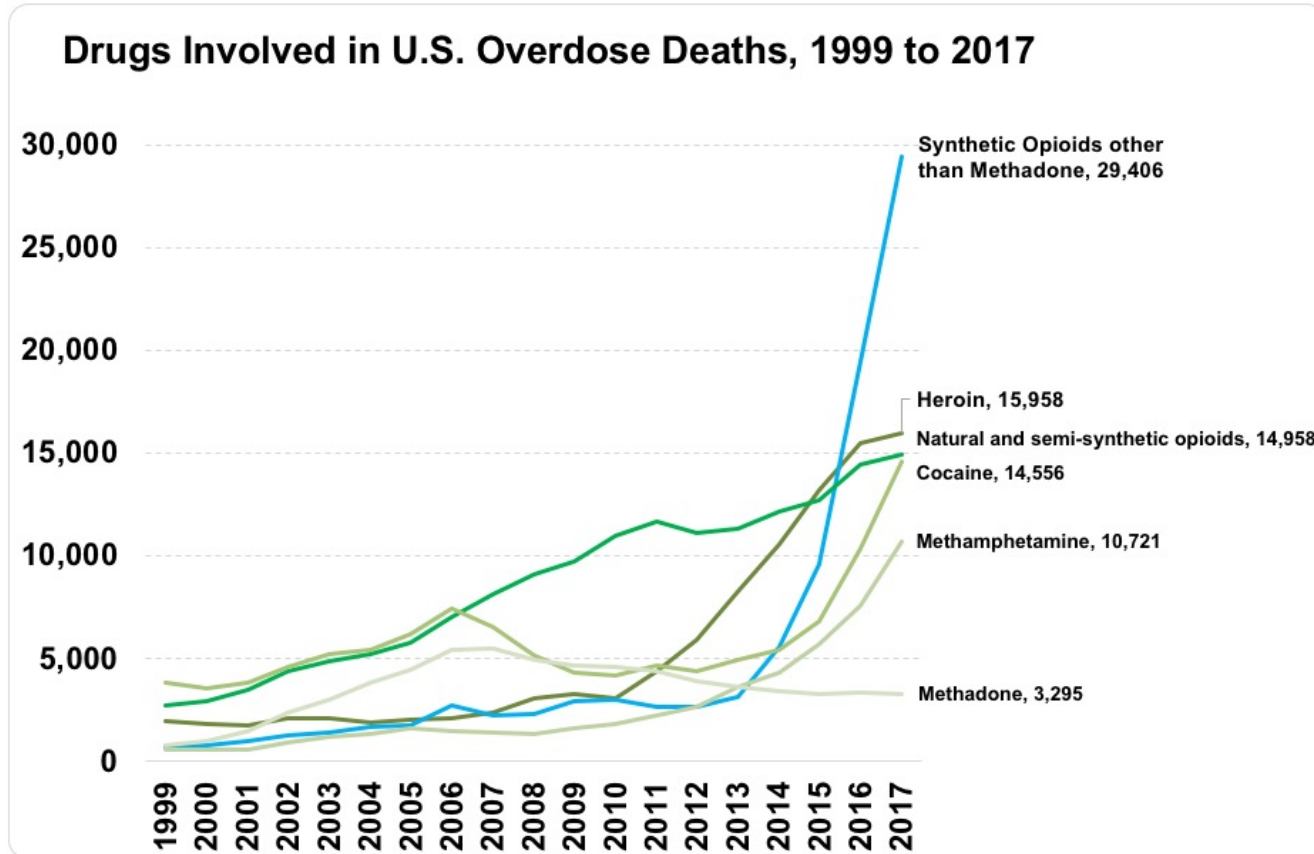
Drug Overdose Deaths among Kentucky Residents, 1999-2017



Produced by the Kentucky Injury Prevention and Research Center (KIPRC), a bona fide agent for the Kentucky Department for Public Health. Data sources: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/mcd-icd10.html> Jan 8, 2018. Predicted provisional counts for 12-month period ending in December 2017 based on the CDC's provisional data. Available at <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>

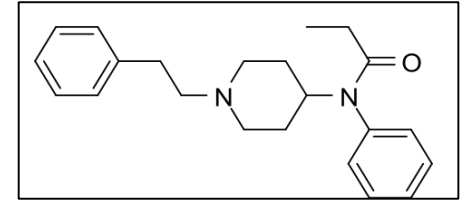


>197 People Die Each Day from Drug Overdose (2017)



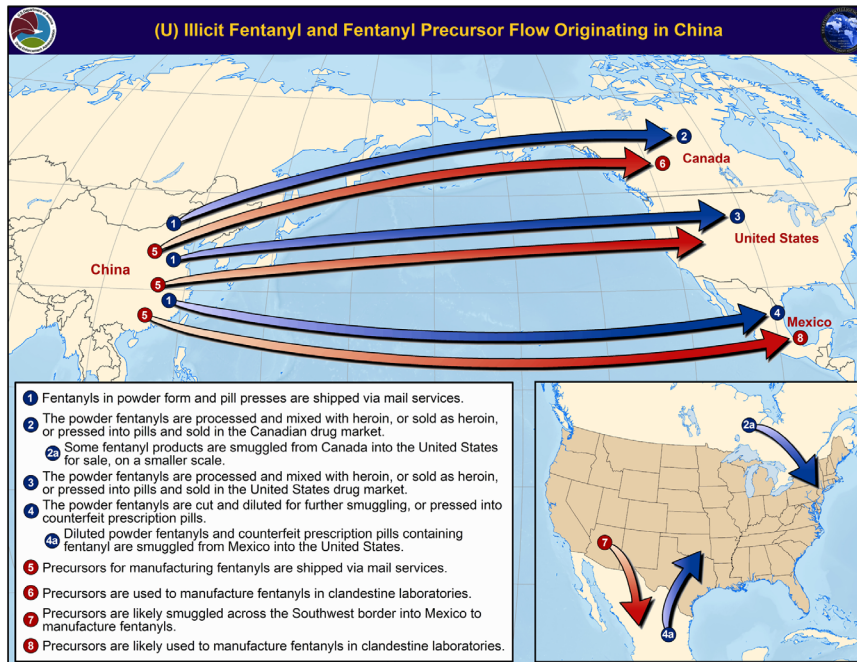


Fentanyl Supply

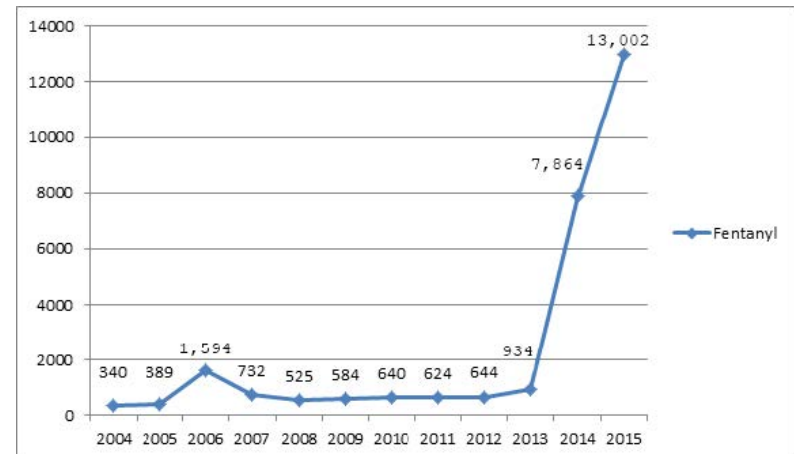


Synthetic 50 -100x more potent than heroin

Found in the heroin supply but also sometimes disguised as other medications



DEA National Forensic Laboratory Information System



The number of exhibits testing positive for fentanyl increased 65% from 2014 to 2015.



Primary Approaches to the Opioid Crisis in the U.S.

- Law Enforcement: interdiction and jail/prison
- Prevention: provider education, reduced prescribing, Prescription Drug Monitoring Programs (KASPER), rescheduling, and opioid disposal programs
- Addressing harms: treatment of infectious disease, naloxone distribution, and syringe exchange services
- Treatment for those with OUD: earlier intervention, and expansion of medication treatment



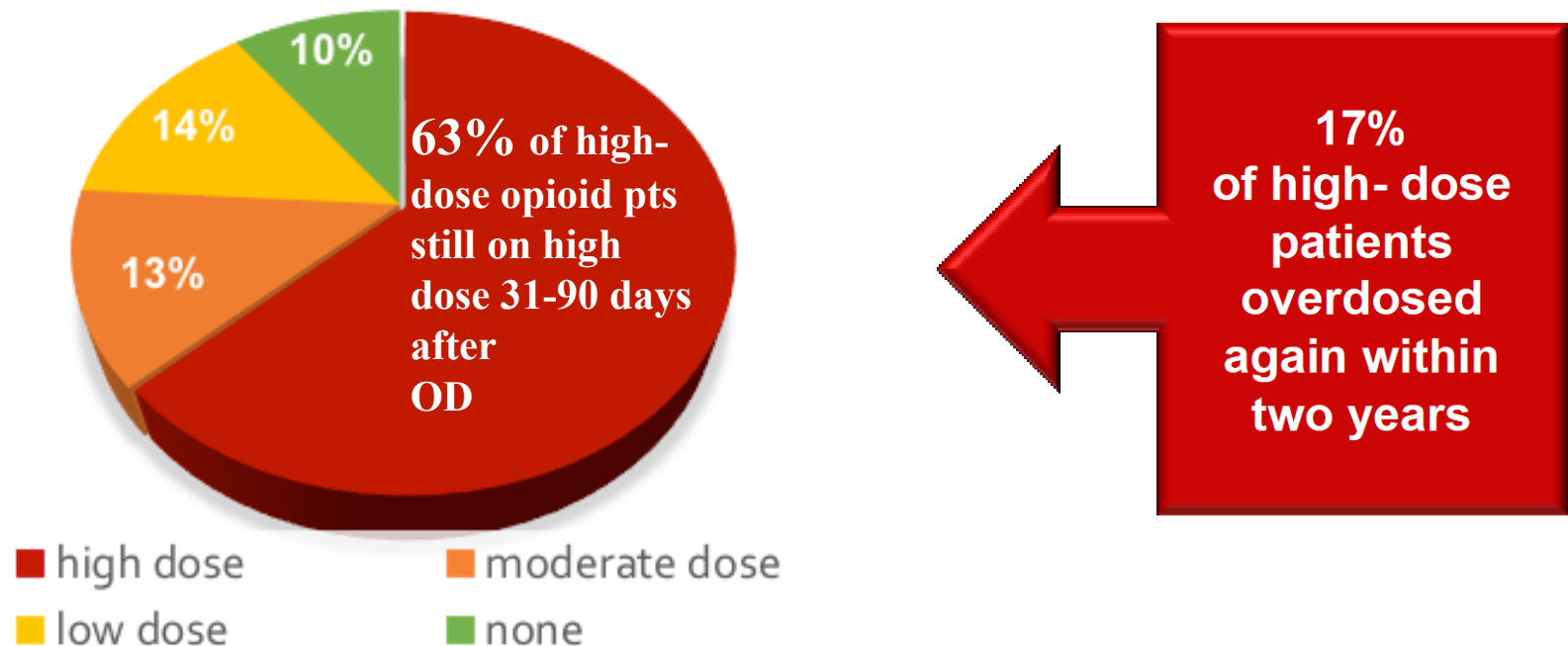
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Doctors Continue to Prescribe to 91% of Overdose Patients

2-year follow-up of commercially insured patients (n=2848) who had a nonfatal opioid overdose during long-term opioid therapy



➤ 33-39% of those with active opioid prescriptions also were prescribed benzodiazepines.



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Scientific Approach to Weighing Solutions

- Dynamic modeling study accounted for a broad array of approaches (e.g., reducing prescribing rates, increasing opioid disposal programs, and increased medications for treatment)
- Estimated that without further intervention:
 - 2016-2020 **235,000 deaths** (85K PO/150K H)
 - 2016-2025 **510,000 deaths** (170K PO/340 H)
- The most impactful interventions would be:
 - Interventions to mitigate the harmful effects of OUD including overdose and infectious disease
 - expansion of OUD treatment



Vulnerable Areas for HIV/HCV (n=220)

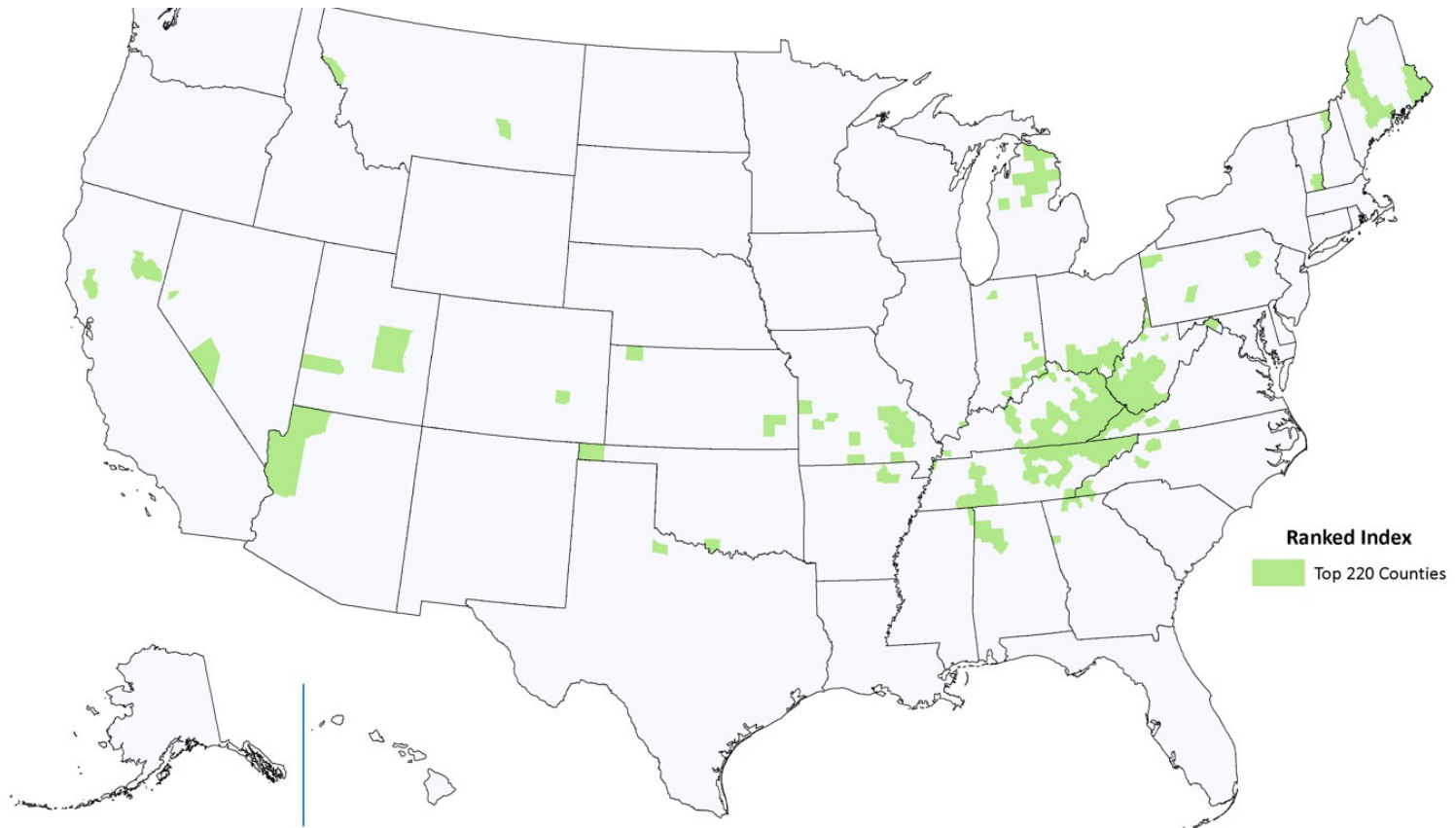
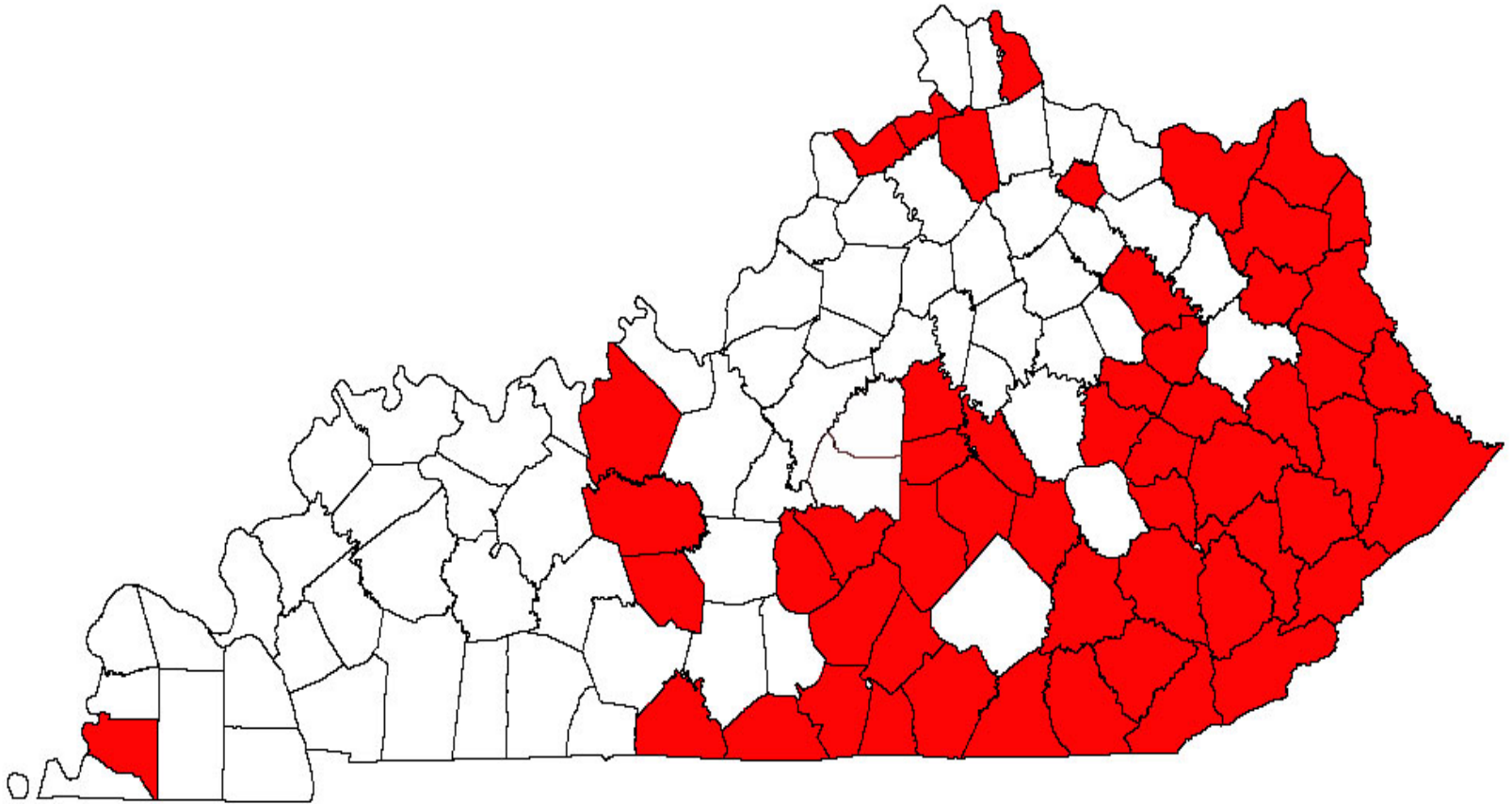


Figure 2. Counties for which estimated vulnerability scores or their upper 90% confidence interval exceeded the 95th percentile.



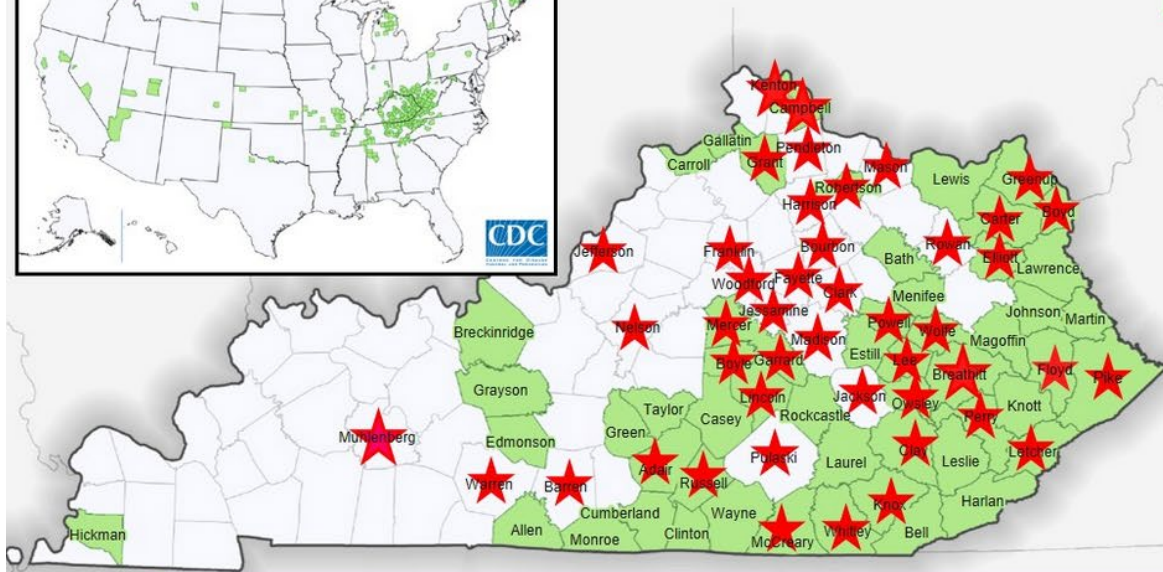
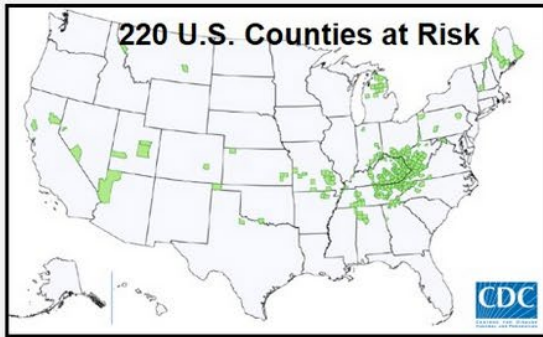
Vulnerable Areas for HIV/HCV (54 of 220)





Kentucky Public Health
Prevent. Promote. Protect.

54 Kentucky Counties with Increased Vulnerability to Rapid Dissemination of HIV/HCV Infections Among People who Inject Drugs and Preventive Syringe Exchange Programs



National Ranking by County

1	Wolfe	34	Martin	108	Gallatin
3	Breathitt	35	Boyle	125	Bath
4	Perry	39	Lawrence	126	Grayson
5	Clay	40	Rockcastle	129	Greenup
6	Bell	45	Harlan	132	Green
8	Leslie	48	McCreary	153	Casey
9	Knox	50	Letcher	154	Carter
10	Floyd	53	Johnson	163	Monroe
11	Clinton	54	Russell	167	Garrard
12	Owsley	56	Elliott	175	Robertson
14	Whitley	65	Laurel	178	Lewis
15	Powell	67	Carroll	179	Edmonson
17	Knott	75	Taylor	180	Allen
21	Pike	77	Grant	187	Boyd
23	Magoffin	93	Adair	191	Hickman
25	Estill	97	Lincoln	202	Breckinridge
30	Lee	99	Wayne	212	Campbell
31	Menifee	101	Cumberland	214	Mercer

Specific concerns regarding Kentucky Counties:

1. Dense drug user networks similar to Scott County Indiana
2. Lack of syringe exchange programs

- Vulnerable Counties
- Operating Syringe Exchanges as of 07/06/2018
- Approved but not Operational yet

NOTE: CDC stresses that this is a REGION-WIDE problem, not just a county-specific problem.



Primary Approaches to the Opioid Crisis in the U.S.

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- **Treatment for those with OUD: earlier intervention, and expansion of medication treatment**



The Treatment Pathway: From Active Disease to Remission and Recovery

- Opioid Use Disorder: characterized by compulsive opioid use often propelled by the painful opioid withdrawal syndrome that occurs when stopping
- Remission: when signs and symptoms of opioid use disorder are no longer present, can be partial or full remission similar to other medical illnesses
- Recovery: establishing/reestablishing a healthy life, a meaningful life purpose, stable housing, employment and healthy relationships AND includes having access to treatment

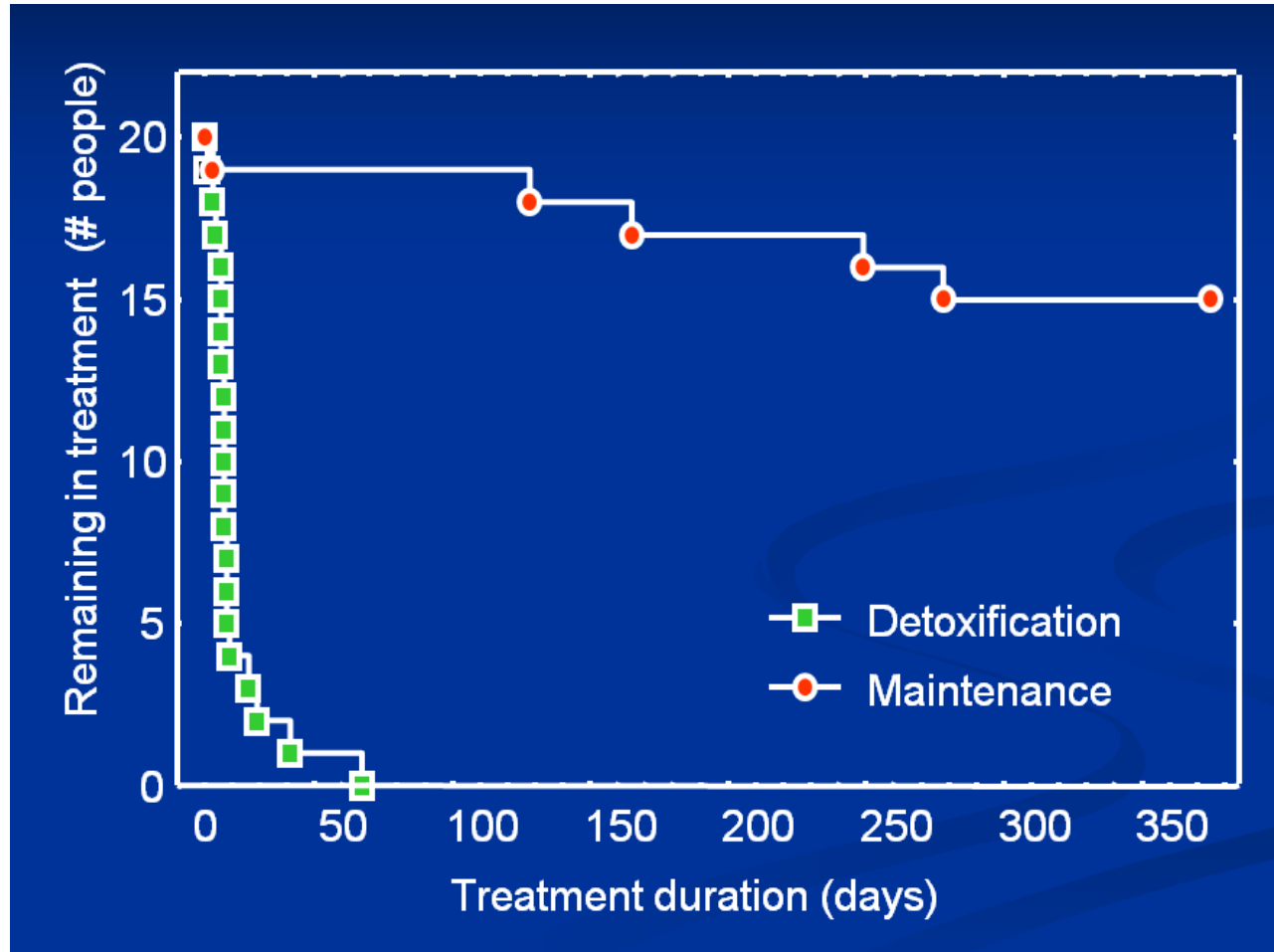


What is Effective and Evidence-based Treatment for Opioid Use Disorder?

- Incarceration? Talk Therapy? Long-term Residential (at the beach)? Intensive Outpatient? Therapeutic Living? Recovery Community? Acupuncture? Goat Yoga? Marijuana?
- Detoxification is probably the most commonly deployed approach in the United States
- FDA-approved medications for OUD are the MOST effective treatments available

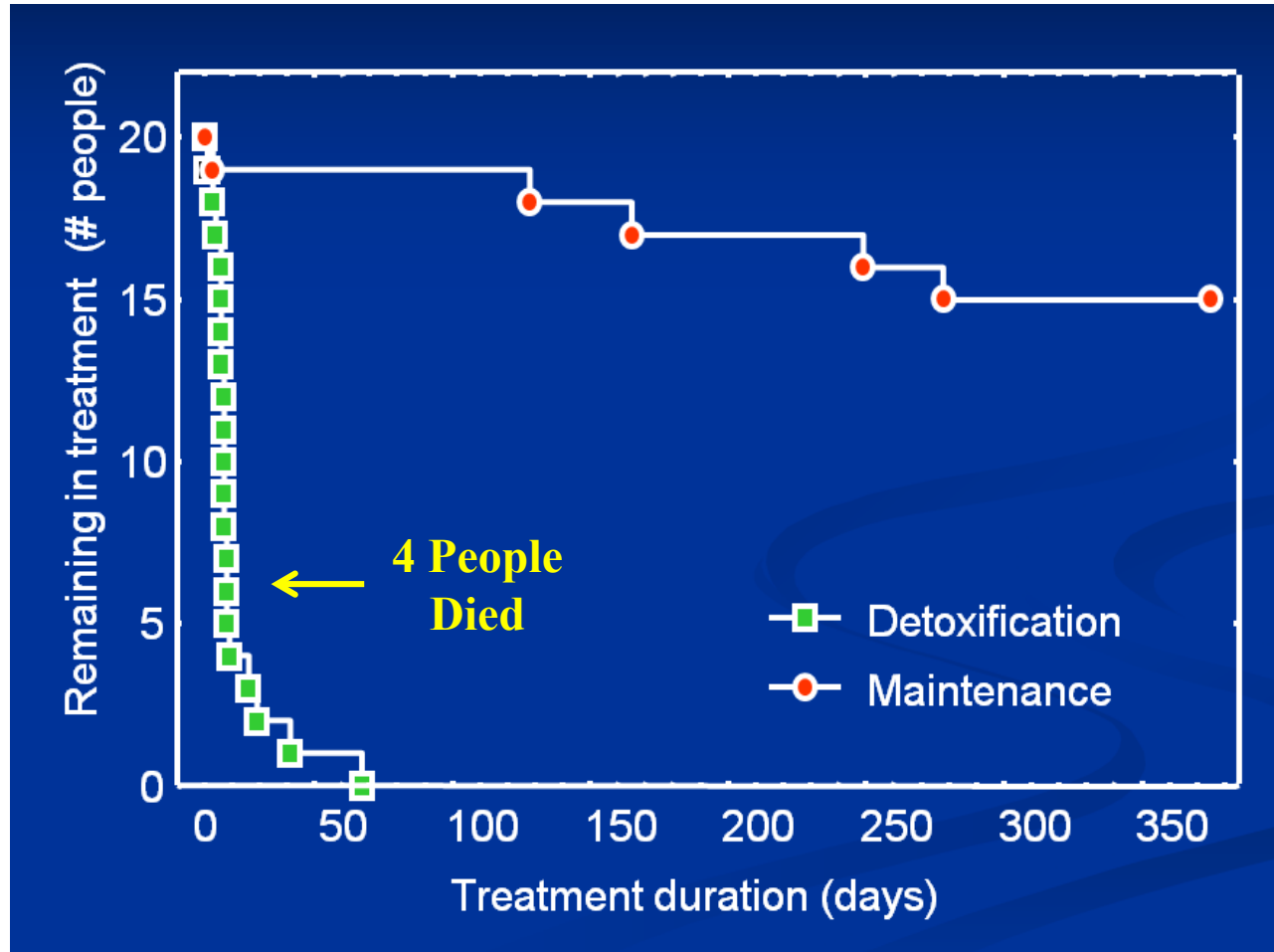


Buprenorphine vs. Detoxification for Heroin Dependence with Enriched Psychosocial Services





Buprenorphine vs. Detoxification for Heroin Dependence with Enriched Psychosocial Services







Solution: Increase Access to Treatment with FDA-approved Medications

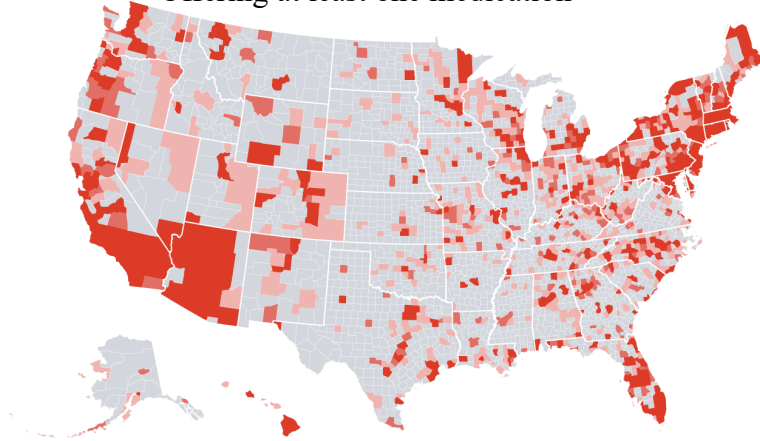
- Pharmacotherapies (methadone, buprenorphine, naltrexone) are efficacious and effective:
 - Save lives
 - Reduce illicit drug use
 - Reduce disease transmission
 - Reduce drug-associated crime
 - Improve psychosocial function
- This is easier said than done:
 - Barriers include cost, inadequate workforce, insurance barriers, lack of understanding, stigma and discrimination



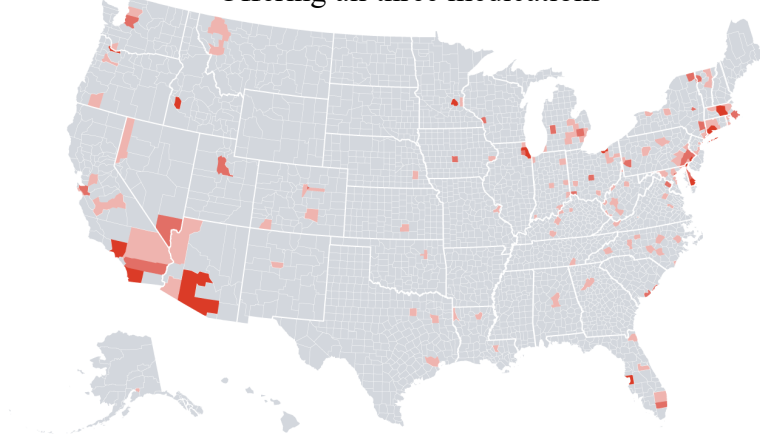
Medication Availability in the United States

0 3+

Offering at least one medication



Offering all three medications



Limited access to treatment

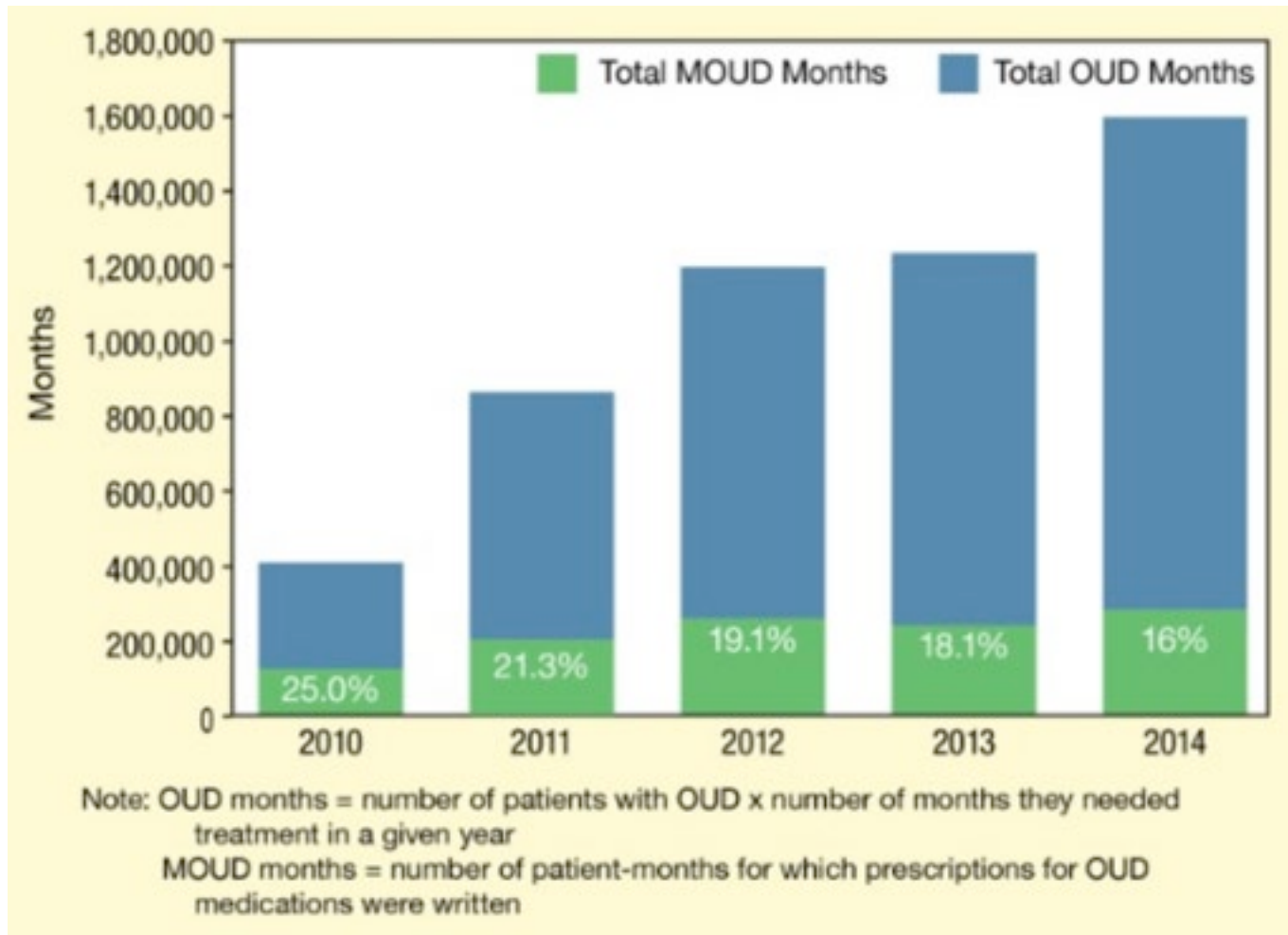
Studies estimate that 1 person in 10 are able to access medications

During an overdose epidemic in France, access to medications was expanded rapidly and decreased overdose by 80%¹

Drug overdose rate is 20x higher in the US than EU



With Modest Increases in Treatment, We are Losing Ground







Panel 1: Addressing the Opioid Crisis in Different Settings

Dr. Allen Brenzel

State of Kentucky

Dr. Laura Fanucchi

University of Kentucky

Secretary John Tilley

State of Kentucky

Dr. Roger Humphries

University of Kentucky

