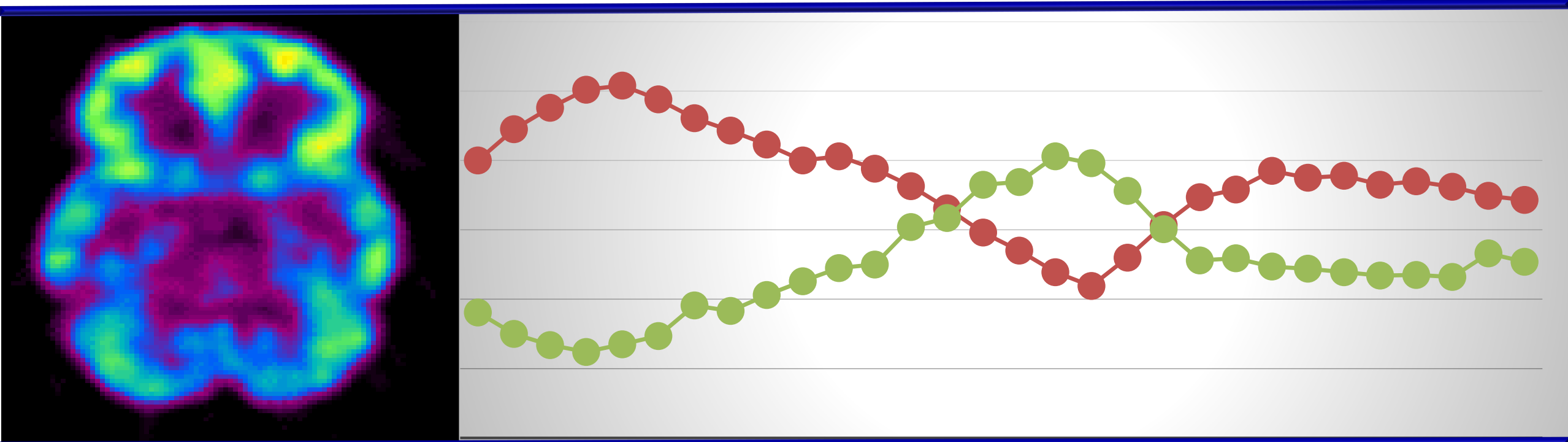


# *Drug Addiction Science*



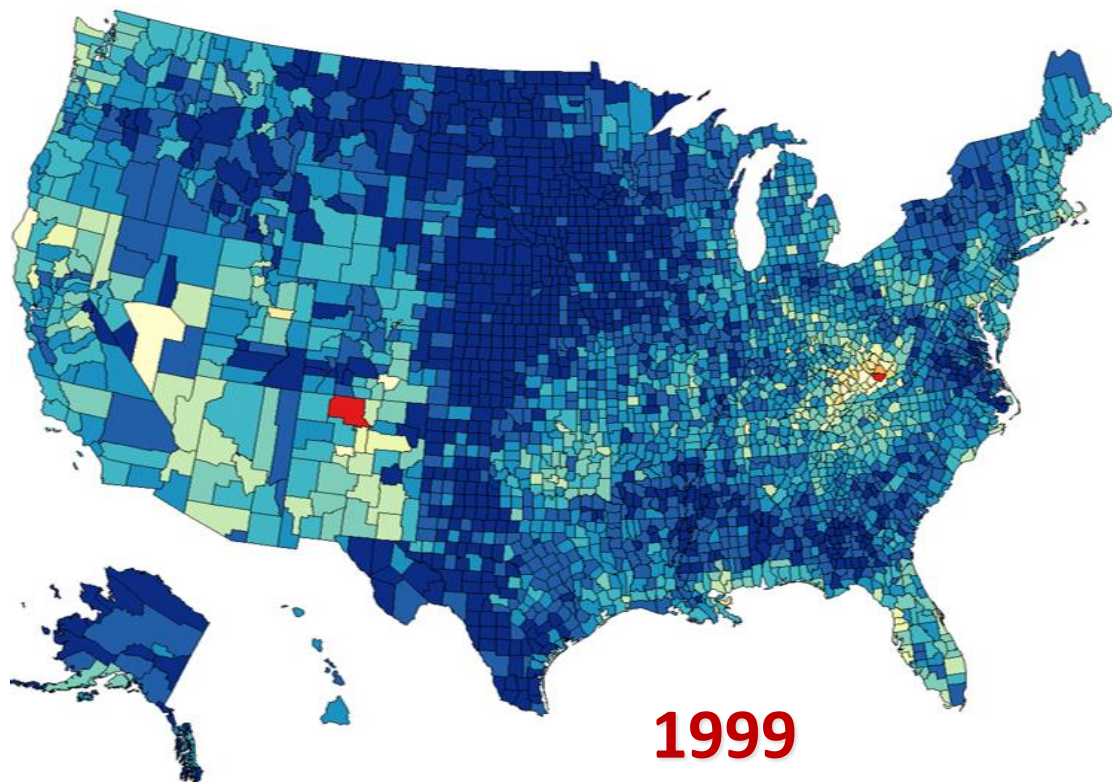
**Carlos Blanco, M.D., Ph.D.**

Director, Division of Epidemiology, Services and Prevention  
National Institute on Drug Abuse

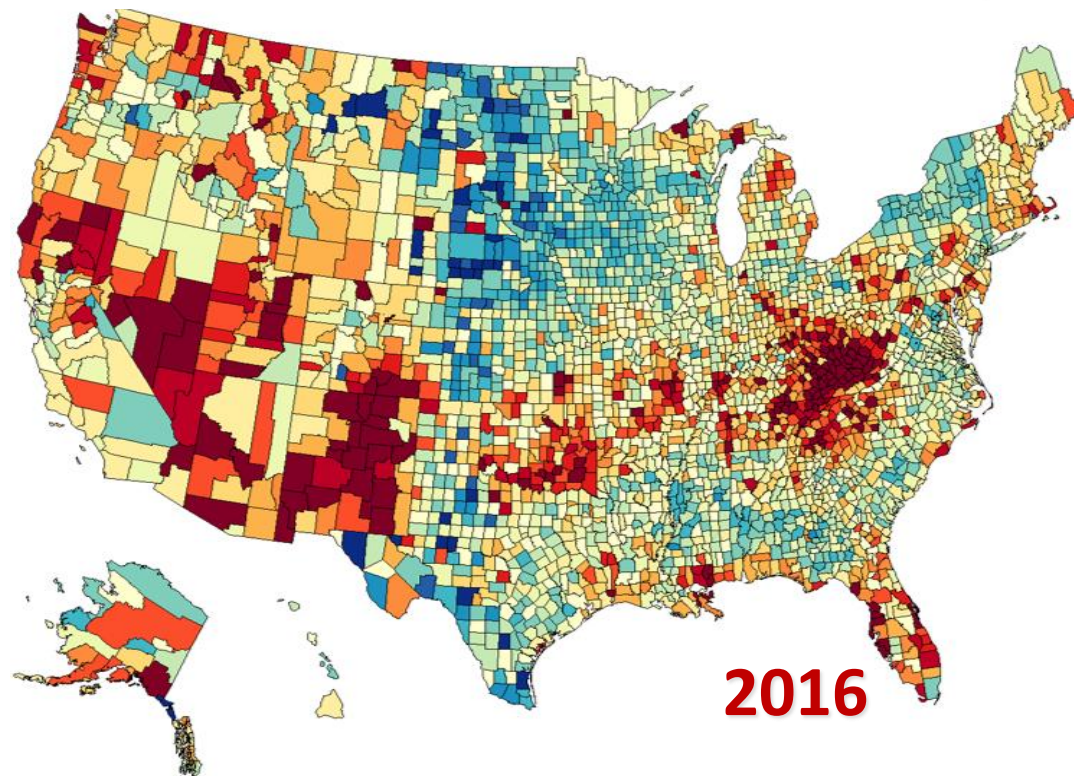


# Drug Overdose Rates are Increasing:

Estimated Age-adjusted Death Rates per 100,000 for Drug Poisoning by County.

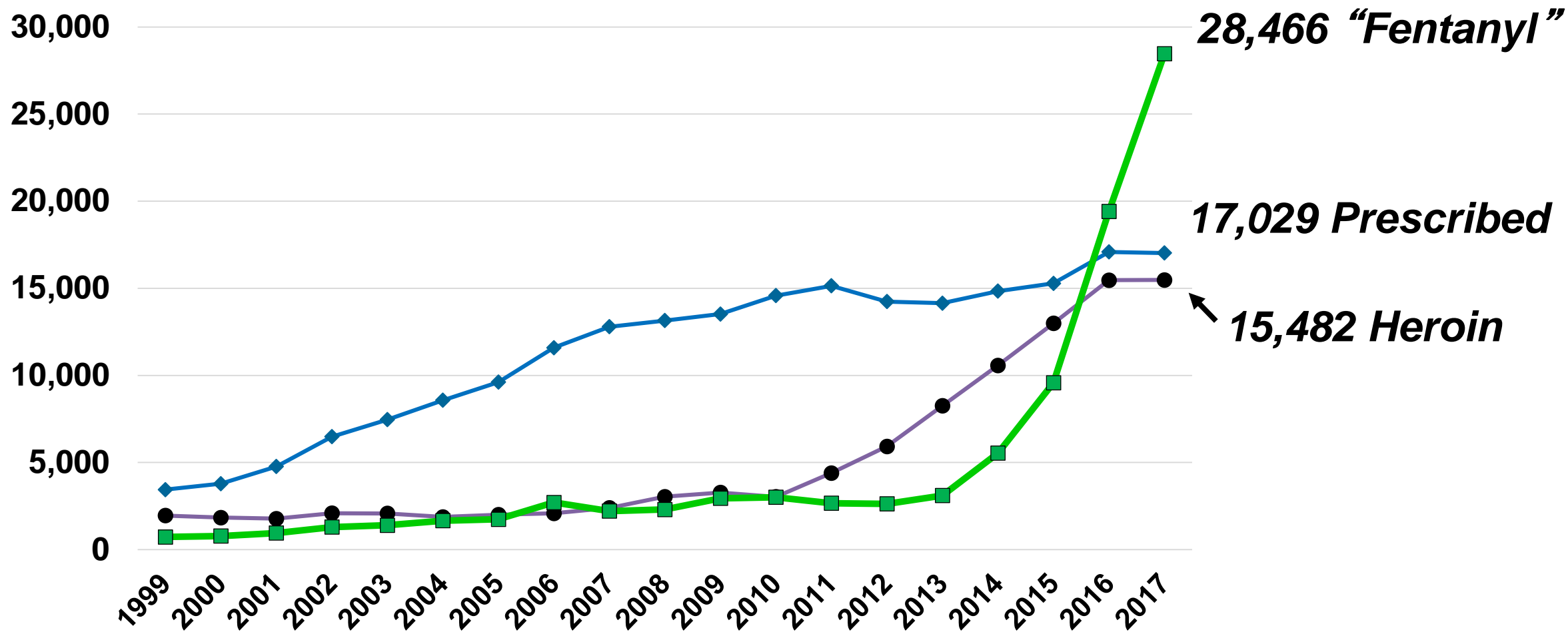


**70,237 Deaths in 2017**  
**(47,600 from *Prescription***  
***and Illicit Opioids*)**



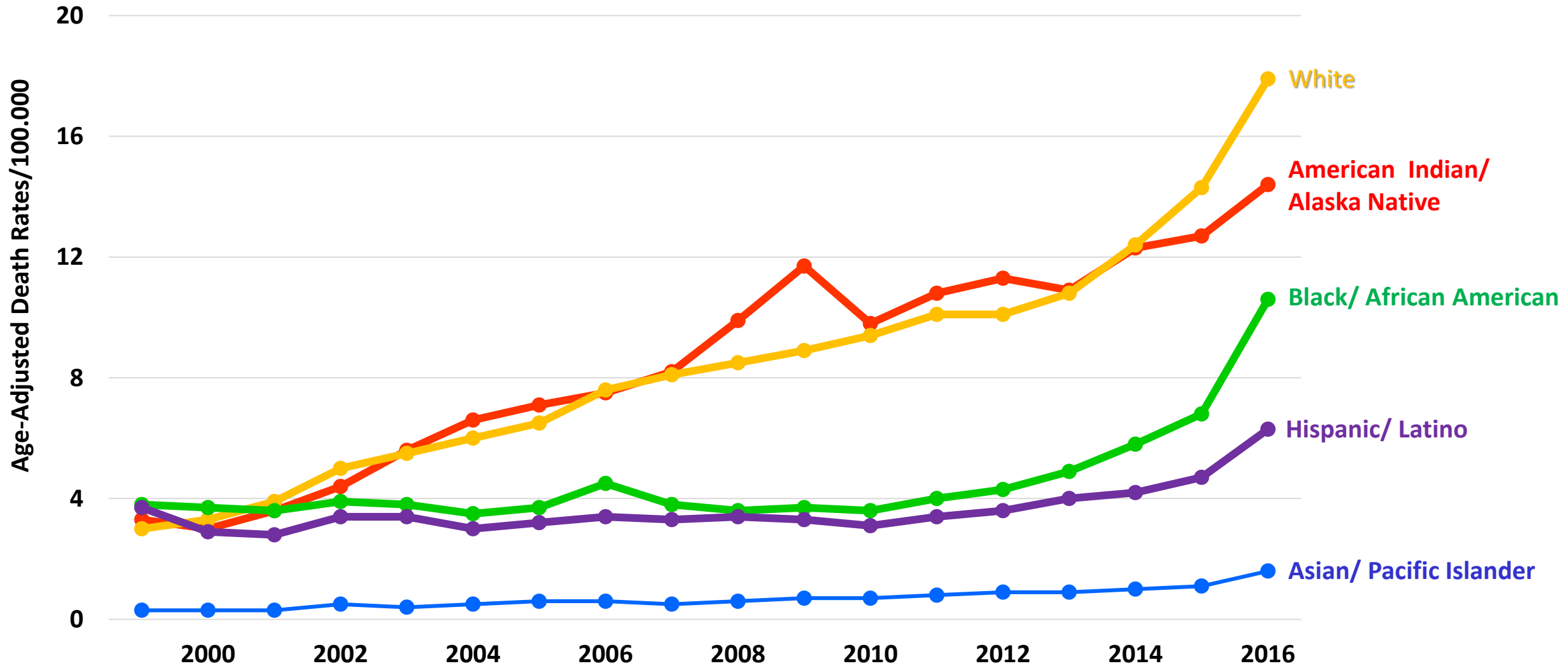
# *Evolution of Drivers of Opioid Overdose Deaths:*

*Analgesics* ➡ *Heroin* ➡ *Fentanyl*



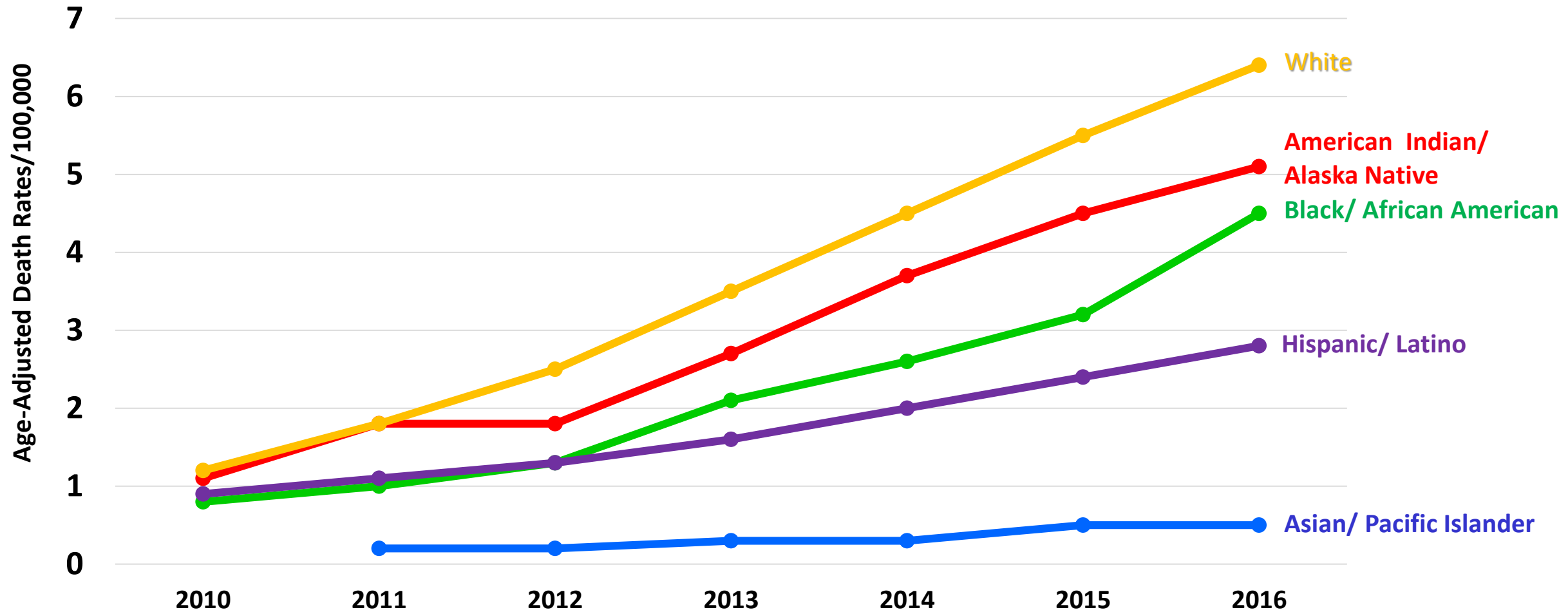
Source: NCHS WONDER

# *Opioid* Overdose Death Rates by Race/Ethnicity

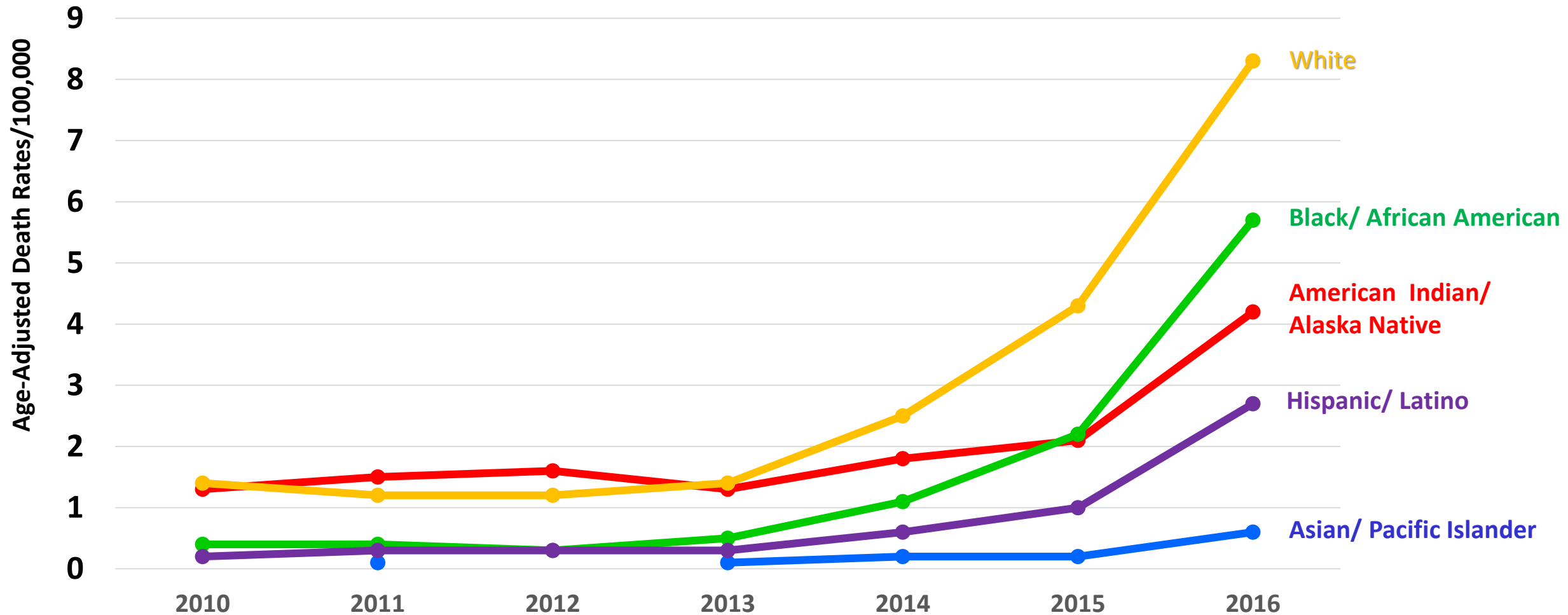


SOURCE: CDC/NCHS National Vital Statistics System, Mortality

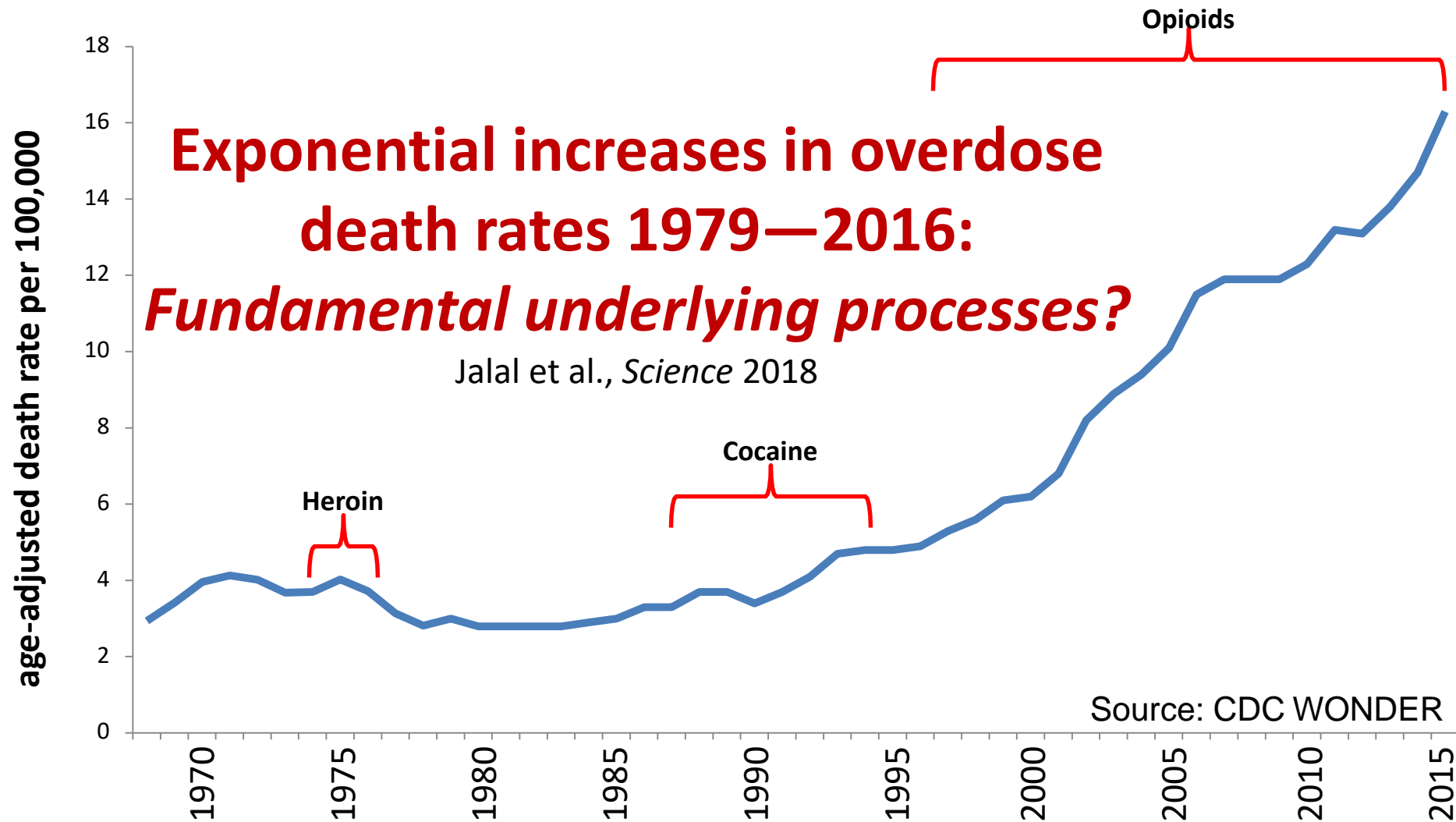
# *Heroin* Overdose Death Rates by Race/Ethnicity



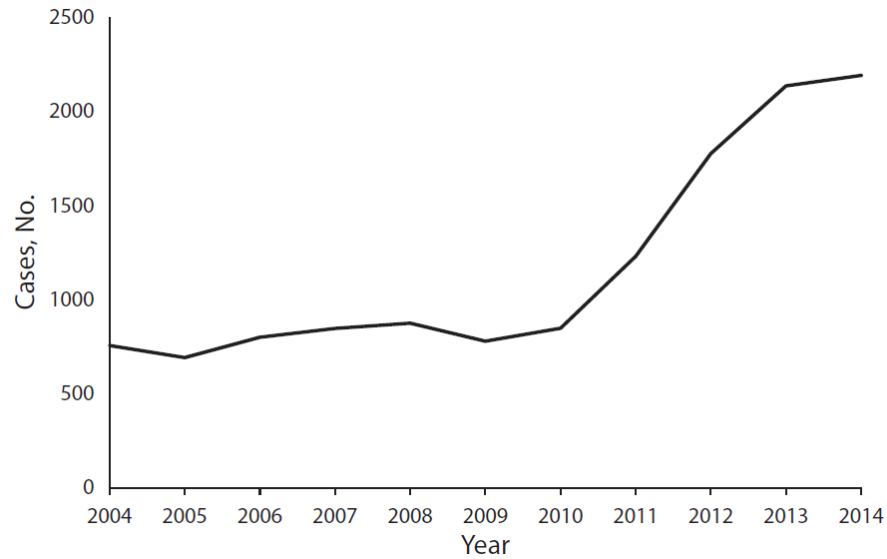
# *Other Synthetics* Overdose Death Rates by Race/Ethnicity



# Sustained Impact of the *Opioid Crisis*: U.S. Overdose Death Rates over 50 years



# Rising rates of HCV



## Acute Cases of HCV in USA

Zibbell et al.

*Am J Public Health* 2018;108:175-181

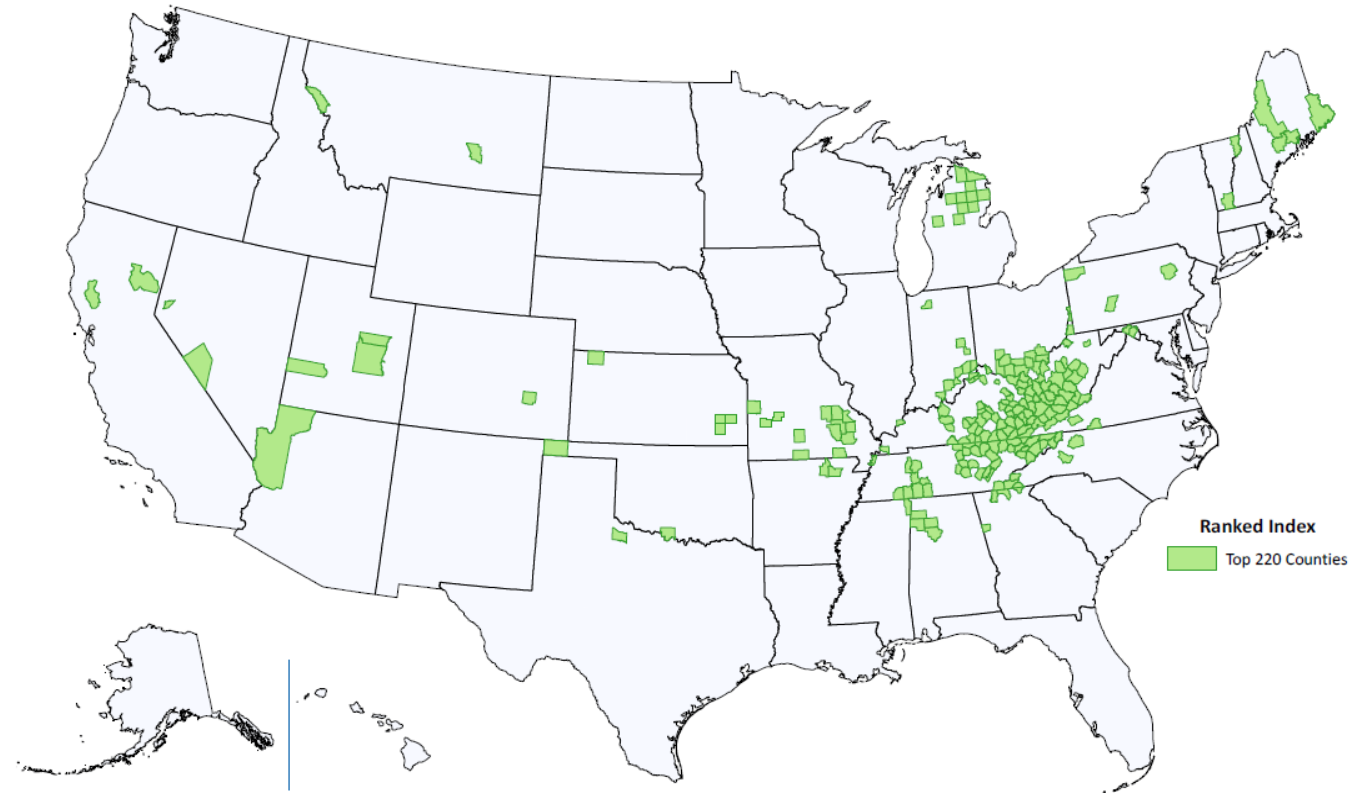
## HIV (and Hepatitis C) Outbreak Linked to Oxymorphone Injection Use in Indiana, 2015

Peters et al.

*The New England Journal of Medicine*

2016;375:229-239

# Counties Deemed Highly **Vulnerable** to Rapid Dissemination of HCV or HIV

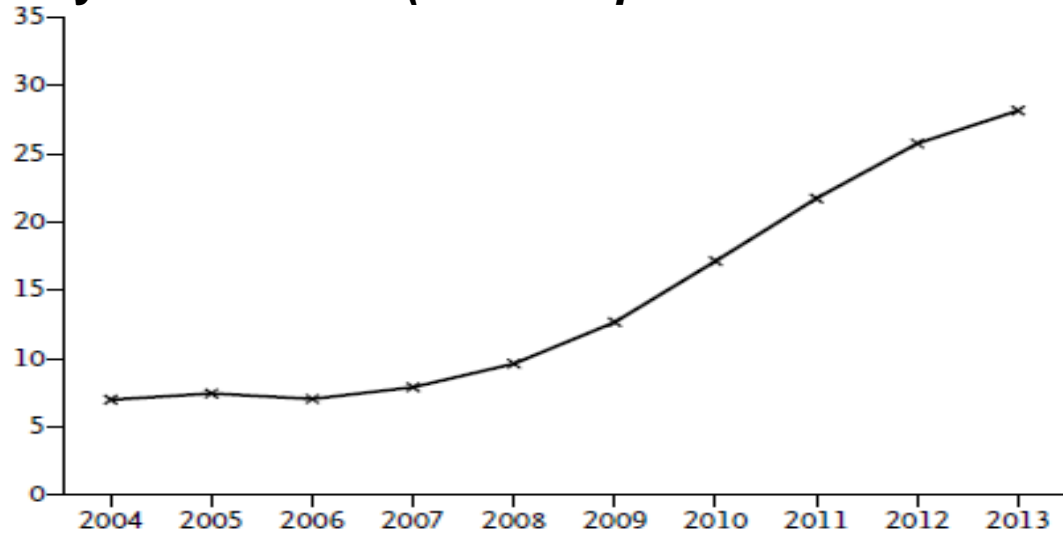


Centers for Disease Control and Prevention  
**MMWR**  
Early Release / Vol. 64  
Morbidity and Mortality Weekly Report  
April 24, 2015

Source: Van Handel et al, JAIDS 2016

# Opioid Use and Misuse During Pregnancy

NICU Admissions for Neonatal Abstinence Syndrome NAS (Number per 1000 Admissions)

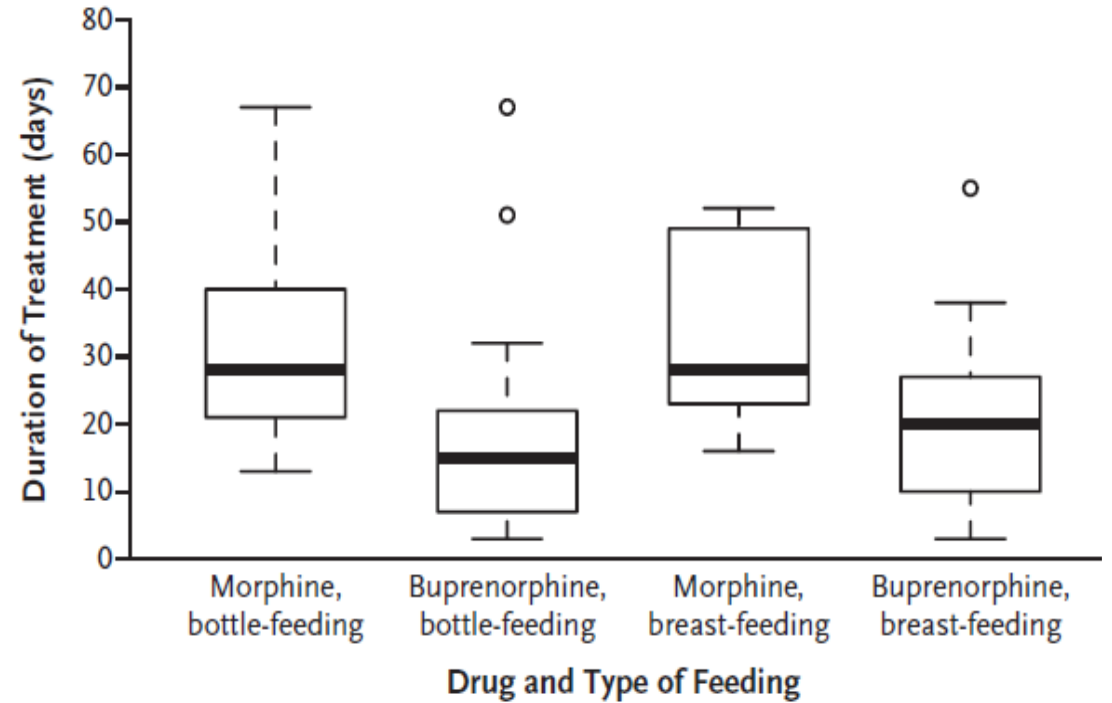


Source: Tolia VN, Patrick SW, et al., NEJM 2015;372:2118-2126.



17% of pregnant women are prescribed an opioid during pregnancy

Buprenorphine for NAS Tx

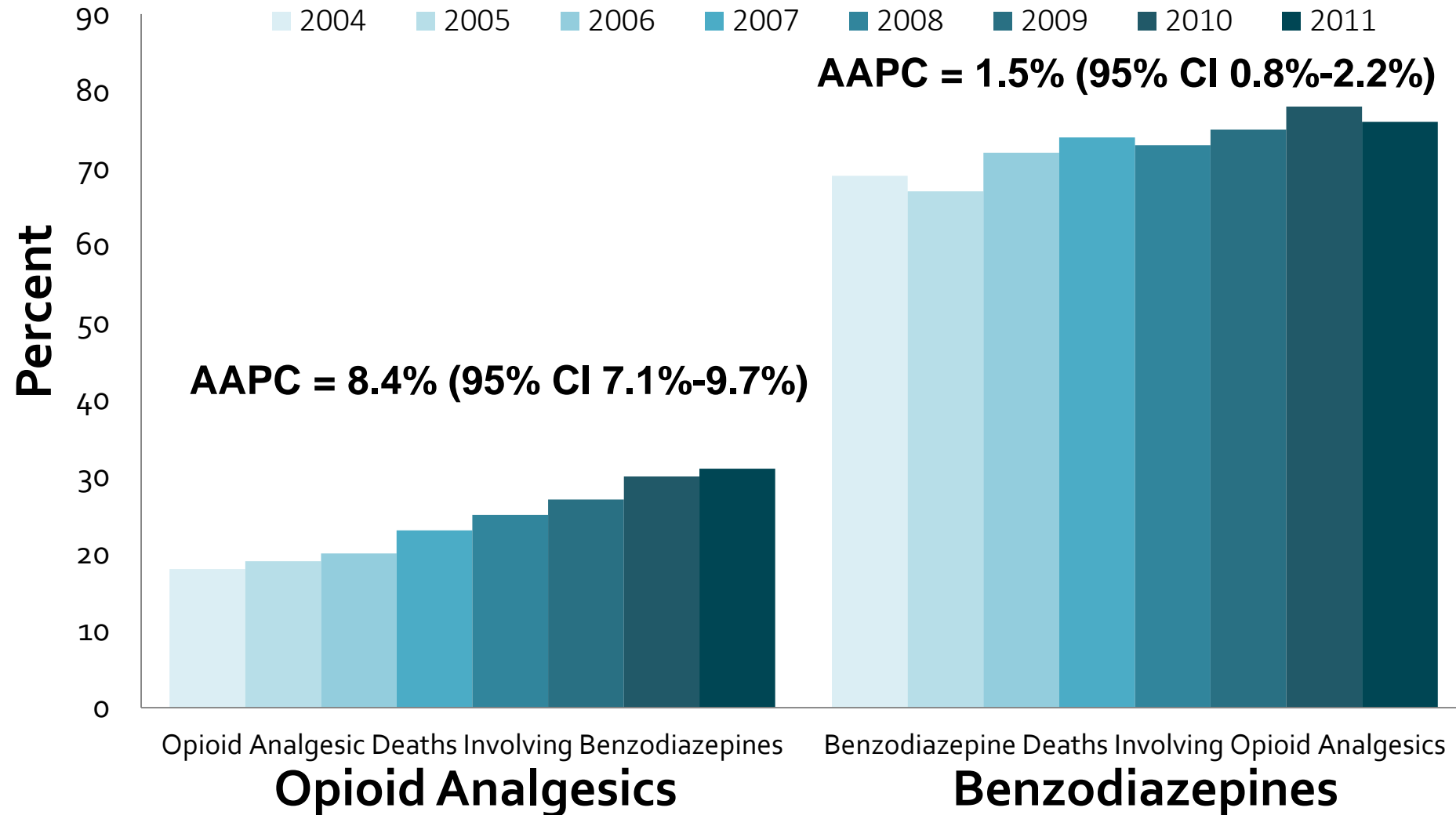


**Buprenorphine** resulted in a **shorter duration of NAS treatment** and **length of hospital stay** than treatment with morphine

Kraft WK et al., N Engl J Med 2017;376:2341-2348.

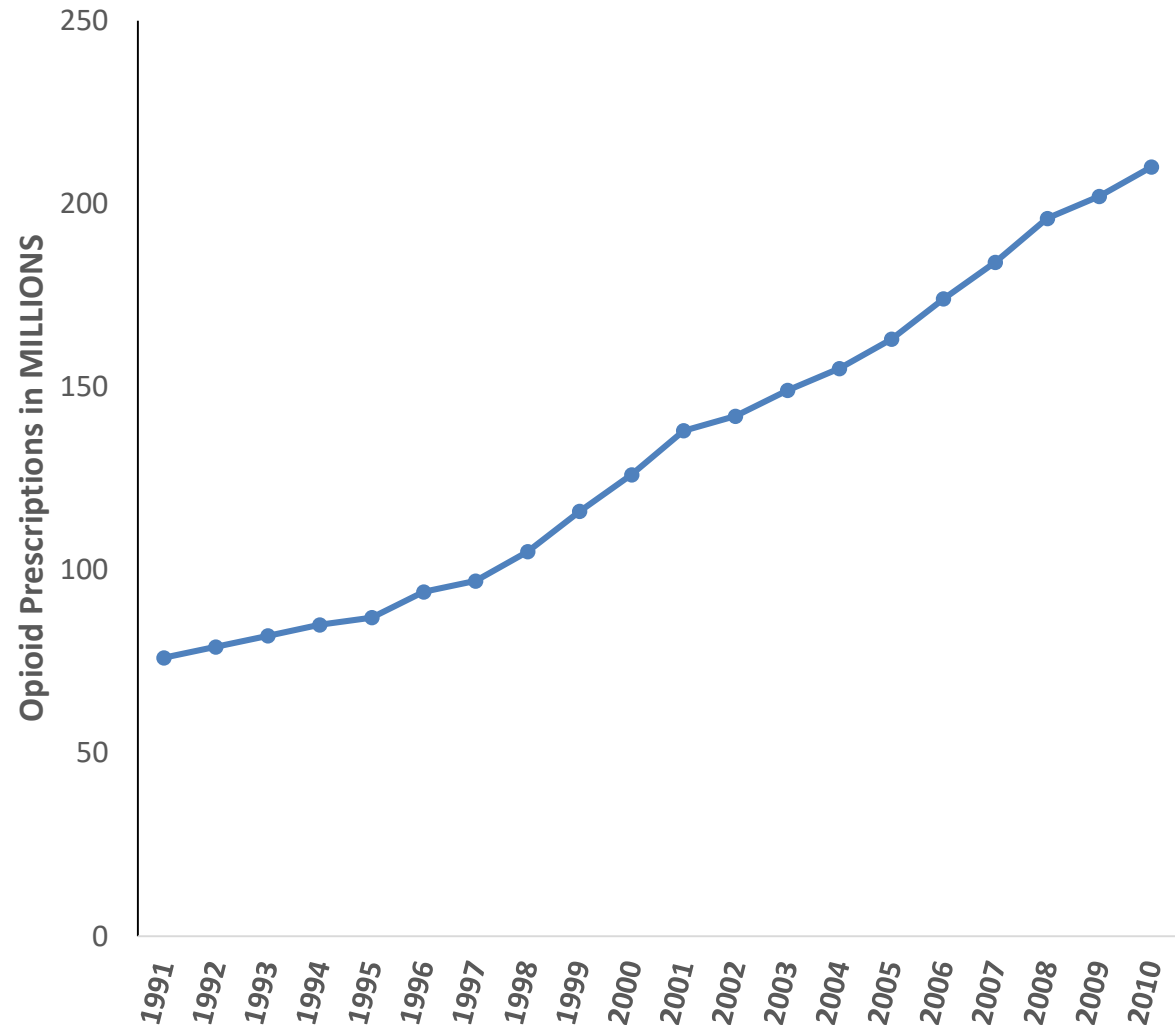
# Overlap of *Benzodiazepines and Opioids*

*Opioid Analgesic ED Visits and OD Deaths Involving Benzodiazepines & Benzodiazepine ED Visits and OD Deaths Involving Opioids*



# ***ENVIRONMENTAL AVAILABILITY:*** Current Opioid Crisis Originated with Prescribing Increases

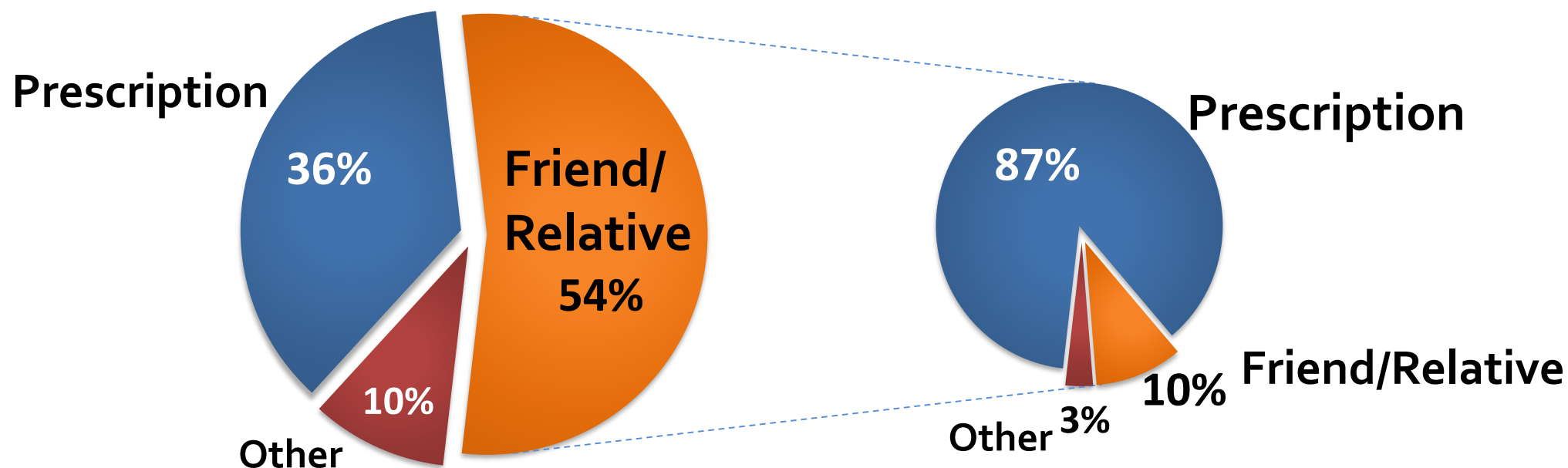
Opioid prescriptions  
*Tripled to MORE THAN  
200 MILLION prescriptions  
in recent years*



# *Direct and Indirect Pathways* from Prescriptions to Misuse

- People misusing analgesics *Directly & Indirectly* obtain them by prescription

*Source where pain relievers obtained for most recent misuse*



Source: Han, Compton, et al. Annals of Internal Medicine 2017

# ***ECONOMICS:*** Heroin Increases Due to Lower Price and Greater Availability

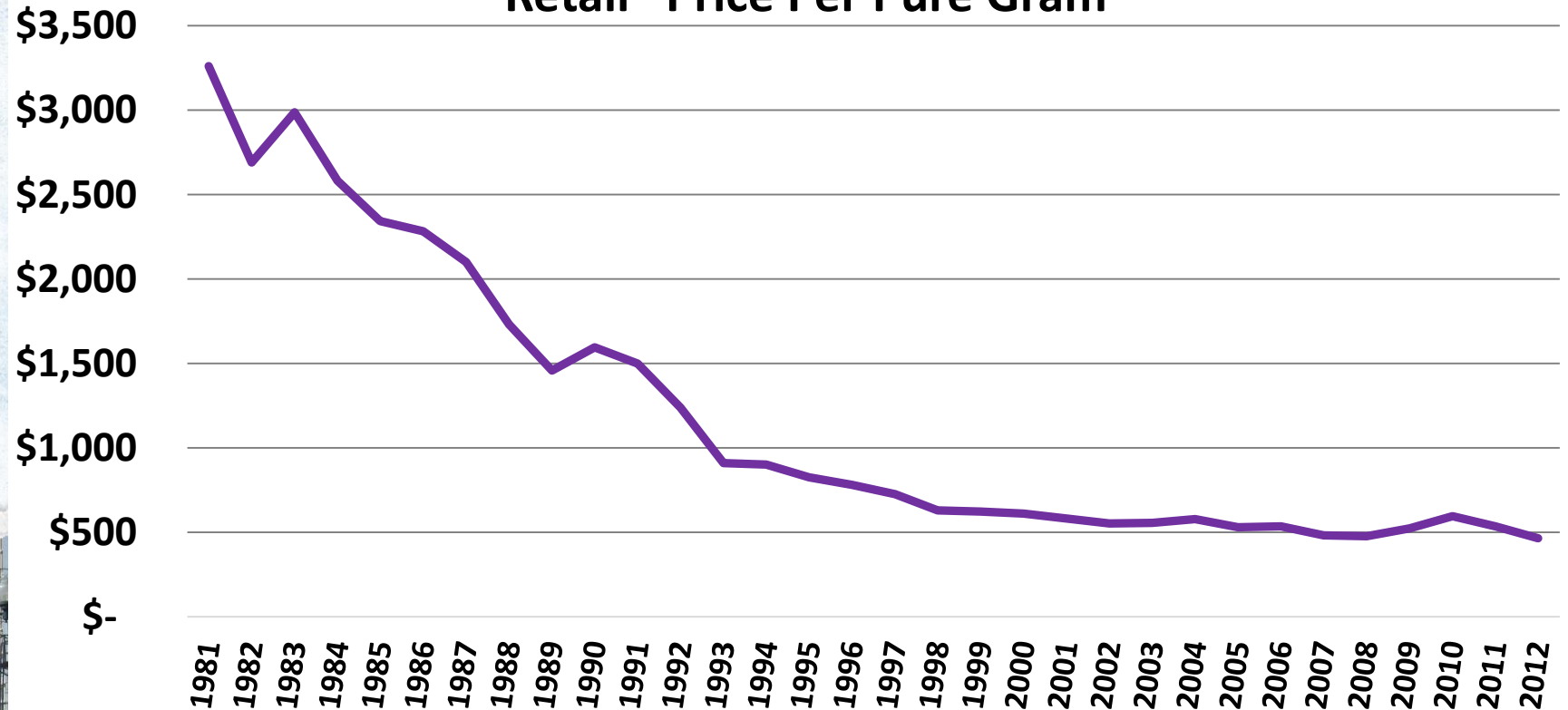
**T**he relentless marketing of pain pills. Crews from one small Mexican town selling heroin like pizza. The collision has led to America's greatest drug scourge.

The True Tale of America's Opiate Epidemic

# DREAM LAND

SAM QUINONES

"Retail" Price Per Pure Gram



National Drug Control Strategy--Data Supplement 2014.

[https://www.whitehouse.gov/sites/default/files/ondcp/policy-and-research/ndcs\\_data\\_supplement\\_2014.pdf](https://www.whitehouse.gov/sites/default/files/ondcp/policy-and-research/ndcs_data_supplement_2014.pdf)

# HHS Five-Point Opioid Strategy



**Better** addiction prevention, treatment, and recovery services



**Better** data



**Better** pain management



**Better** targeting of overdose reversing drugs



**Better** research

## ➤ Recent Landscape for Guidelines:

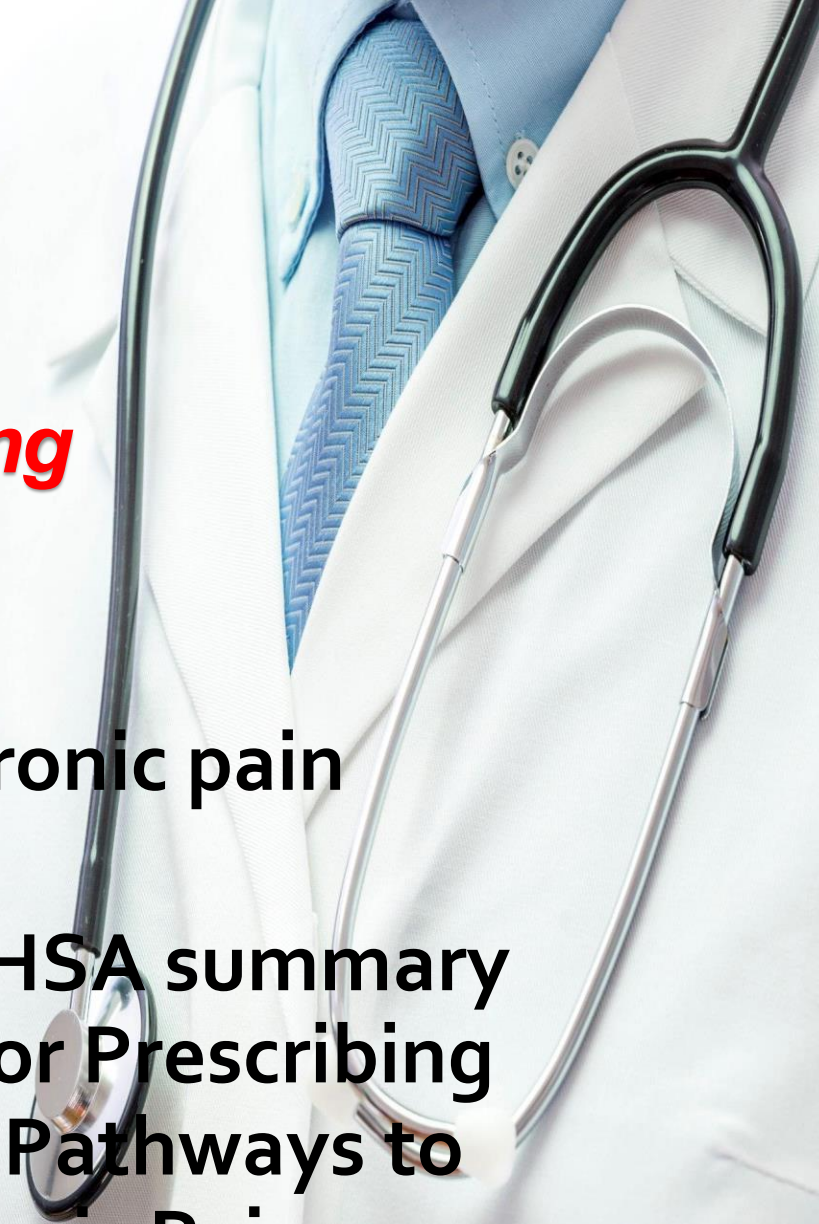
- Small Number
- Outdated
- Not Conflict Free

## ➤ Solution....

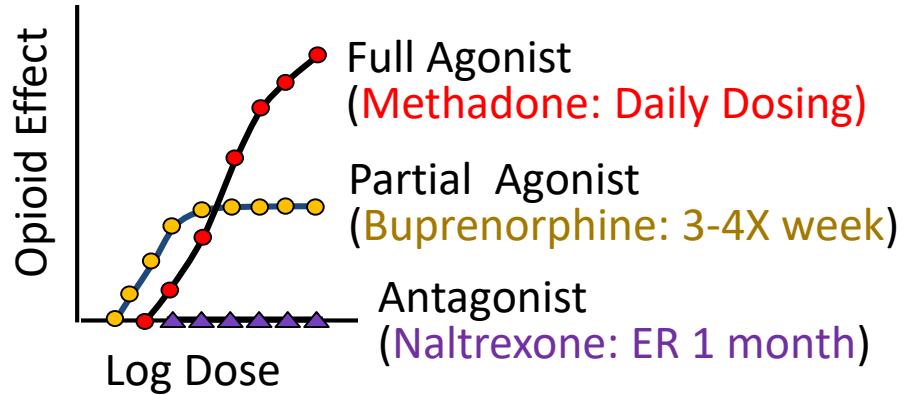


## ***Opioid Prescribing Guidelines***

- Intended for primary care providers
- Applies to patients >18 years old in chronic pain outside of end-of-life care
- Builds on joint CDC, NIDA, ONC, SAMHSA summary on “Common Elements in Guidelines for Prescribing Opioids for Chronic Pain” and the NIH Pathways to Prevention for Opioids in Treating Chronic Pain
- PUBLISHED MARCH 15, 2016



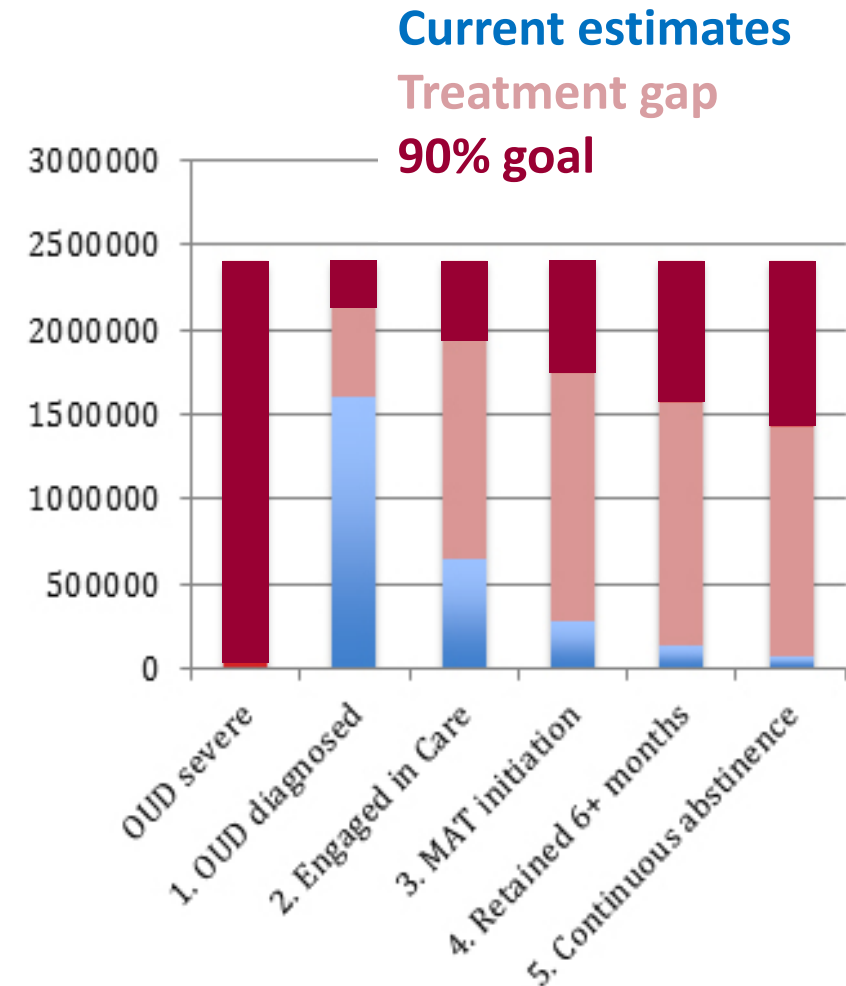
# Medication Assisted Treatment (MAT)



- **DECREASES:**
  - Opioid use
  - Opioid-related overdose deaths
  - Criminal activity
  - Infectious disease transmission
- **INCREASES**
  - Social functioning
  - Retention in treatment

**But MAT is highly underutilized!**  
**Relapse rates are very high!**


# OUD Cascade of Care in USA

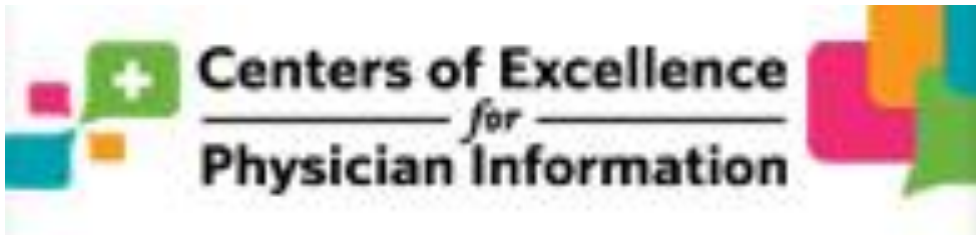


*Williams AR, Nunes E, Olfson M.  
Health Affairs Blog, 2017*

# Summary:

- Complex professional, economic and social aspects of influenced the crisis and suggest the need *multipronged responses*.
- The severity of the opioid crisis demands *urgent action*.

**NIDAMED** 



*Resources for Medical Students,  
Resident Physicians & Faculty*

[www.drugabuse.gov/coe](http://www.drugabuse.gov/coe)



[www.drugabuse.gov](http://www.drugabuse.gov)

*Science = Solutions*