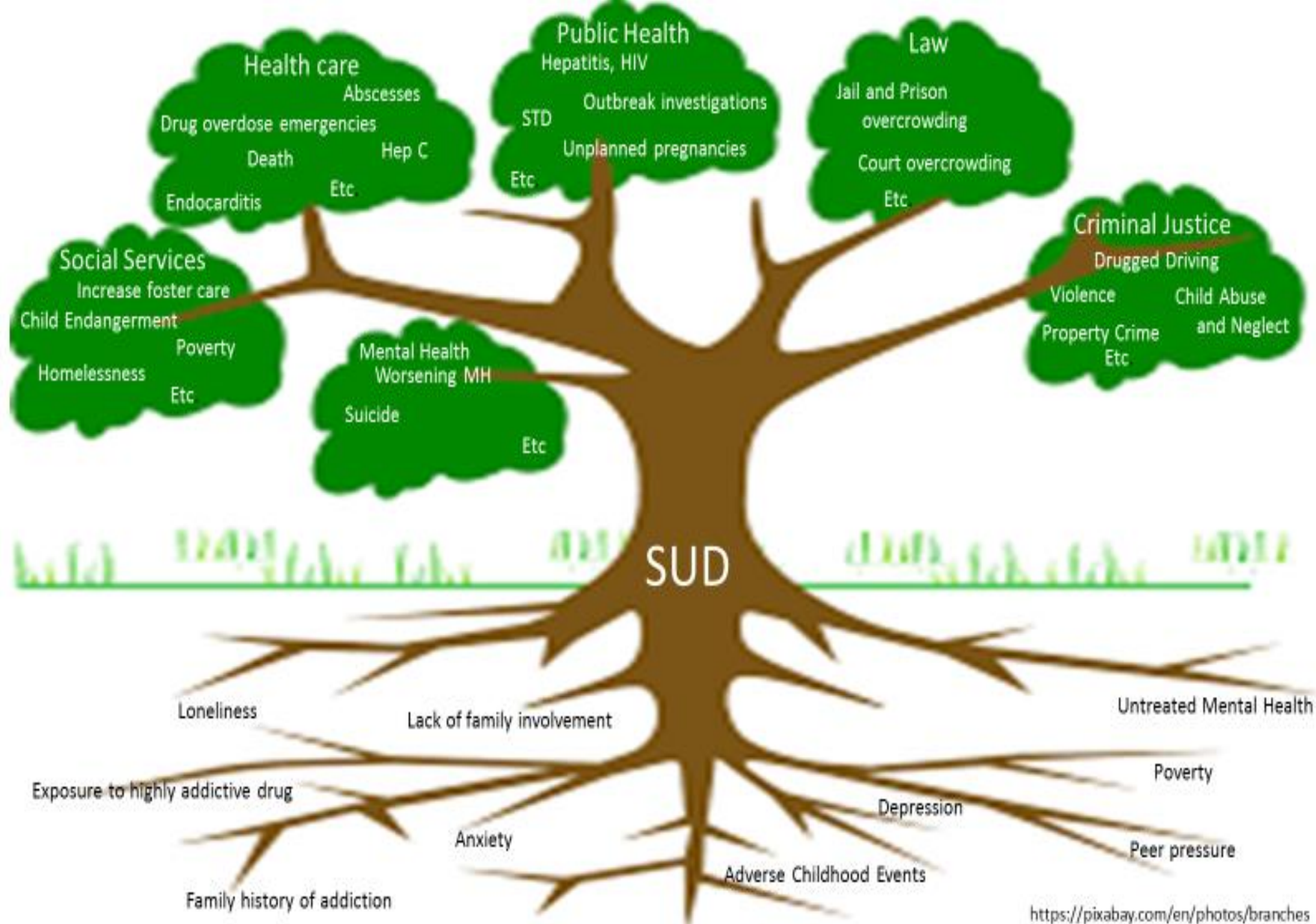
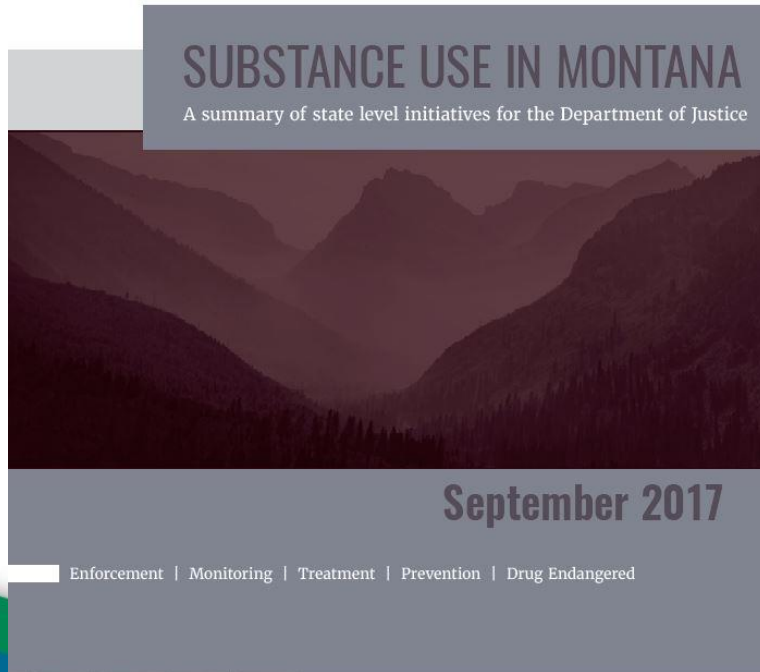


A Special Thank You to  
Dr. Bruce Trigg whom  
most of these slides  
were borrowed

**Addiction is a brain-centered disease whose symptoms are behaviors.**



# DOJ AID Montana Report

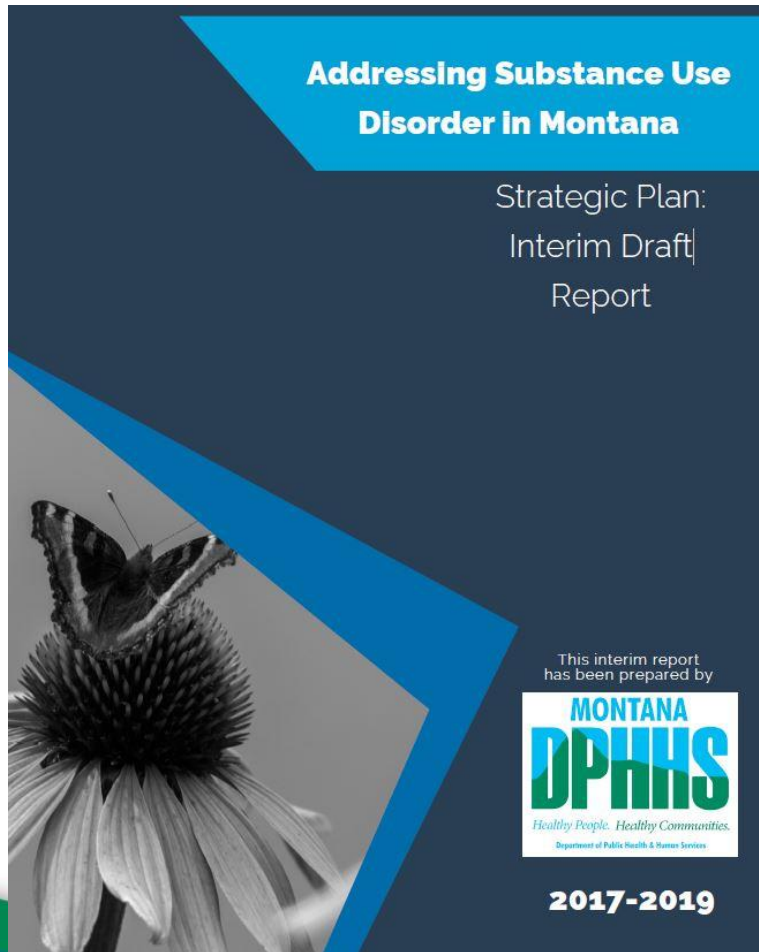


***“Nearly 64,000 Montanans aged 18 and older suffered from substance abuse disorders in 2016. Montana only had the capacity to treat 6,000 individuals in need of treatment. That means more than 90% of Montanans in need of substance abuse treatment do not receive it annually.”***

***— Attorney General Tim Fox announcing his Aid Montana Initiative on April 19, 2017***



# Montana SUD Strategic Plan



- Partnerships
- Prevention and Education
- Enforcement
- Monitoring
- Treatment
- Family and Community Services

# The Reason for Medication-Assisted Treatment (MAT) for Opioid Use Disorder

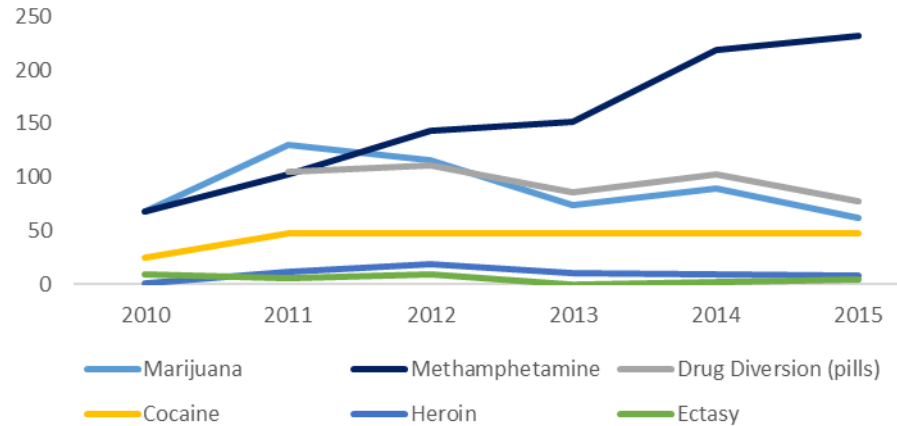
Greg S. Holzman, MD, MPH

State Medical Officer

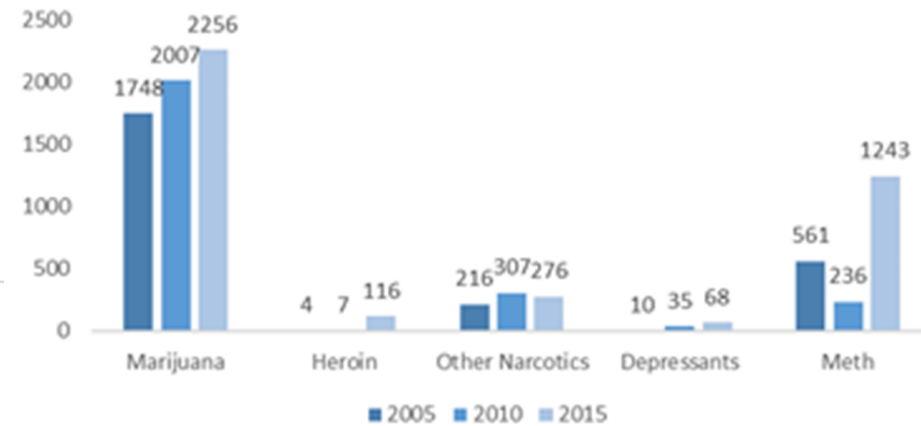
Department of Public Health and Human Services

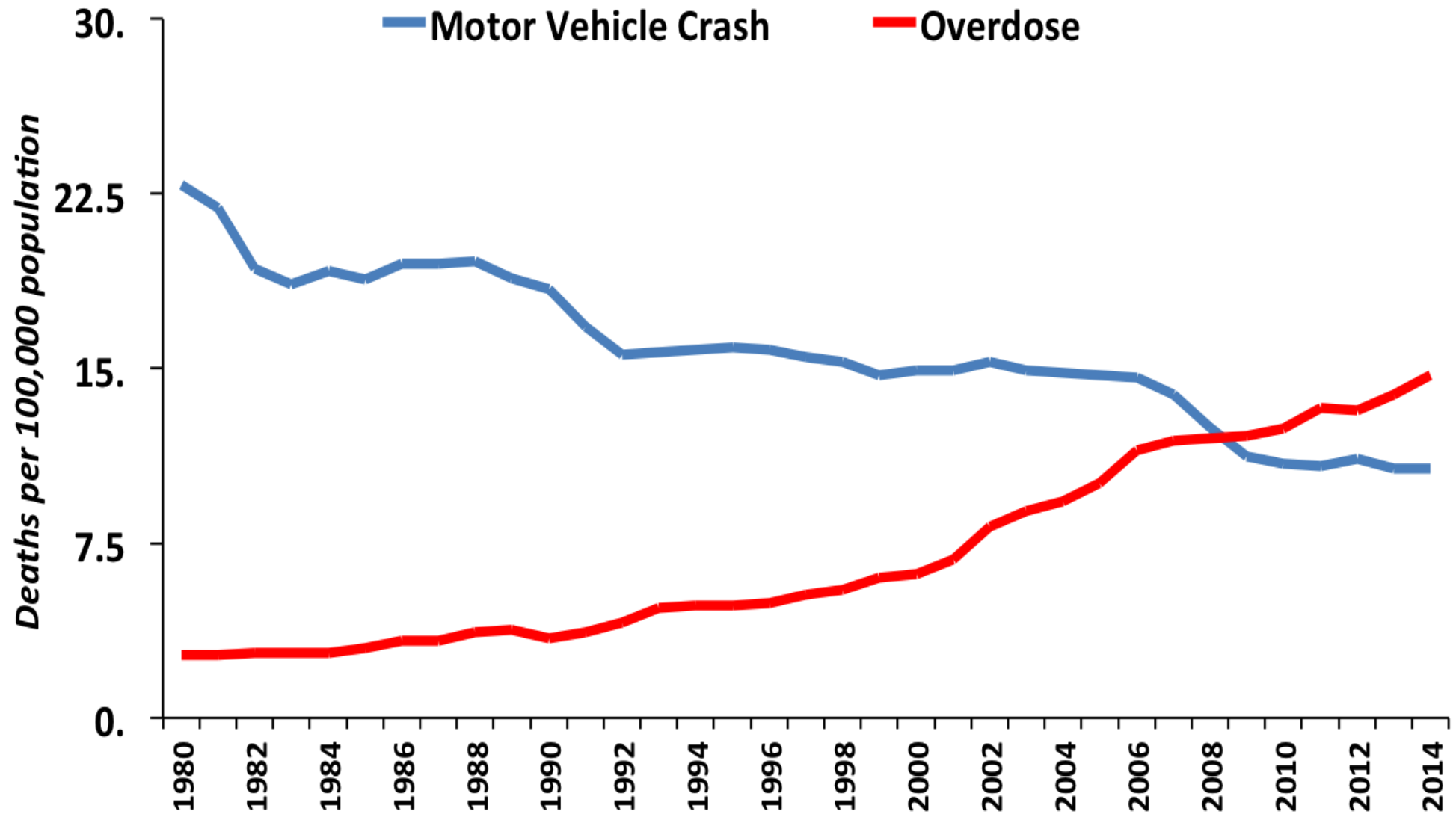
# SUD Issues within the State of Montana

Number of Cases, by year and drug, Montana Division of Criminal Investigation, 2010-2015



Number of drug violations, by type, Montana, 2005-2015









THE NEW HEALTH CARE  
There's No Magical  
Savings in Showing Prices  
to Doctors



ECONOMIC VIEW  
Why Women Don't See  
Themselves as  
Entrepreneurs



WORK-LIFE BALANCE  
What a Bipartisan Paid  
Leave Plan Might Look  
Like



THE NEW HEALTH CARE  
Teaching Hospitals Cost  
More, but Could Save Your  
Life



TAKING A TOLL  
How Prejudice  
Affects Your Health

# Drug Deaths in America Are Rising Faster Than Ever

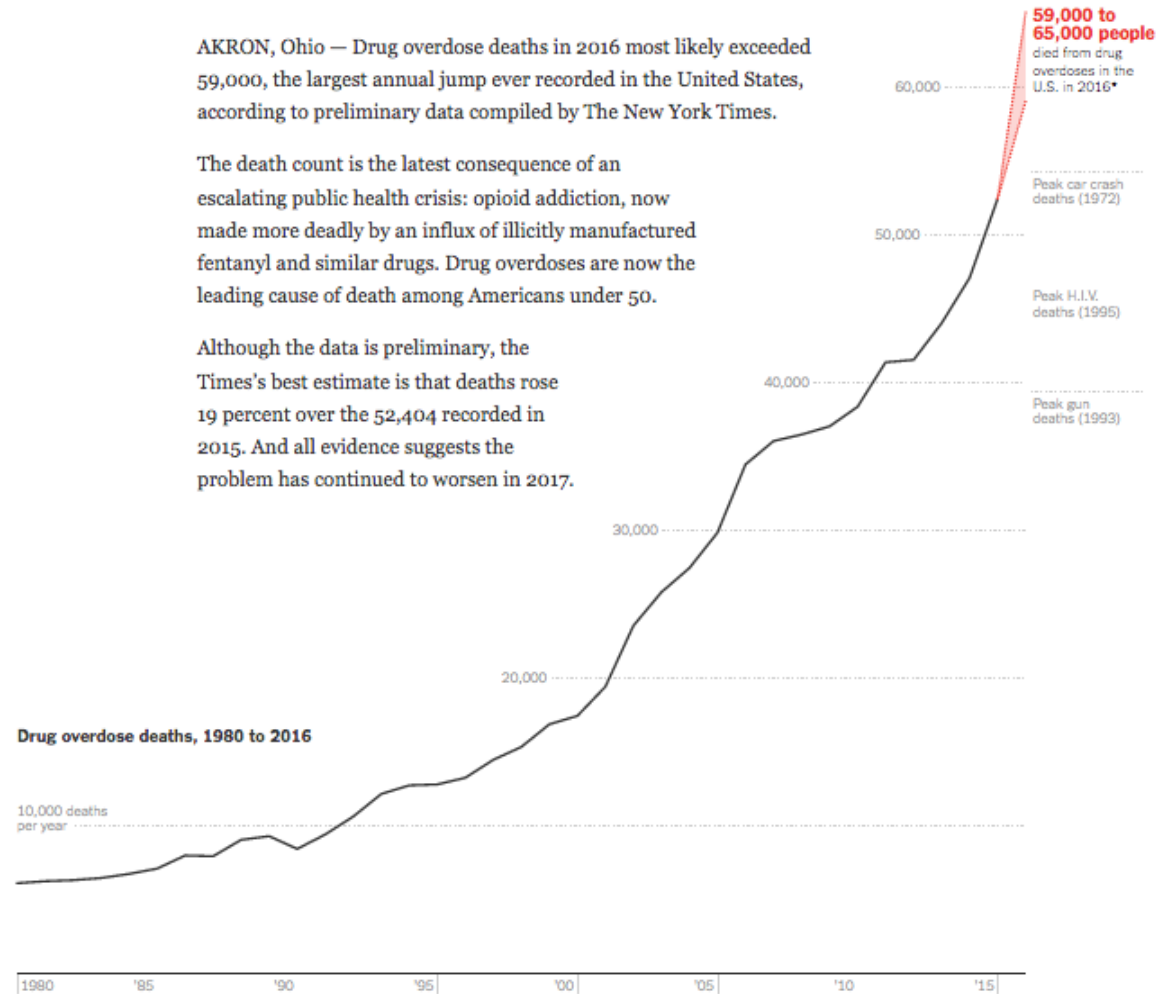
By JOSH KATZ JUNE 5, 2017

New data compiled from hundreds of health agencies reveals the extent of the drug overdose epidemic last year.

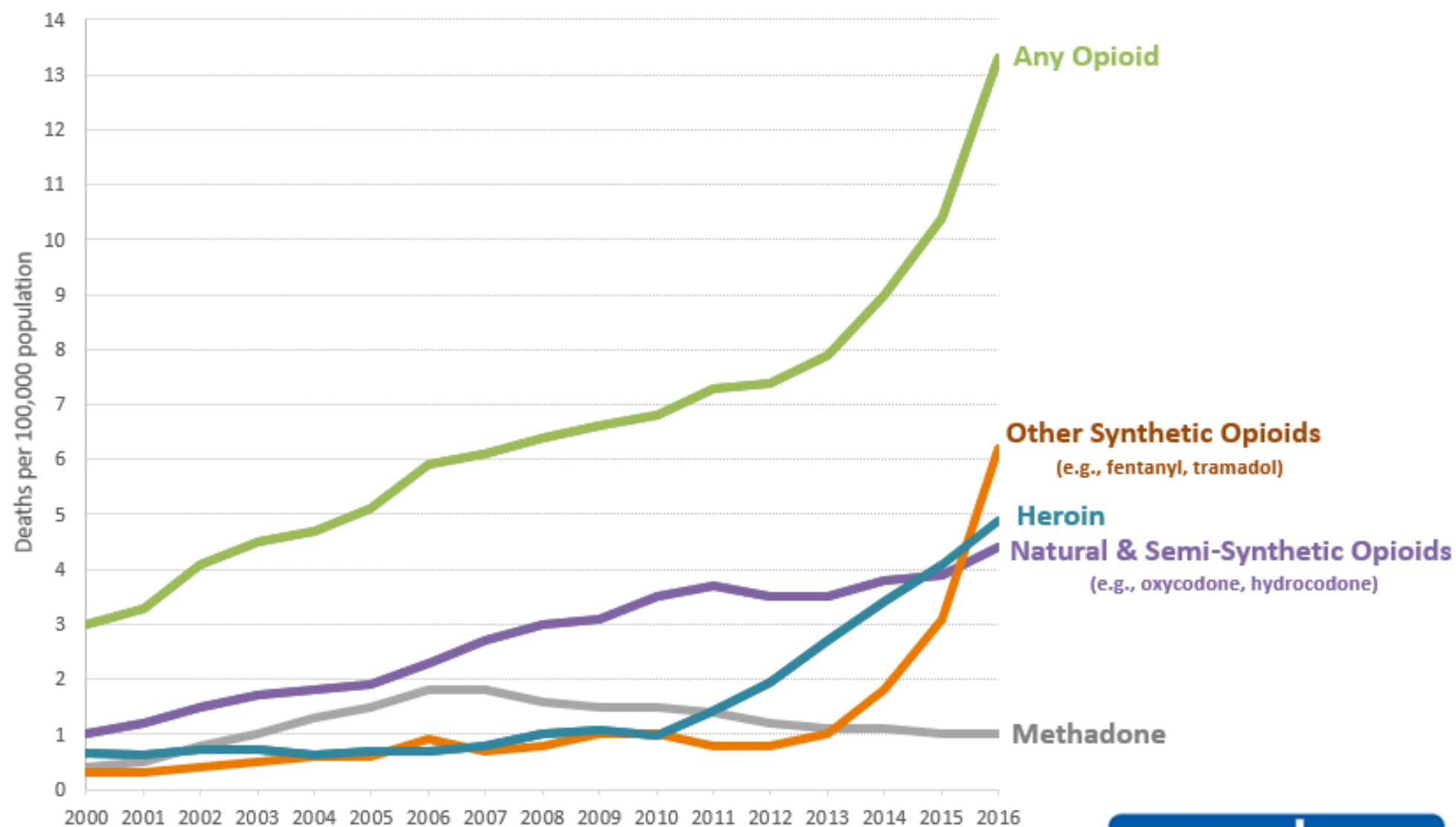
AKRON, Ohio — Drug overdose deaths in 2016 most likely exceeded 59,000, the largest annual jump ever recorded in the United States, according to preliminary data compiled by The New York Times.

The death count is the latest consequence of an escalating public health crisis: opioid addiction, now made more deadly by an influx of illicitly manufactured fentanyl and similar drugs. Drug overdoses are now the leading cause of death among Americans under 50.

Although the data is preliminary, the Times's best estimate is that deaths rose 19 percent over the 52,404 recorded in 2015. And all evidence suggests the problem has continued to worsen in 2017.

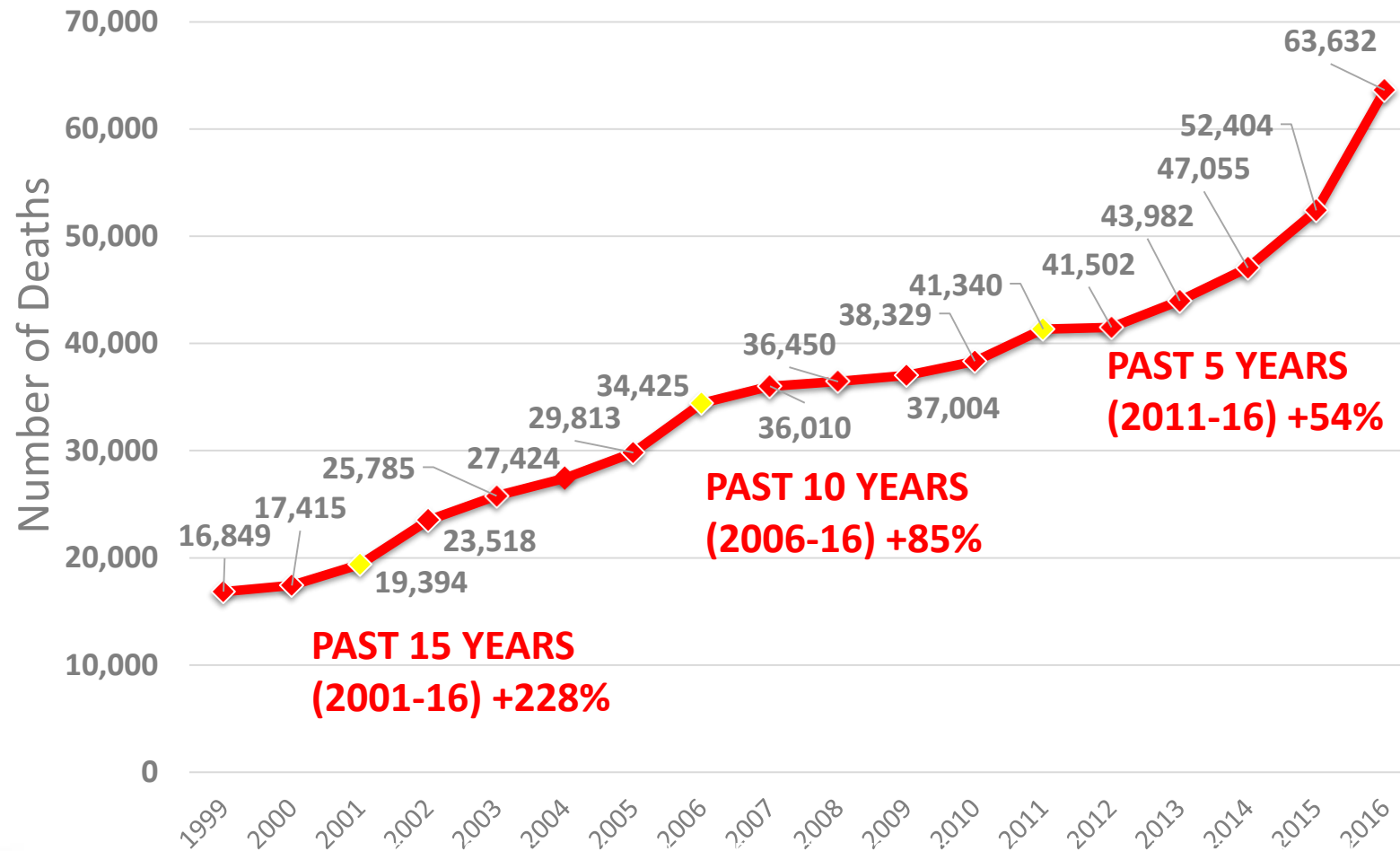


## Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2016



SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2017. <https://wonder.cdc.gov/>.

# Drug Poisoning Deaths, 1999-2016



1999-2016 on CDC WONDER Online Database, released 2017. Data on drug poisoning deaths were extracted by ONDCP from <http://wonder.cdc.gov/mcd-icd10.html> on December 21, 2017.

12/2016

# Responding to the Heroin Epidemic



## **PREVENT** People From Starting Heroin

### **Reduce prescription opioid painkiller abuse.**

Improve opioid painkiller prescribing practices and identify high-risk individuals early.



## **REDUCE** Heroin Addiction

### **Ensure access to Medication-Assisted Treatment (MAT).**

Treat people addicted to heroin or prescription opioid painkillers with MAT which combines the use of medications (methadone, buprenorphine, or naltrexone) with counseling and behavioral therapies.



## **REVERSE** Heroin Overdose

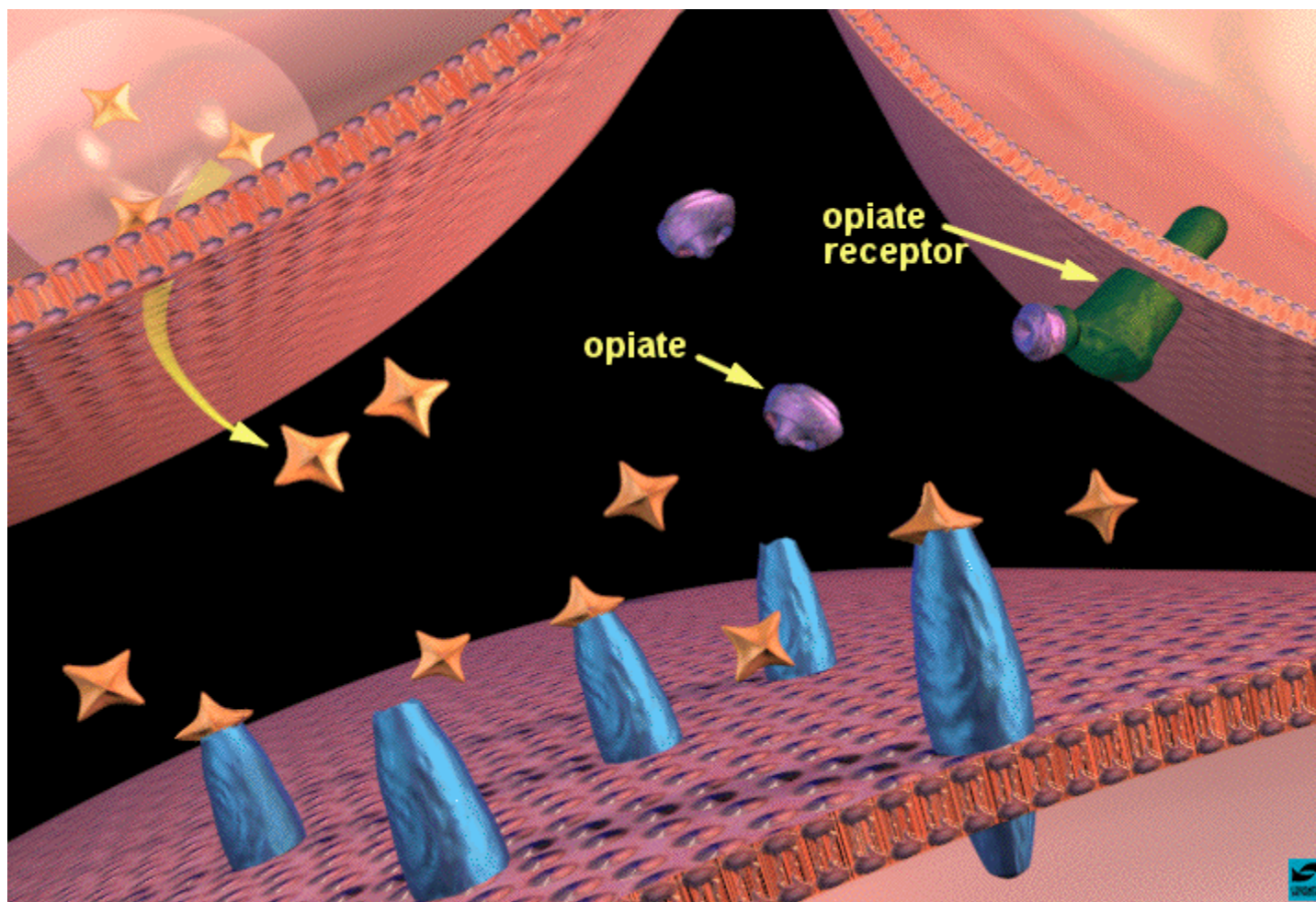
### **Expand the use of naloxone.**

Use naloxone, a life-saving drug that can reverse the effects of an opioid overdose when administered in time.

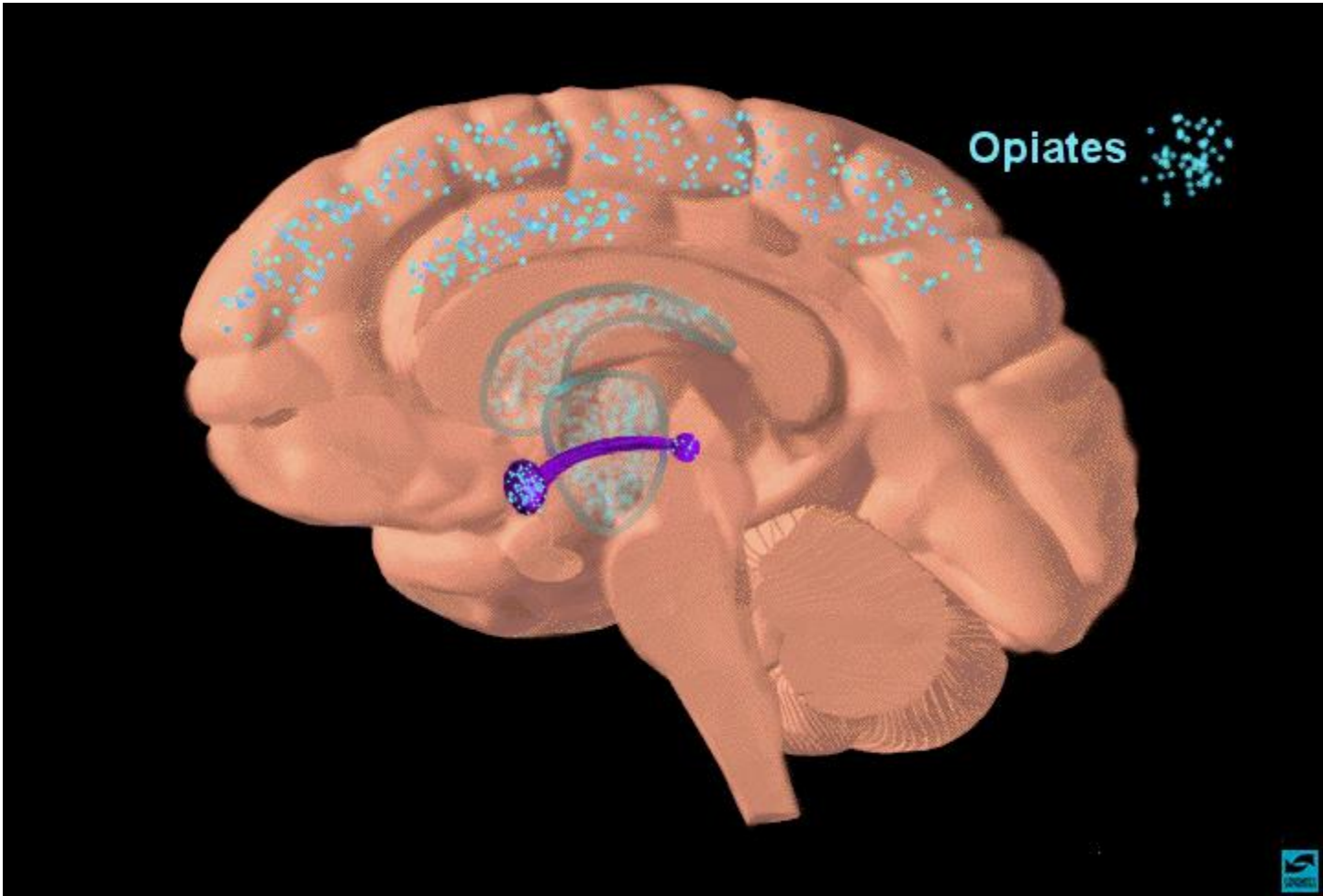
# What is Medication- Assisted Treatment (MAT)?

MAT combines pharmacological intervention with psychosocial support to treat addiction.

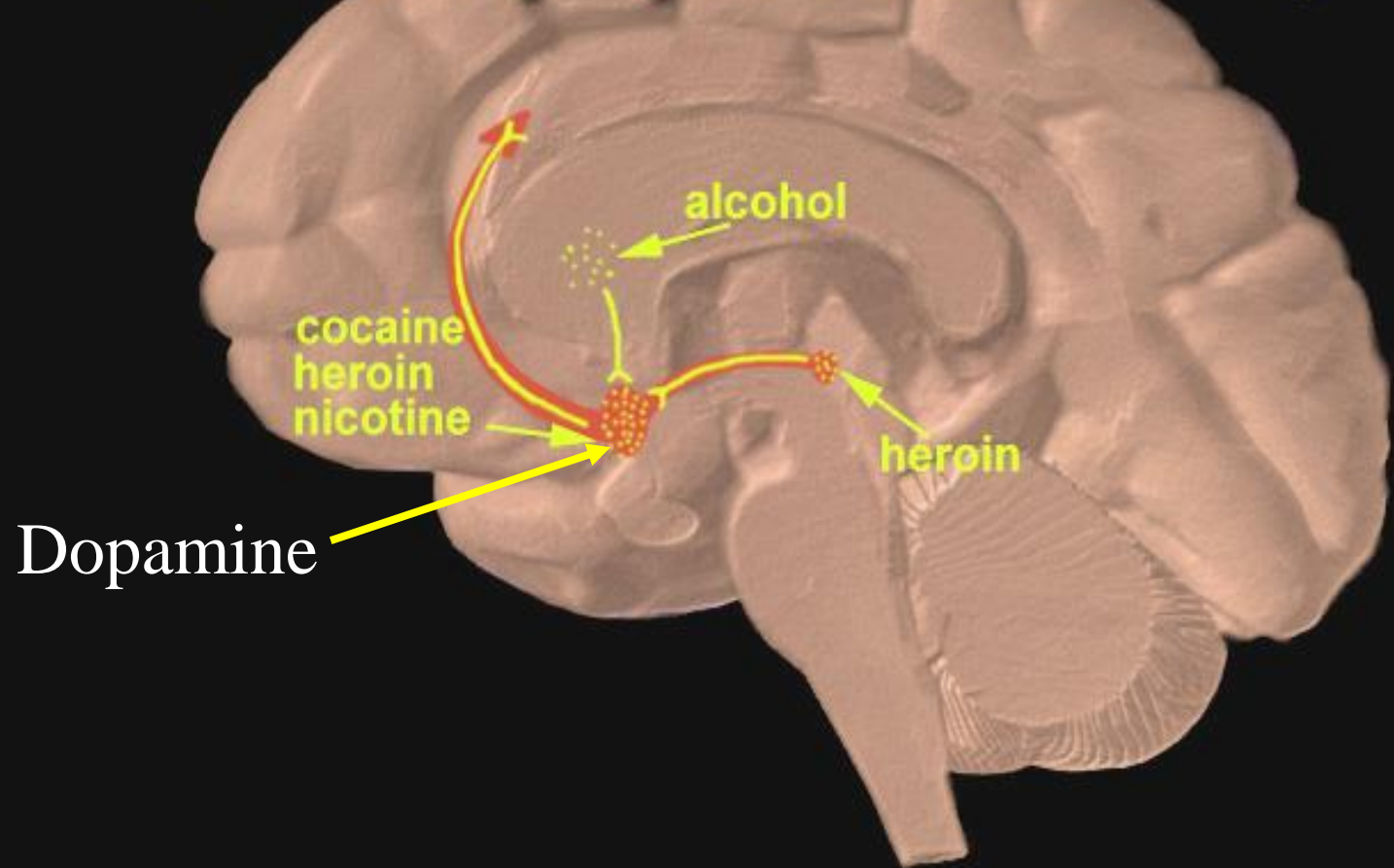






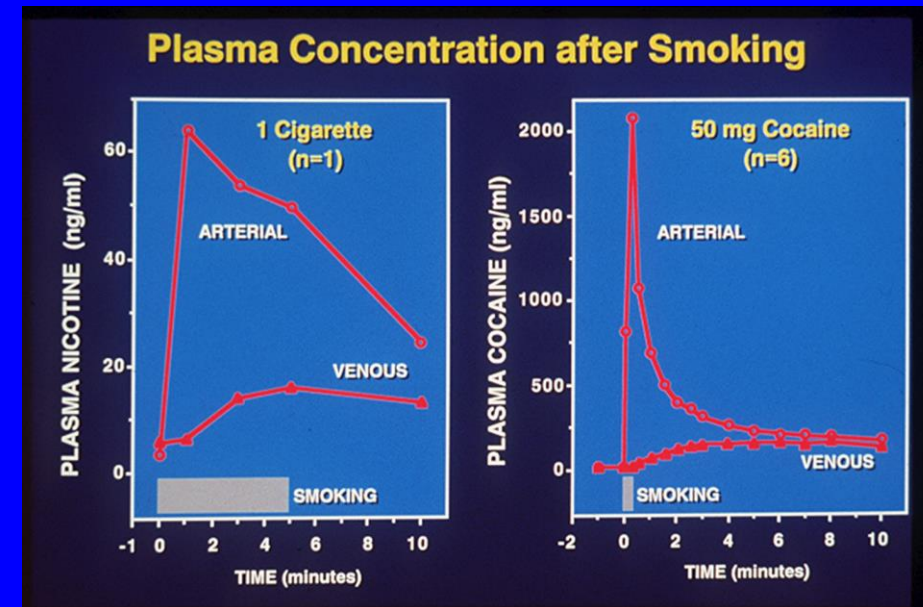


# Activation of the reward pathway by addictive drugs



# Characteristics of an Addictive Drug

- The concentration of the drug achieved
- The rapidity with which that concentration is achieved
- The magnitude of the drugs effects
  - (How widespread the effects of the drug are on the organism)



# Why MAT?

- A medical model for the treatment of opiate dependence.
- Treats opioid dependence as a chronic, relapsing disease (like diabetes or high blood pressure).
- Uses a long-acting, legal, non-injected opioid medication to prevent withdrawal, minimize craving, and block the use of opiates.

# Currently three medications approved for MAT for OUD

- 1- Methadone – an opioid agonist
  - 2- Buprenorphine (usually combined with naloxone) – opioid partial agonist
  - 3- Naltrexone – opioid antagonist
- Because first two are first line medications, now prefer term “Opioid Agonist Treatment” (OAT) or Opioid Maintenance

# *Intro video to Medication Assisted Treatment*

- <https://www.youtube.com/watch?v=4F9QSJAWFeg>

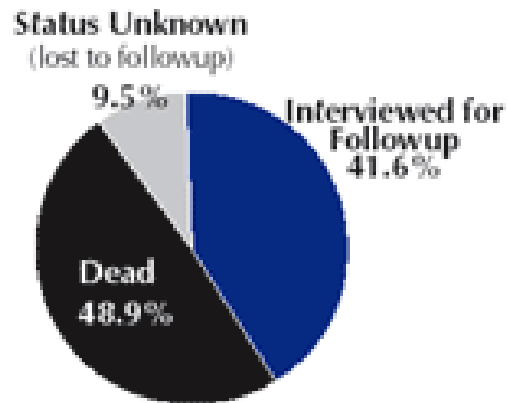


# Why Opioid Agonist Maintenance?

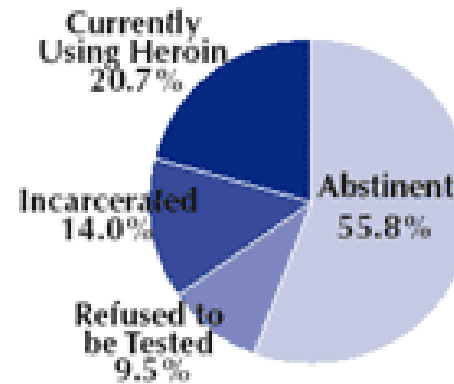
- Because detox without opioid maintenance is rarely successful for preventing relapse
- 90% relapse rate after “abstinence-based” treatment.
- Increased risk of overdose death after abstinence - due to loss of tolerance.

## 33-Year Study Finds Lifelong, Lethal Consequences of Heroin Addiction

### Status of Heroin Addicts After a 33-Year Period



Of 581 heroin addicts admitted to compulsory drug treatment between 1962 and 1964, nearly half had died by 1997.



Of the surviving 242 addicts who were interviewed in 1996-1997, 1 in 5 were currently using heroin.

**Volume 16, Number 4 (October 2001)**

# Addiction to heroin is a chronic, relapsing disease with high morbidity and mortality

- 33 year follow up of 581 male heroin addicts in Los Angeles found:
  - Nearly half had died
  - 20.7% of those living tested positive for heroin
  - 40% reported using heroin in past year
  - High rates of disability, hepatitis, mental health disorders, and criminal activity
  - Fewer than 10% were in methadone maintenance Rx.

“Methadone Maintenance and Other Pharmacotherapeutic Interventions in the Treatment of Opioid Addiction.” April 2002, Vol.III, No. 1

# Goals of Opiate Maintenance

- To reduce mortality
- To reduce transmission of blood-borne viruses
- To improve patients' general health and well being (psycho-social functioning)
- To reduce drug-related crime
- To reduce opioid misuse

# Opioid maintenance and mortality

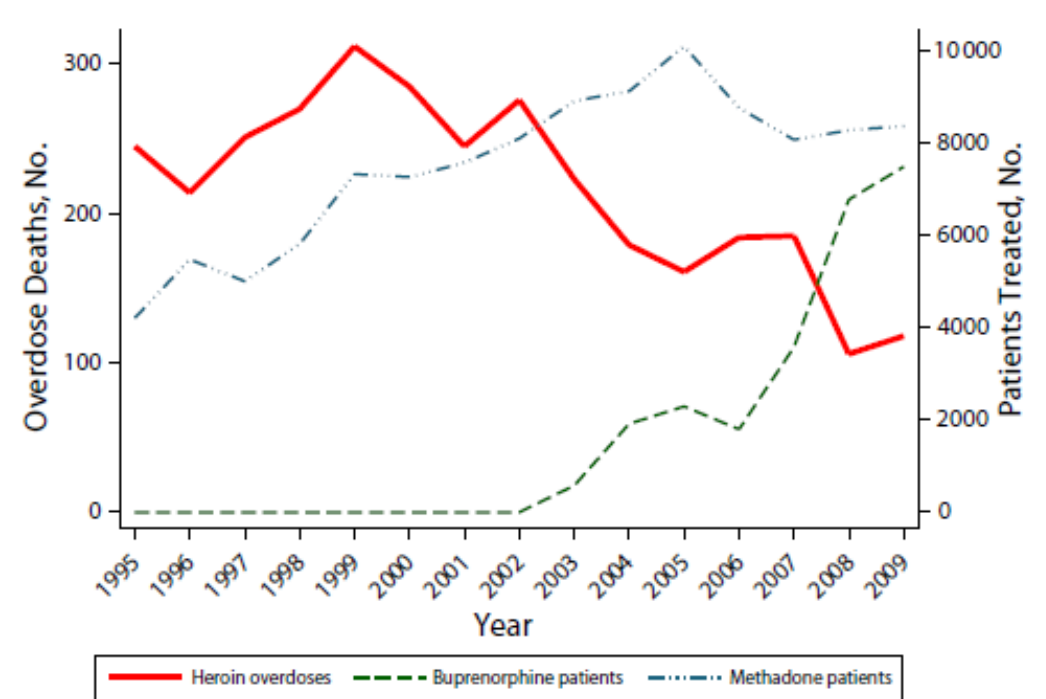


FIGURE 1—Heroin overdose deaths and opioid agonist treatment: Baltimore, MD, 1995-2009.

**A study of heroin overdose deaths in Baltimore from 1995 to 2009 found an association between the increasing availability of methadone and buprenorphine and an approximately 50% decrease in the number of fatal overdoses.**

Schwartz RP, Gryczynski J, O'Grady KE, et al. Opioid agonist treatments and heroin overdose deaths in Baltimore, Maryland, 1995-2009. *Am J Public Health* 2013;103:917- 22.



# What is addiction?

- A term referring to compulsive drug use, psychological dependence, and continuing use despite harm.
- *Addiction is frequently and incorrectly equated with physical dependence and withdrawal.* Physical dependence, not addiction, is an expected result of opioid use.

# Addiction is about pain and isolation

- Physical pain
- Psychological pain
- Chronic pain
- Violence and sexual abuse
- Historical trauma
- Economic misery, unemployment, poverty
- Addiction “pain”

## Does MAT Replace One Addiction for Another?

- NO! Addiction is compulsive use of a drug despite the harm caused by its use.
- Most people on MAT dramatically decrease and most will eventually stop all use of opiates.
- They are able to address other mental health, medical and social problems in their lives.
- Most lead normal healthy lives but success requires continuation of treatment including linkage to psychosocial support services when needed.

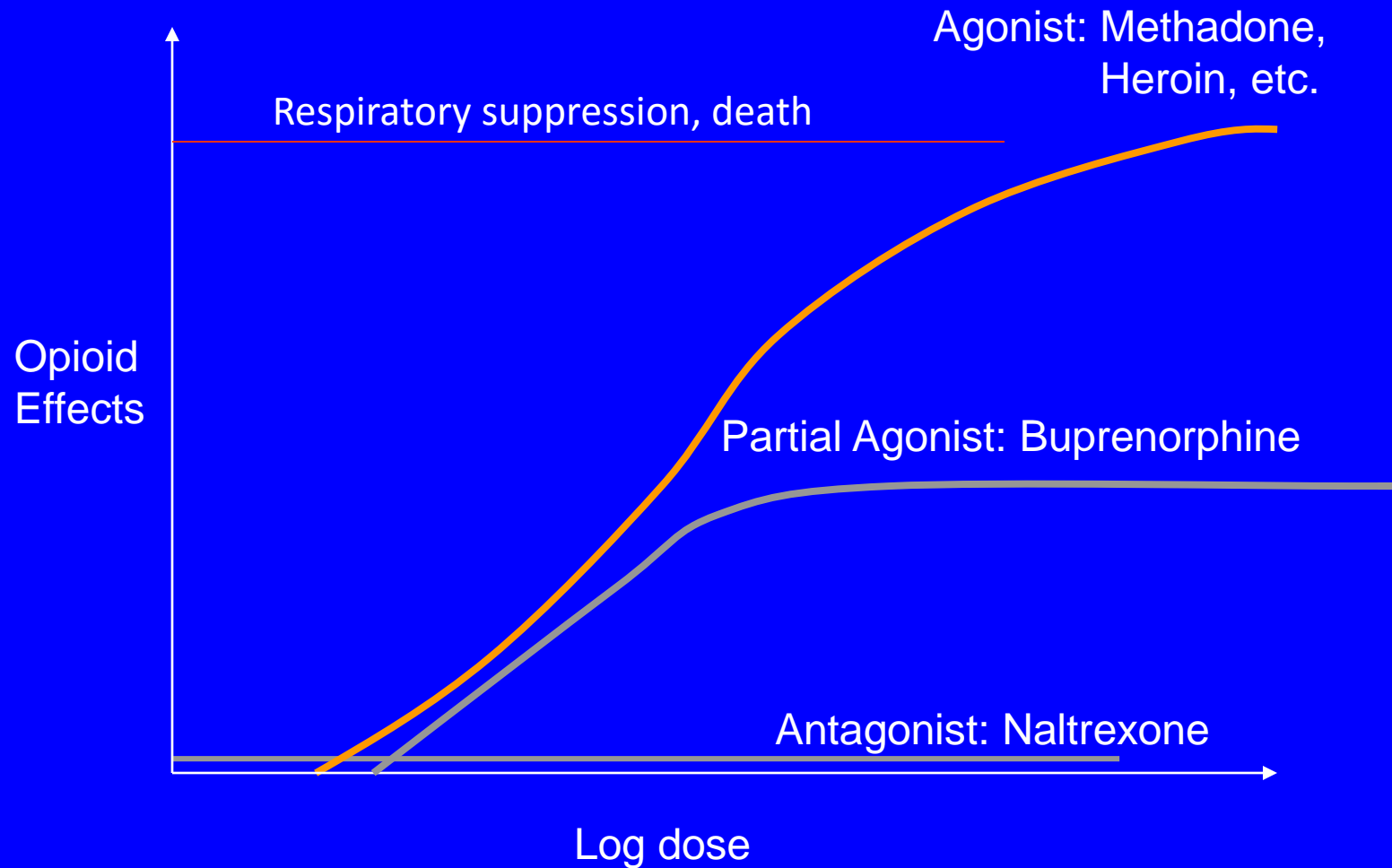
# FDA approved medications

Medication	Euphoria	Overdose Risk	Effectiveness	Other
Methadone	Some	Low	↓ mortality ↓ illicit opioids ↓ criminality	Good data Structured Inexpensive
Buprenorphine	Minimal	Minimal	↓ mortality ↓ illicit opioids ↓ HIV risk	Good data Convenient Feasible
Long-acting naltrexone	None	None	↓ illicit opioids	Minimal data Expensive

# What buprenorphine does

- Reduces or stops opioid use by:
  - Preventing drug withdrawal for 24 to 36 hrs.
  - Blocking or diminishing the effects of other opioids if taken
  - Preventing the cravings that continue for some people long after detoxification

# Why is overdose potential low with buprenorphine?





THE TREATMENT GAP

# *This City's Overdose Deaths Have Plunged. Can Others Learn From It?*

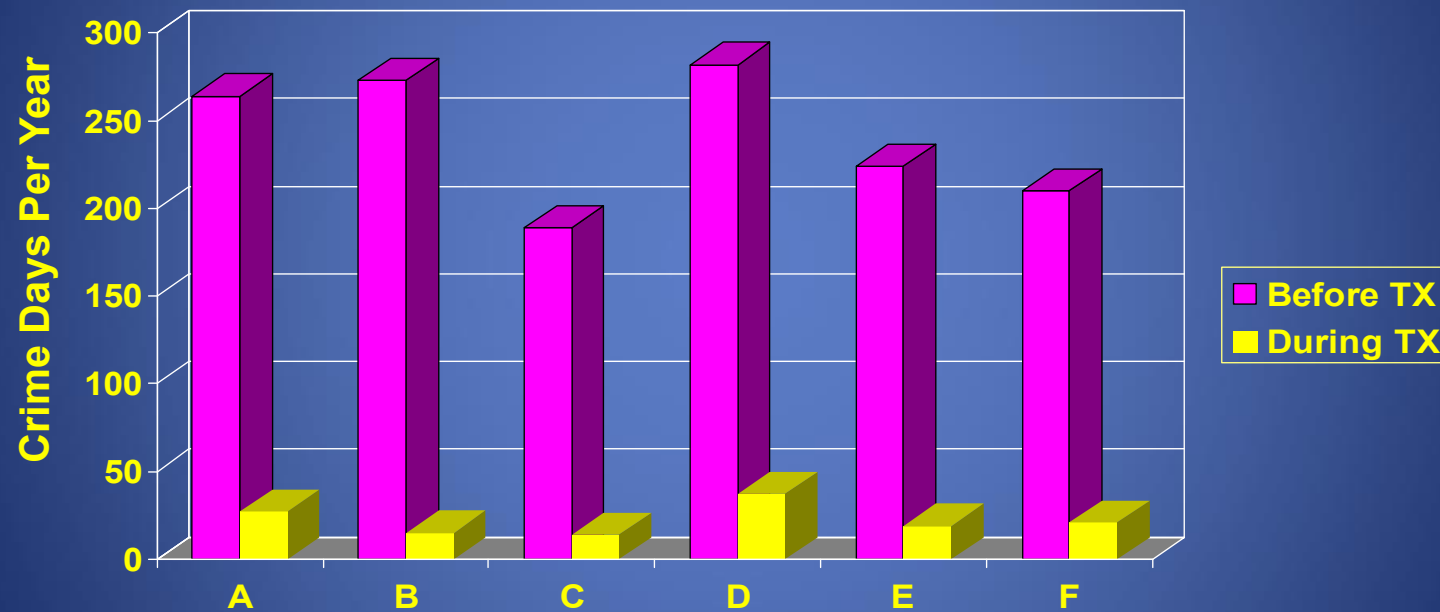
Dayton, Ohio, had one of the highest overdose death rates in the nation in 2017. The city made many changes, and fatal overdoses are down more than 50 percent from last year.



By Abby Goodnough

Nov. 25, 2018

# Crime Among 491 Patients Before and During MMT at 6 Programs



Adapted from Ball & Ross - The Effectiveness of Methadone Maintenance Treatment, 1991

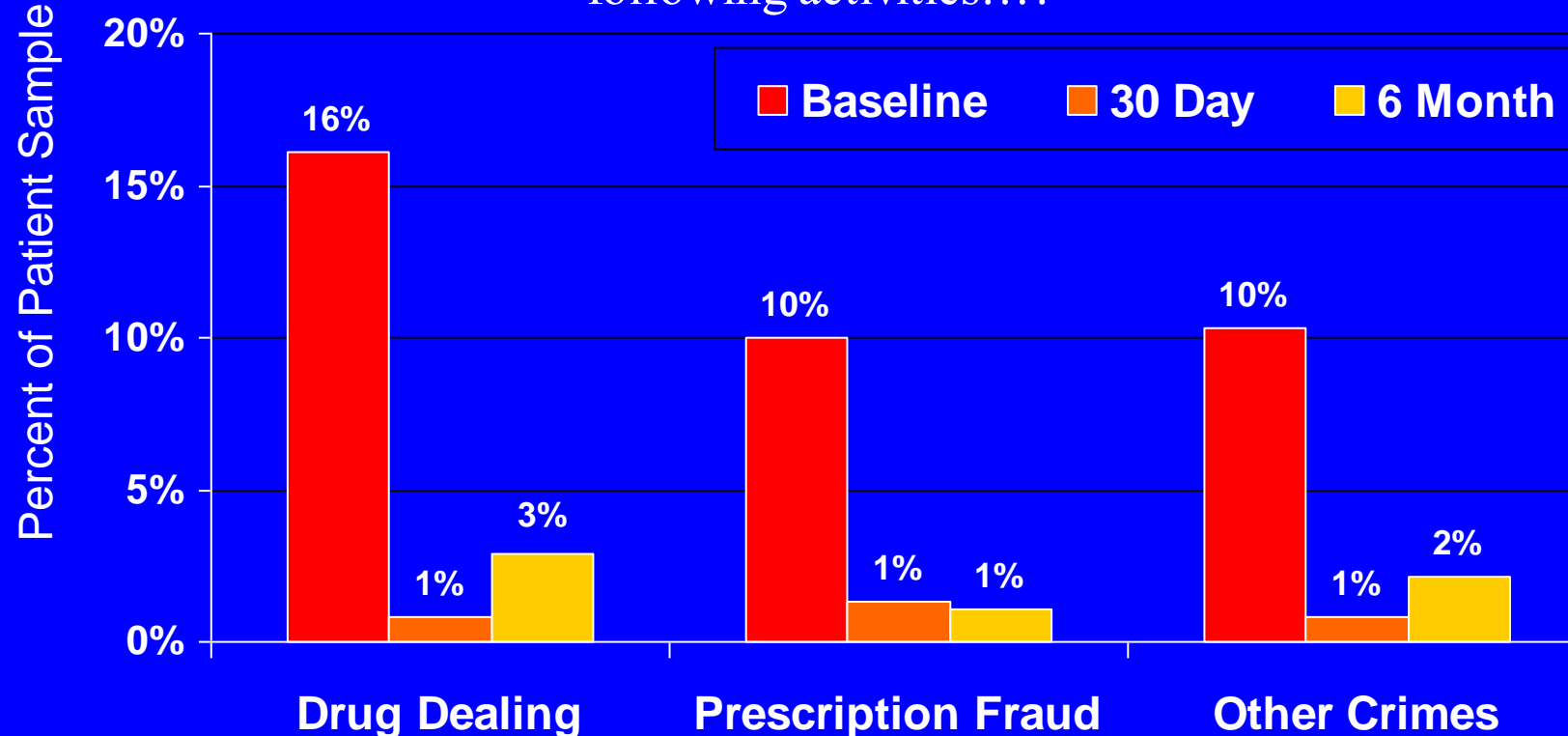
Opioid Agonist Treatment of Addiction - Payte - 1998

Note: This shows criminal activity at six different methadone maintenance programs, comparing rates before treatment (pink) to during treatment (yellow).

© Martin, J. 2012

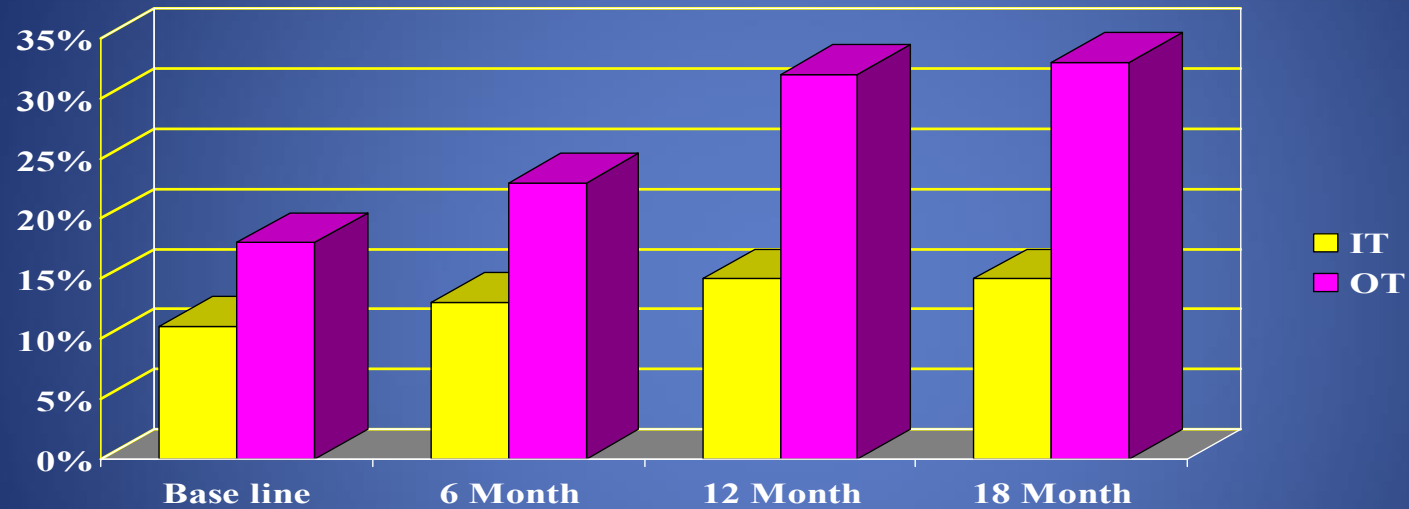
# Buprenorphine Patient Outcomes: Specific Criminal Activities

“In the past 30 days were you involved in any of the following activities...?”



*n*=379

# HIV Conversion In Treatment



**HIV infection rates by baseline treatment status. In treatment (IT) n=138, not in treatment (OT) n=88**

**Source: Metzger, D. et. al. J of AIDS 6:1993. p.1052**

Opioid Maintenance Pharmacotherapy - A Course for Clinicians - 1997

Note: This slide shows protection from HIV sero-conversion by enrollment in MMT: the longer the treatment the more relative protection from HIV.

© Martin, J. 2012

# RCT of buprenorphine

- 40 Heroin addicts
- Buprenorphine 8mg/day vs taper + placebo
- All received counseling, groups
- Followed for 1 year

	Buprenorphine	Placebo
Retained at 1 yr	70%	0
% died	0	20%

Kakko et al, Lancet 2003



**“The most that any chemical agent can do for an addict is to relieve his compulsive drive for illicit narcotic. To give him hope and self-respect requires human warmth; to become a productive citizen he needs the effective support of persons who can help him find a job and protect him from discrimination. It is these human qualities that the treatment programs of the past five years have failed.” (Dole & Nyswander, 1976)**

Questions???

Thank You:

Dr. Bruce Trigg