




## Opioid Use Disorders & Medication Treatment

**Charissa Fotinos, MD, MSc**

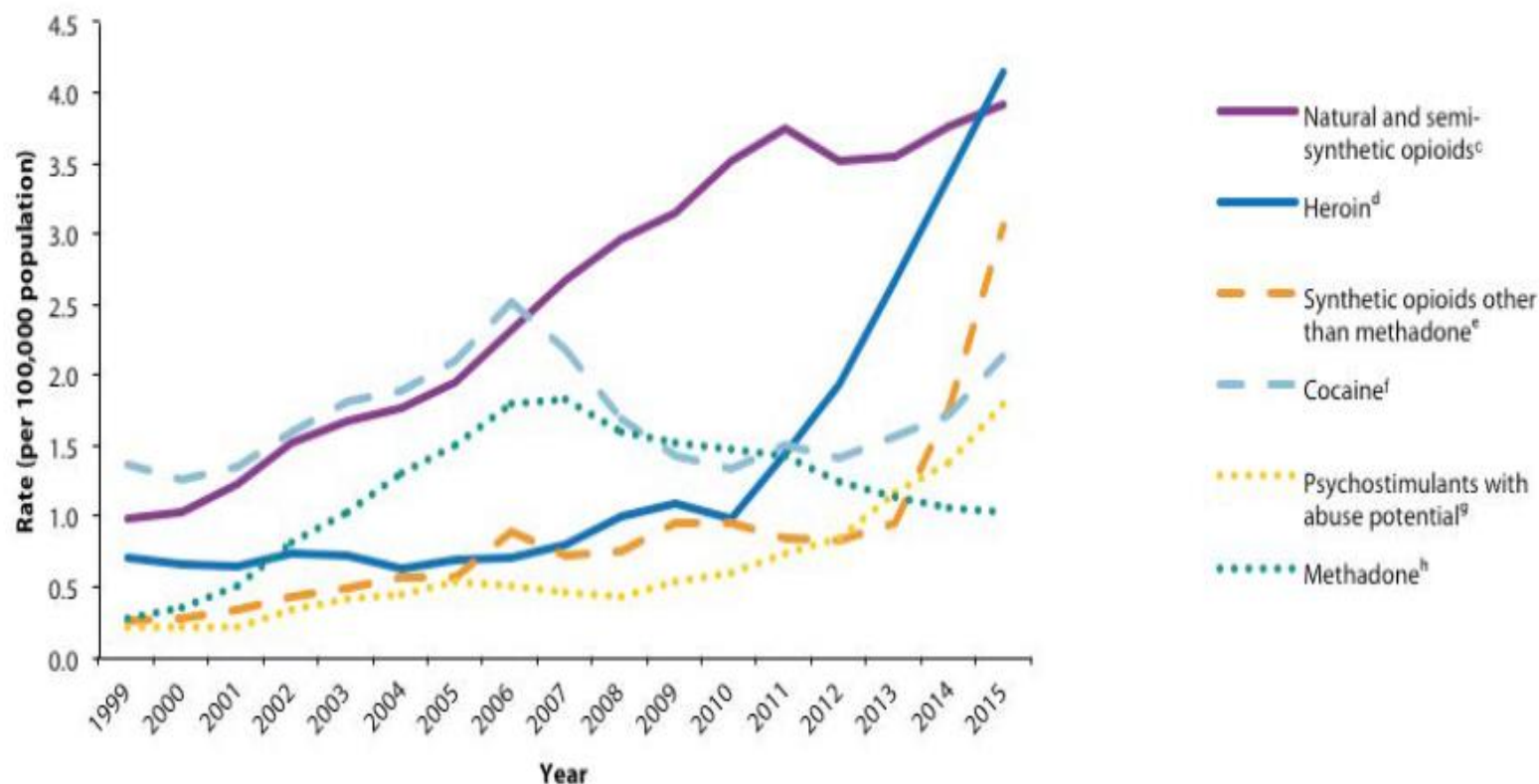
Deputy Chief Medical Officer

Washington State Health Care Authority

# Learning Objectives:

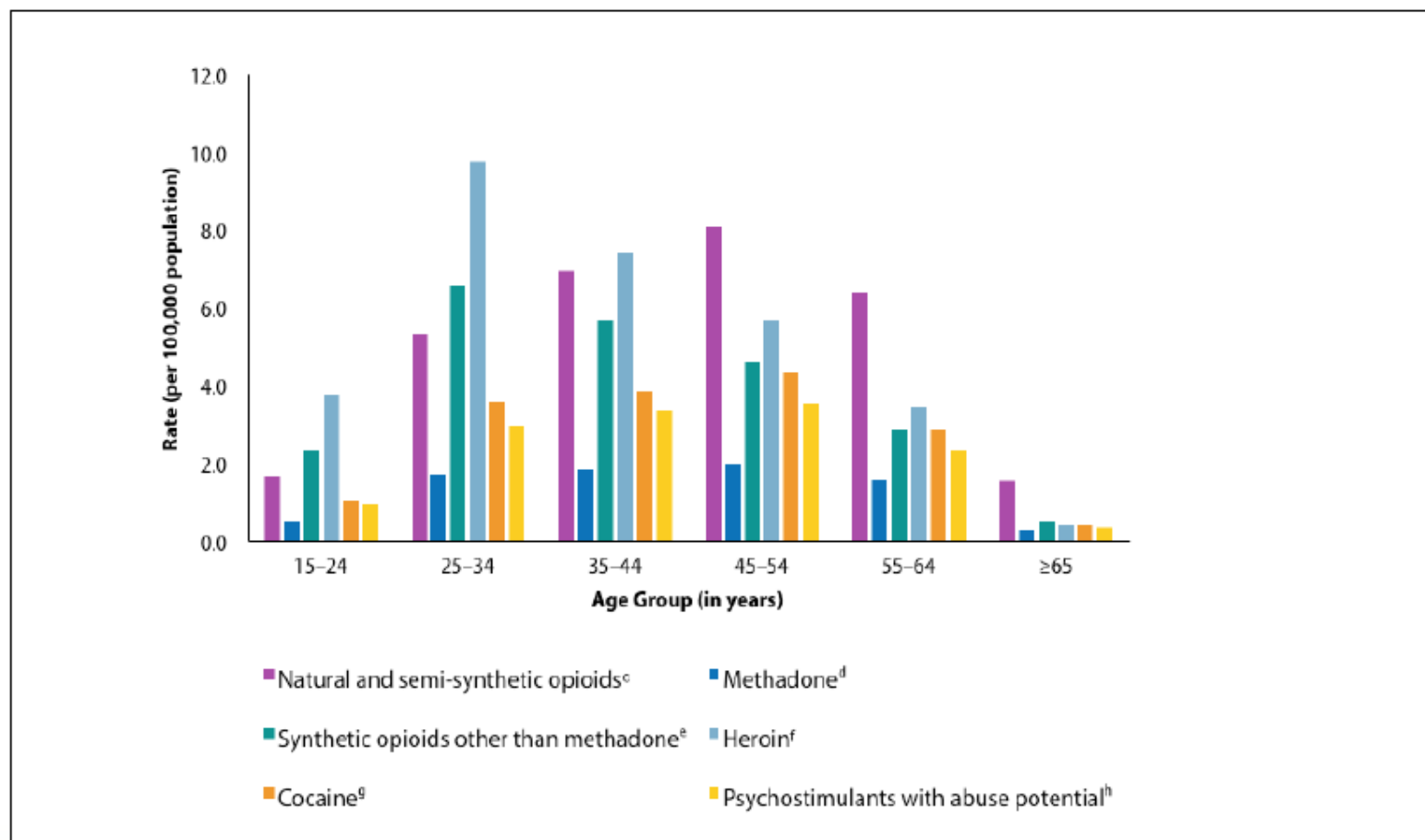
- 1) Review recent trends and consequences of the current opioid epidemic
  - 2) Describe the 'science' of opioid use disorder to better treat patients suffering from opioid use disorder
  - 3) Discuss medication treatment
- 

# Age-adjusted drug overdose deaths by drug



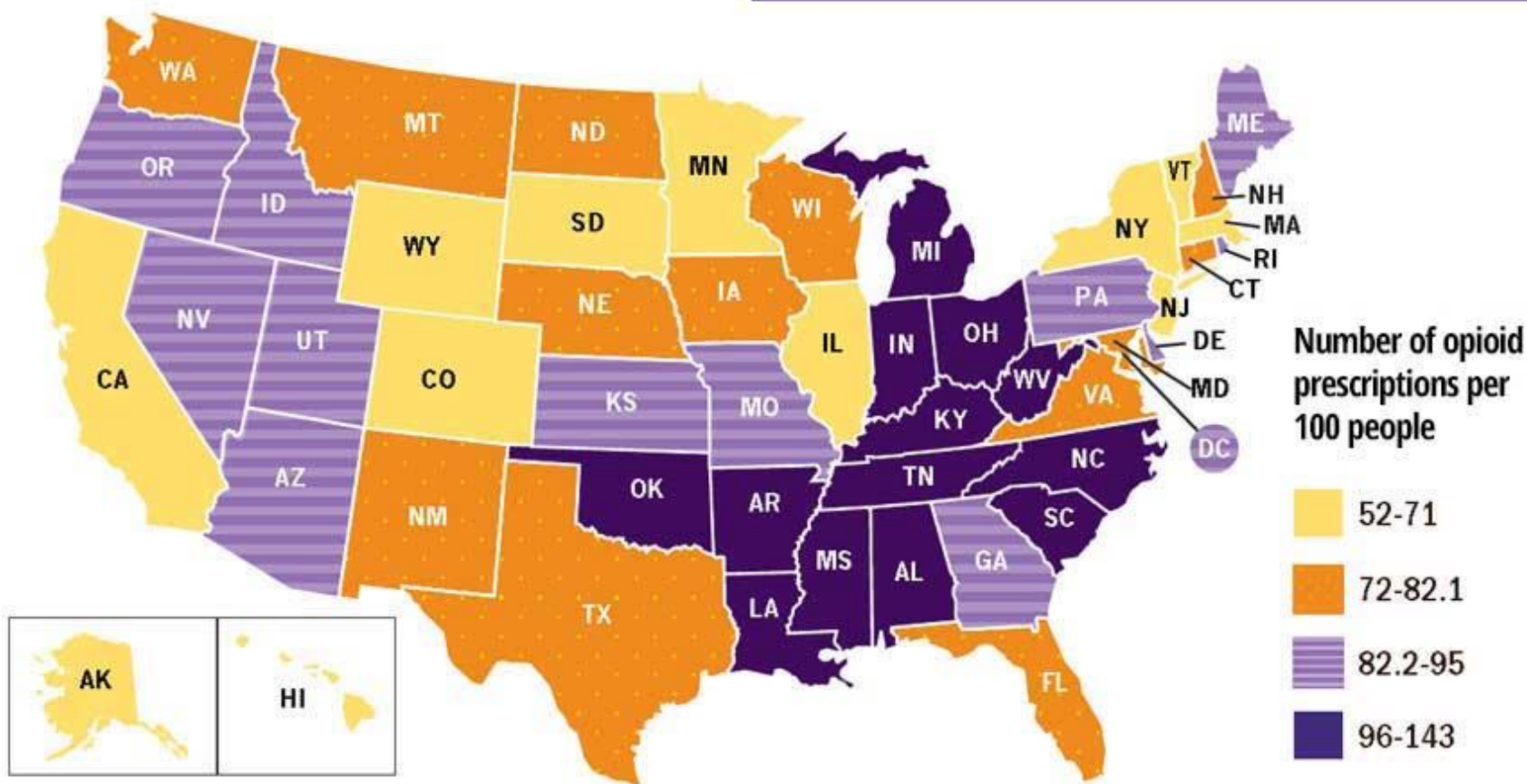
Source: National Vital Statistics System, Mortality File, CDC WONDER.

## Age-adjusted drug overdose deaths by age



Source: National Vital Statistics System, Mortality File, CDC WONDER.

Some states have more opioid prescriptions per person than others.

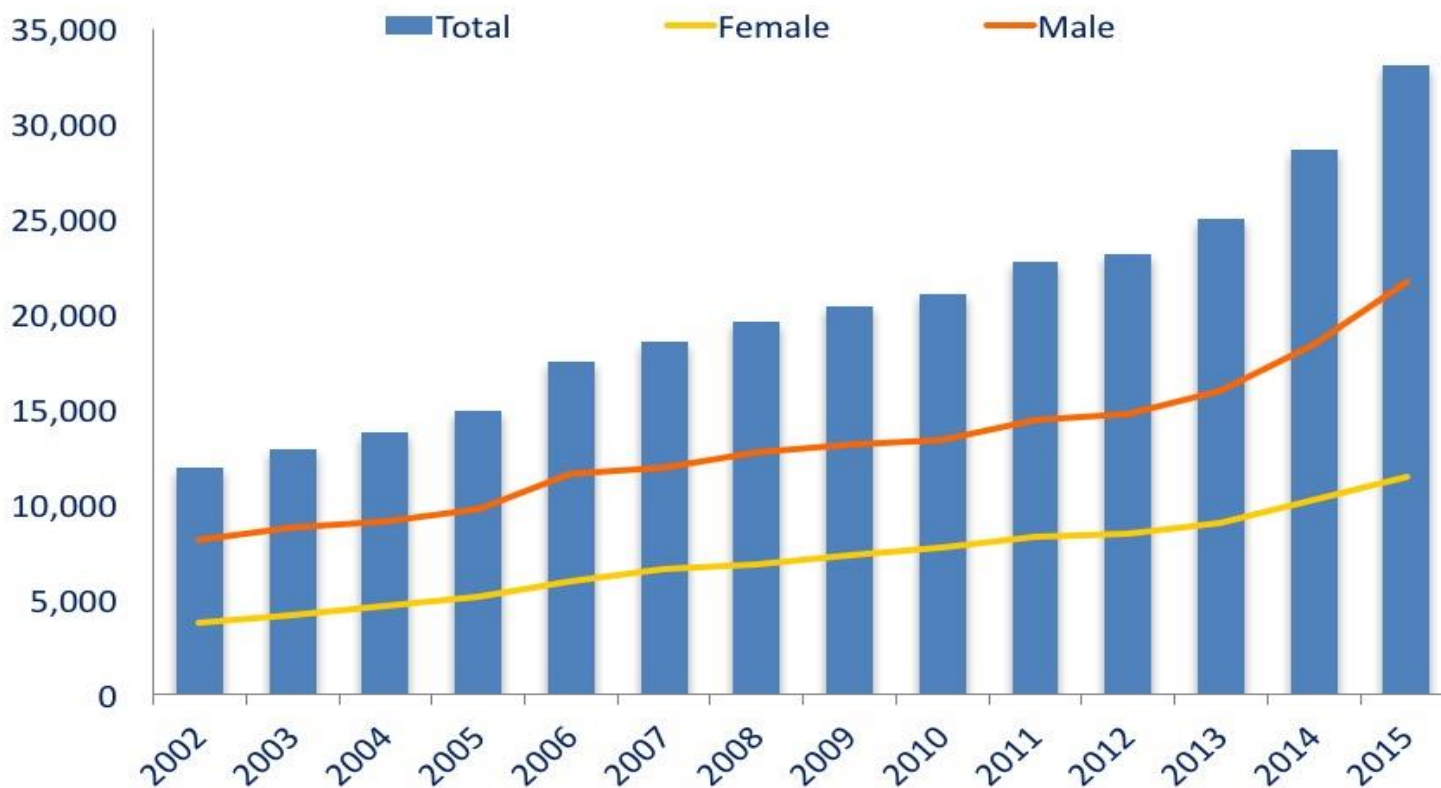


SOURCE: IMS, National Prescription Audit (NPA™), 2012.



# National Overdose Deaths

## Number of Deaths Involving Opioid Drugs

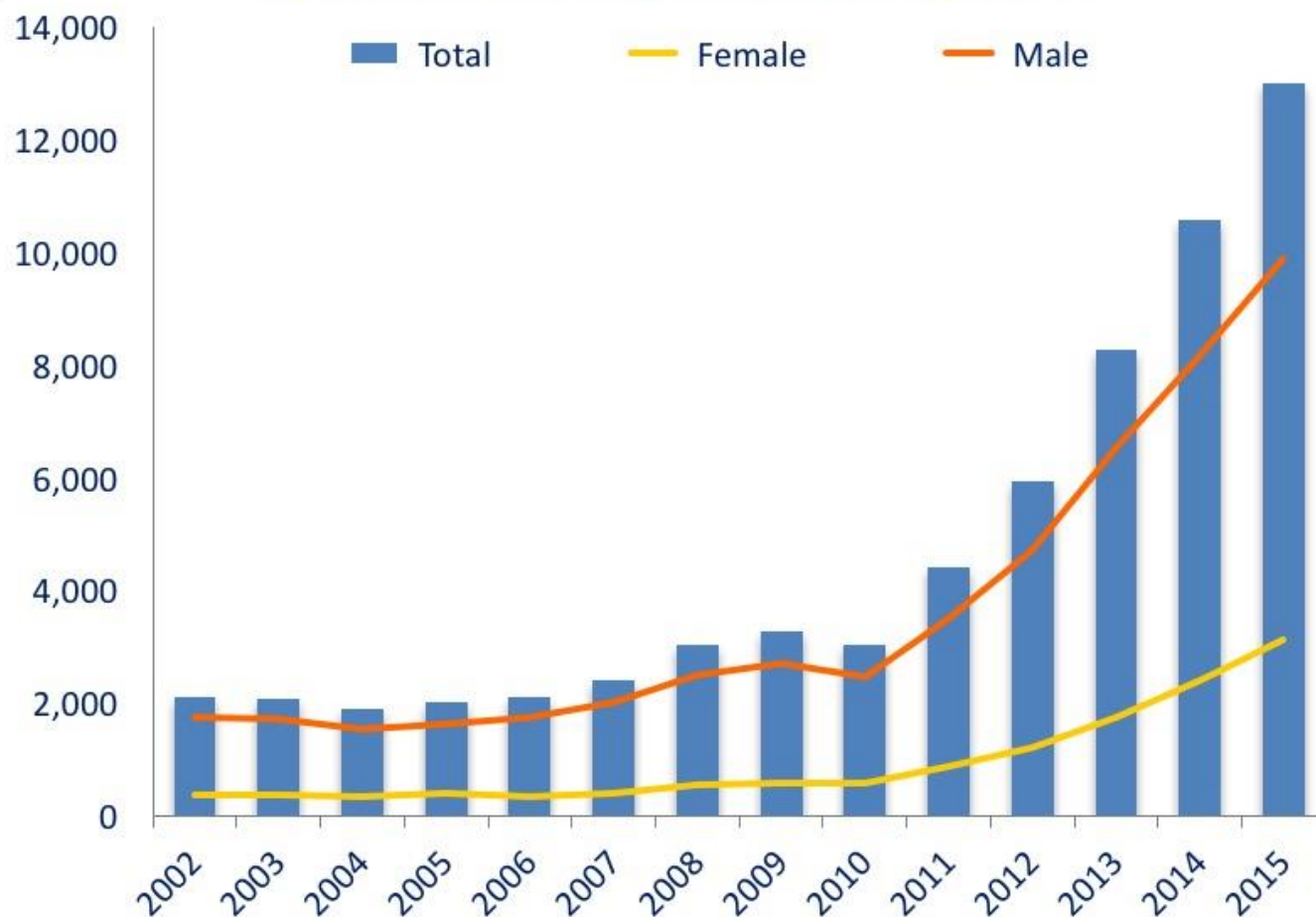


Source: National Center for Health Statistics, CDC Wonder



# National Overdose Deaths

## Number of Deaths from Heroin



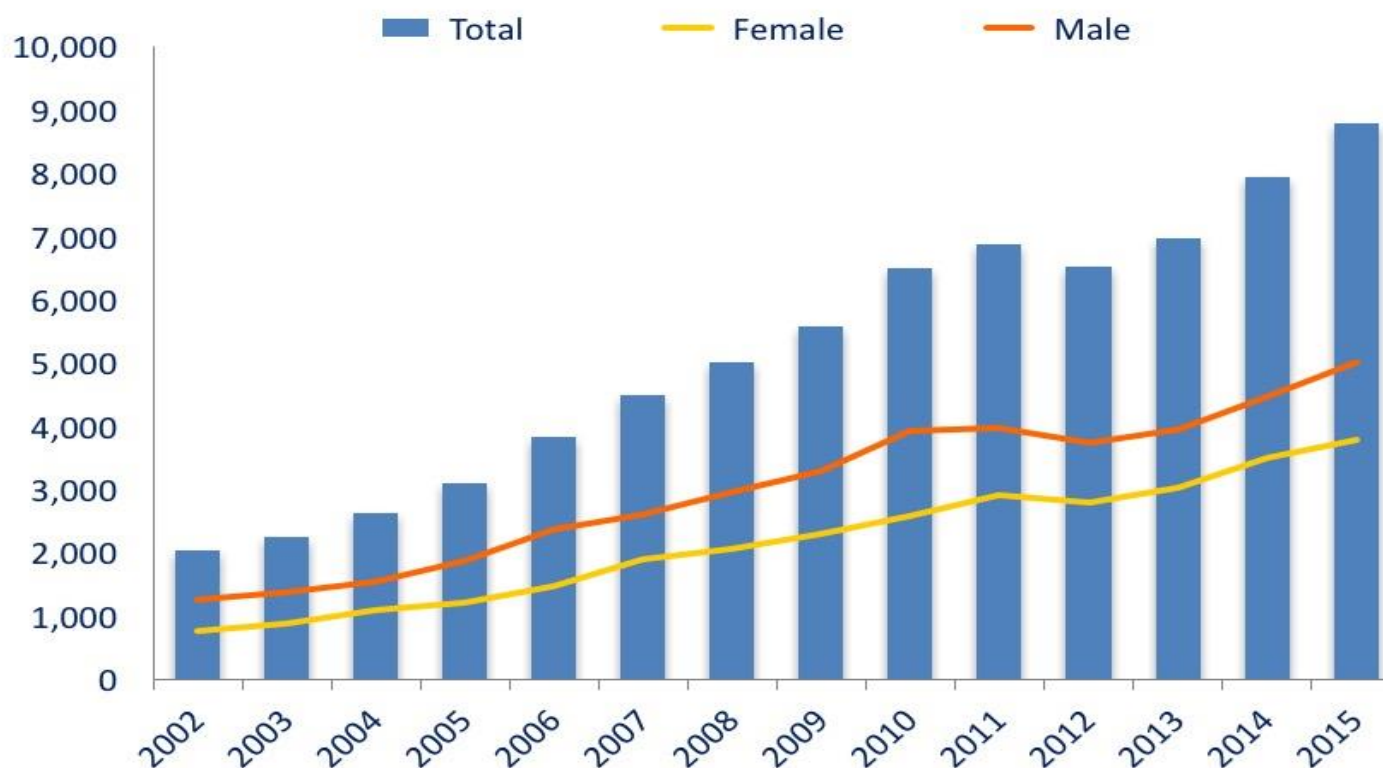
Source: National Center for Health Statistics, CDC Wonder





# National Overdose Deaths

## Number of Deaths Involving Benzodiazepines



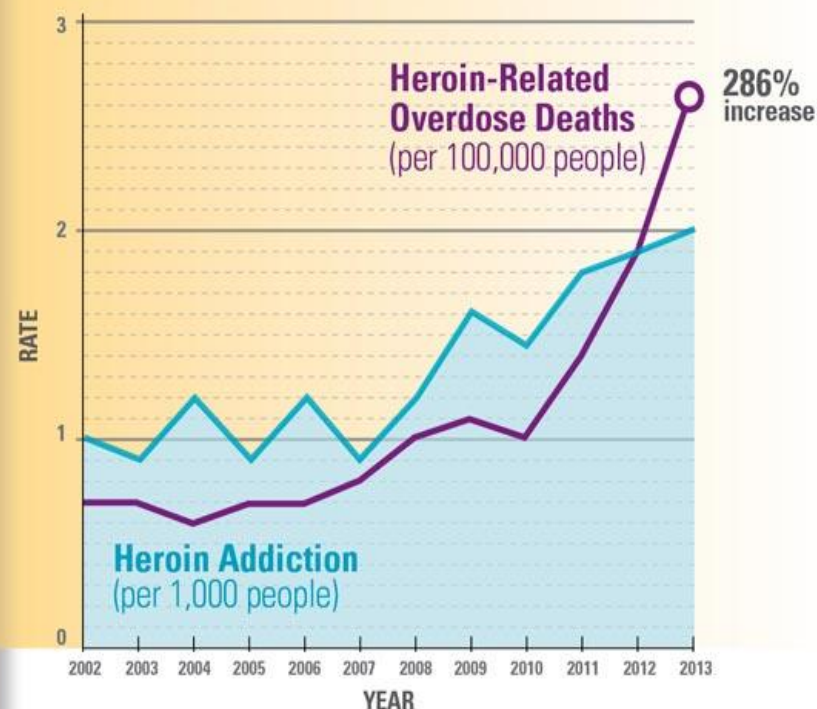
Source: National Center for Health Statistics, CDC Wonder



## Heroin Use Has INCREASED Among Most Demographic Groups

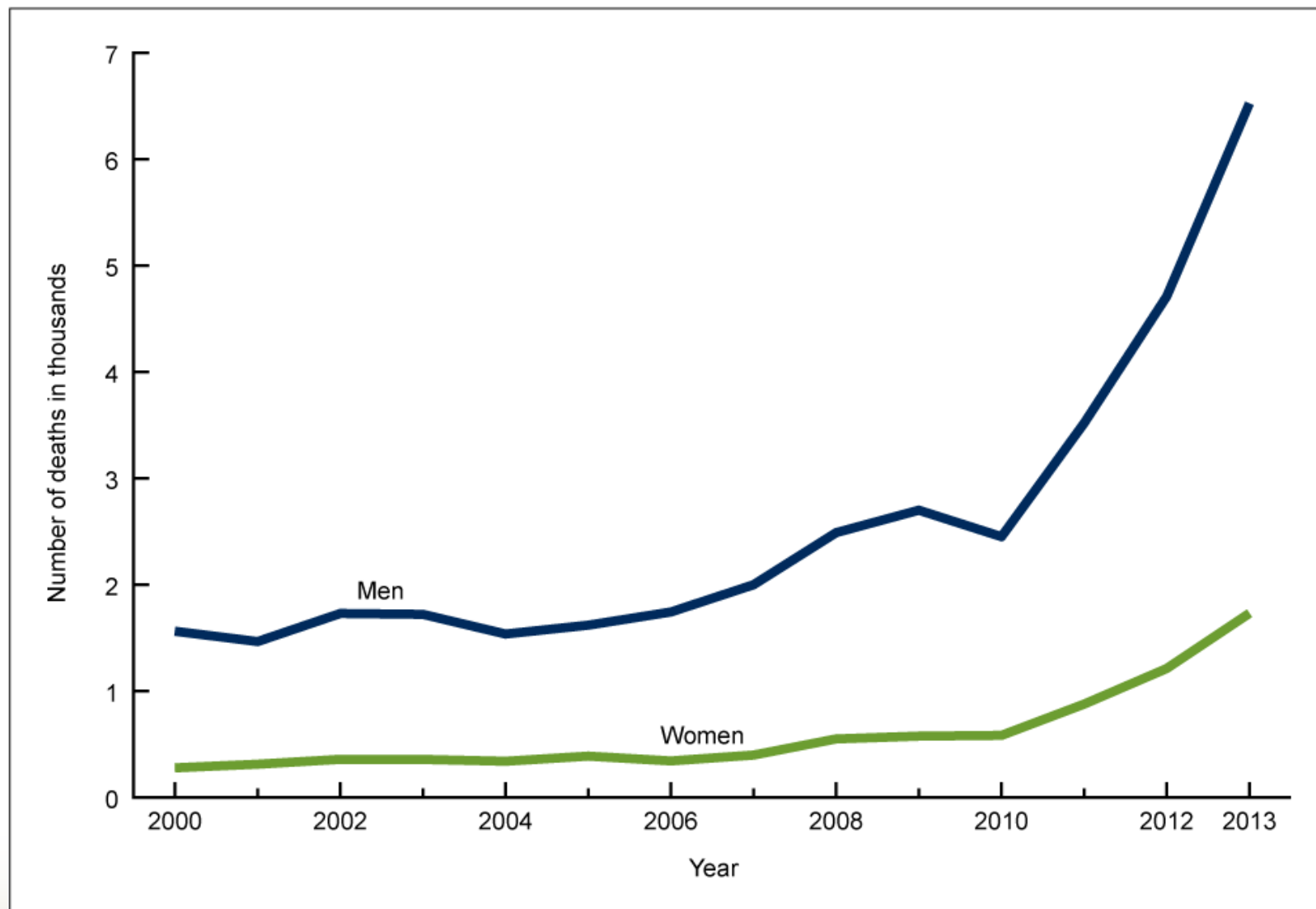
	2002-2004*	2011-2013*	% CHANGE
<b>SEX</b>			
Male	2.4	3.6	50%
Female	0.8	1.6	100%
<b>AGE, YEARS</b>			
12-17	1.8	1.6	--
18-25	3.5	7.3	109%
26 or older	1.2	1.9	58%
<b>RACE/ETHNICITY</b>			
Non-Hispanic white	1.4	3	114%
Other	2	1.7	--
<b>ANNUAL HOUSEHOLD INCOME</b>			
Less than \$20,000	3.4	5.5	62%
\$20,000-\$49,999	1.3	2.3	77%
\$50,000 or more	1	1.6	60%
<b>HEALTH INSURANCE COVERAGE</b>			
None	4.2	6.7	60%
Medicaid	4.3	4.7	--
Private or other	0.8	1.3	63%

## Heroin Addiction and Overdose Deaths are Climbing



SOURCES: National Survey on Drug Use and Health (NSDUH), 2002-2013.  
National Vital Statistics System, 2002-2013.

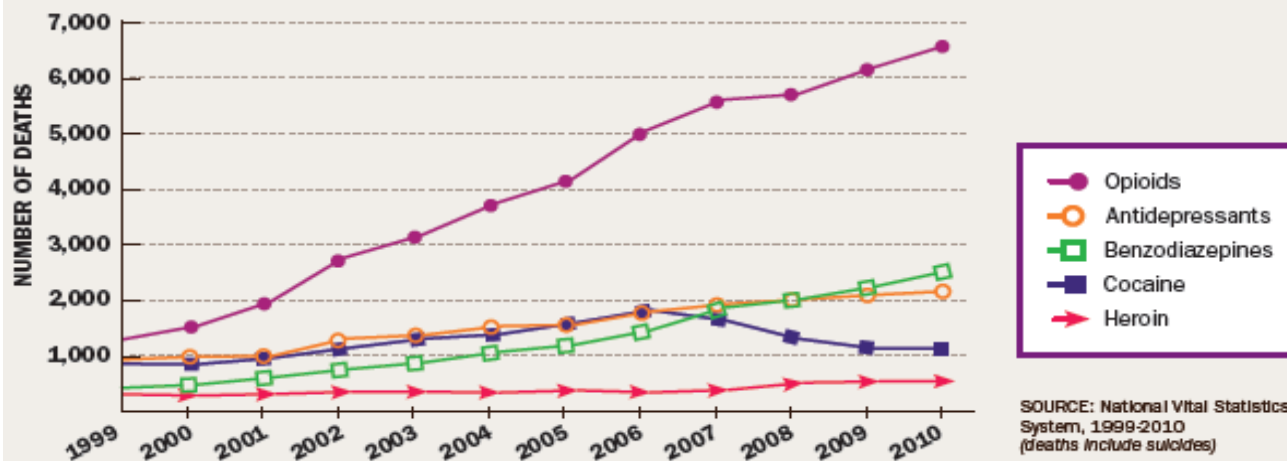
Figure 2. Number of drug-poisoning deaths involving heroin, by sex: United States, 2000–2013



NOTE: Access data table for Figure 2 at: [http://www.cdc.gov/nchs/data/databriefs/db190\\_table.pdf#2](http://www.cdc.gov/nchs/data/databriefs/db190_table.pdf#2).

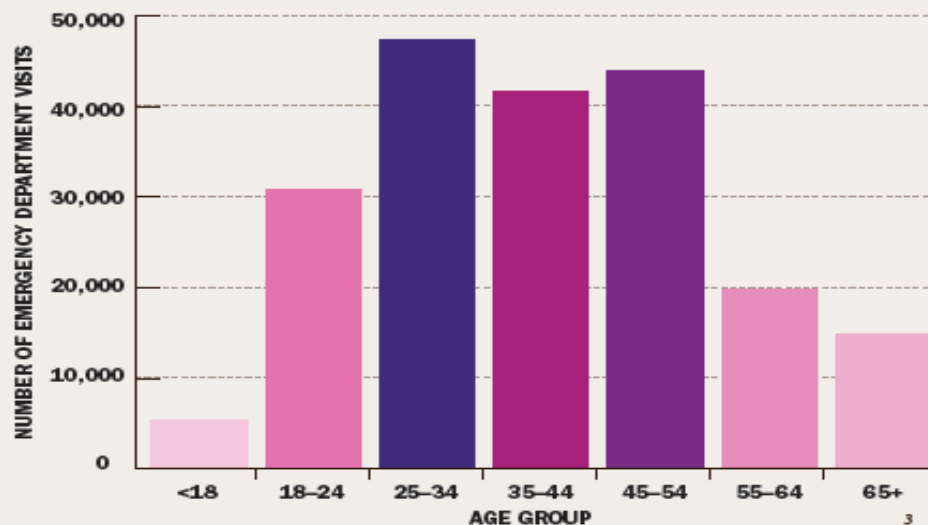
SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.

## Prescription painkiller overdose deaths are a growing problem among women.



Women between the ages of 25 and 54 are most likely to go to the emergency department because of prescription painkiller misuse or abuse.

SOURCE: Drug Abuse Warning Network, 2010. (Suicide attempts are included for the cases (.03% of total) where opioids were combined with illicit drugs in the attempt.)



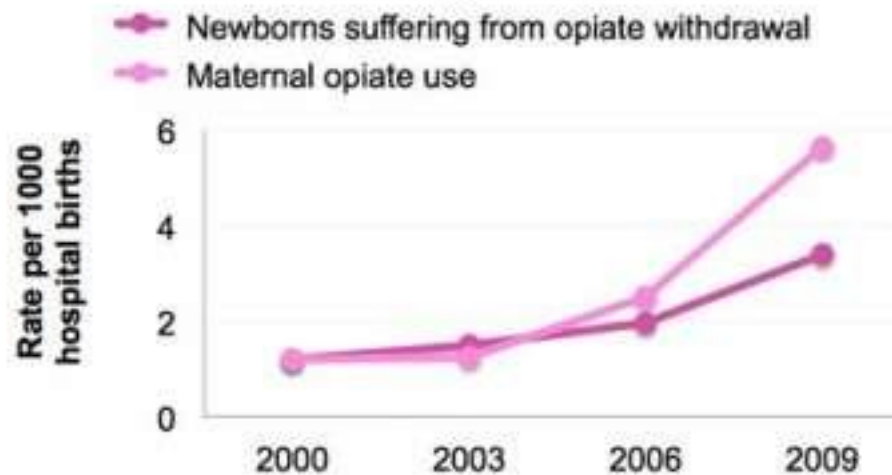


Every hour,  
**1 BABY**  
is born  
suffering  
from opiate  
withdrawal.

#### Average length or cost of hospital stay

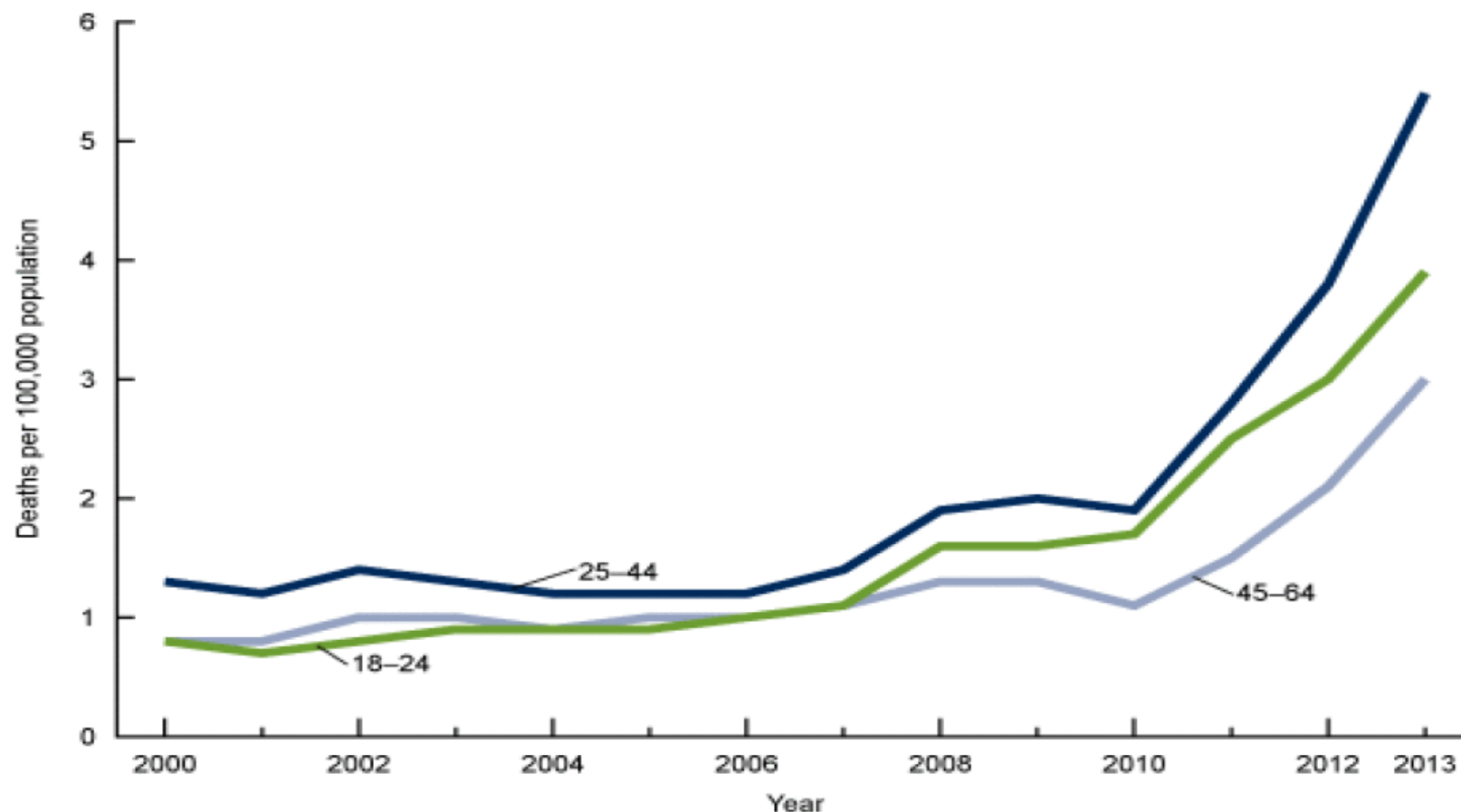


#### NAS and maternal opiate use on the rise



Source: Patrick et. al., JAMA 2012

## U.S. Heroin Related Overdose Deaths

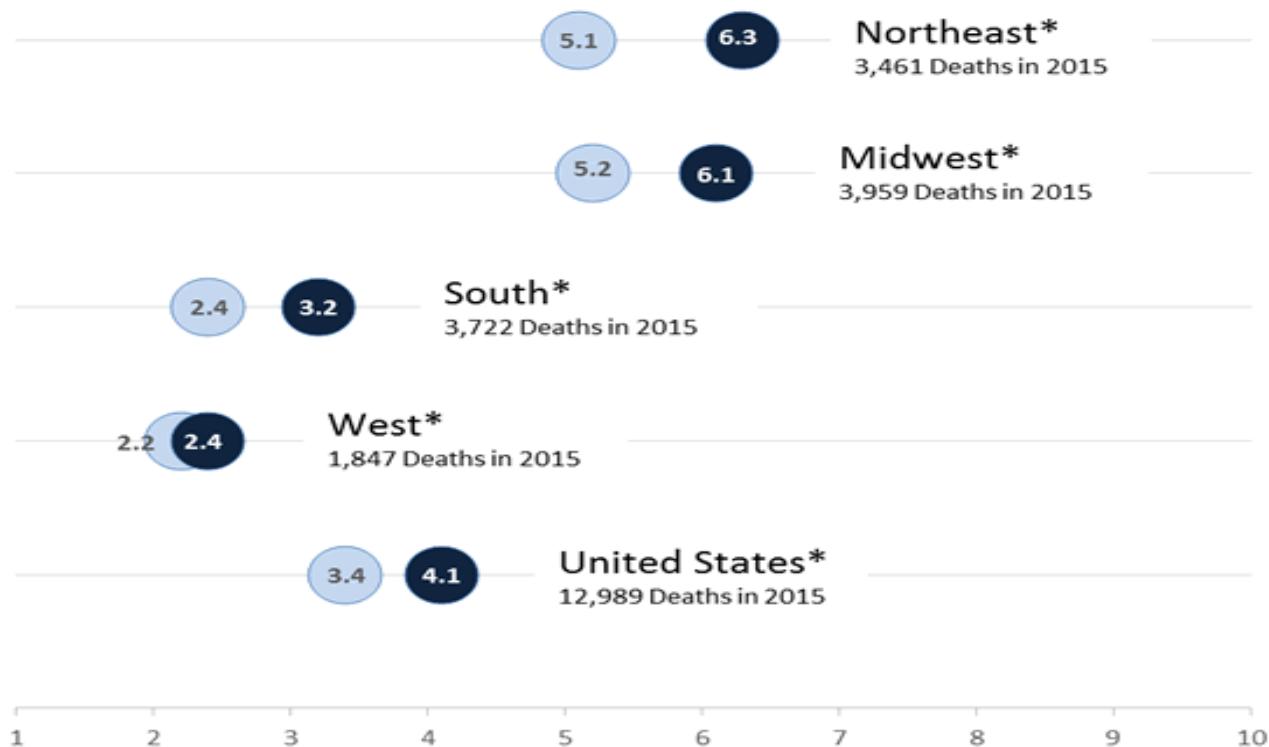


Rates for drug-poisoning deaths involving heroin, by selected age groups: United States, 2000–2013

Courtesy CDC

## Heroin Overdose Death Rates

Age-adjusted deaths per 100,000 population for heroin from 2014 to 2015, by census region of residence



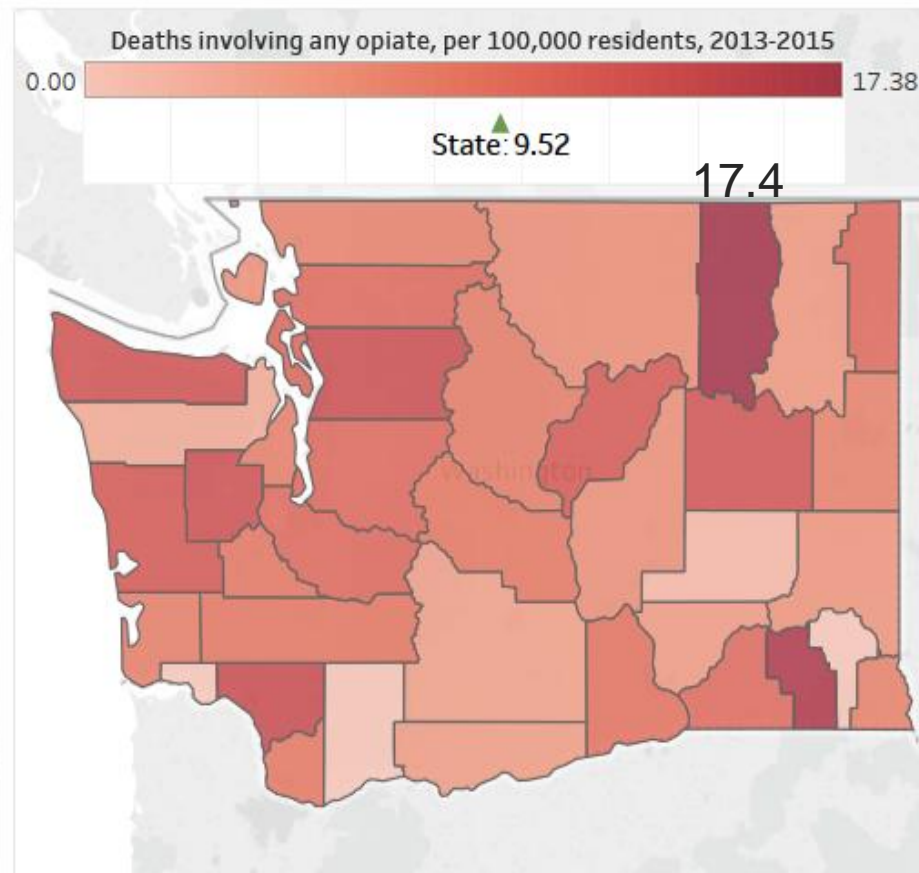
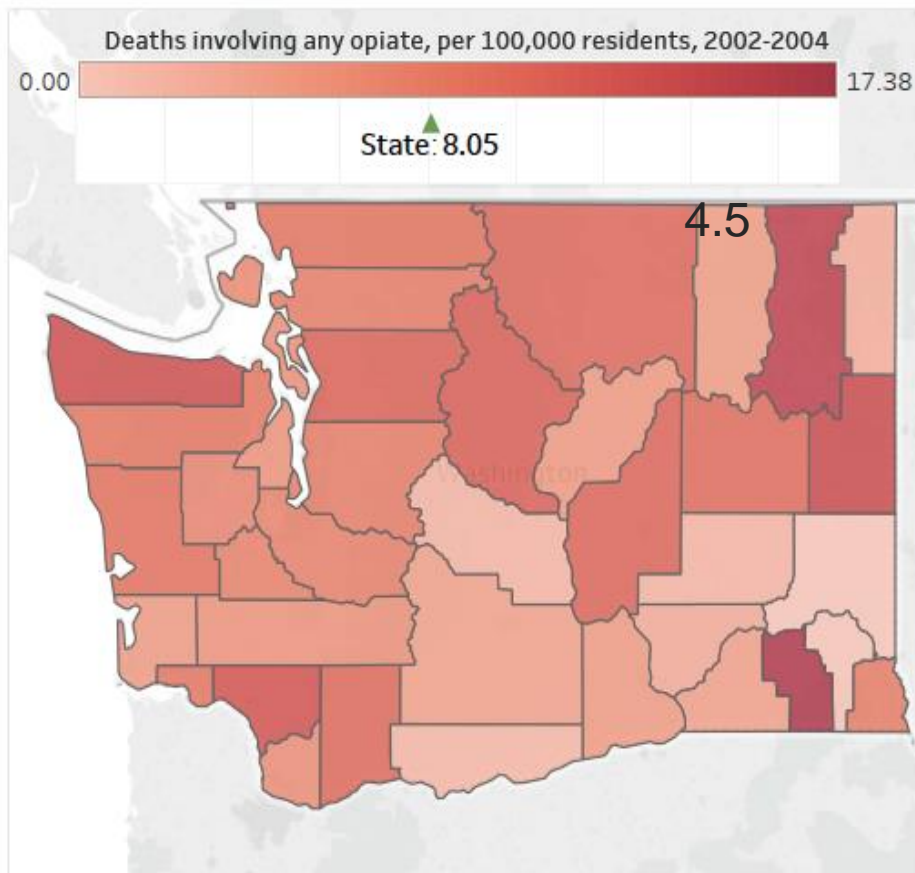
SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2016. <https://wonder.cdc.gov/>.

\* Statistically significant at  $p < 0.05$  level.

**www.cdc.gov**  
Your Source for Credible Health Information

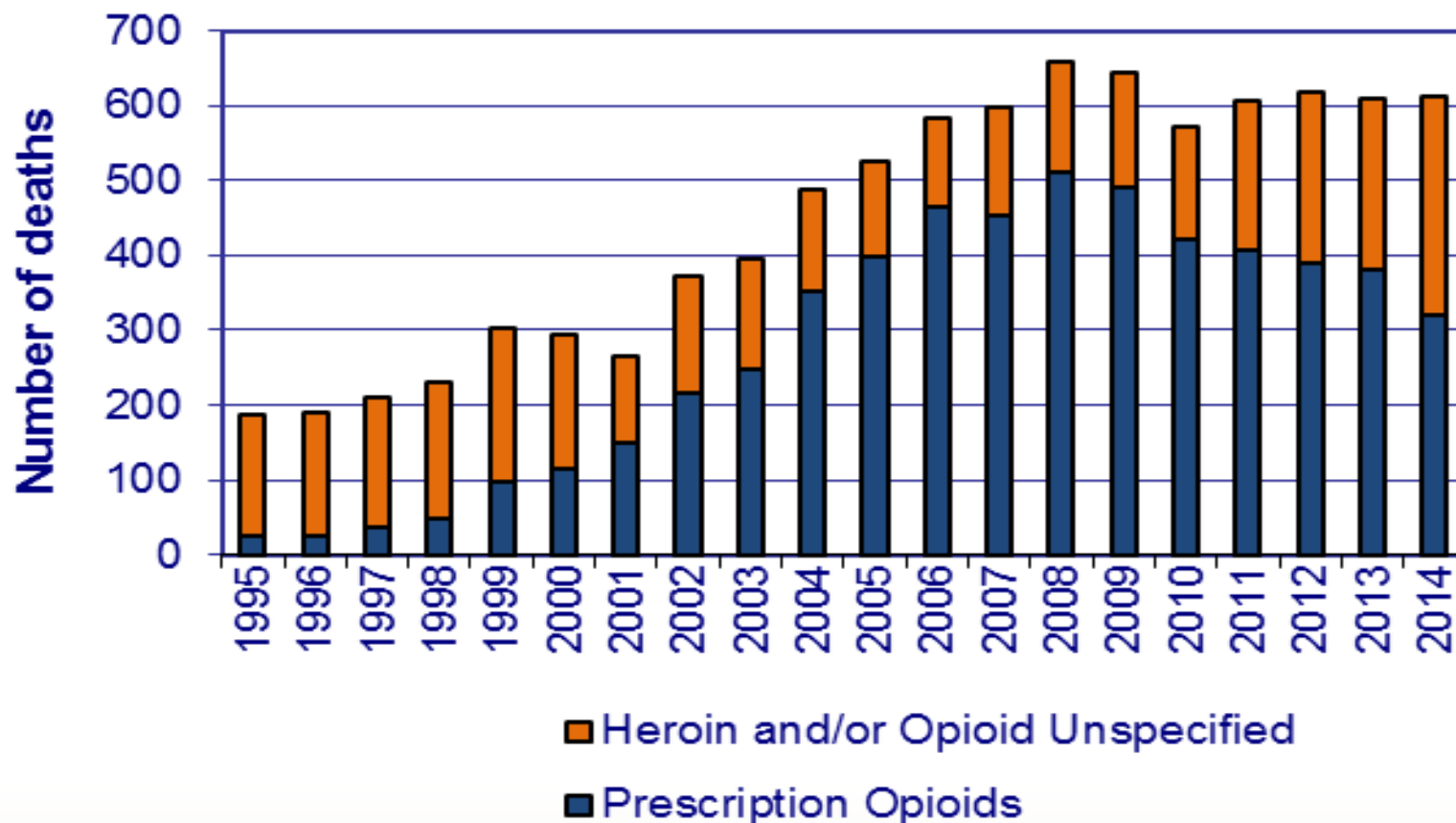


# Opioid Overdose Deaths





## Unintentional Opioid Overdose Deaths Washington 1995-2014



Source: Washington State Department of Health, Death Certificates

**Figure 2. Fentanyl-related, Opioid and Heroin Overdose Deaths, 2006-2016, Washington State**

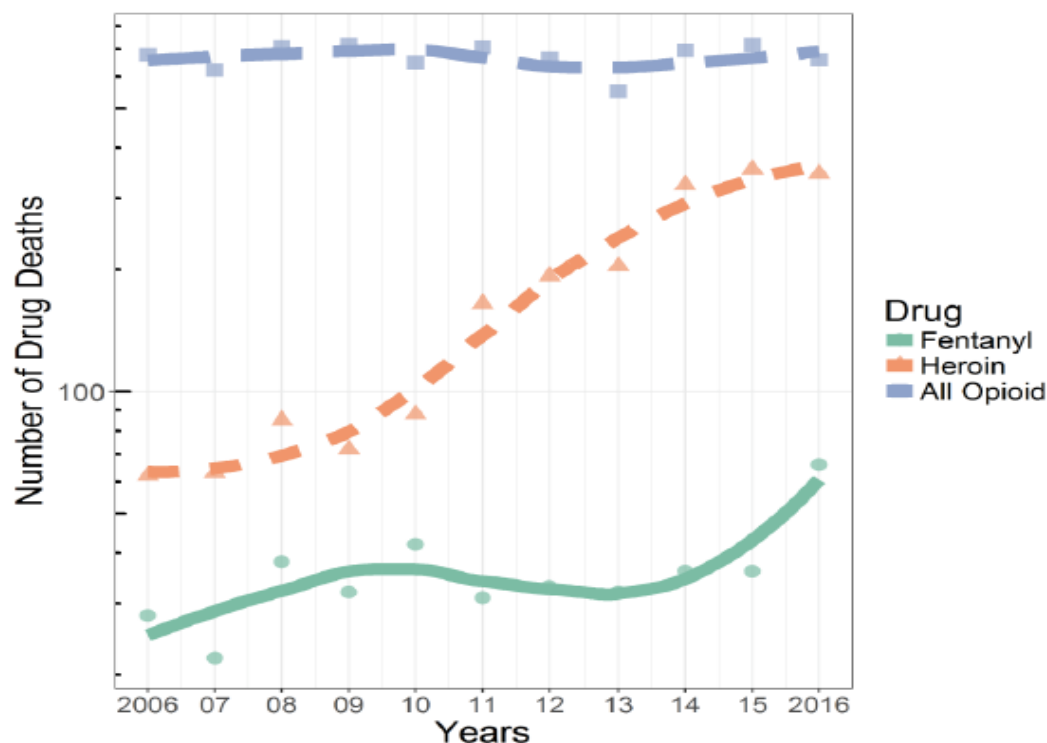
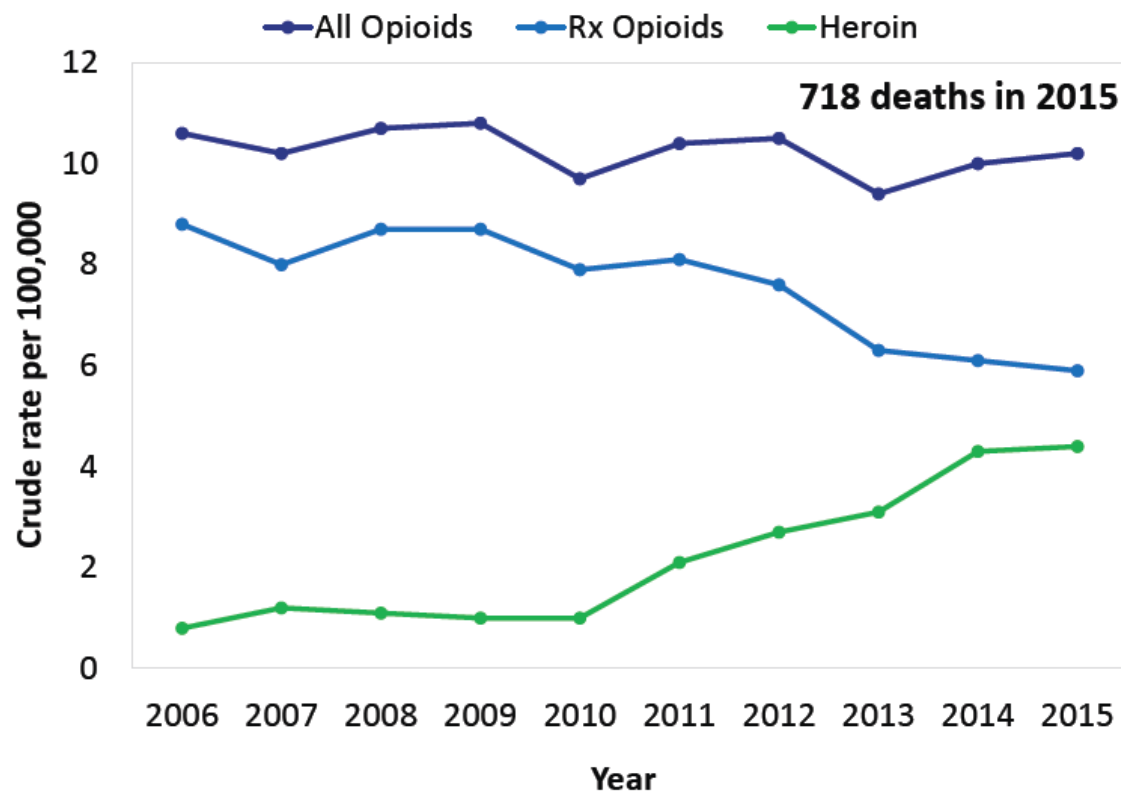


Figure 2 displays the trends in fentanyl-related, heroin and all opioid overdose deaths from 2006-2016 in Washington State. While overall opioid overdose deaths in Washington State have remained stable during this time period, heroin overdose deaths increased starting in 2010, and fentanyl-related overdose deaths increased starting in 2016.

## Rx opioid deaths are decreasing while heroin overdoses have risen sharply

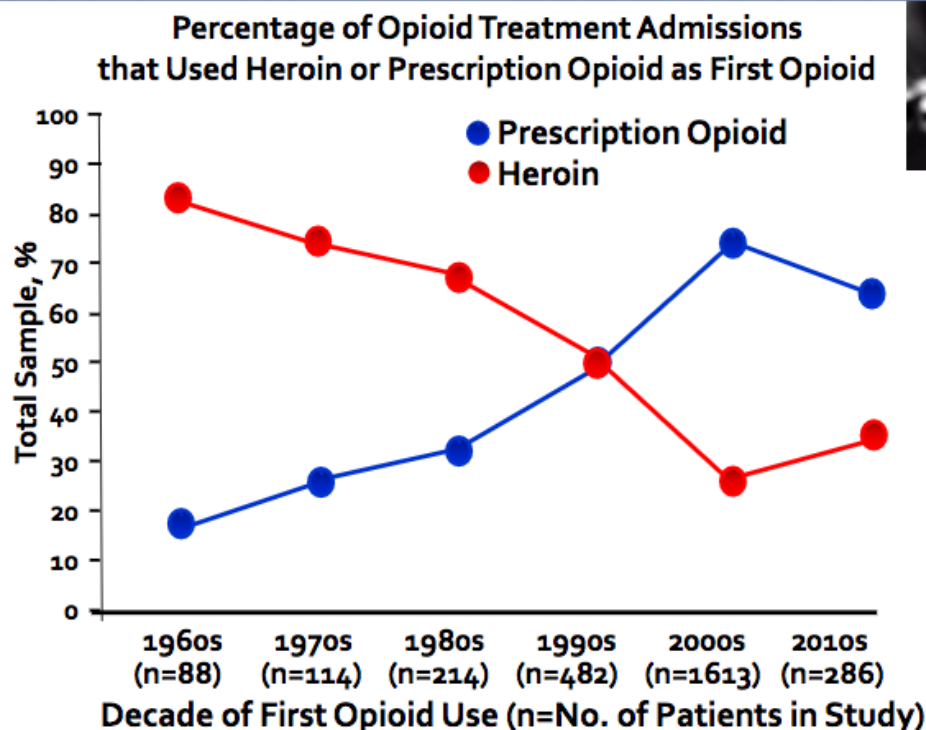
Trends in WA state 2006-15, excluding falls



Source: Department of Health death certificates



## Which Drug is *First Opioid* in Treatment Seekers? Shifting Pattern of Heroin vs. Rx Opioid First



**1960s:** more than 80% started with **heroin**

**2000s:** 75% started with **prescription opioids**

**2010-2013:** Increasing initiation with **heroin**

Source: Cicero et al. JAMA Psychiatry. 2014;71(7):821-826

## Number of days supplied for opioid prescriptions

DAYS SUPPLIED PER PATIENT DURING THE YEAR  
STATE AVERAGE VS. LOWEST AND HIGHEST PATIENT RESIDENTIAL AREAS

## FEMALE PATIENTS

Age	Lowest Residential Area	State Avg	Highest Residential Area	High/ Low
2-6	Bellevue	5.5	19.6	3.5 x
7-11	Bellevue	6.1	35.0	5.7 x
12-19	Enumclaw	6.3	45.7	7.3 x
20-44	Bellevue	27.7	165.0	6.0 x
45-64	Pullman	47.7	156.3	3.3 x

## MALE PATIENTS

Age	Lowest Residential Area	State Avg	Highest Residential Area	High/ Low
2-6	Bellevue	6.0	22.7	3.8 x
7-11	Bellevue	5.5	15.7	2.9 x
12-19	Coupeville	5.5	20.8	3.7 x
20-44	Toppenish	27.4	170.1	6.2 x
45-64	Bellevue	44.7	161.4	3.6 x

Washington Health Alliance

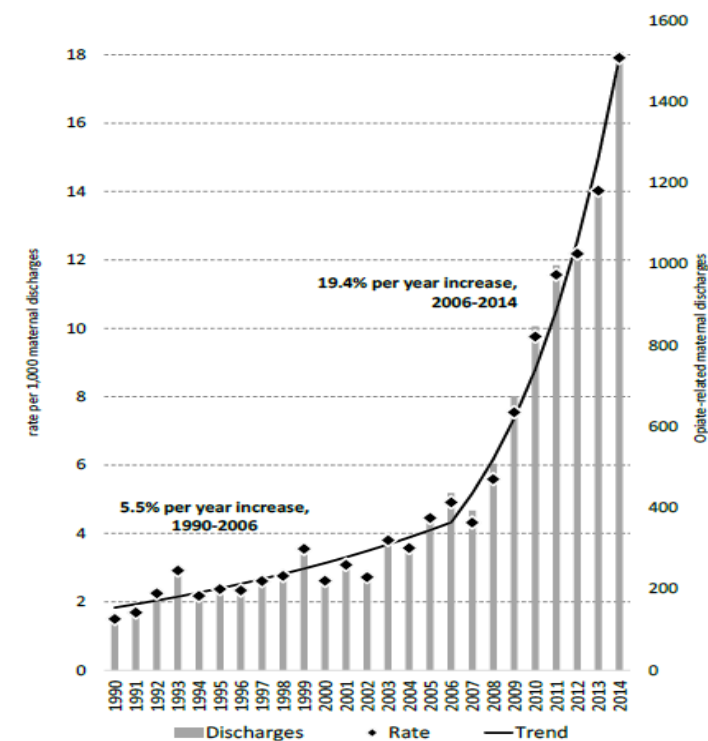
Different Regions, Different Care:  
A Report on Procedure Rate  
Variation in Washington State

August 2016

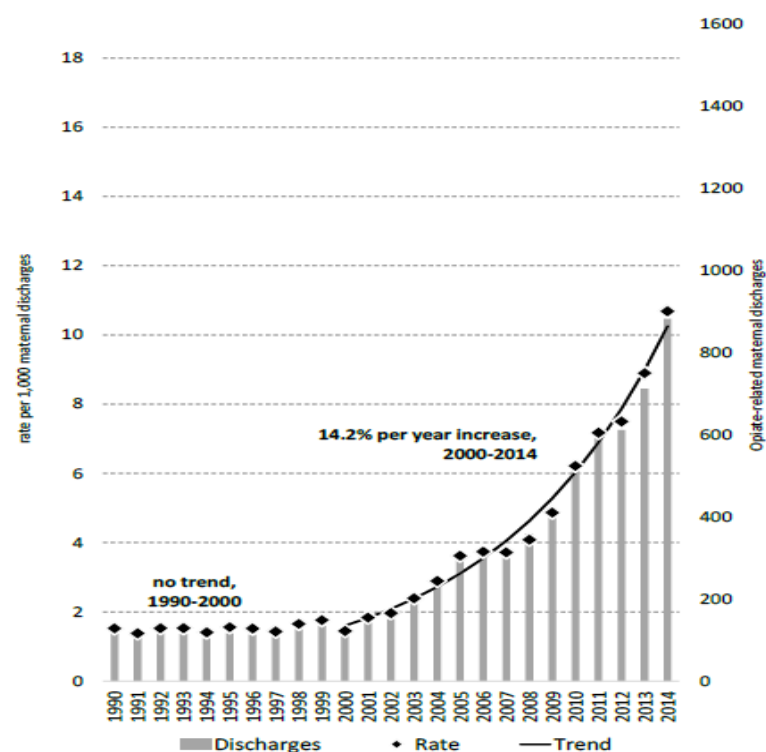
<http://wahealthalliance.org/wp-content/uploads.php?link-year=2016&link-month=08&link=2016-different-regions-different-care-report.pdf>

# Maternal and Neonatal Hospitalizations in Washington

**figure 4**  
Maternal Stays with an Opiate-Related Diagnosis  
WA Rates, Trends and Volumes, 1990–2014  
WA and OR Inpatient Discharge Data



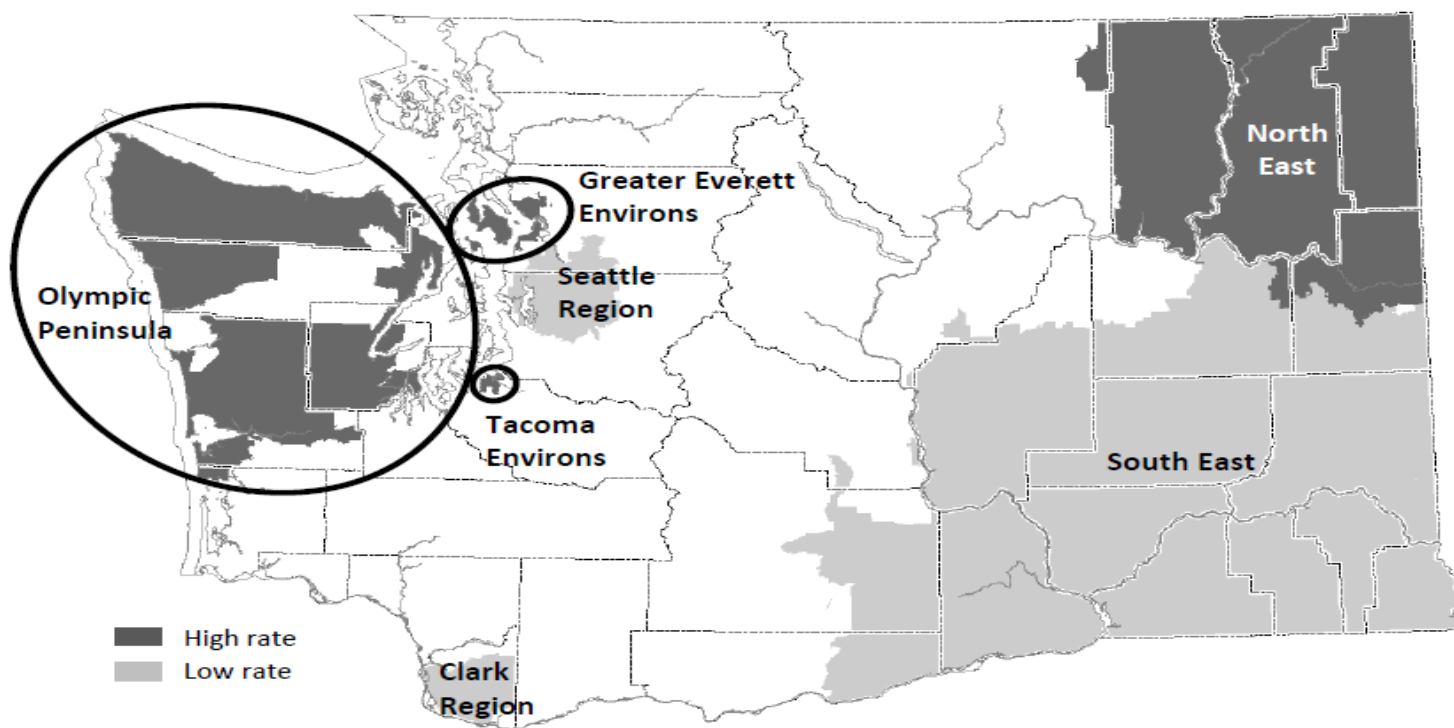
Newborns with Drug Withdrawal Syndrome Diagnosis  
WA Rates, Trends and Volumes, 1990–2014  
WA and OR Inpatient Discharge Data



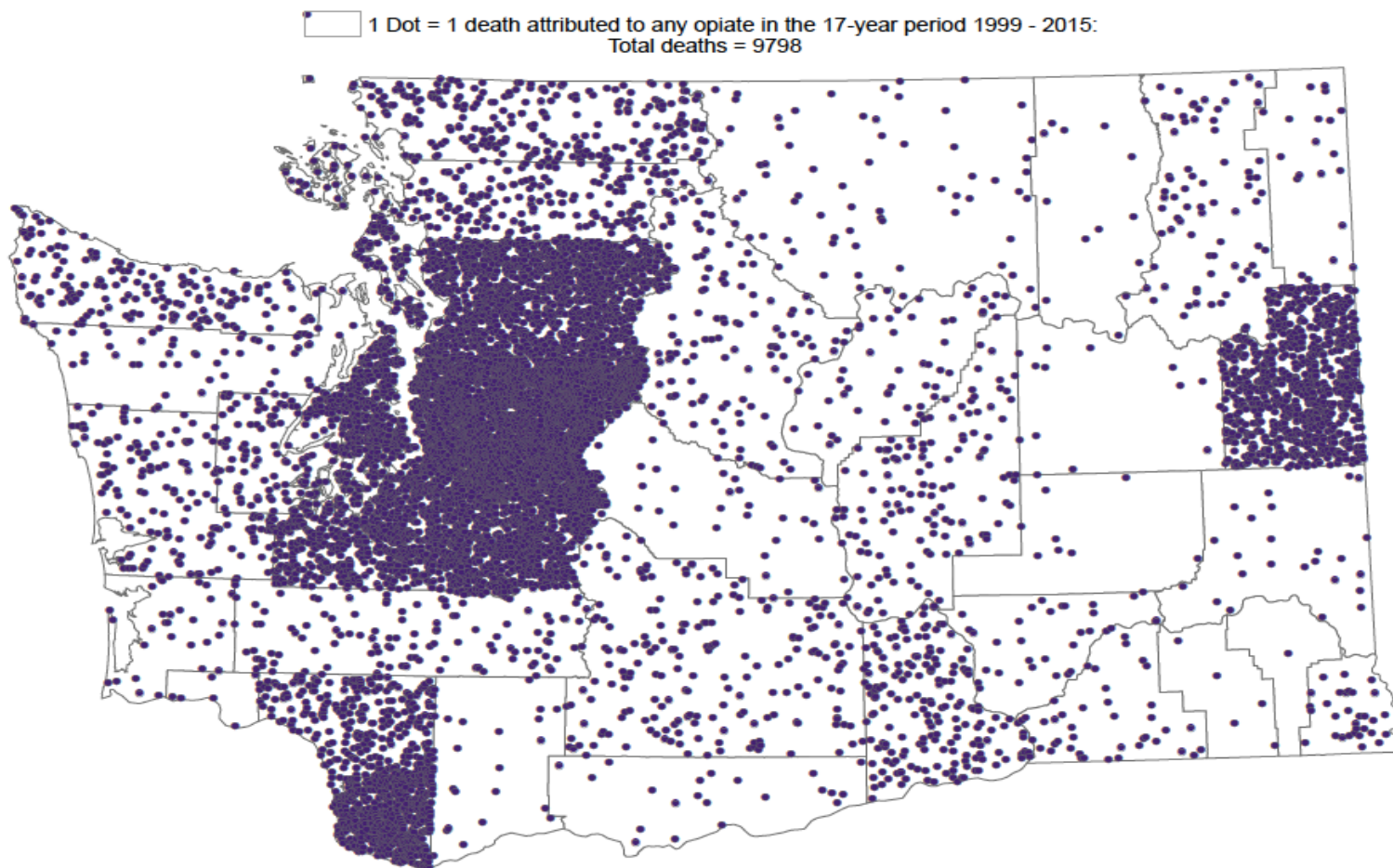


# Statewide Hot Spots Maternal Opioid Hospitalizations

**Figure 8**  
Maternal Stays with an Opiate-Related Diagnosis: High- and Low-Rate Regions  
2012–14 Combined  
WA and OR Inpatient Discharge Data



# Opioid related overdose deaths in WA 1999-2015



Data from Center for Health Statistics, Washington State Department of Health  
Dots randomly placed in county  
Residents who died outside Washington excluded.

# Words Matter



Addict



Junkie



Dirty  
Urine

Person with  
an opioid use  
disorder

Presence or  
absence of drug  
metabolites



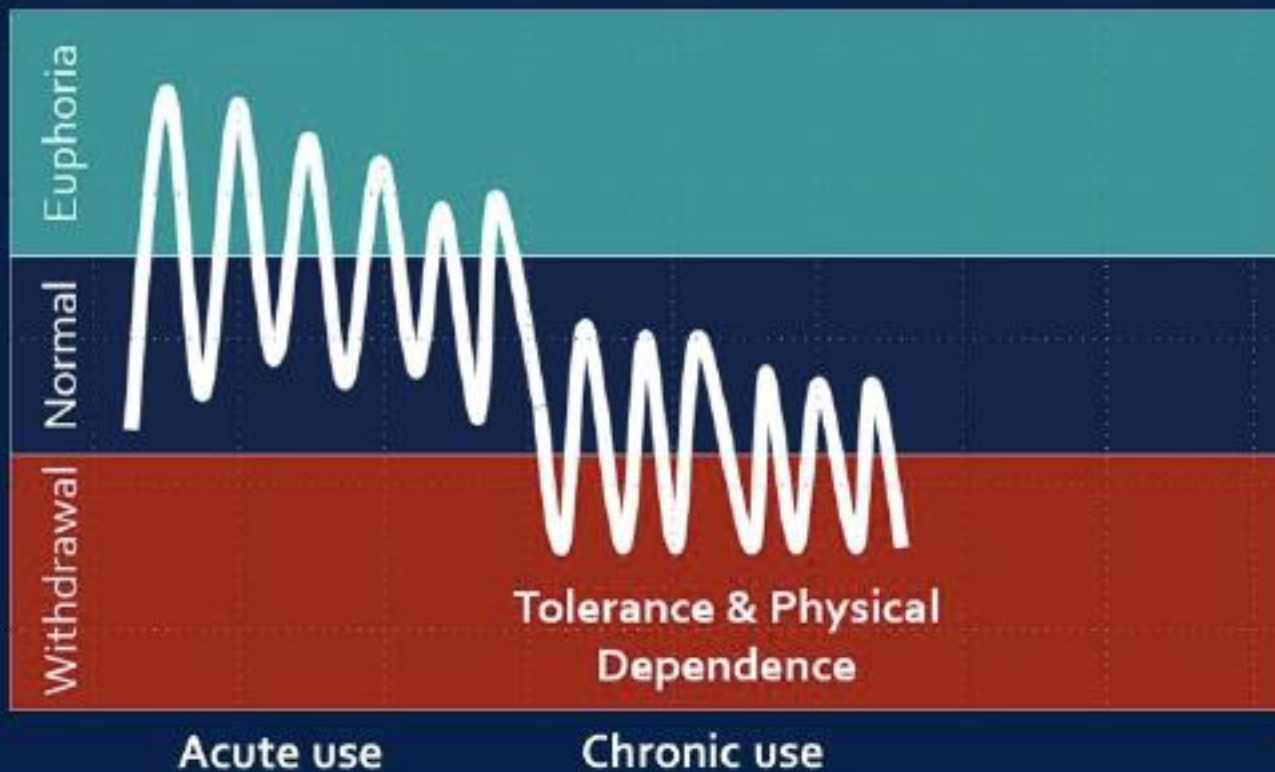
Sober

VS

Recovery

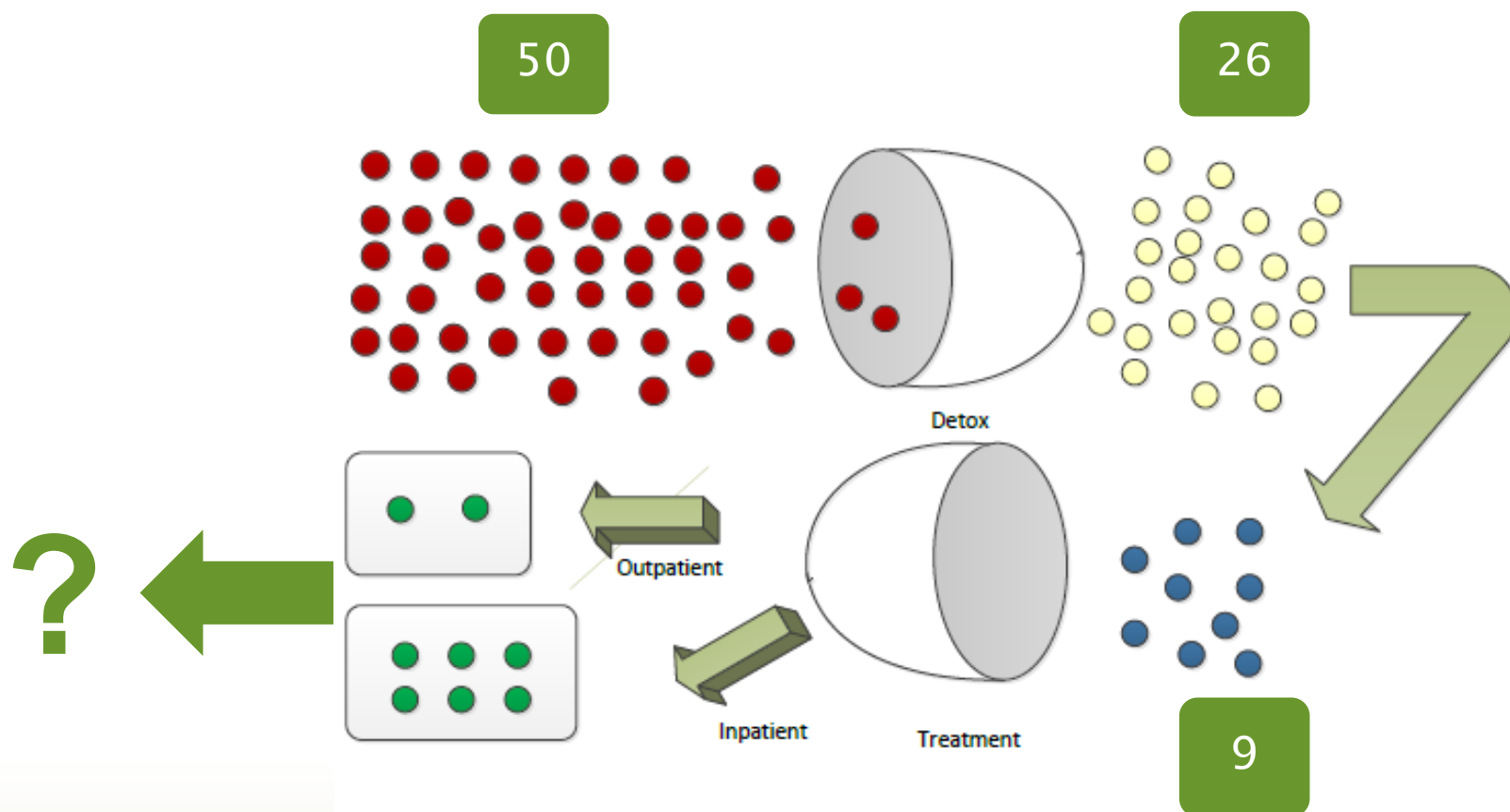
# Current Treatment Options

# Natural History of Opioid Use Disorder



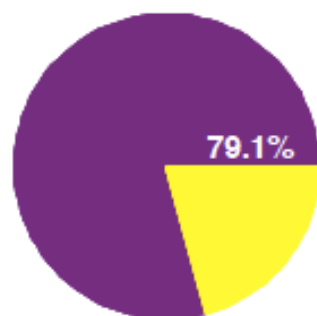
Treatment of Opioid  
Use Disorder Course  
Includes online and in-person components

# Persons w/Opioid Use Disorder Treated in the Public SUD System

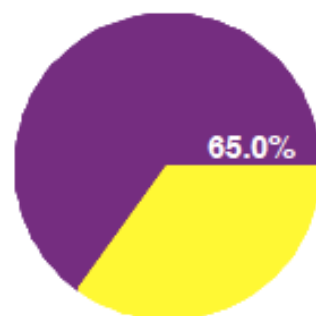


# Retention with Opioid Treatment Providers 1/14-12/14

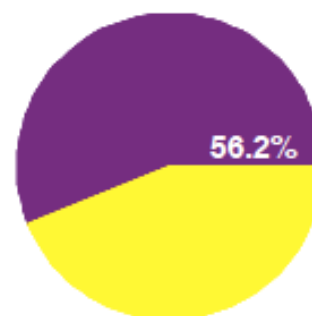
In treatment at least 3 Months



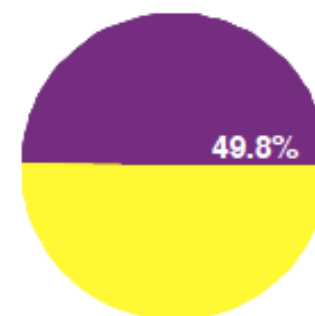
...6 Months



...9 Months



...12 Months



Summary	In treatment for at least...			
	3 months	6 months	9 months	12 months
Retention Rate	79.1%	65.0%	56.2%	49.8%
Still in Treatment	3,348	2,751	2,376	2,105
Discharged	882	1,479	1,854	2,125
<b>Total</b>	<b>4,230</b>	<b>4,230</b>	<b>4,230</b>	<b>4,230</b>

## Summary Table Notes:

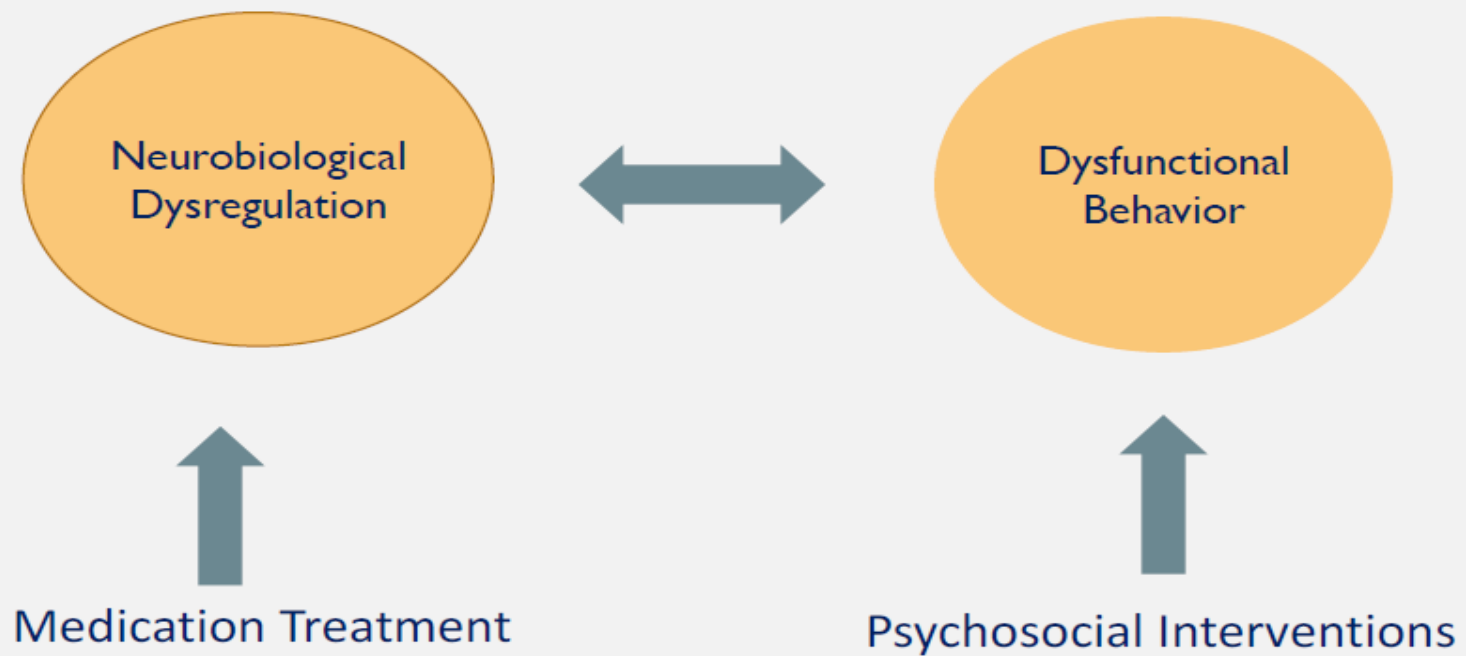
*Retention Rate:* Still in Treatment/(Still in Treatment + Retention Rate Discharges)

*Still in Treatment:* the count of clients remaining in treatment at the four time points, derived from admission and discharge dates found in TARGET.

*Discharged:* count of all discharges through the time four time points.



# **Substance Use Disorders are Chronic Brain Conditions**



# Vulnerability: “Exaggerated Response”

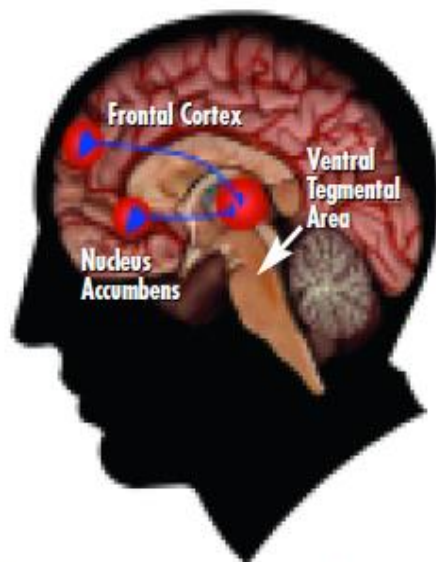
What Did It Feel Like The First Few Times?

- ◆ “All My Problems Disappeared”
- ◆ “Felt Like I Was Under a Warm Blanket”
- ◆ “Thought This is How Normal People Feel”
- ◆ “Forgot About All the Abuse”
- ◆ “Felt Like the World Was at Peace”
- ◆ “Totally Relaxed” “Not Shy”
- ◆ “Looking at a Beautiful Sunset”
- ◆ “I Was Energized!!”
- ◆ *This is a Vulnerability (Liking Opioids)*

# REWARD

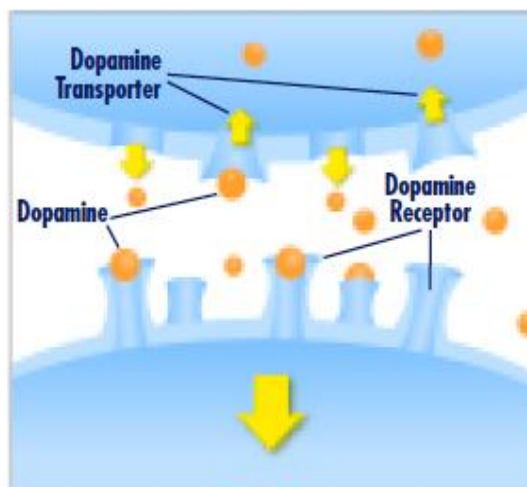
## DRUGS OF ABUSE TARGET THE BRAIN'S PLEASURE CENTER

### Brain reward (dopamine) pathways

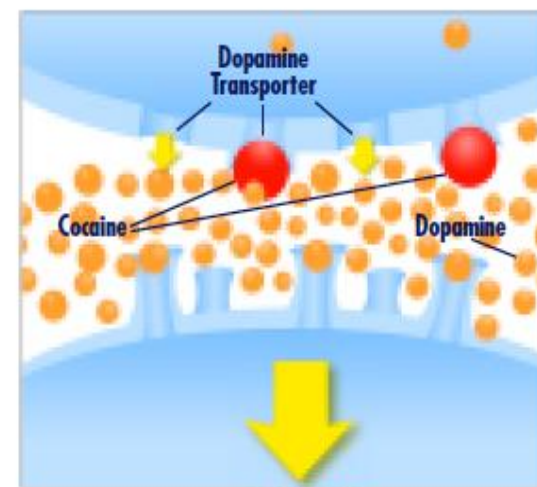


These brain circuits are important for natural rewards such as food, music, and sex.

### Drugs of abuse increase dopamine



**FOOD**



**COCAINE**

Typically, dopamine increases in response to natural rewards such as food. When cocaine is taken, dopamine increases are exaggerated, and communication is altered.

# REINFORCEMENT

# Brain Physiology of SUD treatment

## Limbic Region

- Basic Drives
- Experience of Reward & Euphoria

## Cortex

- Decision making
- Thinking
- Reasoning
- Learning

## Interventions

- Agonist Medications
- Antagonist Medications

## Interventions

- Psychosocial Therapies
- 12 Step Programs
- Monitoring
- Contingencies

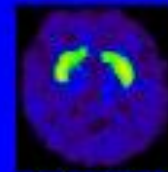
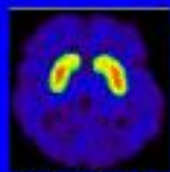
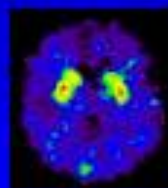
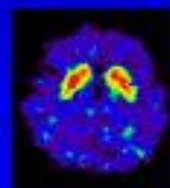
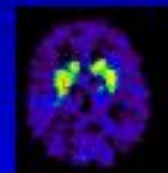
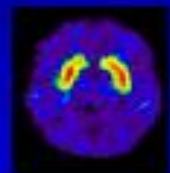
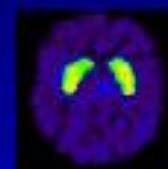
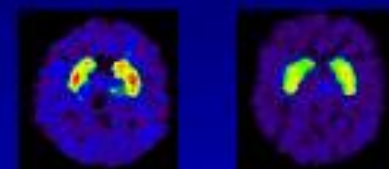
Source: NIDA Drugs, Brains, and Behavior – The Science of Addiction Website.

<http://www.nida.nih.gov/scienceofaddiction/brain.html>; Fowler JS et al. (2007). Sci Pract Prospect. 3;4:4-16

# IMPAIRMENT

*Functionally...*

**Dopamine D2 Receptors are Decreased by Addiction**



Control

Addicted

DA D2 Receptor Availability

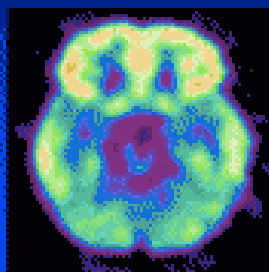


# IMPAIRMENT

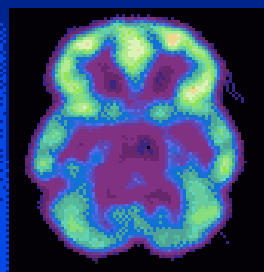
## *Addiction is Like Other Diseases...*

- It is preventable
- It is treatable
- It changes biology
- If untreated, it can last a lifetime

**Decreased Brain Metabolism  
in *Drug Abuser***

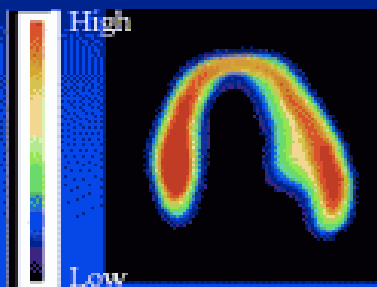


**Healthy Brain**

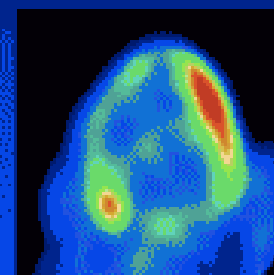


**Diseased Brain/  
Cocaine Abuser**

**Decreased Heart Metabolism  
in *Heart Disease Patient***



**Healthy  
Heart**



**Diseased Heart**

*Research supported by NIDA addresses all of these  
components of addiction.*

NIDA

# CRAVING



# Craving

## The Memory of Drugs

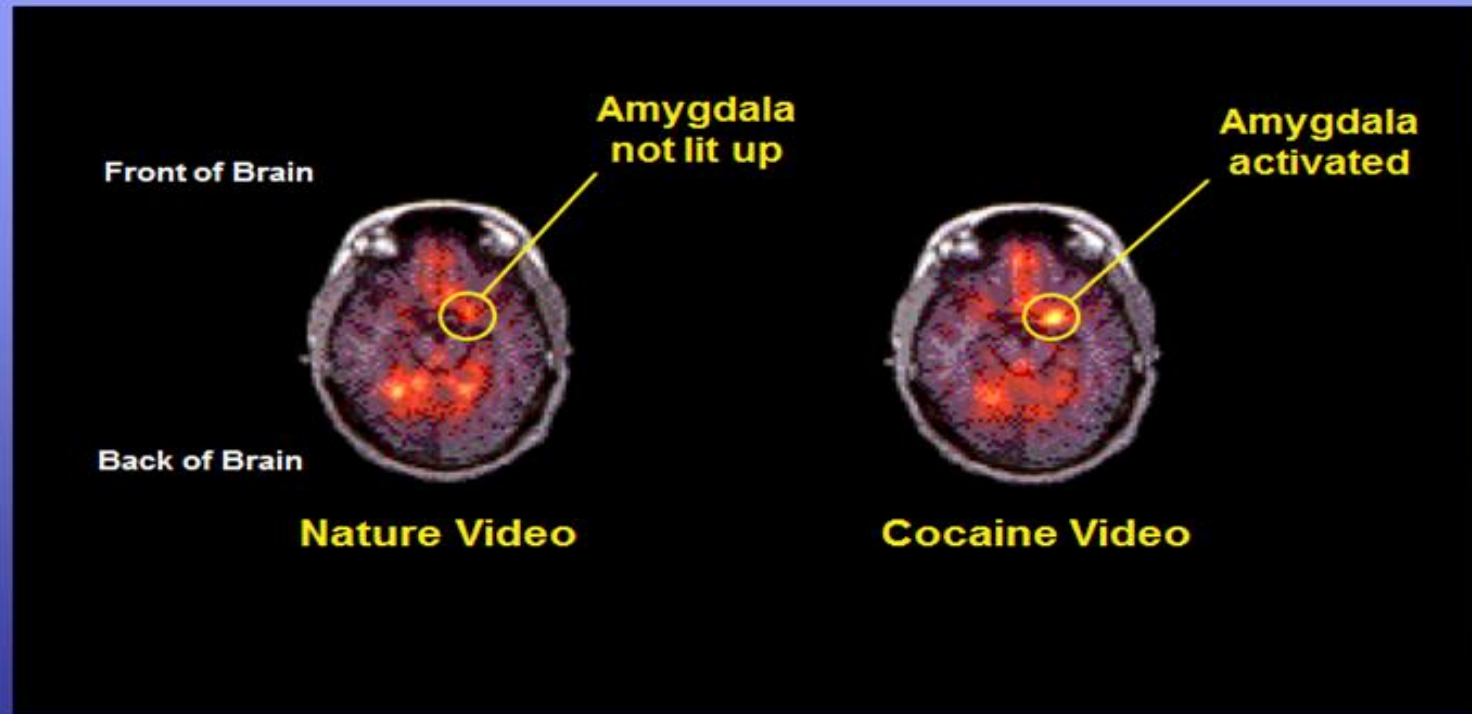
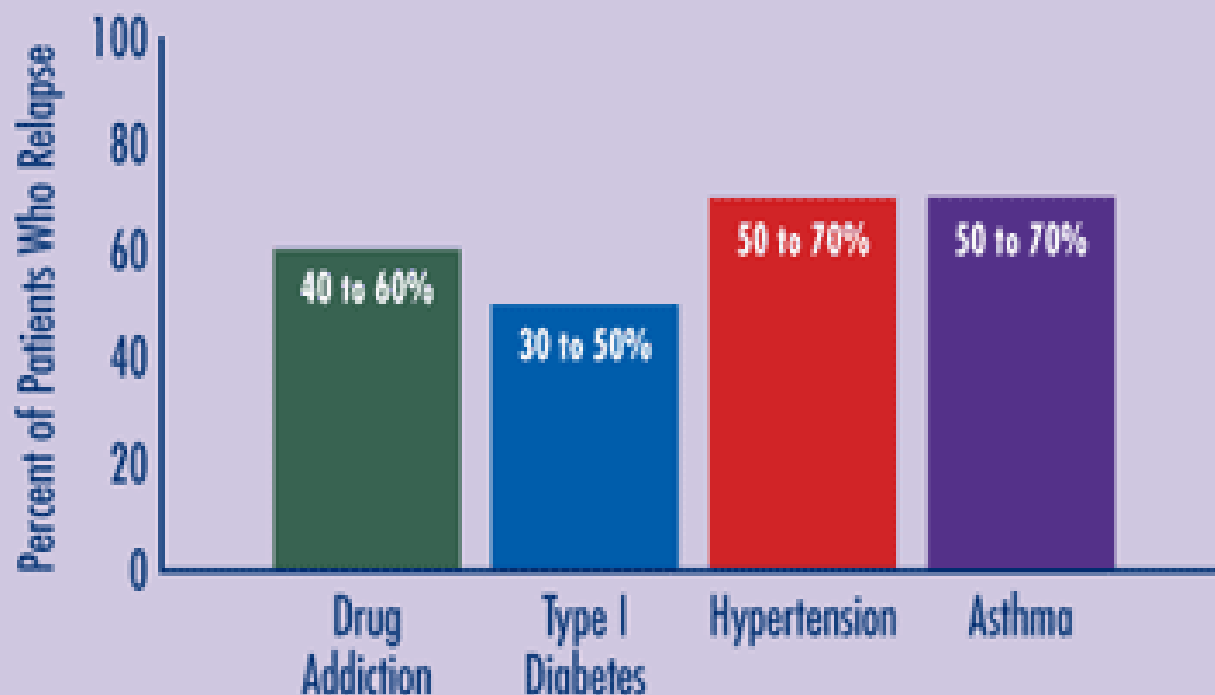


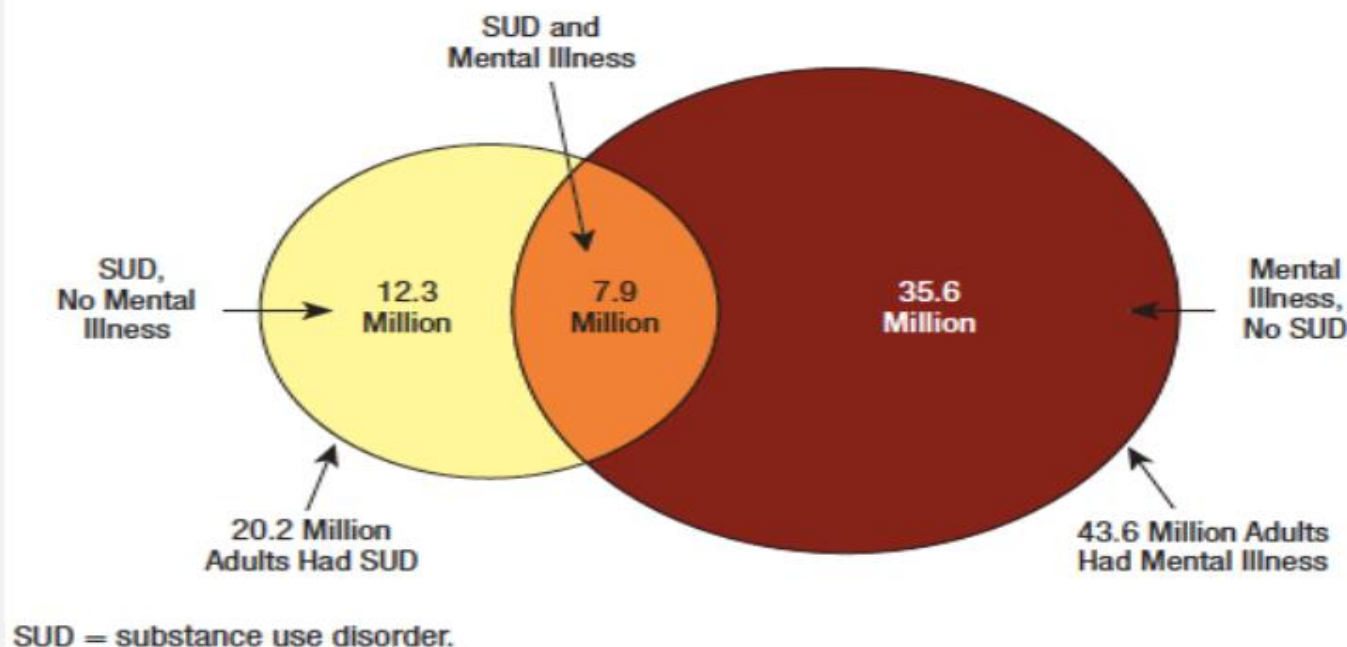
Photo courtesy of Anna Rose Childress, Ph.D.

# RELAPSE RATES ARE FAMILIAR

## COMPARISON OF RELAPSE RATES BETWEEN DRUG ADDICTION AND OTHER CHRONIC ILLNESSES



**Figure 48. Past Year Substance Use Disorders and Mental Illness among Adults Aged 18 or Older: 2014**



Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health

# What's our role?



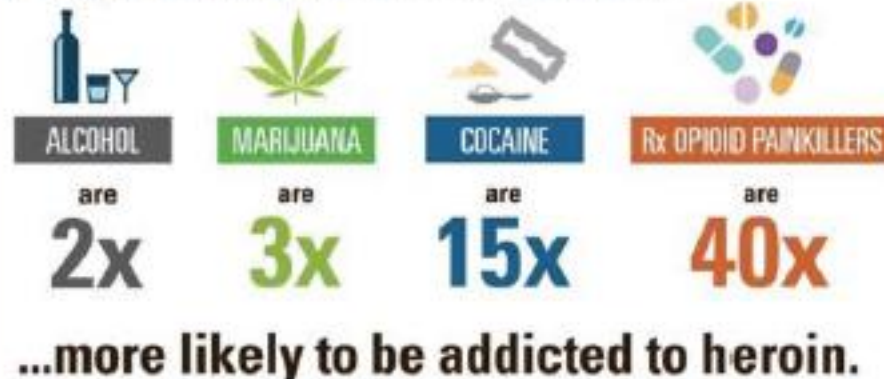
## Heroin use is part of a larger substance abuse problem.

Nearly all people who used heroin also used at least 1 other drug.

Most used at least **3** other drugs.

**Heroin** is a highly addictive opioid drug with a high risk of overdose and **death** for users.

### People who are addicted to...



SOURCE: National Survey on Drug Use and Health (NSDUH), 2011-2013.

**4 of 5 new heroin users started out using prescription opioids**  
Jones, Drug Alc Dep, 2013

12 | © CO\*RE 2017



# Washington State Interagency Working Plan

## Priority Goals

**Goal 1:  
Prevent  
Opioid  
Misuse and  
Abuse**



**Improve  
Prescribing  
Practices**

**Goal 2:  
Treat Opioid  
Dependence**



**Expand  
Access to  
Treatment**

**Goal 3:  
Prevent  
Deaths from  
Overdose**



**Distribute  
naloxone to  
people who  
use opioids**

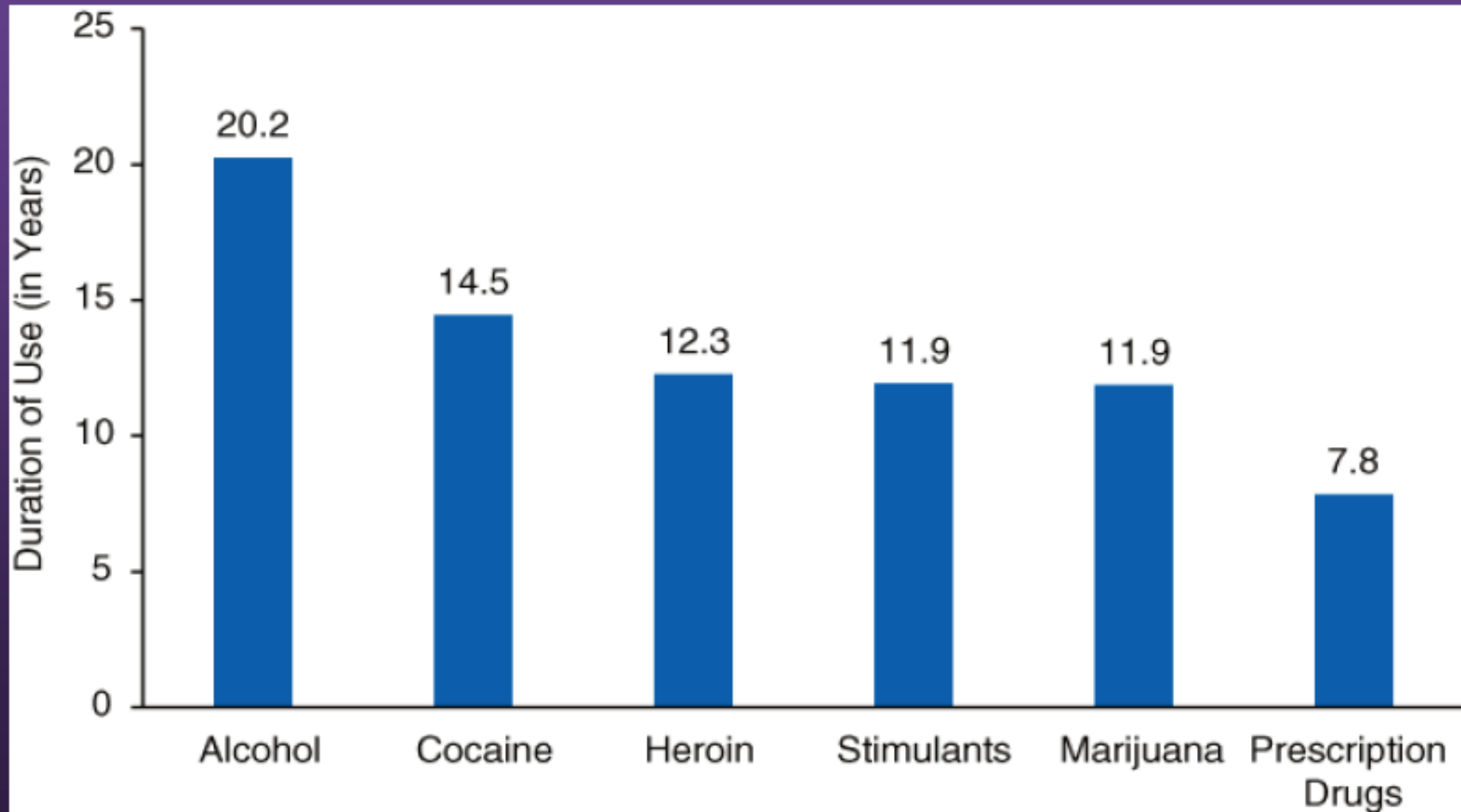
**Goal 4:  
Use Data to  
Monitor and  
Evaluate**



**Optimize and  
expand data  
sources**

## Priority Actions

## The Average Time Between Onset of Substance Use and First Treatment is 15.6 Years (SAMHSA, 2011)



## The Number of Persons Needing Treatment vs. Placebo to Reduce Acute Pain by 50 %

Drug	NNT	95% CI
ASA 1000 mg	4.2	(3.8–4.6)
Celocoxib 400 mg	2.6	(2.3–3)
60 mg Codeine	12	(8.4–18)
Diclofenac potassium 50 mg	2.1	(1.9–2.5)
Ibuprofen 600 mg	2.7	(2.0–4.2)
Ibuprofen 400 + Codeine 60 mg	2.2	(1.8–2.6)
Ibuprofen 400 + Acetaminophen 1000 mg	1.5	(1.4–1.7)
Ibuprofen 400 + Oxycodone 5mg	2.3	(1.8–2.6)
Naproxen 500 mg	2.7	(2.3–3.3)
Acetaminophen 1000 mg	3.6	(3.2–4.1)
Acetaminophen 1000 + Codeine 60 mg	2.2	(1.8–2.9)
Acetaminophen 1000 + Oxycodone 10 mg	1.8	(1.6–2.2)

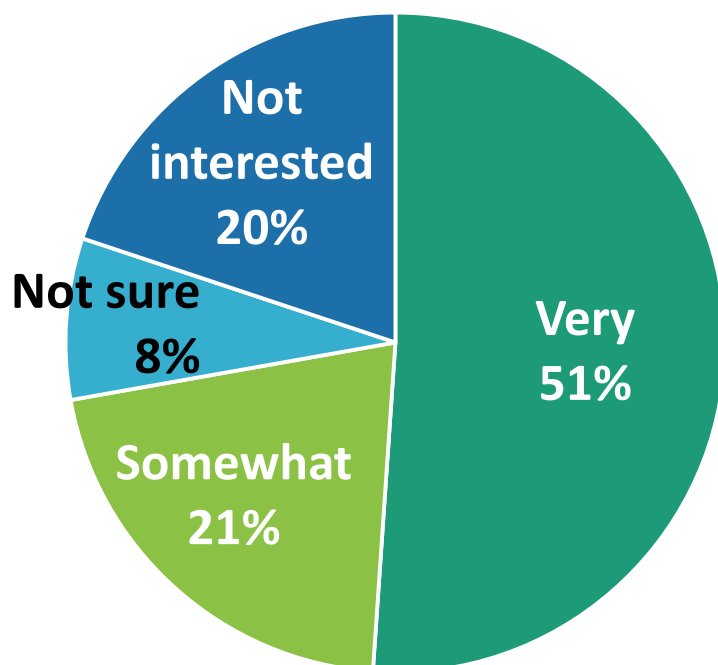
# When Prescribing Opioids for Acute Pain:



# Many people in WA are not getting treatment

*How interested are you in reducing or stopping your opioid use?*

*What types of help would you want if they were easy to get?*



- 56% medication treatment
- 39% detox
- 34% individual counseling for addiction

Source: UW Alcohol and Drug Abuse Institute, WA State Drug Injector Health Survey, 2017

# Medication Treatment





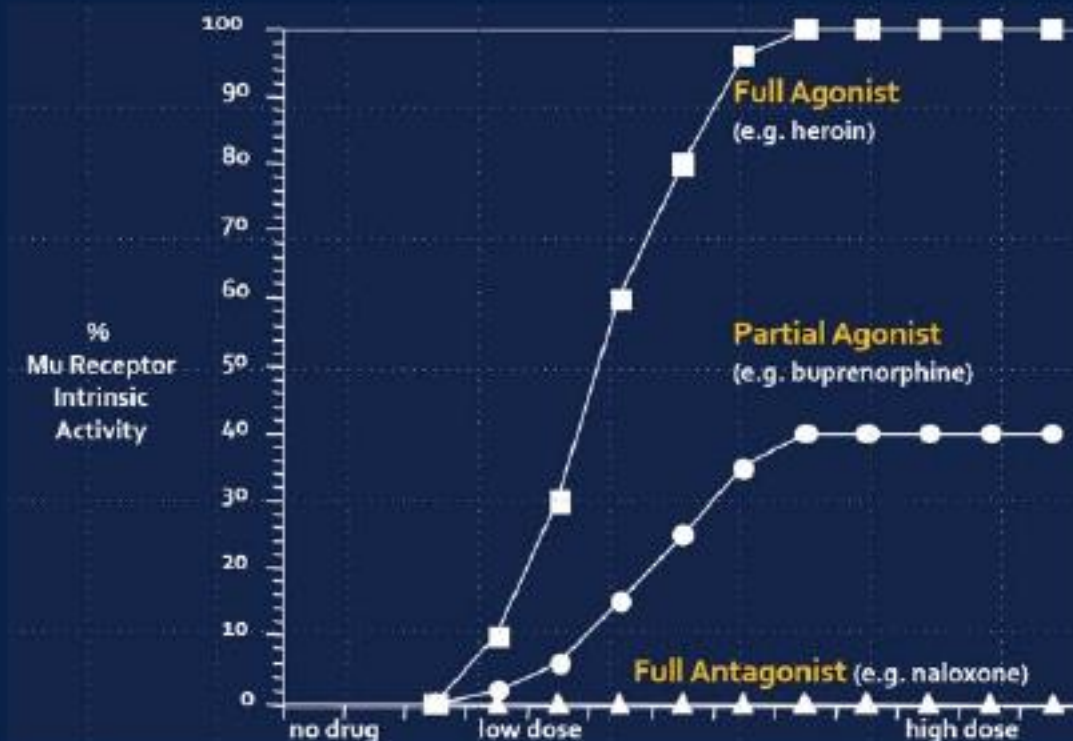
# Medication Assisted Addiction Treatment

“**All** Treatments Work For **Some** People/Patients”

“**No One** Treatment Works for **All** People/Patients”

Alan I. Leshner, Ph.D  
Former Director NIDA

# Opioid Agonists and Antagonists



# Medications for Opioid Use Disorders

## Methadone



## Buprenorphine



## Naltrexone/Vivitrol®



# Buprenorphine Products

- Schedule III
- Most commonly used in combination w/naloxone
- Monoproduct used in pregnancy
- Currently only MDs and DOs are allowed to prescribe
- Submit waiver application to SAMHSA notify DEA
- 8 hours CME

# Buprenorphine

- Partial mu agonist
- Very strong receptor affinity
- Naloxone added for abuse deterrence
- Must not have opioids in system before 1<sup>st</sup> dose
- Onset 10-30 minutes after dose, don't take with food
- Half-life is 15-56 hours depending on product

# Buprenorphine

- Designed for daily dosing but....
- Usual dose 8 mg-16 mg; some folks need 24+ mg
- Reduces craving & withdrawal; improves treatment retention
- When used alone it has a 'ceiling' effect
- Blocks actions of other opioids
- The receptor blockade can be overcome with very high doses of opioids, (needed for trauma, surgery)

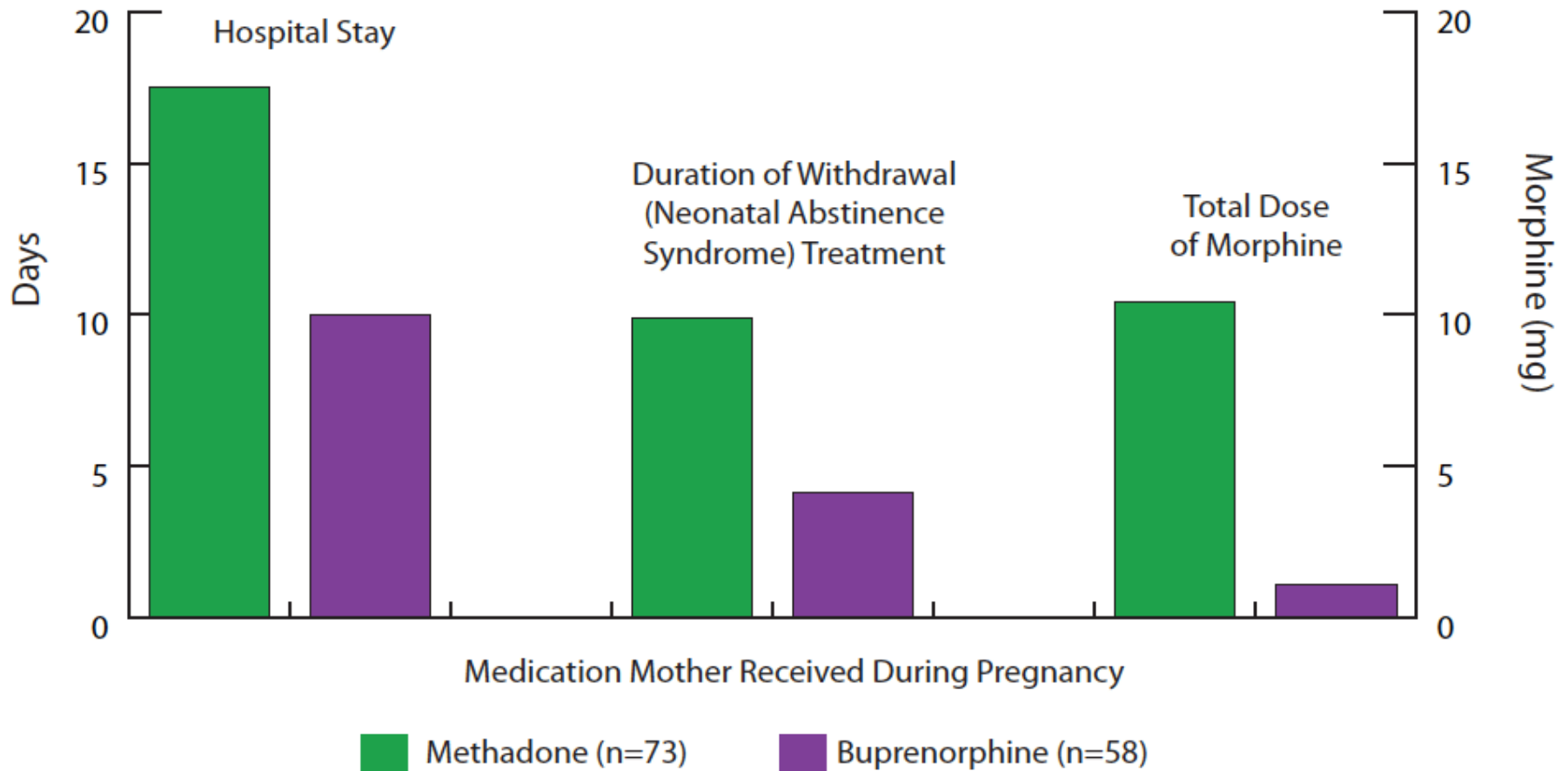
# Buprenorphine

- In combination, particularly w/benzodiazepines, deaths have occurred
- Any sedative hypnotic, alcohol, will add to the risk of respiratory depression, overdose and death
- Naloxone reverses its effects
- Can monitor urine samples for its metabolite, norbuprenorphine to see if it is being taken
- Used for treatment of neonatal abstinence
- Short periods of use not as effective



# BUPRENORPHINE VS. METHADONE

## Mothers' Buprenorphine Treatment During Pregnancy Benefits Infants



# Vivitrol® (naltrexone)

- An opioid antagonist
- 380mg IM given every 4 weeks
- When using for opioid use disorder, wait 7-10 days (up to 14 for methadone)
- Most common side effects
  - Nausea, vomiting, headache, dizziness, fatigue, anxiety, somnolence
- Potential for liver toxicity
- Usual recommendation is for 3 months but can take up to a year

# Vivitrol® (naltrexone)

- Can use intermittently
- Proper injection technique
- Compared to placebo decreased relapse rates during and after short term, less than 12 weeks treatment.
- Reduces craving
- Injection effects can be overcome with high dose opioids
- Tolerance resolves quickly and return to prior doses of opioids can lead to overdose

## Potential Naltrexone Candidates

- ◆ Occupational Obstacles: e.g, HCPs
- ◆ Not Interested/Failed Agonists
- ◆ High Motivation for AA Model of Recovery
- ◆ Currently Abstinent: High Risk for Relapse
- ◆ ? Younger, Lower Duration of OUD
- ◆ Don't want to be Physically Dependent
- ◆ Tired of regulations, stigma, and SO pressure

Courtesy Adam Bisaga, M.D.

# Impact of Methadone Maintenance Treatment

- ◆ Reduction death rates (Grondblah, '90)
- ◆ Reduction IVDU (Ball & Ross, '91)
- ◆ Reduction crime days (Ball & Ross)
- ◆ Reduction rate of HIV seroconversion (Bourne, '88; Novick '90,, Metzger '93)
- ◆ Reduction relapse to IVDU (Ball & Ross)
- ◆ Improved employment, health, & social function

## Methadone Maintenance Treatment Limitations

- ❖ Limited access
- ❖ Inconvenient and highly punitive
- ❖ Mixes stable and unstable patients
- ❖ Lack of privacy
- ❖ No ability to “graduate” from program
- ❖ Stigma

# Opioid Detoxification Outcomes

- ◆ Low rates of retention in treatment
- ◆ High rates of relapse post-treatment
  - ◆ < 50% abstinent at 6 months
  - ◆ < 15% abstinent at 12 months
  - ◆ Increased rates of overdose due to decreased tolerance
  - ◆ Walter Ling "Quote"

O'Connor PG JAMA 2005 Mattick RP, Hall WD. Lancet 1996 Stimmel B et al. JAMA 1977



## Buprenorphine Efficacy Summary

- ❖ Studies (RCT) show buprenorphine more effective than placebo and equally effective to moderate doses (80 mg) of methadone on primary outcomes of:
  - ❖ Abstinence from illicit opioid use
  - ❖ Retention in treatment
  - ❖ Decreased opioid craving

Johnson et al. *NEJM*. 2000.

Fudala PJ et al. *NEJM*. 2003.

Kakko J et al. *Lancet*. 2003.



Treatment of Opioid  
Use Disorder Course

Wash State Health Care Authority

## Overdose Risk Minimal

- ❖ Low risk of clinically significant problems
- ❖ Pre-clinical studies suggest high doses of buprenorphine should not produce respiratory depression
- ❖ No reports of respiratory depression in clinical trials
- ❖ Overdose and misuse (e.g., injecting) of buprenorphine combined with other CNS depressants result in respiratory depression and risk overdose
- ❖ France experience...
  - ❖ IV buprenorphine + high potency benzodiazepines → deaths

## Abuse Potential of Buprenorphine

- ❖ Euphoria in non-opioid dependent individuals
- ❖ Abuse potential less than full opioid agonists
- ❖ Abuse among opioid-dependent individuals is relatively low
- ❖ Combination product theoretically less likely to be abused by IV route
- ❖ Most illicit use is to prevent or treat withdrawal and cravings

Yokel MA et al. *Curr Drug Abuse Rev.* 2011.  
Lofwall MR, Walsh SL. *J Addic Med.* 2014.

## Opioid Use Disorder (OUD): Behavioral Treatment Components

- ❖ Psychosocial Services: often helpful for treatment of OUD
  - ❖ Can be delivered directly by physician and/or by referral when needed
- ❖ DATA 2000: "...the practitioner has the capacity to refer the patients for appropriate counseling and other appropriate ancillary services."
- ❖ Refer patient as clinically determined to:
  - ❖ Individual and group therapy
  - ❖ Family therapy
  - ❖ 12 Step
  - ❖ Higher psychiatric severity patients more responsive to increased services



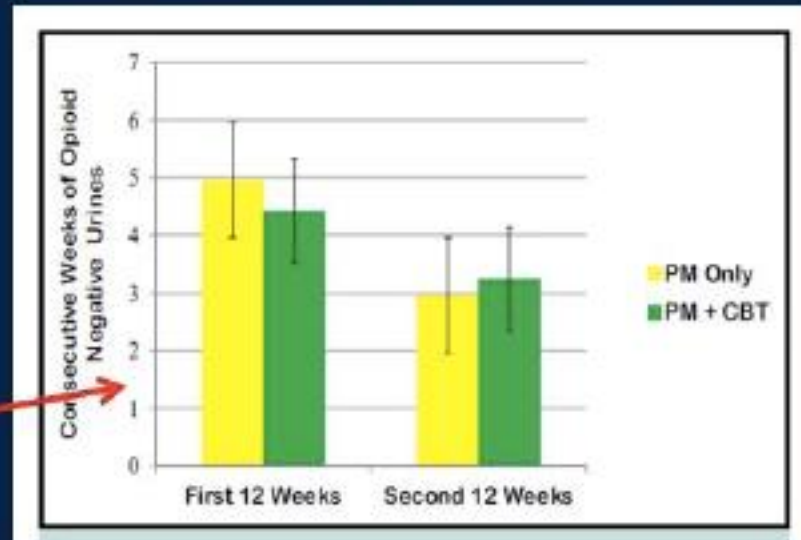
Treatment of Opioid  
Use Disorder Course

Includes waiver qualifying requirements



## Is Behavioral Treatment in OBOT Effective?

- ❖ Three trials show that additional behavioral therapy (i.e., CBT, drug counseling) does NOT significantly improve outcomes over that achieved by buprenorphine PLUS medical management or “medical counseling”



Weiss RD et al. *Arch Gen Psychiatry*. 2011.  
Fiellin DA et al. *Am J Med*. 2013.  
Ling W et al. *Addiction*. 2013.

## Pregnancy: Benefits of Opioid Agonist Therapy

### Maternal Benefits

- ❖ 70% reduction in overdose related deaths
- ❖ Decrease in risk of HIV, HBV, HCV
- ❖ Increased engagement in prenatal care and recovery treatment

### Fetal Benefits

- ❖ 70% reduction in overdose related deaths
- ❖ Decrease in risk of HIV, HBV, HCV
- ❖ Increased engagement in prenatal care and recovery treatment

## Maternal Dose and NAS Severity

- ❖ No correlation between maternal opioid maintenance therapy dose and the duration or severity of NAS
- ❖ Women should be encouraged to report any symptoms of withdrawal through her pregnancy without fear a dose increase will affect her baby's hospital stay or need for NAS treatment

Berghella et al. 2003; McCarthy et al. 2005;  
Cleary et al. 2010; Isemann et al. 2010; Jones et  
al. 2010; Seligman et al. 2011.

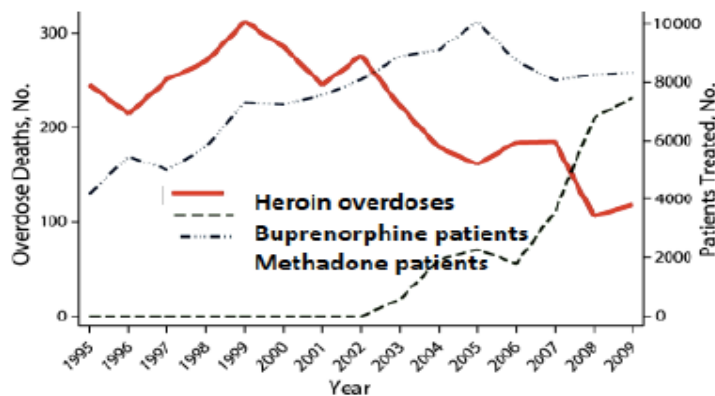


Treatment of Opioid  
Use Disorder Course  
includes national quality requirements

# Agonist Medications Decrease Heroin OD

## Agonist Treatment Reduced Heroin OD Deaths

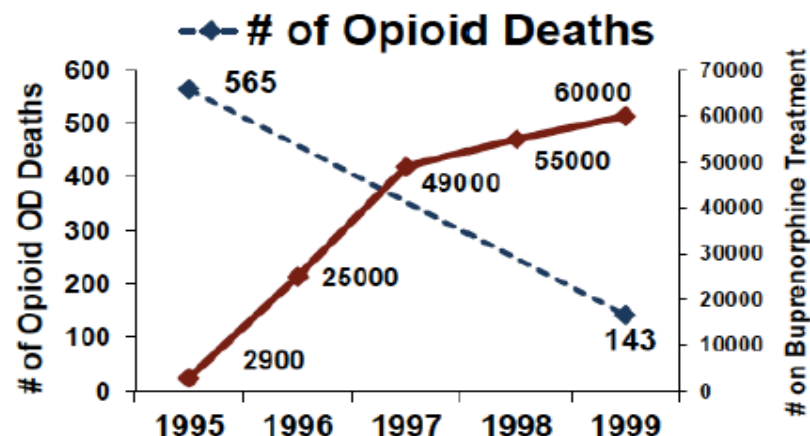
Baltimore, Maryland, 1995-2009



Schwartz RP et al., Am J Public Health 2013.

## Buprenorphine Reduced Heroin OD

France 1995-1999 (75% reduction)



Ling et al. J Subst Abuse Tx 2002;23:87-92.  
Auriacombe et al. JAMA 2001;285:45.



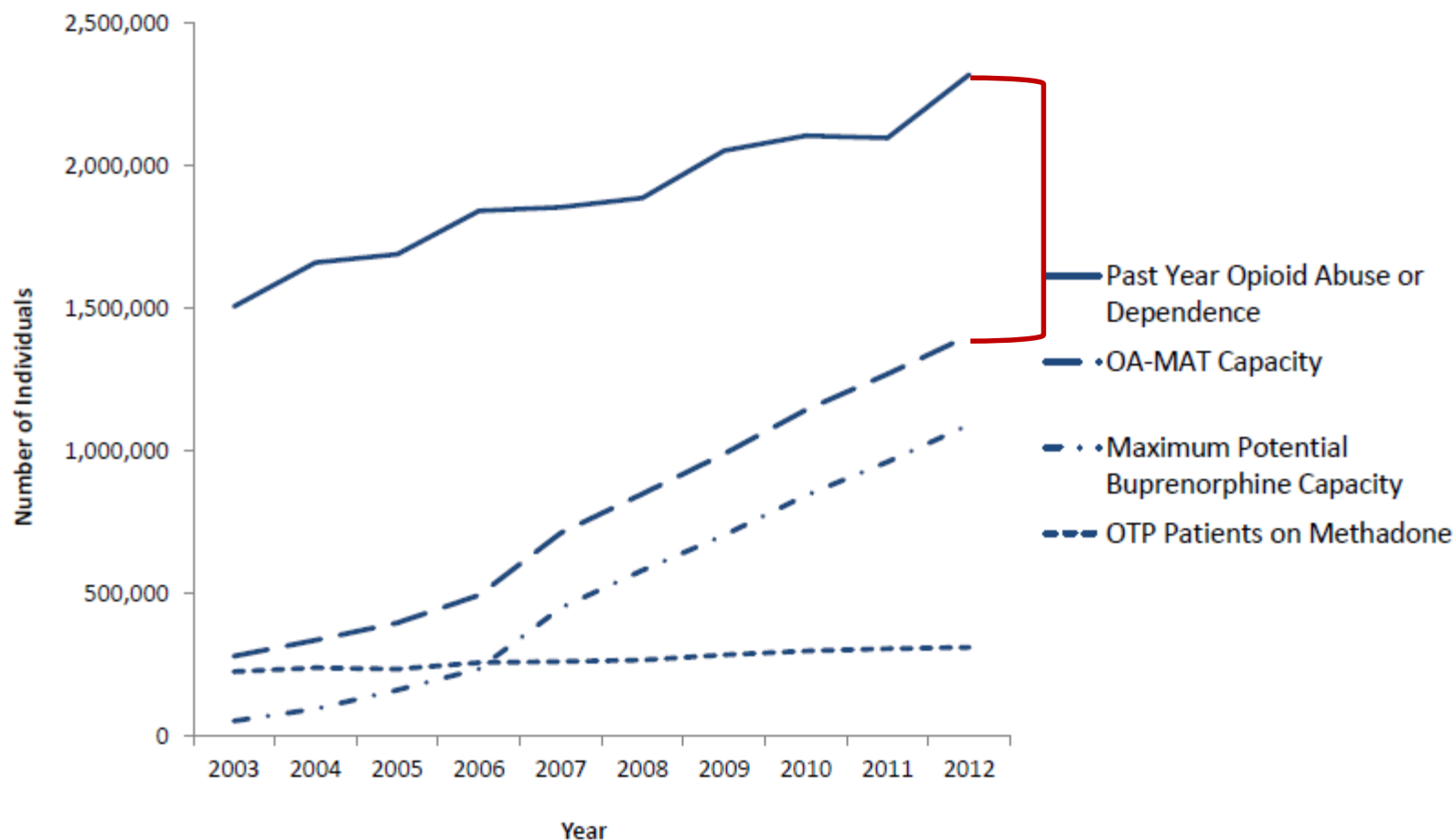
# Medication Treatment Prevents Opioid Related Deaths

- English National Drug Treatment Database
- Followed 151,983 persons over 4 years, 2005-2009
- Compared fatal drug related poisoning across residential, MAT and psychologic support combinations
- During treatment death rate was 2.9/1000 (CI 2.7-3.1) vs. 4.5/1000 (CI 4.3-4.7) when on MAT
- Risk of death was not different between those who completed and didn't complete residential treatment (50-80%) higher

## MAT Prevents Opioid Related Deaths

- Risk of treatment being in psychologic treatment alone doubled the risk of death
- 6x higher risk 1<sup>st</sup> 28 days after DC
- 3.5x higher 1<sup>st</sup> 28 days after MAT stopped
- THE BOTTOM LINE: MAT SAVES LIVES

# Treatment need for opioid abuse or dependence exceeds capacity for opioid agonist medication assisted treatment (OA-MAT) in the US



Source: Jones CM, Campopiano M, Baldwin G, McCance-Katz E. National and state treatment need and capacity for opioid agonist medication assisted treatment. AJPH. 2015

# Prevent Overdose

## Potency Equivalents

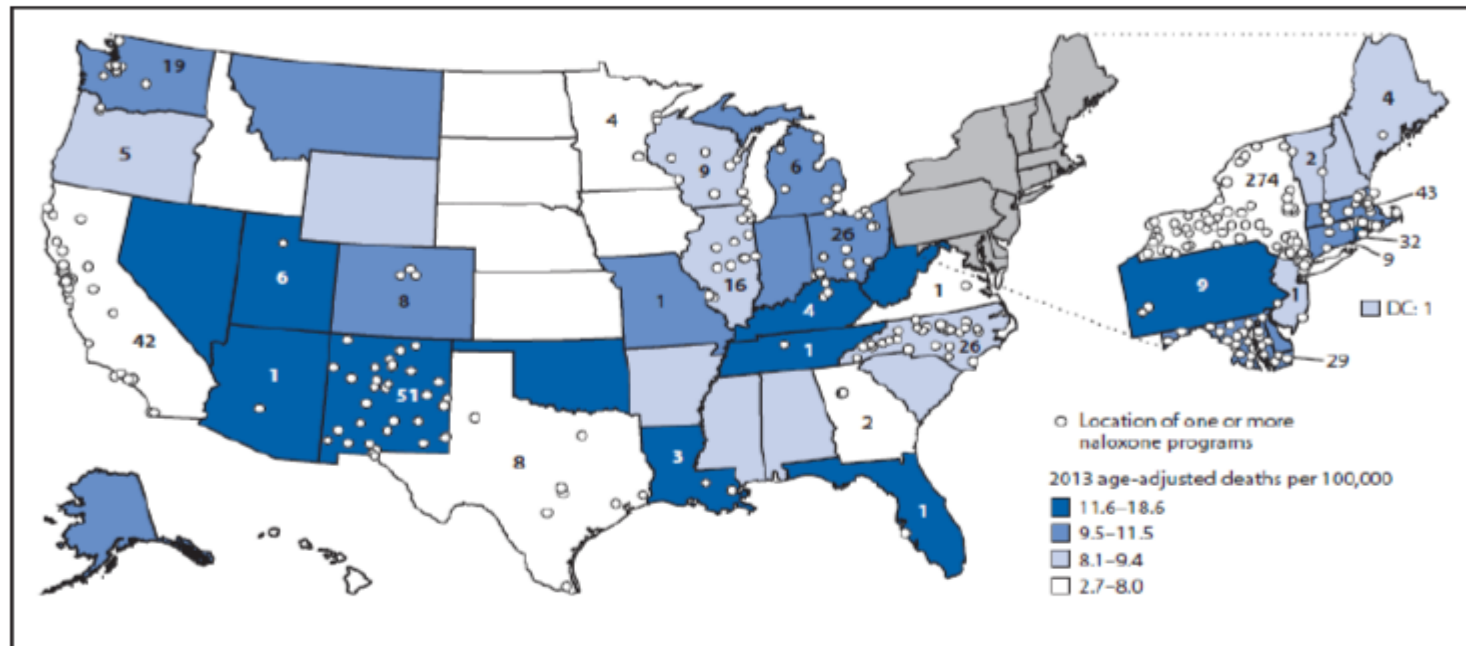
- ♦ MORPHINE: 1
- ♦ FENTANYL: 100 X \*Chest Wall Rigidity-Rapid IV
- ♦ CARFENTANIL: 10,000 X
- ♦ Novel Psychoactive Substances:  
Congeners of Fentanyl

## Washington's Good Samaritan Law

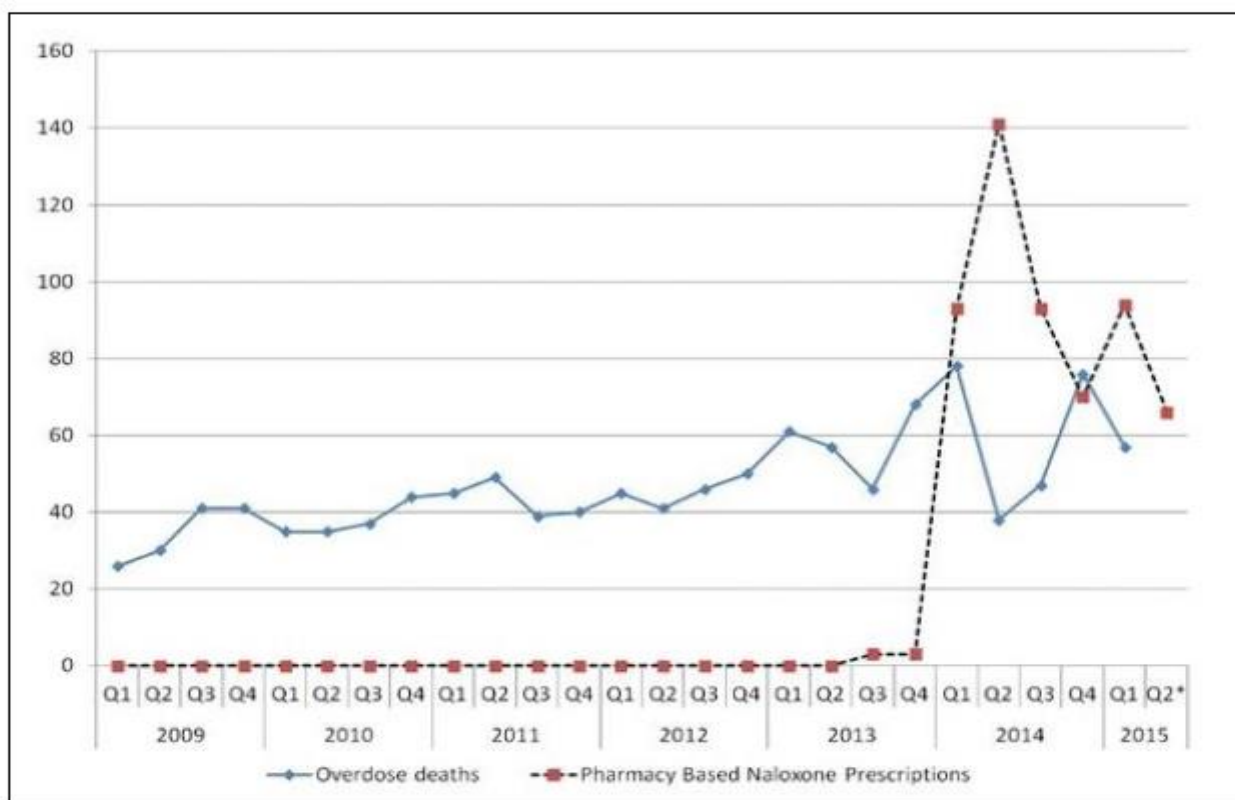
- **RCW 69.41.095:** Opioid overdose medication
  - Amended in 2015
  - Licensed health care providers
  - Pharmacists
  - First responders
  - Family members
  - Any person in a position to assist persons at risk of an opioid overdose

<http://app.leg.wa.gov/RCW/default.aspx?cite=69.41.095>

## Number\* and location of local drug overdose prevention programs providing naloxone to laypersons and age-adjusted drug overdose death rates



## Overdose deaths and pharmacy-based naloxone prescriptions dispensed in Rhode Island



Source: Green TC et al. Orienting patients to greater opioid safety: models of community pharmacy-based naloxone. Harm Reduction J. 2015



# Naloxone Formulations

Injectable



Intranasal



EVZIO® Autoinjector



Narcan® Nasal Spray



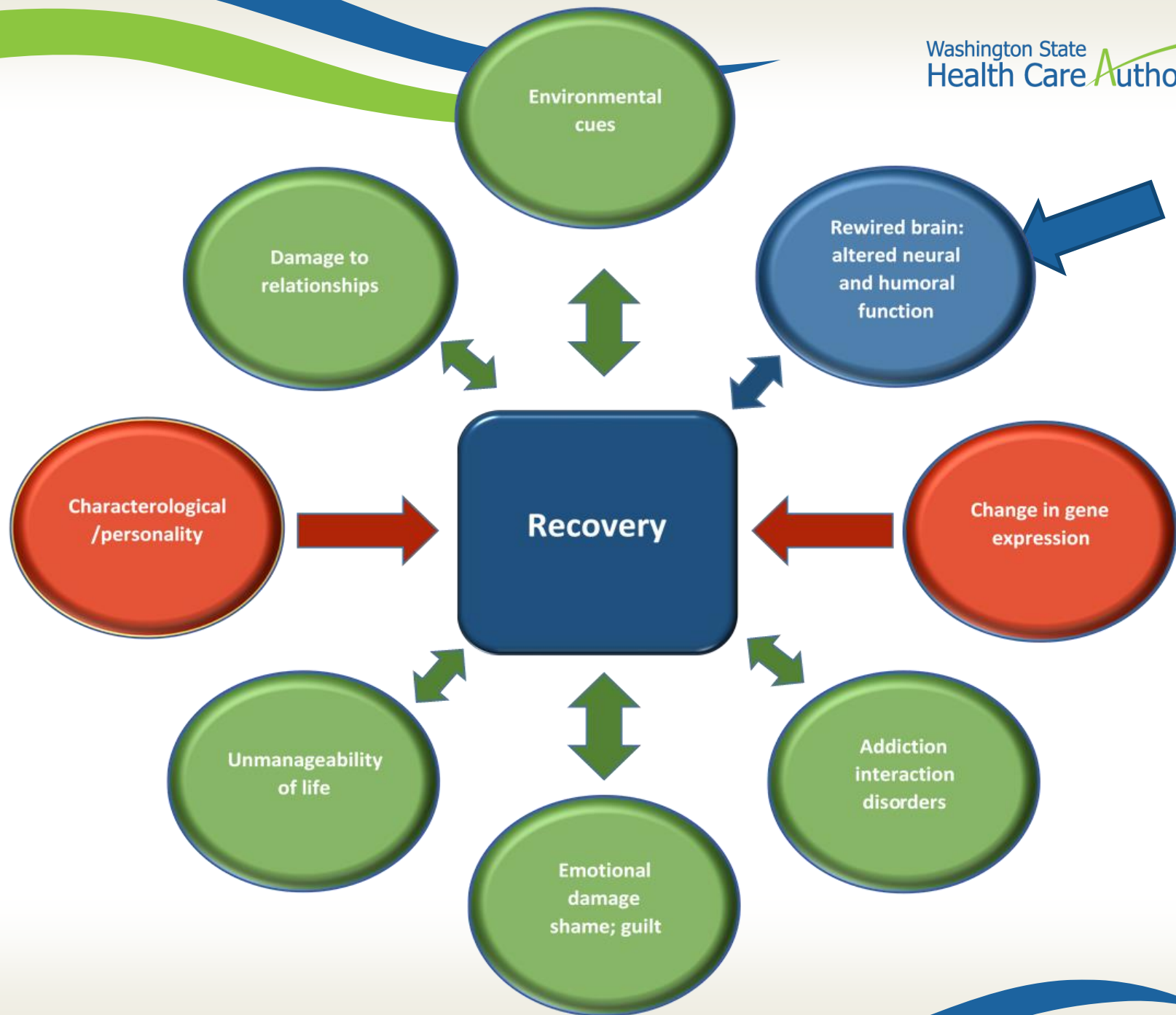
# Recovery

# Peer Strengths

- Empathic
- Hopeful
- Integrated
- Strength based
- Lived experience
- Health, home, purpose, community

## Peer Recovery Supports

- Reduce the risk of relapse
- Provide hope
- Provide experiential knowledge
- People don't live in clinics or treatment centers



Questions?

