

# OPIOID EPIDEMIC: UM SOD INITIATIVE

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- \* CHIEF: DIVISION OF OMFS
- \* HHS PAIN MANAGEMENT TASK FORCE
- \* CDC OPIOID WORKGROUP
- \* SECTION REVIEWER: SURGEONS GENERAL



# Disclosure: None

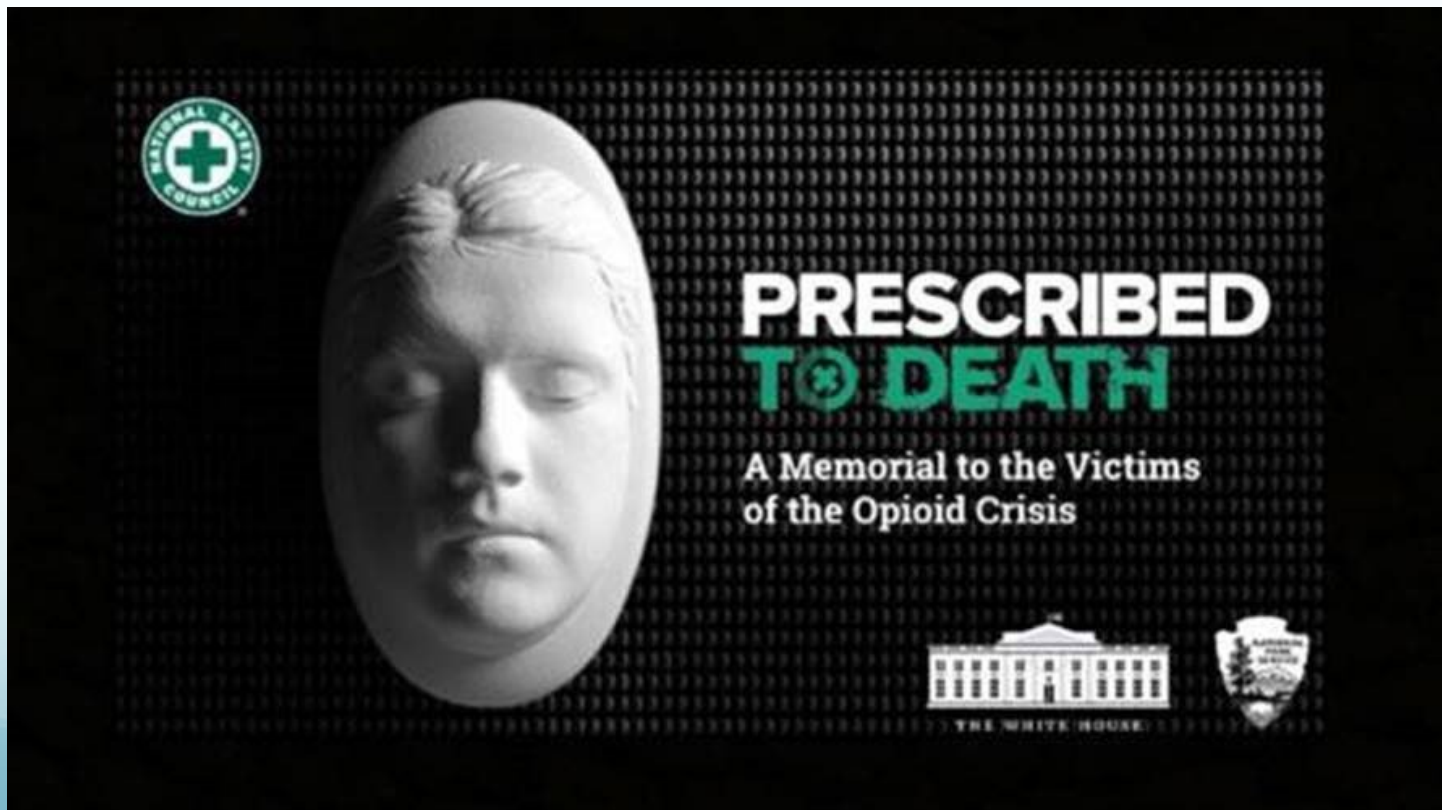
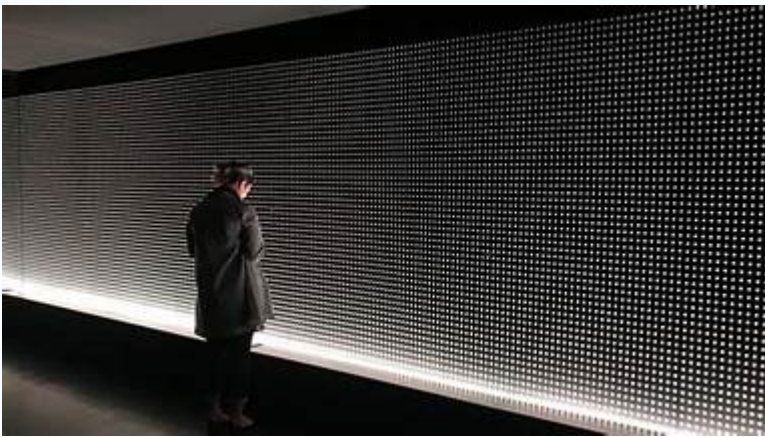


# CONCLUSION:

- DDS ARE OVERCOMPENSATING FOR LEVEL OF PAIN EXPERIENCE BY PATIENTS
- PAIN FROM DENTAL TX OVERRATED BY DDS AND PATIENTS
  - \* NSAIDS SUFFICIENT ANALGESIC
- PAIN NO LONGER IMAGE OF DENTISTRY

# “MY EPIPHANY”





“ We know of no other medication routinely used for a nonfatal condition that kills patients so frequently”

Dr. Tom Frieden





“ The unprecedented increase in  
opioid pain reliever consumption  
has led to the worst drug  
overdose epidemic in US history “

CDC 2016



**91**  
AMERICANS

die every day from  
an **opioid overdose**  
(that includes prescription  
opioids and heroin).

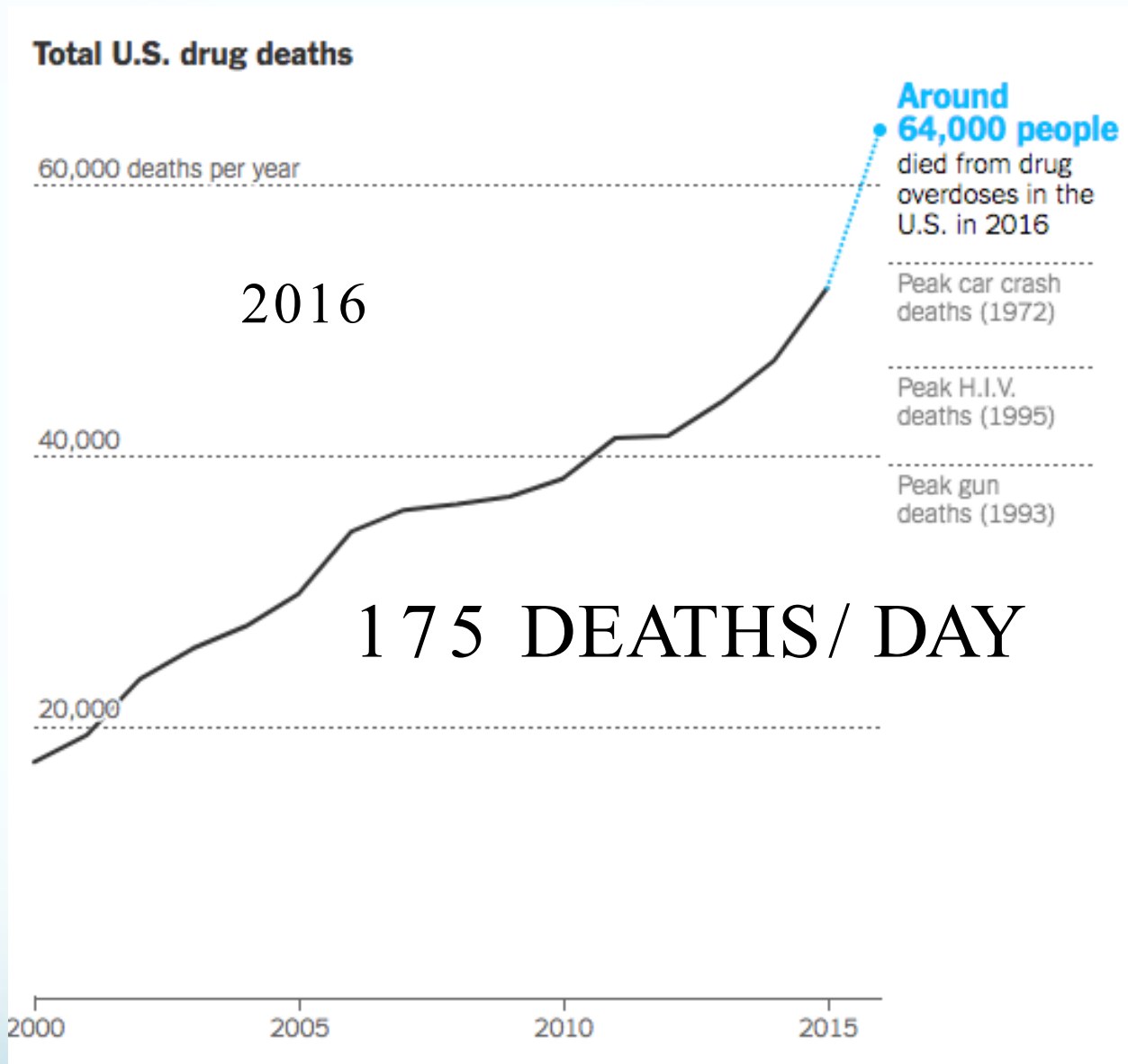
142 DEATHS/ DAY

2016 P.C.



Around  
**46**  
PEOPLE

die every day from  
overdoses involving  
**prescription opioids.**

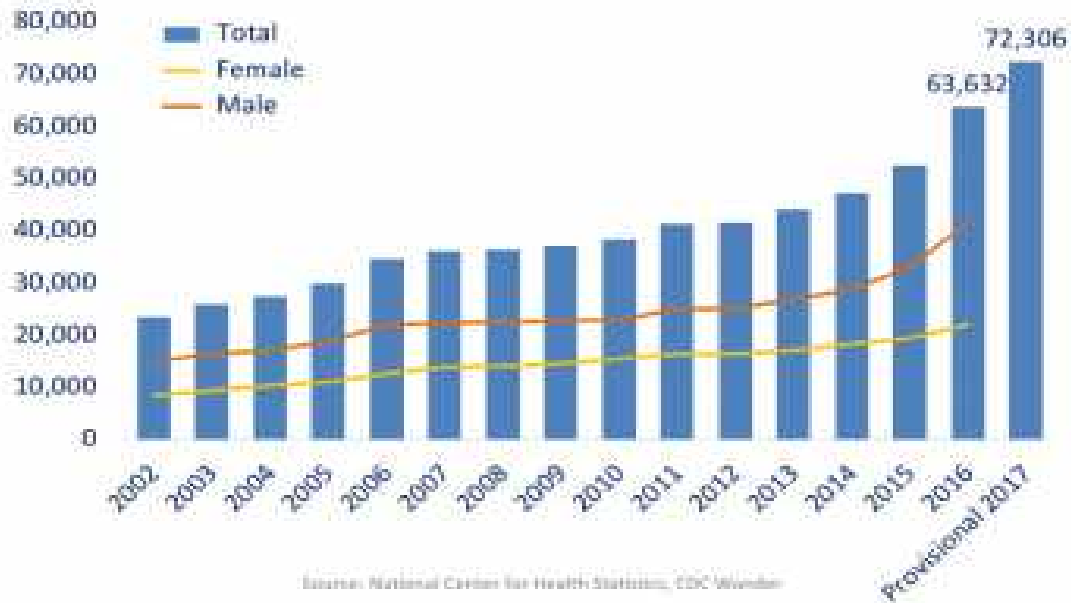


DYING AT RECORDS RATES > CARS, GUNS AND FALLING



## National Overdose Deaths

### Number of Deaths Involving All Drugs

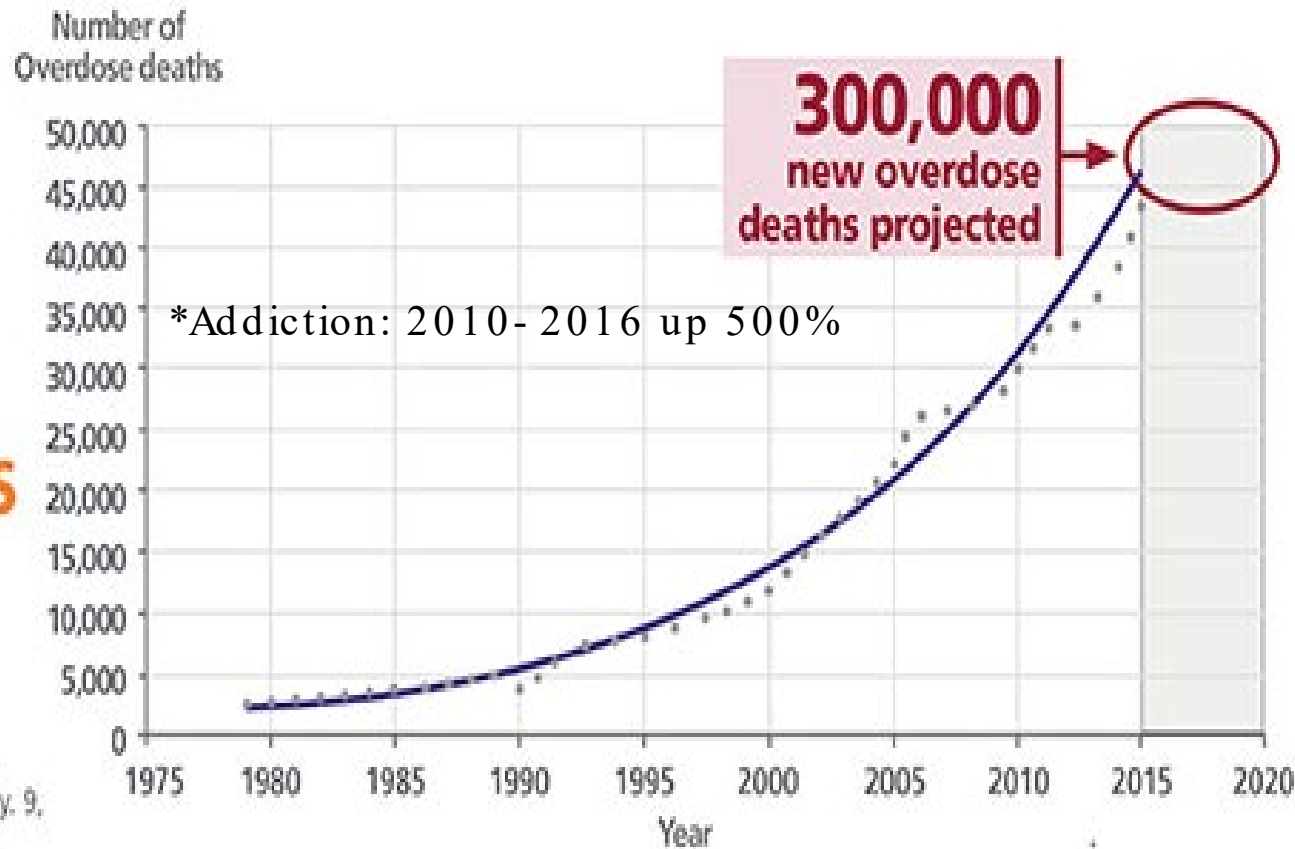


200 DEATHS/ DAY

2017

# GOAL: BEND THE CURVE

## Exponential Growth in Drug Overdose Deaths



Source: bioRxiv. Exponential growth of the USA overdose epidemic. Preprint first posted online May. 9, 2017; doi: <http://dx.doi.org/10.1101/134403>. [PDF]

### LEADING THE NEWS

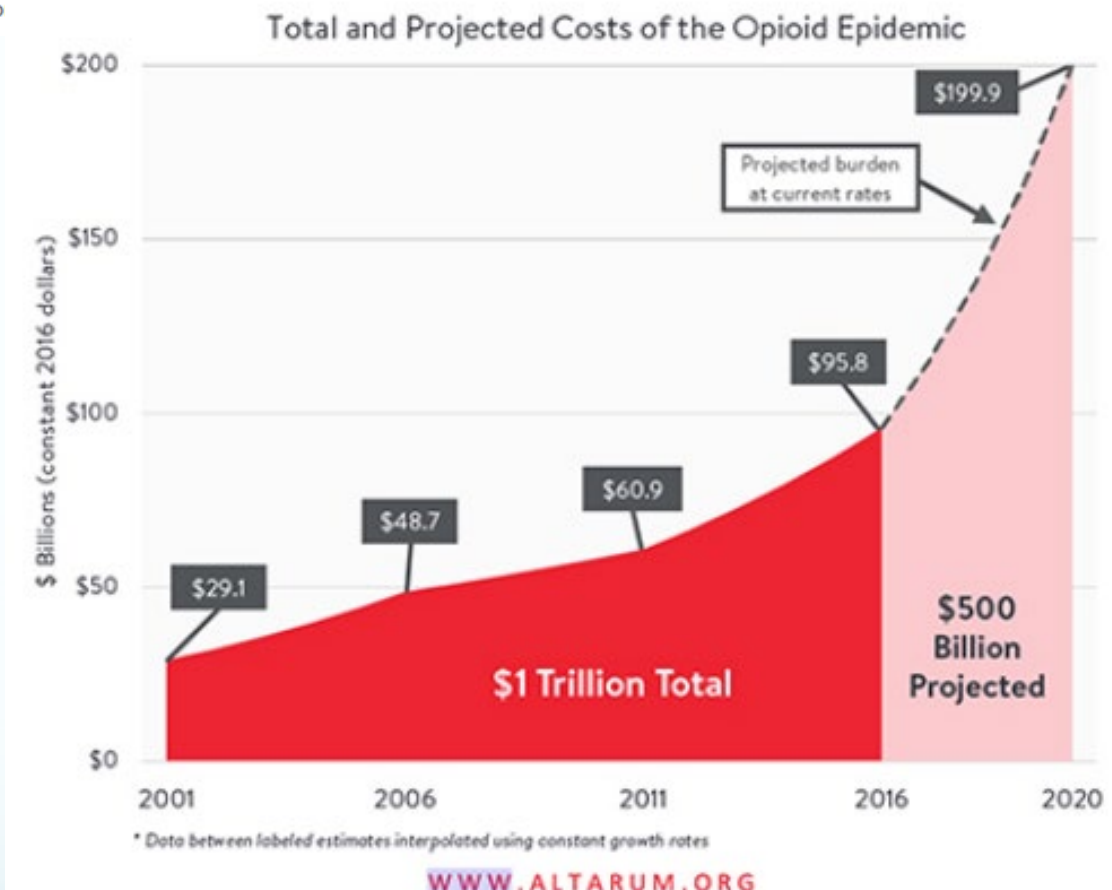
**CDC: Drug overdoses killed 72,000 in 2017**



DEATHS: 9/11 EVERY 2 WEEKS

# Cost Of U.S. Opioid Epidemic Since 2001 Is \$1 Trillion And Climbing

Feb



**Table 2: Estimated Cost of the Opioid Crisis in 2015 (2015 \$)**

VSL Assumption	Fatality Costs	Non-fatality Costs	Total Costs
Age-dependent	\$431.7 billion	\$72.3 billion	\$504.0 billion
Low	\$221.6 billion	\$72.3 billion	\$293.9 billion
Middle	\$393.9 billion	\$72.3 billion	\$466.2 billion
High	\$549.8 billion	\$72.3 billion	\$622.1 billion

# “OPIOID Rx Quadrupled: 1999-2014”

CDC 2016

- \* 1 / 3 Americans Opioid Rx (2015)
- \* 2 Million Americans Opioid Addiction
- \* 21 Million Americans SUD/ 1.4% TX
- 4 out of 5 Heroin users start with Opioid Rx
- Over 50% Opioid Rx from Friends/ Family

# POSITIVE OPIOID Rx: USA

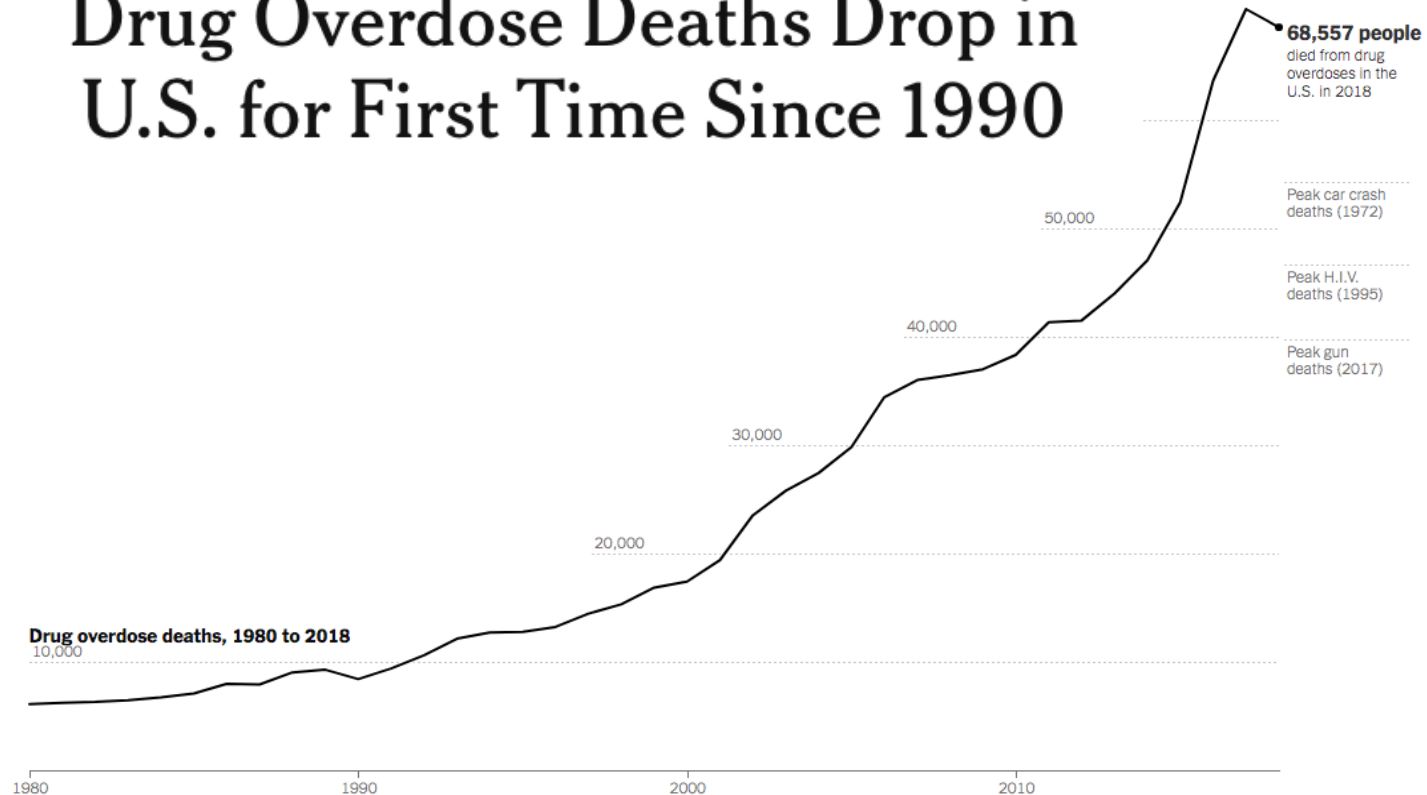
## Study Finds 22 Percent Decrease in Opioid Prescriptions 2013-2017

*AAFP/AMA Release Medication-assisted Treatment Advocacy Resource*

\*12% MME DECREASE: 2017

\* MAT STARTS: 44,000 (2015)>  
82,000 (2017)

# Drug Overdose Deaths Drop in U.S. for First Time Since 1990



Data through 2017 is based on final reported mortality totals. Data for 2018 is provisional and adjusted to account for delays in drug-death reporting.  
Source: National Center for Health Statistics, Centers for Disease Control and Prevention

## TREND VS “BLIP”



WHAT, WHY AND WHEN  
HAPPENED?



**TREATMENT  
INDUSTRY**

**PAIN FREE**

**CRIMINAL/ECONOMIC  
BEHAVIOR**

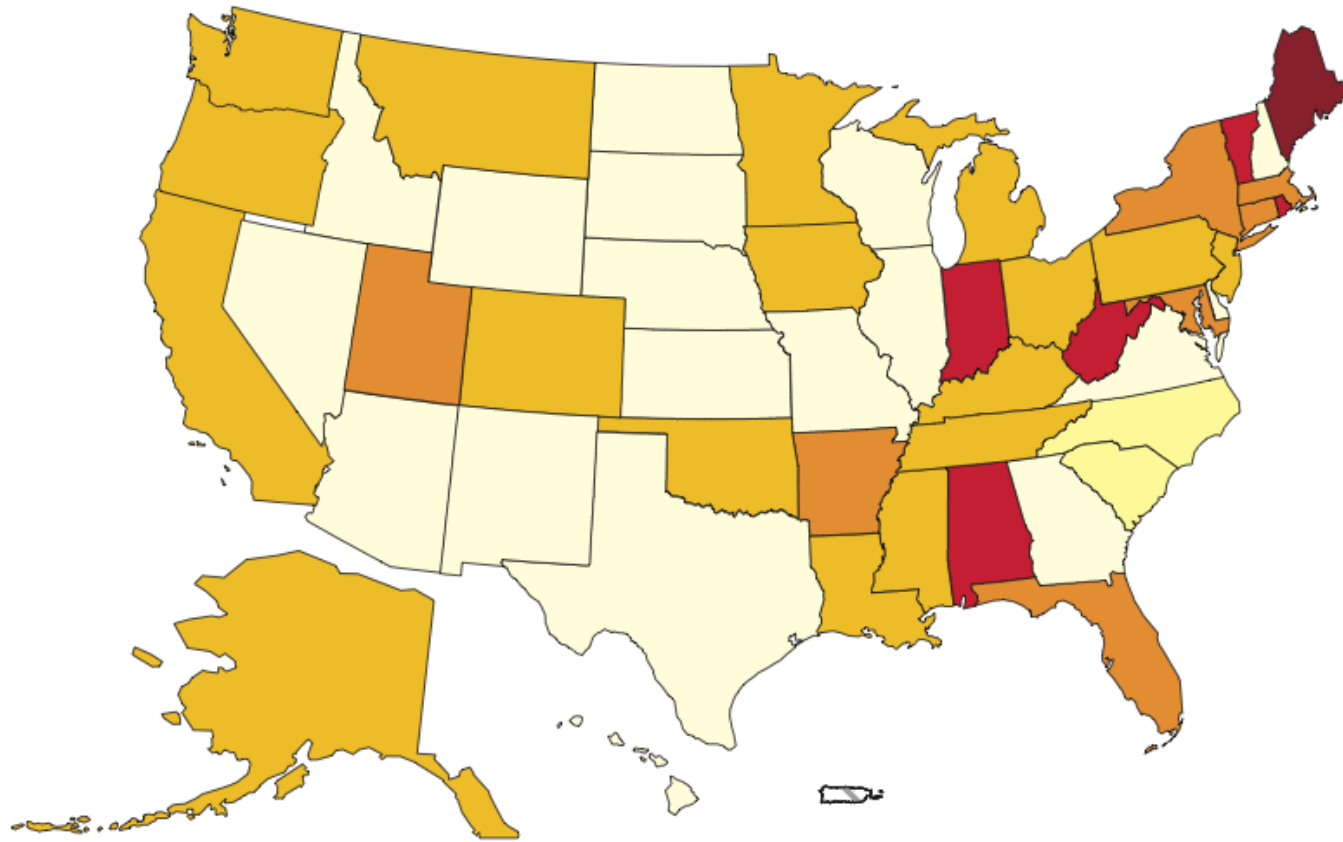
**DOCTOR PRESCRIBING**



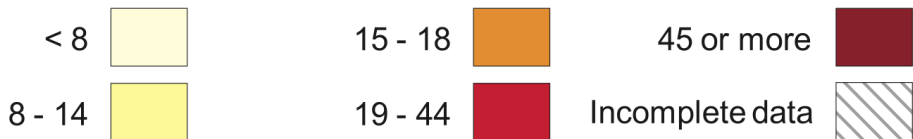
“The United States contains 5% of the World’s Population and consumes 80% of the World’s Opioids.”

2009 National Survey on Drug Use and Health

# Primary non-heroin opiates/ synthetics admission rates, by State (per 100,000 population aged 12 and over)

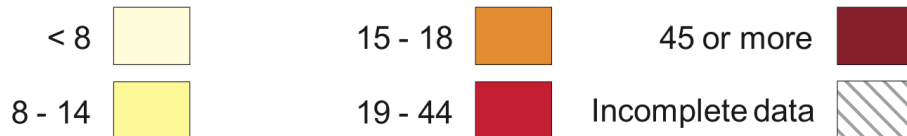
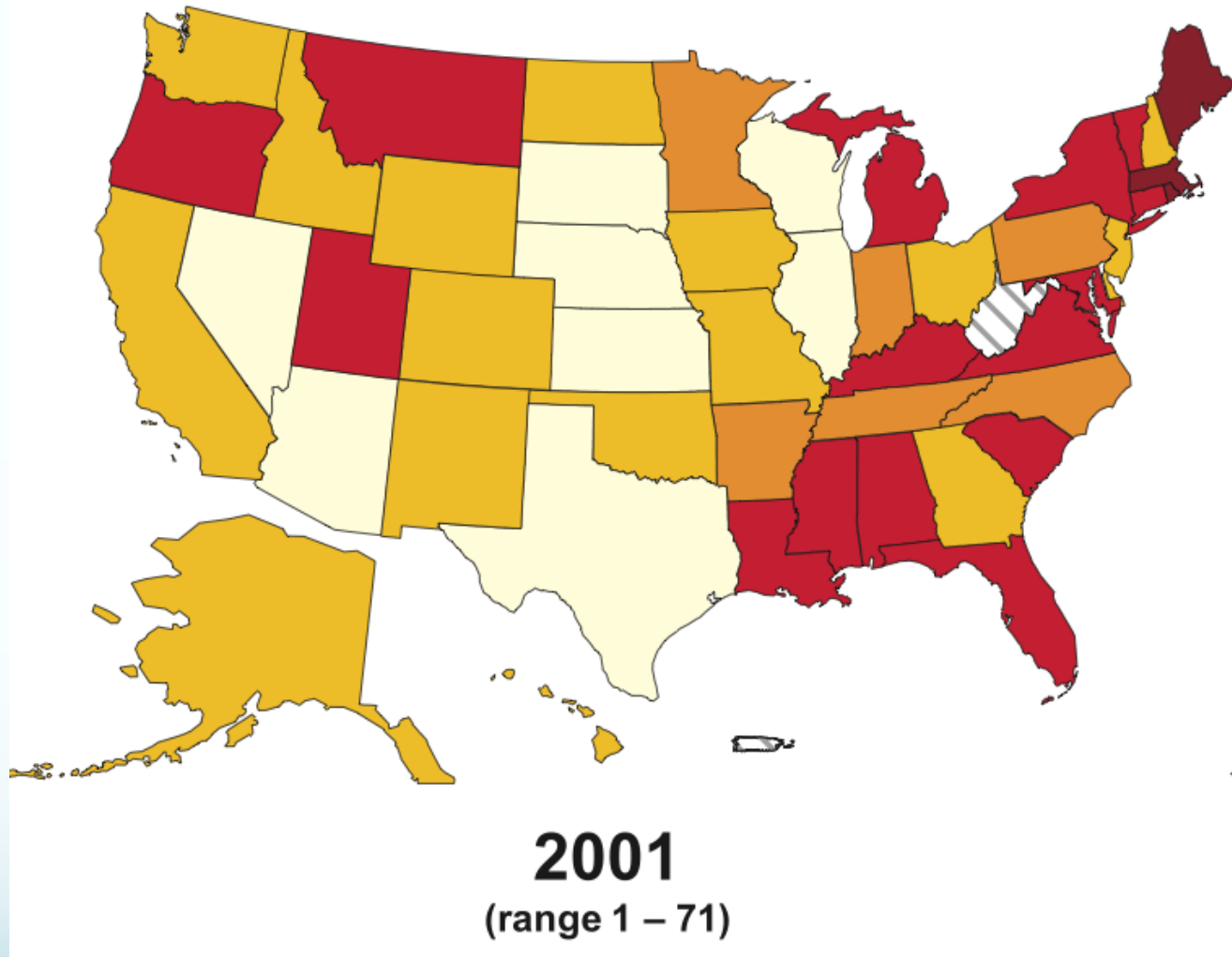


**1999**  
(range 1 - 50)



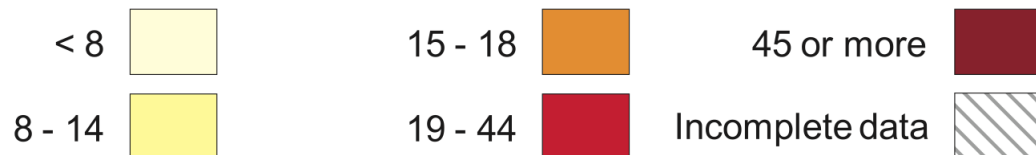
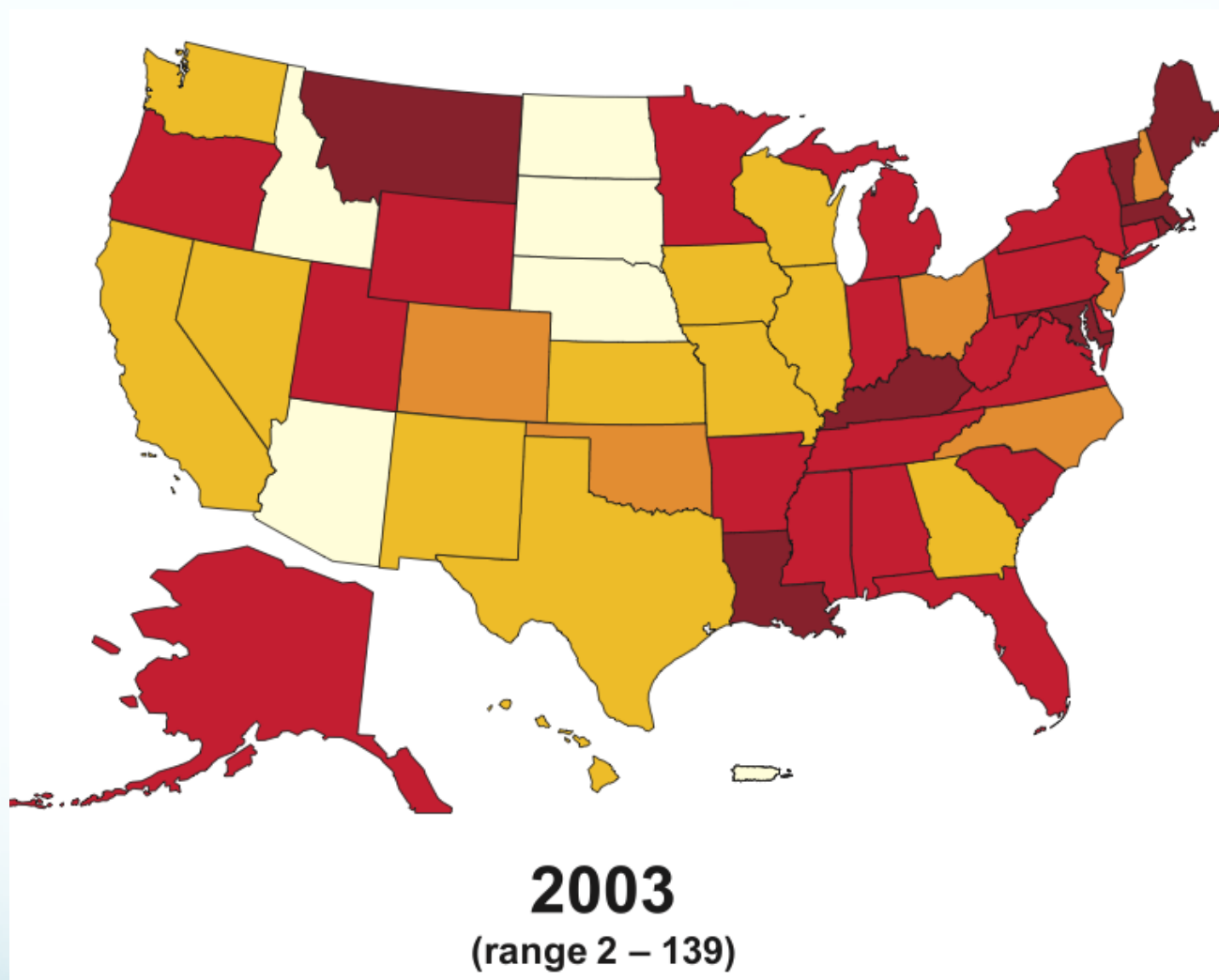
SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.

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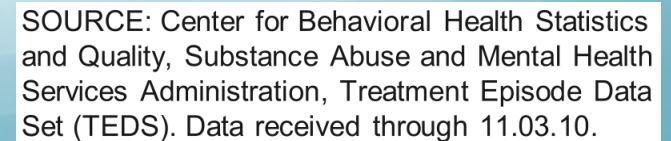
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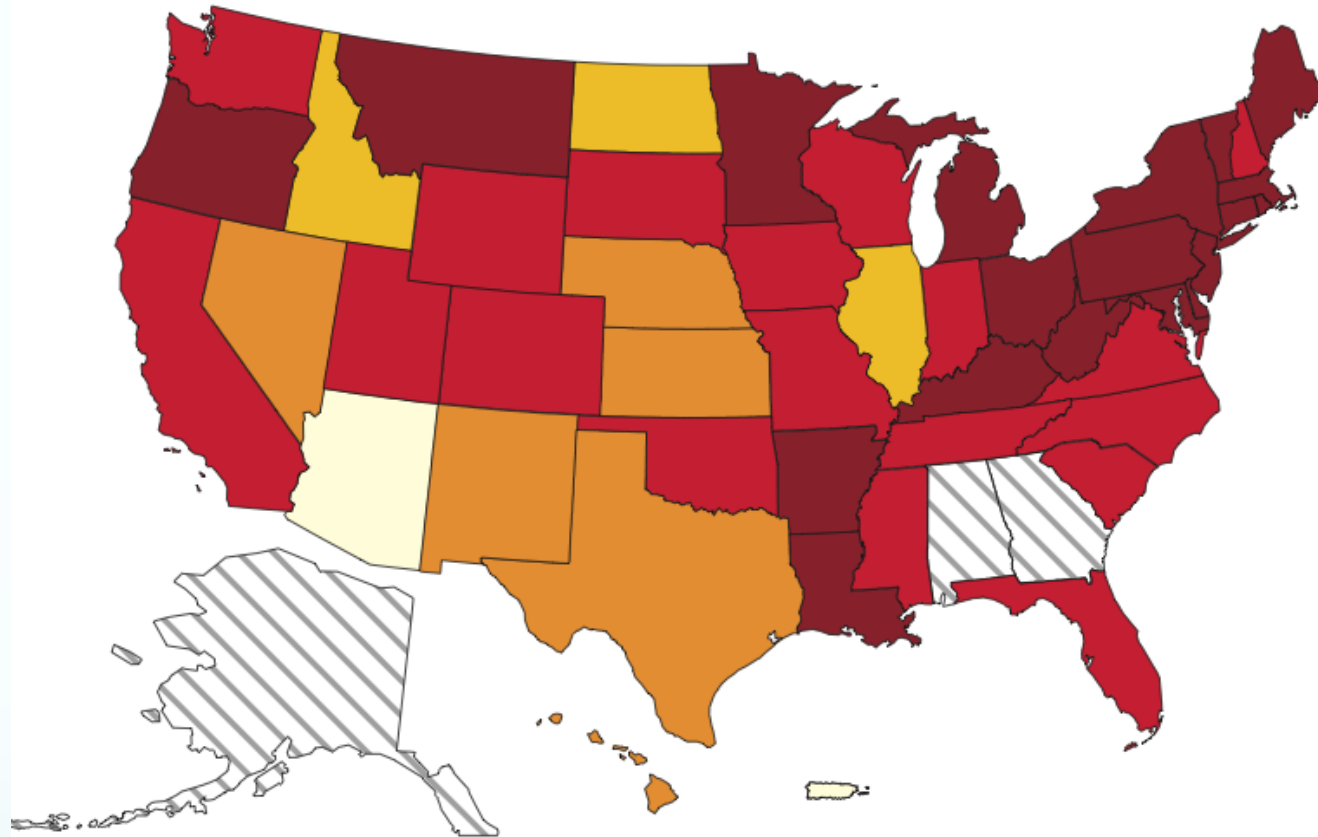


SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.

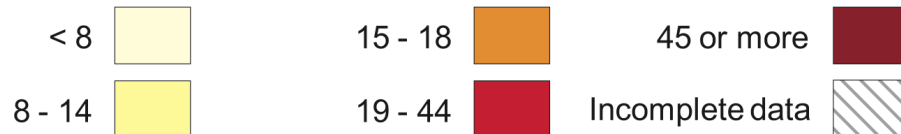
**(range 0 – 214)**



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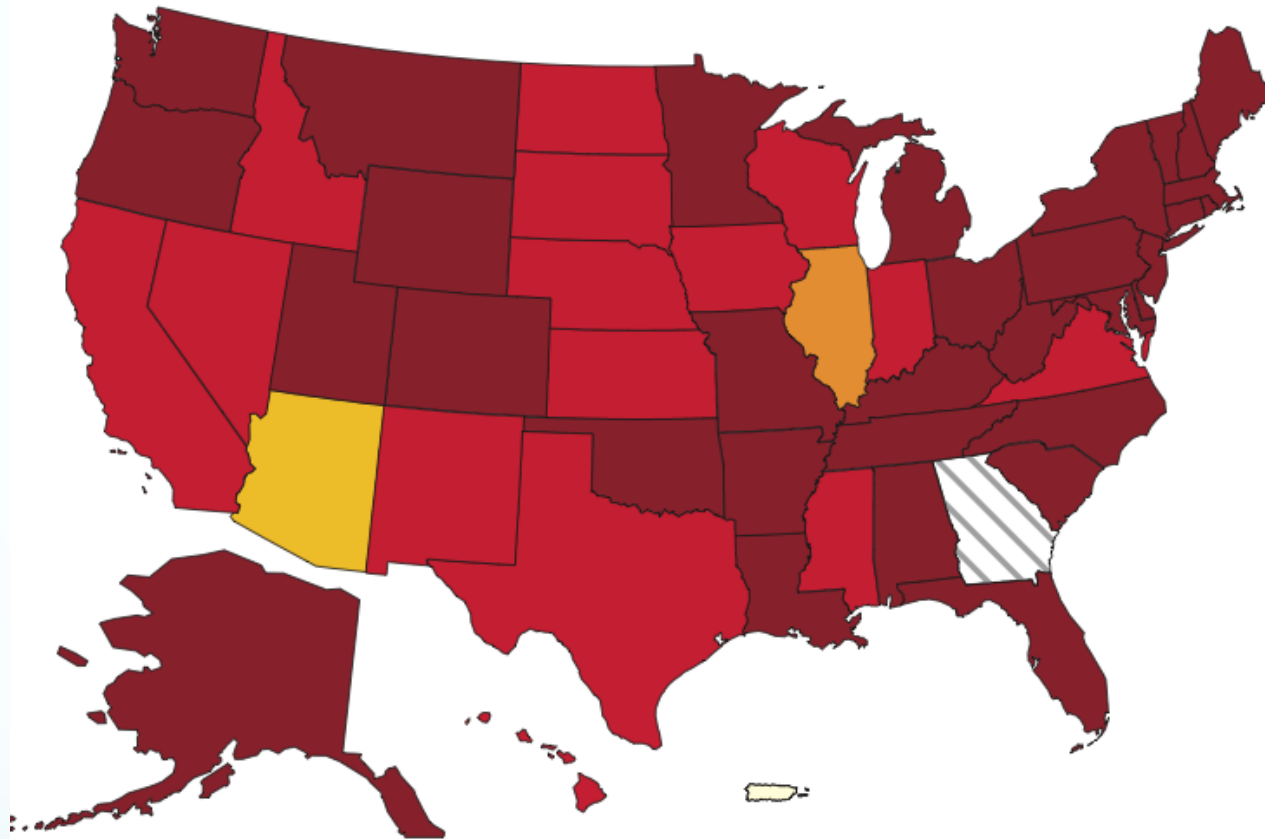


**2007**  
(range 1 – 340)

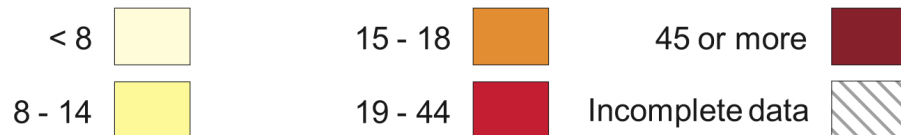


SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.

# Primary non-heroin opiates/ synthetics admission rates, by State (per 100,000 population aged 12 and over)



**2009**  
(range 1 – 379)

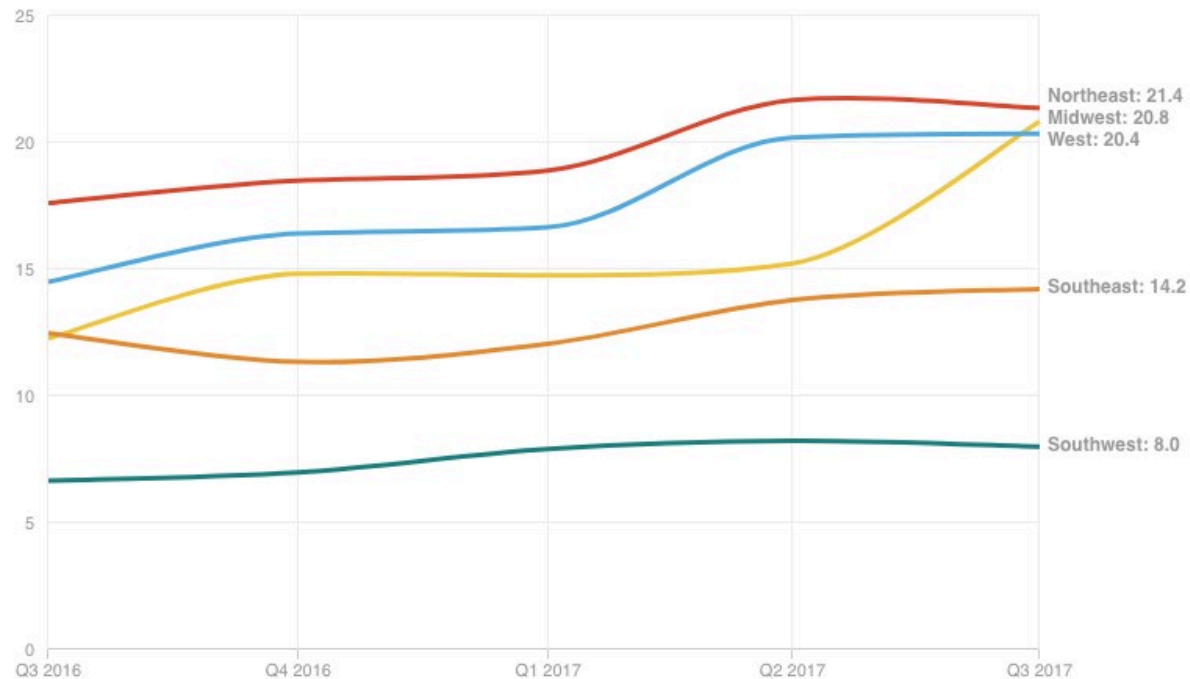


SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.

# 2016- 2017: 30% increase ER visits

## Opioid Overdose Rates Rose Across The Country

Suspected opioid overdose rate per 10,000 emergency hospital visits



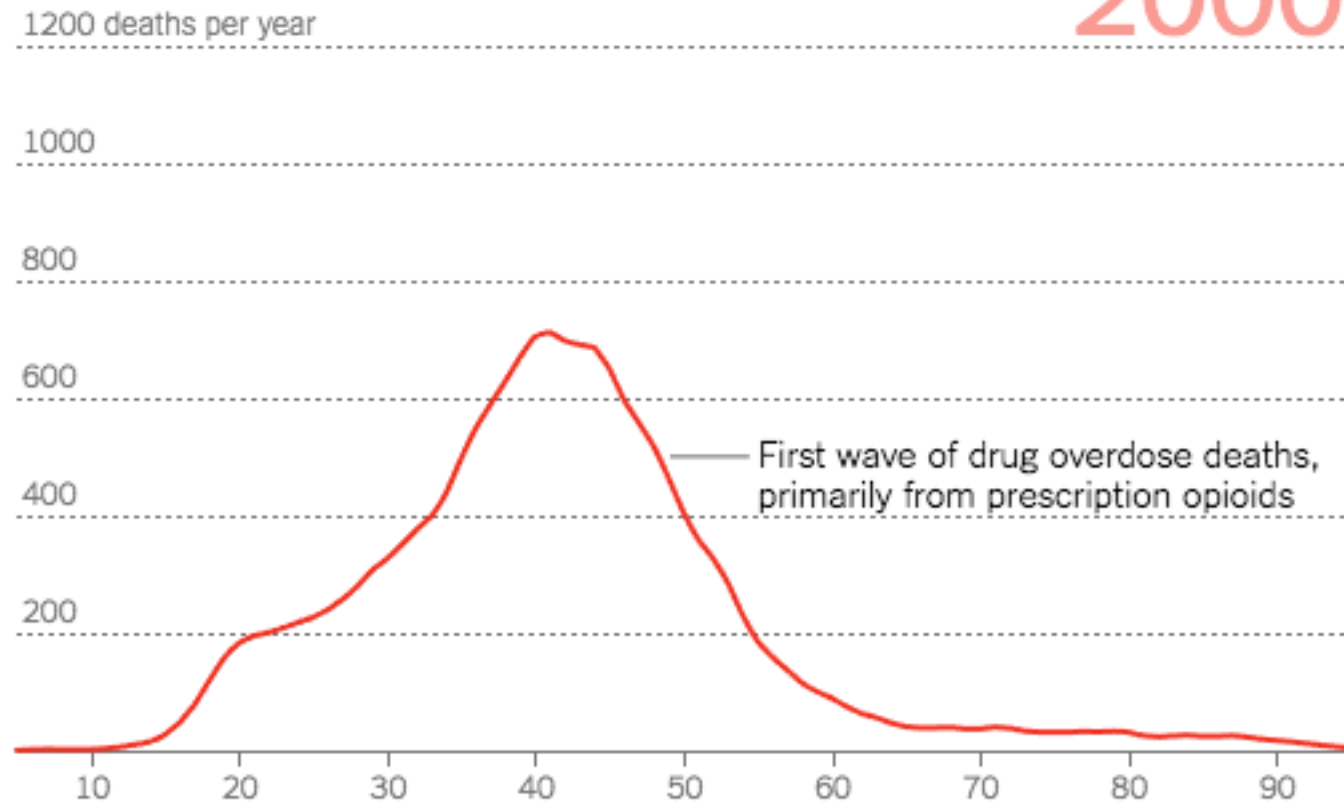
Source: Centers for Disease Control and Prevention

Credit: Hilary Fung/NPR

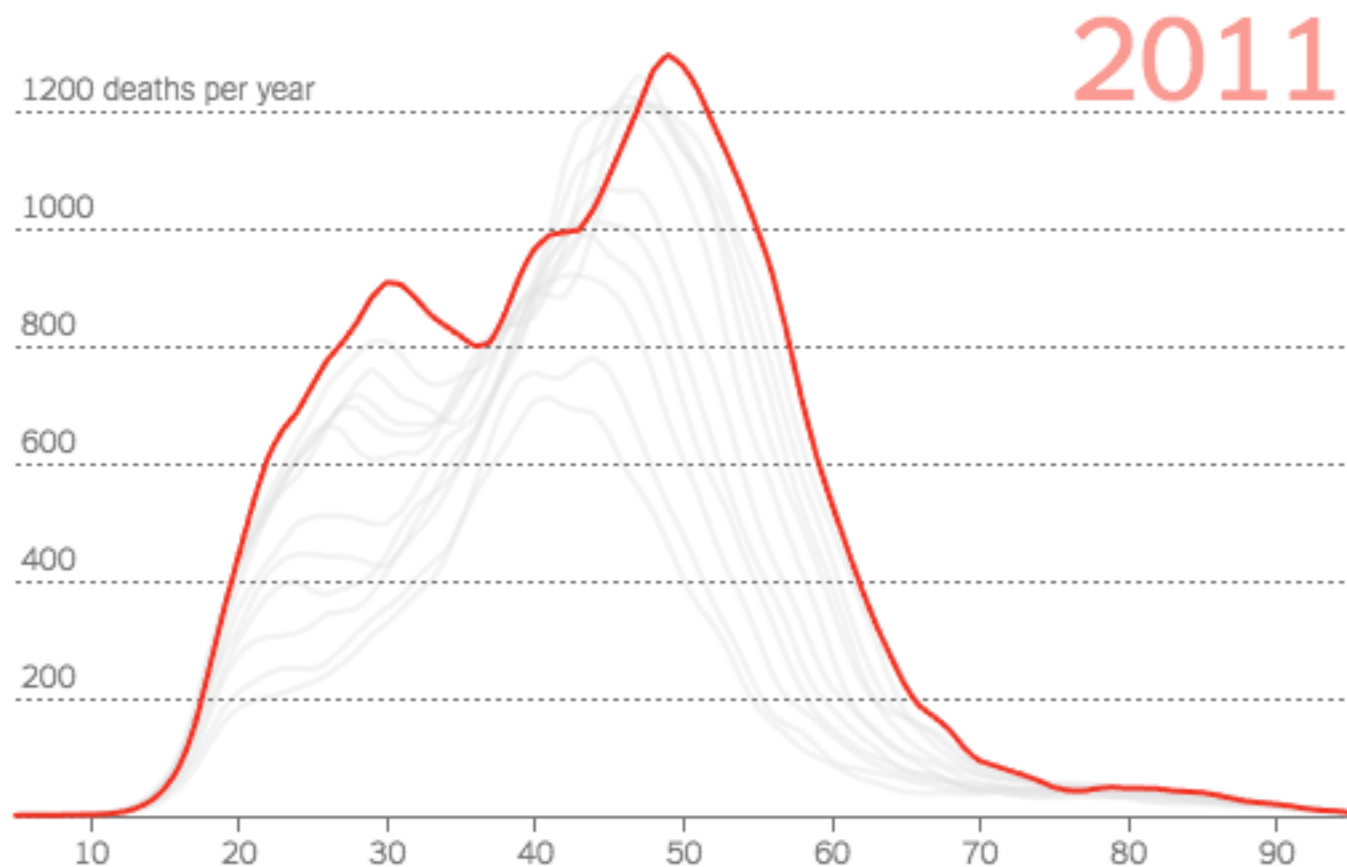
Midwest: 69.7%   West: 40.3%   NE: 21.3%   SW: 20.2%   SE: 14%

## Distribution of drug deaths by age

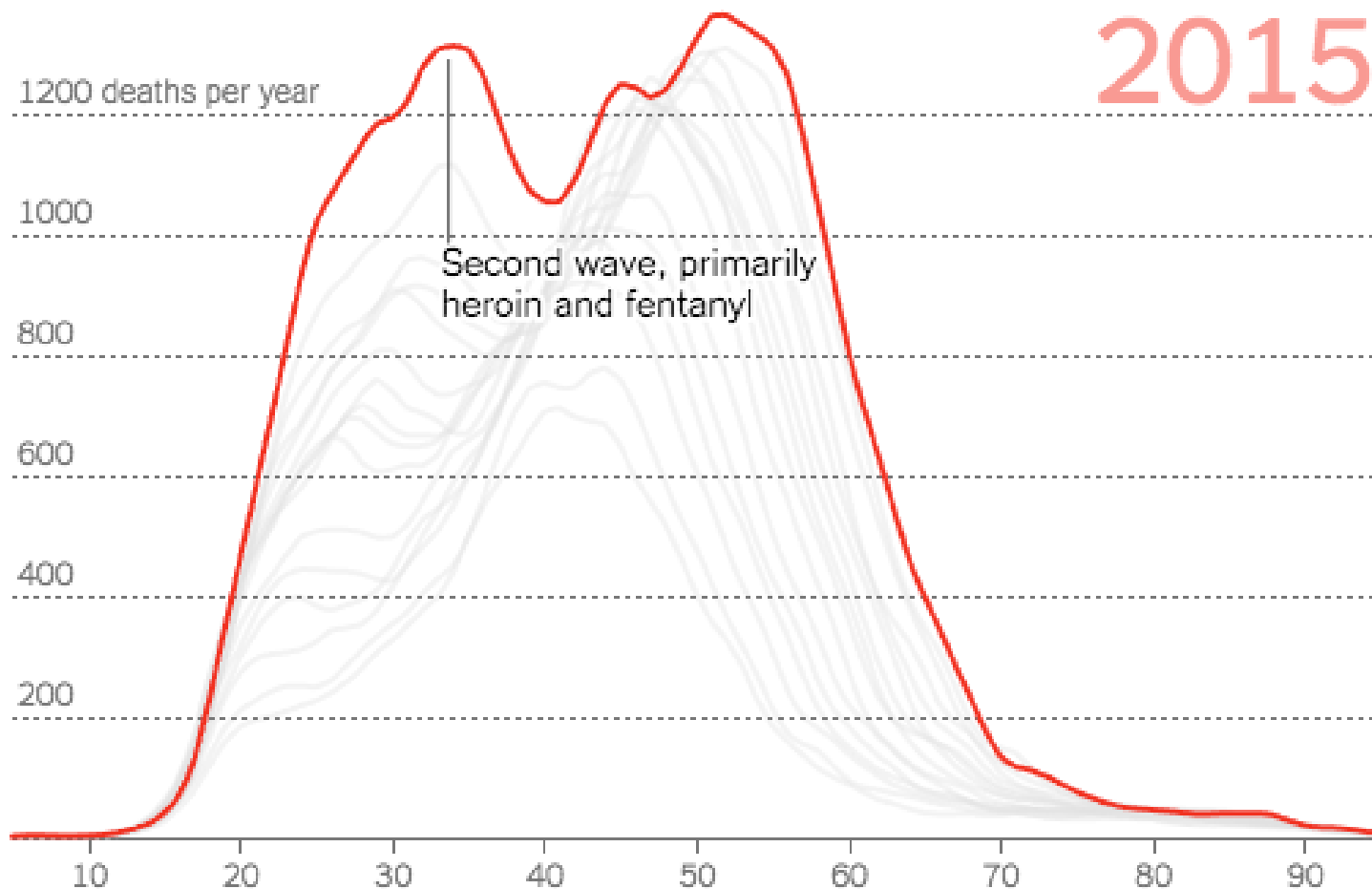
2000



## Distribution of drug deaths by age

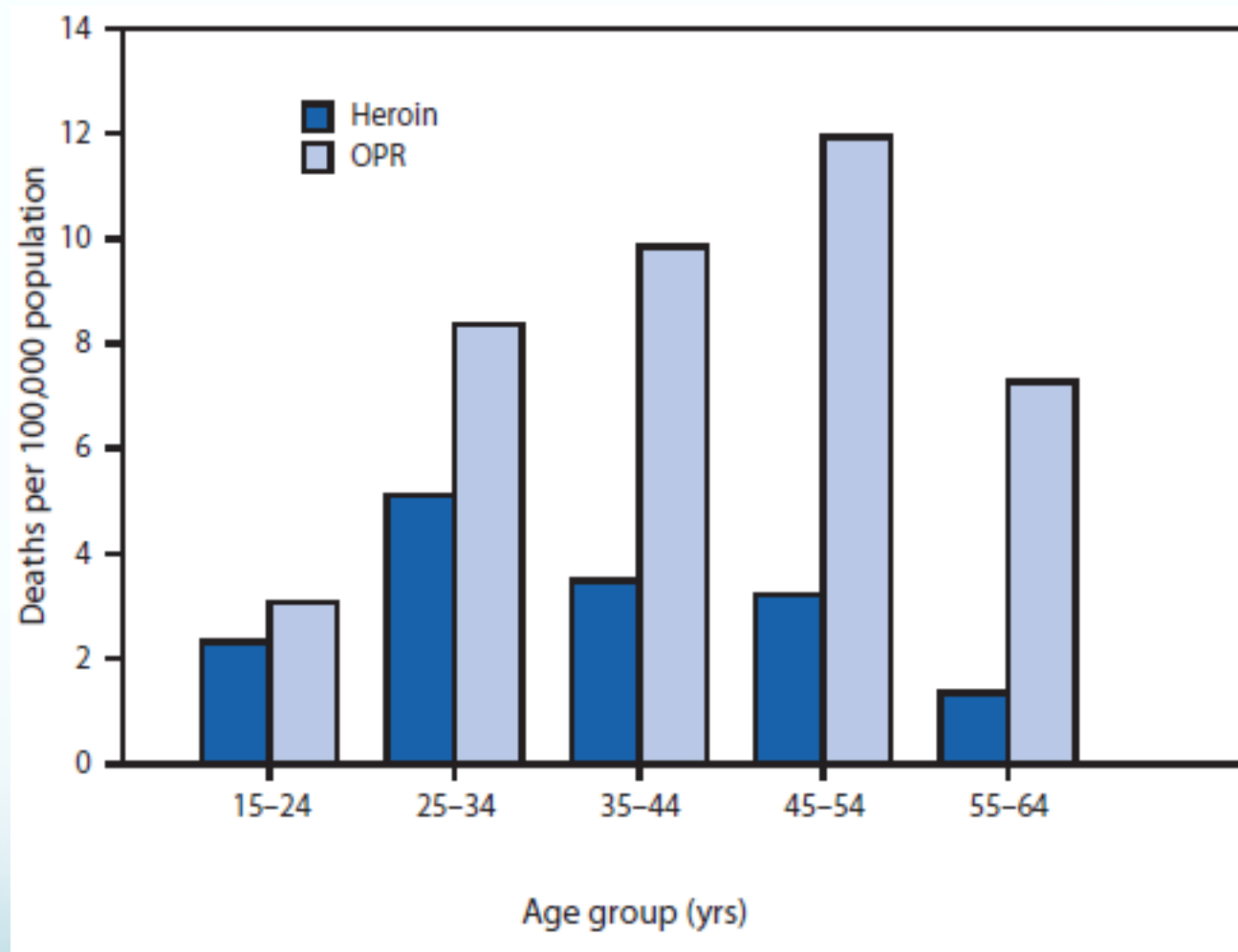


## Distribution of drug deaths by age



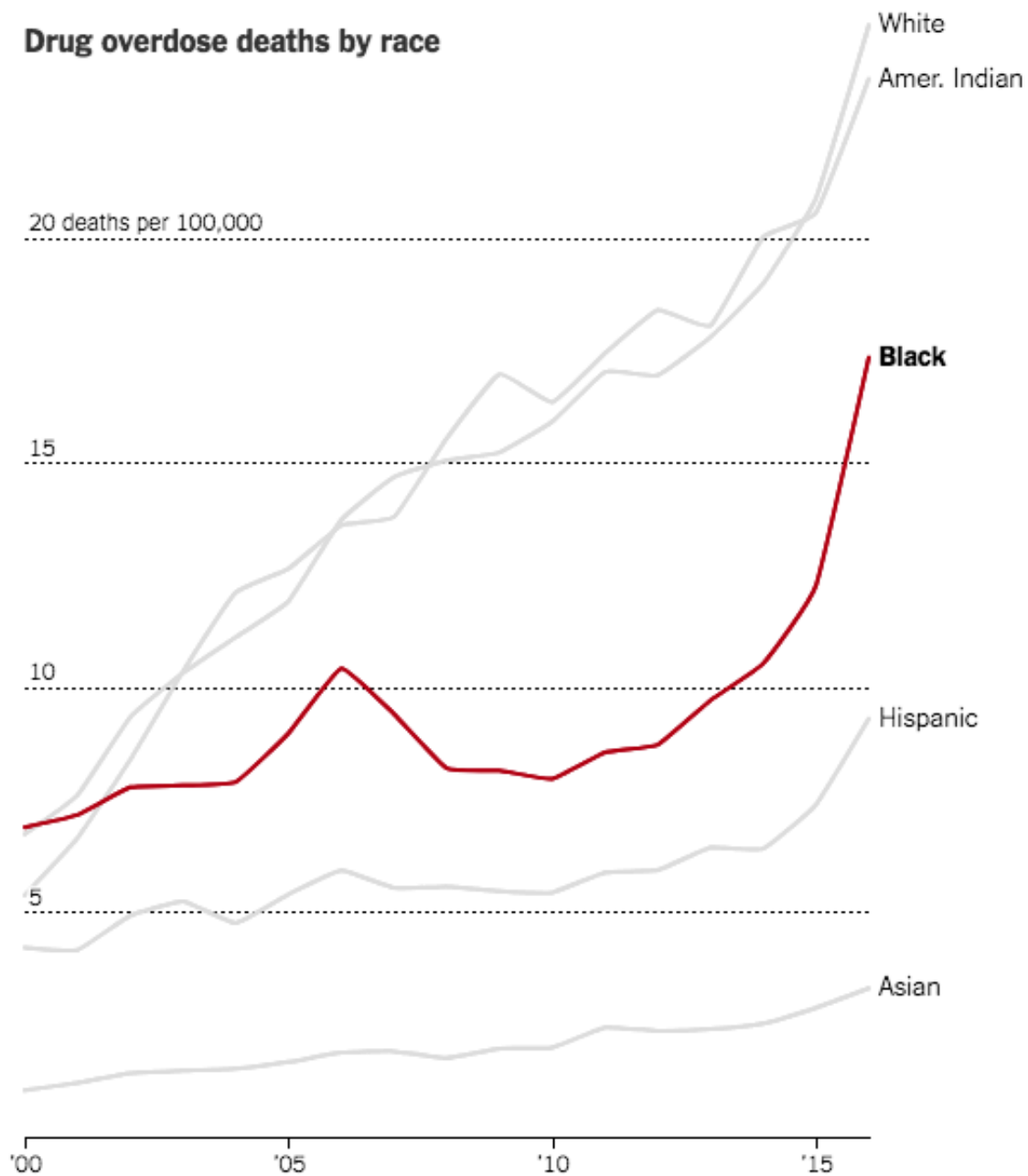
DEATHS: AGE DISTRIBUTION 2000- 2015

## Death rates from overdoses of heroin or prescription opioid pain relievers (OPRs), by age group



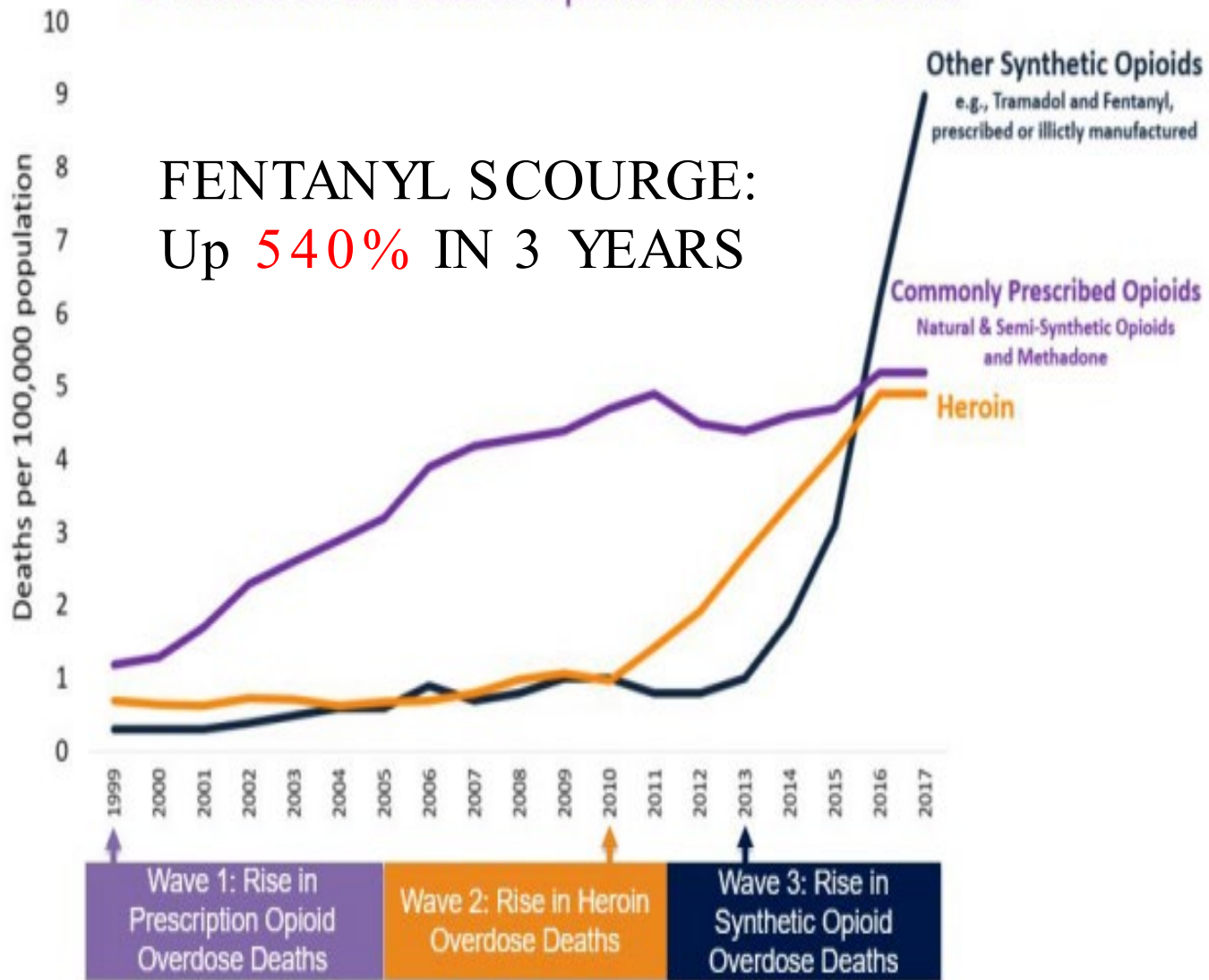
SOURCE: CDC. Increases in Heroin Overdose Deaths — 28 States, 2010 to 2012  
MMWR. 2014, 63:849-854

## Drug overdose deaths by race



## 3 Waves of the Rise in Opioid Overdose Deaths

FENTANYL SCOURGE:  
Up **540%** IN 3 YEARS



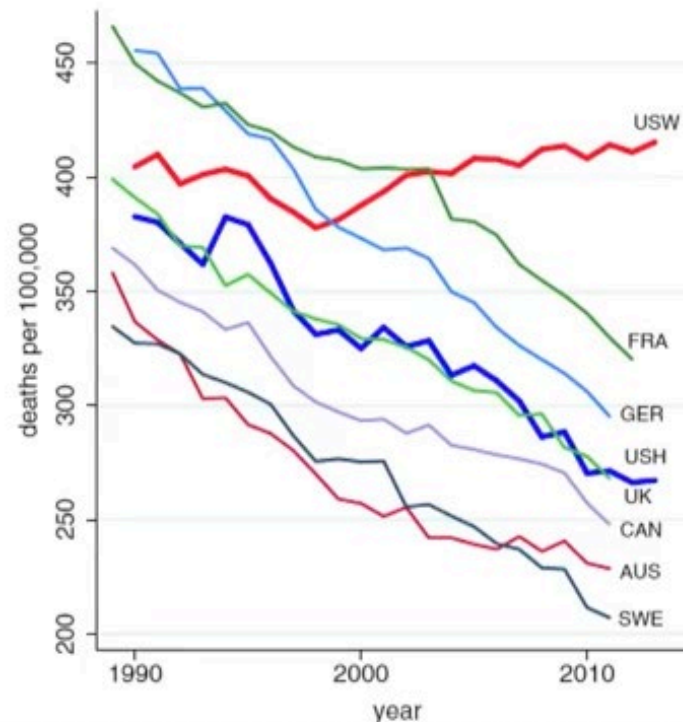
SOURCE: National Vital Statistics System Mortality File.



“KILL ZONE”

# Fueled by drug crisis, U.S. life expectancy declines for a second straight year

All-cause mortality, ages 45–54 for US White non-Hispanics (USW) , US Hispanics (USH)

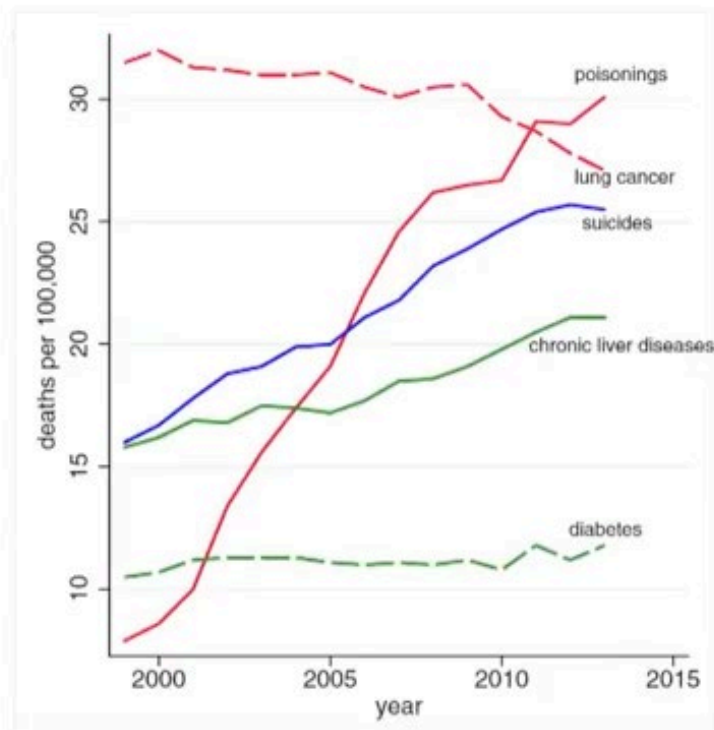


France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE).

Source: Anne Case, Angus Deaton. Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. *Proceedings of the National Academy of Sciences*. November 2, 2015 (online ahead of print).

# Fueled by drug crisis, U.S. life expectancy declines for a second straight year

Mortality by cause, white non-Hispanics ages 45–54



Source: Anne Case, Angus Deaton. Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. *Proceedings of the National Academy of Sciences*. November 2, 2015 (online ahead of print).

# OPIOID EPIDEMIC: PROFILE

WHO DIES FROM  
AN OVERDOSE

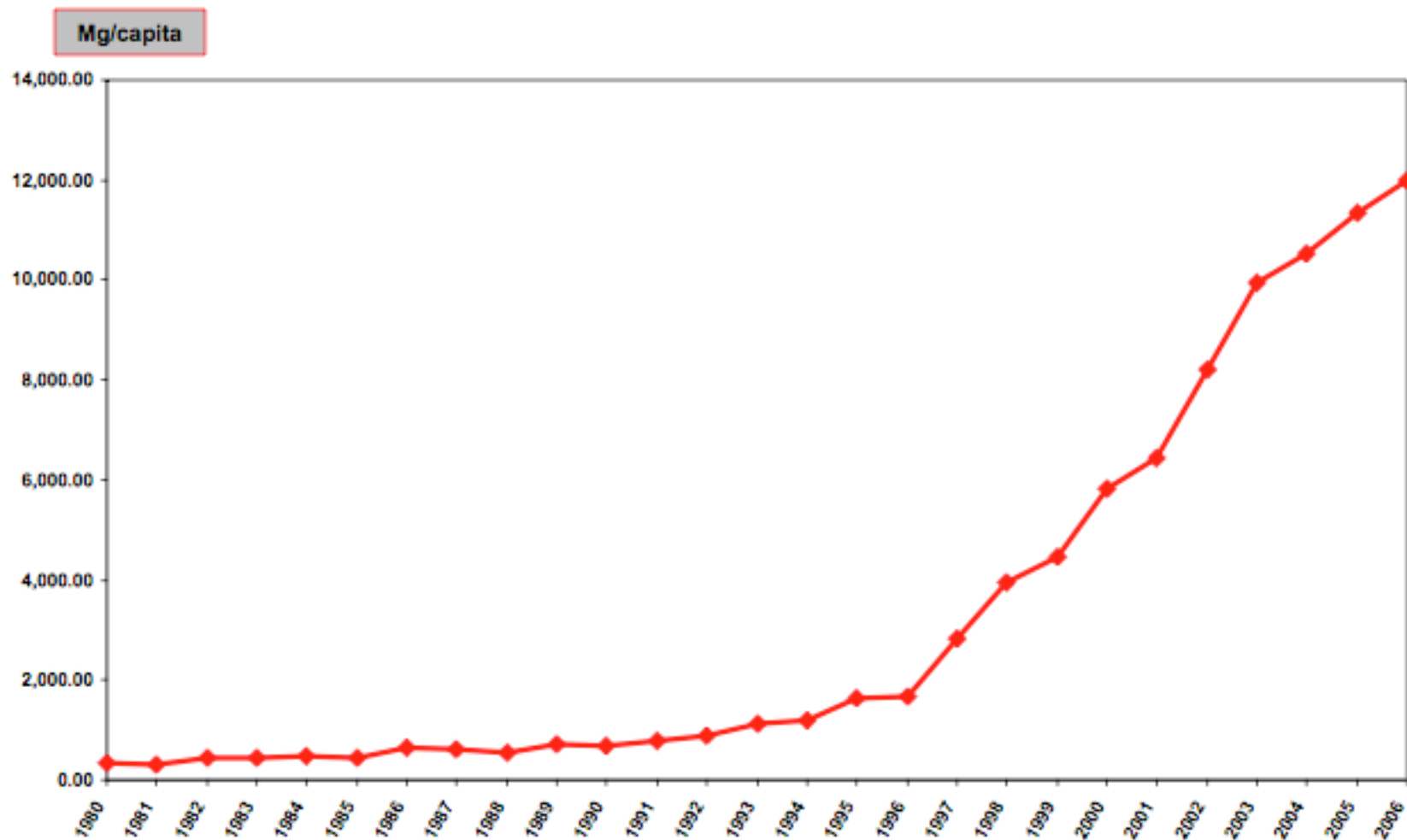
- MALE
- WHITE
- 45-54 YEARS OLD
- MOST DIE AT HOME.



OP I O I D E P I D E M I C:

1 9 9 6

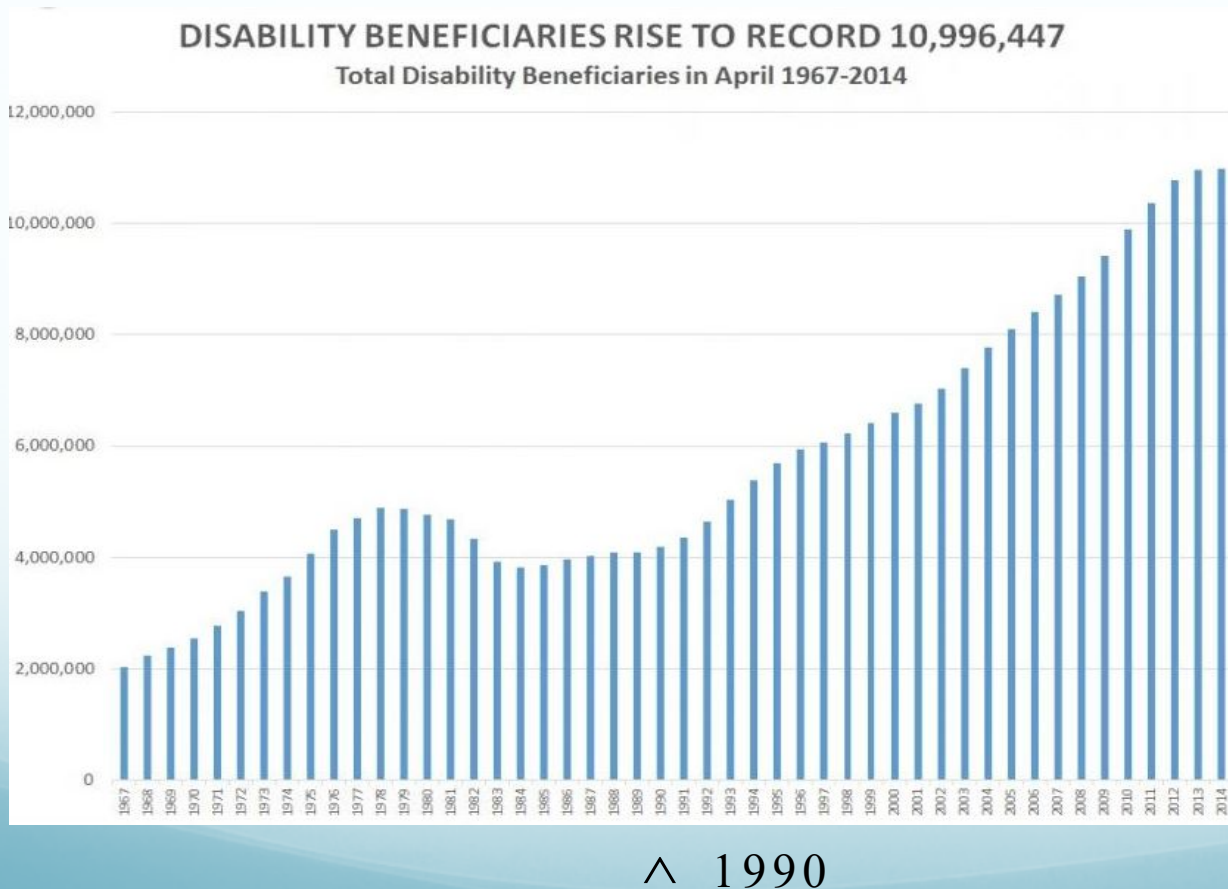
# New York Consumption of Hydrocodone 1980 - 2006



Sources: U.S. Dept of Justice, Drug Enforcement Administration, Office of Diversion Control

You could not conclude that by looking at employment data!

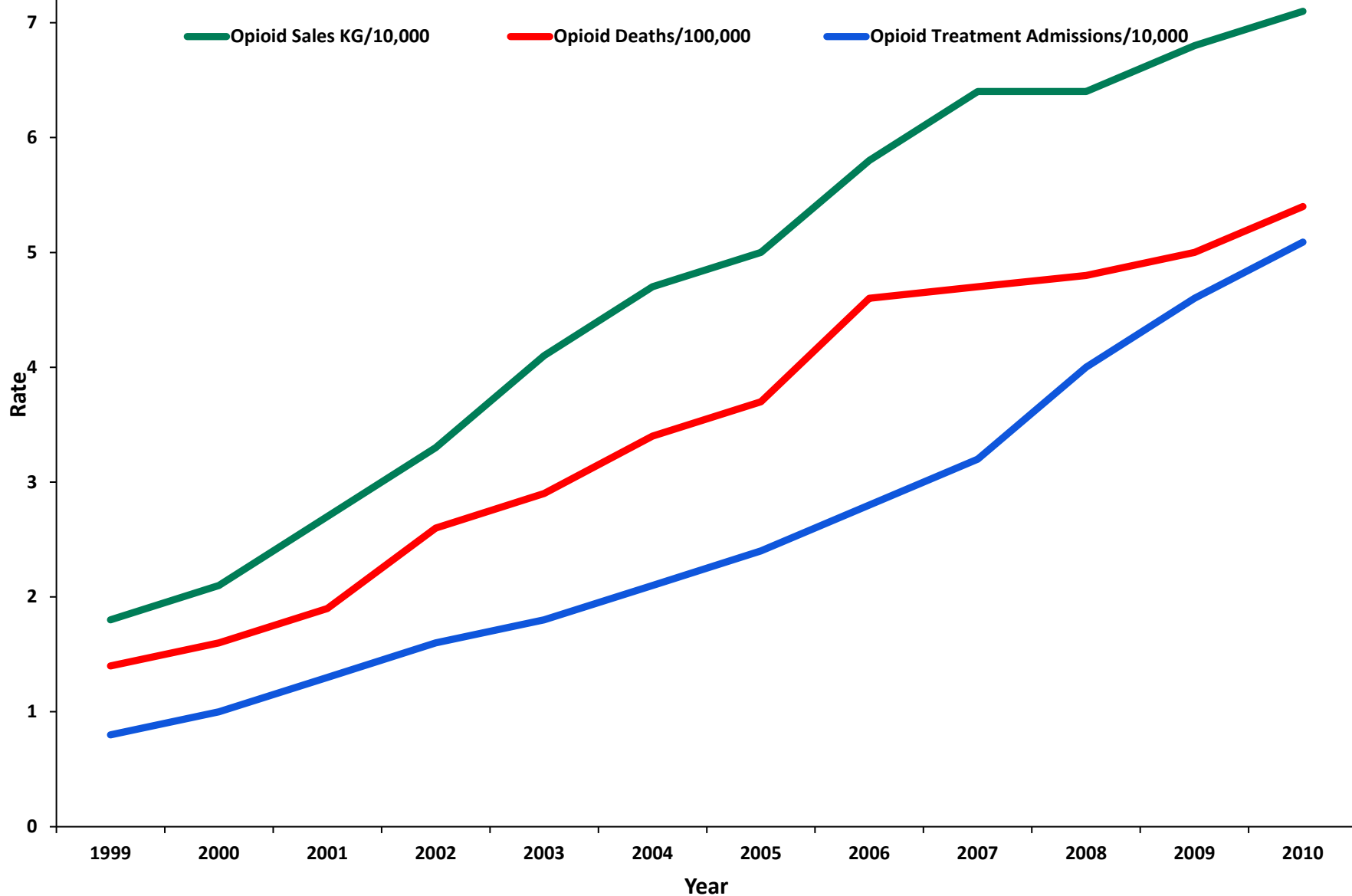
Disability has only increased!



1990 – 4  
million on  
disability

2014 – 11  
million,  
record high,  
200%  
increase in  
20 years

# Rates of Opioid Sales, OD Deaths, and Treatment, 1999–2010



# Management of Temporomandibular Disorders

National Institutes of Health  
Technology Assessment Conference Statement  
April 29–May 1, 1996

**Question 4:** *What Are Effective Approaches to Management and Treatment of Patients With Persistent TMD Pain and Dysfunction?*

Opioid use:

“potential for addiction, analgesic tolerance, uncontrolled side effects, and toxicity associated long term use are not warranted. Adequate opioid doses can achieve successful control of symptoms without adverse effects”

May 1, 1996



What has changed in America that has led to this crisis: **“power and influence of the pharmaceutical industry”.**

# TWO KEY POINTS:

1. Chronic Non-Cancer Pain is an “under-treated epidemic” which is characterized by needless suffering.
1. Opiates are effective to solve this epidemic and their “risks have been greatly exaggerated.”

“fear should not stand in the way of your pain”

Purdue Pharma





1996 – co-authored a position statement:  
risk of addiction of opioids “less than 1%”.



Dr. Russell Portenoy

ADDICTION RARE IN PATIENTS TREATED  
WITH NARCOTICS

*To the Editor:* Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients<sup>1</sup> who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients,<sup>2</sup> Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

JANE PORTER

HERSHEL JICK, M.D.

Boston Collaborative Drug  
Surveillance Program

Waltham, MA 02154

Boston University Medical Center

1. Jick H, Miettinen OS, Shapiro S, Lewis GP, Siskind Y, Slone D. Comprehensive drug surveillance. JAMA. 1970; 213:1455-60.
2. Miller RR, Jick H. Clinical effects of meperidine in hospitalized medical patients. J Clin Pharmacol. 1978; 18:180-8.

“development of addiction is rare”



NOT A STUDY: A “TWEET”

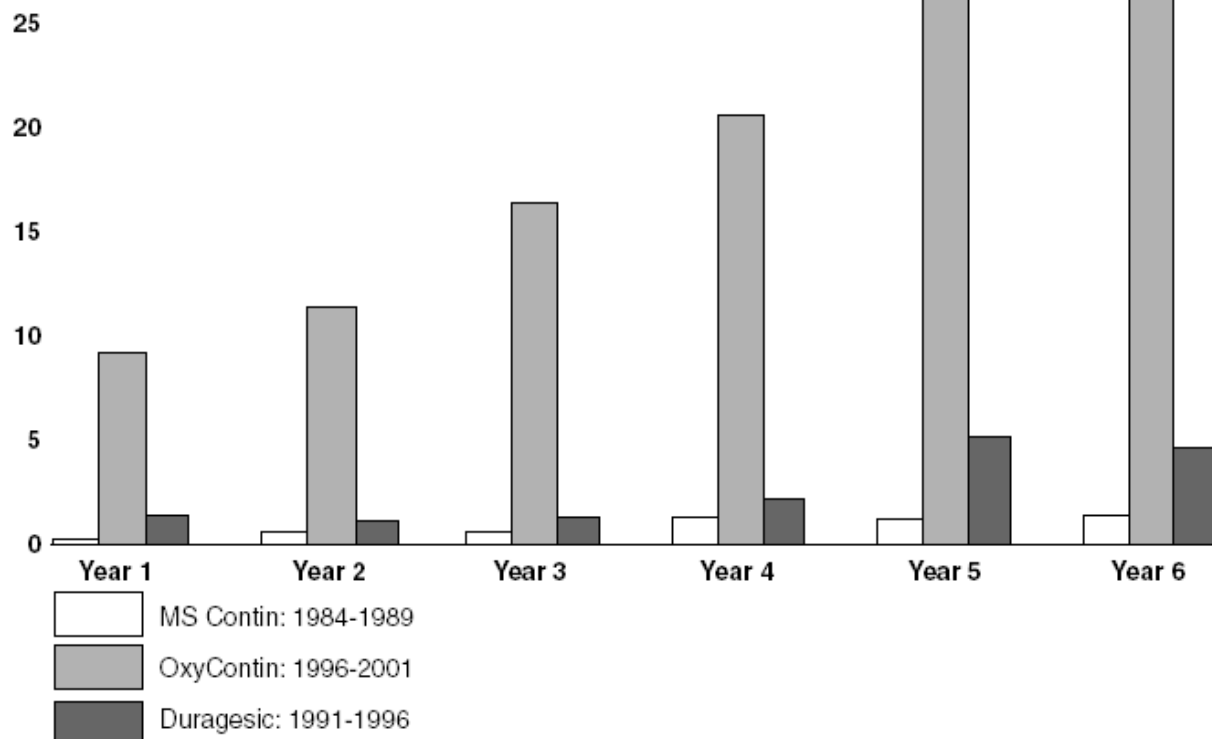
#NotRealMedicine

**Study: Dentists prescribe only 2% of opioids**  
By Theresa Pablos, DrBicuspid.com associate editor

# Dollars Spent Marketing OxyContin (1996-2001)

Figure 1: Promotional Spending for Three Opioid Analgesics in First 6 Years of Sales

Absolute dollars in millions  
30



Source: United States General Accounting Office: Dec. 2003, "OxyContin Abuse and Diversion and Efforts to Address the Problem."

# “The Promotion and Marketing of Oxycontin: Commercial Triumph, Public Health Tragedy”,



- Sales in 1996 \$48 million, today they exceed \$2 billion per year. 90% of Purdue's revenue.
- Never demonstrated any benefit over more frequent immediate release oxycodone.
- Gross sales 30 billion

February 2009



CONVERSATIONS ABOUT ETHICS  
A SERIES OF ETHICS LECTURES — FREE AND OPEN TO THE PUBLIC

# Drug Dealer, MD

OVERPRESCRIPTION AND THE OPIOID CRISIS IN AMERICA

Speaker: Anna Lembke, MD  
Author, *Drug Dealer, MD*  
Psychiatrist, Stanford University

Thursday, October 5, 2017

Lunch Seminar:  
*Reclaiming Balance  
in a Dopamine-Saturated World*  
11:30 a.m. - 2:00 p.m.  
Ecumenical Center  
8310 Ewing Halsell | 210-616-0885

Evening Keynote:  
*Drug Dealer, MD*  
5:30 p.m. Reception | 6-7 p.m. Lecture  
UT Health San Antonio | Pestana Lecture Hall 3.104A  
7703 Floyd Curl | 210-567-0795

Register at [ConversationsAboutEthics.org](http://ConversationsAboutEthics.org)

Methodist Healthcare Ministries  
OF NORTH TEXAS  
www.methodisthealthcare.org

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EDUCATION, CONSUMER HEALTH

UT Health  
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San Antonio  
www.uthealthsa.org

CME: This activity has been approved for AMA PRA Category 1 Credits™.  
This presentation meets the Texas Medical Board criteria for formal continuing medical education involving the study of medical ethics and/or professional responsibility.  
CPE: The Ecumenical Center is an approved provider of continuing education by the State of Texas for the following: LPC, LMFT, LSW, LCSW and LMBW.  
The lunchtime seminar provides 2.0 Ethics Continuing Education Units and the evening keynote provides 1.0 Ethics Continuing Education Unit.



# ROLE OF DDS/ MD ?



“ DOCTORS ARE CAUSING THIS ADDICTION IN PATIENTS THEY PRESCRIBE TO”

ANDREW KOLODNY MD

EXECUTIVE DIRECTOR (PROP)

# OPIOID EPIDEMIC: DDS/ MD ROLE

- OVERDOSE DEATHS: MULTIPLE R<sub>x</sub> PRESCRIBERS
- 60% DEATHS HAD DOCTOR PRESCRIPTIONS
- 72% HAD LEFTOVER R<sub>x</sub> OPIOID AND 71% KEPT IT
- 8% ADMIT ILLICIT USE
- R<sub>x</sub> OPIOD DOUBLED FOR ADOLESCENTS/ YOUNG ADULTS (1994 to 2007)
- FP HIGHEST PRESCRIBERS
- DDS HIGHEST PRESCRIBERS AGE 10- 19
- WESTERN EUROPE 4X LESS OPIOID USE

# Trends in Opioid Analgesic-Prescribing Rates by Specialty, U.S., 2007-2012.

Specialty	Opioid Rx n, millions (%)	Total Rx n, millions (%)	Opioid Rx/Total Rx %
Family practice	52.5 (18.2)	946.9 (22.3) *	5.6
Internal medicine	43.6(15.1)	913.9 (21.5) *	4.8
Non-physician Prescriber <sup>a</sup>	32.2 (11.2)	447.3 (10.5) *	7.2
General practice <sup>b</sup>	32.2 (11.2)	431.2 (10.1) *	7.5
Surgery <sup>c</sup>	28.3 (9.8)	77.6 (1.8)	36.5
Dentistry	18.5 (6.4)	64.0 (1.5)	29.0
Pain medicine <sup>d</sup>	14.5 (5.0)	29.8 (0.7)	48.6
Emergency medicine	12.5 (4.3)	60.5 (1.4)	20.7
Physical med and rehab	9.3 (3.2)	26.1 (0.6)	35.5
All Others <sup>e</sup>	45.3 (15.7)	1251.5 (29.5)	3.6
Total	289.0 (100.0)	4248.7 (100.0)	6.8

50%

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Pain medicine <sup>d</sup>	14.5 (5.0)	29.8 (0.7)		48.6
Emergency medicine	12.5 (4.3)	60.5 (1.4)	<-8.9%	20.7
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Total	289.0 (100.0)	4248.7 (100.0)		6.8

# DENTIST: OPIOID PRESCRIBER BEHAVIOUR

- ESTABLISHED PRESCRIBING BEHAVIOUR
- CONTROLLED SUBSTANCE SCHEDULE II
- A PRESCRIPTION: ENHANCED PLACEBO EFFECT
- Rx MOST SEVERE OUTCOME
- PATIENT EXPECTATIONS/ DEMANDS

P. Moore, JADA

# PRESCRIBER BEHAVIOR

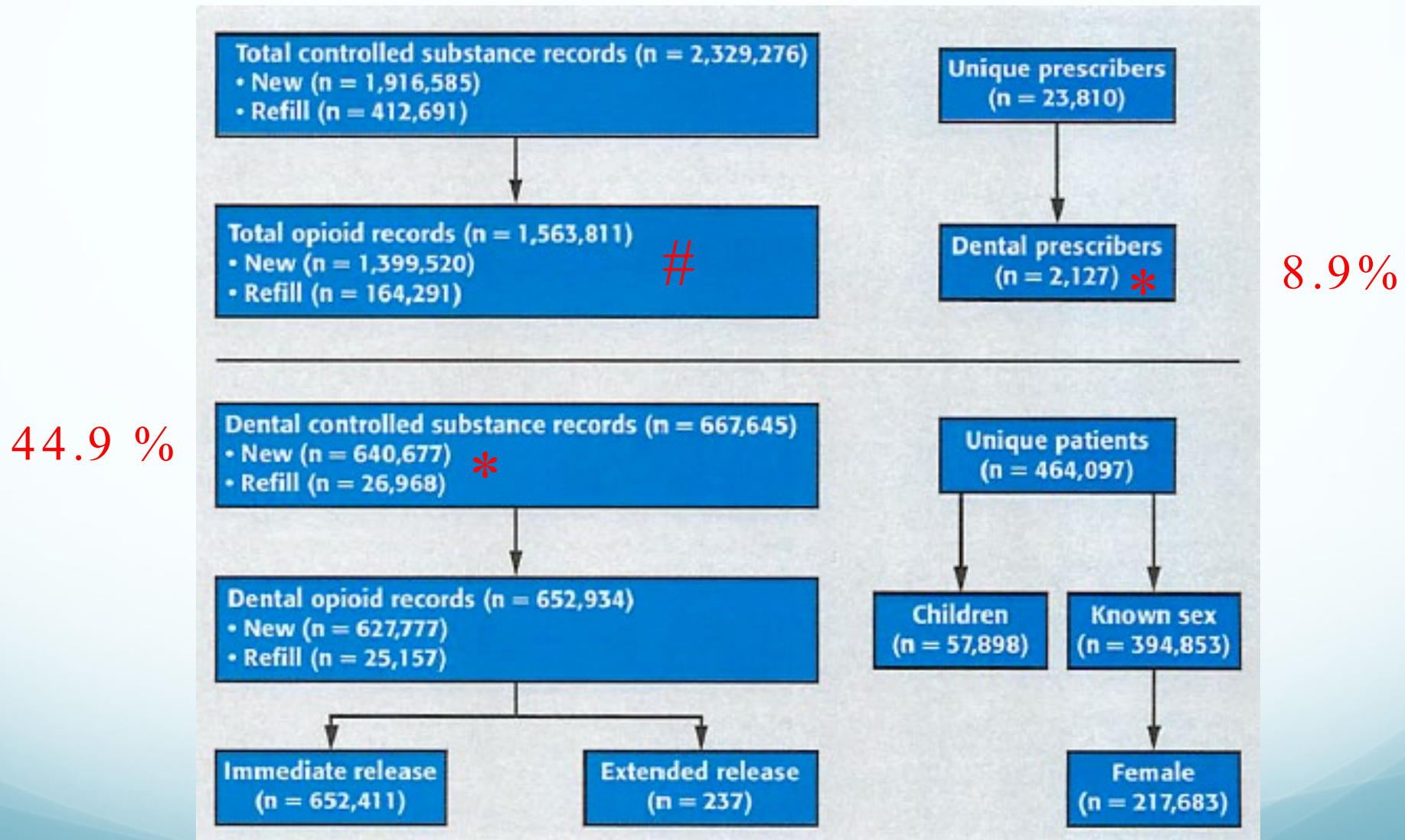
## DDS (S.C.):

- DDS (8.9%) OF PROVIDERS
- (44.9%) all opioid Rx
- (99%) IR opioids
- High frequency (20.9%) concurrent opioid Rx
- Avg. 150 opioid Rx a year per dentist

# OPIOD EPIDEMIC DDS (SOUTH CAROLINA):

- DDS (8.9%) OF PROVIDERs
- (44.9%) all opioid Rx
- (99%) IR opioids
- High frequency (20.9%) concurrent opioid Rx
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# SOUTH CAROLINA DENTAL OPIOID Rx



# OPIOD Rx: DAYS / # PILLS

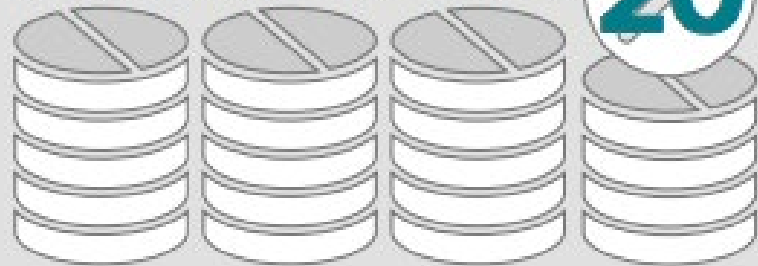
DAYS' SUPPLY AND QUANTITY OF PILLS PRESCRIBED BY DENTISTS AMONG PATIENTS WITH **PRIVATE INSURANCE** FOR 2010-15<sup>3</sup>



Median Number  
of Days' Supply:

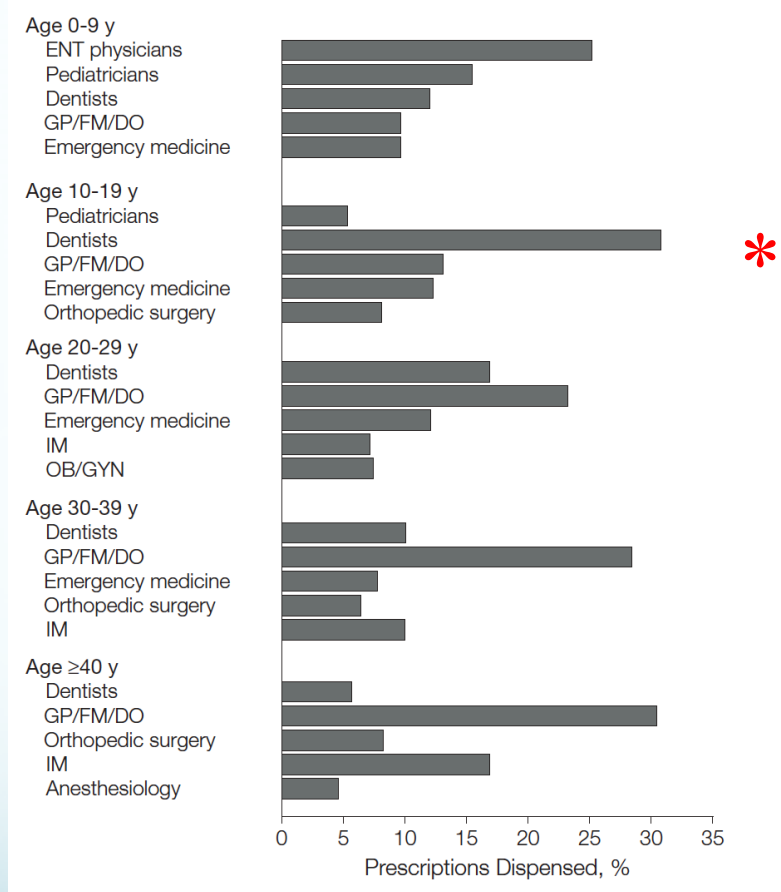
**3 DAYS**

Median Quantity of Pills Prescribed:



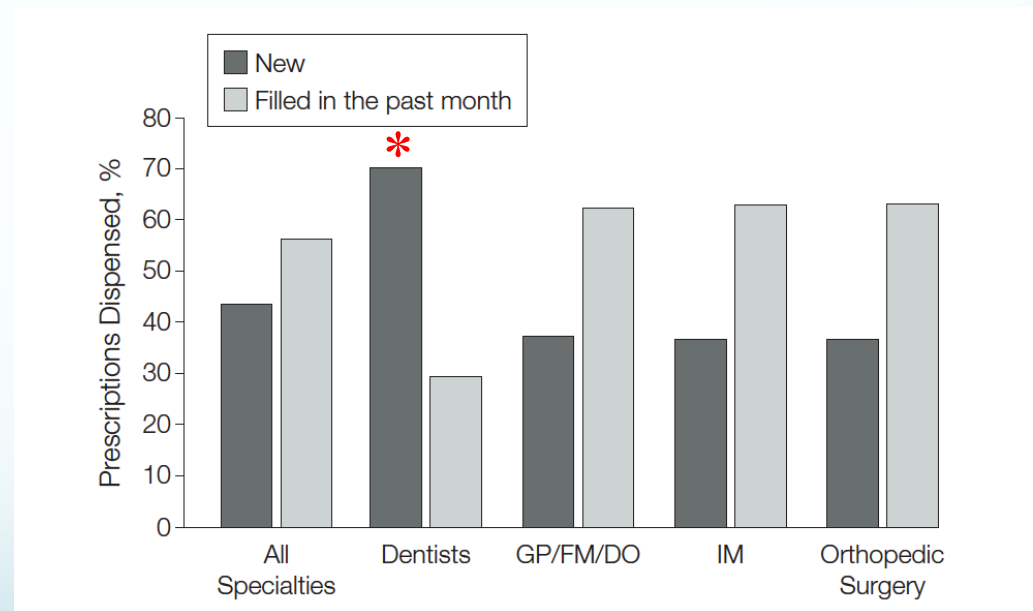
Rigoni et.al. 2017

# DENTIST Rx PATTERN



LARGEST

MOST



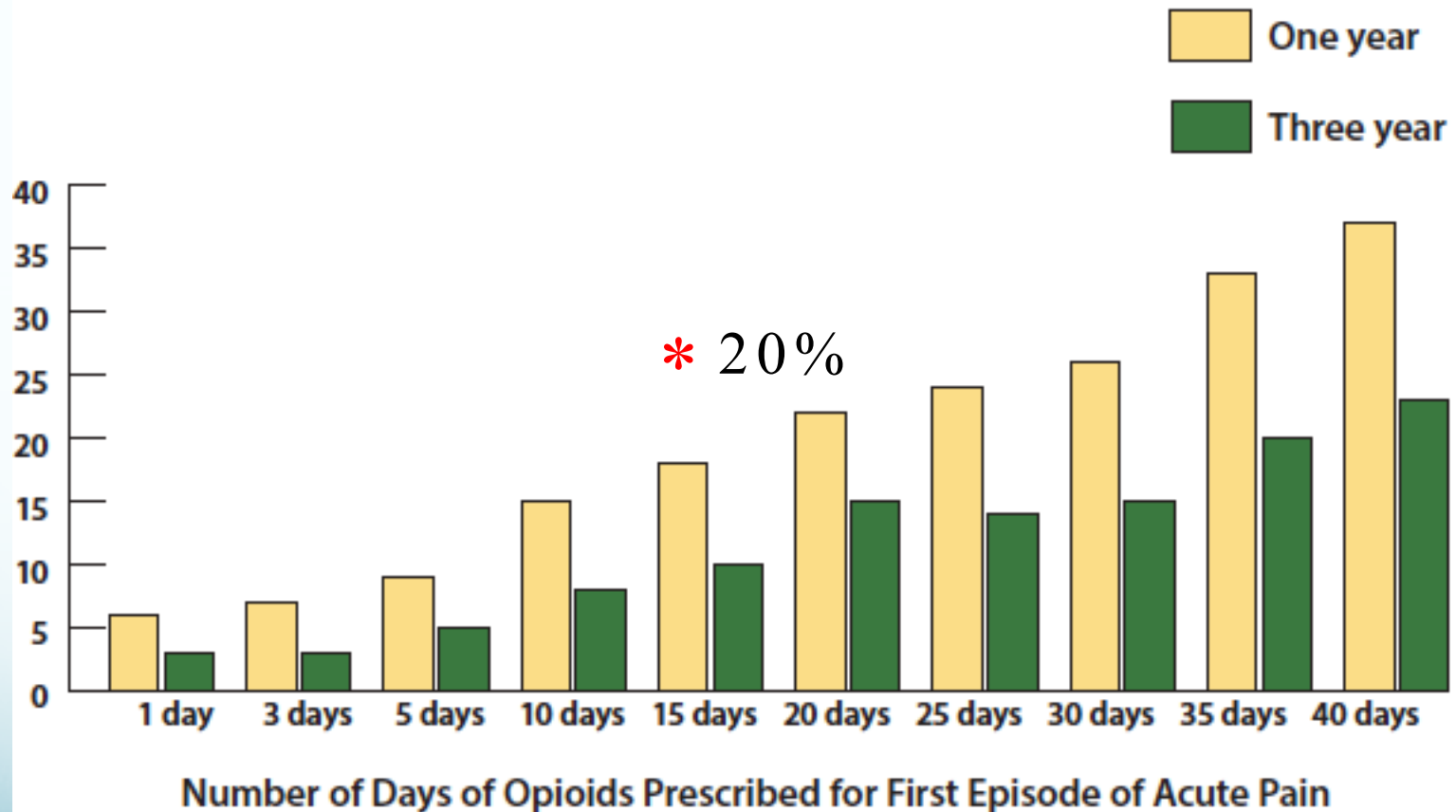
- “Legitimate opioid use before high school graduation is independently associated with a 33% increase in the risk of future misuse after high school”

## Prescription Opioids in Adolescence and Future Opioid Misuse

Richard Miech, PhD<sup>a</sup>, Lloyd Johnston, PhD<sup>a</sup>, Patrick M. O'Malley, PhD<sup>a</sup>, Katherine M. Keyes, PhD<sup>b</sup>, Kennon Heard, MD<sup>c</sup>

Journal Pediatrics 2015

Any Use of Opioids for Acute Pain Increases the Probability of Chronic Opioid Use .<sup>56</sup>





CNN Exclusive: The more opioids  
doctors prescribe, the more  
money they make

# PHYSICIAN: PRESCRIBING BEHAVIOR

- ASSESSMENT OF PAIN CHARACTERISTIC
- PATIENT-BASE CONSIDERATIONS
- HEALTH SYSTEM POLICY AND PRACTICE RELATED ISSUES

# CHRONIC NON-CANCER OPIOID Rx

- MAJOR CONCERN: (MEDICARE DATA)

- \* 1 / 3 OPIOID Rx (2010)

- \* 35% HAVE 2 OPIOID Rx

- \* 14% HAVE 3 OPIOID RX

- \* 12% HAVE 4 OR MORE

# Opioids for chronic noncancer pain

## A position paper of the American Academy of Neurology

Gary M. Franklin

- LIBERAL EXPANSION OF OPIOID Rx 1990's
- EFFICACY OF OPIOID Rx FOR CNCP: WEAK
- OPIOID Rx FOR CNCP:

“decrease pain relief, functional capacity and quality of life”

- CHRONIC OPIOID Rx: INCREASE MORBIDITY
- >90 MME: 9X OVERDOSE RISK

NEUROLOGY 2014

# Opioids for chronic noncancer pain

## A position paper of the American Academy of Neurology

Gary M. Franklin

OPIOIDS FOR CHRONIC  
CONDITIONS:

“NOT WORTH THE RISK”



March 6, 2018

# **Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain**

The SPACE Randomized Clinical Trial

\*CHRONIC OPIOIDS?

Erin E. Krebs, MD, MPH<sup>1,2</sup>; Amy Gravelly, MA<sup>1</sup>; Sean Nugent, BA<sup>1</sup>; [et al](#)

**Finally, proof: opioids are no better than other medications for some chronic pain**



Would you give  
your child  
**HEROIN**  
to remove a  
wisdom tooth?

**Ask Your Dentist How Prescription Drugs Can Lead to Heroin Abuse.**

 Partnership for a Drug-Free New Jersey  
in Cooperation with the Governor's Council on Alcoholism and Drug Abuse  
and the NJ Dept. of Human Services

**BEFORE THEY PRESCRIBE - YOU DECIDE.**  
[drugfreenj.org](http://drugfreenj.org)

HOW SHOULD WE RESPOND?

# Unwise and unnecessary: Opioids for wisdom teeth extractions



Narcotic pills are sometimes prescribed after wisdom tooth removal. (Mark Lennihan/AP)

©CBS NEWS

## Wisdom teeth removal contributes to opioid crisis, experts warn

# Jury convicts California doctor of murder in overdose deaths



Doctors increasingly face charges for patient overdoses

Missouri AG files suit against 3 opioid manufacturers

UNITED STATES OF AMERICA

v.

HOWARD GREGG DIAMOND

§

§

§

§

§

§

DEPUTY

No. 4:17CR 118

Judge Crone-Nowak

## INDICTMENT

THE UNITED STATES GRAND JURY CHARGES:

### Count One

Violation: 21 U.S.C. § 846

(Conspiracy to Possess with the Intent to Distribute and Distribution of Controlled Substances)





UNIVERSITY OF MINNESOTA  
Driven to Discover<sup>SM</sup>

## SCHOOL OF DENTISTRY

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## Opioid Abuse & Pain Management in Dentistry

Opioid Abuse in the U.S. and the Implic...  

### Opioid Abuse in the U.S. and the Implications for Dental Education

  
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DENTAL EDUCATION

AMERICAN DENTAL EDUCATION ASSOCIATION

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Register for the ADA's next FREE continuing education webinar on pain management in dentistry!

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### Prescription Opioid Abuse



# Confronting the Opioid Epidemic: How Dental Schools Can Lead

## e. LOCAL ANESTHESIA, AND PAIN AND ANXIETY CONTROL;

### Commission on Dental Accreditation Standard 2.23:

**2-23** At a minimum, graduates **must** be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:

- a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
- b. screening and risk assessment for head and neck cancer;
- c. recognizing the complexity of patient treatment and identifying when referral is indicated;
- d. health promotion and disease prevention;

*e. local anesthesia, and pain and anxiety control*

*e. local anesthesia and pain and anxiety control,*  
**Including consideration of the impact of prescribing practices and substance abuse disorder;**

- o. evaluation of the outcomes of treatment, recall strategies, and prognosis

# Recommendation:

“nonsteroidal anti-inflammatory drugs  
(NSAIDs)-- rather than opioids— be utilized as a first-line  
therapy to manage a patient’s acute and  
post- surgical pain”

# MN- HHS BILL 5 / 2017

“limit on quantity (4 days) opiates prescribed for acute dental and ophthalmic pain”

500.11      Subd. 4. Limit on quantity of opiates prescribed for acute dental and ophthalmic  
500.12 pain. (a) When used for the treatment of acute dental pain or acute pain associated with  
500.13 refractive surgery, prescriptions for opiate or narcotic pain relievers listed in Schedules II  
500.14 through IV of section 152.02 shall not exceed a four-day supply. The quantity prescribed  
500.15 shall be consistent with the dosage listed in the professional labeling for the drug that has  
500.16 been approved by the United States Food and Drug Administration.

500.17      (b) For the purposes of this subdivision, "acute pain" means pain resulting from disease,  
500.18 accidental or intentional trauma, surgery, or another cause, that the practitioner reasonably  
500.19 expects to last only a short period of time. Acute pain does not include chronic pain or pain  
500.20 being treated as part of cancer care, palliative care, or hospice or other end-of-life care.

500.21      (c) Notwithstanding paragraph (a), if in the professional clinical judgment of a practitioner  
500.22 more than a four-day supply of a prescription listed in Schedules II through IV of section  
500.23 152.02 is required to treat a patient's acute pain, the practitioner may issue a prescription  
500.24 for the quantity needed to treat such acute pain.

April 19, 2016

# **CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016**

- NONPHARMACOLOGIC/ NONOPIOID THERAPY
- BENEFIT VS RISK
- LOWEST EFFECTIVE DOSE: 50MME
- ACUTE PAIN: LOW DOSE/ 3 DAYS
- PDMP QUERY/ URINE TEST/ AVOID BENZODIAPINES
- MAT FOR SUD

# FEDERAL OPIOID: INITIATIVES

- PAIN MANAGEMENT TASK FORCE

“GAPS AND INCONSISTENCIES CBP’S FOR PAIN MANAGEMENT”

- \* CDC PRESCRIBING ESTIMATE WORKGROUP

“OBTAIN BROAD AND TRANSPARENT INPUT”

- HEAL INITIATIVE

“ 1.1 BILLION FUNDING 2018”

# MINNESOTA OPIOID EPIDEMIC



“Prince”

Died April 21, 2016.

Cause of death – fentanyl overdose

# Reliance on opioids: One of the greatest mistakes in medical history

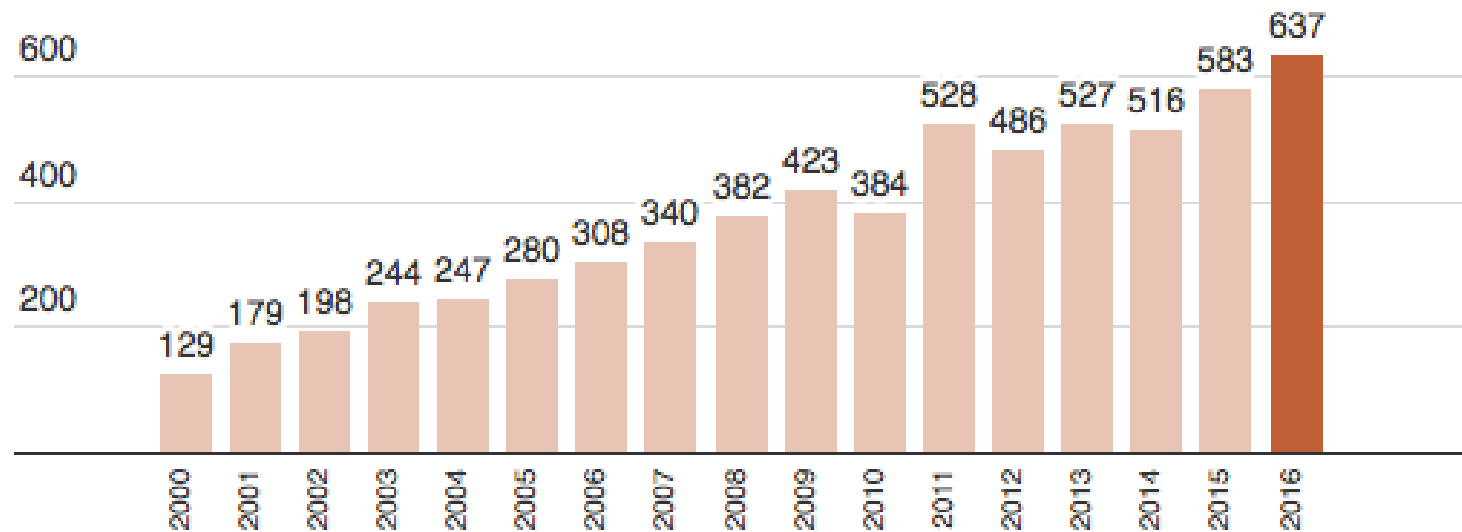


“DENTAL”

The worst public health crisis in our time was brought about by the practice of medicine.

# Drug overdose deaths in Minnesota continue to rise

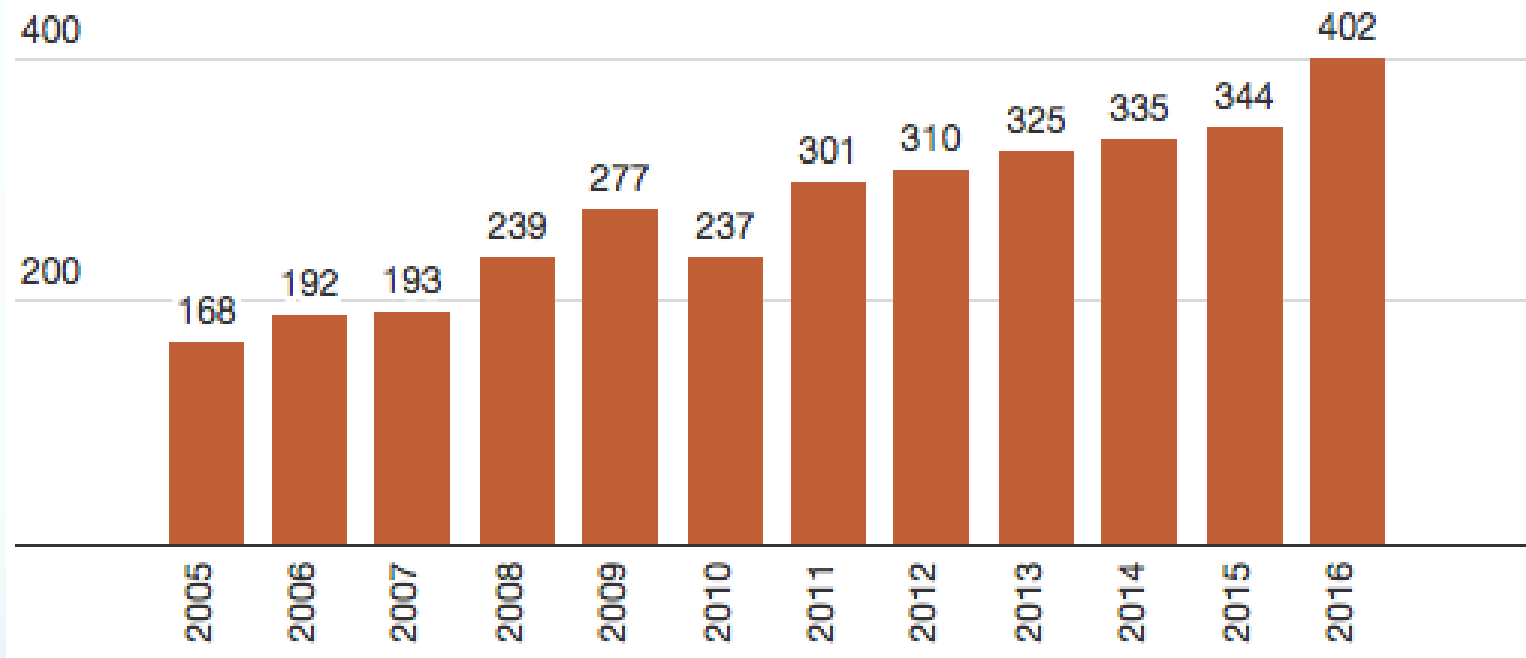
The death tally in 2016 was nearly six times higher than in 2000.



Source: Minnesota Department of Health • Created with Datawrapper

# Total opioid-related deaths in Minnesota since 2005

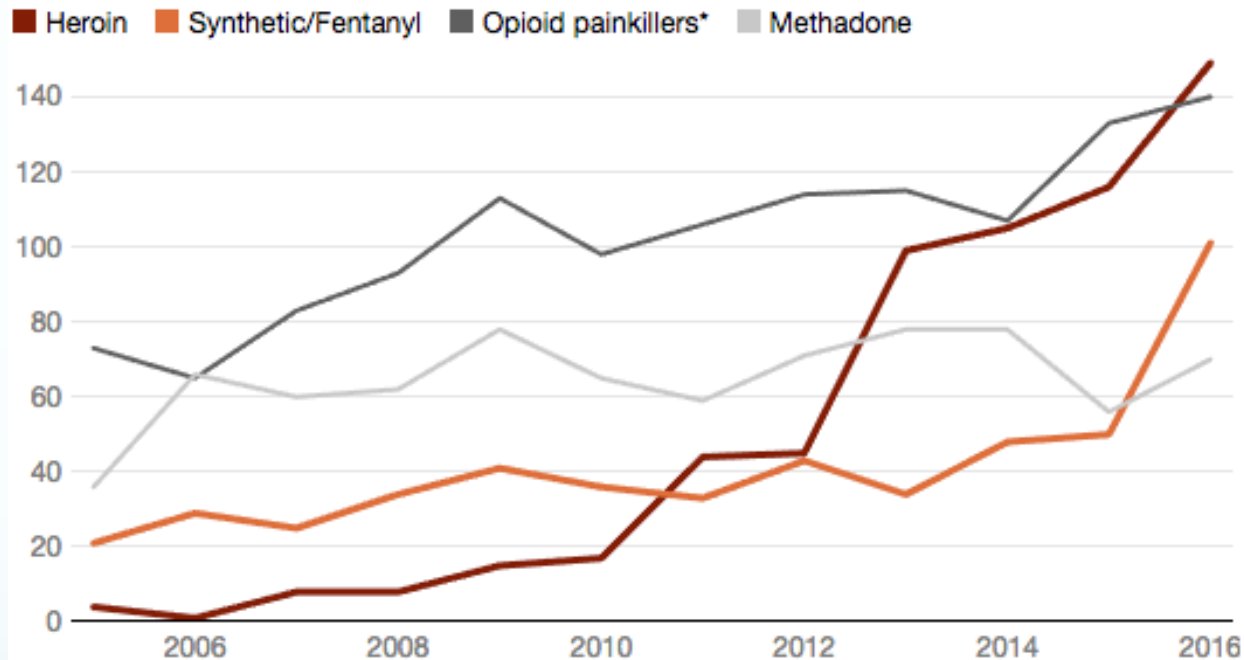
Heroin and fentanyl abuse resulted in an overall increase in opioid-related deaths in 2016.



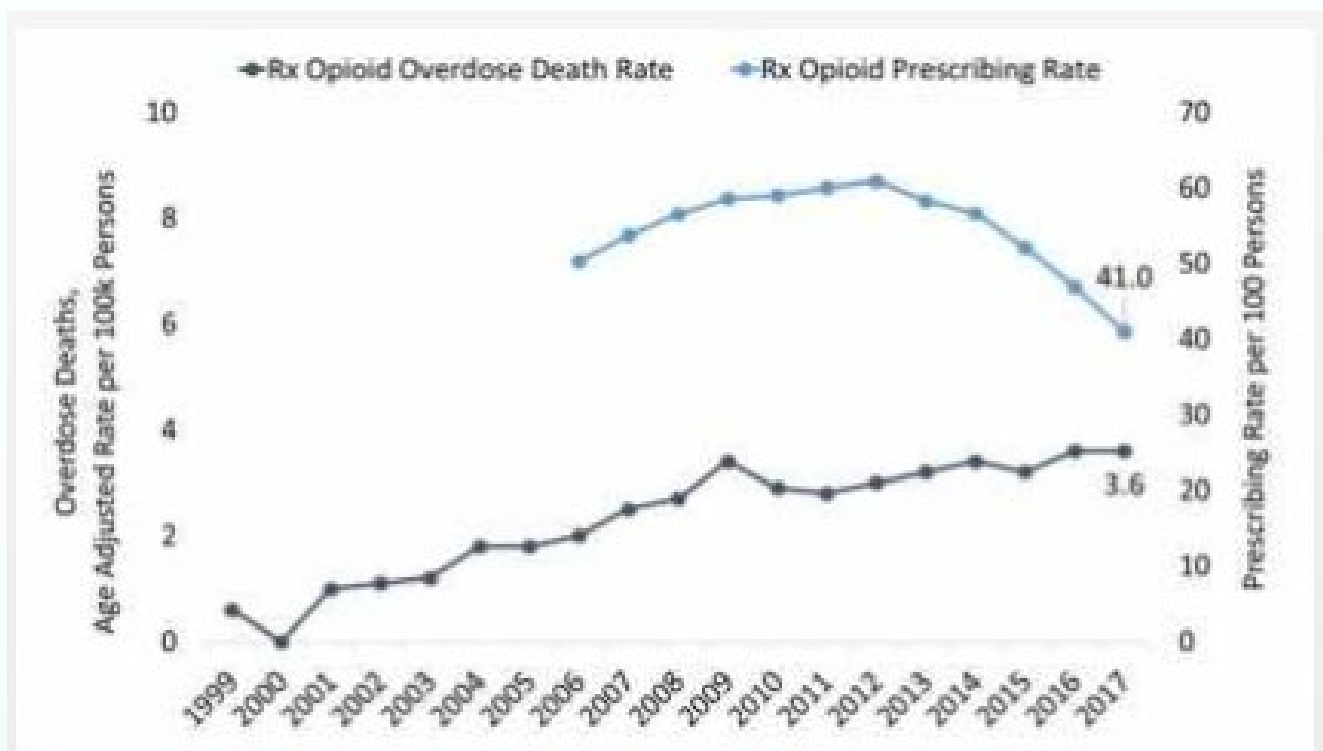
\* MNNESOTA OPIOID DASHBOARD

## Opioid-related deaths in Minnesota by drug type

More death certificates listed illicit heroin as a contributing cause of death in 2016 than common prescribed opioid painkillers such as oxycodone.



*\*This category includes hydrocodone and oxycodone, but not methadone or synthetics/ fentanyl. In some cases, deaths were linked to multiple categories of opioid drugs.*

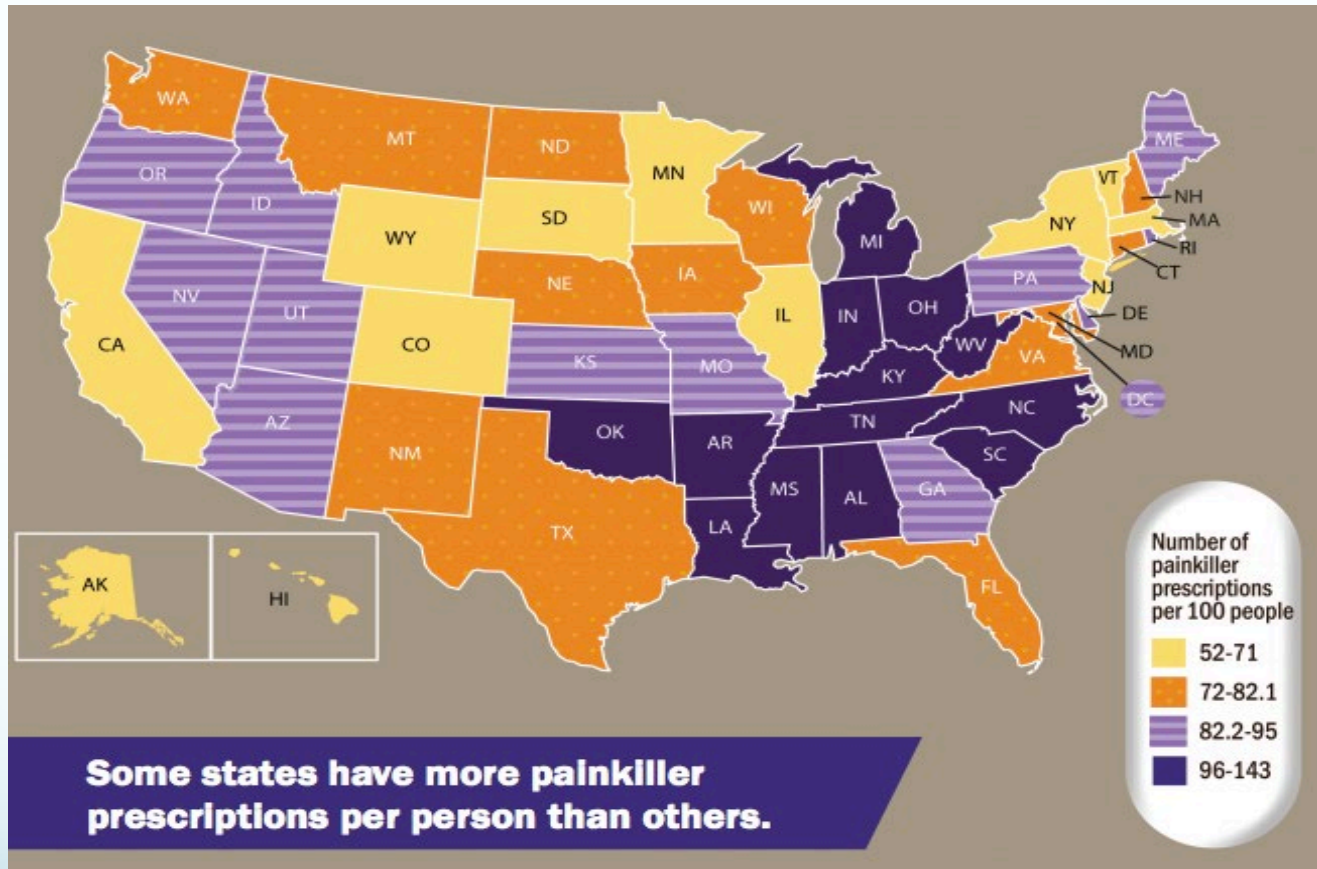


**Figure 2. Minnesota rate of overdose deaths involving prescription opioids and the opioid prescribing rate.**

Source: CDC and CDC WONDER.

# OPIOID Rx/ 100

MN (41/ 100) vs USA (59/ 100)



2018

# **76 billion opioid pills: Newly released federal data unmask the epidemic**



Minnesota ▼

Hennepin County ▼

- From 2006 to 2012 there were **195,431,745** prescription pain pills, enough for **24** pills per person per year, supplied to **Hennepin County, Minn.**
- **70,044,890** of the pills were distributed by **McKesson Corporation** and **94,427,848** were manufactured by **SpecGx LLC.**
- **OMNICARE - MINNESOTA, BROOKLYN CENTER** pharmacy received the

Minnesota ▼

State-wide ▼

- From 2006 to 2012 there were **841,686,630** prescription pain pills supplied to **Minnesota**.
- **252,720,105** of the pills were distributed by **McKesson Corporation** and **399,649,810** were manufactured by **SpecGx LLC**.
- **OMNICARE - MINNESOTA, BROOKLYN CENTER** pharmacy received the highest number of pills.

## Distributors

Top five, from 2006 to 2012, in Hennepin County, Minnesota.


### McKesson Corporation

 70,044,890 pills


### Walgreen Co

 57,390,050


### Cardinal Health

 21,703,620

### AmerisourceBergen Drug

 11,123,640

### Omnicare Distribution Center LLC

 10,154,800

**Download distributor data for Hennepin County, Minnesota**

[Get chart as image](#)

## Manufacturers

Top five, from 2006 to 2012, in Hennepin County, Minnesota.


### SpecGx LLC

 94,427,848 pills

### Actavis Pharma, Inc.

 61,441,258

### Par Pharmaceutical

 11,716,180

### Purdue Pharma LP

 11,456,860

### Amneal Pharmaceuticals LLC

 3,597,100

**Download manufacturer data for Hennepin County, Minnesota**

[Get chart as image](#)

## Pharmacies

Top five, from 2006 to 2012, in Hennepin County, Minnesota.

### OMNICARE - MINNESOTA, BROOKLYN CENTER

 12,602,200 pills


### HCMC P-1 PHARMACY, MINNEAPOLIS

 6,016,100

### ALLINA HEALTH HEART HOSPITAL PHARMAC...

 4,670,744

### FAIRVIEW EDINA PHARMACY, EDINA

 3,901,930

### WALGREEN CO., MINNEAPOLIS

 3,468,300

**Download pharmacy data for Hennepin County, Minnesota**

[Get chart as image](#)



## OMNICARE - MINNESOTA



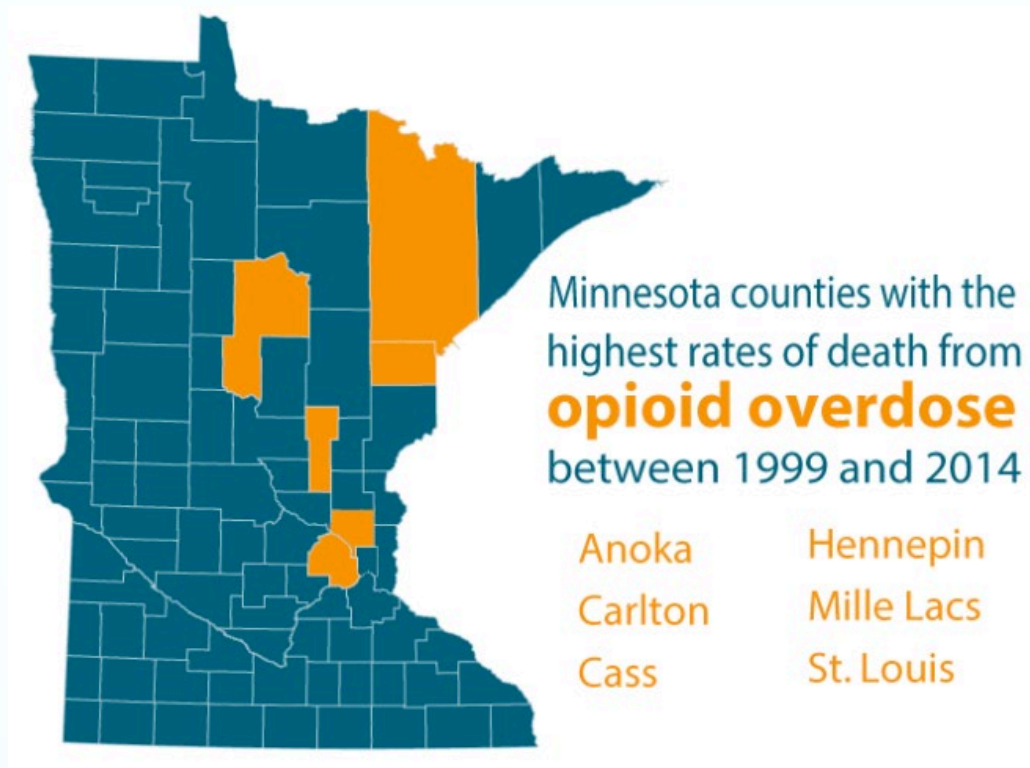
### HENNEPIN COUNTY

4001 LAKE BREEZE AVE BROOKLYN  
CENTER MN 55429

#### Large number of pills for county

- **12,602,200** pills were shipped to this pharmacy between 2006 and 2012.
- About enough for **28 pills per year** for each of the **63,877** people who live within five miles of this pharmacy.

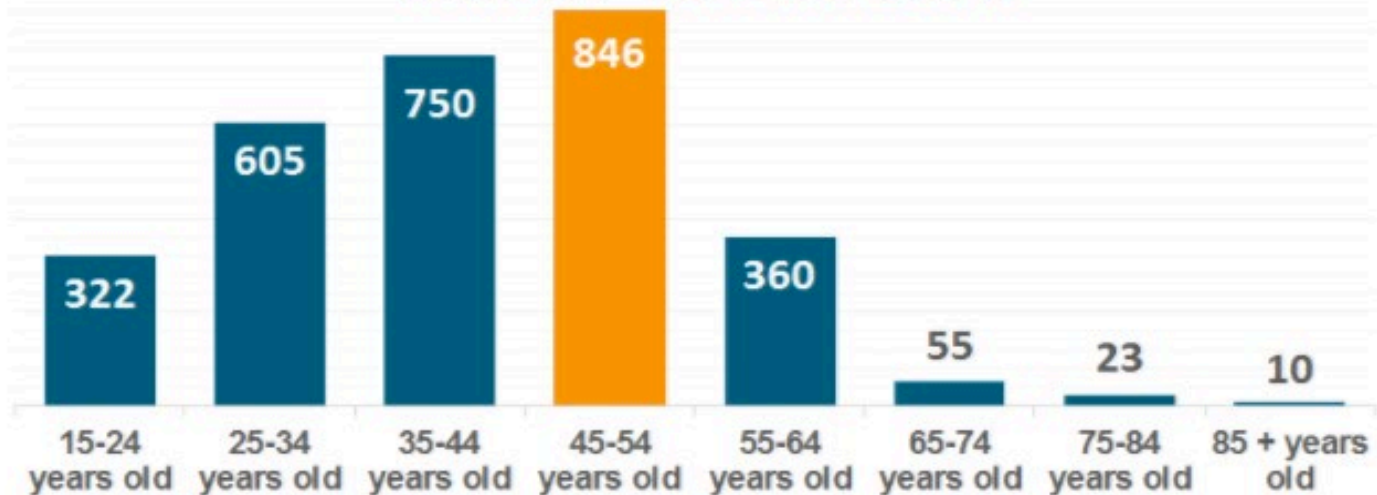
[Download data for this pharmacy](#)



MINNESOTA

# OPIOID EPIDEMIC: MN

More people **between the ages of 45 and 55 years old** died of opioid overdose in Minnesota than those in any other age group between 1999 and 2014.



# OPIOID EPIDEMIC: MN

WHO DIES FROM  
AN OVERDOSE

- MALE
- WHITE
- 45-54 YEARS OLD
- MOST DIE AT HOME.



# Minnesota hospital confronts dilemma of opioid addicts who are expectant moms



2012-- 624 NEWBORNS EXPOSED DRUGS/ ALCOHOL

2016-- 1,300 NEWBORNS EXPOSED DRUGS/ ALCOHOL

# Opioid crisis strains Minnesota's child protection system

Parental drug abuse forces thousands into foster care.

## Child abuse reports accepted for review in Minnesota

The number of reports "screened in" has increased dramatically in recent years.

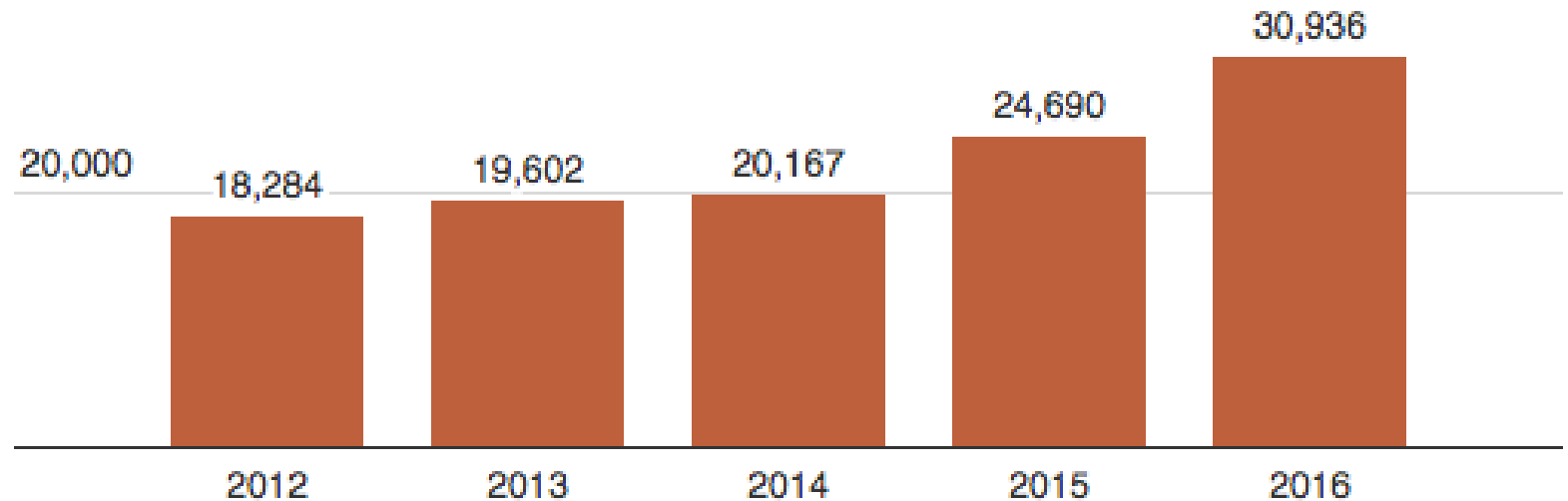


Chart: C.J. Sinner, Star Tribune • Source: Department of Human Services • Created with Datawrapper

# MN NATIVE AMERICAN OPIOID EPIDEMIC

DEC 18, 2017:

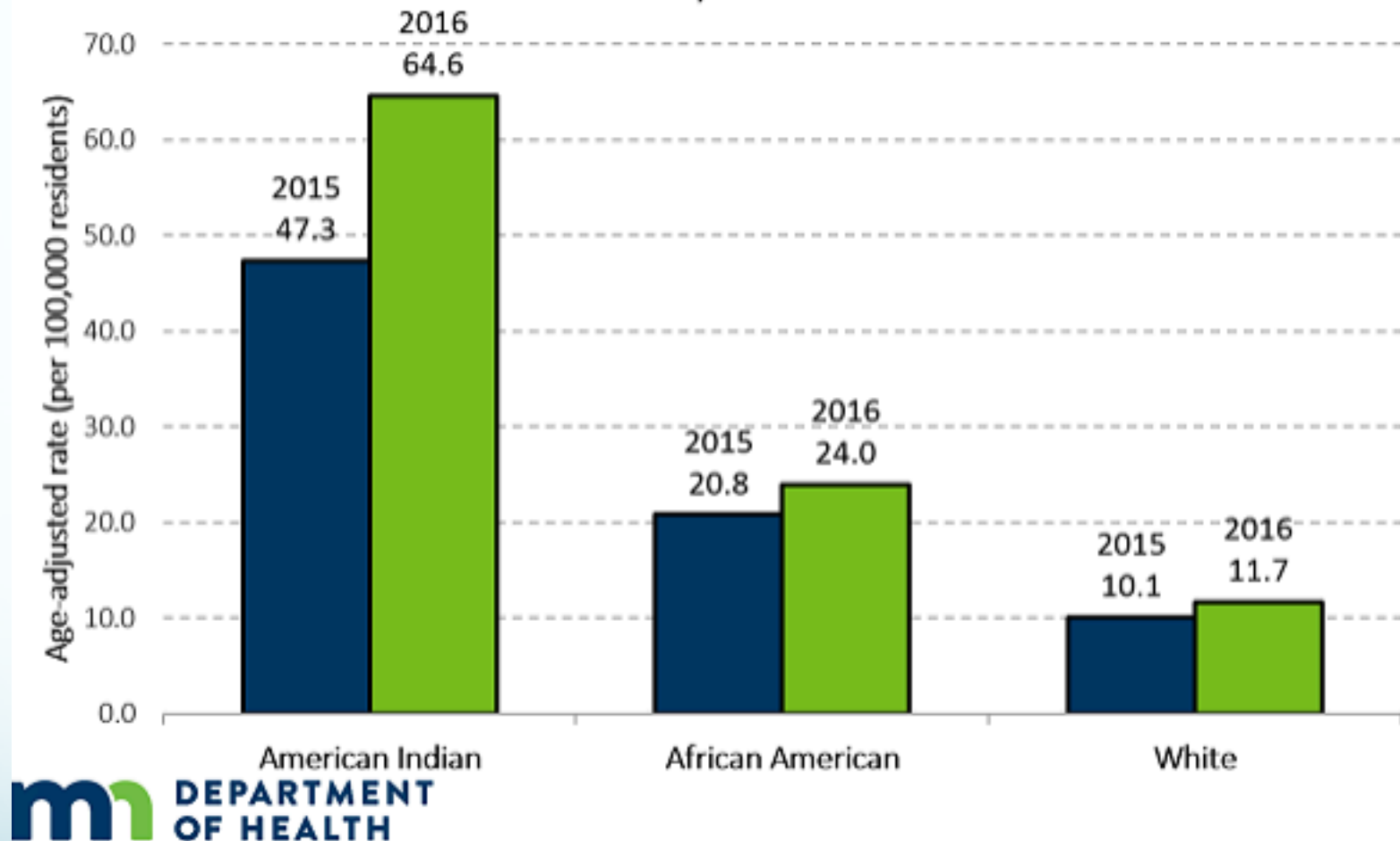
“7 OVERDOSES AND 2 DEATHS IN 48 HOURS”

WHITE EARTH POLICE

# Native Americans Slammed By Opioid Crisis

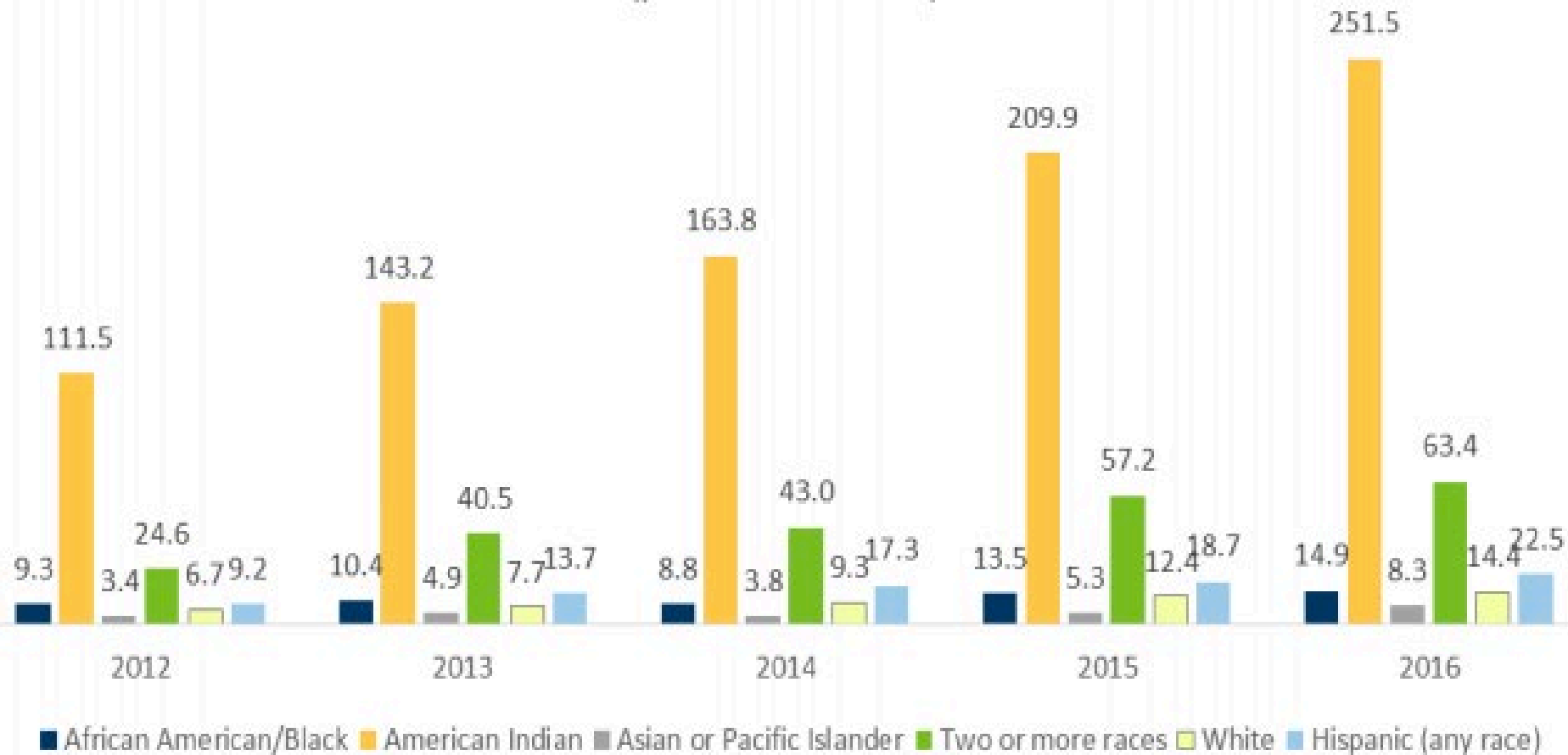
- 5x OVERDOSE DEATHS (1999-2015)
- AI OVERDOSE DEATH IS HIGHEST/ USA
- OPIOID Rx MISUSE 2X WHITES ( 1/ 10)
- 6X OPIOID DEATHS (WHITES)

Drug overdose mortality rates by race,  
MN Residents, 2015 and 2016



6 X MORE LIKELY THAN WHITES

## Children entering care - drug use as a reason (per 10,000 children)



# UM SCHOOL OF DENTISTRY

## **NON-OPIOID INITIATIVE**

# UM SOD CURRICULUM:

- DENTAL PHARMACOLOGY (D2)
  - non-opioid analgesics (1 hr)
  - opioids (2hr)
- PAIN AND ANXIETY (D20)
  - analgesics (1 hr)
- CLINICAL CORRELATIONS IN PHARMACOLOGY (D3)
  - Rx rules/ regs PDMP (1 hr)
  - Pharmacology of analgesics (1 hr)
  - Rx analgesics (1 hr)



# OPIOID RX: URBAN MYTHS

- OPIOID Rx: “GOLD STANDARD” FOR ACUTE DENTAL PAIN
- OPIOID Rx: LOW ADDICTION POTENTIAL RX POST-OP PAIN
- OPIOID RX: SO AS NOT TO BE CALLED AFTER HOURS/ WK
- TWO Rx: NSAIDS AND OPIOID FOR “BREAK THROUGH PAIN
- \* INCREASE PAIN MANAGEMENT FAILURES
- ADDICTION, ABUSE, AND DIVERSION: NOT DENTAL PROBLEM

# UM SOD: INITIATIVE

## 5 opioids risk management strategies

1. Prevention & education
2. Minimizing early exposure
3. Reducing inappropriate supply
4. Treating the at-risk & high-risk
5. Supporting chronic populations and those in recovery

TARGET: 1, 2, 3

# ACUTE POSTOPERATIVE PAIN: Rx PROTOCOL MN SOD

- PURPOSE:

“TO ESTABLISH A PROTOCOL FOR SAFE POSTOPERATIVE ACUTE PAIN OPIOID Rx AND ARE INTENDED TO SUPPLEMENT AND NOT REPLACE INDIVIDUAL PRESCRIBER’S CLINICAL JUDGEMENT”

# Rx OPIOD: P R O T O C O L

“Our Division of OMFS is taking a leadership role in addressing the opioid crisis. Your involvement and adherence to this policy will make a impactful difference. Please review the attached”

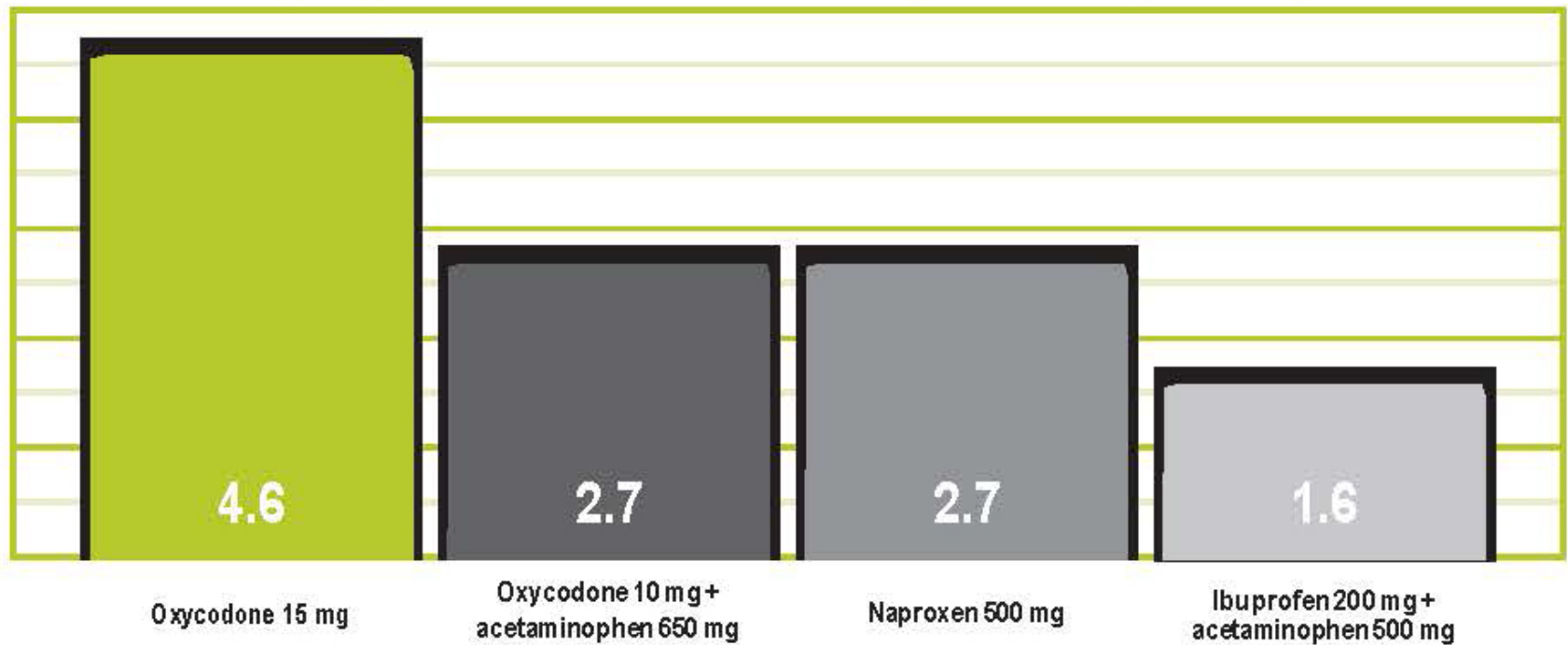
# Rx OPIOID: GUIDELINE

## NSAIDS FIRST LINE

- All opioid Rx must be documented in Axium as to the indications ie. allergy, inadequate pain management from NSAIDS etc.
- 2. Primary use of e-Rx for opioid Rx
- 3. Pre-emptive use of NSAIDS or ACETAMINOPHEN prior to dental procedures under local
- 4. Pre-emptive use of IV Toradol prior to dental procedures under IV
- 5. Routine use of long acting LA after all dental procedures
- 6. Recommend that opioid Rx be limited to a 3 day supply
- 7. Mandatory consultation with appropriate MD or DDS with hx of addiction tx and or on chronic opioid Rx

# EVIDENCE BASE:

Number of people needed to treat for one person to get 50% pain relief



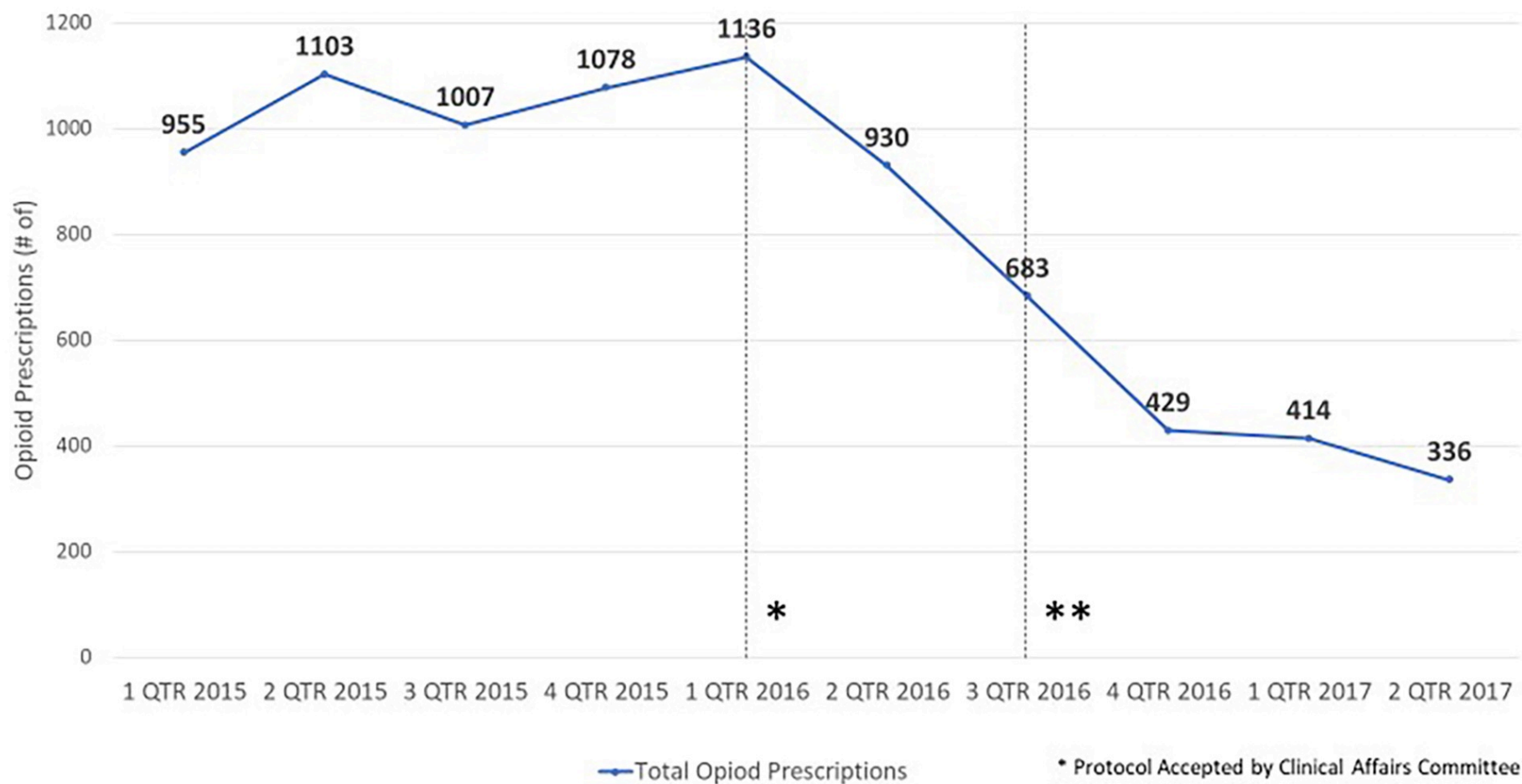
JADA 2013

# ORAL ANALGESIC EFFICACY

“IBUPROFEN 400MG WAS AS EFFECTIVE AS  
VICODIN 10 MG THERAPY AND WAS SUPERIOR TO  
SINGLE-ENTITY OXYCODONE 15MG OR VICODIN 5  
MG”

COCHRANE DATABASE SYST REV 2009

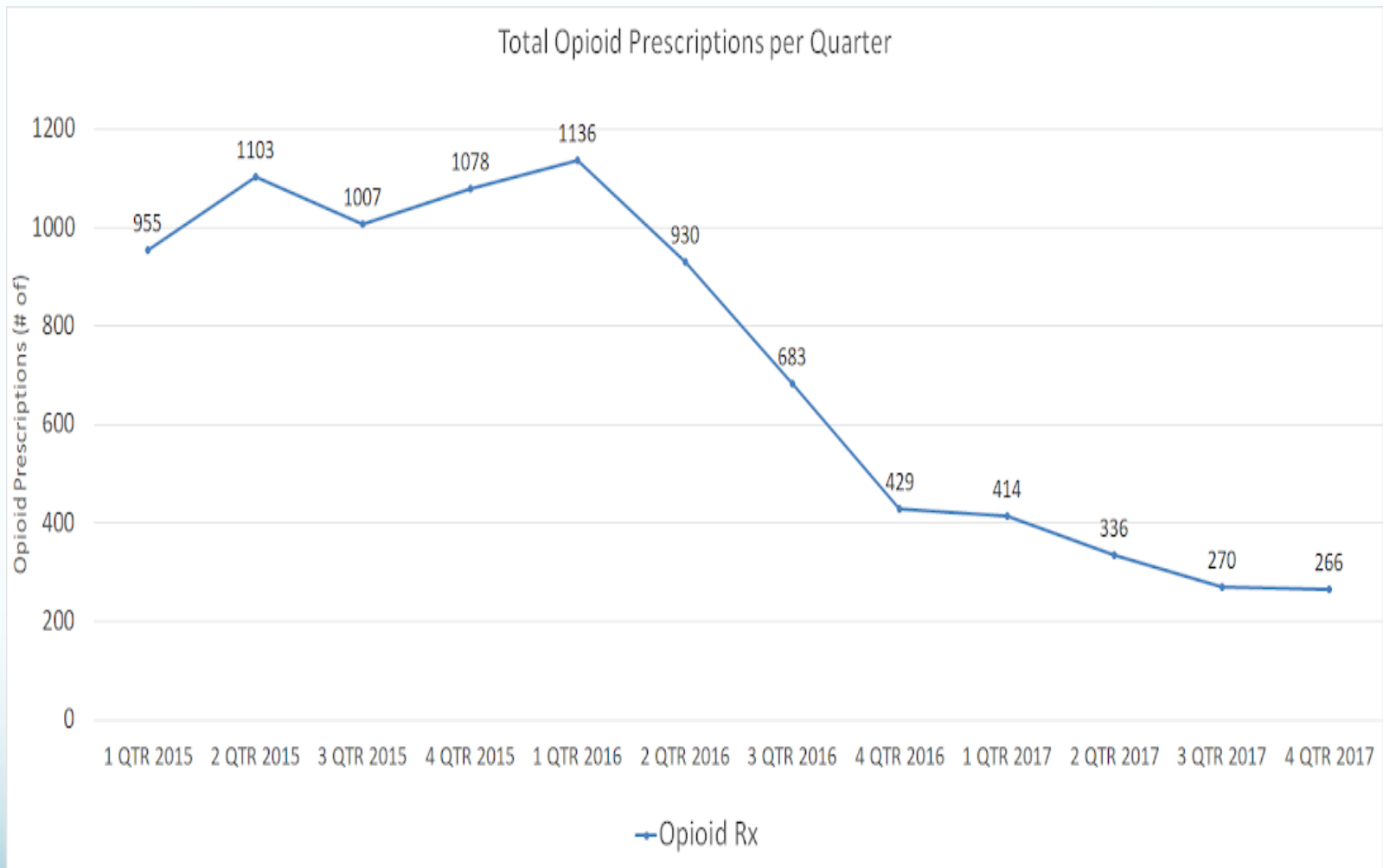
Total Opioid Prescriptions per Quarter



\* Protocol Accepted by Clinical Affairs Committee

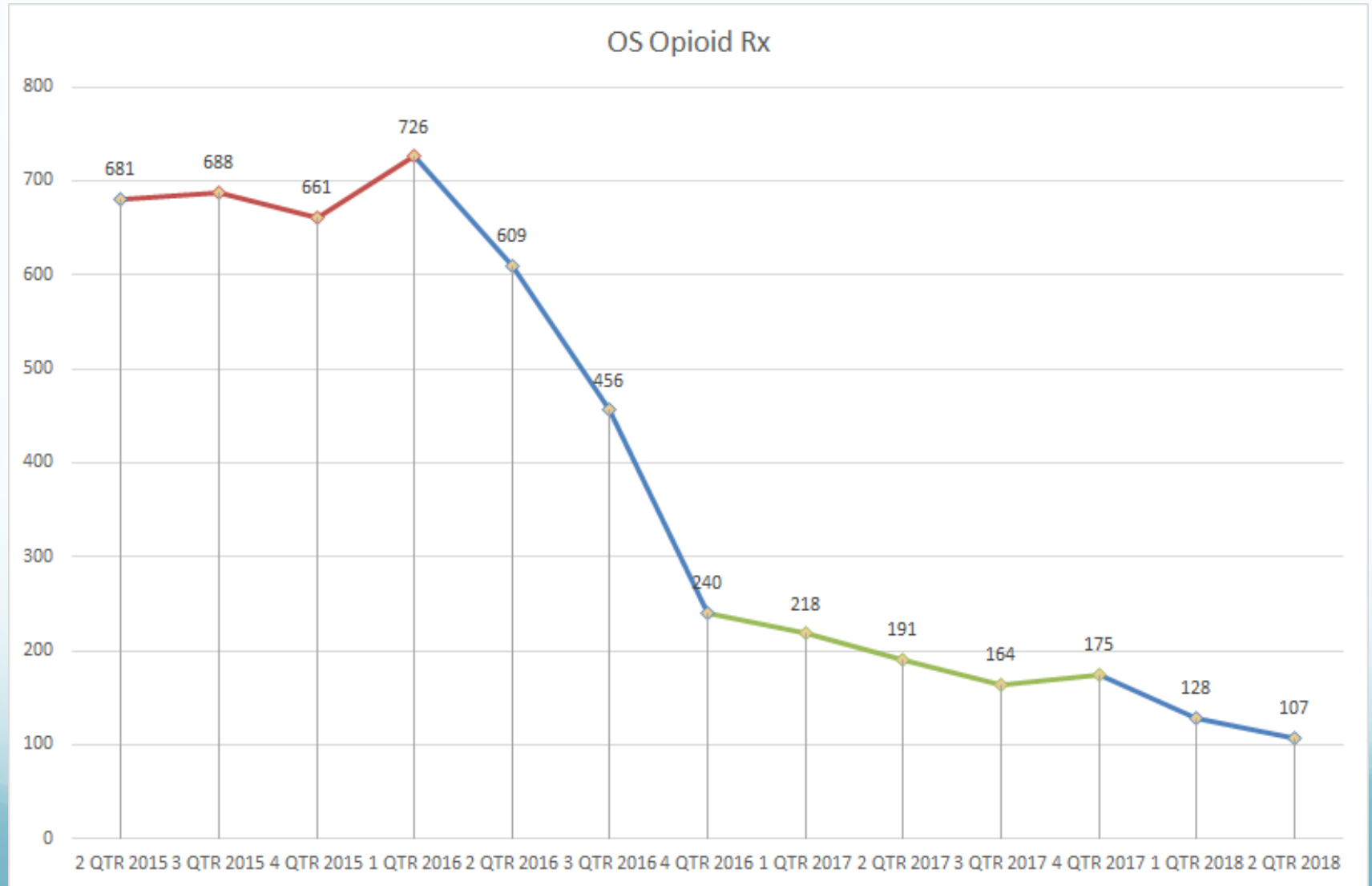
\*\* eRX Implemented in Department of OMFS

# TOTAL UM SOD OPIOID Rx per QUARTER

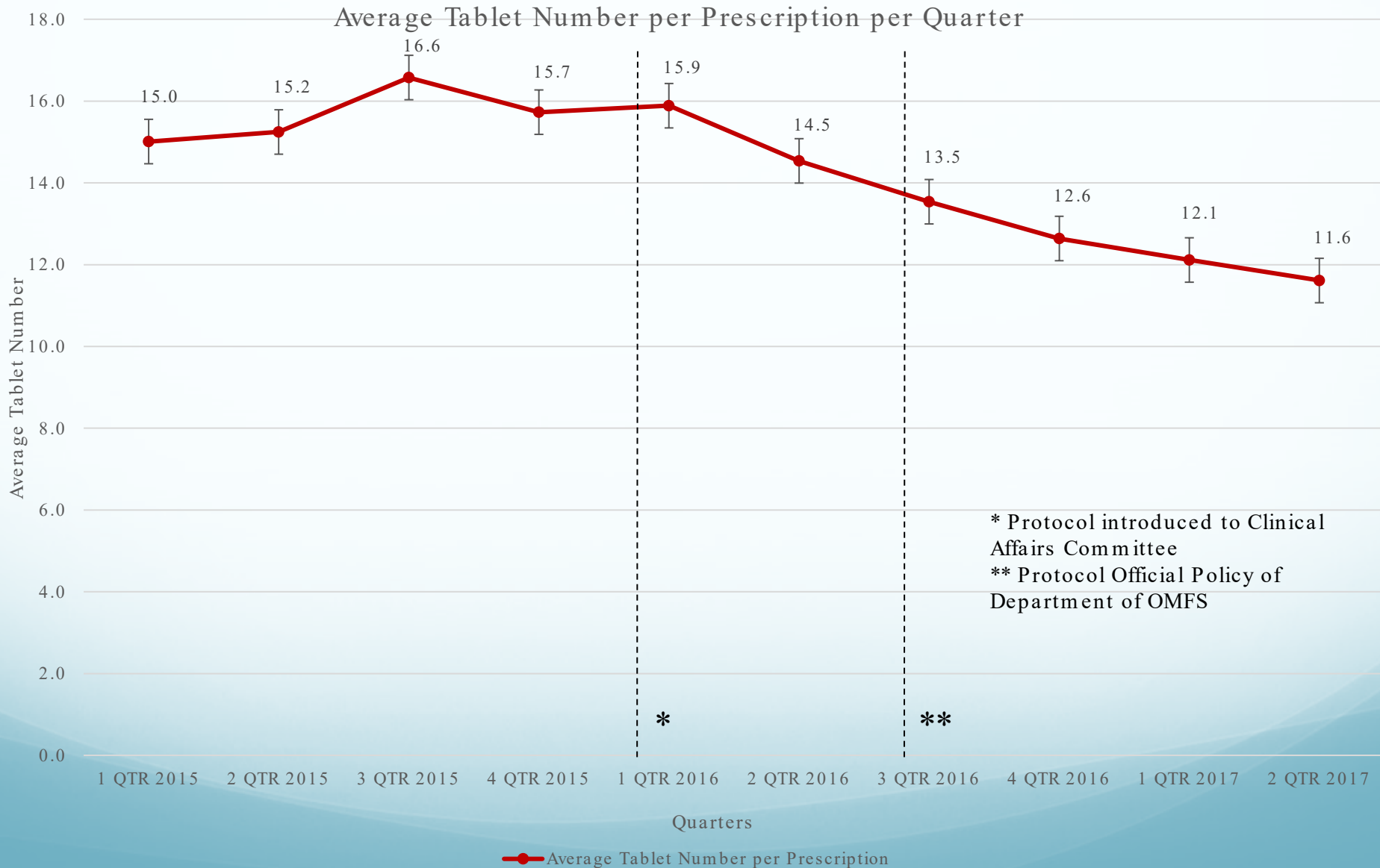


DECREASED OPIOID Rx: 77%

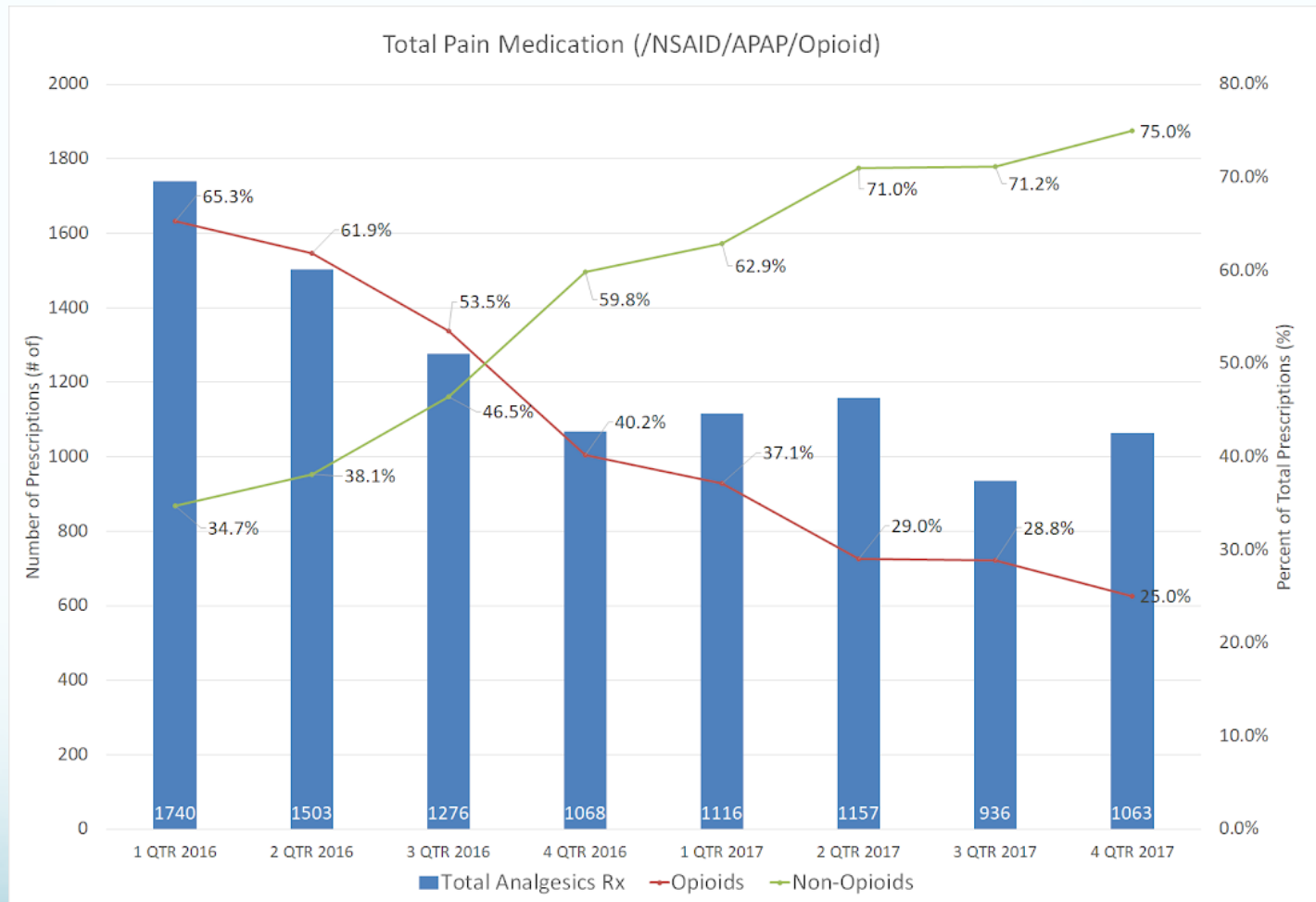
# OMFS OPIOID Rx: 2015- 2018



# OPIOID Rx Tab/ Quarter

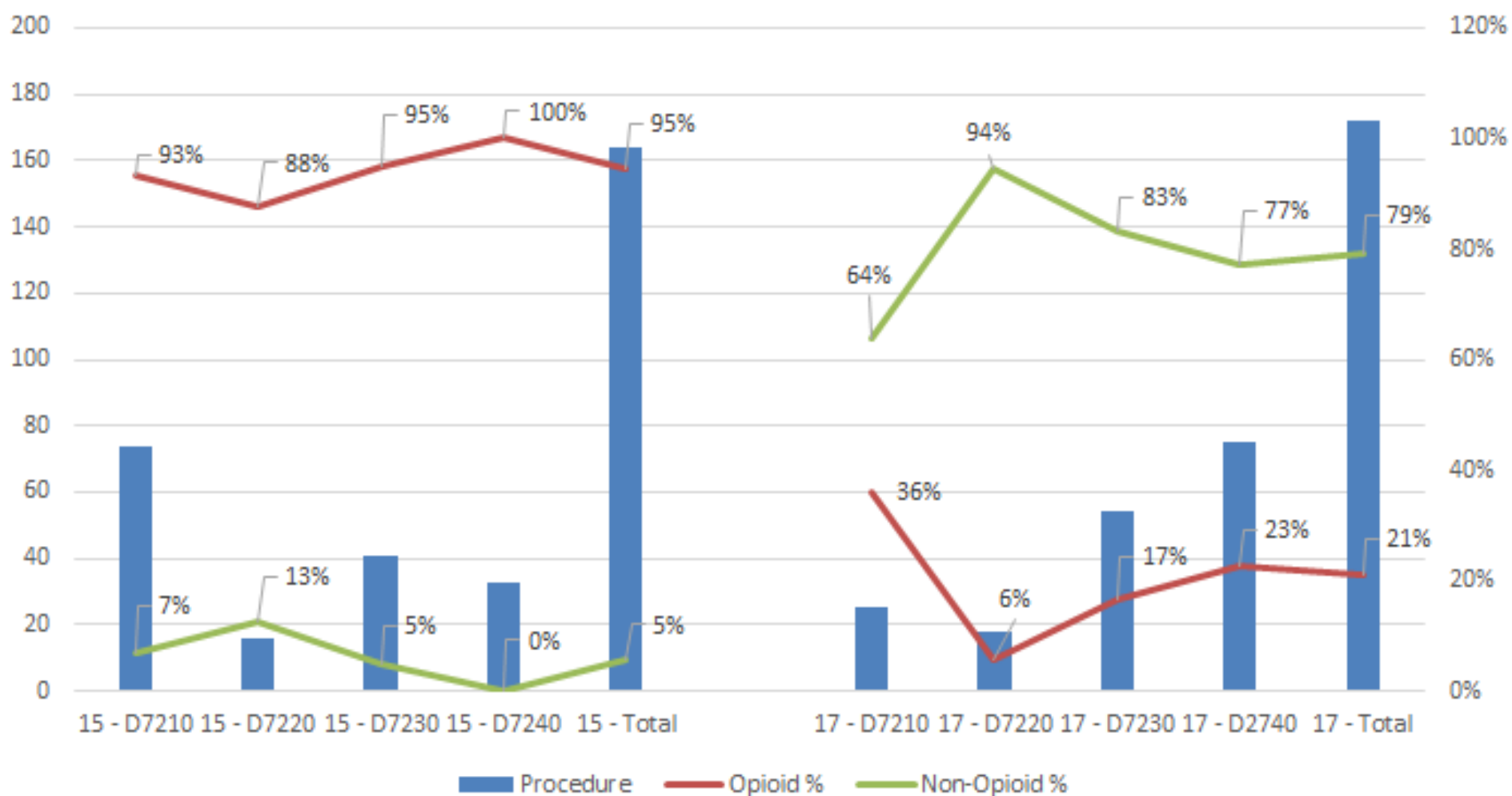


# TOTAL PAIN RX: OPIOID VS NSAIDS



<2015-2017- 69%

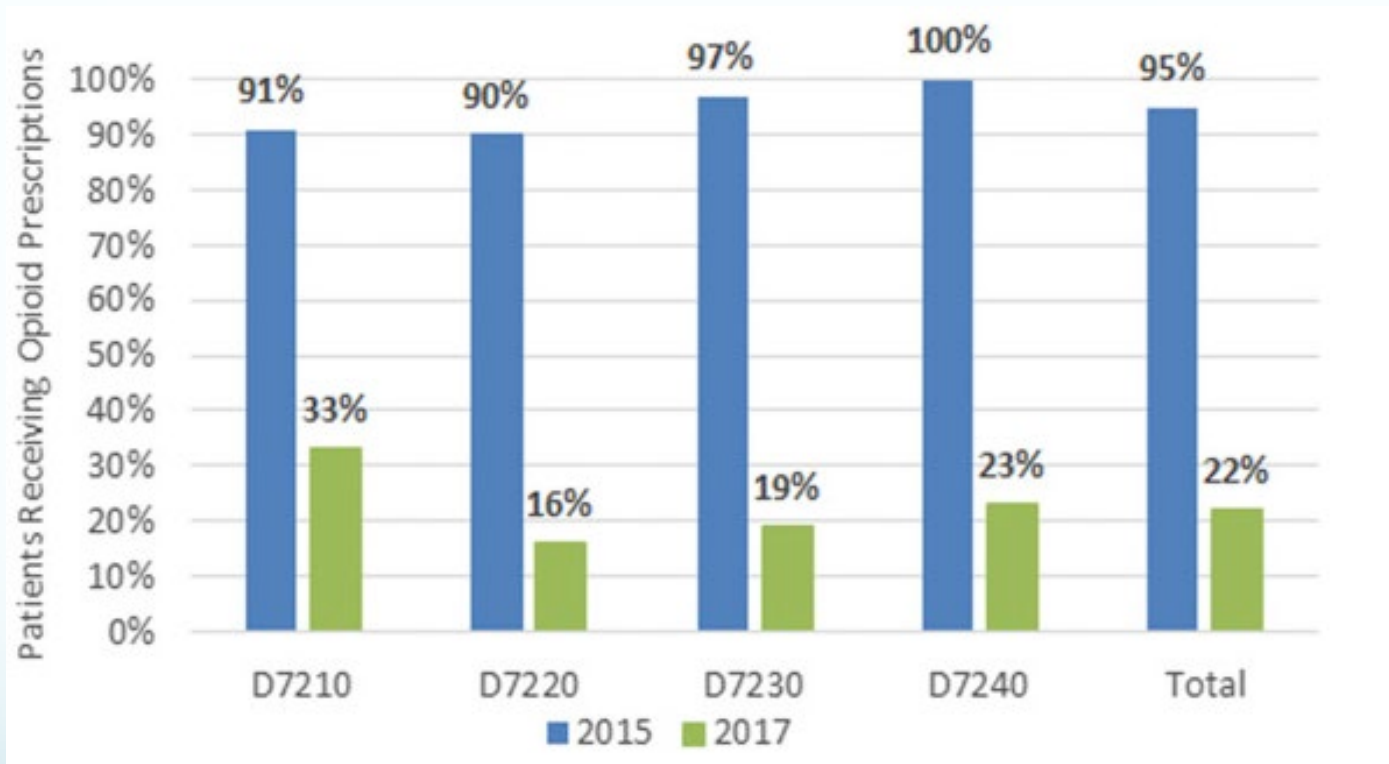
## Opioid vs Non-Opioid



# Effectiveness of protocol in managing post-operative pain

- 172 patients
- 20% were prescribed opioid prescription following procedure
  - 80 % prescribed ibuprofen and acetaminophen
- 2 patients were prescribed an opioid prescription within 7 days of procedure (1.2%)
- There was no significant difference between the incidence of rescue opioids in patients who were initially treated with opioids vs non-opioids.

# 3<sup>rd</sup> Molar Extractions



JOMS 4/2019

OPIOID Rx ANALGESIC

# An Opioid Prescribing Protocol Decreases Opioid Prescribing after Third Molar Extraction Procedures

P. Tompach, C. Wagner, A.B. Sunstrum

University of Minnesota

R. Nadeau, H.K. Tu

JOMS 4/2018

# CONCLUSION:

- DDS ARE OVERCOMPENSATING FOR LEVEL OF PAIN EXPERIENCE BY PATIENTS
- PAIN FROM DENTAL TX OVERRATED BY DDS AND PATIENTS
  - \* NSAIDS SUFFICIENT ANALGESIC
- PAIN NO LONGER IMAGE OF DENTISTRY

PREScriBER BEHAVIOR:

“SHOULD AND CAN CHANGE  
IN A SCHOOL OF DENTISTRY”

# The Prescription Opioid and Heroin Crisis: A Public Health Approach to an Epidemic of Addiction

## Annual Review of Public Health

Vol. 36:559-574 (Volume publication date March 2015)

First published online as a Review in Advance on January 12, 2015

<https://doi.org/10.1146/annurev-publhealth-031914-122957>

## The Poison We Pick

This nation pioneered modern life. Now epic numbers of Americans are killing themselves with opioids to escape it.

By Andrew Sullivan



QUESTIONS? [HKTU@UMN.EDU](mailto:HKTU@UMN.EDU)