

Opioid Curriculum: Secondary Prevention

OPIOID RISK MITIGATION

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Learning Objectives

By the end of this lecture students will be able to:

- Describe the factors contributing to the current opioid epidemic
- Evaluate patient risk for substance use disorder based on specific patient risk factors
- Define terms and initialisms for oversight bodies that seek to mitigate the opioid epidemic
- Understand the process for opioid prescribing to which physicians must now adhere



SOCIETAL RISK

Nature vs. nurture of substance use disorder



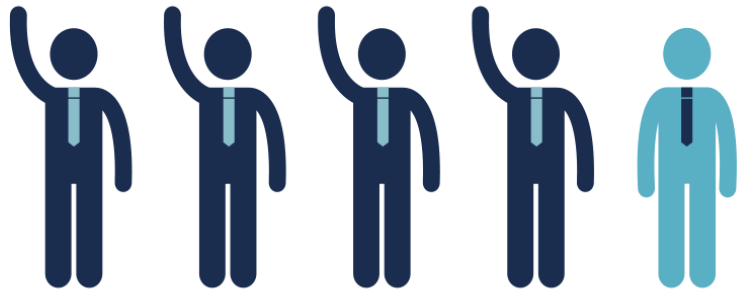
USA – 5% of World's Population

**75% of the
world
narcotic
use**



Opioid Use Disorder

4/5



employers reported observing some type of opioid-related issue in the workplace²

&

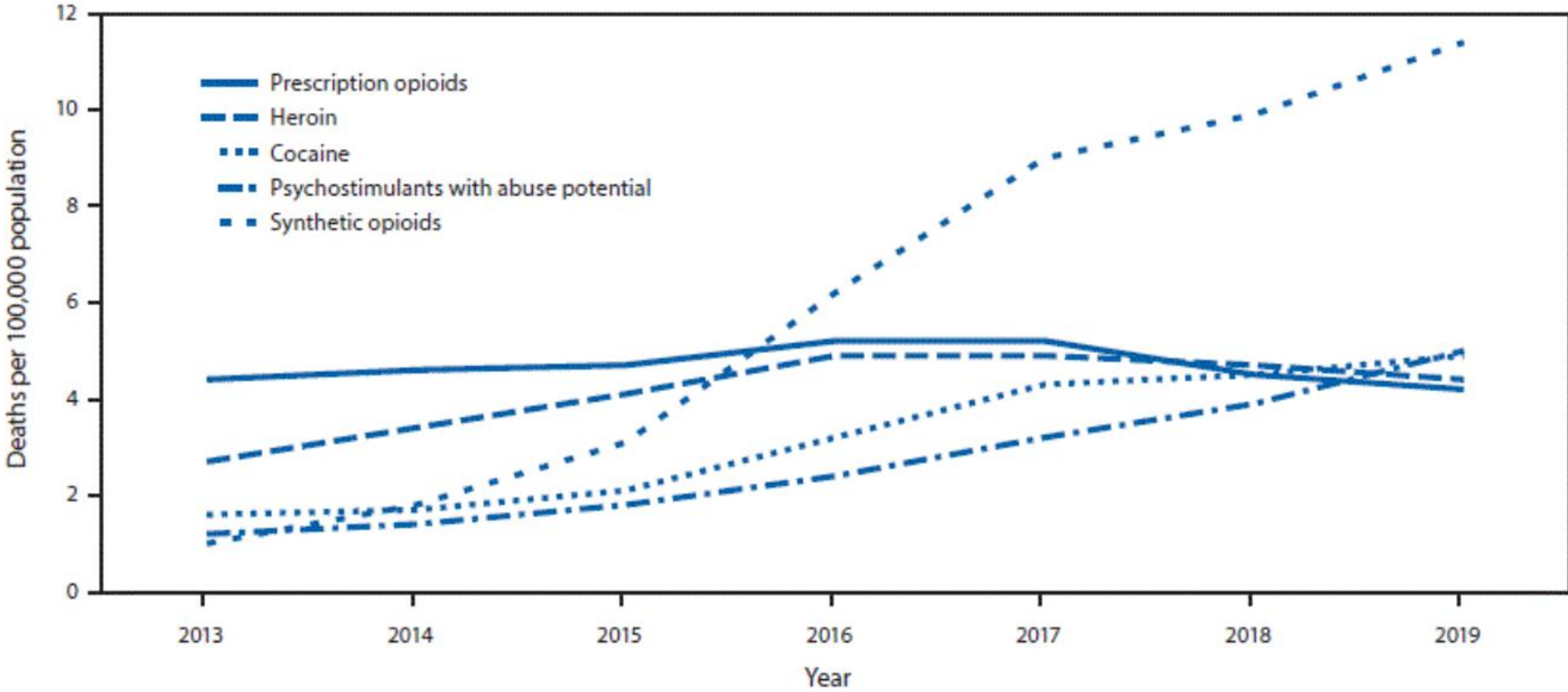
In 2014, nearly

19,000

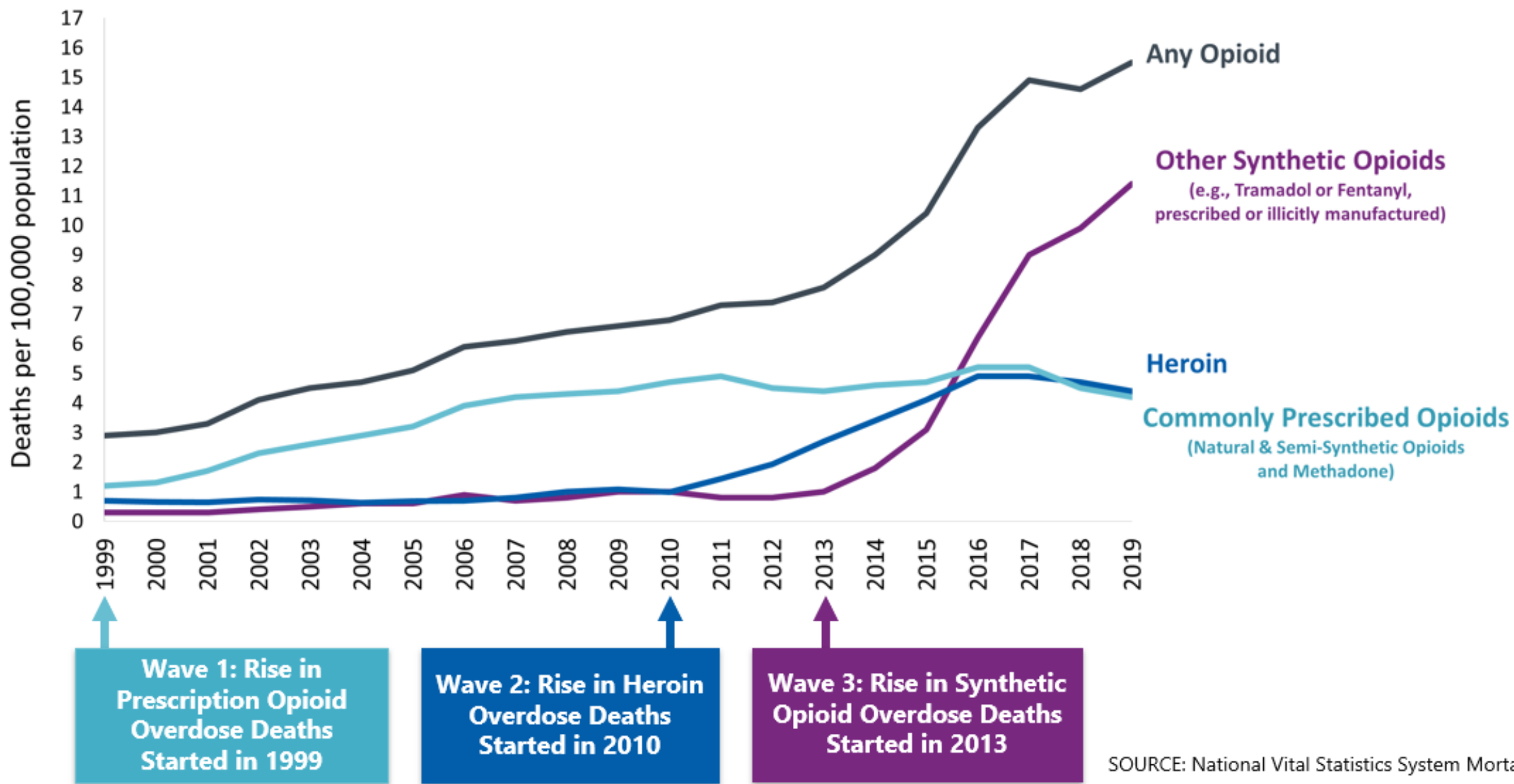


drug overdose fatalities were tied to prescription opioids³





Three Waves of the Rise in Opioid Overdose Deaths



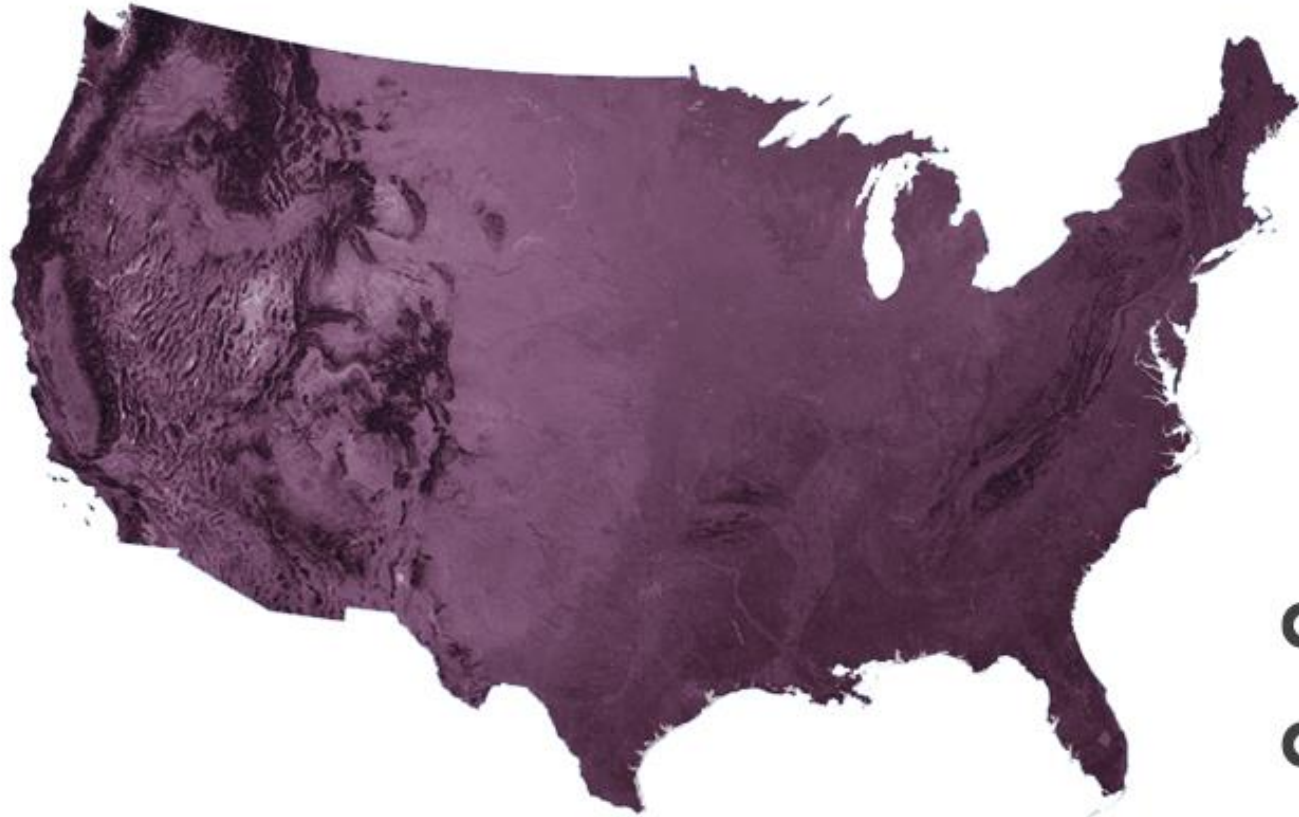
SOURCE: National Vital Statistics System Mortality File.



Sobering CDC Statistics

For every one unintentional opioid overdose:

- **9** others are admitted for substance abuse treatment
- **35** visit emergency departments
- **161** report drug abuse or dependence
- **461** report nonmedical uses of opioid analgesics.

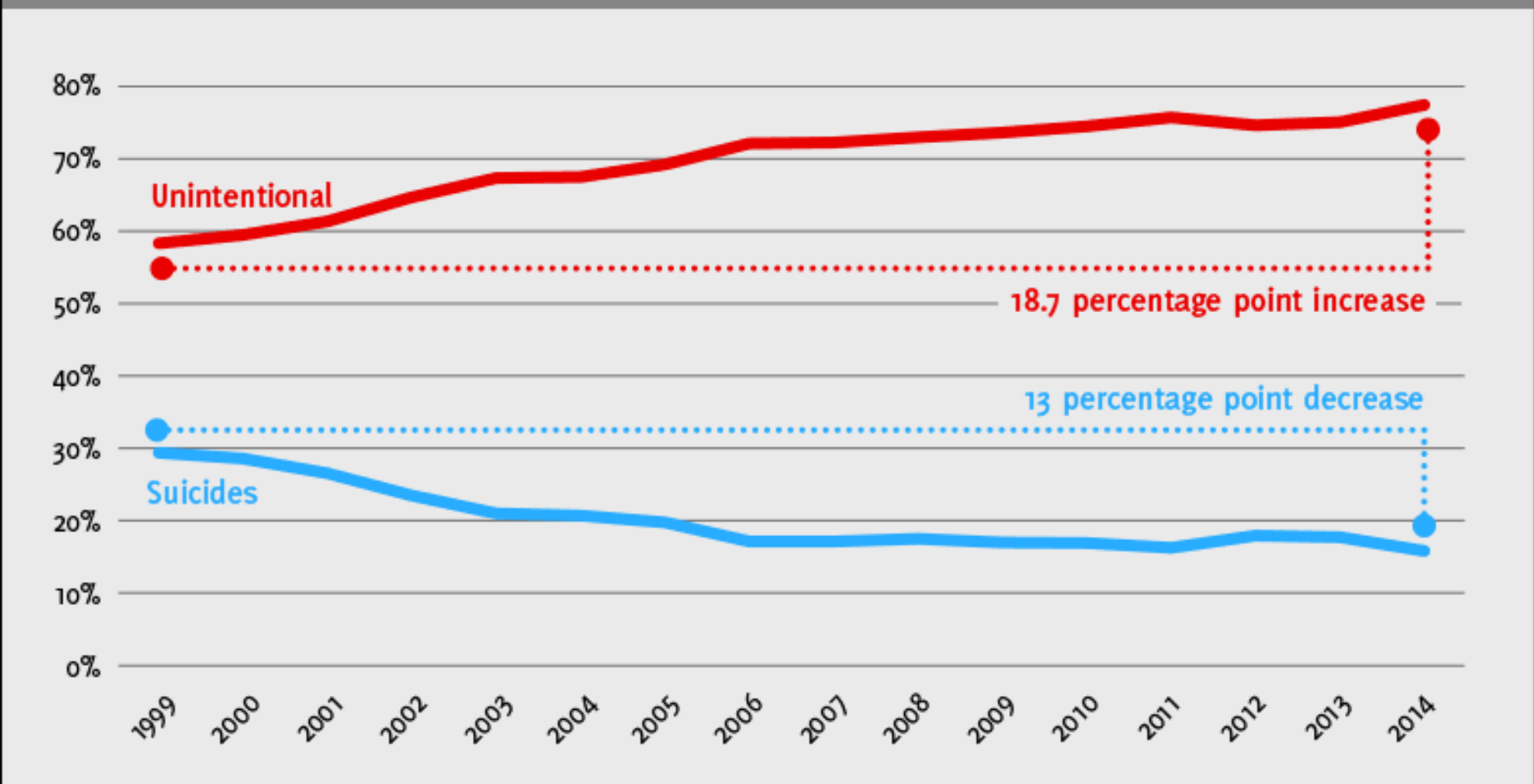


136
PEOPLE

.....
:
**die every day from
an opioid overdose**
(including Rx and illicit opioids).



Intent of Prescription Drug Overdose Deaths, by Year



Source: Centers for Disease Control and Prevention, National Center for Health Statistics



Implicated Drugs

- Majority Rx drug overdose deaths (70.6%) involve opioid
- Most common:
 - U-47,700, AP-237 (22%)
 - Fentanyl analogs (44%)
 - Methadone
 - Oxycodone
 - (Percocet, Oxycontin)
 - Hydrocodone
 - (Vicodin, Norco)



PATIENT RISK FACTORS

Nature vs. nurture of substance use disorder



Heroin use is part of a larger substance abuse problem.

People who are addicted to...



ALCOHOL

are

2x



MARIJUANA

are

3x



COCAINE

are

15x



Rx OPIOID PAINKILLERS

are

40x

...more likely to be addicted to heroin.

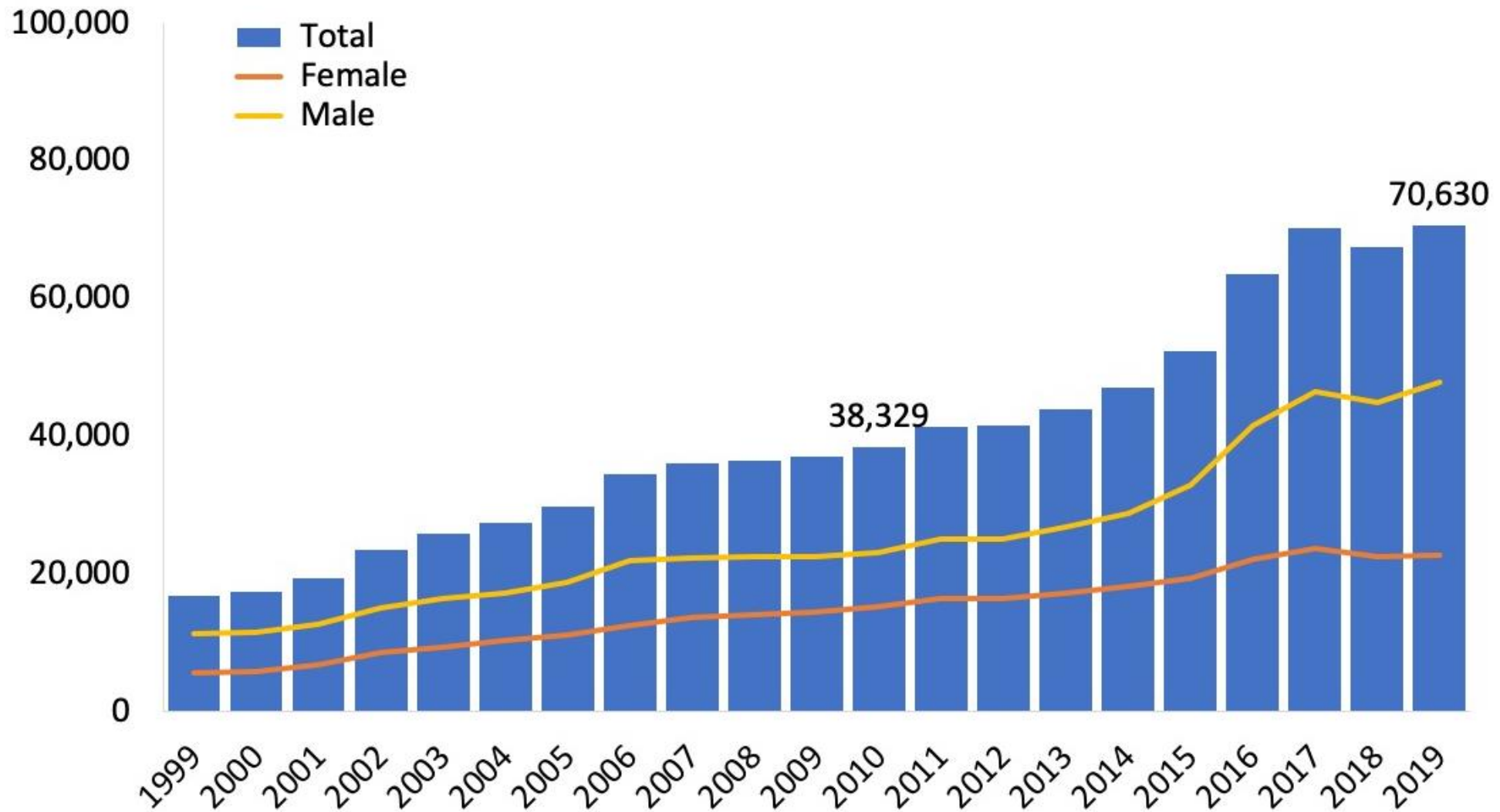
SOURCE: National Survey on Drug Use and Health (NSDUH), 2011-2013.

Risk Factors for Accidental OD

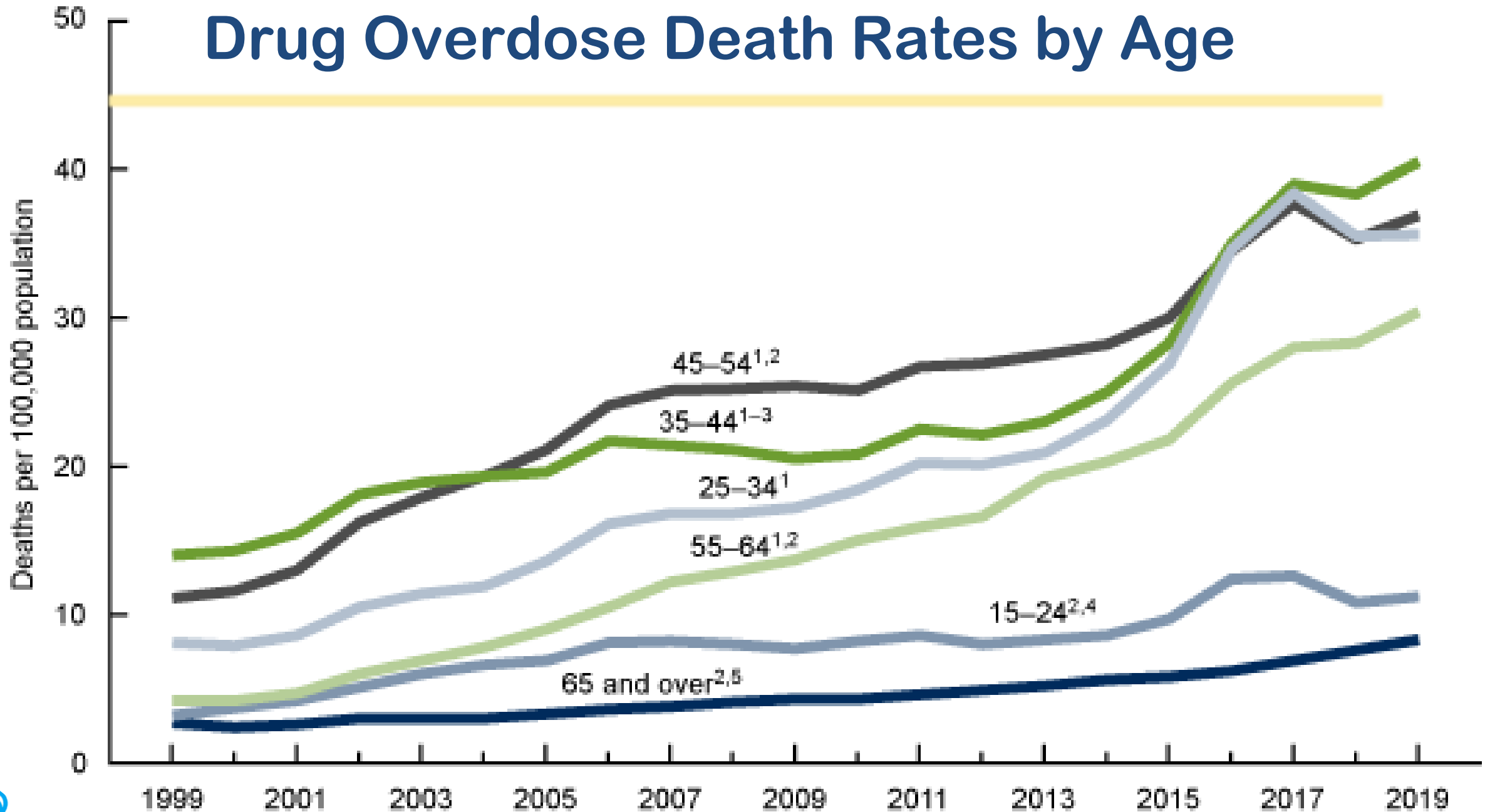
- Non-private and Non-Medicare insurance
 - Polypharmacy (e.g. benzodiazepines)
 - Obstructive Sleep Apnea
 - Hepatic Failure
 - Renal Failure
 - Elderly



Figure 1. National Drug-Involved Overdose Deaths* Number Among All Ages, by Gender, 1999-2019



Drug Overdose Death Rates by Age



Drug Overdose Death Rates by Race

Figure 1. Percent increase from 2014 to 2017 in overdose death rates by drug among the Hispanic population in the United States, data from CDC National Vital Statistics System

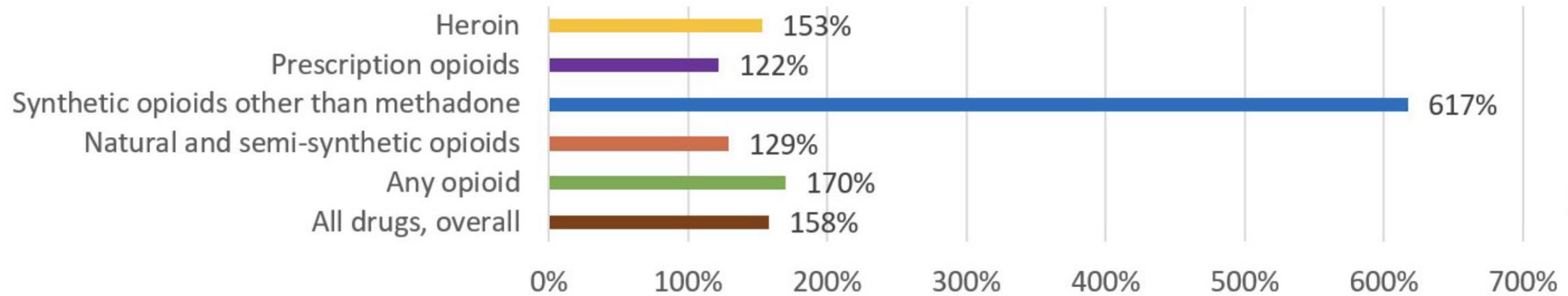
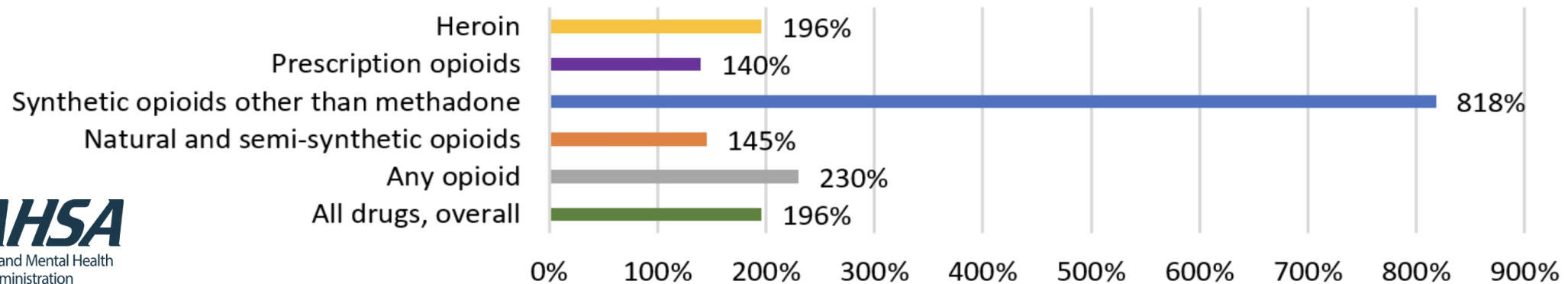


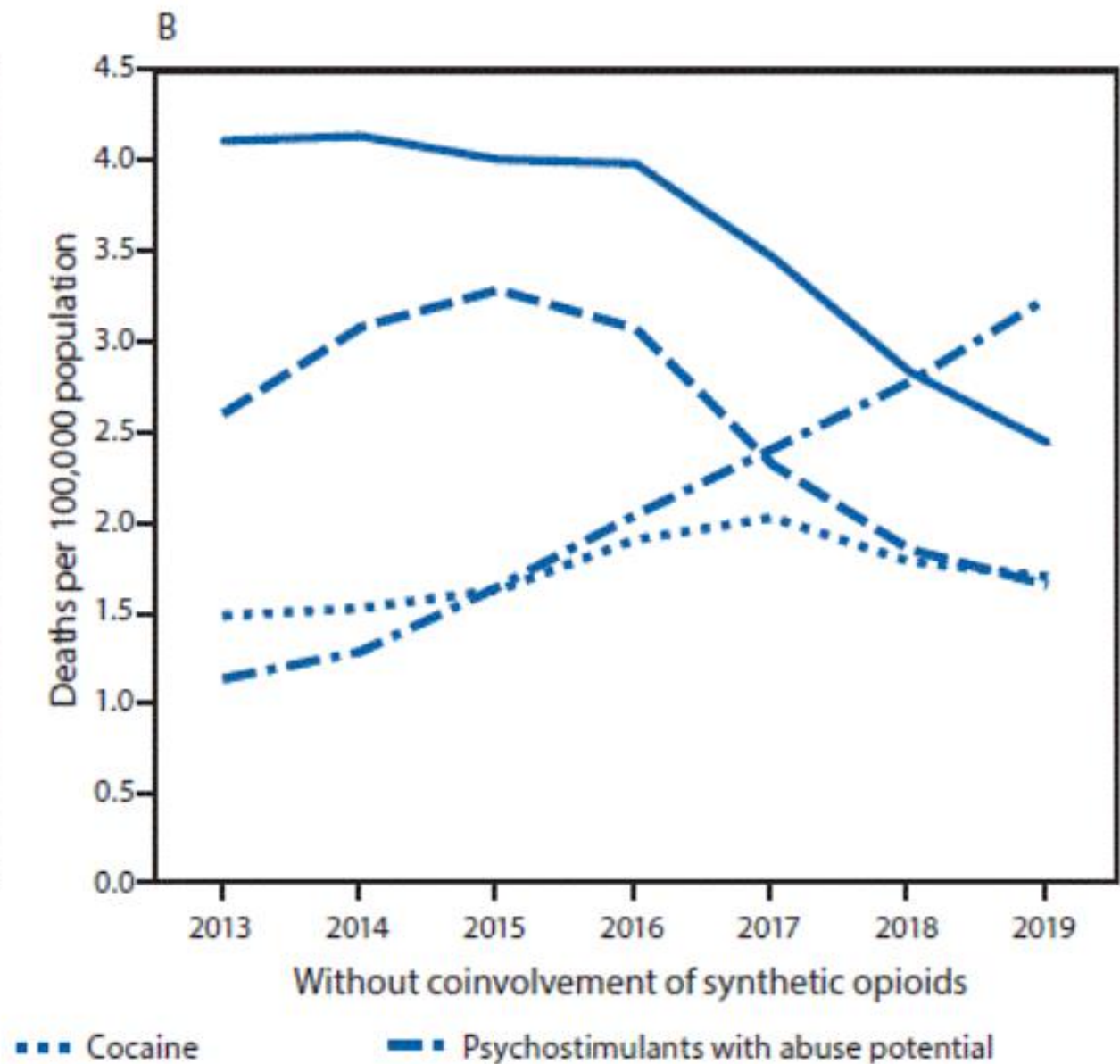
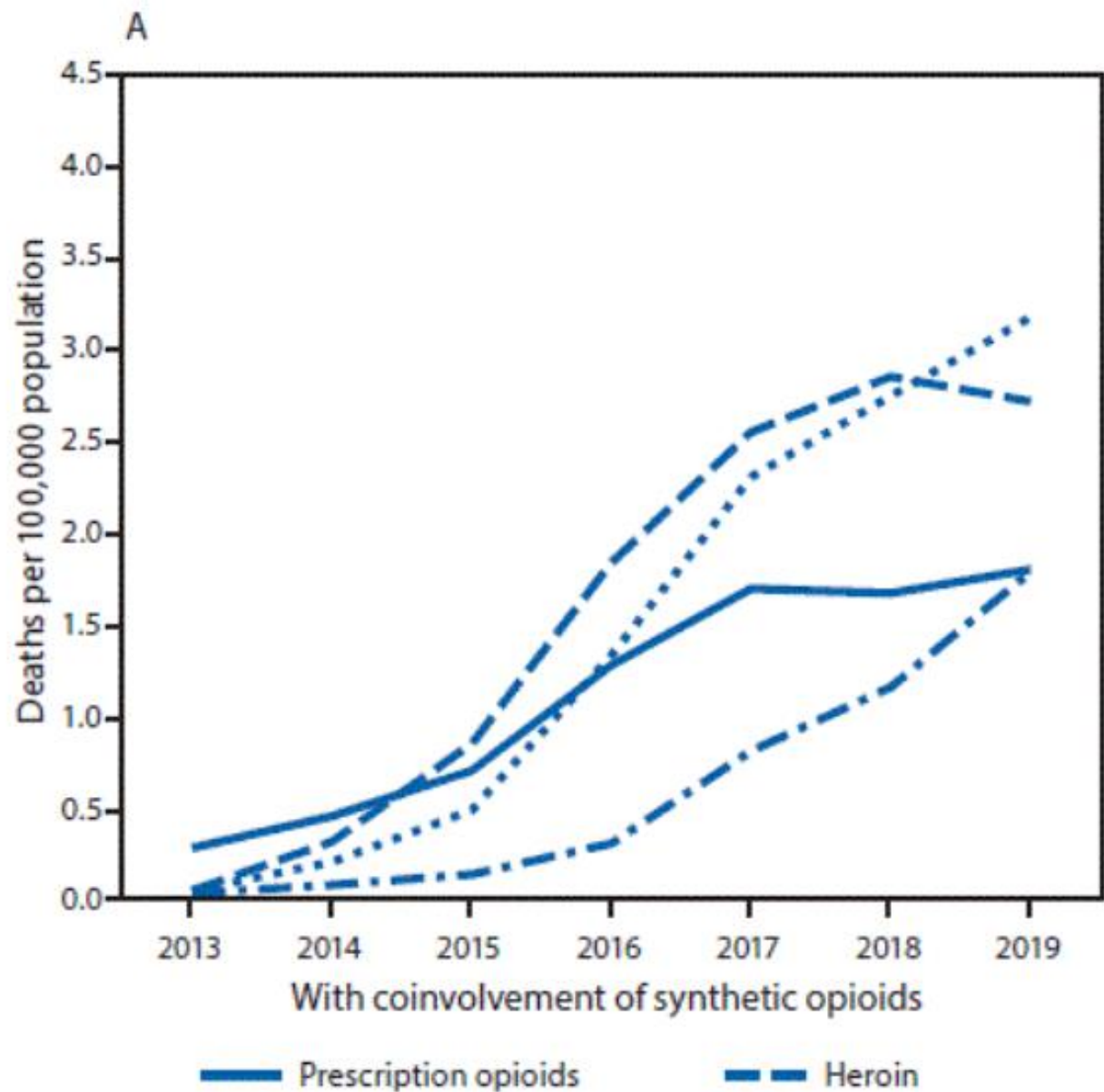
Figure 1. Percent Increase from 2014 to 2017 in overdose death rates by drug among the non-Hispanic Black population in the United States, data from CDC National Vital Statistics System



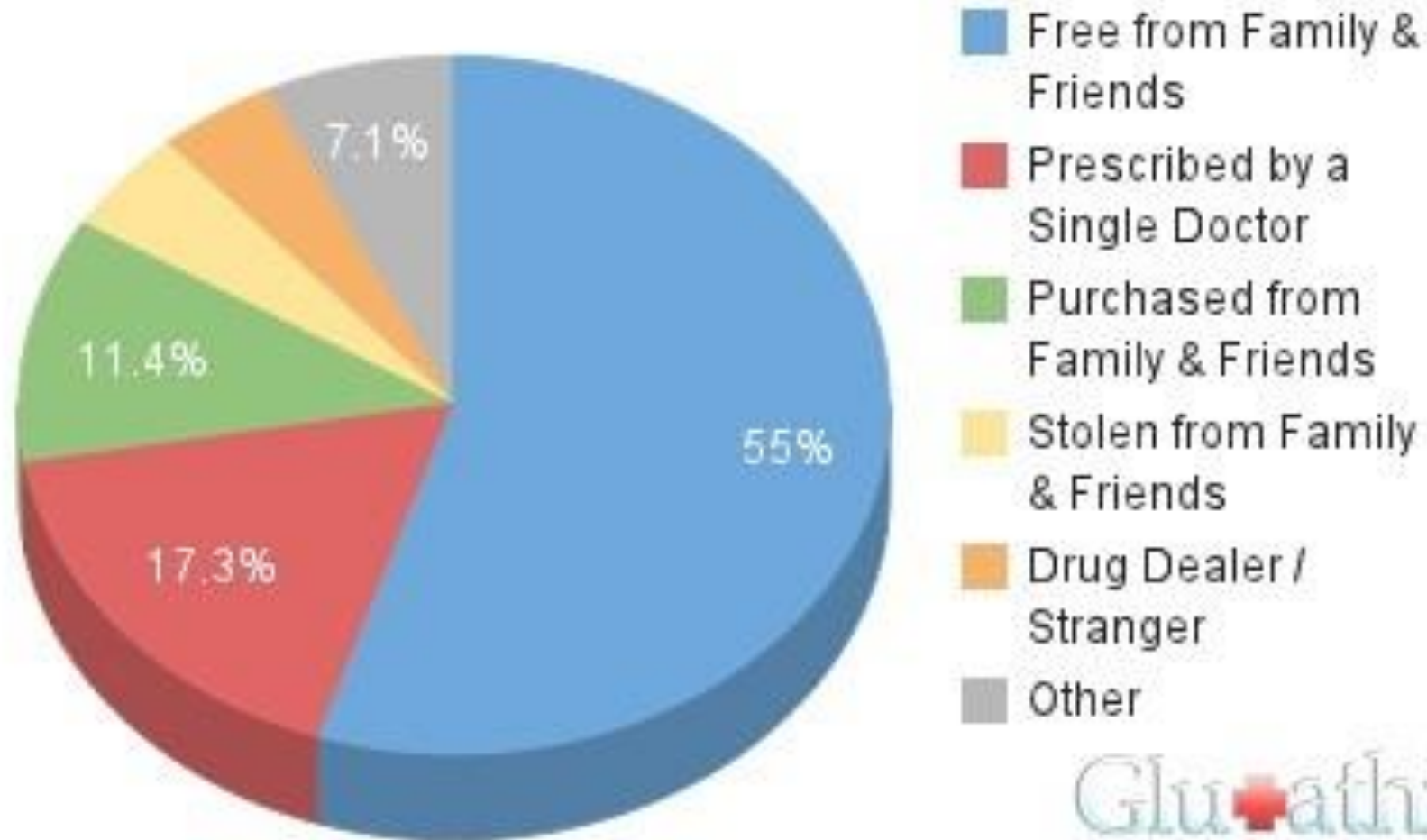
Heroin Use and Addiction

- Heroin-related deaths tripled 2000 – 2014
- 2014 survey 94% of users tried heroin because easier to obtain than Rx opioids.
- Fiscal incentive:
 - *Heroin is 10% cost of equivalent dose of Rx opioid.*





Where do people get their opioids?

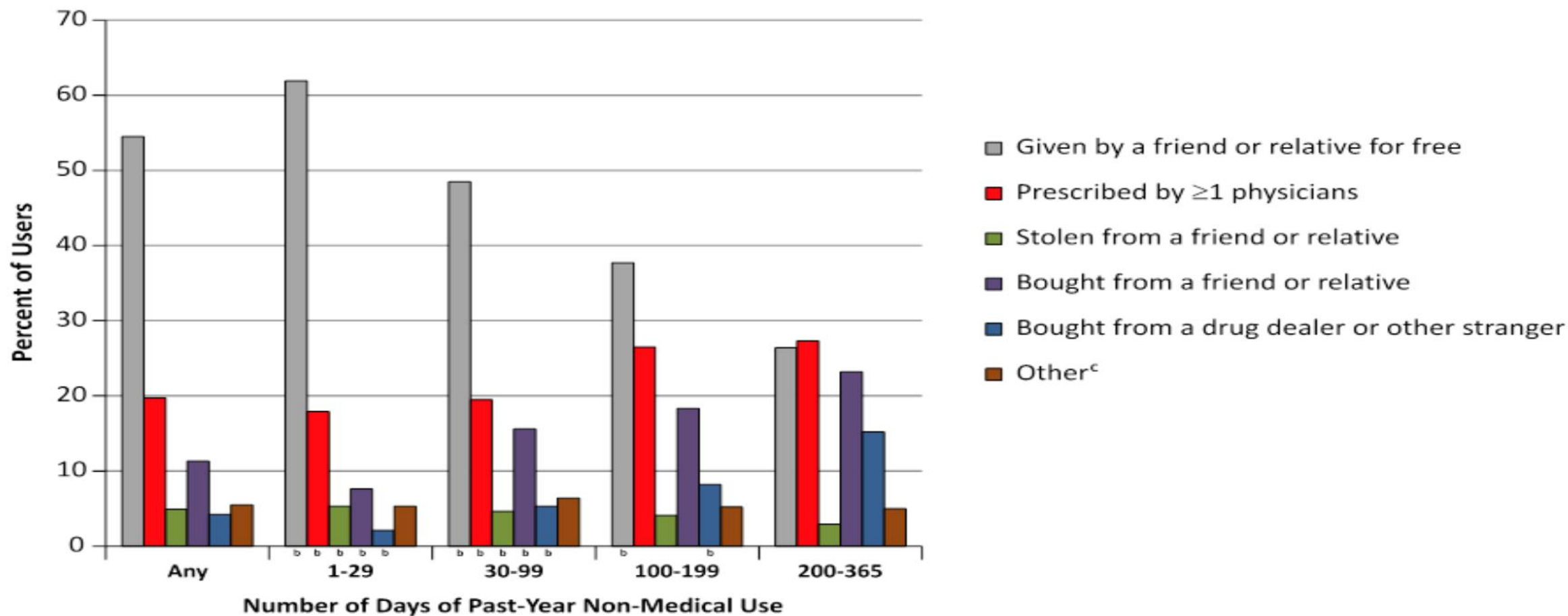


Glu+athionePRO

Daniulaityte et al. Sources of pharmaceutical opioids for non-medical use among young adults. J Psychoactive Drugs. 2014 Jul-Aug;46(3):198-207 2014



Sources of Prescription Painkillers Among Past-Year Non-Medical Users^a



^a Obtained from the US National Survey on Drug Use and Health, 2008 through 2011.⁵

^b Estimate is statistically significantly different from that for highest-frequency users (200-365 days) ($P < .05$).

^c Includes written fake prescriptions and those opioids stolen from a physician's office, clinic, hospital, or pharmacy; purchases on the Internet; and obtained some other way.

SOURCE: Jones C, Paulozzi L, Mack K. Sources of prescription opioid pain relievers by frequency of past-year nonmedical use: United States, 2008–2011. JAMA Int Med 2014; 174(5):802-803.



Opioid Side Effects

- Tolerance
- Nausea, vomiting
- Dry mouth
- Itching and sweating
- Sleepiness and dizziness
- Confusion
- Increased sensitivity to pain (hyperalgesia)
- Constipation
- Depression
- Physical dependence
- Substance Use Disorder
- Low testosterone/decreased libido
- **Immune Suppression/Cancer?**

- Boland JW, Pockley AG. Influence of opioids on immune function in patients with cancer pain: from bench to bedside. Br J Pharmacol. 2018 Jul;175(14):2726-2736)



Hyperalgesia and the Cold Pressor Test



Defining Addiction

Physical
Dependence

VS.

Addiction



**PRESCRIBE
RESPONSIBLY**



CDC 2016 GUIDELINES

“Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. **Three days or less will often be sufficient; more than seven days will rarely be needed**”

CDC 2016

- Prescribe the lowest effective dosage.
- Reassess individual risks and benefits if increasing dosage to ≥ 50 morphine milligram equivalents (MME)/day
- **Justify increasing dosage to ≥ 90 MME/day**



Opioid Pendulum

Opioid-phobia



Opioid-philia

Responsible Opioid Prescribing



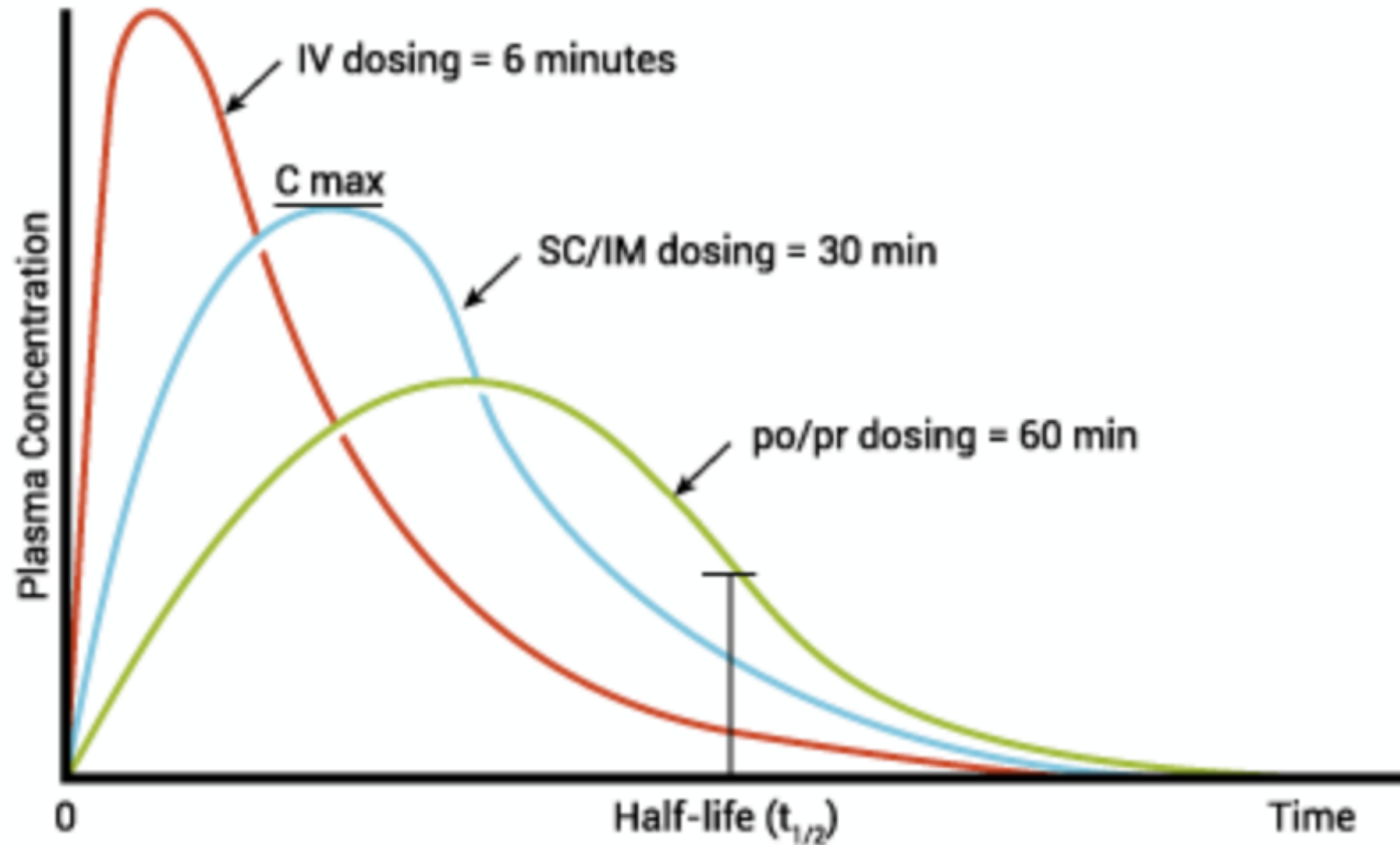
Equianalgesic Dosing Opioids

Drug	Equianalgesic Doses (mg)	
	Parenteral	Oral
Morphine	10	30
Buprenorphine	0.3	0.4 (sl)
Codeine	100	200
Fentanyl	0.1	NA
Hydrocodone	NA	30
Hydromorphone	1.5	7.5
Meperidine	100	300
Oxycodone	10*	20
Oxymorphone	1	10
Tramadol	100*	120



Time to maximal plasma concentration

Pharmacologic Dosing Curves After a Single Opioid Dose



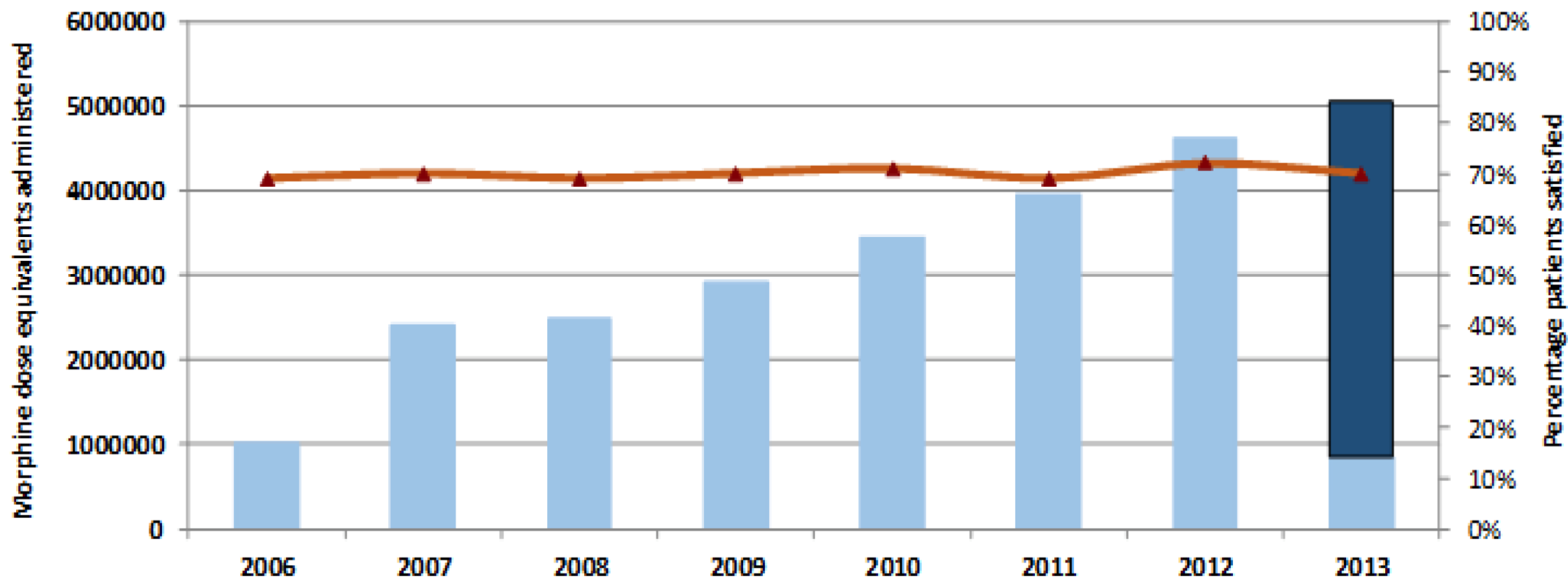
Why IV?

NPO

Nil per os



HCAHPS patient satisfaction scores for pain control in the setting of increased opioid use



When Patient Satisfaction is Bad Medicine

- **Tip: acknowledge the conflict between patient-physician**
- **Prior to the 1990s opioids rarely prescribed outside of oncological or surgical care**
- **Give patient choices – helps them feel in control**



Evidence About Opioid Therapy

- Long-term opioid therapy for chronic pain not supported by EBM.
- Moderate short-term benefits for pain inconsistent for function.
- No evidence for long-term benefits in LBP, HA and fibromyalgia.



The Key Word is FUNCTION!!

10/10 pain but eating,
watching TV, doing
Physical Therapy,
sleeping

VS

1/10 pain but not
meeting discharge
milestones, cannot
move.



Outcomes are Key

The Four “A’s” of Pain Treatment Outcomes

- ◆ Analgesia (pain relief)
- ◆ Activities of daily living (psychosocial functioning)
- ◆ Adverse effects (side effects)
- ◆ Aberrant drug taking (addiction-related outcomes)





Risk Factors for Prescription Opioid Pain Reliever Abuse and Overdose



Obtaining overlapping prescriptions from multiple providers and pharmacies.



Taking high daily dosages of prescription opioid pain relievers.



Having mental illness or a history of alcohol or other substance abuse.



Living in rural areas and having low income.




Essentials of Prescribing

- Opioid Agreement
Consent + Contract
- Ongoing 4 A's assessment
- Baseline and at a minimum annual UDS
- Document, Document, Document
- “the patient was **dishonest**”
is not an effective defense



Prescription Drug Monitoring Programs



STATE OF CALIFORNIA
DEPARTMENT OF JUSTICE

This system is restricted to authorized users for legitimate law enforcement and regulatory purposes. There is no expectation of privacy on this system as it is being audited and monitored.

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Latest prices

Drug	Location	Price	Date	Rating
Percocet, 10/325mg	Tennessee	\$5	Aug 15	Rate: \$ \$ \$ \$ \$
Adderall XR, 10mg pill	Portland, Oregon	\$3	Aug 15	Rate: \$ \$ \$ \$ \$
OxyContin (new OP, hard to crush), 10mg pill	Georgetown, South Carolina	\$15	Aug 15	Rate: \$ \$ \$ \$ \$
Xanax, 2mg pill	Detroit, Michigan	\$5	Aug 15	Rate: \$ \$ \$ \$ \$
Adderall, 30mg pill	Aurora, Illinois	\$5	Aug 15	Rate: \$ \$ \$ \$ \$
OxyContin (new OP, hard to crush), 20mg pill	Columbus, Ohio	\$10	Aug 15	Rate: \$ \$ \$ \$ \$

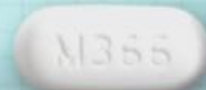
StreetRx displays user-submitted information on the latest street prices for prescription drugs. StreetRx necessarily relies on user-submitted information; data should be interpreted accordingly. All submissions are anonymous. StreetRx is not affiliated with any government or law enforcement agency.

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R_x

\$20/PILL
HYDROCODONE



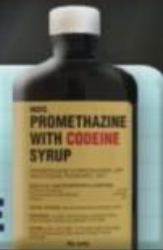
R_x

\$80/PILL
OXYCONTIN



R_x

\$600/PINT
PROMETHAZINE+CODEINE



10:15 24°



CBSChicago



Rx Laws

■ Electronic Rx

- *Duo authenticate*
- *Password on computer*
- *Alert to phone*

■ Printed Rx

- *Tamper proof paper*

■ Written Rx

- *Tamper proof*
- *Must have serial #*



Assembly Bill No. 149

CHAPTER 4

An act to amend Sections 11162.1 and 11164 of, and to add Section 11162.2 to, the Health and Safety Code, relating to controlled substances, and declaring the urgency thereof, to take effect immediately.

[Approved by Governor March 11, 2019. Filed with Secretary of State March 11, 2019.]

LEGISLATIVE COUNSEL'S DIGEST

AB 149, Cooper. Controlled substances: prescriptions.

Existing law classifies certain controlled substances into designated schedules. Existing law requires prescription forms for controlled substance prescriptions to be obtained from security printers approved by the department, as specified. Existing law requires those prescription forms to be printed with specified features, including a uniquely serialized number.

This bill would delay the requirement for those prescription forms to include a uniquely serialized number until a date determined by the Department of Justice that is no later than January 1, 2020. The bill would require, among other things, the serialized number to be utilizable as a barcode that may be scanned by dispensers. The bill would additionally make any prescription written on a prescription form that was otherwise valid prior to January 1, 2019, but that does not include a uniquely serialized number, or any prescription written on a form approved by the Department of Justice as of January 1, 2019, a valid prescription that may be filled, compounded, or dispensed until January 1, 2021. The bill would authorize the Department of Justice to extend this time period for a period no longer than an additional 6 months, if there is an inadequate availability of compliant prescription forms.

This bill would declare that it is to take effect immediately as an urgency statute.



Rx Laws

- Assembly Bill 149

- Into effect Jan 2021



The Medical Board of California



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Important Reminder to Physicians Who Prescribe Controlled Substances

With the new year around the corner, the Medical Board of California (Board) would like to remind physicians of two critical changes to prescribing laws taking effect January 1, 2021.

The first pertains to paper prescription pads for controlled substances. Starting January 1, 2021, pads used to write and fill **prescriptions for controlled substances are required** to have a 12-character serial number, a corresponding barcode, and [other security features](#) required by [Assembly Bill 149](#).

Barcode/Serial Number Example



Serial # AAANNANNNNN

Example only - actual barcode and serial numbers will vary in size and appearance

Naloxone Kits

- Providing naloxone kits to laypersons reduces overdose deaths.
- Health organizations recommend providing to:
 - Laypersons who might witness an overdose
 - Patients in substance use treatment programs
 - Persons living prison and jail
 - Component of responsible opioid prescribing.
- Intranasal and injectable forms.



Enhanced Recovery After Surgery

- NO change in opioid discharge Rx

- NO impact:
 - Opioid naïve
 - Pain score on discharge



