



A New Frontier: Prescription Drug Abuse Beyond Opioids



A New Frontier: Prescription Drug Abuse Beyond Opioids

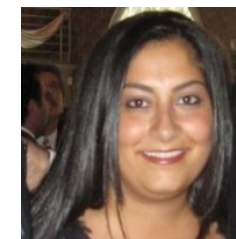
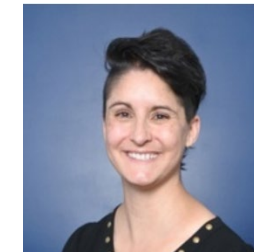
Richard C. Dart, Executive Director RADARS System

RADARS System

14th Annual Scientific Meeting

Registrants n=235

- Government 82
- Academic 57
- Industry/Pharma 36
- Other 60



RADARS System Scientific Advisory Board

Principal Investigators

Theodore J. Cicero, PhD
Washington University in St Louis



Steven P. Kurtz, PhD
Nova Southeastern University



Mark W. Parrino, MPA
*American Association for the Treatment of
Drug Dependence*



Richard C. Dart, MD, PhD
*Rocky Mountain Poison
& Drug Safety, Denver Health*



Substance Abuse Experts

Sidney Schnoll, MD, PhD
PinneyAssociates, Inc.



George Woody, MD
University of Pennsylvania



Epidemiology/Biostatistics

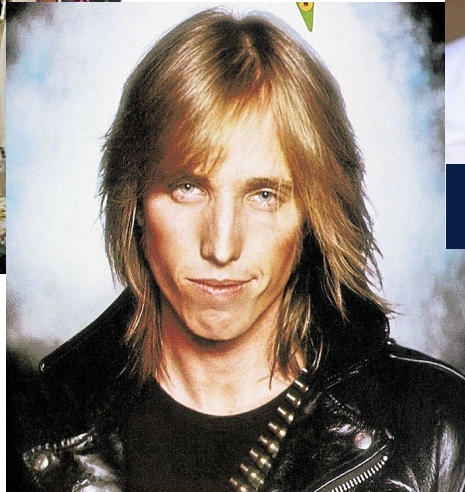
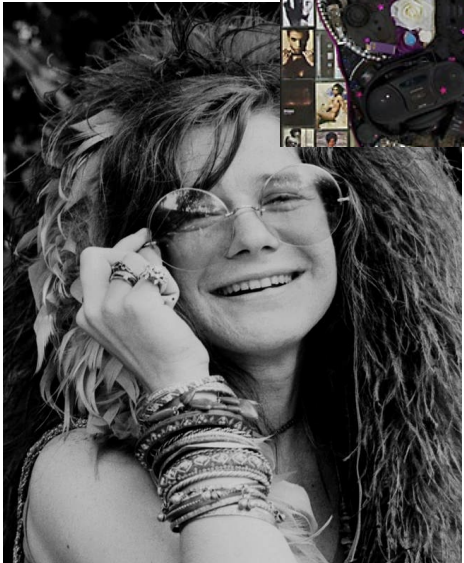
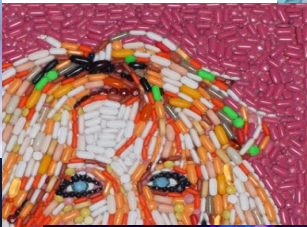
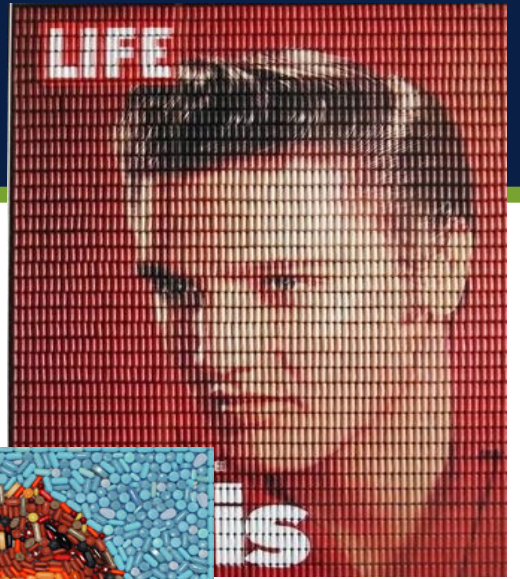
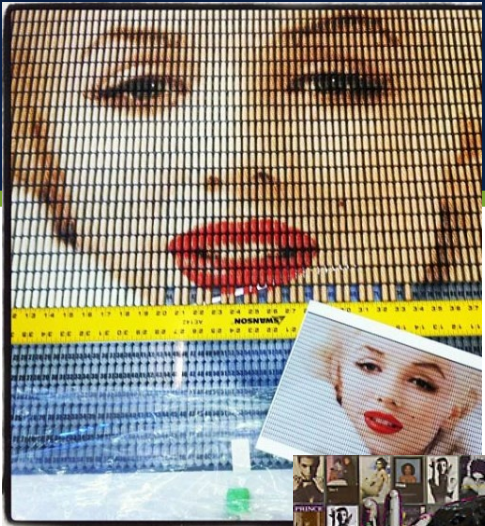
Nabarun Dasgupta, MPH
*UNC in Chapel Hill
Rocky Mountain Poison & Drug Safety,
Denver Health*



Law Enforcement

John Burke
*Pharmaceutical Diversion Education, Inc.;
International Health Facility Diversion
Association*





Tyler Skaggs

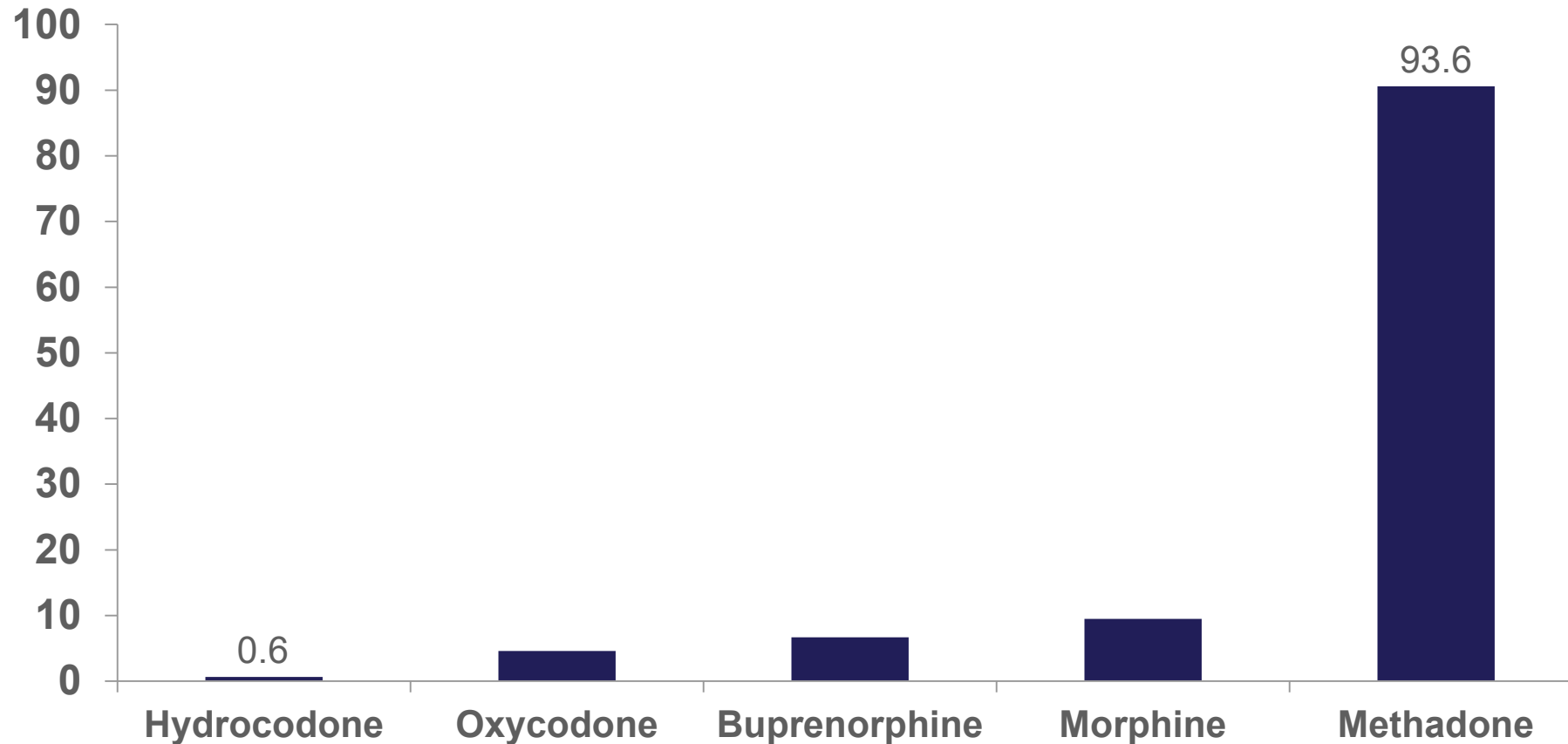


Artist: Jason Mecier

NEWS FROM RADARS SYSTEM

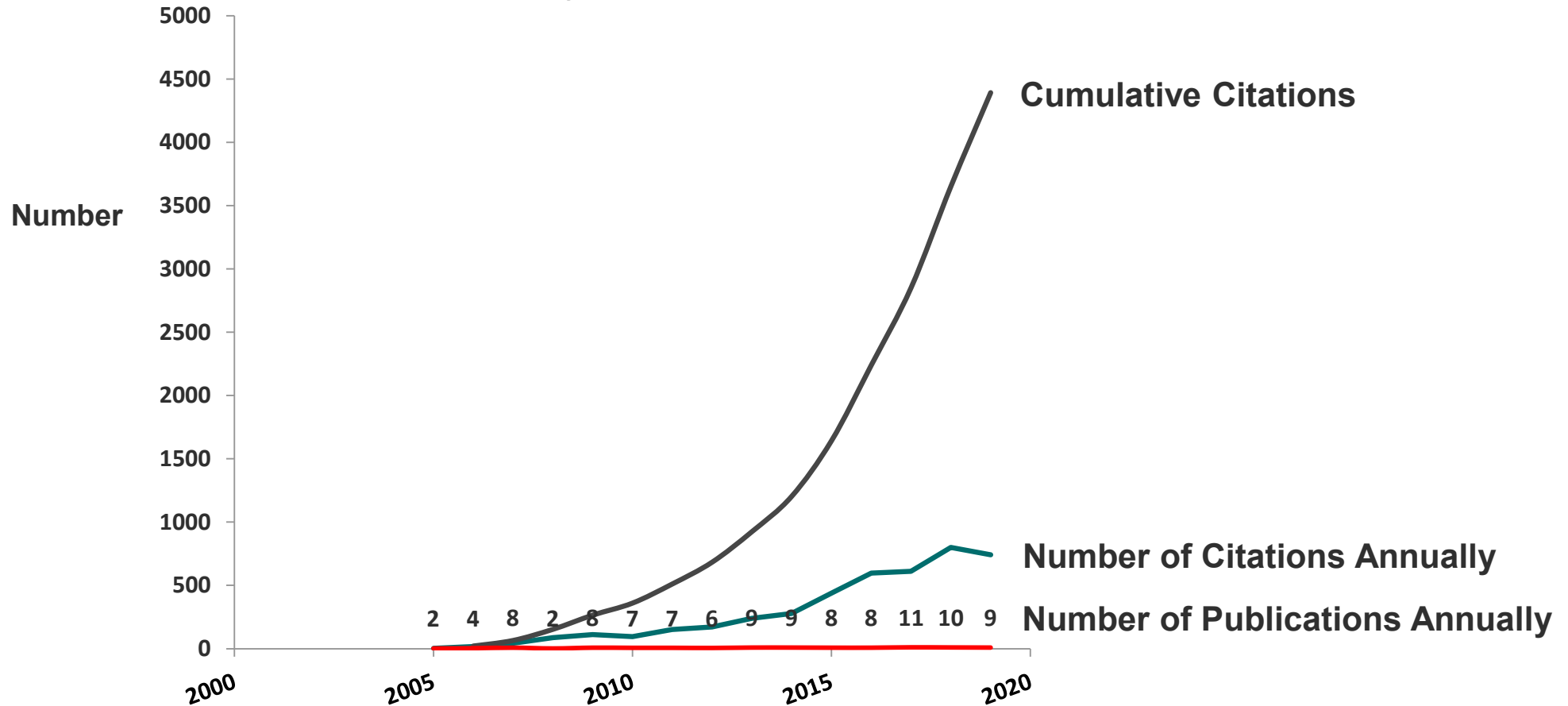
Latest RADARS System Article: The Impact of the Prescription Opioid Epidemic on Young Children

Deaths per 1000 Poison Center cases

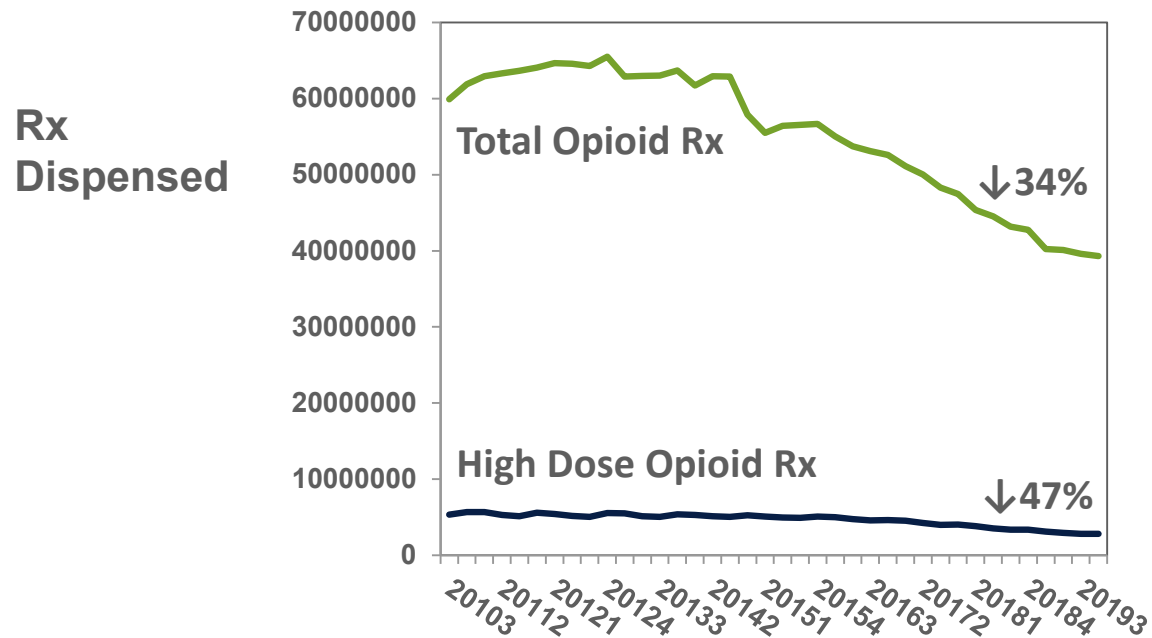


RADARS System – 108 Publications in Scientific Literature

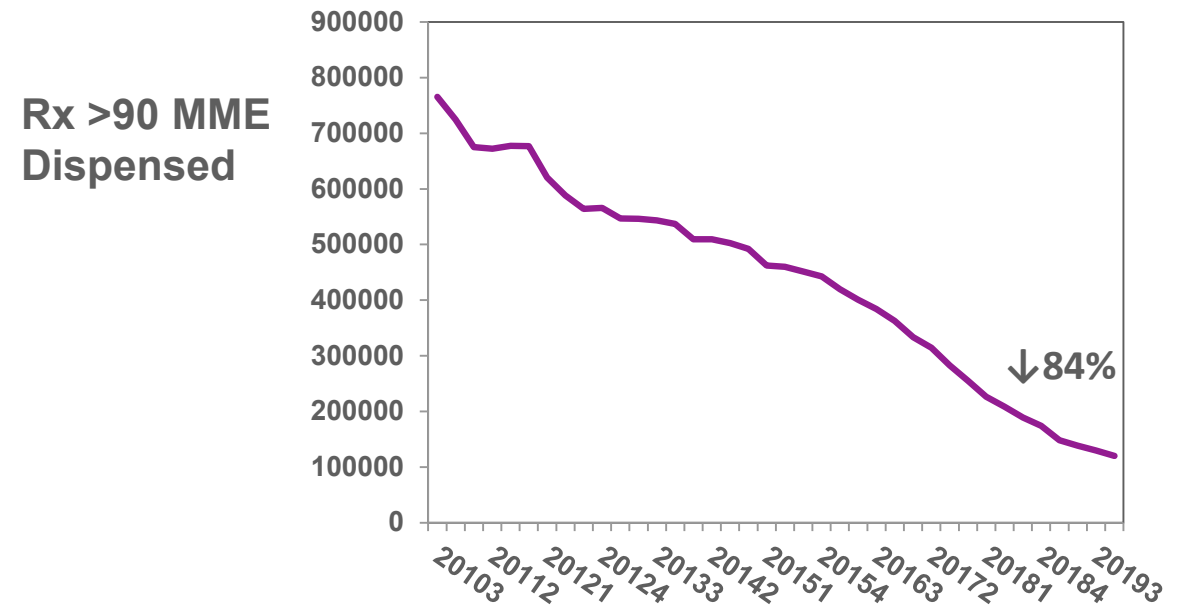
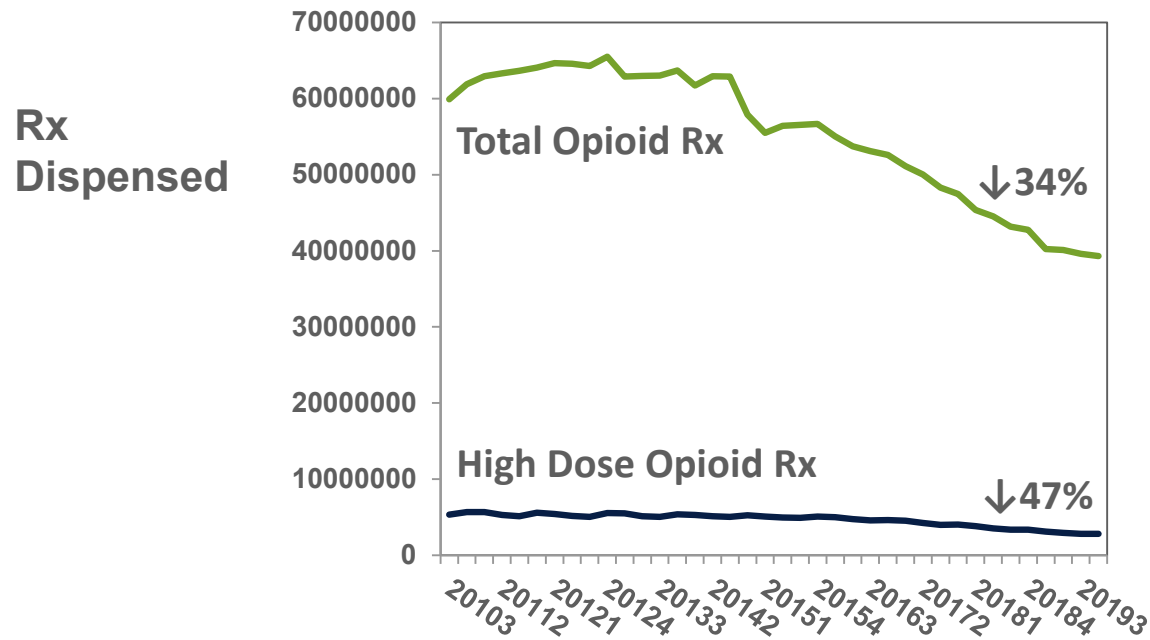
RADARS® System Publications, 2006 - 2019



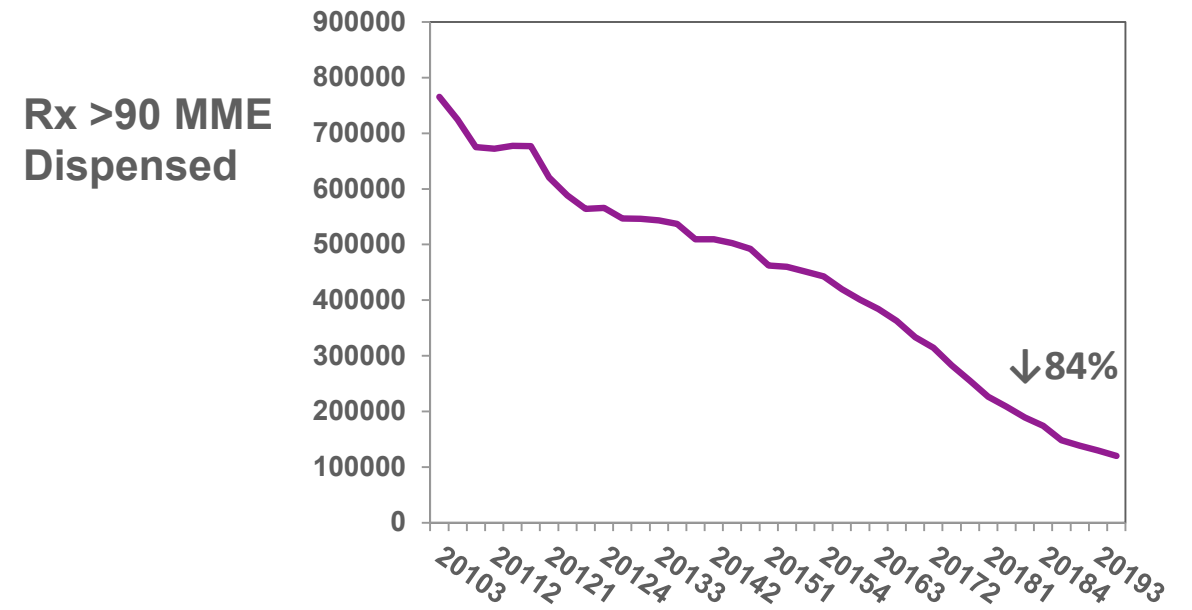
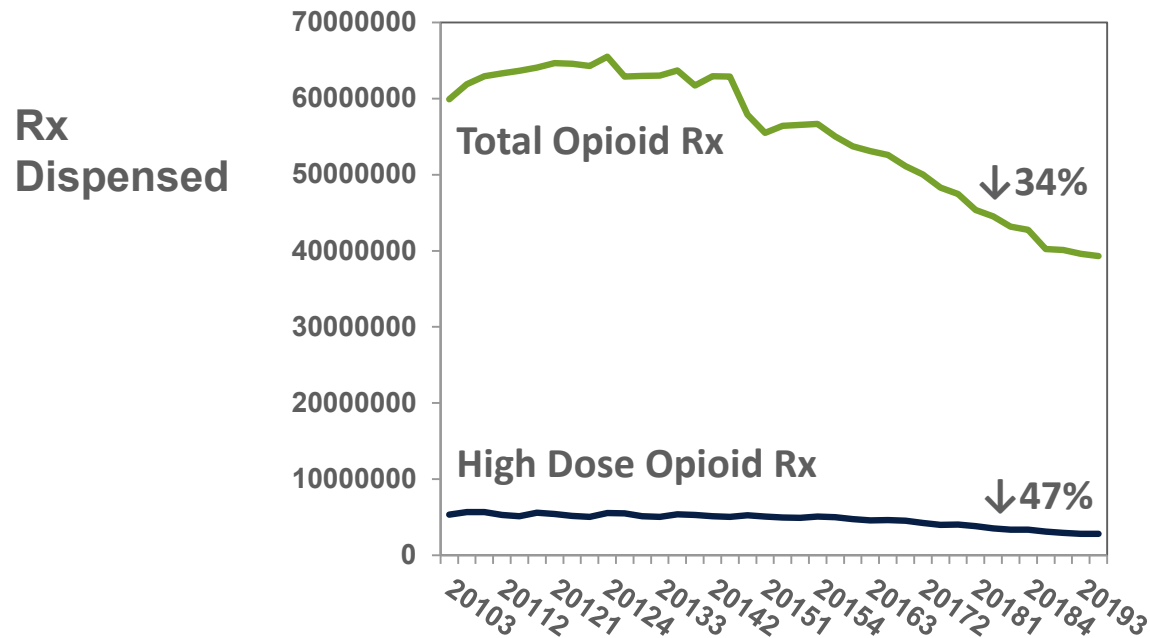
Trends in Annual Opioid Prescribing Rates



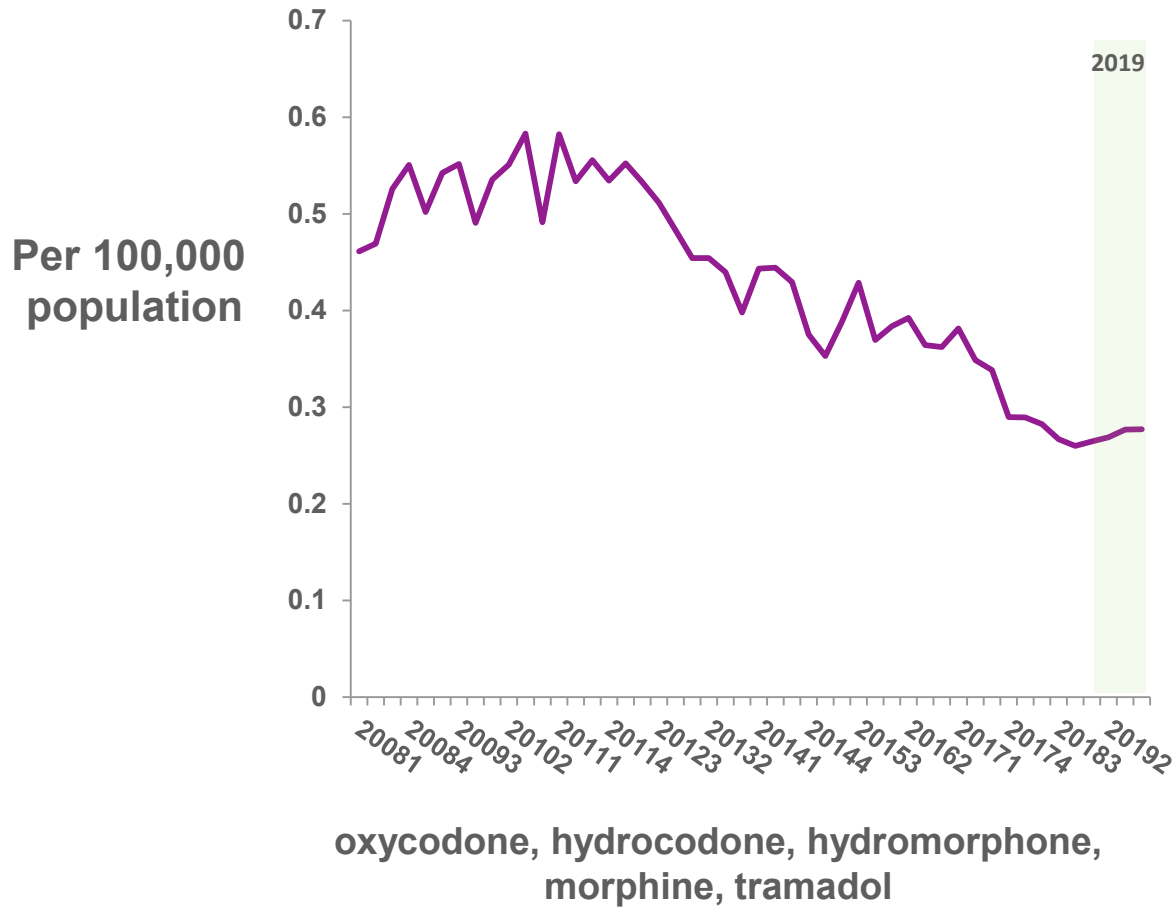
Trends in Annual Opioid Prescribing Rates



Trends in Annual Opioid Prescribing Rates



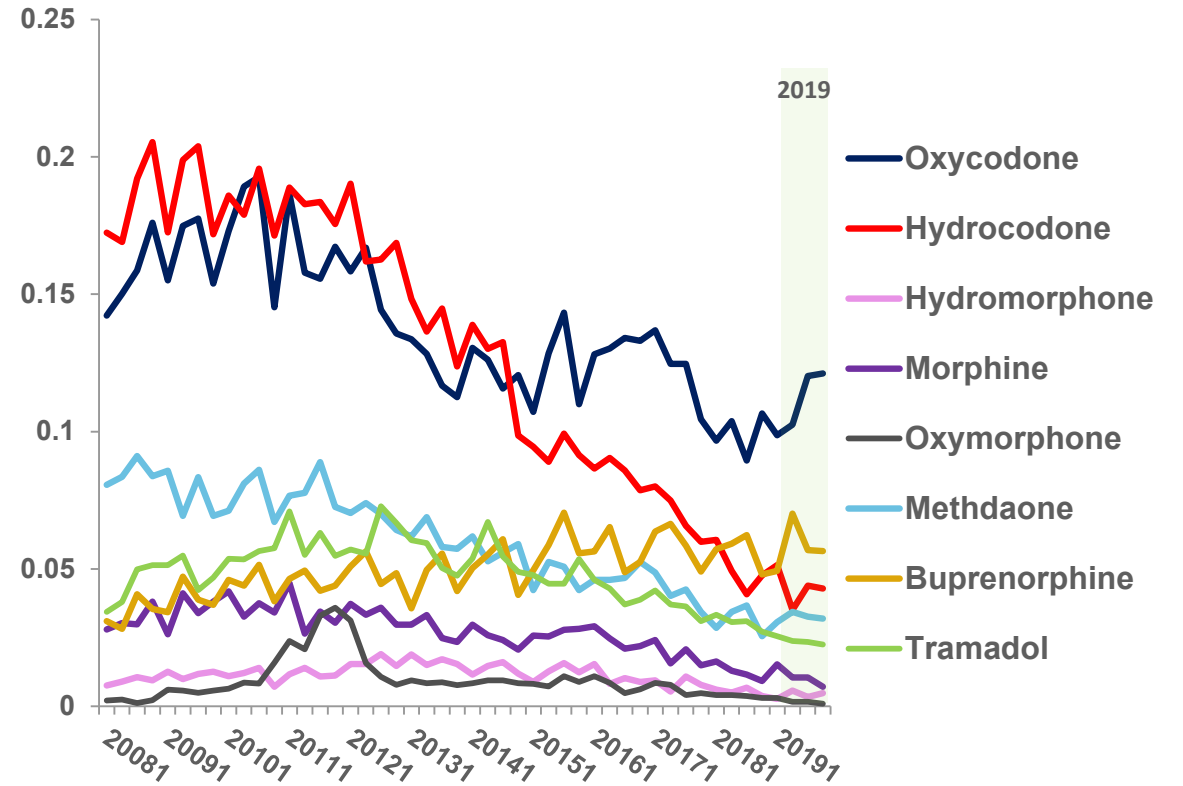
Poison Center Program Intentional Abuse, 2006 - 2019



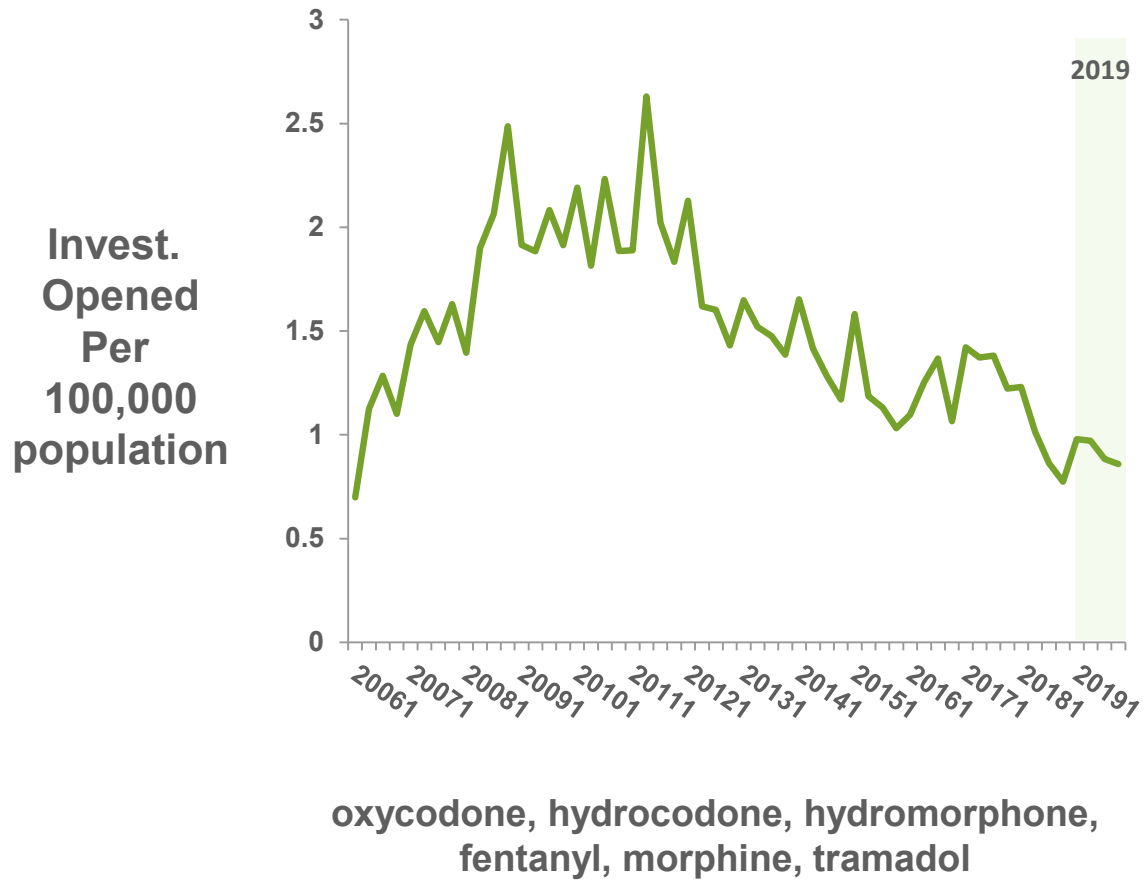
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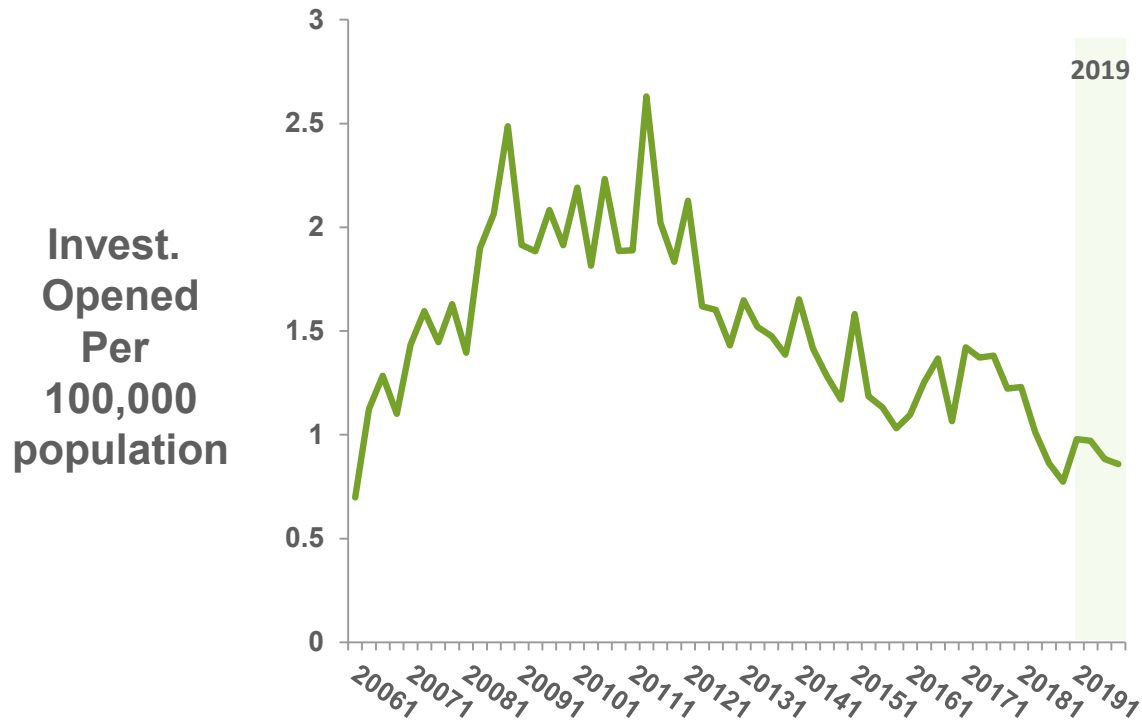
oxycodone, hydrocodone, hydromorphone,
morphine, tramadol



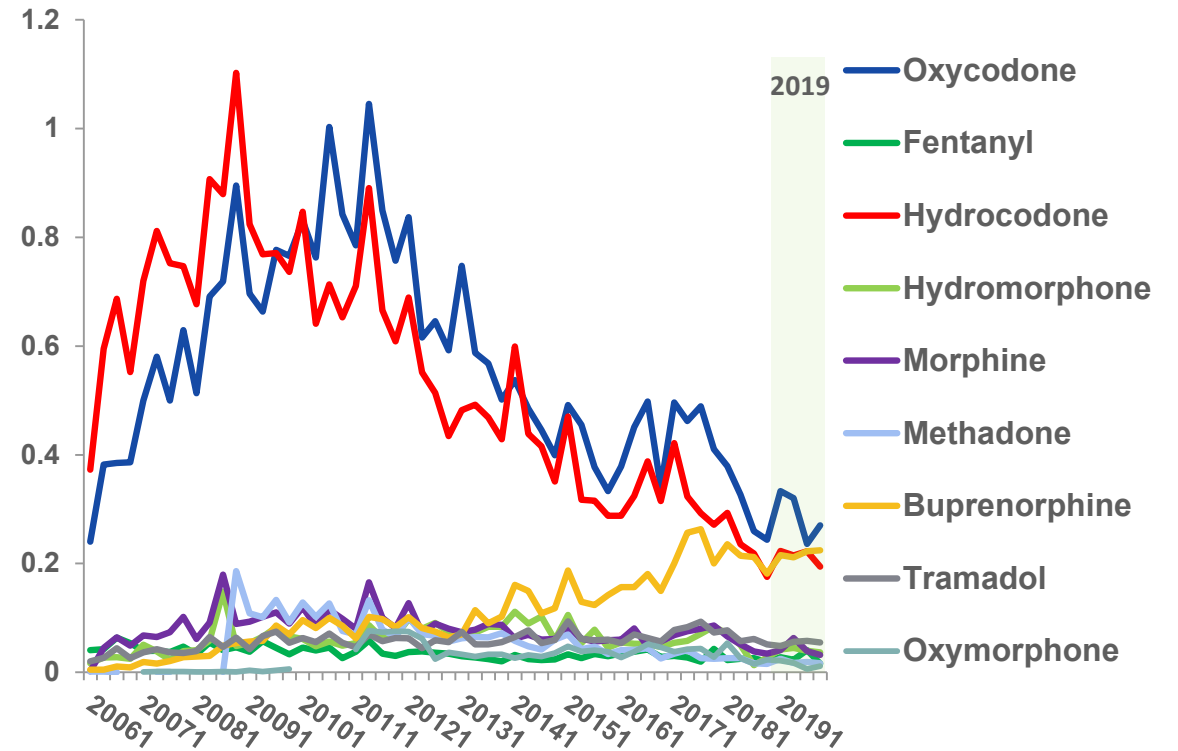
Drug Diversion Program 2006 - 2019



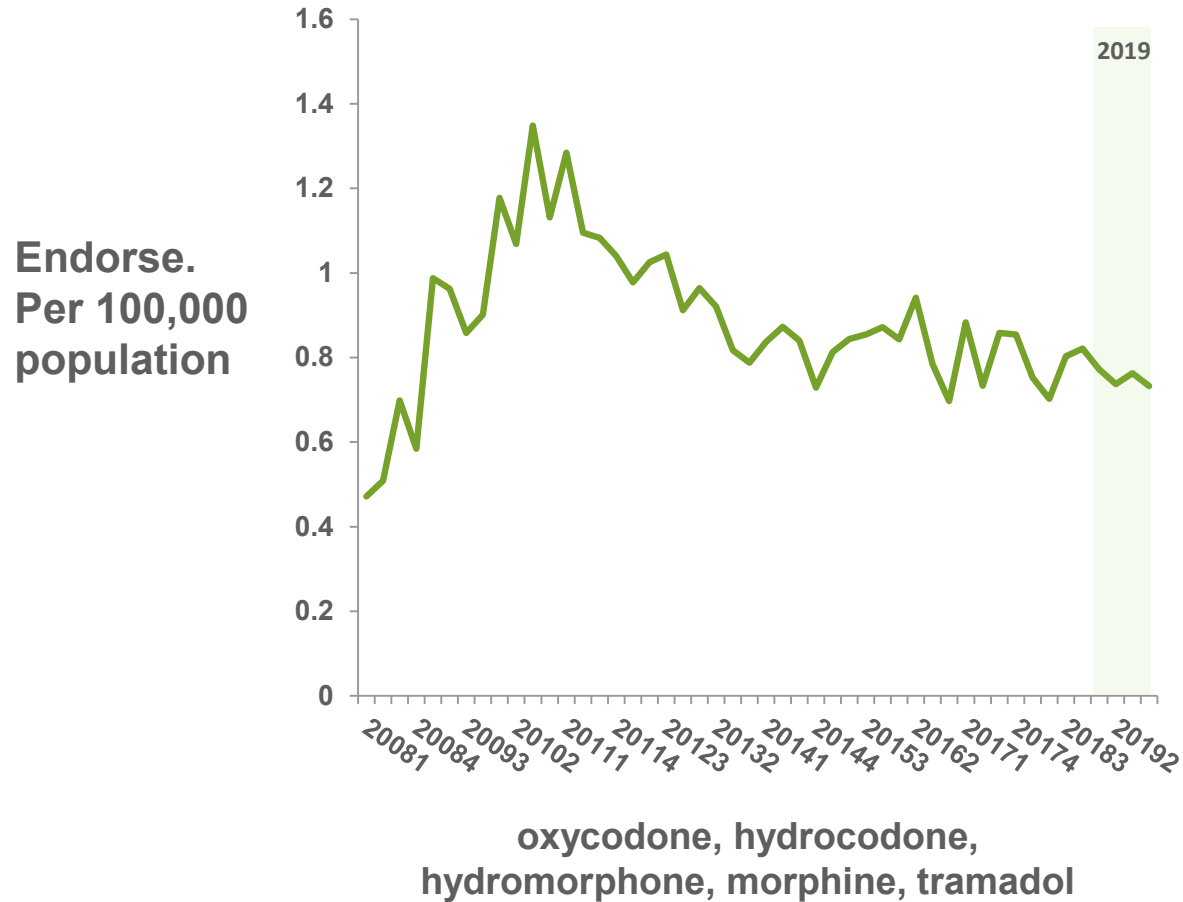
Drug Diversion Program 2006 - 2019



oxycodone, hydrocodone, hydromorphone, fentanyl, morphine, tramadol

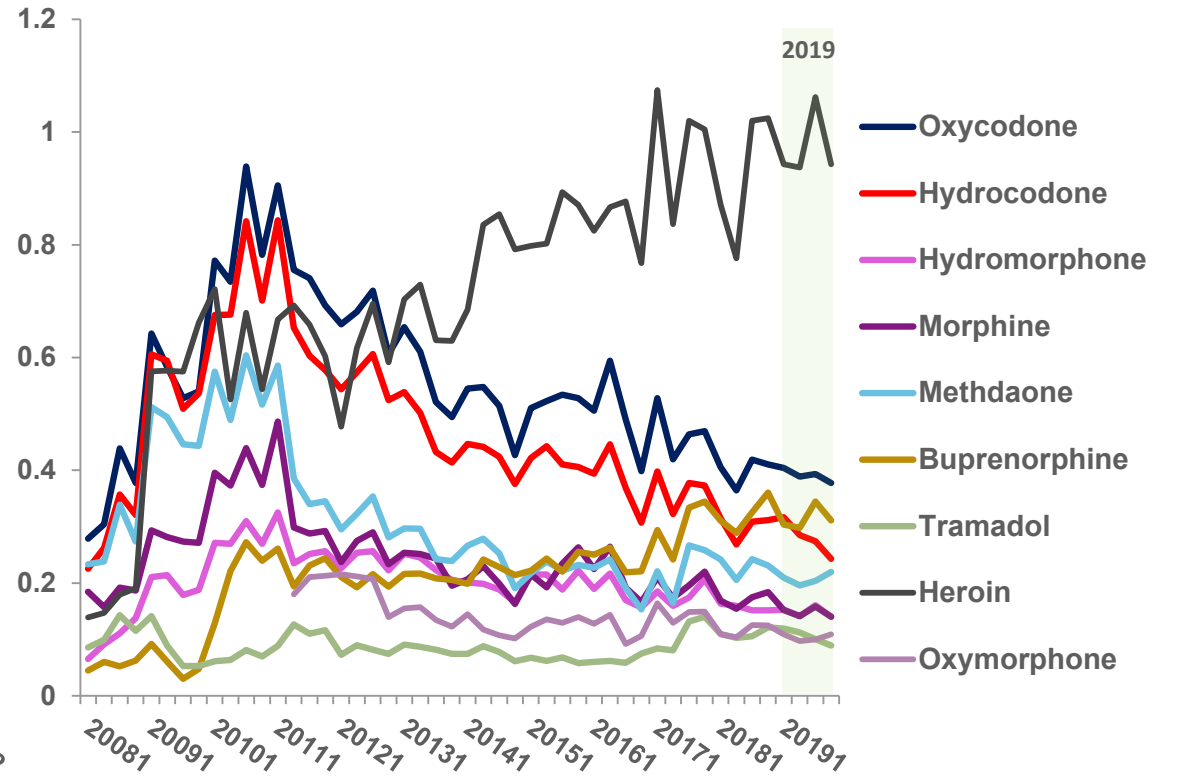
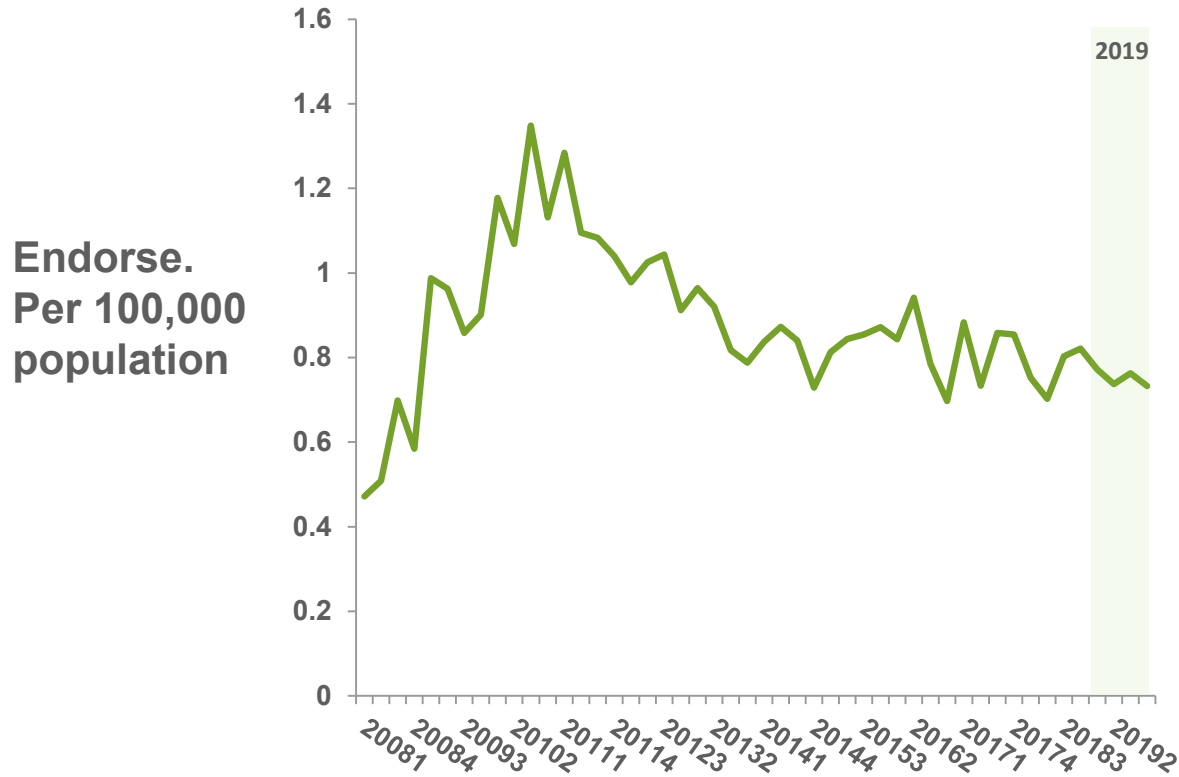


Treatment Center Programs Combined 2008 - 2019



Treatment Center Programs Combined

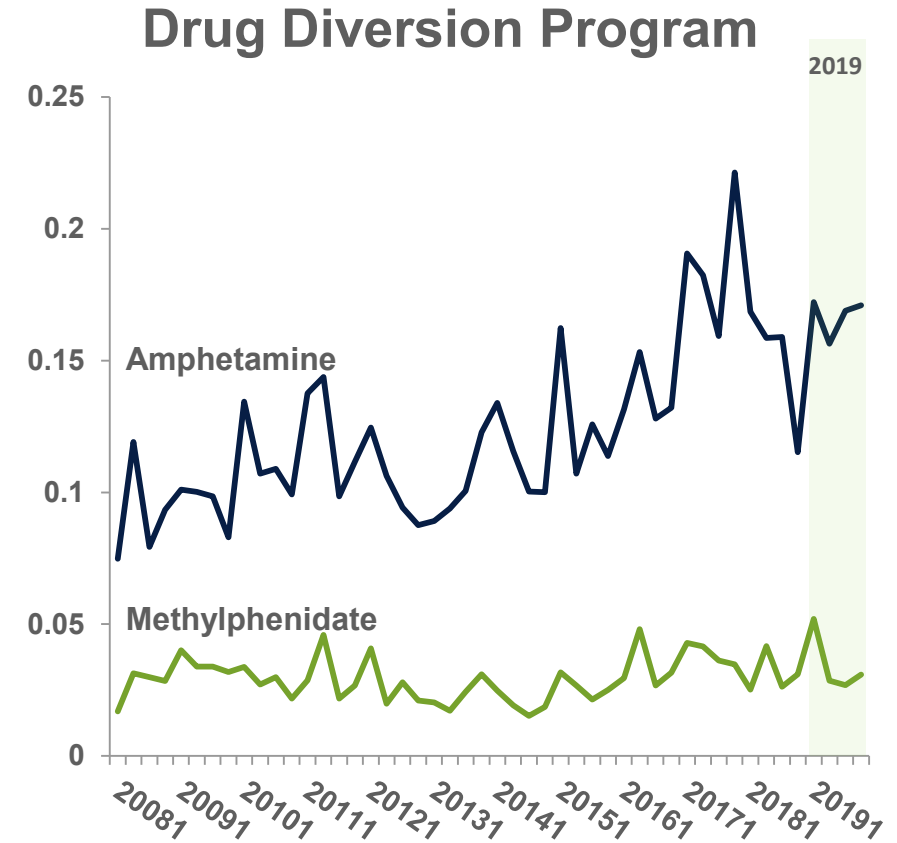
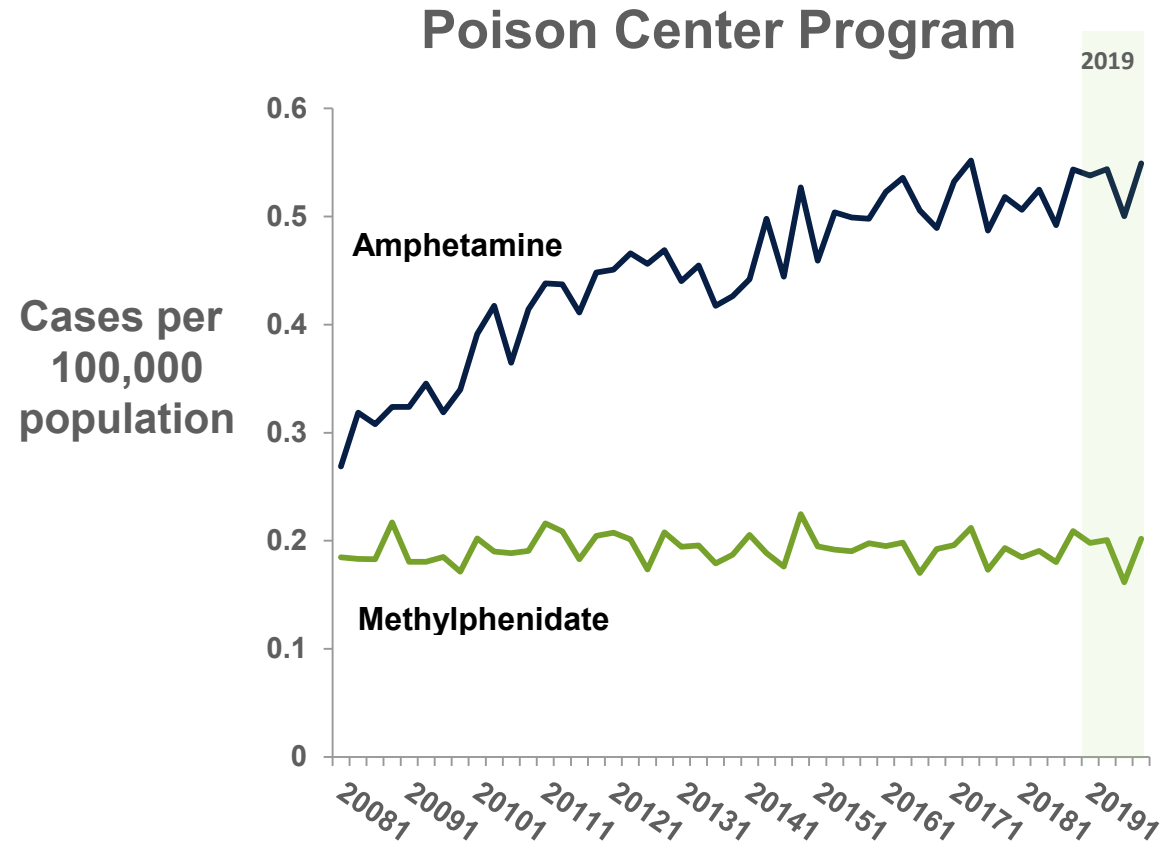
2008 - 2019



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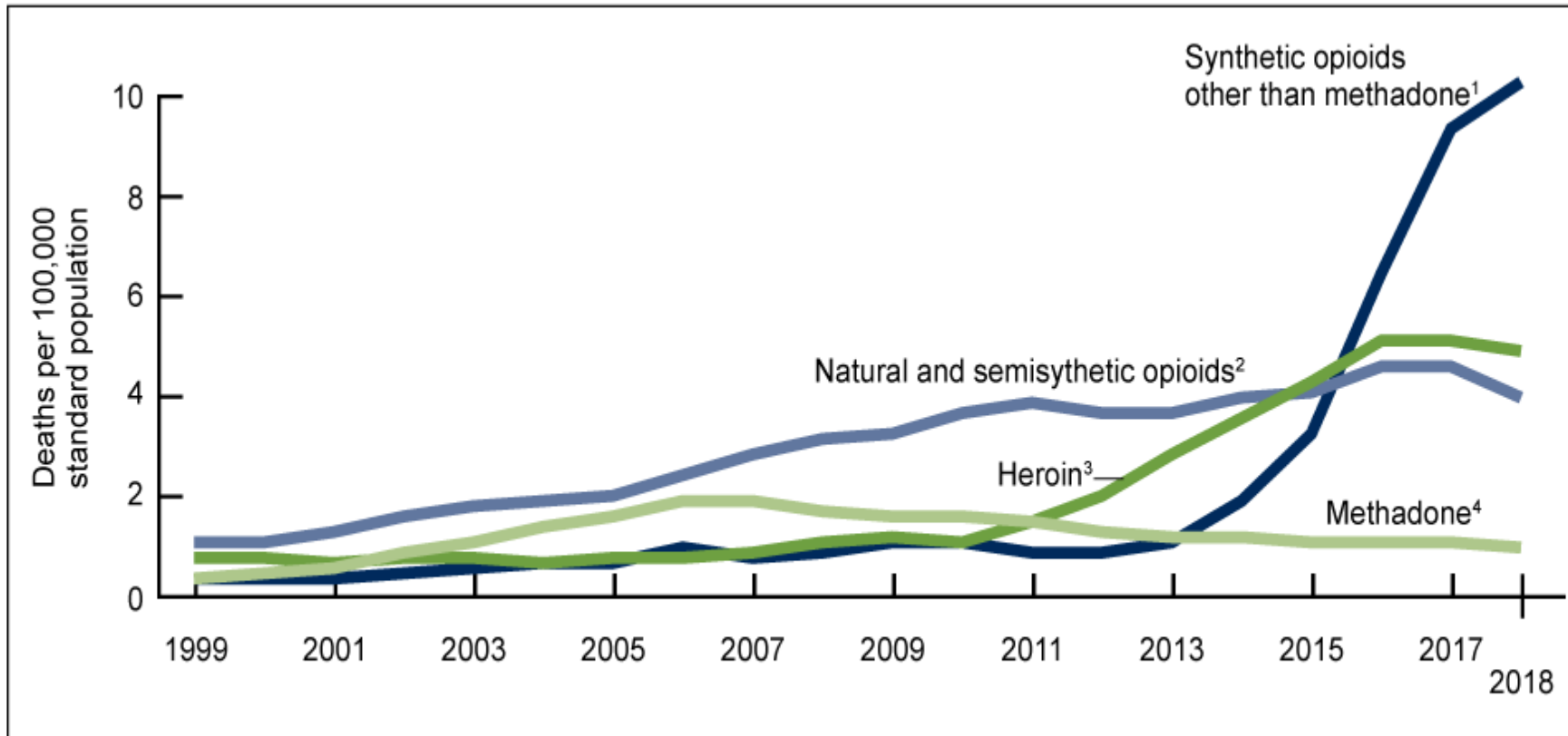
RADARS System

Prescription Stimulant Rates, 2008 - 2019



The Opioid Epidemic

Figure 3. Age-adjusted drug overdose death rates involving opioids, by type of opioid: United States, 1999–2018



¹Significant increasing trend from 1999 through 2006 and 2013 through 2018, with different rates of change over time, $p < 0.05$.

²Significant increasing trend from 1999 through 2018, with different rates of change over time, $p < 0.05$.

³Significant increasing trend from 2005 through 2015, with different rates of change over time, $p < 0.05$.

Drug Exposure

Nicotine - Alcohol – Cannabis – Etc.

Risk Factors

Family Dysfunction
Emotional Abuse
Isolation

Risk Factors

Physical Abuse
Trauma
Genetics

Polysubstance Abuse

Drug Exposure

Nicotine - Alcohol – Cannabis – Etc.

Risk Factors

Family Dysfunction
Emotional Abuse
Isolation

Risk Factors

Physical Abuse
Trauma
Genetics

Polysubstance Abuse

Opioid

- Heroin/Fentanyl
- Designer opioids
- Rx analgesics
- Loperamide

Sedative/Hypnotics

- Alprazolam
- Diazepam
- Designer drugs
- Z-Drugs

Antipsychotic

- Quetiapine
- Olanzapine

GABAergic

- Pregabalin
- Gabapentin

Stimulant

- Cocaine
- Amphetamine
- Methylphenidate
- Designer drugs

Hallucinogen

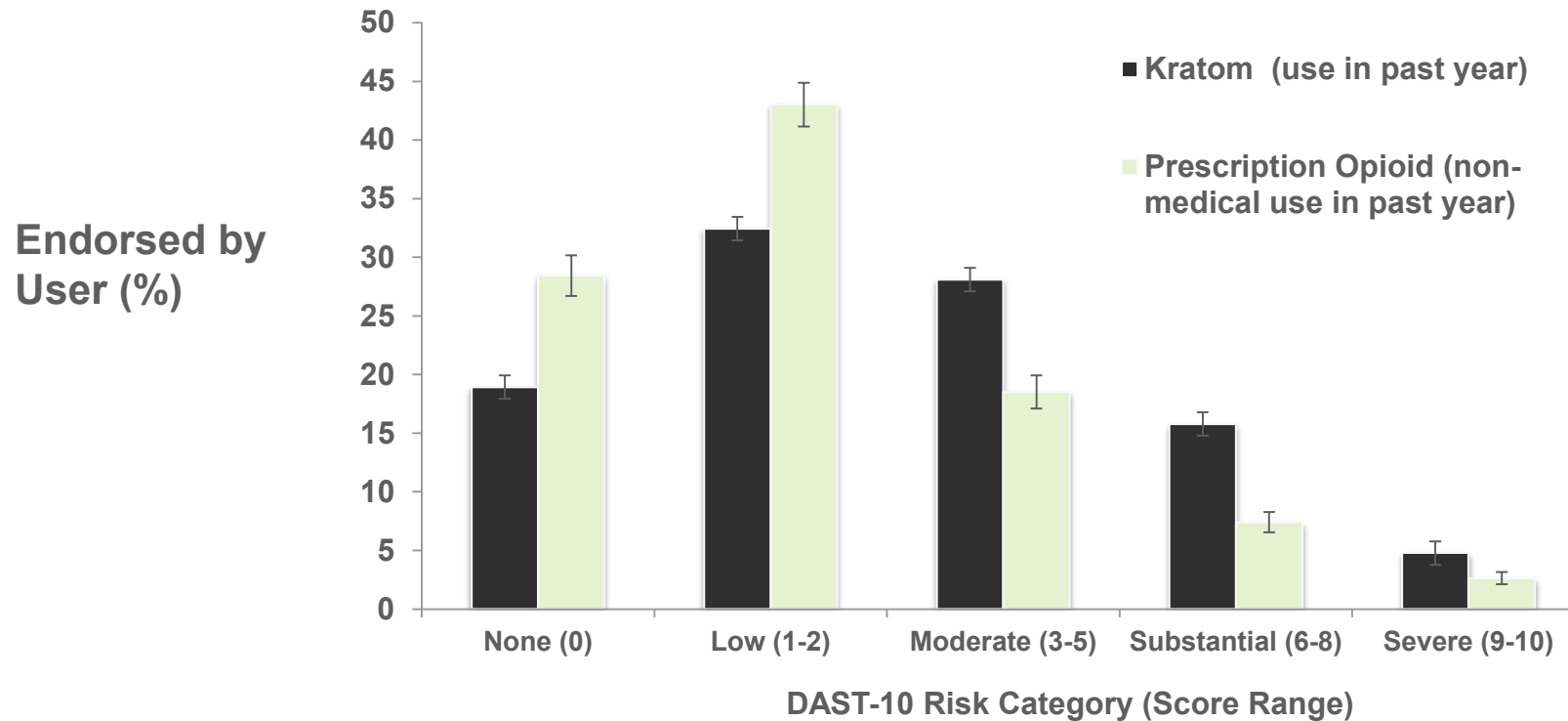
- Ketamine
- LSD
- Psilocybin

NPS/Synthetic

- Mephedrone
- Cathinones
- Synth Cann'oids

3 Million Adults Have Used Kratom, NMURx Program, 2018-2019

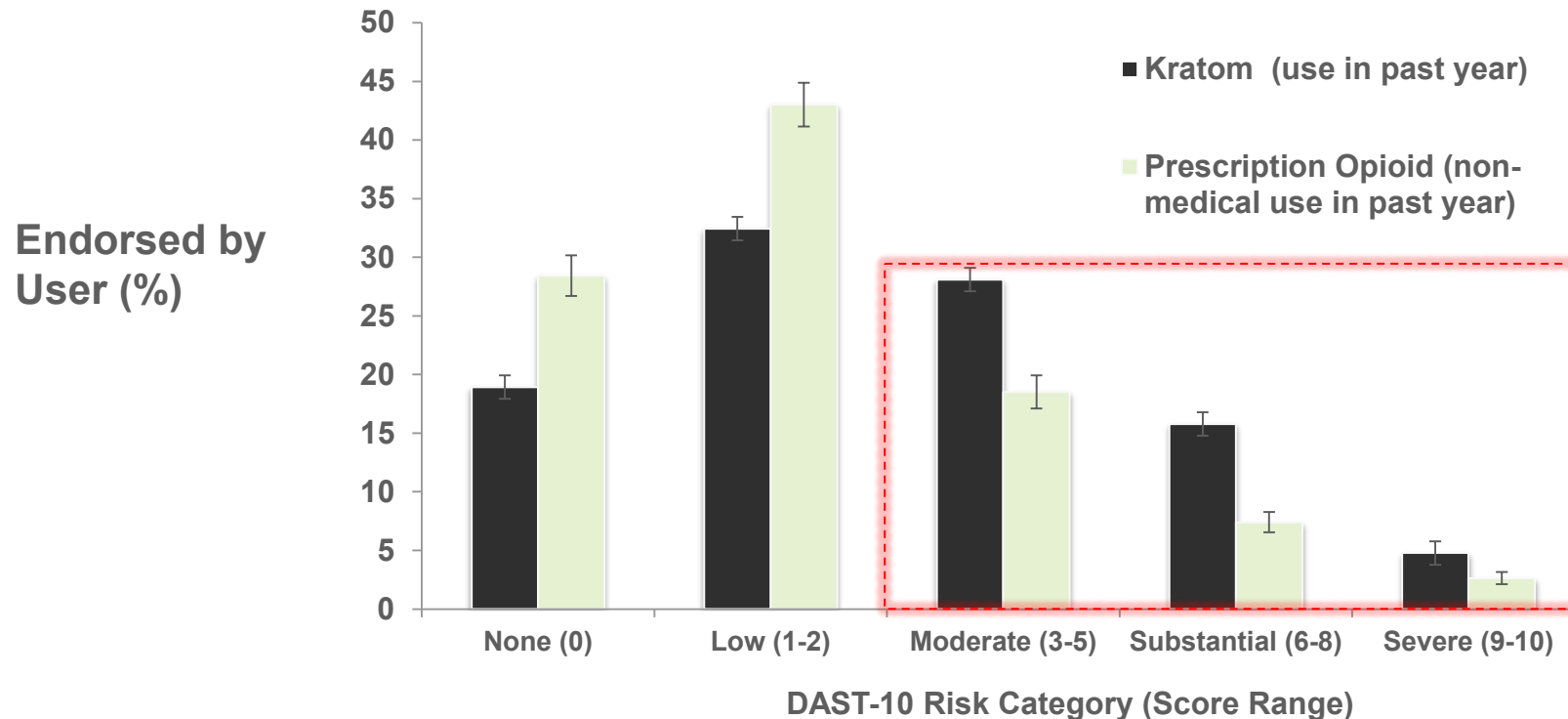
Estimated prevalence of lifetime Kratom use is 1.3% = 3,353,624 adults



3 Million Adults Have Used Kratom, NMURx Program, 2018-2019

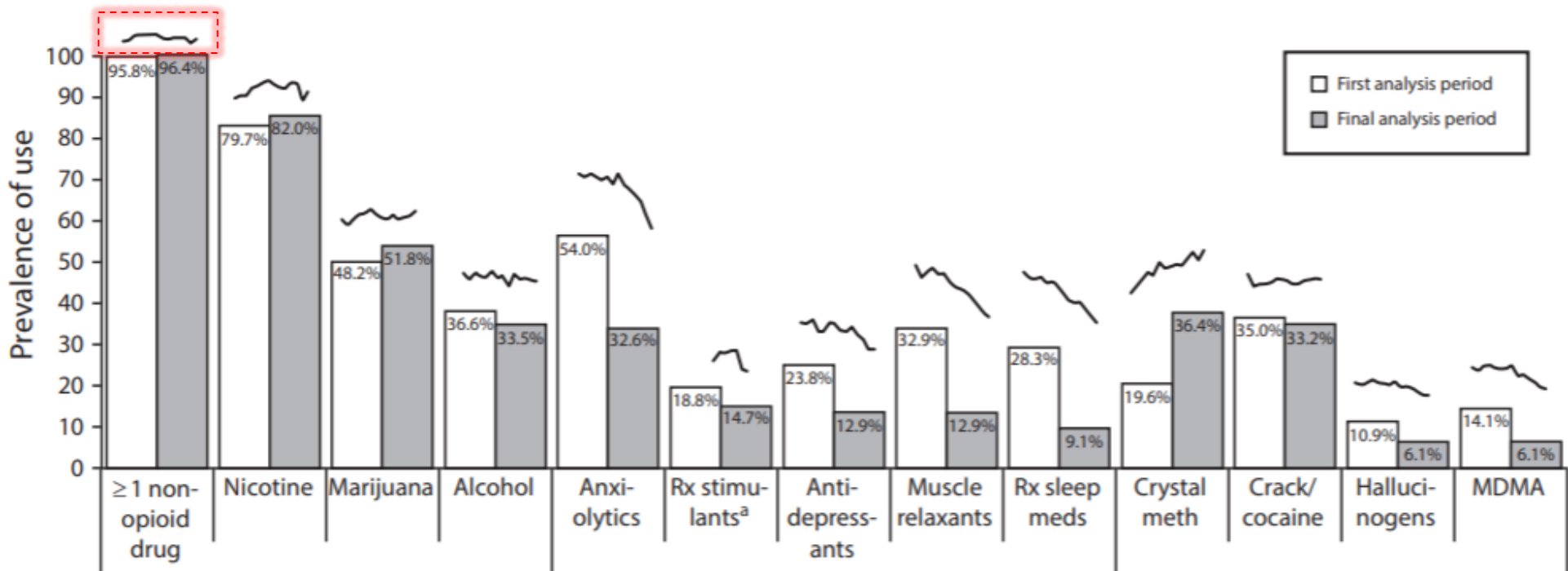
Estimated prevalence of lifetime Kratom use is 1.3% = 3,353,624 adults

Kratom Abuse Profile Worse Than Prescription Opioids



Schimmel J, et al. Prevalence and description of kratom (*Mitragyna speciosa*) use in the United States: A cross-sectional study. *Addiction*. 2020 <https://doi.org/10.1111/add.15082>.

Prevalence Rate of Past Month use of Non-opioid Drugs Survey of Key Informant Patients (SKIP) Program, 2011-2018

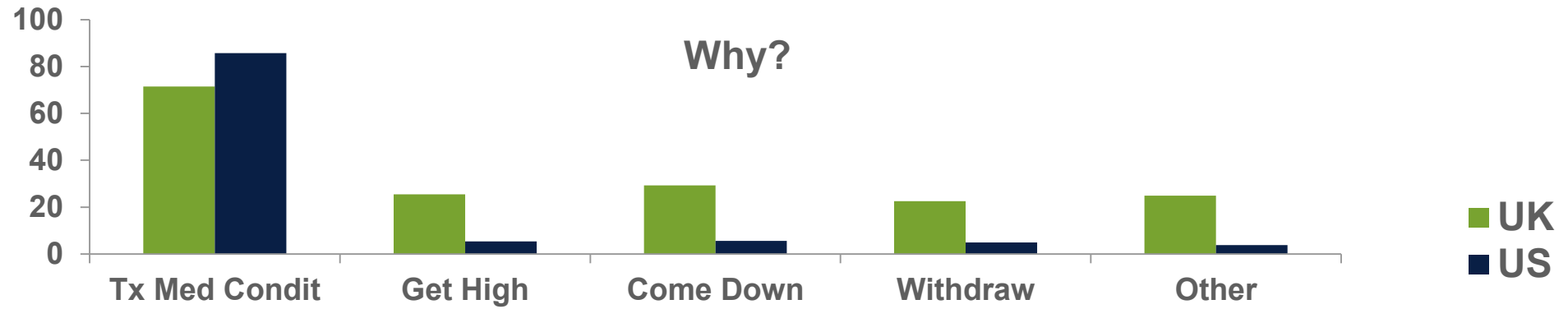


Note. q = quarter; Rx = prescription. Trend lines indicate the prevalence rates across the entire study period.

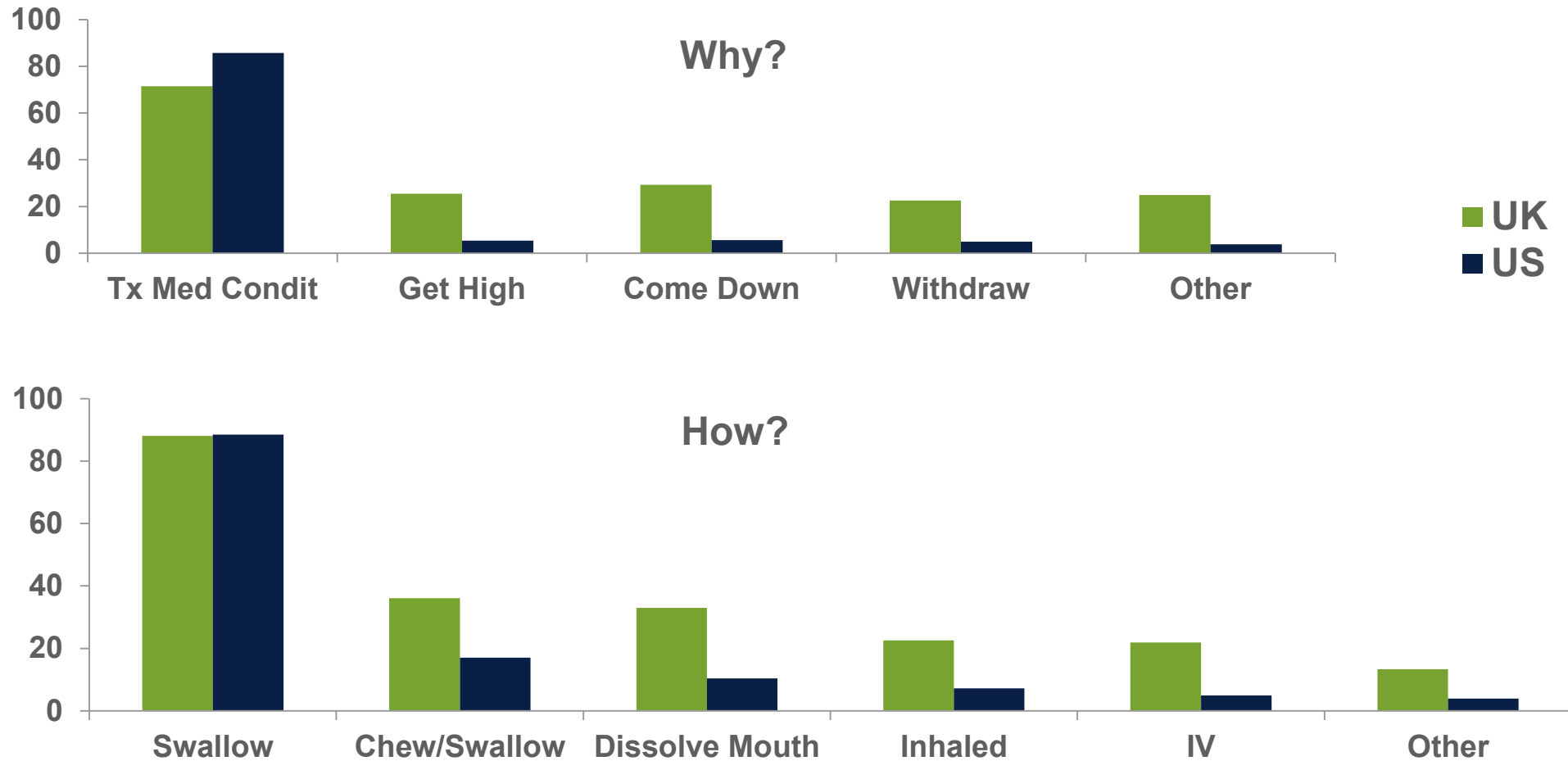
^aData first made available in 2015q1,2.

FIGURE 2—The Prevalence Rates of Past-Month Use of Nonopioid Drugs Among the Survey of Key Informants' Patients Sample in the First Analysis Period (Second Half of 2011) and the Final Analysis Period (First Half of 2018): United States

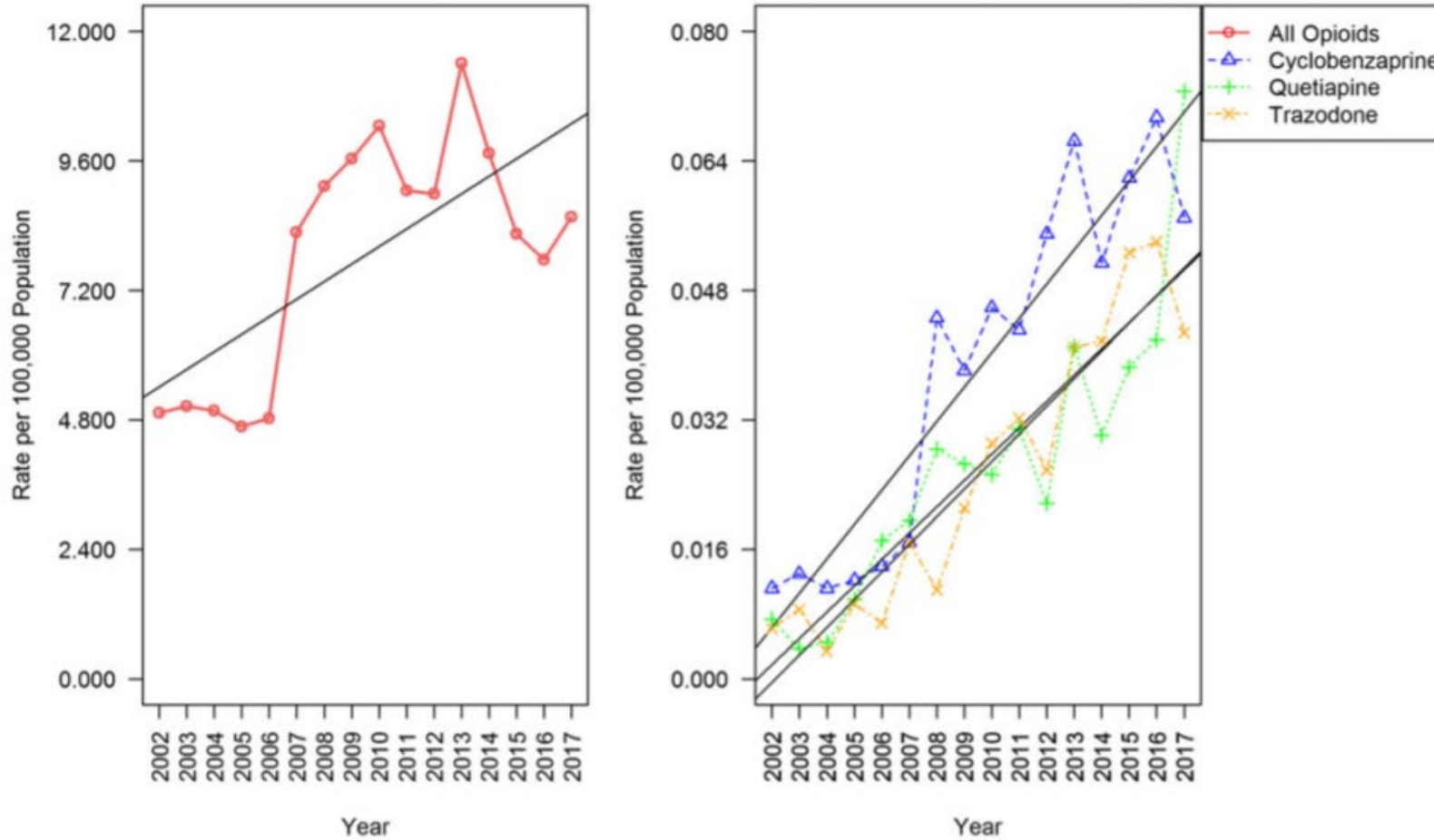
Nonmedical Use of Loperamide (Immodium) in UK and US, NMURx Program, 2017



Nonmedical Use of Loperamide (Immodium) in UK and US, NMURx Program, 2017

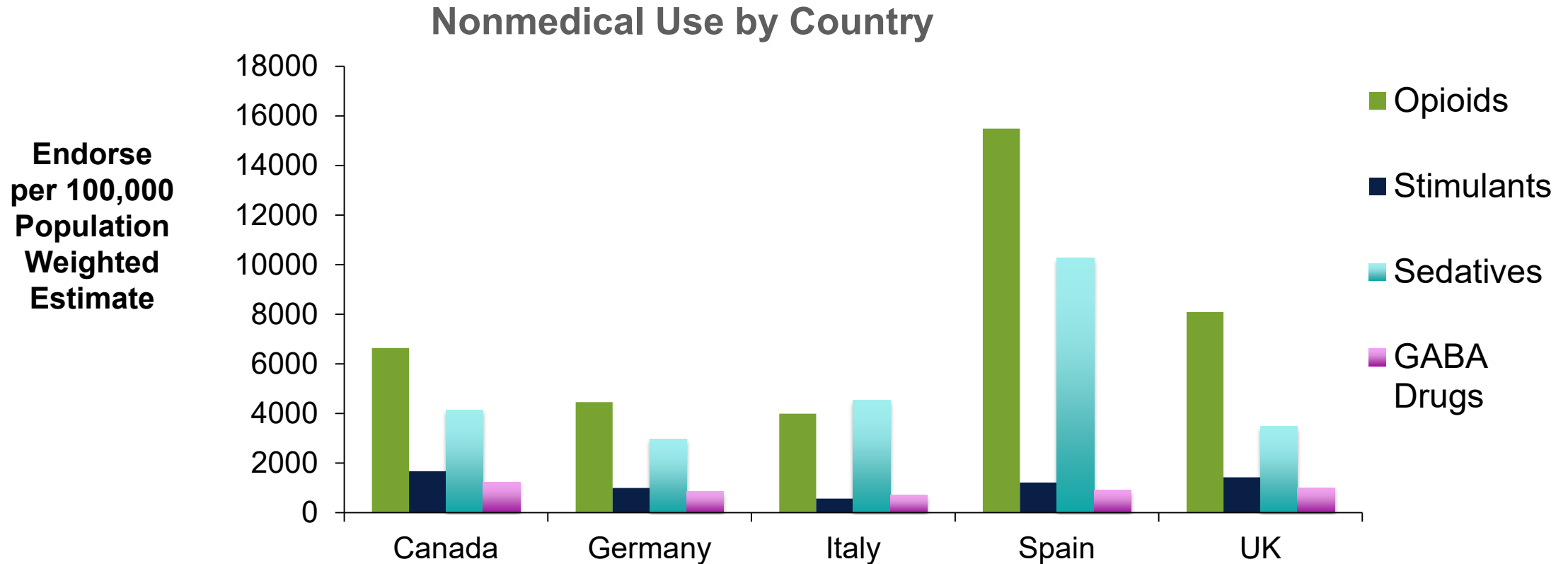


Increasing Diversion of Nonscheduled Psychoactive Prescription Medications in the United States, 2002 to 2017



Kurtz SP, et al. Pharmacoepidemiol Drug Safety, 2019

Global Mosaic of Nonmedical Use: 10,000 foot view NMURx Program, 2018 Prescription Opioids



Summary

- Worldwide pandemic of substance abuse
- Prescription and non-prescription drugs that are often used in an interchangeable manner
 - Cost
 - Availability
- Mortality is rising
- Attempts at reducing supply have failed
- How do we reduce demand?

2020 Program

A New Frontier: Prescription Drug Abuse Beyond Opioids

Richard C. Dart, MD, PhD

*Executive Director, RADARS[®] System, Rocky Mountain Poison & Drug Safety,
Denver Health and Hospital Authority*

President, Canadian Consumer Product and Pharmaceutical Safety Inc.

Vital Statistics Mortality Data

Margaret Warner, PhD

*Senior Epidemiologist, National Center for Health Statistics, Centers for Disease
Control and Prevention*

2020 Program

One Drug? Two Drugs? Polydrug Mortality Is More Common Than We Think

Joshua C. Black, PhD

Associate Research Scientist, RADARS® System, Rocky Mountain Poison & Drug Safety, Denver Health and Hospital Authority

Key Priorities for FDA's Controlled Substance Program

Marta Sokolowska, PhD

Associate Director for Controlled Substances, Office of the Center Director, Center for Drug Evaluation & Research, Food & Drug Administration

2020 Program

Pharmacoepidemiologic Research on Drugs of Abuse

Judy A. Staffa, PhD, RPh

Associate Director for Public Health Initiatives, Office of Surveillance & Epidemiology, Center for Drug Evaluation & Research, Food & Drug Administration

How Low Can You Go: Solving the Challenge of Low Endorsements in the General Population

Joshua C. Black, PhD

Associate Research Scientist, RADARS[®] System, Rocky Mountain Poison & Drug Safety, Denver Health and Hospital Authority

2020 Program

Real World Evidence, Real World Solutions

John Schwarz, PhD

*Director of Biostatistics, RADARS[®] System, Rocky Mountain Poison & Drug Safety,
Denver Health and Hospital Authority*

Nabarun Dasgupta, MPH, PhD

*Core Faculty, University of North Carolina in Chapel Hill
Consultant – RADARS[®] System*

Panel Discussion and Summary

End