UNC HEALTH SCIENCES at MAHEC

The Overdose Crisis and What We Can Do About It

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Wake County 8/2/22

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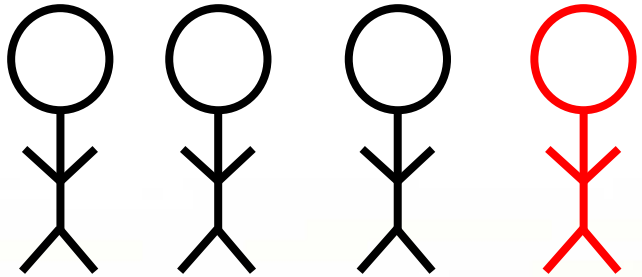
Content:

To the extent possible, the content creators sought to ensure everything presented is evidence-based (as of 2022).

If the presenter shares an opinion, they will strive to note that it is their opinion based on the evidence reviewed and/or their clinical experience.

1 in 4

drug-related deaths worldwide occur in the U.S.[1]



- The U.S. experiences the highest drug-related mortality worldwide [1]
- Drug overdose is the leading cause of death in the U.S. for those under 50.
  - Exceeds deaths related to firearms, car accidents, homicides [2]

[1]United Nations 2018
[2]CDC 2018

Opioid Overdose Deaths

8

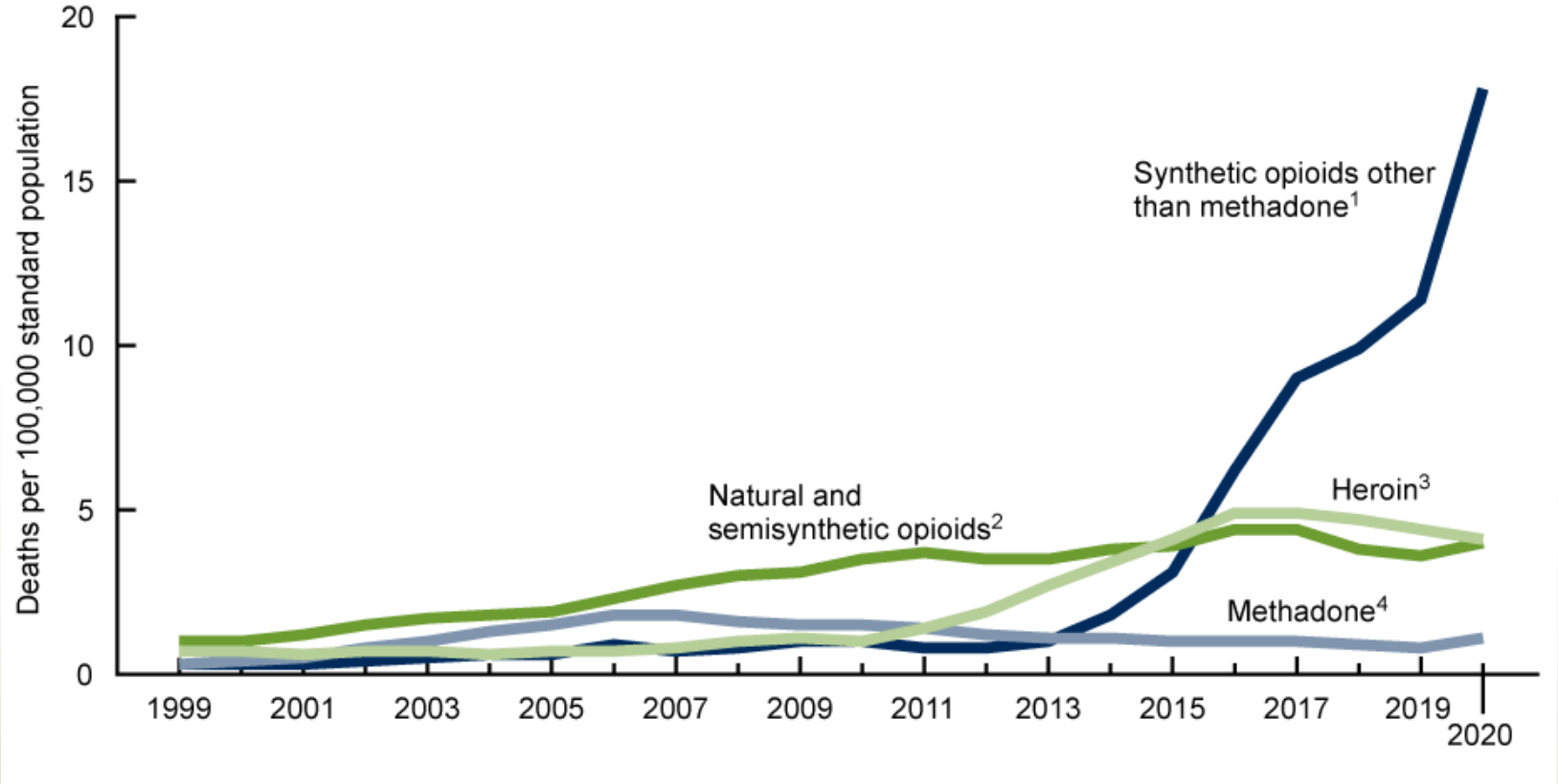
Number of North Carolinians who died each day from unintentional opioid overdoses in 2019[1]

105,752

Predicted number of people in the US who died from Overdose from October 2020-October 2021[2]

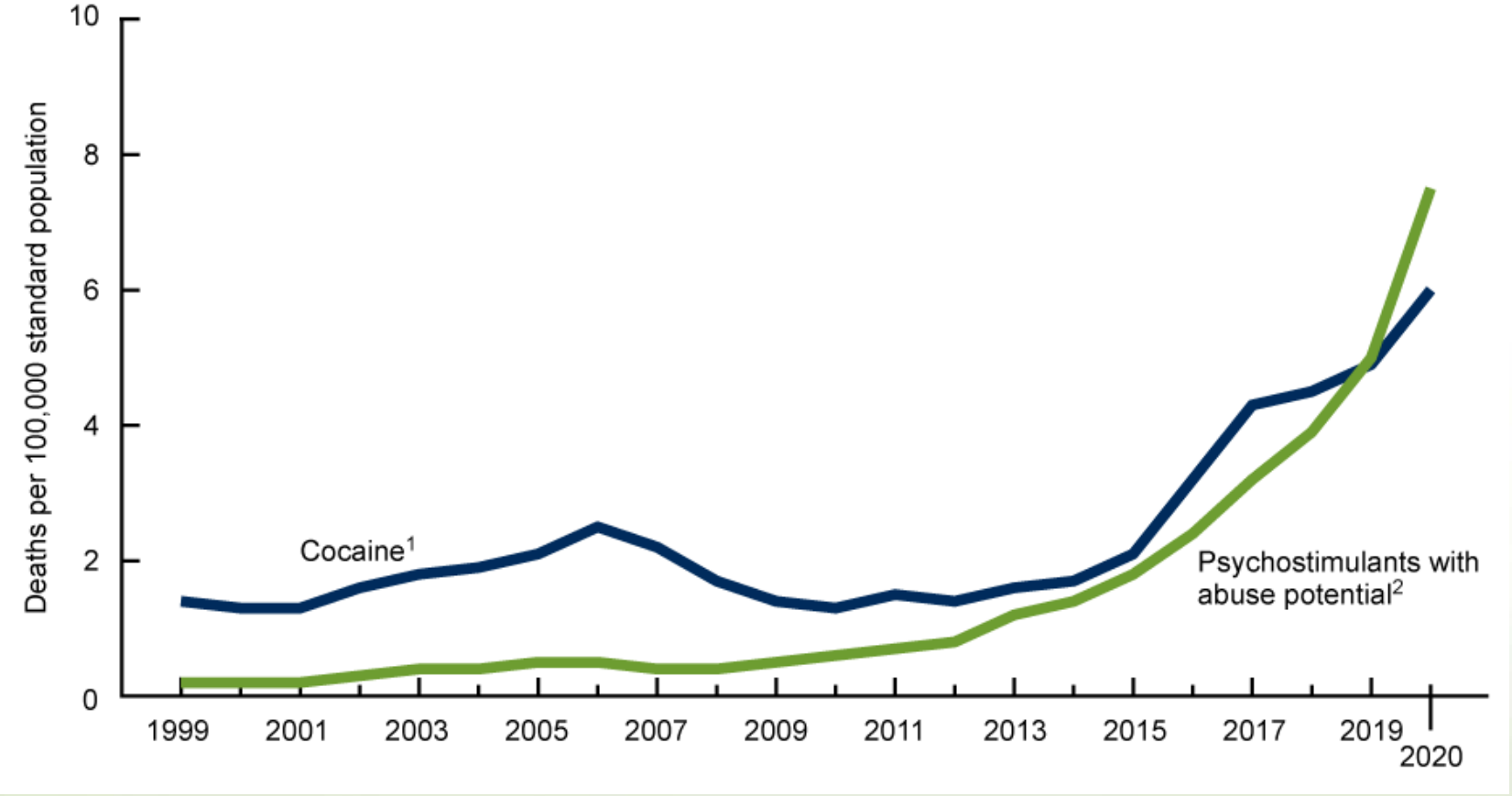
[1]NC Opioid Dashboard 2022
[2]National Center for Health Statistics, 2022

Age-adjusted rates of drug overdose deaths involving opioids, by type of opioid: United States, 1999–2020



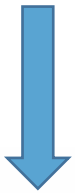
National Vital Statistics System 2021

Age-adjusted rates of drug overdose deaths involving stimulants, by type of stimulant: United States, 1999–2020

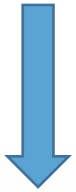


National Vital Statistics System 2021

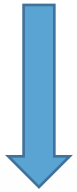
Trends in North Carolina



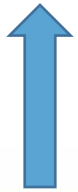
10% reduction in ED visits for opioid related ODs (2017-2018)



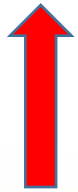
5% decrease in unintentional opioid-related deaths (2018)



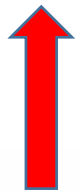
27% reduction in opioid dispensing (2017-2020)



15% increase in prescriptions for drugs used to treat OUD (2017-2019)



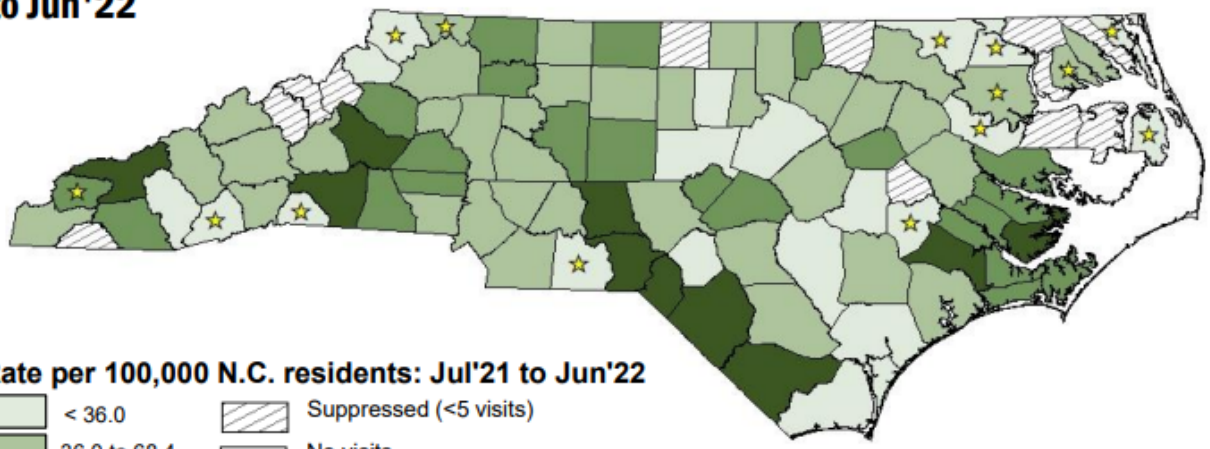
5% increase in overdose related deaths (2019)



40% increase in overdose related deaths (2020)

[1] SAMHSA, 2019
[1]NCDHHS 2018
3.NCDHHS 2020
3.NCDHHS 2021
4. NCDHHS 2022

Last 12 Months Opioid Overdose ED Visits Rate by County of Residence: Jul'21 to Jun'22



Rate per 100,000 N.C. residents: Jul'21 to Jun'22

- < 36.0
- 36.0 to 68.4
- 68.5 to 103.9
- ≥ 104.0
- Suppressed (<5 visits)
- No visits
- Interpret with caution, low numbers (5 to 9 visits)

*Provisional Data: 2021-2022 ED Visits

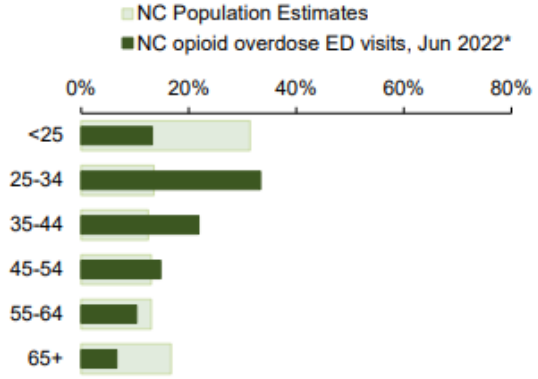
Highest Rates of Opioid Overdose ED visits among Counties Last 12 Months: Jul'21-Jun'22

County	Count	Rate^
Jones	17	180.5
Montgomery	47	173.0
Pamlico	20	157.2
Richmond	57	127.1
Robeson	163	124.8
Rutherford	81	120.8
Swain	16	112.1
Columbus	62	111.7
Burke	99	109.4
Scotland	37	106.3
Statewide	**5,461**	**52.1**

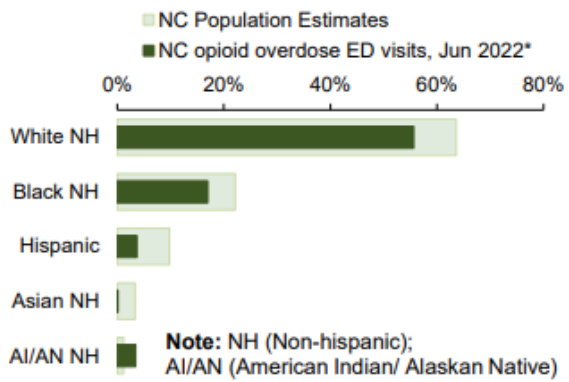
^Please note that rates are calculated using the last 12 months of data and 2020 population estimates. Counties listed in "Highest Monthly Rates of Opioid Overdose ED visits" table will likely change each month.

Demographics of Opioid Overdose ED Visits Compared to Overall NC Population Estimates

ED Visits by Age Group

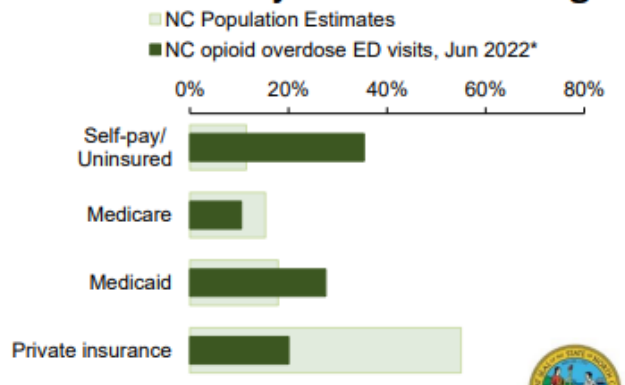


ED Visits by Race/Ethnicity



Note: NH (Non-hispanic); AI/AN (American Indian/ Alaskan Native)

ED Visits by Insurance Coverage

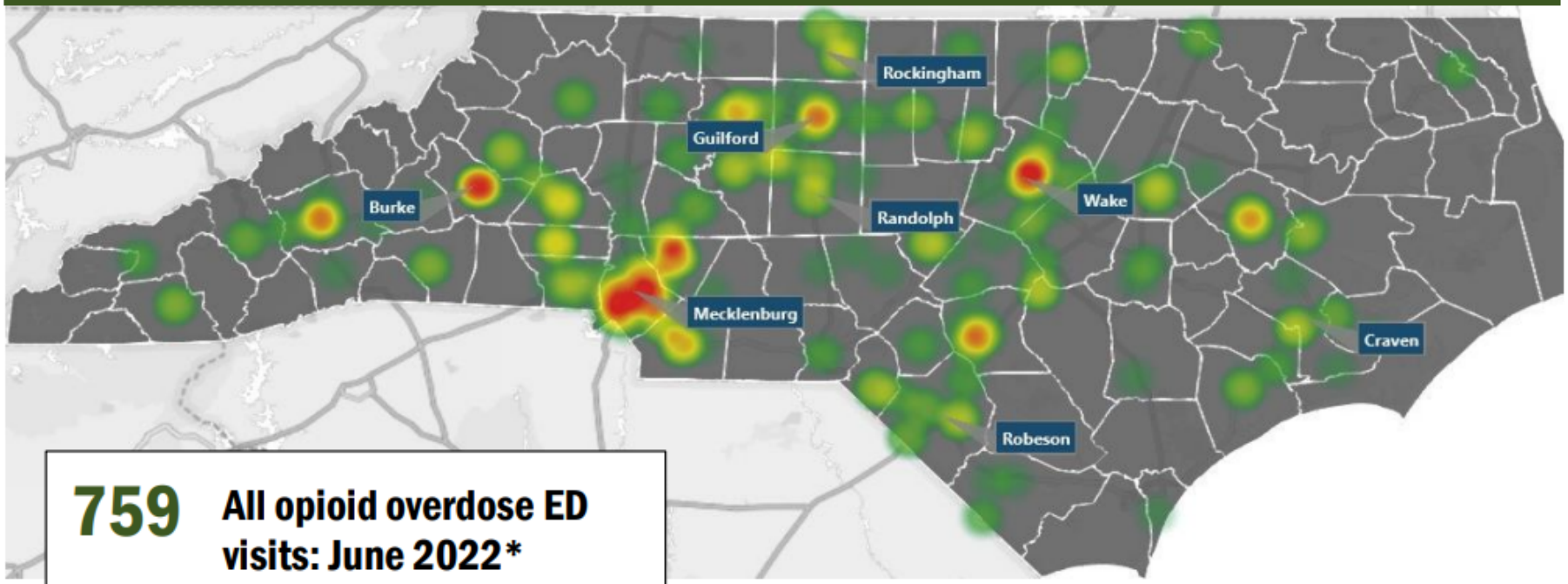


Data Sources: ED Data-NC DETECT is North Carolina's statewide syndromic surveillance system. ED visit data from NCDETECT are provisional and should not be considered final. For training on NCDETECT, contact amy_ising@med.unc.edu; **Population Data**-U.S. Census Bureau, http://quickfacts.census.gov; **Insurance coverage Data**-Kaiser Family Foundation estimates based on the Census Bureau's American Community Survey, 2008-2019, www.kff.org/other/state-indicator/total-population.
Note: Self-pay ED visits are compared to the uninsured overall population estimate category. *Provisional Data: 2021-2022 ED Visits*

NC DETECT

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

ALL OPIOID OVERDOSE ED VISITS: NORTH CAROLINA, JUNE 2022*



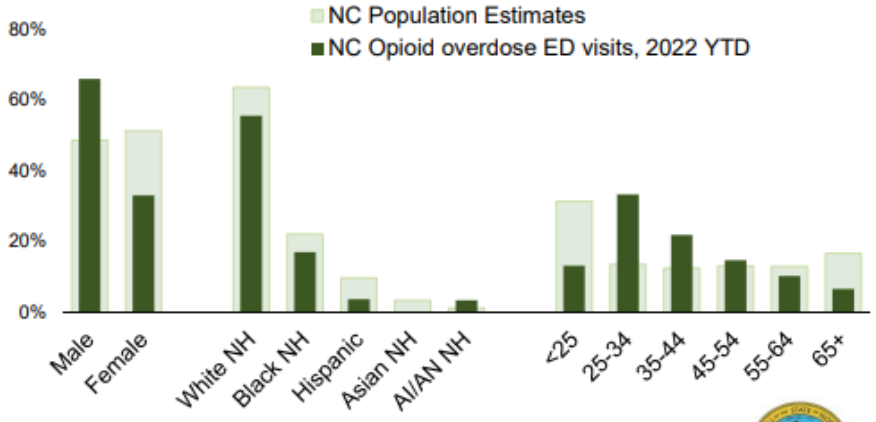
759 **All opioid overdose ED visits: June 2022***

Compared to **719** June 2021

Data Source: NCDETECT: ED; Custom Event: Overdose: Opioid Overdose V.2 (ICD-9/10-CM)

The highest rates of visits per 100,000 residents occurred in:

Burke (265.5), Rockingham (224.9), Robeson (218.5), Randolph (175.8), and Craven (163.2) counties.



Note: NH(Non Hispanic). Counts based on diagnosis (ICD-9/10-CM code) of an opioid overdose of any intent (accidental, intentional, assault, and undetermined) for North Carolina residents.*Emergency department visit data from NC DETECT are provisional and should not be considered final. There may be data quality issues affecting our counts: counties with <10 cases may not be true lack of opioid overdose cases but data quality issues; additionally, some hospitals use non-specific poisoning codes rather than specific opioid poisoning codes.

NC DETECT

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

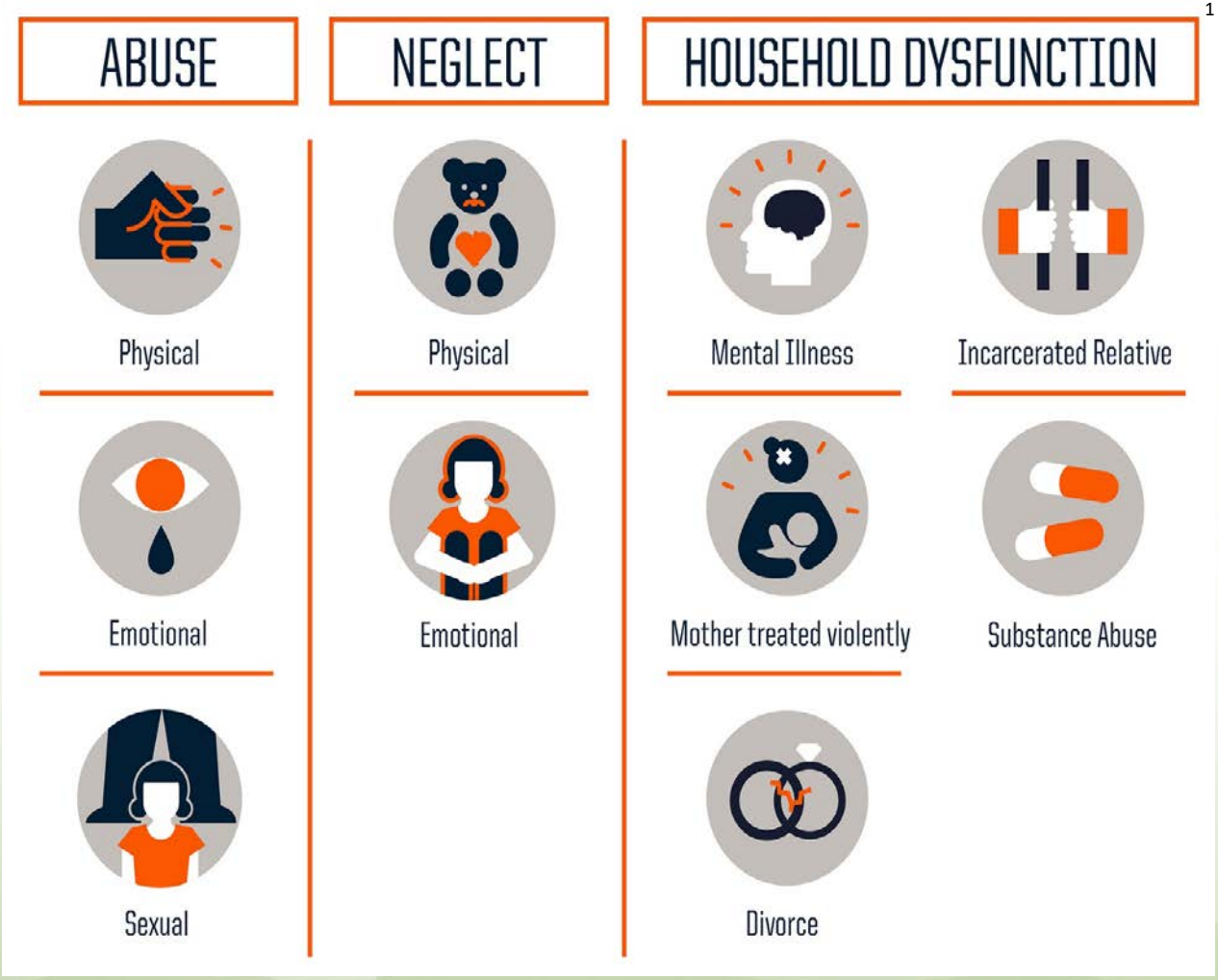
How does substance use begin?[1-4]

Social, structural, and physiological factors contribute to increased risks for substance use, including:

- Chronic pain
- Behavioral health disorders
- Trauma
- Disenfranchisement (unemployment, poverty, stigma, discrimination, isolation)
- Vulnerability due to family history/life experiences
- **Prescribed or non-prescribed use**

[1]Hatcher A, Mendoza S, Hansen H 2018
[2]Hutchinson E, Catlin M, andrilla C, et al. 2014
[3]Singer M, Ziegler J 2017
[4]Singer M, Page J 2016

Risk for a use disorder can be increased by traumatic experiences.



[1]

$1/3$ to $1/2$

of drug use problems could be traced back to Adverse Childhood Experiences (ACEs)[2]

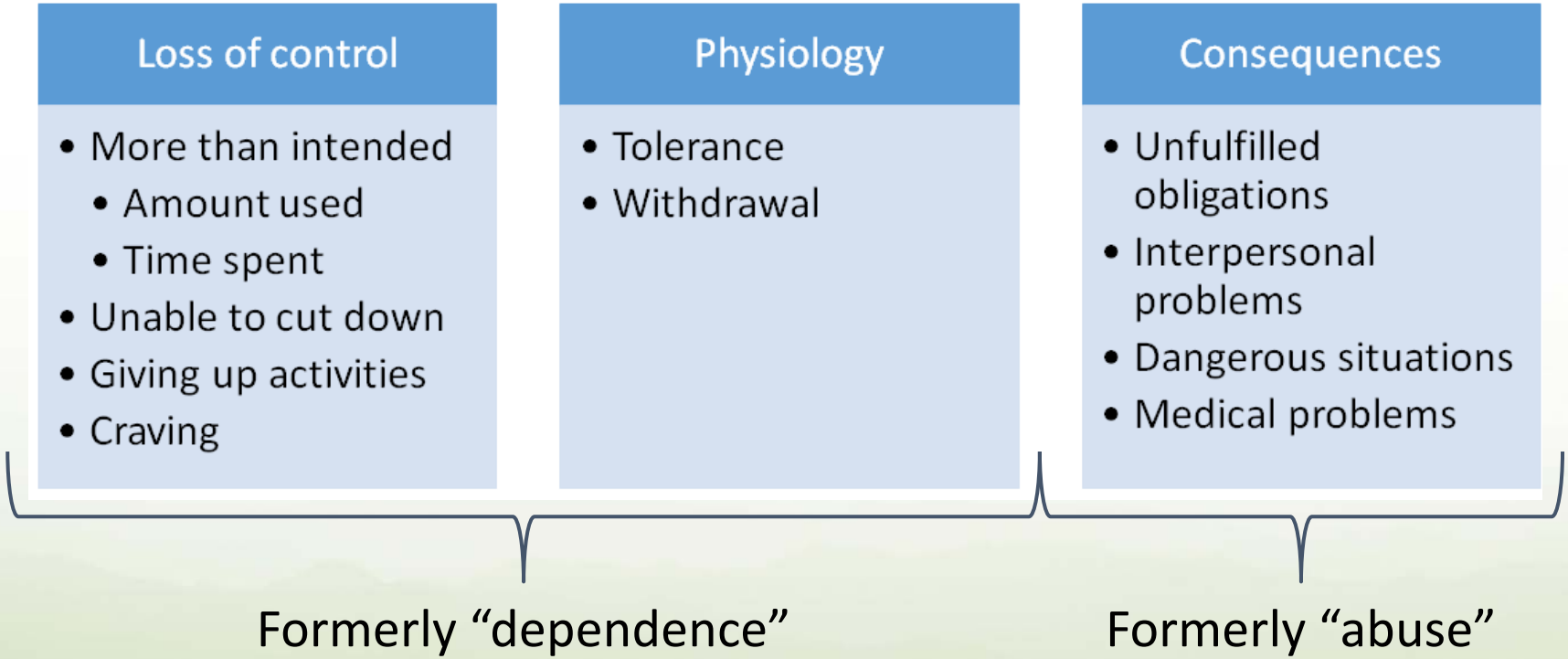
1. Khoury 2010
2. The Truth About ACEs, Robert Wood Johnson Foundation.

Why Do People Continue Using?[1]

- Desire to alleviate symptoms of **withdrawal**
  - Severe flu-like symptoms
- Cravings

[1]NIDA 2018
[2]Wise RA, Koob GF 2013

DSM-5 Criteria for Substance Use Disorders (SUD)



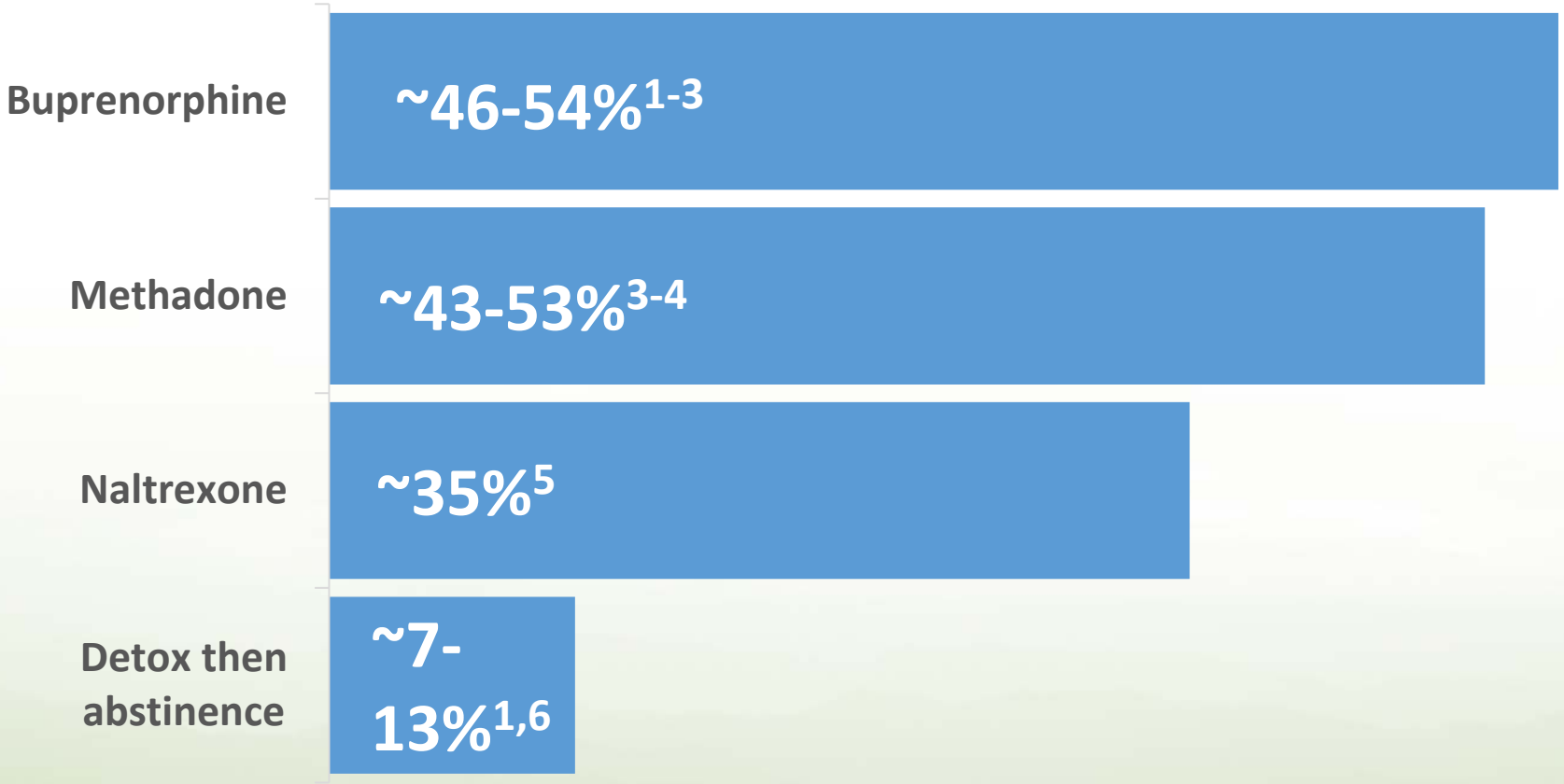
Transition

MOUD Treatment

Treatment of Opioid Use Disorder in Adults

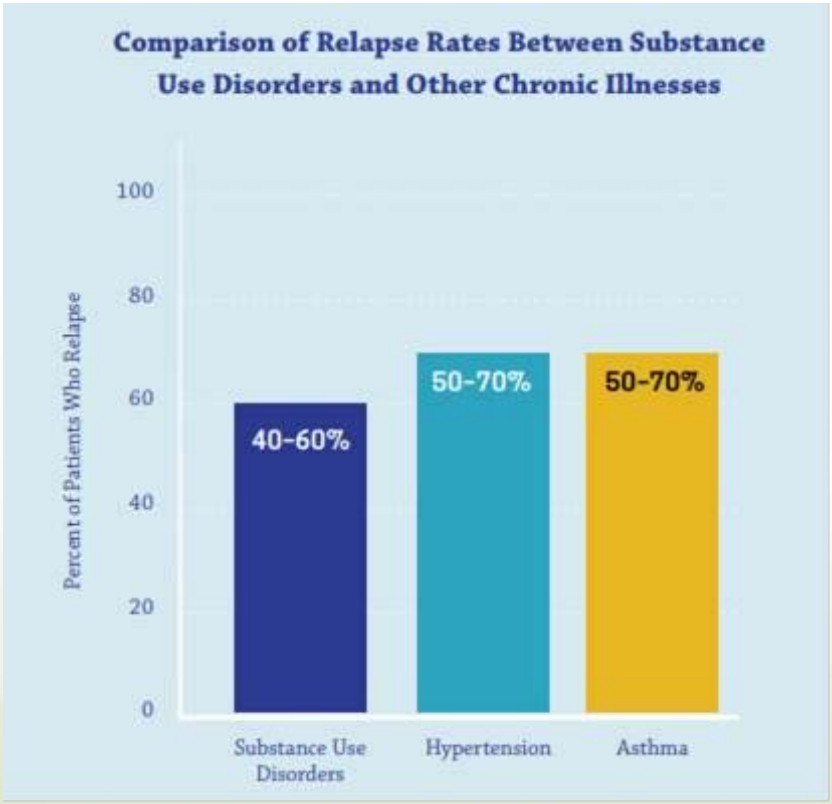
- Detox and abstinence
- Methadone
- Buprenorphine
- Naltrexone injection

Opioid Use Disorder Treatment Approaches & Rates of Adherence



[1]Weiss R, Rao V 2017
[2]Mintzer Il, Eisenberg M, Terra M, et al. 2007
[3]Potter J, Marino E, Hillhouse M, et al. 2013
[4]Strain E, Stitzer M, Liebson I 1993
[5]Lee J, Nunes E, Novo P, et al. 2018
[6]Tuten M, DeFulio A, Jones H, et al. 2012

What if We See Substance Use Disorders as a Chronic Illness?[1]



[1]NIDA 2018

Why MOUD?

- The use of the opioid agonists methadone and buprenorphine reduces:[1,2]

Overdose	Illicit drug use	Transmission of infectious diseases

- Those receiving medications as part of their treatment are **75% less likely to die** due to their addiction than those not receiving medication[2]
- Every $1 invested in addiction treatment returns a yield of **$4 to $7** in reducing drug related crimes, criminal justice and theft[3]

[1]NIDA 2018
[2]ASAM 2013
[3]NIDA,2019

Prescriber Workforce Deficit & Barriers to Care

- In 2017, **70%** of people with an OUD who needed treatment did not get it[1]
  - Primary care and SUD care integration can lessen barriers to care

What is <u>your</u> experience?

[1]SAMHSA 2018

Switching Gears – how to reduce stigma, provide support, and access to harm reduction

Stigma and Bias Associated with MOUD

Four factors leading to MOUD stigma[1]

- Framing of SUDs as a 'willful choice,' not a disease
- Separation of SUDs treatment from primary care
- Stigmatizing language associated with SUDs
- Justice system's lack of recognition for MOUD as an option for medical treatment for individuals with SUD

[1]Wakeman S, Rich J 2017

Recommendations for Addressing Stigma & Bias in Healthcare[1]

Establish a relationship:

- Be curious and non-judgmental
- Practice trauma-informed care

Empower patients:

- Patient-centered goal setting
- Encourage two-way communication

Clinic:

- Educate both clinical and nonclinical staff about disease of SUD

[1]Mee-Lee D 2012

High Risk Populations and Evidence-Based Solutions

Naloxone Prescribing

- Good Samaritan law – anyone can reverse an overdose
- No prescription needed
  - **NC standing order** allows anyone to request naloxone at a pharmacy
- Despite the standing order, patients might need assistance getting naloxone
  - **36% of community pharmacists do not dispense naloxone**[1]
  - Know which pharmacies in your area *do* consistently dispense

[1]Carpenter D, Dhamanaskar A, Gallegos K, et al. 2018

Naloxone Distribution[1]

- Education about and provision of naloxone to at-risk individuals have been associated with:
- **30% to 45%** decrease in opioid overdose death rates
- Reduction in heroin consumption
- Reductions in opioid-related ED visits

[1]Green T, Case P, Fiske H, et al. 2017

Syringe Access Programs

- Reduce overdose[1,2]
- Reduce transmission of infectious disease[2]
- Increase participation in substance use treatment[3]
- Facilitate referral to healthcare services & provide care[3,4]
  - ≈75% of participants at syringe access programs in California reported that the SAP was their only source of medical information/guidance/preventive healthcare

[1]Khatiwoda P, Proeschold-Bell RJ, Meade CS, Park LP, Proeschold-Bell S 2018
[2]Clark, A. K., Wilder, C. M., & Winstanley, E. L. 2014
[3]Hagan, H., McGough, J. P., Thiede, H., Hopkins, S., Duchin, J., & Alexander, E. R. 2000
[4]Heinzerling KG, Kral AH, Flynn NM, et al. 2006

Substance Use Disorders and the Justice System

- Substance use disorders drives both violent and non-violent criminal activity

- Over 50% of inmates nationwide suffer from substance use disorders
  - Less than 50% receive treatment, and “treatment” mostly consists of self-help or peer counseling groups instead of professional/clinical services.
  - Less than 10% receive treatment after release.

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Prison System-Involved Overdose Risk[3]

- Over ⅔ of incarcerated individuals meet criteria for substance dependence or abuse [1]
- In NC the likelihood of OD post-release is 40x higher than general population [2]
- Unlike many other countries, **U.S. does not routinely offer MAT to incarcerated people**
- Leads to:

Interruption in treatment during incarceration

High relapse & overdose risk post-release

Vastly increased risk of overdose death following incarceration if denied access to MAT

- Given disproportionate incarceration of Black and Latinx people, this **differentially and unnecessarily increases their mortality**

[1] NCCHC, 2018
[2] Ranapurwala,2018
[3] SAMHSA 2019

Economic Impact of SUDs

- Treatment is less expensive than alternatives

Approximate average cost for 1 full year:

Buprenorphine treatment	Methadone treatment	Naltrexone treatment	Imprisonment
$6,000 per patient[1]	**$6,500** per patient[1]	**$14,000** per patient[1]	**$36,000** per person[2]

- Every $1 invested in addiction treatment returns a yield of **$4 to $7** in reducing drug related crimes, criminal justice and theft[3]
  - Not including healthcare costs
- MAT in jails/prisons can improve recidivism, re-incarceration, parole violation, crime, violence and suicide within jail/prison

[1]ASAM 2015
[2]Federal Register 2018
[3]NIDA 2016

NCCHC Endorses Use of MOUD in correctional settings

2016 Position Statement: Substance Use Disorder Treatment for Adults and Adolescents

- Continuation of opioid agonist treatment treats the physiological and psychological symptoms of dependence and minimizes risk from opioid withdrawal, failure to reinitiate treatment, and relapse due to unexpected inmate release
- Inmates not receiving MAT prior to entry, or whose MAT is discontinued while incarcerated (which is not preferred), should be offered MAT prerelease when postrelease continuity can be arranged

https://www.ncchc.org/substance-use-disorder-treatment-for-adults-and-adolescents

Key Resource

Medication-Assisted Treatment for Opioid Use Disorder in Jails and Prisons: A Planning & Implementation Toolkit

The National Council for Behavioral Health

https://www.thenationalcouncil.org/wp-content/uploads/2020/09/MAT_in_Jails_Prisons_Toolkit_Final_12_Feb_20.pdf?daf=375ateTbd56

MOUD is Effective in Correctional Settings

- After expanding MOUD statewide, the Rhode Island Department of Corrections saw a **61%** reduction in post-correctional overdose death rates in the first year.

- A study of >12,000 people in England found that a prison-based MOUD program was linked with a **75% reduction in all-cause mortality and an 85% reduction in overdose deaths** in the first month after release.

- Another study showed that access to MOUD during the first four weeks in prison, was associated with a **94% reduction in risk of death**, primarily associated with a reduction of suicide deaths among inmates.

What the Literature Shows[1]

Observed decrease in behaviors related to activity in the drug subculture for offenders receiving MAT

The prison MAT program did not cause any pressure within the prison social structure.

Prison officers reported a significantly reduced rate of conflicts amongst participating inmates.

Violence, security breaches, and diversion surrounding the medication did not occur. In fact, personnel reported MAT participants were easier to handle than non-participants.

The MAT program did not cause non-OUD inmates to demand access to the medication.

[1]Stallwitz 2001

Rates of Use vs. Rates of Incarceration

- More white people use illicit drugs, yet huge disparity in rates of incarceration
  - Nearly **80%** of people in **federal prison** and almost **60%** of people in **state prison** for drug offenses are **black or Latinx**[2]

Race/ethnicity	Illicit Drug Use in Lifetime among Persons Aged 12 or Older (2018)[1]:	Percentage of US population[3]
White	54.5%	60.4%
Black or African American	45.9%	13.4%
Hispanic or Latinx	37.7%	18.3%

[1] SAMHSA 2019
[2] Drug Policy Alliance 2019
[3] US Census, 2019

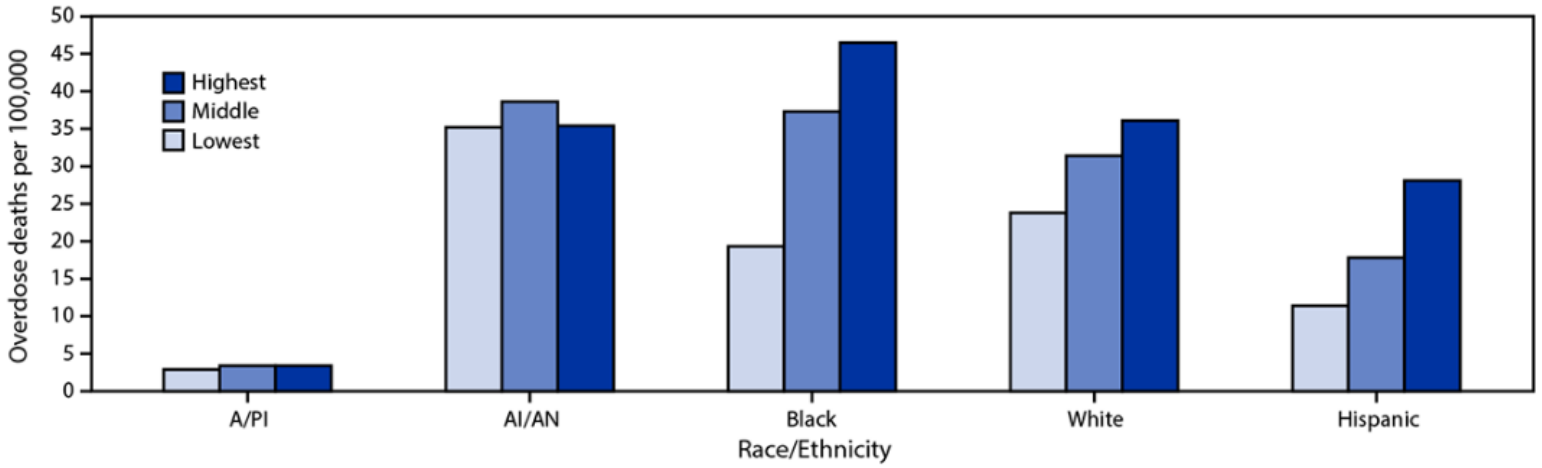
Vital Signs: Drug Overdose Deaths, by Selected Sociodemographic and Social Determinants of Health Characteristics — 25 States and the District of Columbia, 2019–2020

Results

From 2019 to 2020, overall drug overdose death rates increased in 25 states and DC; the largest increases occurred among certain racial/ethnic minority populations. Relative rate increases were highest among Black (44%) and AI/AN persons (39%) (Table 1). Among White persons, the rate increased by 22%. Within racial/ethnic groups, overdose death rates also varied by age. Black persons aged 15–24 years experienced the largest relative rate increase from 2019 to 2020 (86%). Among AI/AN persons, the highest relative rate increase occurred among those aged 25–44 years (49%). Among White persons, those aged 15–24 years experienced the largest relative rate increase (34%).

When stratified by sex and age group, higher overdose death rates occurred among older Black males, with the highest rate in 2020 among those aged 45–64 years (124.9) (Supplementary Table, https://stacks.cdc.gov/view/cdc/118656). In addition, rates among Black males aged ≥65 years were nearly six times as high as those among White males of the same age in 2019 (35.7 versus 6.2), increasing to nearly seven times as high in 2020 (52.6 versus 7.7). Among AI/AN males, those aged

FIGURE 1. Age-adjusted rates* of drug overdose deaths, by race/ethnicity† and income inequality ratio§ — 25 states and the District of Columbia,¶ 2020



PEER SUPPORT

Utilizes persons with lived experience to engage with patients with mental health, substance use, or other medical disorders.

Low barrier, interpersonal relationship building, outreach, community resource linkage… and more!

Helps empower those with lived experience as an asset to help others struggling with recovery

Addresses internalized stigma/bias for patients, and addresses cultural stigma/bias for healthcare worker-learners like you!

>50% relative risk reduction of opioid overdose and >50% relative risk benefit of MOUD initiation!

Winhusen T, Wilder C, Kropp F, Theobald J, Lyons MS, Lewis D. A brief telephone-delivered peer intervention to encourage enrollment in medication for opioid use disorder in individuals surviving an opioid overdose: Results from a randomized pilot trial. Drug Alcohol Depend. 2020 Nov 1;216:108270. doi: 10.1016/j.drugalcdep.2020.108270. Epub 2020 Sep 1. PMID: 32911132; PMCID: PMC7462596

Safe Prescribing Resources

Treating Pain Safely | Resources for Providers

Guidelines • Quick Reference Guides • Patient Handouts

We've compiled a list of the best resources in pain management, opioid prescribing, and patient education. Each listing has the authoring body, and the title is a link to a downloadable pdf.

Full permission is granted to make multiple copies of the government publications (CDC and SAMHSA) and the documents created by MAHEC.

Overview and Guidelines for Providers

Quality Improvement and Care Coordination: Implementing the CDC Guideline for Prescribing Opioids for Chronic Pain | CDC

Guidelines for Prescribing Opioids for Chronic Pain | CDC

Prescribing Opioids for Chronic Pain Pocket Guide | Turn the Tide Rx, CDC

Assessing Benefits and Harms of Opioid Therapy | CDC

Information for Prescribers | SAMHSA

NC CSRS Registration Step by Step Guide | North Carolina Medical Board

Additional Guidelines prepared by MAHEC

Caring for Patients with Opioid Use Disorder: Policies, Procedures & Resources Manual

https://pub.mahec.net/sites/MatDownloads/add

mahec.net/safer

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