The Evolving Opioid Epidemic: Evidence-Based Harm Reduction & Treatment

Michael H. Baca-Atlas, MD, FASAM
Assistant Professor, Dept of Family Medicine/Psychiatry
Medical Director, UNC REACH Enhanced Primary Care – Raleigh, NC
President-Elect NC Society of Addiction Medicine
2/6/2024



Disclosures/Conflict of Interest



 I have no actual or potential conflicts of interest in relation to this program and no disclosures.



Objectives



- Review history of opioid use in the US and important policies.
- Discuss updated data for opioid use at federal/state level.
- Discuss utilizing a chronic illness framework for SUD.
- Understand what settings patients can access MOUD.
- Discuss three FDA approved treatments for OUD.
- Discuss harm reduction options for working with individuals with OUD.

Participant Outcomes



This talk will have been helpful for me if we covered...

- ?
- ?
- ?
- ?
- 7



Special Populations



- Neonates
- Adolescents
- Pregnant
- Geriatrics
- Incarcerated
- Professionals



Definition



Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.



"Use Despite Negative Consequences"

Opioid Terminology



- "Natural", referred to as "opiates"
 - Derived from opium poppy
 - Morphine, codeine, opium

- Synthetic (partly or completely):
 - Semisynthetic: heroin, hydrocodone, oxycodone
 - Fully Synthetic: fentanyl, tramadol, methadone

- "Opioid" refers to:
 - both "natural" and synthetic members of this drug class



Past >>> Present

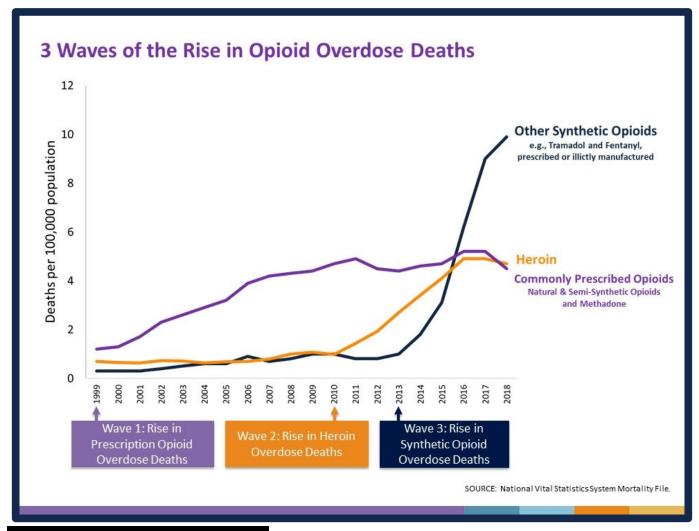


- Post Civil War
 - Addiction among Civil War soldiers
 - Isolation of morphine from Opium
 - Introduction of Hypodermic syringe
- Harrison Narcotics Tax Act of 1914
- NIDA created in 1970s
- DATA 2000 Waiver
- X-waiver eliminated 2023 (MAT ACT)



"Triple Wave"





Fourth Wave -> Methamphetamines

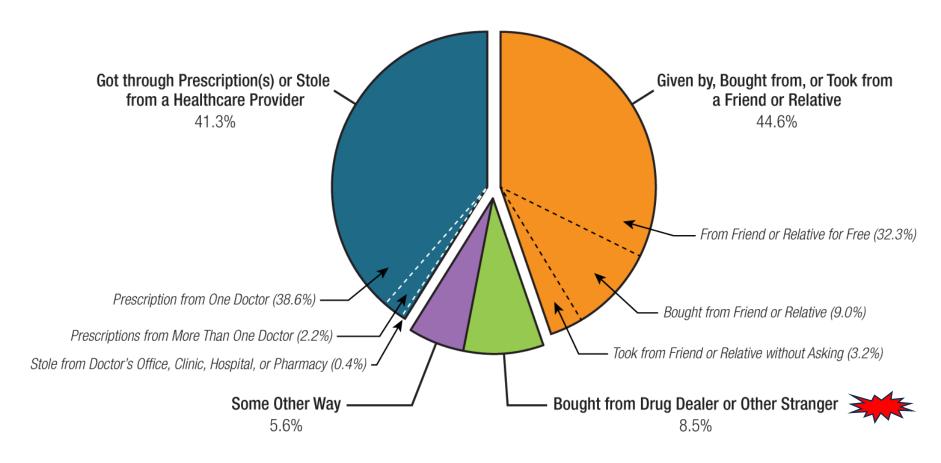
Fentanyl, a synthetic opioid, is <u>50 times</u> stronger than heroin and <u>100 times</u> stronger than morphine. It was involved in 83% of fatal medication/drug overdoses in North Carolina in 2021.



Technical Notes: All intent medication/drug poisoning: X40-X44, X60-64, Y10-Y14, X85 with any mention of T40.4; limited to NC residents Source: Deaths-NC State Center for Health Statistics, Vital Statistics, 2021

Analysis by Injury Epidemiology and Surveillance Unit

Source where Prescription Pain Relievers Were Obtained for Most Recent Misuse: Among People Aged 12 or Older Who Misused Prescription Pain Relievers in the Past Year; 2022

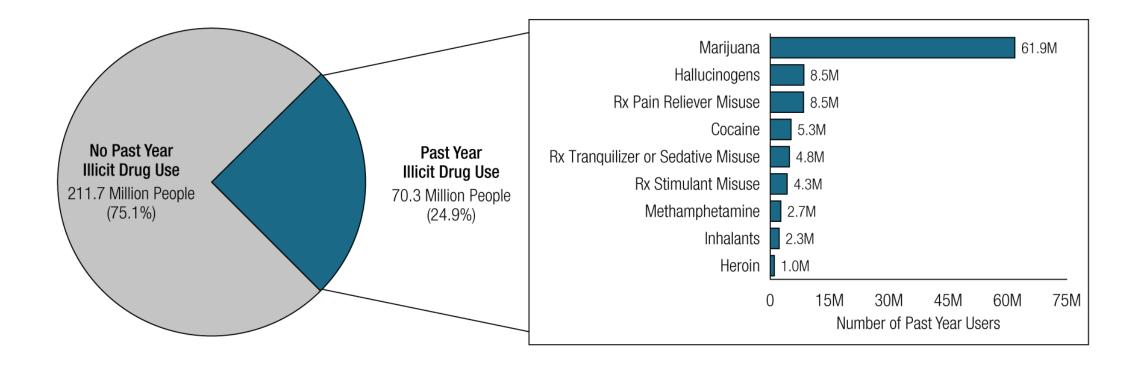


8.5 Million People Aged 12 or Older Who Misused Prescription Pain Relievers in the Past Year



Note: Respondents with unknown data for the Source for Most Recent Misuse or who reported Some Other Way but did not specify a valid way were excluded. Note: The percentages may not add to 100 percent due to rounding.

Past Year Illicit Drug Use: Among People Aged 12 or Older; 2022

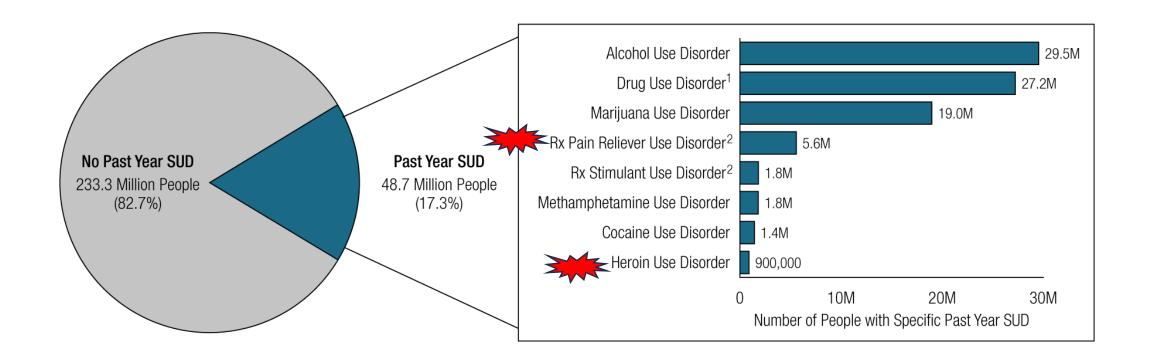


Rx = prescription.

Note: The estimated numbers of past year users of different illicit drugs are not mutually exclusive because people could have used more than one type of illicit drug in the past year.



Past Year Substance Use Disorder (SUD): Among People Aged 12 or Older; 2022



Rx = prescription.

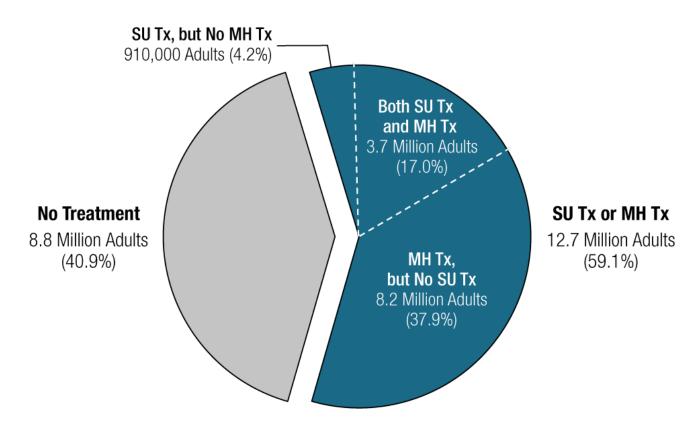
Note: The estimated numbers of people with SUDs are not mutually exclusive because people could have use disorders for more than one substance.



¹ Includes data from all past year users of marijuana, cocaine, heroin, hallucinogens, inhalants, methamphetamine, and prescription psychotherapeutic drugs (i.e., pain relievers, tranquilizers, stimulants, or sedatives).

² Includes data from all past year users of the specific prescription drug.

Receipt of Substance Use Treatment or Mental Health Treatment in the Past Year: Among Adults Aged 18 or Older with Past Year Substance Use Disorder and Any Mental Illness; 2022



21.5 Million Adults with a Substance Use Disorder and Any Mental Illness

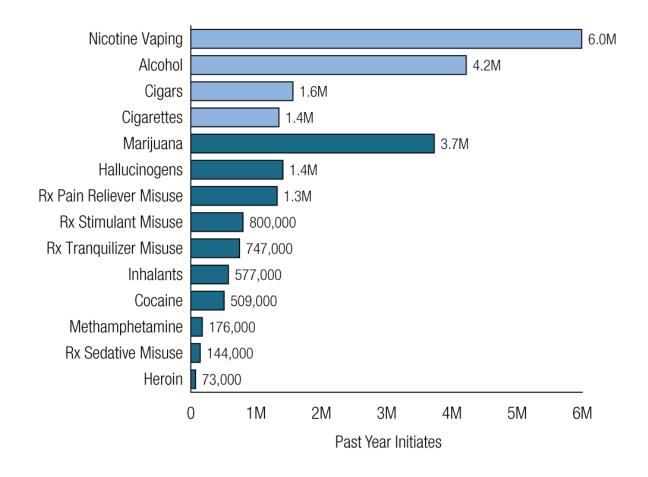
MH Tx = mental health treatment; SU Tx = substance use treatment.

Note: Substance use treatment includes treatment for drug or alcohol use through inpatient treatment/counseling; outpatient treatment/counseling; medication-assisted treatment; telehealth treatment; or treatment received in a prison, jail, or juvenile detention center.

Note: Mental health treatment includes treatment/counseling received as an inpatient or as an outpatient; use of prescription medication to help with mental health; telehealth treatment; or treatment received in a prison, jail, or juvenile detention center.



Past Year Initiates of Substances: Among People Aged 12 or Older; 2022





OUD and Health Inequities



Overdose deaths in North Carolina increased by 40% in 2020 and continue to be on the rise. That's according to a new report from the state Department of Health and Human Services (DHHS) which shows, in 2020, an average of nine North Carolinians died from a drug overdose *every day*.

The startling figures mirror what's happening nationwide. In North Carolina, the number of drug overdose deaths - from illicit substances and/or medications - increased by nearly 1,000. What's more, both overdose deaths and the increases in substance use disproportionately affect historically marginalized populations.

Overdose Death Rates by Year and Race

2019 rate	2020 rate	Increase
43.3	83.6	93%
16.1	26.7	66%
27.4	36.1	32%
	43.3 16.1	16.1 26.7



Addiction Treatment Medicine Is Vastly Underprescribed, Especially by Race, Study Finds

Black patients with opioid use disorder were far less likely to fill prescriptions for the most effective addiction treatments than white patients. But strikingly few patients of all races got the medicine.

May 10, 2023

https://www.nytimes.com/2023/05/10/health/addiction-treatment-buprenorphine-suboxone.html

NC Overdose Pyramid



For every opioid overdose death, there were over 1 hospitalizations and 3 ED visits due to opioid overdose





Xylazine is Here...



THE DRUG SUPPLY

Xylazine in NORTH CAROLINA:

As seen across many parts of the United States, people in North Carolina are also being affected by a drug supply contaminated with xylazine. People who use drugs, drug researchers, and harm reduction advocates have worked hard to ensure their communities have access to drug checking resources. Data from the UNC Drug Analysis Lab shows that xylazine is showing up in the drug supply in North Carolina.

- https://files.constantcontact.com/023aa8ab001/07dd5a2d-10f3-4dd2-9d76-3faee35a7969.pdf
- https://harmreduction.org/wp-content/uploads/2022/11/Xylazine-in-the-Drug-Supply-one-pager.pdf
- http://www.ncbop.org/PDF/XylazineExposureGuidanceMay162023.pdf
- https://www.cdc.gov/drugoverdose/deaths/other-drugs/xylazine/faq.html
- https://nida.nih.gov/news-events/news-releases/2023/06/xylazine-appears-to-worsen-the-life-threatening-effects-of-opioids-in-rats

Treatment for OUD

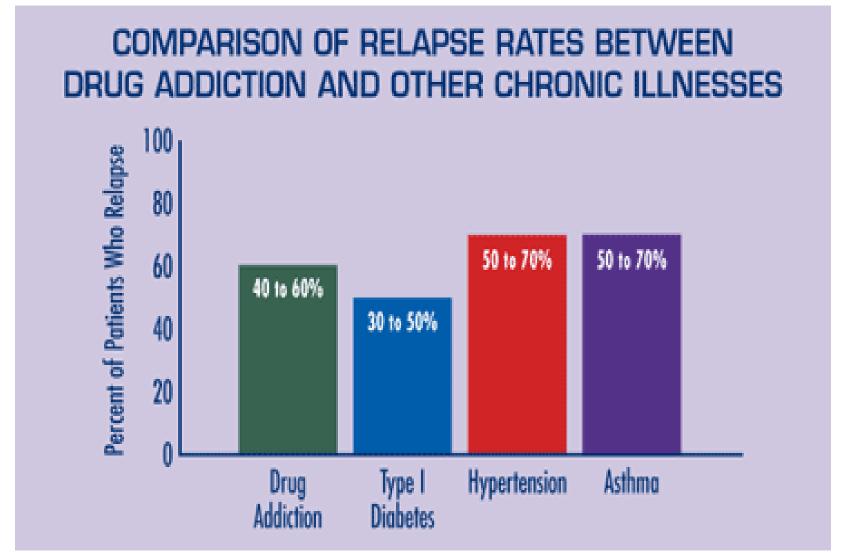


Most Effective Treatment is....?

Medications for OUD (MOUD)

Why MOUD makes sense for Addiction?





Comparison of Chronic Illnesses

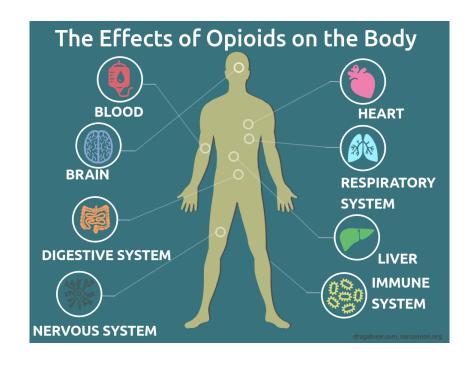


	Diabetes Mellitus	Addiction
Relapse Rates	30-50%	40-60%
Medication Adherence	30-50%	40-60%
Screening/Monitoring	A1C	Urine Drug Screens
Access to Treatment	++++	+
Behavioral Interventions	Nutritionist/DM educator	Individual Counseling/Groups
Pharmacotherapy	Multiple formulations	Multiple Formulations
Refractory to Treatment	Endocrinology	Addiction Medicine/Psychiatry
HealthCare Stigma	+	++++

How Does MOUD Work?



- Provides physiological and psychological stabilization that can allow recovery to take place
 - Reduce/prevent withdrawal
 - Diminish/eliminate cravings
 - Block the euphoric effect
 - Restore physiological function



Evidence for MOUD



Decreases:

- Illicit use, death rate¹
- HIV, Hep C infections²⁻⁴
- Crime⁵

Increases:

 Social functioning and retention in treatment⁶⁻⁷



- 1.Kreek J, SubstAbuse Treatment 2002
- 2.MacArthur, BMJ, 2012
- 3.Metzgar, Public Health Reports 1998
- 4. K Page, JAMA IM, 2014
- 5.Gerstein DR et al, CALDATA General Report, CA Dept of Alcohol and Drug Programs, 1994
- 6. Mattick RP et al, Cochrane Database of Systematic Reviews, 2009
- 7. Mattick RP et al, Cochrane Database of Systematic Reviews, 2014

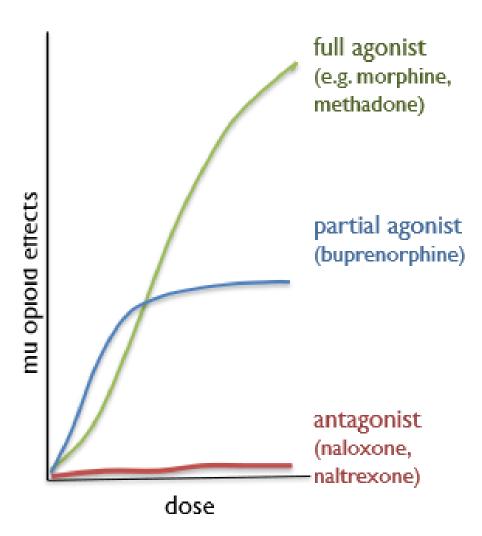
FDA Approved MOUD



Methadone

Buprenorphine*

Naltrexone (*PO, IM)



Treatment Settings



- OTP vs. OBOT
- Residential detox
- Emergency Room
- Inpatient hospital



https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4527523/https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4811188/

Opioid Treatment Programs (OTPs)



Methadone can only be prescribed in a federally-regulated

OTP when used for treatment of addiction

Most common approach used worldwide

- Daily, directly observed therapy
 - Can obtain take home doses
- Not (yet) reported in PDMP
- Not referred to as "Methadone clinics"



MOUD Ambivalence/Stigma?



Myths and Realities of Opioid Use Disorder Treatment.

Myth	Reality
Buprenorphine treatment is more dangerous than oth- er chronic disease man- agement.	Buprenorphine treatment is simpler than many other routine treatments in primary care, such as titrating insulin or starting anticoagulation. But physicians receive little training in it.
Use of buprenorphine is sim- ply a "replacement" addic- tion.	Addiction is defined as compulsively using a drug despite harm. Taking a prescribed medication to manage a chronic illness does not meet that definition.
Detoxification for opioid use disorder is effective.	There are no data showing that detoxifica- tion programs are effective at treating opioid use disorder. In fact, these inter- ventions may increase the likelihood of overdose death by eliminating tolerance.
Prescribing buprenorphine is time consuming and bur- densome.	Treating patients with buprenorphine can be uniquely rewarding. In-office inductions and intensive behavioral therapy are not required for effective treatment.
Reducing opioid prescribing alone will reduce overdose deaths.	Despite decreasing opioid prescribing, over- dose mortality has increased. Patients with opioid use disorder may shift to the illicit drug market, where the risk of over- dose is higher.



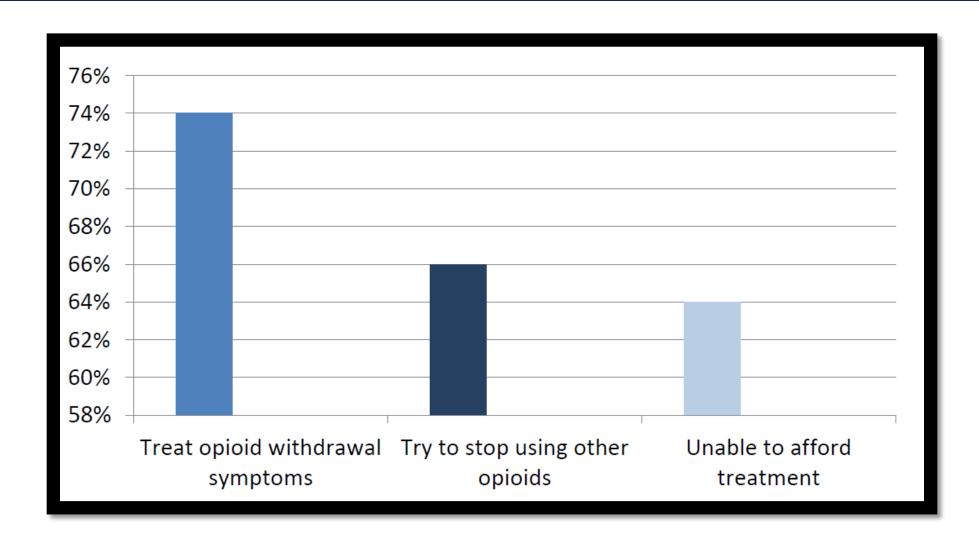


What is the appropriate use for buprenorphine?



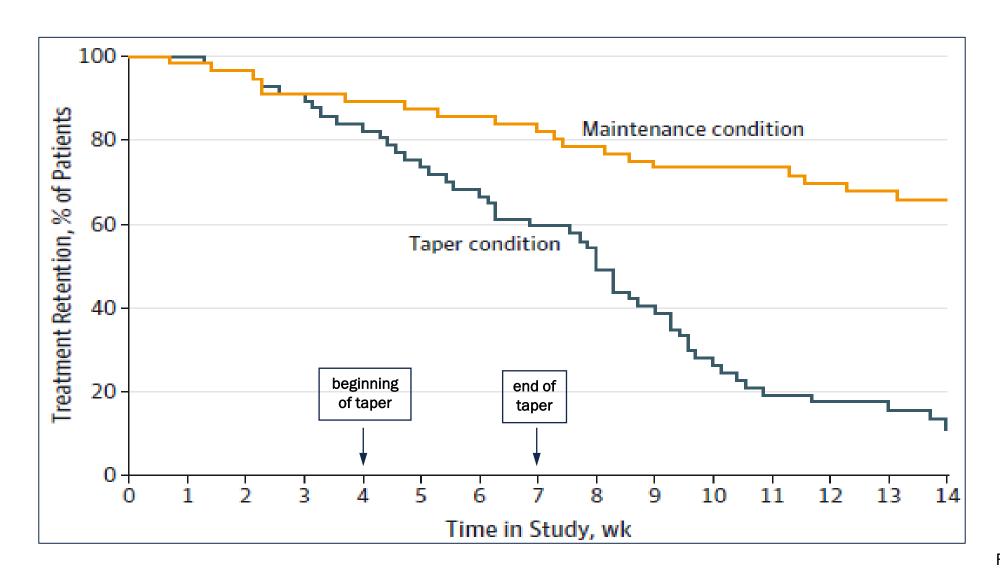
Reasons for Illicit Use of Buprenorphine





Buprenorphine: Maintenance vs Taper





Buprenorphine Formulations



	Route	Product Name
Buprenorphine With Naloxone (combo product)	SL	Suboxone® (film/tablet)
	SL	Zubsolv® (tablet)
	Buccal	Bunavail® (film)
Buprenorphine Without Naloxone (mono product)	SL	Subutex® (tablet) - generic
	Implant – q6 mo	Probuphine [®]
	SC injection – q 30d	Brixadi [®] , Sublocade [®]
FDA Approved - Pain	IV	Buprenex [®]
	Transdermal – q7 days	BuTrans [®]
	Buccal	Belbuca® (film)





How long do individuals remain on MOUD?

What does it mean for a patient to have "completed" treatment?

Tapering/Discontinuing Opioids



HHS Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid Analgesics

This HHS Guide for Clinicians on the Appropriate Dosage Reduction or Discontinuation of Long-Term Opioid Analgesics provides advice to clinicians who are contemplating or initiating a reduction in opioid dosage or discontinuation of long-term opioid therapy for chronic pain. In each case the clinician should review the risks and benefits of the current therapy with the patient, and decide if tapering is appropriate based on individual circumstances.

Risks of rapid opioid taper

- Opioids should not be tapered rapidly or discontinued suddenly due to the risks of significant opioid withdrawal.
- Risks of rapid tapering or sudden discontinuation of opioids in physically dependentⁱⁱ patients include acute withdrawal symptoms, exacerbation of pain, serious psychological distress, and thoughts of suicide.¹ Patients may seek other sources of opioids, potentially including illicit opioids, as a way to treat their pain or withdrawal symptoms.¹
- Unless there are indications of a life-threatening issue, such as warning signs of impending overdose, HHS does not recommend abrupt opioid dose reduction or discontinuation.





What are examples of harm reduction for OUD?

Harm reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use. Harm Reduction is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs.

Harm Reduction Principles

<u>Principle</u>	Approaches
1.Humanism	Avoid making moral judgements and holding grudges against patients; Accept patients' choices.
2.Pragmatism	Do not assume abstinence is the goal; Providers may experience moral ambiguity since they may support individuals w/ behaviors that may cause negative health outcomes.
3.Individualism	Assess strengths and needs on an individual basis; Tailor messaging and interventions to specific needs of each patient while maximizing treatment options.
4.Autonomy	Highlights provider-patient partnership; Engage in patient centered care and shared decision making.
5.Incrementalism	Celebrate any positive gains; Appreciate all patients at times have negative courses or periods of stagnation.
6.Accountability without termination	Avoid penalizing backward movement and assist patients with understanding the effect of behaviors and choices on their health.

Street Drug Analysis in NC



Current Status

Update week of May Ist:

Laboratory is up and running, samples are being analyzed. Please check back daily for uploads of new results.

We are accepting requests, sending kits (<u>request here</u>).

Here is the list of <u>pending samples</u> if you're waiting for results.

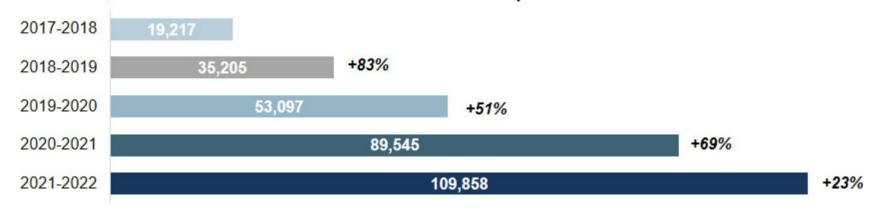


https://www.streetsafe.supply/

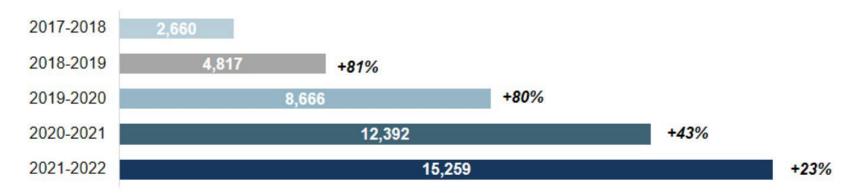
Advance harm reduction:

Syringe Service Program (SSP) Efforts

Over 306,000 naloxone kits distributed by SSPs from 2017 - 2021



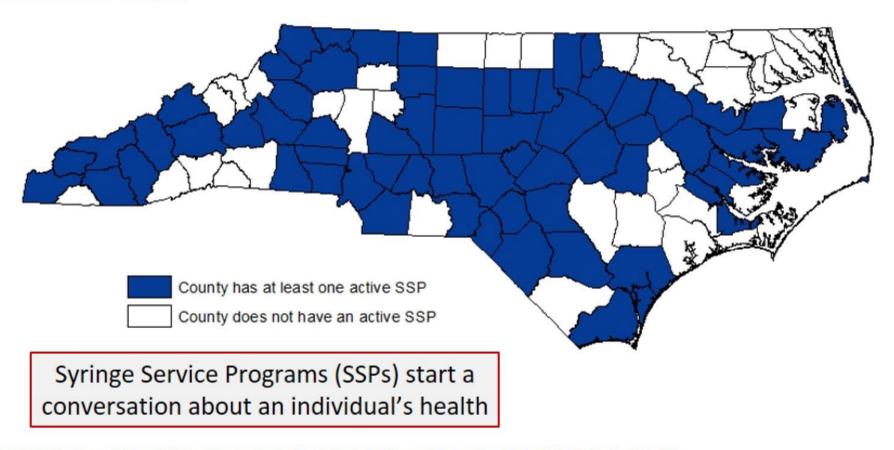
Over 43,000 overdose reversals reported to SSPs from 2017 - 2021



Source: NC Division of Public Health, <u>Safer Syringe Initiative Annual Reporting</u>, 2022 Analysis by Injury Epidemiology and Surveillance Unit

Expand treatment and recovery:

There are currently 47 registered SSPs covering 63 NC counties and 1 Federal Tribe



^{*}Residents from an additional 27 counties (and out of state) traveled to receive services in an SSP target county in NC

Technical Notes: There may be SSPs operating that are not represented on this map; in order to be counted as an active SSP, paperwork must be submitted to the NC Division of Public Health

Source: NC Division of Public Health, Safer Syringe Initiative Annual Reporting, 2022

Analysis by Injury Epidemiology and Surveillance Unit

Naloxone



- No effect other than blocking opioids
- Naloxone ≠ MOUD!!
- Need for more than 1 dose





Naloxone

SAVE A LIFE. GET NALOXONE.

Naloxone stops an overdose caused by opioid pain medication, methadone or heroin.

People at risk for overdose and their family and friends can learn to spot an overdose and respond to save a life. To get naloxone, present this card to the pharmacy staff.



MULTI-STEP NASAL SPRAY

DIRECTIONS: Spray 1 mL (half of the syringe) into each nostril.

NO BRAND NAME/GENERIC

COST: \$-\$\$



SINGLE-STEP NASAL SPRAY

DIRECTIONS: Spray full dose into one nostril.

BRAND NAME: Narcan

COST: \$\$\$



INTRAMUSCULAR INJECTION

DIRECTIONS: Inject 1 mL in shoulder or thigh.

NO BRAND NAME/GENERIC

COST: \$-\$\$



AUTO-INJECTOR

DIRECTIONS: Use as directed by voice-prompt. Press black side firmly on outer thigh.

BRAND NAME: Evzio

COST: \$\$\$\$*

"Coupons available, see evzio.com for more info

FOR ALL PRODUCTS, repeat naloxone administration after 2–3 minutes if there is no response.

Most insurance will cover at least one of these options, or you can pay cash. All products contain at least two doses

For more on opioid safety, videos on how to use naloxone, or to get help for addiction, go to PrescribetoPrevent.org



Harm Reduction Strategies



Targeted Naloxone Distribution

MAT

Academic Detailing

Eliminating Prior-Authorization Requirements for MOUD

Screening for Fentanyl in routine Clinical Toxicology testing

911 Good Samaritan Laws Naloxone Distribution in Treatment Centers and Criminal Justice Settings

MAT in Criminal Justice Settings and Upon Release

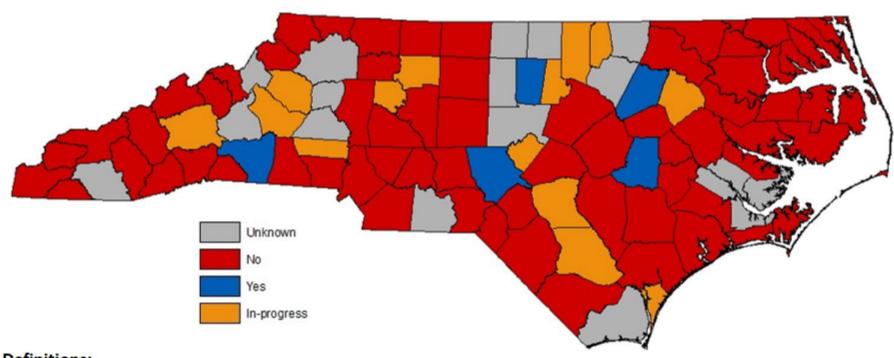
Initiating
Buprenorphine-based
MAT in Emergency
Departments

Syringe Services Programs

Acknowledgements: MAHEC

Address the needs of justice-involved populations:

Currently, 17 counties provide access to at least one Medication for Opioid Use Disorder (MOUD)* option in Jail Settings



Definitions:

No - No MOUD options are offered

In-progress- At least one of the following is offered: buprenorphine, methadone, or naltrexone

Yes - Multiple options for MOUD are offered, including buprenorphine, methadone, and naltrexone

Source: Qualtrics survey to all Local Health Directors - 2022 Analysis by Injury Epidemiology and Surveillance Unit

^{*}Providing access to MOUD (formerly known as MAT) in jail settings can reduce overdose risk, post-incarceration illicit opioid use, criminal behavior, and infectious disease (e.g. HIV, HCV) risk behaviors.

NC Opioid Epidemic & Criminal Justice Involvement



 From 2000-2015, 1,329 people died of opioid overdose after release from NC State Prisons

 First 2 weeks post release from NC State Prisons Death Rate vs. general population:

- Heroin Overdose -> 74x greater
- Any Opioid Overdose -> 40x greater

MOUD Prescribing Scenarios



Not interested in counseling

Continues to intermittently use opioids

Using methamphetamines, alcohol, or benzodiazepines

LOW BARRIER TREATMENT!!

Behavioral Health's Role in Treatment



- Optional psychosocial treatment should be offered in conjunction with pharmacotherapy.
- A decision to decline psychosocial treatment/absence of available treatment should <u>not</u> preclude or delay MOUD.
 - Think Depression treatment
 - Think Weight loss treatment
 - Think Hypertension treatment
- Declining psychosocial services should <u>not</u> generally be used as rationale for discontinuing current MOUD.





Does MOUD provide treatment for stimulant (methamphetamine, cocaine) use disorder?

Are there SUDs that wouldn't be treated with medications?

Other FDA-Approved Treatment for SUD?



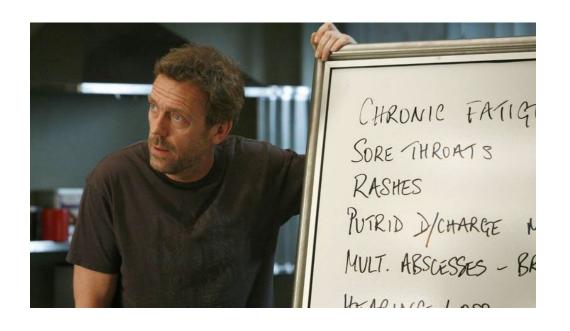
Opioids
✓
Alcohol
✓
Tobacco
✓

- Methamphetamines
- Cocaine
- Cannabis
- Benzodiazepines

What Else Is Going On?



- Sexual assault
- Intimate partner violence (IPV)
- Child Maltreatment
- Human trafficking
 - Sex
 - Labor
- Undiagnosed Mental Illness:
 - SMI/ADHD/MDD/GAD/PTSD
- Untreated Chronic Pain
- Untreated Medical Ailments
 - Neuropathy (DM), HA (HTN)
- Poverty, food insecurity, housing instability...



Words Matter!



 What we say and how we say it makes a difference to our patients with substance use disorder(s).

	Stigmatizing Language	Non- Stigmatizing Language
4	Addict, drunk, junkie	
	Drug habit Abuse Drug problem	
	Clean	
	Clean or dirty drug screen	

Opioid Settlement Funds - North Carolina



About the Opioid Settlements

North Carolina will receive \$1.5 billion from a series of national opioid settlements totaling \$56 billion – funds that will help bring desperately needed relief to communities impacted by opioids. These funds will be used to support treatment, recovery, harm reduction, and other life-saving programs and services in communities throughout the state. North Carolina's Opioid and Substance Use Action Plan lays out concrete strategies to advance prevention, reduce harm, and connect people to the care that they need.

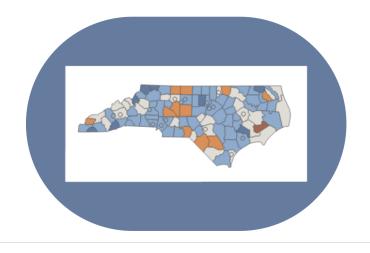


Read More

North Carolina's Opioid and Substance Use Action Plan

Data Dashboards

Explore interactive data resources that help NC communities make plans for spending their opioid settlement funds, and to report on the programs that are supported using settlement funding.

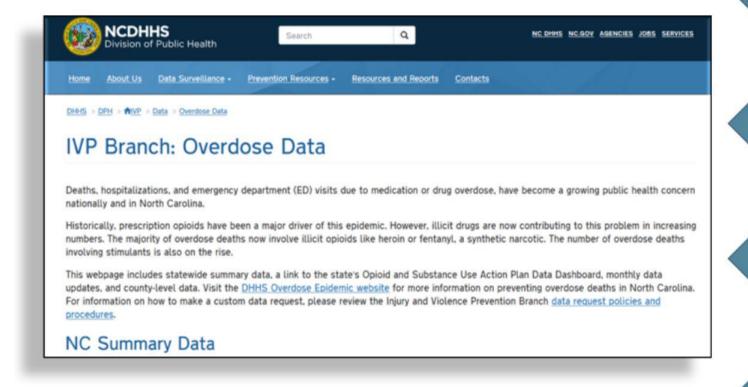


https://ncopioidsettlement.org/

Measure our impact: NC's Opioid and Substance Use Action Plan Data Dashboard tracks the Action Plan metrics and actions

Metrics	Local Actions
Equity	
Medication/drug overdose deaths, by race and ethnicity	People with Lived Experience Involvement in Planning and Implementation
	Partnerships with CBOs serving historically marginalized people
Track progress and measure our impact	
Medication/drug overdose deaths (all intents)	Dedicated point person to coordinate overdose response and prevention programs
ED visits for medication/drug with dependency potential overdose	Use NC DHHS resources to inform/support overdose programs
Reduce the supply of inappropriate prescription and illicit	opioids
NC residents dispensed opioid pills	Prescription drug disposal permanent dropbox in more than one setting
Medication/drug overdose deaths involving illicit opioids	Organizational distributing fentanyl test strips
Prevent future opioid addiction by supporting children an	d families
Children in foster care due to parental substance use disorder	START (Sobriety Treatment and Recovery Teams) or another similar program for families with a parental SUD
Newborns affected by substance use with a Plan of Safe Care referral to CC4C	Department of Social Services has a Community Response Program
Advance harm reduction	
Community naloxone reversals	At least one pharmacy, EMS agency, health department, or other organization dispenses or distributes naloxone
Newly diagnosed acute Hepatitis C cases	Access to low/no-cost sterile syringes
Address social determinants of health and eliminate stigm	na in the second se
211 housing-related services calls	Housing First or related program to connect people who use drugs to housing services
Unemployed individuals of working age	Fair Chance Hiring policies in place
Address the needs of justice-involved populations	
Incarcerated individuals	Pre-arrest diversion program
Naloxone reversals reported by Law Enforcement Agencies	MAT in the county jail/detention center
Expand access to treatment and recovery supports	
North Carolina residents dispensed buprenorphine prescriptions	Programs where peer support specialists refer people who are at risk of overdose to social and medical services (e.g., harm reduction, treatment, recovery supports)
Uninsured individuals and Medicaid beneficiaries with an opioid use disorder served by treatment programs	At least one provider offers low or no-cost MAT

Measure our impact: IVPB Overdose Data Website provides monthly and annual data updates



Core Overdose Slides

County-level Slides

Factsheets

Deaths, ED, and Hosp by county and drug



Resources



Additional Resources

N.C. Department of Social Services www.ncdhhs.gov/divisions/dss

N.C. Governor's Institute www.governorsinstitute.org

N.C. Women's Health Branch www.whb.ncpublichealth.com

N.C. Harm Reduction Coalition www.nchrc.org

N.C. Department of Mental Health, Developmental Disabilities, and Substance Abuse Services www.ncdhhs.gov/divisions/mhddsas

N.C. Recovery Courts

www.nccourts.gov/courts/recovery-courts

N.C Attorney General's Office

www.ncdoj.gov

N.C. Department of Public Instruction

www.ncpublicschools.org

N.C. Opioid Action Plan (OAP)

Information on the OAP can be found here

For additional substance use data visit:

www.injuryfreenc.ncdhhs.gov



Conclusions



 Detox alone is seldom the treatment of choice for opioid use disorder but is appropriate in some clinical situations.

 Medication for opioid use disorder (MOUD) has consistently demonstrated better long-term outcomes than no medication.

 Harm reduction strategies such as needle exchanges, naloxone distribution and low barrier access to treatment should be incorporated into treatment plans.

Continue to address health equities in opioid use disorder treatment.

The Evolving Opioid Epidemic: Evidence-Based Harm Reduction & Treatment

Questions? michael_baca-atlas@med.unc.edu

