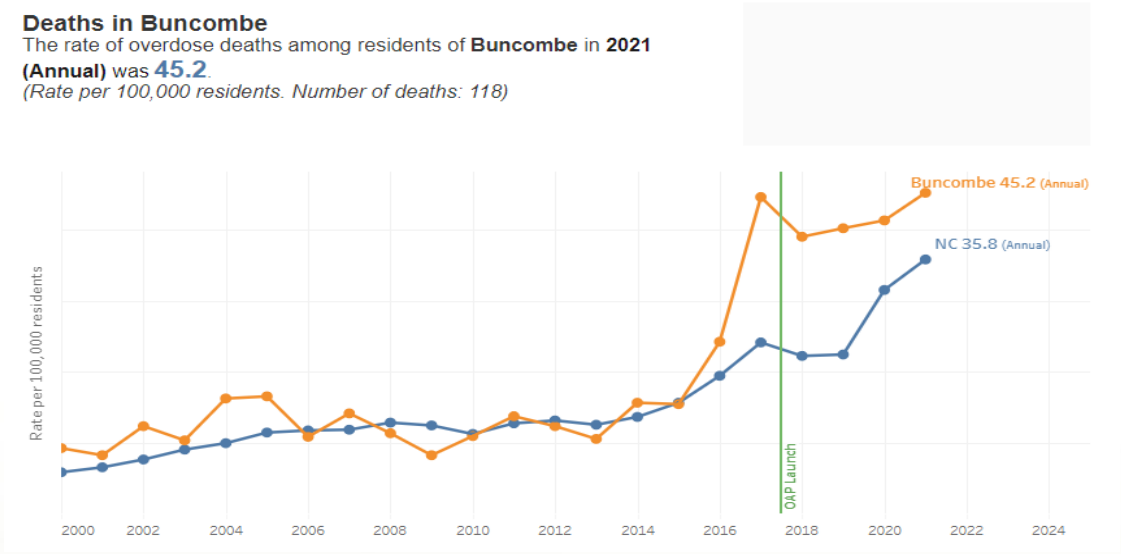
UNC HEALTH SCIENCES at MAHEC

The Opioid Crisis in Buncombe County: Effective Strategies

Shuchin Shukla MD MPH

Opioid Overdose Deaths



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

105,752

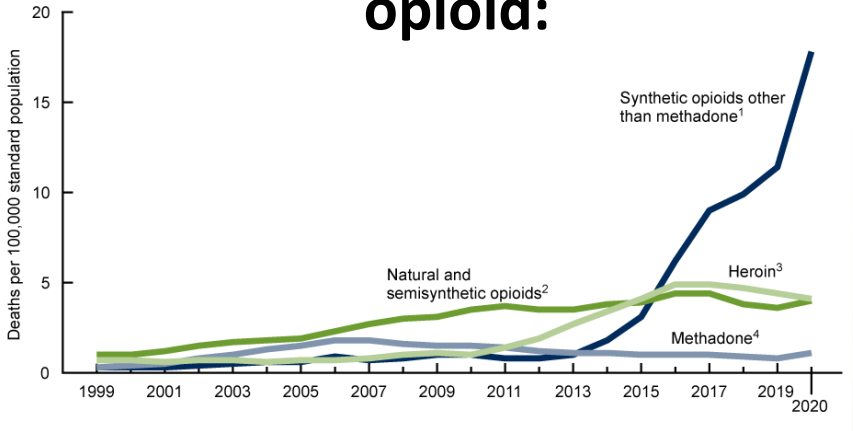
Predicted number of people in the US who died from Overdose from October 2020-October 2021[2]

Drug overdose deaths per 100k people	NC	USA
In 2019	22.4	21.6
In 2021	35.8	32.5

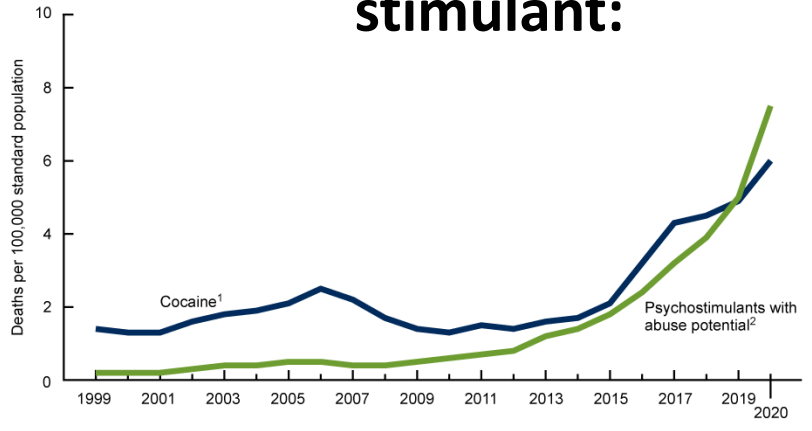
[1]NC Opioid Dashboard 2022
[2]National Center for Health Statistics, 2022

Age-adjusted rates of drug overdose deaths involving:

Opioids, by type of opioid:



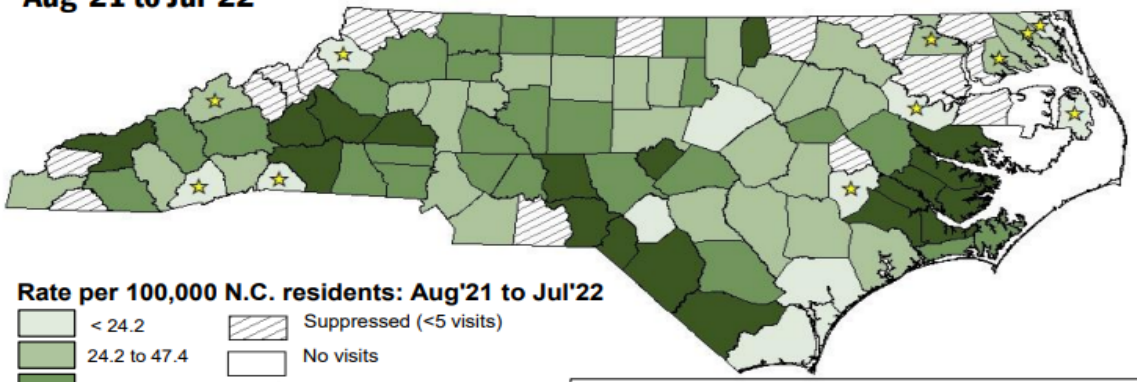
Stimulants, by type of stimulant:



United States, 1999–2020

National Vital Statistics System 2021

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



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

- < 24.2
- 24.2 to 47.4
- 47.5 to 73.5
- ≥ 73.6
- Suppressed (<5 visits)
- No visits
- ☆ Interpret with caution, low numbers (5 to 9 visits)

*Provisional Data: 2021-2022 ED Visits

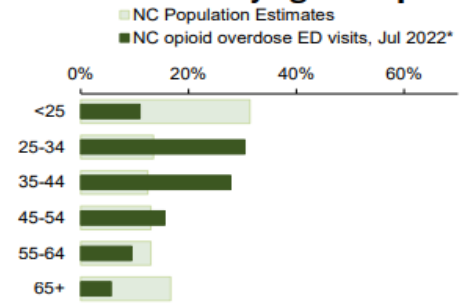
Highest Rates of Opioid Overdose ED visits among Counties Last 12 Months: Aug'21-Jul'22

County	Count	Rate^
Jones	14	148.6
Montgomery	39	143.5
Pamlico	17	133.6
Swain	16	112.1
Rutherford	74	110.4
Richmond	47	104.8
Burke	91	100.6
Columbus	53	95.5
Scotland	33	94.8
Beaufort	44	93.6
Statewide	**5,373**	**51.2**

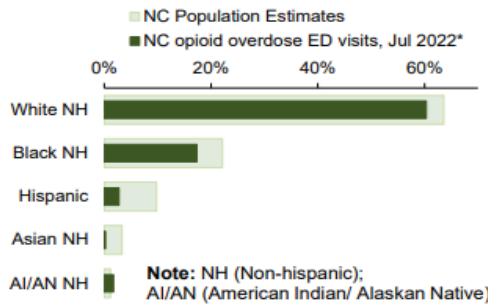
^Please note that rates are calculated using the last 12 months of data and 2020 population estimates. Counties listed in "Highest Monthly Rates of Opioid Overdose ED visits" table will likely change each month.

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

ED Visits by Age Group

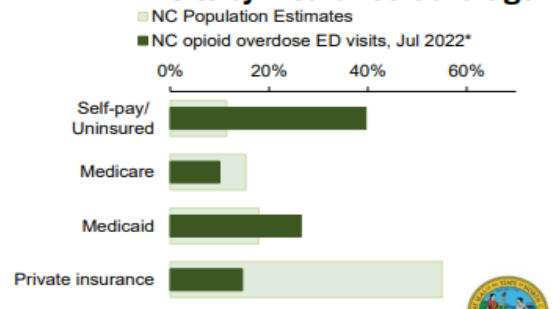


ED Visits by Race/Ethnicity



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

NORTH CAROLINA INJURY AND VIOLENCE PREVENTION www.injuryfreenc.ncdhhs.gov 8/15/2022

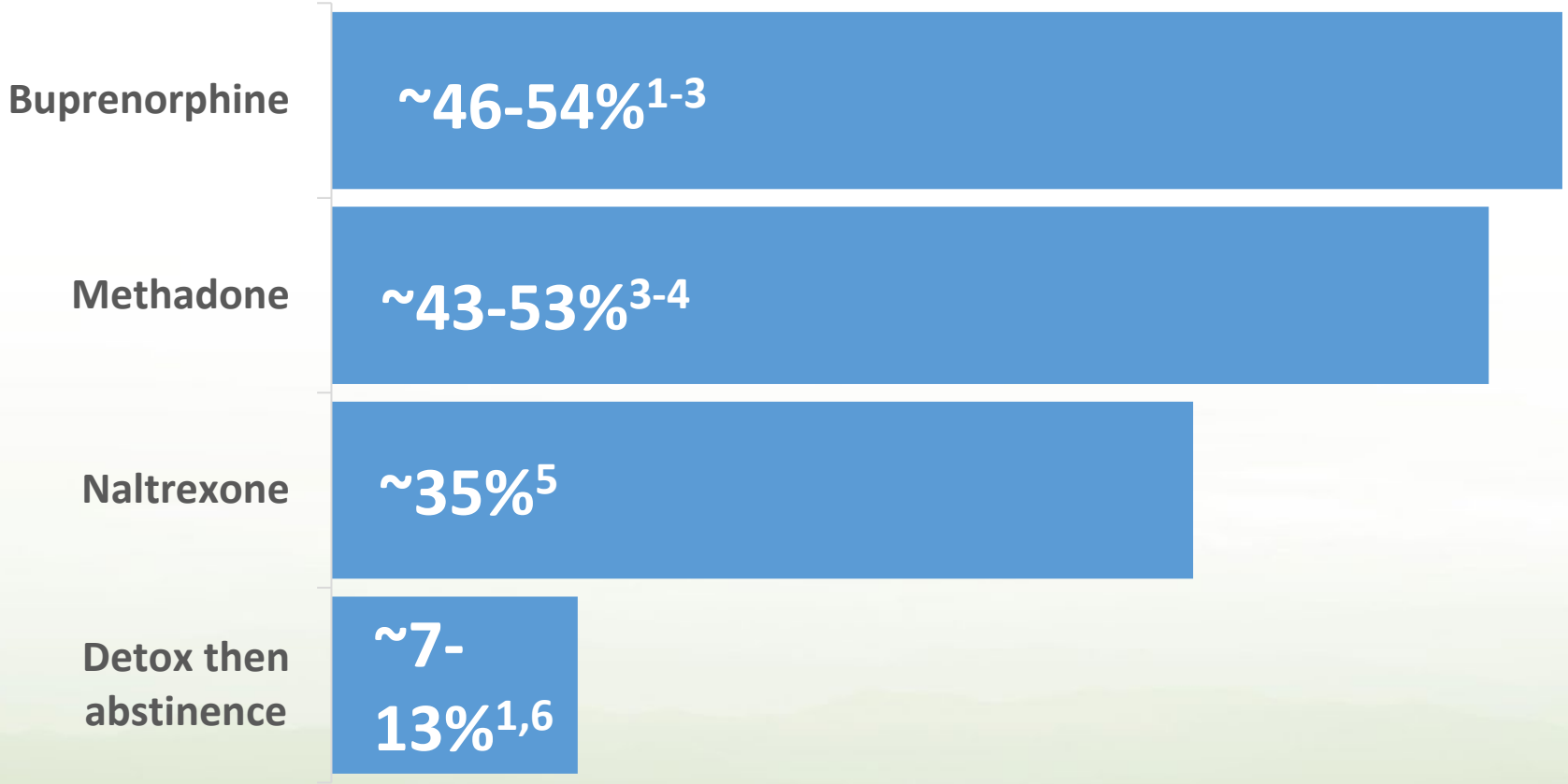
https://injuryfreenc.dph.ncdhhs.gov/DataSurveillance/StatewideOverdoseSurveillanceReports/OpioidOverdoseEDVisitsMonthlyReports/StatewideOpioidOverdoseSurveillance-ED-DataJuly2022.pdf

CDC-Endorsed Strategies for Overdose Reduction

- 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

Carroll, Jennifer, Traci Green, and Rita Noonan. “Evidence-Based Strategies for Preventing Opioid Overdose: What’s Working in the United States, 2018.” Centers for Disease Control, 2018. https://www.cdc.gov/drugoverdose/pdf/pubs/2018-evidence-based-strategies.pdf.

Opioid Use Disorder Treatment Approaches & Rates of Adherence



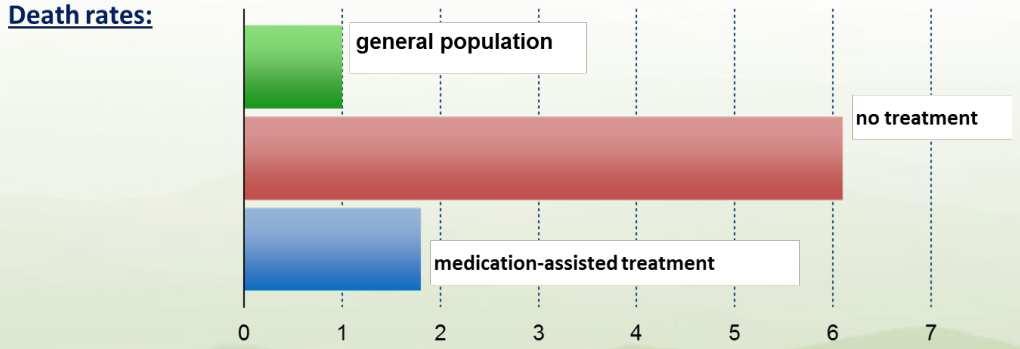
[1]Weiss R, Rao V 2017
[2]Mintzer Il, Eisenberg M, Terra M, et al. 2007
[3]Potter J, Marino E, Hillhouse M, et al. 2013
[4]Strain E, Stitzer M, Liebson I 1993
[5]Lee J, Nunes E, Novo P, et al. 2018
[6]Tuten M, DeFulio A, Jones H, et al. 2012

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]



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

Dupouy et al., 2017
Evans et al., 2015
Sordo et al., 2017

Criminal Justice 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]
- **US jails/prisons do not routinely offer MAT to incarcerated people**
- Leads to:

Interruption in treatment during incarceration

High return to use risk post-release

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

- Stricter drug laws DO NOT improve drug use rates, overdose rates or recidivism, but DO increase costs[3]

[1] NCCHC, 2018
[2] Ranapurwala,2018
[3] Pew, 2018

MAT 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 and **12%** decrease for overdose death statewide.

- 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 incarcerated people.

1 Green, Clarke, Brinkley-Rubinstein, 2018
2 Marsden, Stillwell, Jones, Eastwood, Farrell, 2017
3 Larney, Gisev, Farrell, Dobbins, Burns, Gibson, Kimber, Degenhardt, 2018

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.. But not with naltrexone**

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

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
- In jails/prisons, research shows that giving naloxone to all who are released ("opt-out") is more effective than only to certain groups
    - In Scotland, this was associated with a 36% reduction in 4week post release overdose death

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]Green T, Case P, Fiske H, et al. 2017
CDC 2016
CDC 2022

[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

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.

Buncombe County Community Paramedic (CP) Program

Post Overdose Response, Mobile MAT, and Street Outreach in Asheville, NC

2022 OUTREACH

Mobile Outreach Team

2 years of pilot funding

- Address PORT-identified gaps in care
- 2 EMT's on shift per day to operate our BLS van
- 3 Community Health Workers embedded in key community centers
  - ❖ Support/community health work through local grassroots groups and orgs (*Umoja, Haywood St, ADATC) P*lacing community members with lived experience back into the communities
- Nurse liaison to facilitate care management & wound care
- Advanced wound (Nurse Practitioner)
- Weekly consultation and program support

Team Launch date, November 2022

Community Paramedic Team – Calls for Service

2021 (Prior Year)	3,075
2022 Year-to-Date (8 Months)**	3,189
Total Responses From Inception	6,264

November 2020-September 2022 Community Paramedic Team – Services Rendered

Variable	Total
Total Response	6000+
Response via dispatch for Overdose	2,070
Release Of Information (Case Management)	807
Social determinants of health referrals	400+
Medicated Assisted Induction in field	80
Medicated Assisted Treatment Complete	76
Peer support hand off to Mahec	56
Responses After 5:00 pm/weekends	60-70%

FUTURE GOALS

- Implement comprehensive mental health/crisis support team
- Incorporate traditional MIH (mobile integrated health) to serve communities struggling with mobility in aging, chronic health management, and lingering effects of Covid-19.
- Provide Technical Assistance to other counties in WNC for model adoption

MEET OUR CURRENT CP TEAM

- Taylor Jones, *Emergency Services Director*
- Jamison Judd, *Division Manager*
- Claire Hubbard, *Program Manager*
- Justin Hall, *Peer Support Coordinator*
- Robert Stanton, Jim Rose, Justin Pritchard, Jon Anderson, Kevin Miller, James Sitton: *Community Paramedics*
- Paula Scott, Brandi Hayes, Alex Taylor, Cheryl Pulley, *Peer Support Specialists*

MEET OUR PHYSICIAN COLLABORATORS

- Dr. Stace Horine, *EMS Medical Director*
- Dr. Shuchin Shukla, *Mahec Clinical Director of Health Integration*

Office of the Sheriff, Quentin Miller

Presented by

Sarah Gayton

Strategic Community Opioid Response

Detention MAT Treatment and Programing

MAT in BCDF Jail – local context

4 year annual average: 92 deaths/year
368 Opioids Overdose Deaths 2016-2019

BCDF Booking History: 52
57%

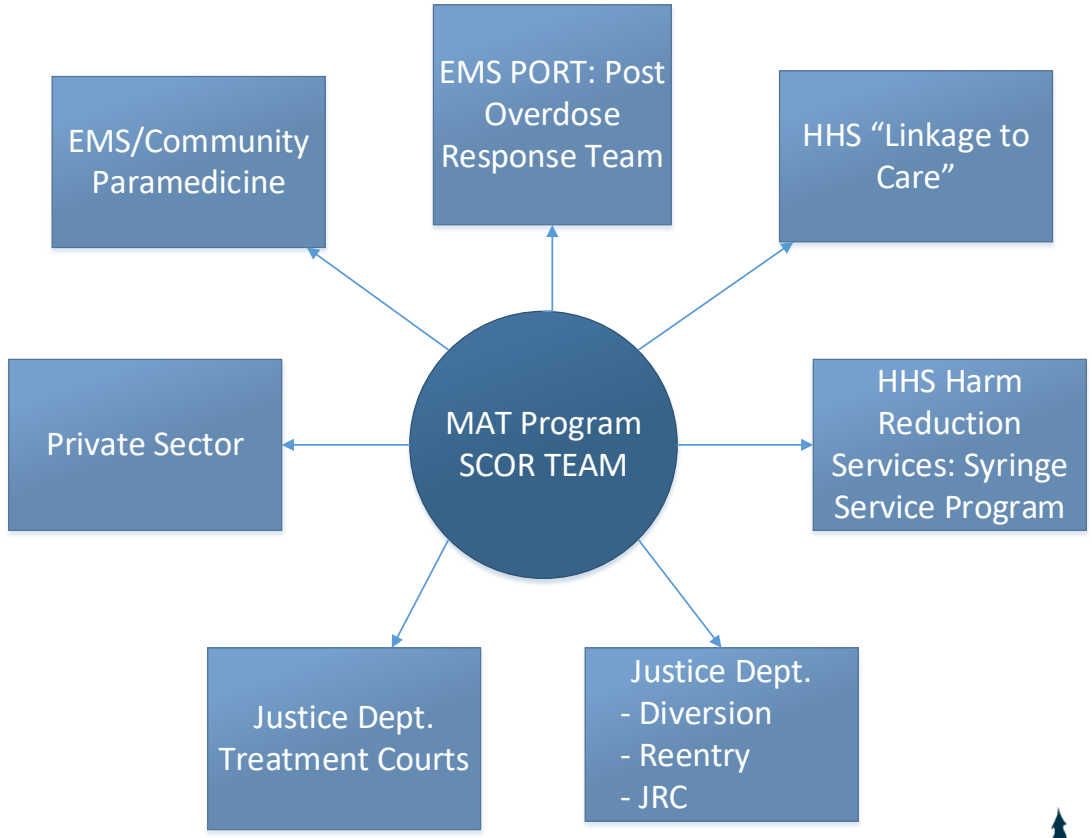
Released within 24 hours
61%

Overdose Timeline Post-release

2 Weeks
12%

3 Months
31%

1 Year
62%



Detention MAT Treatment

Year 1 (FY20): 73
Year 2 (FY21): 218
Year 3 (FY22): 539; 203 referrals
122 Housed
Year 4 (2023): 75% increase to date

Daily dosing increased from 3 to 25 persons/day (‘20-’22)

22% Decrease in overdose deaths of those with detainment in past 5 years

18% recidivism reduction – when on MAT treatment compared to untreated opioid use

3339 Overdose reversal kits provided

Trifecta Service Continuum

1) Detention MAT: Treatment, Reentry, Housing+
2) Linkage to Care: Treatment, Reentry, Housing+
3) Post Overdose Response Team: Treatment, Linkage

BCSO Detention MAT Treatment and Program

Sarah Gayton, MAT Services Director

Design, Development, Implementation

Coordination, Management, Expansion Evaluation

Data Collection, Analysis, Reporting

Program liaison, County Coordination, State Technical Assistance

Grant Management, Contract Management, Budget Management, Organizational Leadership

Staff Management and Development (Peers, Medical, Organizational)

Community Engagement: Community Advisory Panels, Outreach and Prevention Efforts

Medical Staff included in Detention Medical Contract

Sunrise Peer Support for Recovery and Wellness

Program Staff x3

Detention MAT Peer: Screening, reentry planning, linkage to MAT treatment pre-post release; coordination with referral and other reentry resources; data and budget management

Community Reentry Navigation: Linkage to treatment, housing, recovery supports, employment, education, ID's, and other essential life stabilization resources

Peer Supervisor: Peer coordination, staff oversight (2 Justice Programs: MAT and Child Support Diversion Program)

Data Findings – Sheriff's Office partnership with Register of Deeds (ROD, Drew Reisinger)

- State dashboards do not reflect accurate local metrics
- BC ROD's office has enabled gathering and analysis of local data

Drug overdose deaths

	2021	2020	2019	2018	2017	2016
NC Dashboard	118	108	105	101	115	62
	45.2	41.3	40.2	39	44.6	24.2
BC ROD	**161**	**137**	**130**	**124**	**155**	**71**

- BC Stimulant Use Disorder deaths increased by 30% in 2021
- 22 % (2020 & 2021) <u>decrease</u> in correlated deaths of formally incarcerated BCDF population <u>*contrasts against national, state, and local overdose spikes*</u>