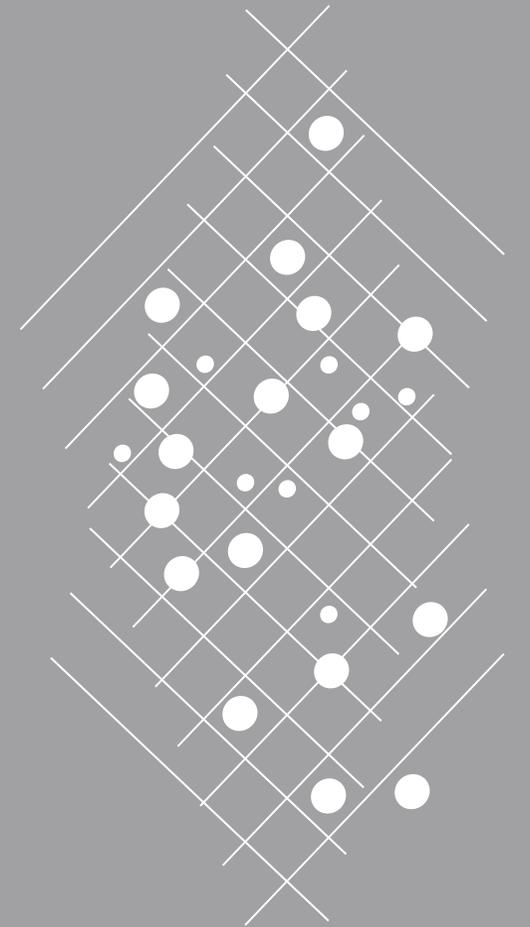


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OD2A: Leveraging Data to
Inform Overdose
Prevention and Response

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MECKLENBURG COUNTY
North Carolina

Public Health

OD2A Overview

- CDC Overdose Data to Action (OD2A) is a 5-year co-operative grant Mecklenburg County received in 2023
- The aims of OD2A are to reduce overdose morbidity and mortality through surveillance infrastructure and data utilization
- Years 1 and 2 focused on developing surveillance infrastructure to assess areas of need, populations disproportionately affected by the overdose epidemic, and understanding the overdose burden in Mecklenburg County
- Year 3 will focus on enhancing established surveillance methods and acquiring innovative and emerging means of overdose surveillance in the community

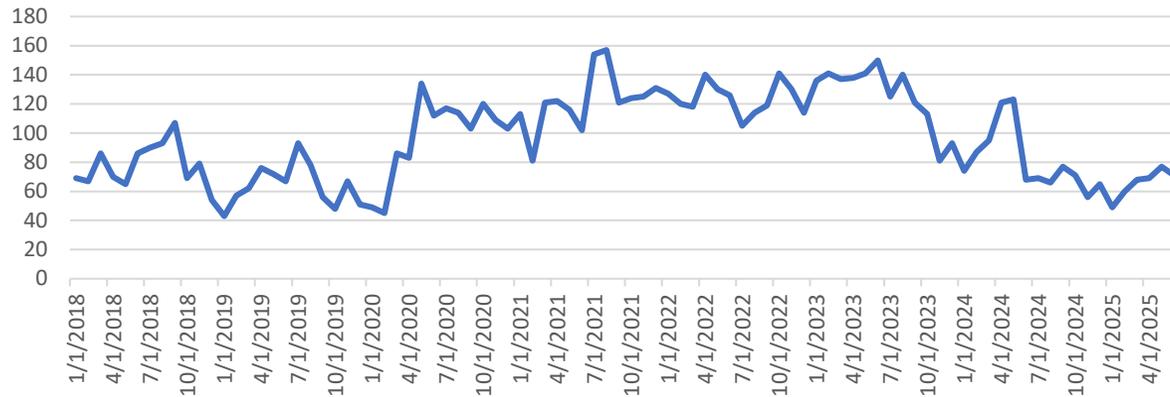
OD2A Surveillance Structure

- **Public-facing Dashboard**
 - Updated monthly and provides year-over-year trend data
 - Non-fatal overdoses (MEDIC calls, ED visits, hospitalizations)
 - Fatal overdoses (CDC Wonder, NC Vital Statistics)
 - Controlled Substance Prescription Data
- **Monthly Report**
 - Non-fatal overdoses (ED visits, MEDIC calls)
 - Fatal Overdoses (County Medical Examiner's suspected overdoses)
 - Naloxone distribution for the county
- **Real-time Spike Alert**
 - Daily surveillance
 - Non-fatal overdoses (MEDIC calls, ED Visits, law enforcement overdose calls)
 - Fatal overdoses (County Medical Examiner's suspected overdoses)

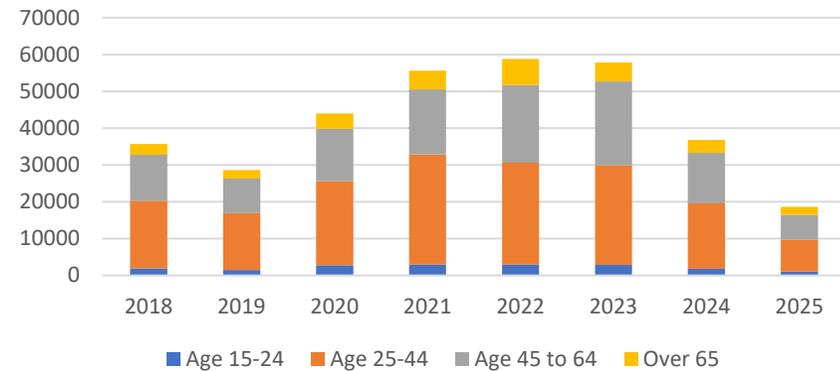
Non-Fatal Overdoses- EMS and law enforcement calls

- MEDIC (*Mecklenburg County EMS provider*)
 - Opioid-related calls from January 2018 to last week with
 - Address information, Narcan distribution, and basic patient demographic information (race, age, and sex)

MEDIC responses to Opioid Calls in Mecklenburg County, 2018-
June 2025

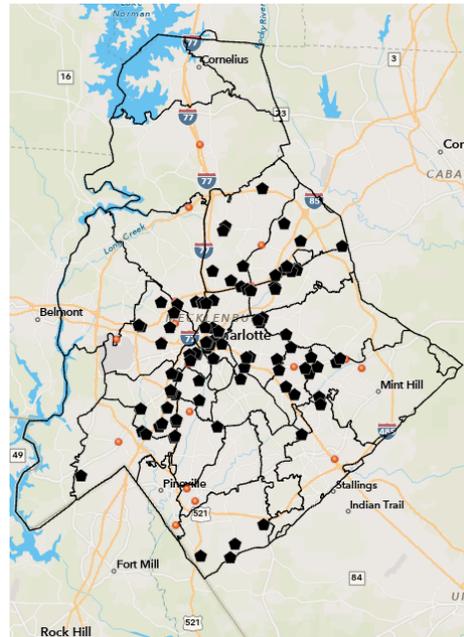


MEDIC Opioid Overdose Calls by Age Group,
Mecklenburg County



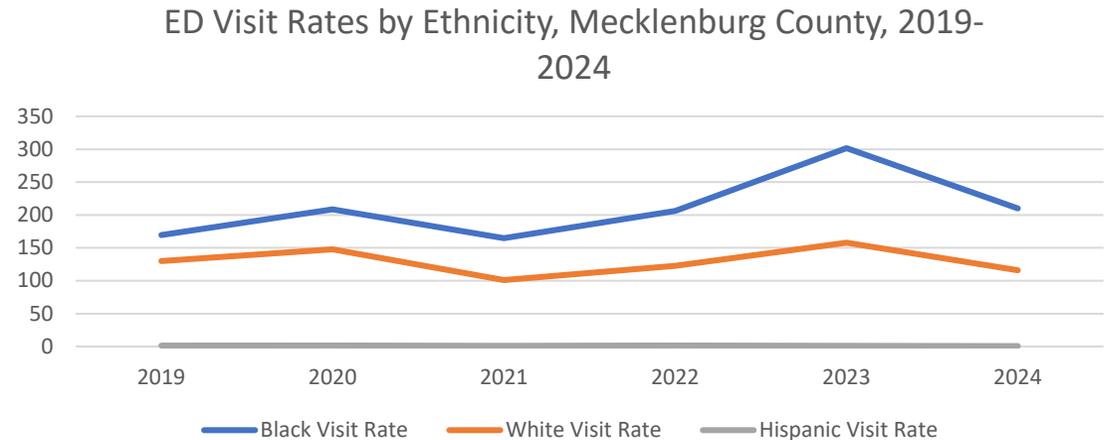
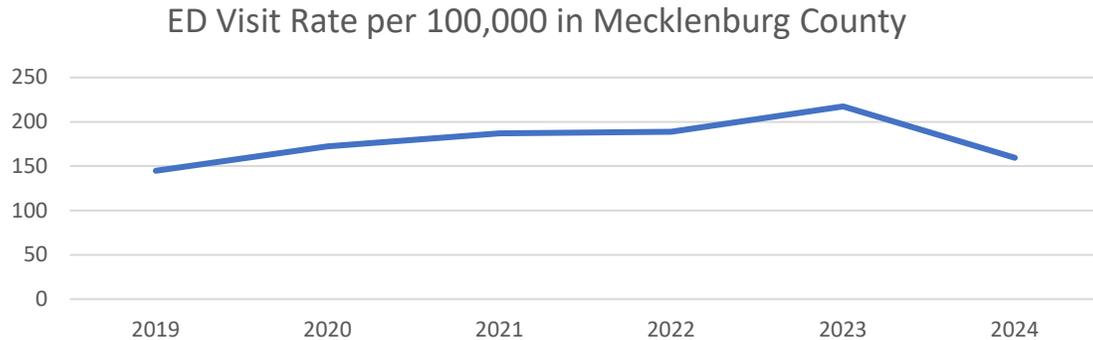
Non-Fatal Overdoses- EMS and law enforcement calls

- Law Enforcement
 - CMPD and towns' RMS systems
 - Daily, automated updates showing previous days' overdose-related calls and their X, Y information
- Medic and Law Enforcement Combined
 - Both data sources are mapped daily to show any hotspots for overdose activity in the past 24 hours
 - Any spike in overdoses from these sources triggers a community alert and targeted outreach from our harm reduction partners

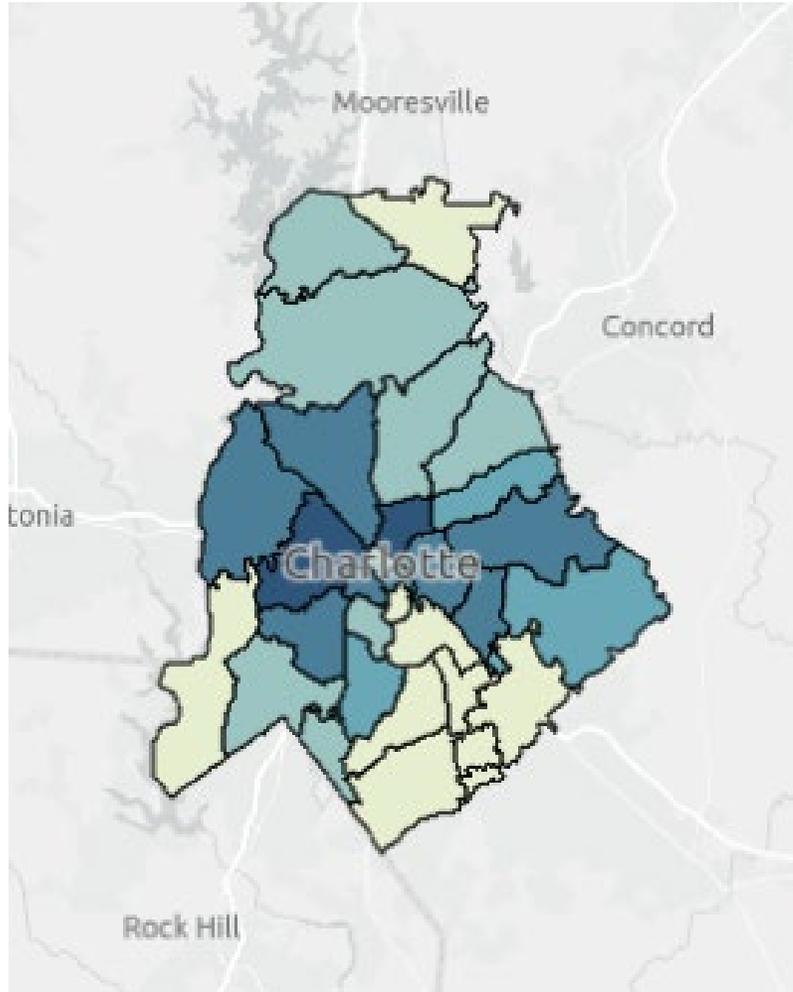


Non-Fatal Overdoses- Emergency Department Visits

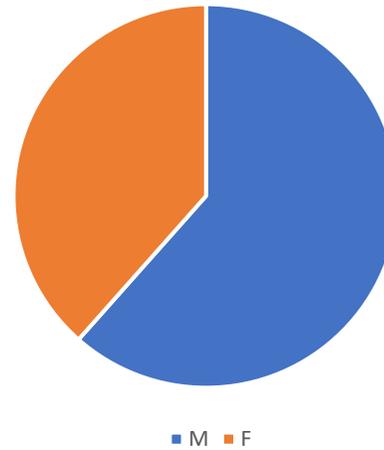
- Emergency Department Data
 - NC Detect and ESSENCE
 - Basic patient demographics (age, sex, race, insurance status, zip code)
 - Visit information (ICD-10 codes showing reason for visit, contains some information on underlying reasons and past patient history)
- Used to show year-over-year and monthly trends, and to supplement spike responses
 - Can provide circulating substance information at the zip code level



Non-Fatal Overdoses- Emergency Department Visits



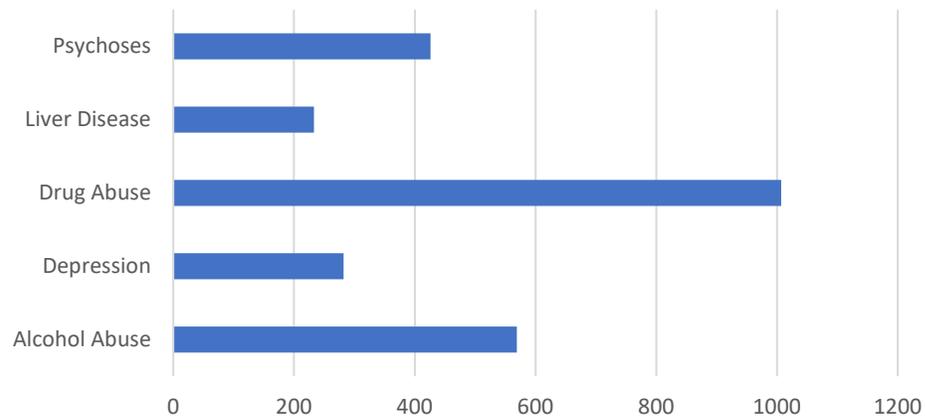
ED visits by Patient Sex in Mecklenburg County



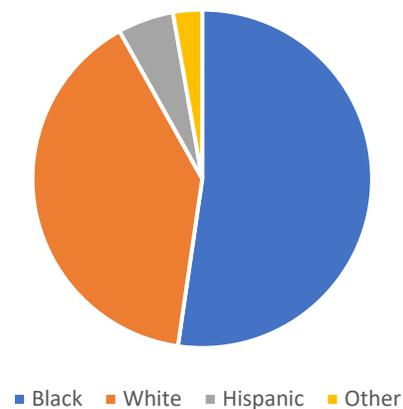
Non-Fatal Overdoses- Hospitalizations

- Healthcare Cost and Utilization Project (HCUP)
 - Overdose-related hospitalization data
 - Provides the same patient demographic as emergency department data
 - Provides insights into social determinants of health and socioeconomic information
 - Currently have access to 2019-2022 year-over-year trends.

Most Common Comorbidities among Overdose-Related Hospitalizations in Mecklenburg County

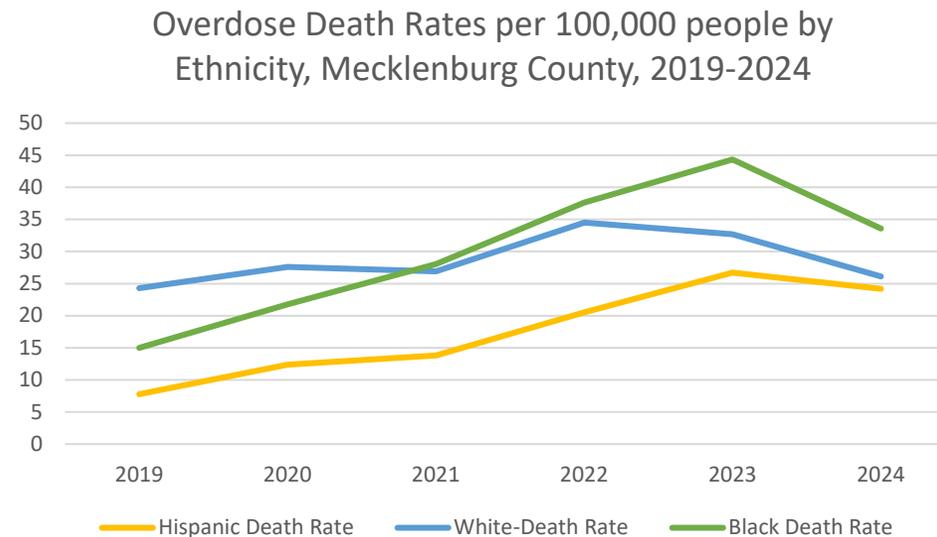


Hospitalizations due to Overdose by Patient Race in Mecklenburg County



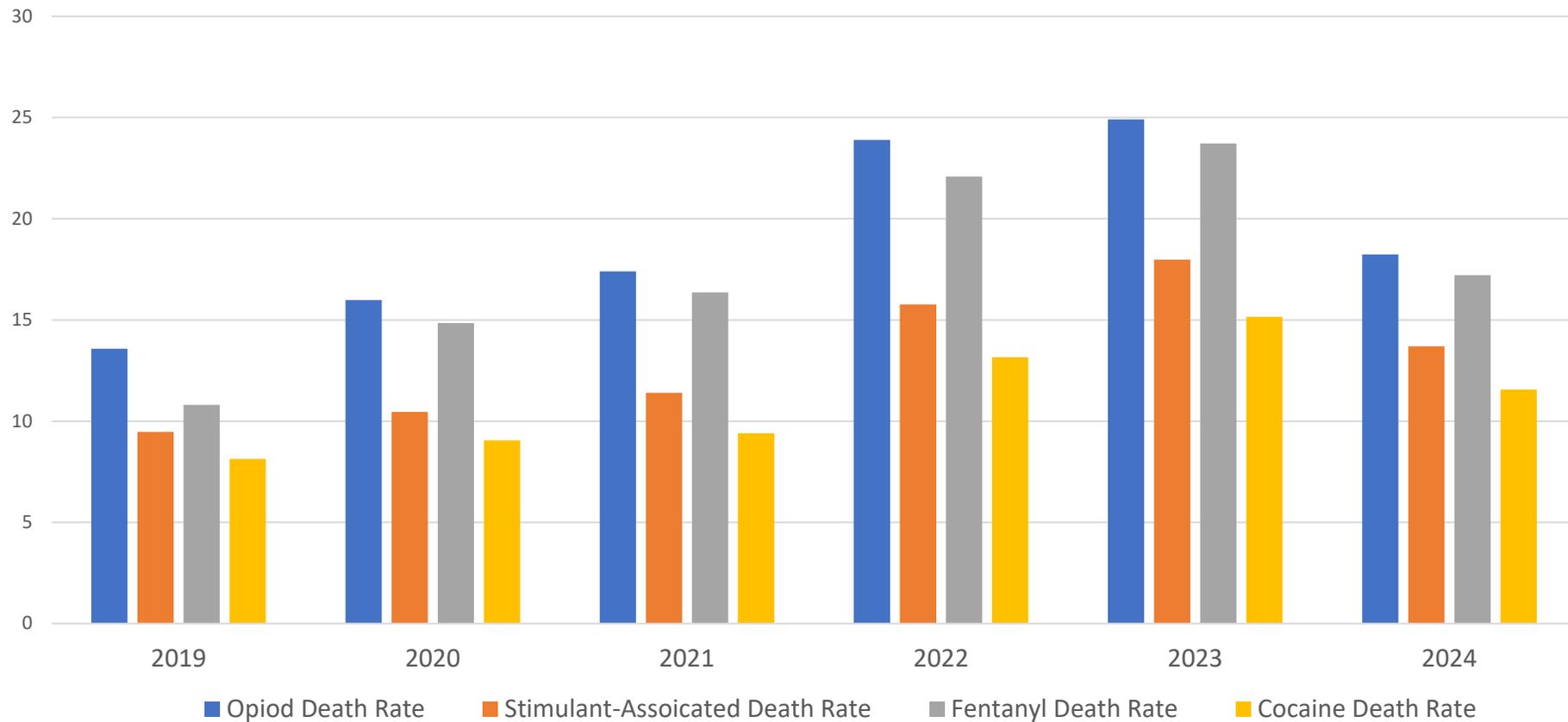
Fatal Overdoses

- CDC Wonder
 - Primary source of confirmed fatal overdose data
 - Data on decedents' race, age, sex, and cause of death at the county level by year
- County Medical Examiner's Data
 - Primary source of *suspected* fatal overdoses
 - Data on decedents' race, age, sex, and address of death.



Fatal Overdoses

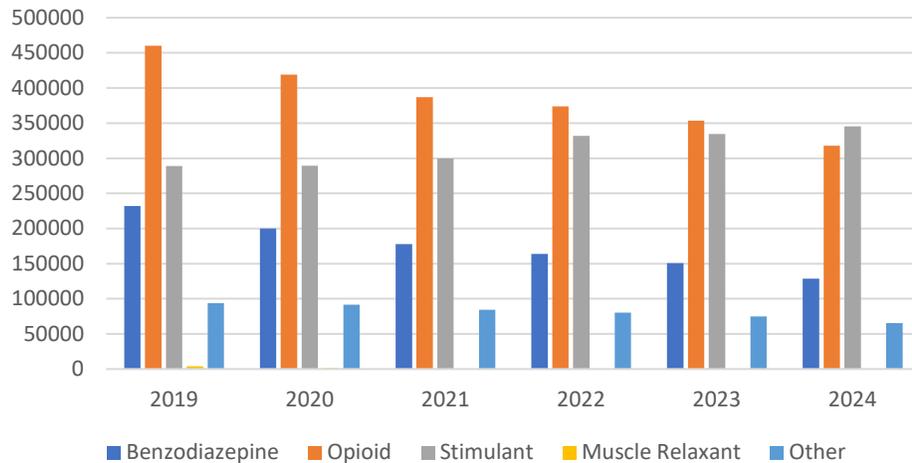
Death Rate per 100,000 people by Substance



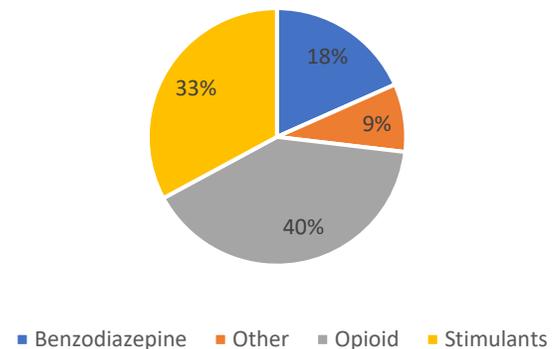
Controlled Substances Prescription Data

- North Carolina Controlled Substances Reporting System (NC-CSRS)
 - Data on controlled substance prescription levels across Mecklenburg County
 - Provides yearly trends on prescribing practices of controlled substances like opioids, stimulants, benzodiazepines, muscle relaxants, and others.

Prescribed Drugs by Year, Mecklenburg County



Percentage of Prescriptions by Substance, Mecklenburg County



Successes in this past year

- Published public-facing dashboard with multiple data sources reflecting unique insights into overdose in Mecklenburg County.
 - Involved gaining access to databases and exploring their uses
- Published monthly reports starting in January 2025 of monthly trends in county overdose statistics.
 - Releases the third Wednesday of each month
- Worked with public safety and harm reduction partners to establish protocol for overdose spike response.
 - Baselines for spike daily county-wide overdoses and neighborhood overdoses in a 24-hour period determined, messaging approved

In the year Ahead...

- Wastewater Surveillance
 - Method used to assess overdose in the community.
 - Substances tested will include fentanyl, methamphetamine, xylazine, cocaine, and nicotine. There are options to explore testing for other substance metabolites in the wastewater as well.

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Questions?



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