

# **Analytical Enhancements in Kentucky's Drug Overdose Mortality Surveillance: Rapid Monitoring of Trends and Decedents' Recent Controlled Substance Prescription History**

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# Disclosures

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*This presentation reflects the views of the authors and does not necessarily represent FDA's views or policies.*



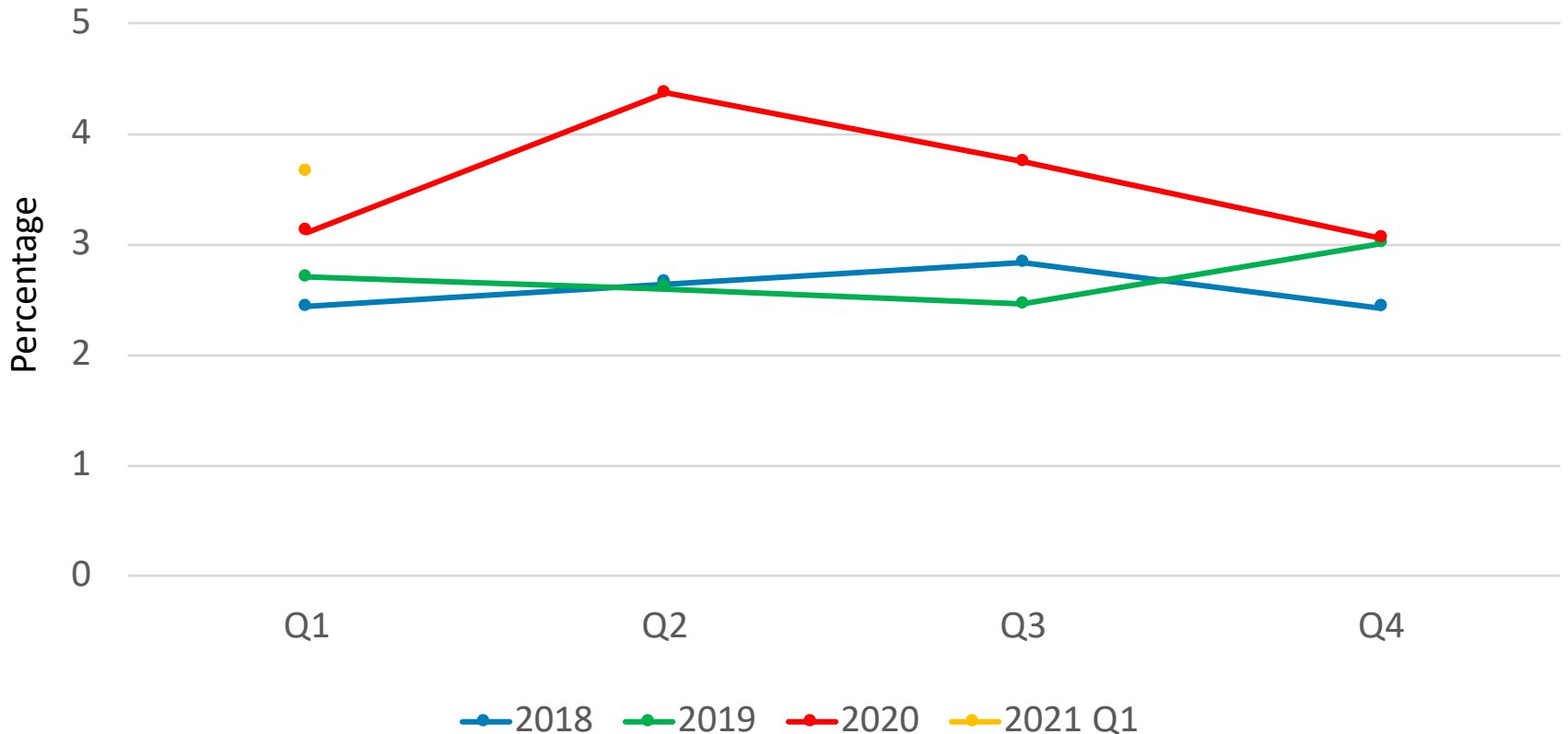
# Objectives and Methods

- The aim of this study is to describe the development and utilization of analytical tools for rapid, ongoing monitoring of drug overdose trends in Kentucky and decedents' exposure to prescribed controlled substances
- Linkage of all-cause death certificate (DC) with prescription drug monitoring program (PDMP) records from 2018 to March 2021
- Drug overdose deaths are identified based on underlying cause of death (ICD-10 codes: X40-X44, X60-X64, X85, or Y10-Y14)
- Involvement of specific drugs/drug classes in the drug overdose death is based on ICD-10 codes (T36-T50) and death certificate text analysis
- Drugs listed on DCs are compared with decedents' past 90 day controlled substance prescriptions dispensed



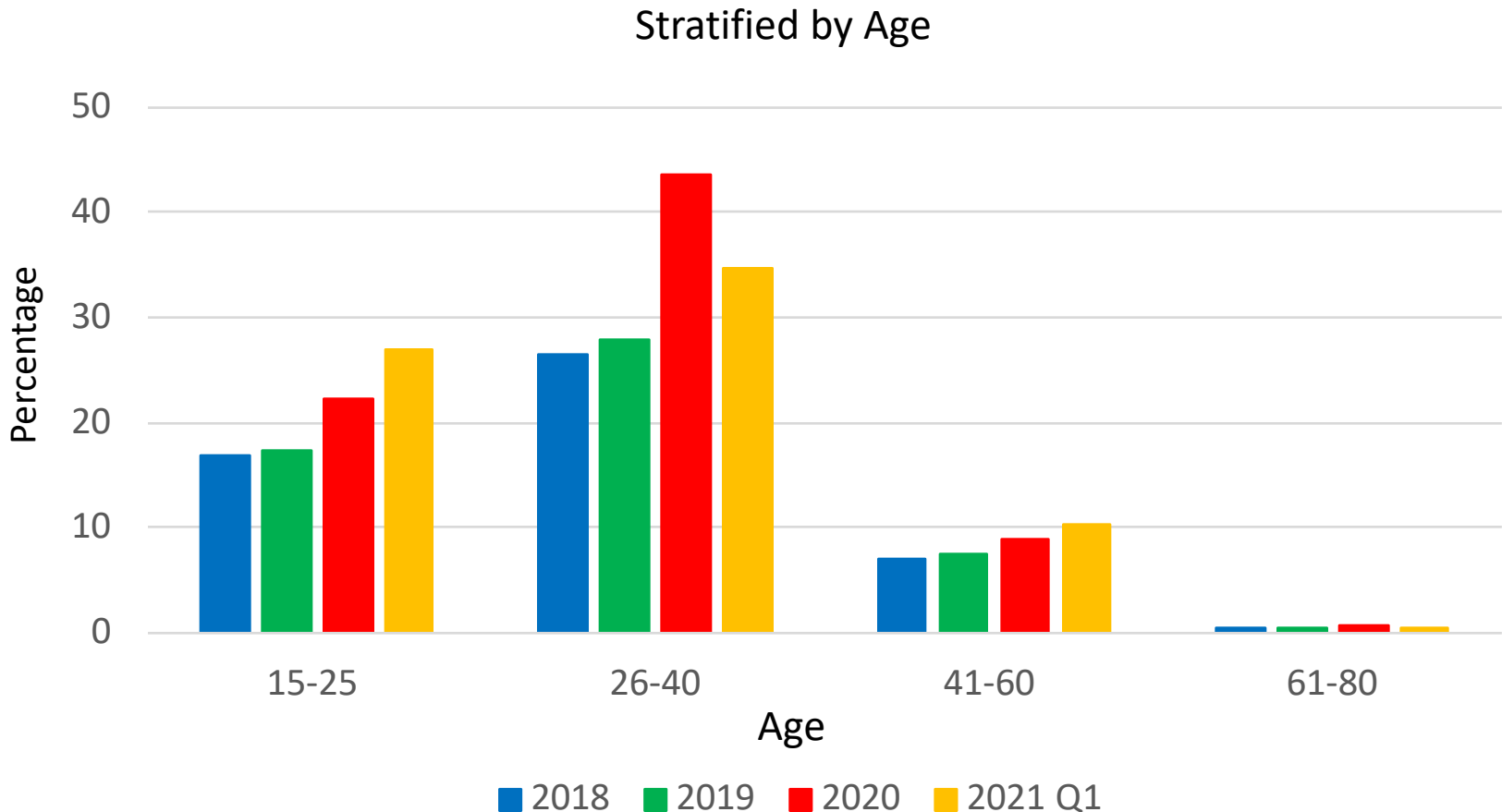
# Results

## Drug Overdose Deaths as a Percentage of All-cause Mortality Kentucky Residents, 2018 Q1 – 2021 Q1



# Results

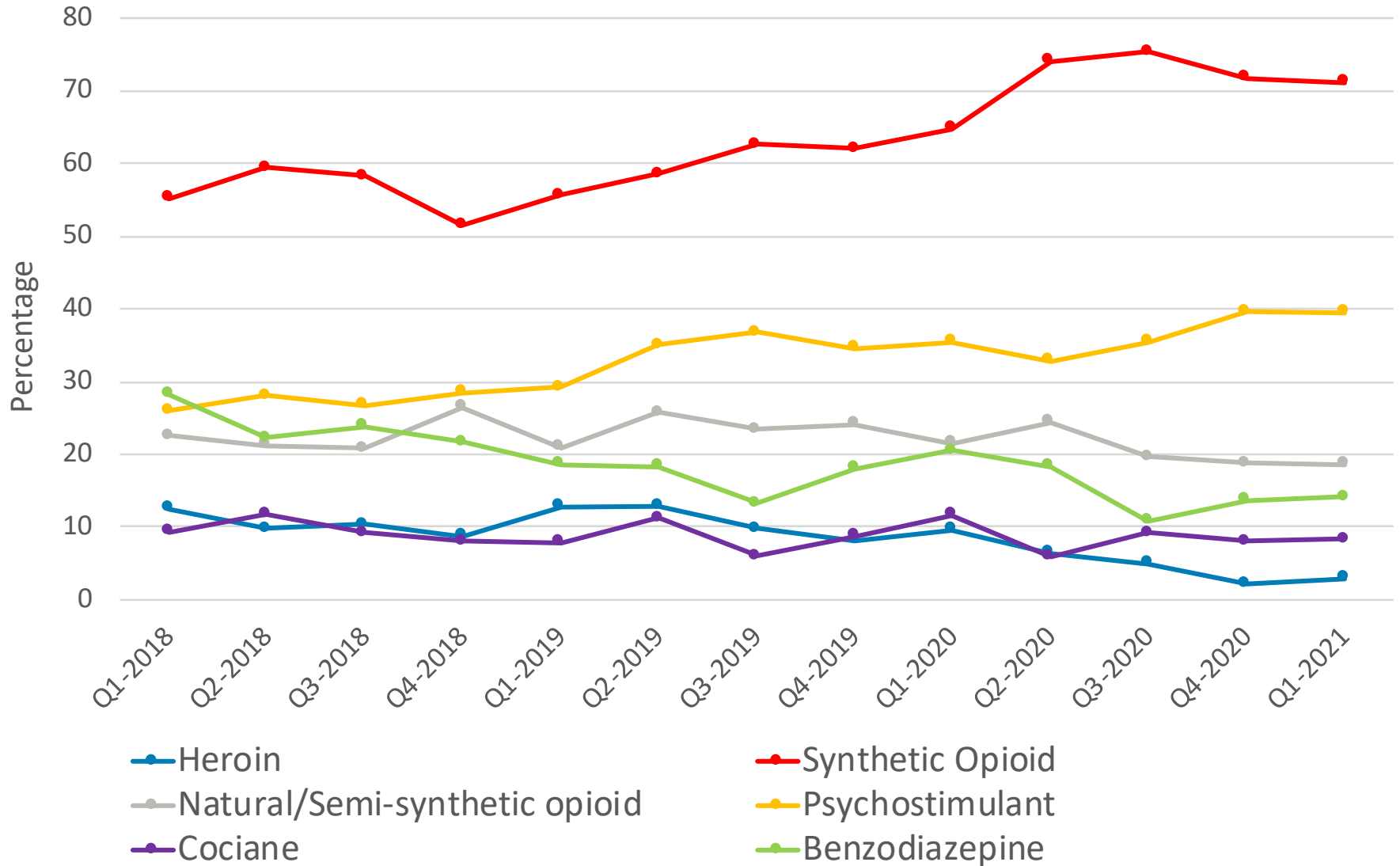
## Drug Overdose Deaths as a Percentage of All-cause Mortality Kentucky Residents, 2018 Q1 – 2021 Q1



Drug overdose death certificates are identified based on underlying cause of death codes in the ICD-10 range X40-X44, X60-X64, X85, or Y10-Y14. Age categories <15 and > 80 are not visualized due to small counts.

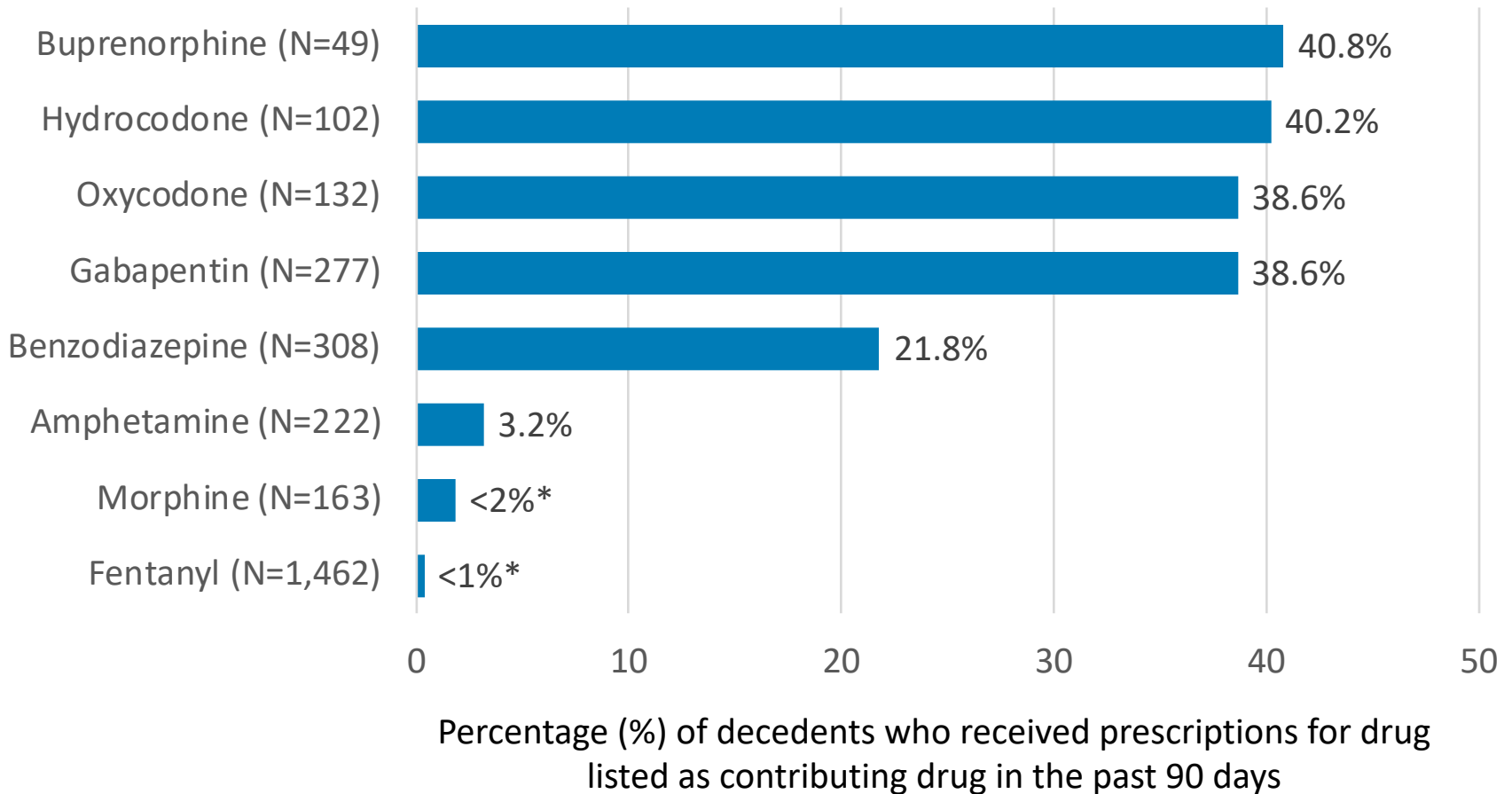
# Results

## Contribution of Specific Drug Classes in Drug Overdose Deaths



# Results

## Percentage Kentucky Drug Overdose Decedents with Recent Prescriptions for Drugs Listed as Contributing Drugs, 2020



\*Exact % (cases < 6) need to be suppressed according to the state reporting policy and the data use agreement with the Office of Vital Statics and KASPER.

# Conclusions

- A high level of drug overdose deaths was observed in the first months of COVID-19 pandemic and sustained at historically high levels during the last 12 months
  - Specifically, increasing involvement of synthetic opioids and psychostimulants and decreasing/minimal involvement of heroin in drug overdose deaths were observed
- The overwhelming majority of drug overdose decedents did not have recent prescription for the controlled substances involved in their drug overdose death
  - Of 1,462 overdose decedents who died of an overdose involving fentanyl, <1% had received a prescription for fentanyl in the previous 90 days
- The analytical enhancement of KY's drug overdose surveillance supports rapid assessment to inform public health action and provides a rich dataset for pharmacoepidemiologic studies





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