A Review of Fentanyl Overdose Related Deaths as Compared to Other Substance Abuse Related Deaths in Duval and Seminole Counties, 2011-2016

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Introduction

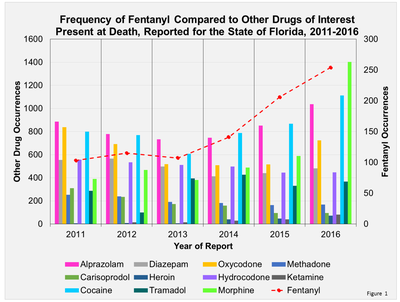
The opioid overdose epidemic has become a substantial public health problem in the 21st century. Between 2011 and 2016, the state of Florida medical examiner's office reported a 37% increase in the number of occurrences in drugs. Likewise, Duval County reported a 40% increase and Seminole County a 24% increase. Among the drugs reported the majority had more than one drug occurrence. The goal of this study is to assess the majority of drug related deaths at the county level in the state of Florida.

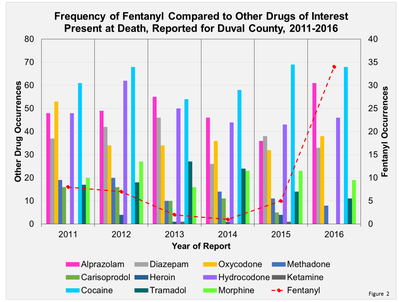
The objective of this project is to analyze fentanyl overdose related deaths and compare them to other substance abuse related deaths in both Duval and Seminole counties.

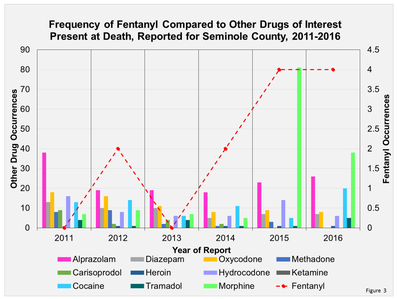
Methods

This study was performed in the state of Florida with specific emphasis on Duval and Seminole counties. Data were obtained from the medical examiners office. The datasets included data from 2011 through 2016. A retrospective cohort analysis of fatal cases due to present cause or listed cause of drug related deaths was done using statistical analysis system (SAS) and figures and graphs were created

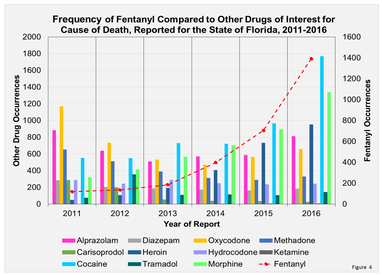
Figures 1-3: Frequency of Fentanyl Compared to Other Drugs of Interest Present at Time of Death, 2011-2016

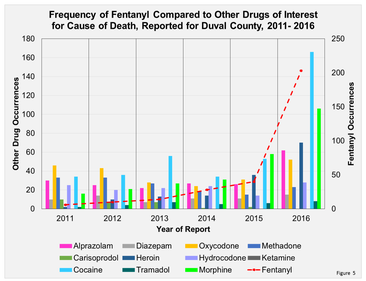


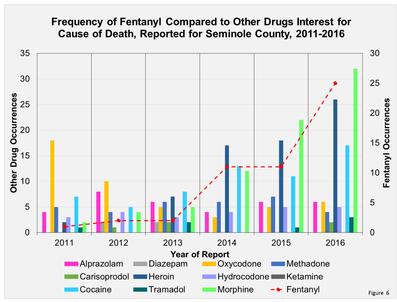




Figures 4-6:Frequency of Fentanyl Compared to Other Drugs of Interest for Cause of Death, 2011-2016







Results & Conclusions

From 2011 to 2016, Duval County reported a 40% increase in drug deaths, while Seminole County reported a 24% increase. Among the drugs reported the majority had more than one drug occurrence. In reported deaths for drug usage, both illicit and prescription medications, the greatest increase of change occurred from 2015 to 2016 for the state of Florida, Duval and Seminole counties with 22%, 36%, and 18%, respectively. When both counties and the state were compared, deaths by drug of interest (DOI) effected White males age 41-60 years old more than any other race, gender, and age group in Florida, Duval, and Seminole counties, likewise, with fentanyl only deaths. While Black males had higher rates of death from cocaine for all age groups in Florida, Duval, and Seminole counties.

Death data compared between the two counties showed an increase but differ among drugs of interest (DOI) were the same. This suggesting emphasis policy and procedures for pain management with heavy emphasis on the drug of interest (DOI) for the population of choice.

Future Research Recommendations

Recommendations for future research based upon these findings include but are not limited to:

- Regression analysis (multivariate or bivariate)
- Assess other potential barriers to data collection
- Evaluate Prescription Drug Monitoring System (PDMS) as it relates to dispensing and required reporting
- Health equity research as it pertains to opioid abuse verses other drug abuse (i.e. cocaine)