

# *Drug-Related Overdose Deaths in CT 2015-2018*

By Group 5: Ruqayyah, Mark, Darrick, Carlos, Emee & Rafael

# Why we chose this topic

As a group, we wanted to bring awareness to the drug overdose pandemic across the U.S. and which particular drugs were contributing to these high death tolls. To accomplish this goal we cleaned our data to observe the following trends and answer the questions we felt significant to this topic.

# Research

We collected our data from the database Kaggle titled “Drug Overdose Deaths: Accidental drug related deaths during 2012 - 2018.”

- Specifically, we focused our data analysis on Connecticut as it contained the most data provided upon further analysis of the dataset.
- <https://www.kaggle.com/datasets/ruchi798/drug-overdose-deaths>

# *Questions we hope to answer*

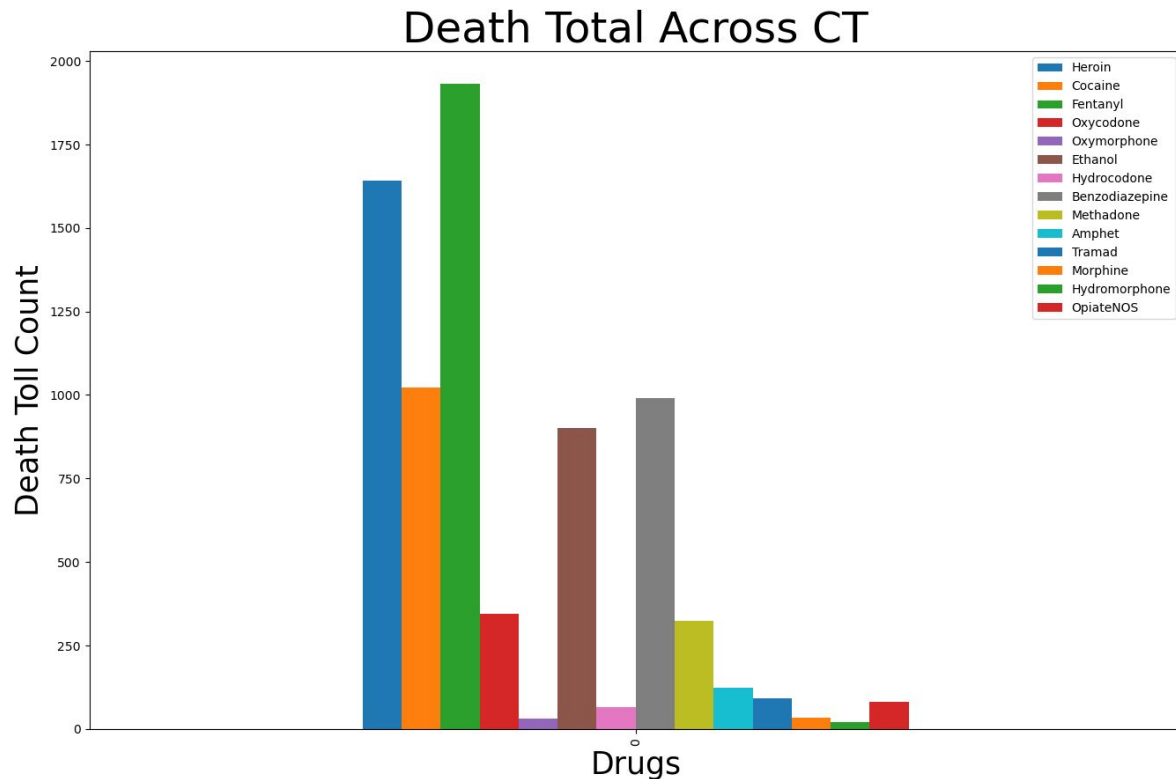
- Which particular drug is the leading cause of death in drug overdoses?
  - Which age groups seem to face a high risk of drug related deaths?
  - Which gender has a higher percentage of drug related deaths?
  - Which race has experienced high percentage of drug related deaths?
  - What is the trend shown between years from accidental drug-related deaths?
  - Which season reflects the most death related drug overdose?
  - Which city seem to face the most drug-related deaths in CT from 2015-18?
-

# Death total across CT

*Which particular drug is the leading cause of death in drug overdose?*

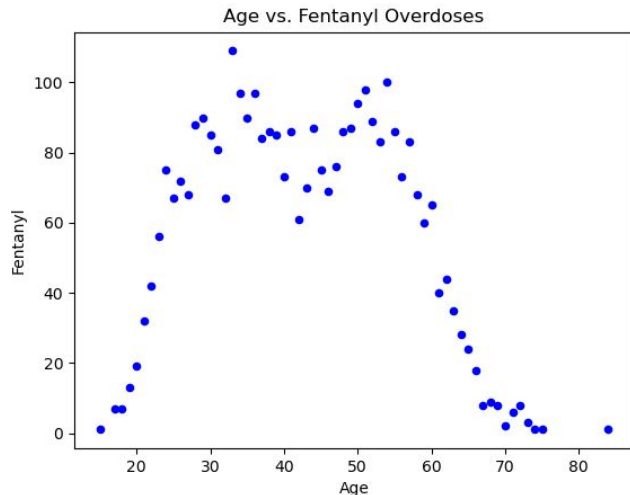
*Fentanyl, Heroin, Morphine*

*The drug of choice least likely to contribute to death by drug overdose would be Hydromorphone*



# Age vs Fentanyl Overdoses

*Which age group seem to face a high risk of fentanyl related deaths?*

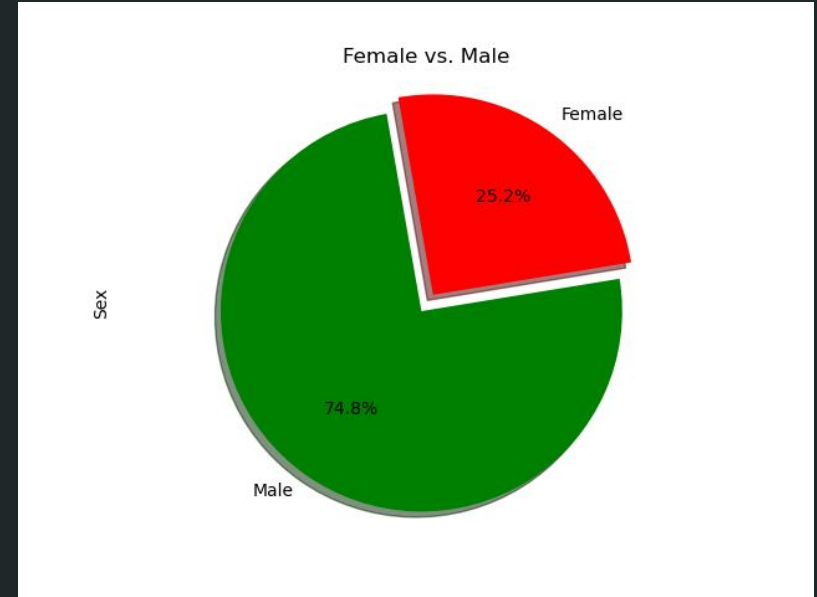


- Compared the total ages of each individual with specifically Fentanyl-related overdoses.
- Individuals about the age of 33 showed the highest fentanyl-related deaths.
- Individuals under 20 showed the least fentanyl-related deaths, along with individuals over the age of 70

# Female vs Male

*Which gender has a higher percentage of drug-related deaths?*

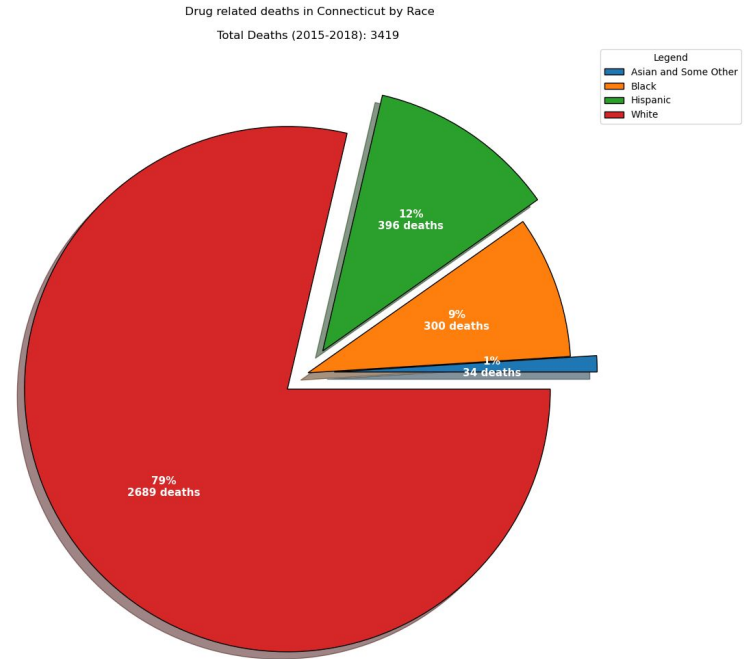
You can see that Males have a higher percentage of deaths due to accidental drug overdose from 2015 to 2018 than females in Connecticut. Males has almost 75% while females have only almost 25%.



# Drug Related deaths by Race

*Which race has experienced high percentage of drug related deaths?*

The data shows, as you can see on the pie chart, the accidental drug overdose mortality rate from 2015 to 2018, the white race/ethnicity was the highest among other races/ethnicity, and the Asians and Some Others were the lowest.

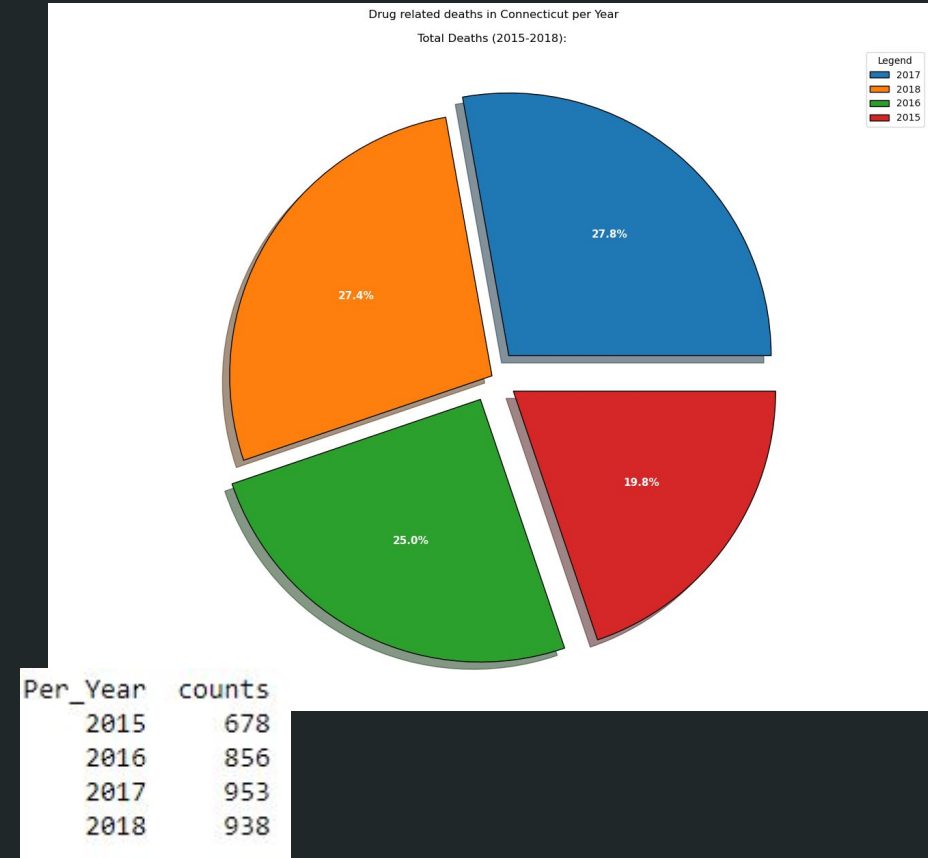




# Drug-Related Deaths In CT

*What is the trend shown between years from accidental drug-related deaths?*

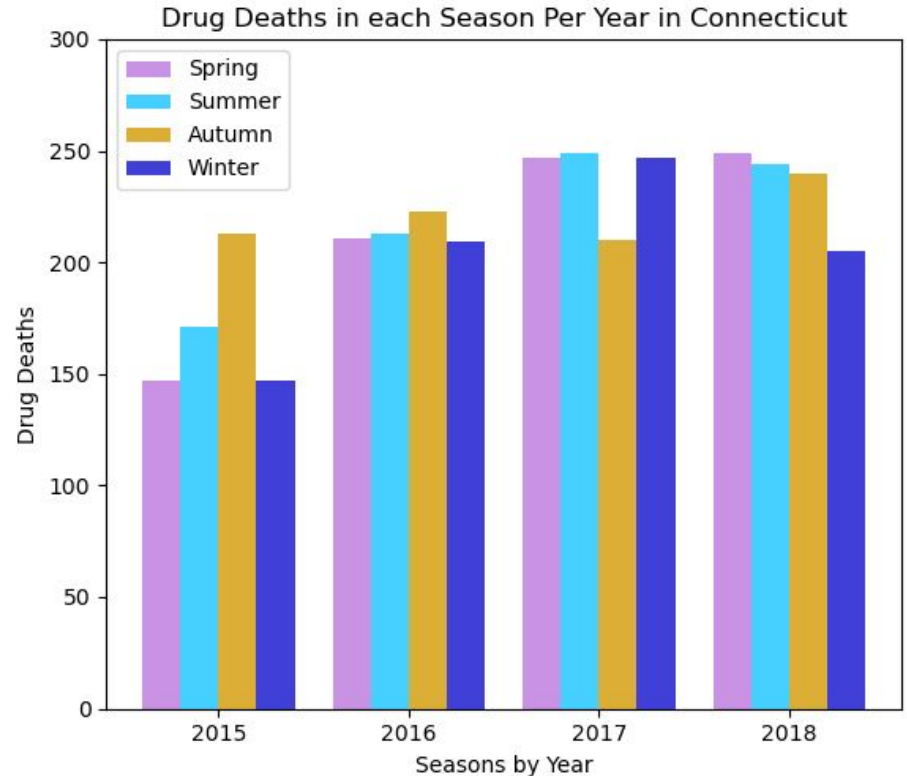
- Death Increase from 2015 to 2016 is 26.253687315634217%
- Death Increase from 2016 to 2017 is 11.33177570093458%
- Death Increase from 2017 to 2018 is -1.5739769150052465%
- Overall: Death Increase from 2015 to 2018 is 38.34808259587021%

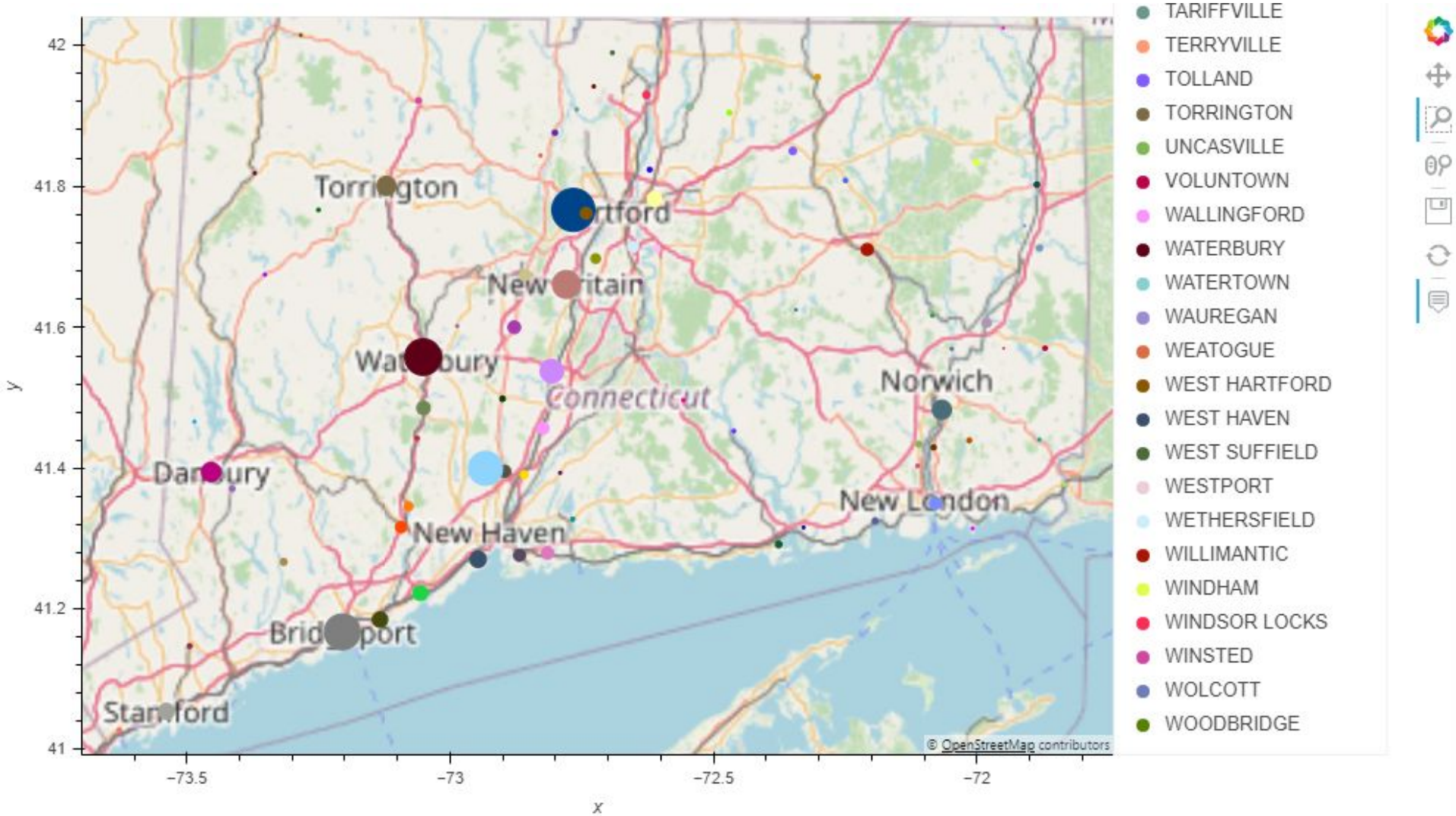


# Drug deaths per Season in CT

*Which season reflects the most drug-related overdose deaths?*

- An overall upward trend in drug-related overdose deaths from years 2015-2018
- Autumn was the largest contributor to drug deaths in Connecticut in years 2015-2016
- Summer overtakes Autumn in 2017 with the most drug deaths before Spring becomes the season with the most deaths in 2018
- Autumn had the highest amount of total drug deaths at 886





# *Limitations of the Data*

- ❖ Only data from CT area, drug death behavior will vary in other parts of the world - is urban/rural and culture dependant.
- ❖ Insufficient sample size to compare epidemic by state
- ❖ Data goes back 10 years to get good historical background.
- ❖ Other sources found that did not line up with the data what we found through Kaggle

# Conclusion

## ❖ Overall Findings:

- Fentanyl was the leading cause of accidental drug-related deaths
- Individuals about the age of 30 recorded the most accidental drug overdose deaths
- Males made up 75% of drug-related deaths
- Individuals from white ethnicity experienced 79% mortality rate from 2015 to 2018
- Autumn reflected the highest number of deaths

- ❖ We hope our findings will help raise awareness of this epidemic in CT and bring about change for individuals.

