Age Groups Affected by Drugs & Alcohol in the Top 5 Death Rate States

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Background

- Late 1990's saw pharmaceutical companies pushing the use of opioids as pain relievers.
- Healthcare providers prescribed opioids to patients with the reassurance that the drugs were not addictive.
- Drug and alcohol abuse is one of the leading cause of deaths in the United States.

Definition of Terms & Variables

- States - Top 5 States with drug and alcohol related deaths
- Age Groups
  - Ages <1 to 85+ separated into 10 year segments
- R-squared value
  - The value that measures how close the data are fitted to the regression line
- Correlation value
  - The value that determines the relationship between X and Y. In this case, they are the number of deaths and causes of death in each age group.
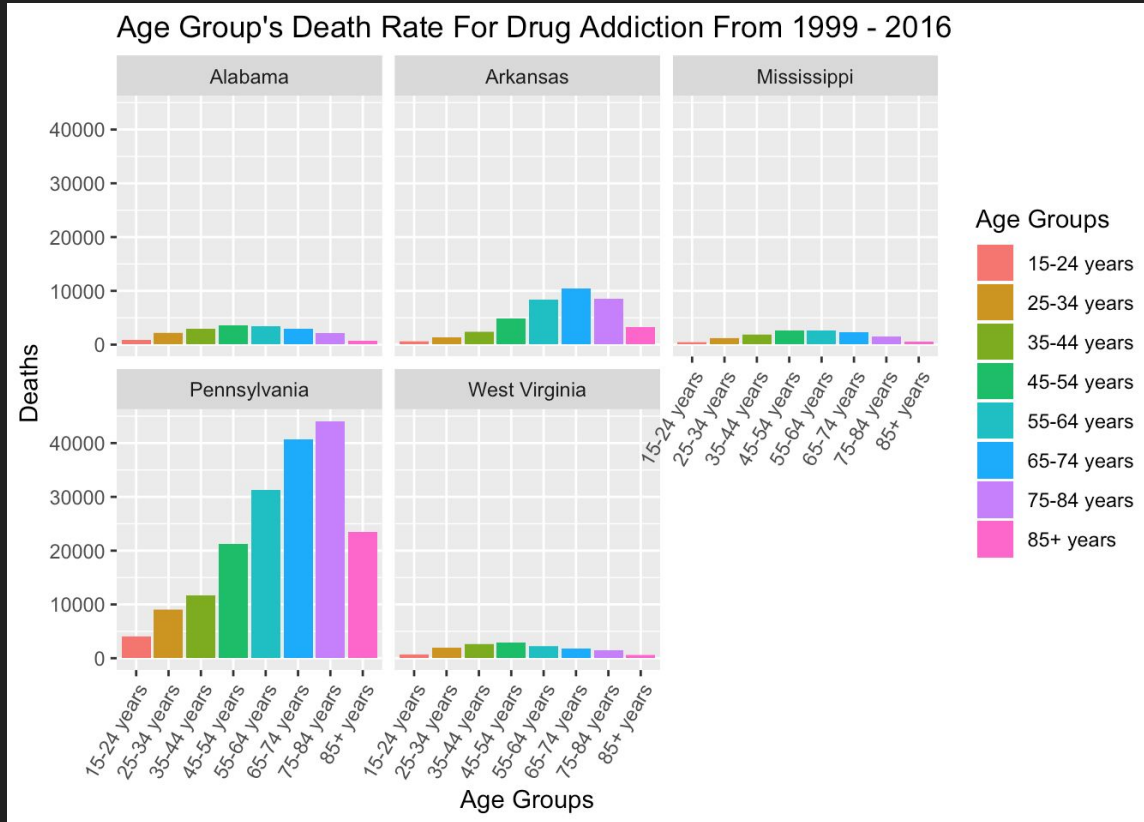
Questions

- What are the top 5 states with drug/ alcohol induced deaths?
- What are the death rates for each age range?
- How does each age range drug induced deaths compared to their alcohol induced deaths?
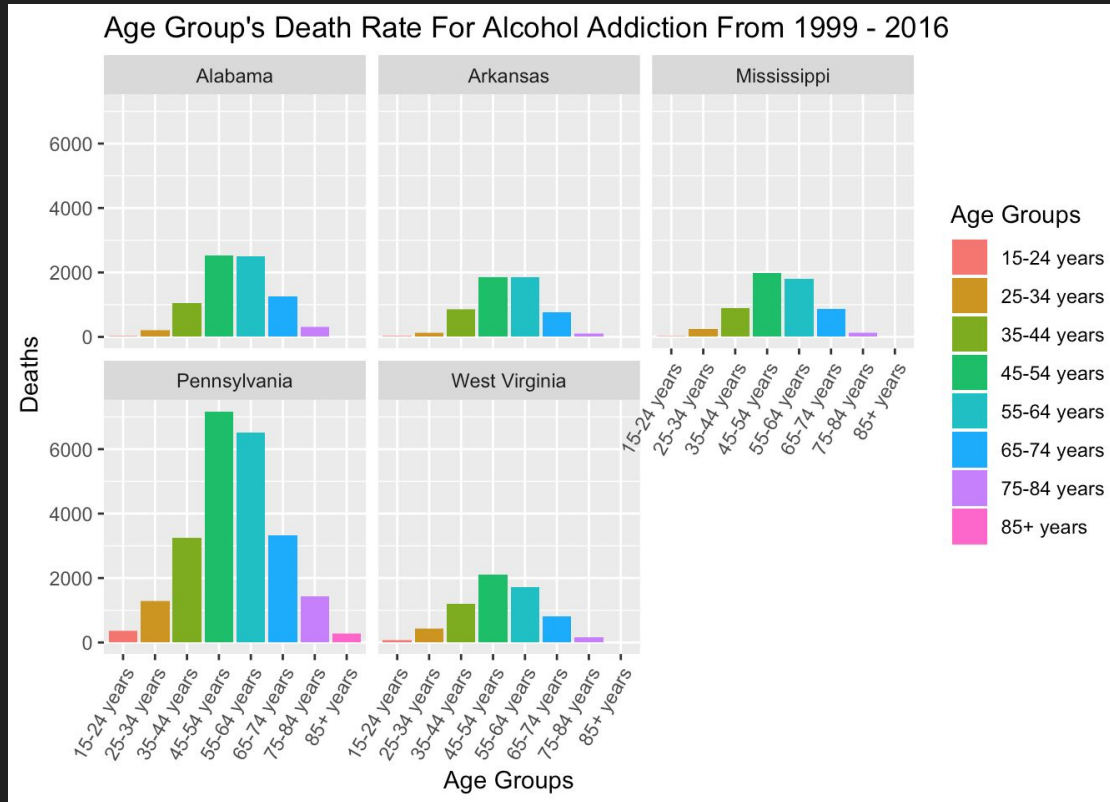
Hypothesis

- As the age range increases, then so does the number of drug/ alcohol induced deaths.

Age Group's Deaths Rate Caused by Drug Addiction/Overdose

Age Group's Death Rate For Drug Addiction From 1999 - 2016

- Death count by age group
- West Virginia and Pennsylvania show steady increase through higher age groups.
- Age range of 65-84 have highest death rates for the five states

Age Group's Death Rate caused by Alcohol Addiction

Age Group's Death Rate For Alcohol Addiction From 1999 - 2016

- Death counts by age group
- Each graph shows a bell curve
- Age range of 45-64 have highest death rate across the five states

Key Values for the Regression Analysis

Causes of Deaths / Key Values	Alcohol	Drug
R-Squared Values	0.1438	0.1525
Correlation Values:	0.0989	0.1985

Conclusion

- The Top 5 States are Pennsylvania, Alabama, Arkansas, West Virginia, Mississippi with the highest death rates from drug/alcohol.
- Deaths from Drug overdose follows closely to our hypothesis, while death by alcohol follows a more normally distributed bell curve over the age ranges
- We can conclude from the regression analysis that drugs have a slightly higher impact on the death rate than alcohol

Citations

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