

Analysis of Opiate Prescription Trends in the United States

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Project Description

Opiates are potent drugs that are widely used in medicine for the treatment of pain. Unfortunately, these drugs are also highly efficient at activating the ‘pleasure center’ of the brain- releasing neurochemicals such as dopamine and serotonin. Due to this property, opiates have a high potential for abuse and addiction when prescribed, and are aptly dispensed as controlled substances. Higher potency opiate prescriptions such as Oxycodone and Fentanyl are schedule II (highly monitored), while lower potency opiates such as Tramadol and Codeine are less strictly monitored and controlled, being schedule IV and III.

This project will attempt to classify areas of the United States by both average income of a region as well as type of region, and the amount of opiates prescribed by doctors in that area.

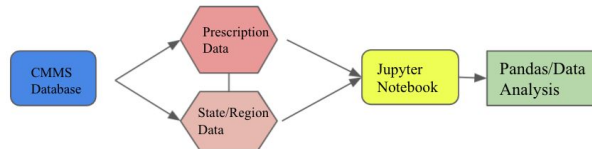
Research Questions

Primary Question: Are opiates prescribed more frequently in areas that have a lower average income?

- A: Are certain medications more commonly prescribed in higher or lower income areas? (i.e. Hydrocodone vs. Oxycodone)
- B: Are initially prescribed medication doses generally higher for rural or urban areas? (patients with high starting doses have higher chances of dependence and abuse)
- C: Is opiate treatment therapy used for a greater duration for patients in lower income areas?
- D: How have rates of prescriptions in these areas changed over the past 5 years?

Workflow & DataFrame

Data for this project comes from the Centers for Medicare and Medicaid Services.



Visualizations

Results & Interpretations