Galvanize Capstone I Proposal

Background & Motivation

I recently moved to Colorado from Indiana and have a background in environmental public health. My previous job was at a community agency where I managed large statewide grants aimed at reducing lead poisoning of children in their homes. I was initially interested to see what efforts Colorado has undertaken to reduce childhood lead poisoning and came across the Colorado Department of Public Health and Environment's Open Data website. Although I didn't find a data set involving lead poisoning, I did find some interesting data on asthma hospitalizations.   With Colorado's legalization of recreation marijuana in 2014, I began to wonder if there had been any impact on the health of the people of Colorado. The question I am most interested in answering with this data is if there has been a statistically significant increase in asthma hospitalizations after recreational marijuana legalization.

Data

I found the Colorado Environmental Public Health Tracking (EPHT) Asthma Hospitalization Data on the [Colorado Department of Public Health (CDPHE) Open Data website](). This data tracked hospitalization rates due to asthma from 2004- 2018. These rates are broken down by county, gender, and age group. I plan to specifically look at the data from 2010- 2018 in order to have an equal amount of time before and after legalization.

MVP

My initial goal is to determine if there is a statistically significant increase in asthma hospitalizations by looking at the statewide statistics for all age groups pre and post legalization. I want to use this as an opportunity improve my general coding, pandas, matplotlib, and GitHub experience.

MVP +

If I have the time, I'd like to compare two different areas of the state by utilizing the county by county data. I would look at one county where it's legal to purchase recreational marijuana and compare it to a similar county where it is not legal to purchase.

MVP++

Another possibility is to look at the difference between the different genders and age groups. Is there a statistically significant difference between men and women's asthma rates or adults versus children?