Executive Summary and Guiding Questions

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Topic: Heart Disease Risk Factors & Predictors

Executive Summary: This project seeks to serve a client that is looking to build three clinics to serve as a cheap alternative to the emergency room for patients experiencing chest pain. These clinics will run several heart health tests on patients and enter results into a machine learning model to determine whether a patient should seek more serious medical attention. The client seeks to place these clinics in cities that will ensure maximum exposure to populations in need of this service. The clinics are meant to lower healthcare costs associated with seeking emergency services. The group will examine areas with a high population of people who are uninsured or low income. The group will then cross reference these areas with locations that have high populations at risk for heart disease to select the most ideal locations for the clinics.

Guiding Questions:

Can an ML Model predict heart disease based on various factors such as age, sex, chest pain type, resting blood pressure, cholesterol, fasting blood sugar based on a threshold, resting ECG, etc…?

Which machine learning model has the highest accuracy and precision?

What are some of the most influential risk factors for heart disease?

Which states:

- Have a high population of low income?
- Have a high population uninsured?
- Have a high population of men?
- Have a high population of people over 65 years of age?
- Have a high population of smokers?
- Have a high population of obese people?

What areas are most in need of heart disease prevention and how can we determine these areas?