Project Proposal Team 3

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Title

Asthma prevalence and Vaccination rates of Asthma Patients 2021in the US.

Project Description

The objective of this project is to create and show an interactive map of the United States displaying; Asthma prevalence along with the rates of Influenza and Pneumococcal vaccines for individuals with diagnosed asthma in 2021.

Research Question

- Which vaccine has a higher rate of adoption for individuals with asthma?
- What state has the highest prevalence of asthma?

Data Set to be Used

U.S. Chronic Disease Indications (CDI), 2023 Release.

https://data.cdc.gov/Chronic-Disease-Indicators/U-S-Chronic-Disease-Indicators-CDI-2023-Release/g4ie-h725/data_preview

This dataset is sourced from the Centers for Disease Control and Prevention (CDC) and includes data from 2010 to 2021 about chronic disease states for the entire United States including Puerto Rico and Guam.

Breakdown of Tasks

Data Cleaning/Filtering

- Remove Duplicates
- Handle missing values
- Standardize data

Database Creation

- Create and store cleaned data into a database such as PostgreSQL or MongoDB.
- Query and retrieve data from the created database.

Visualization Development

- Develop a standardized graph (i.e. bar chart or pie chart) displaying the adoption of the two vaccines for individuals with asthma.
- Develop an interactive map of the United States allowing individuals to select a state and have the data visualized for the prevalence of asthma and adoption of vaccines.

Presentation

- Design and implement a 10 minute presentation displaying the visuals in an informative fashion. This will allow for the audience to both understand the data while interacting with the developed visualization.

Ethical Considerations

Throughout the project, ethical considerations will be considered, particularly concerning data privacy and representation. All personal data will be anonymized, and the visualizations will aim to present data accurately without misleading interpretations.