Cardiovascular Disease Prevalence Among Maryland Adults by Race/Ethnicity and Gender

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According to recent data, cardiovascular disease (CVD) poses a significant health concern in Maryland across all demographic groups. Our objective is to raise awareness to prioritize preventative measures and early detection to mitigate the impact of this disease on individuals and communities. To achieve this, our team conducted a focused data visualization project, honing in specifically on heart disease within Maryland. Leveraging a dataset of over one million rows from the U.S. Chronic Disease Indicators (CDI), we aimed to unravel the nuances of heart disease trends during a three-year period (2018-2020).

In our research, we conducted a comprehensive analysis of the mortality rates of total cardiovascular disease among different race and ethnic groups in Maryland. The goal was to discern disparities in cardiovascular health outcomes and identify potential areas for improvement in healthcare policies and practices. Notably, during the mentioned period, we observed a marked escalation in CVD cases among the white Hispanic population. This trend suggests the influence of various factors including genetics, environmental conditions, socio-economic and global shifts, as well as age-related aspects. Our findings, effectively represented through charts and graphs created with Tableau, provide a comprehensive illustration of these disparities.

Expanding our focus, we utilized CDC data to select specific demographics within Maryland, concentrating on heart disease indicators for individuals of different sexes and races. Our rigorous methodology ensured the accuracy and reliability of our findings. The results indicate a significant variation in the prevalence of CVD among different race/ethnic groups in Maryland. While some groups exhibit a higher prevalence of CVD than others, the overall incidence remains high across all groups. Furthermore, our analysis revealed a higher prevalence of CVD among males compared to females, although the difference is not statistically significant.

As our familiarity with Tableau grew, we encountered challenges in understanding the subtleties of different indicators, leading us to concentrate specifically on heart disease. This iterative process allowed us to refine our visual representations over time. The guidance from weekly meetings with our coach played a pivotal role in adopting the scientific method and employing proper terminology.

Our collaborative effort, effective communication, and adept use of Tableau were crucial in presenting meaningful insights from both projects. These skills, combined with our earlier exploration of chronic disease indicators, will undoubtedly contribute to our growth as STEM students and find application in future data exploration endeavors. We anticipate that our study will contribute to the development of effective prevention and treatment strategies for CVD in Maryland, addressing the unique challenges within the diverse demographic landscape.