Dental Health Analysis Project Synopsis

In our increasingly health-conscious world, maintaining good oral hygiene is necessary. The "Dental Health Analysis" project commences with a comprehensive data collection process, involving surveys by google form to which we analyse the different data sets like habits and choices that shape dental health, focusing on toothpaste usage, brushing frequency, toothpaste quantity, and their potential associations with oral diseases after using toothpaste.

Link of survey:
https://docs.google.com/forms/d/e/1FAIpQLSdkdYoWFcXOqhWld3nnMLH5KRUqDBkGIDdMEcQfjSfeBg9XaA/viewform?usp=sf_link

Data Set:

Name, Age, Phone Number, Region, Name of toothpaste, Diseases include, Factor affecting, Outcome, and other 10 plus question in spreadsheet.

https://docs.google.com/spreadsheets/d/1Jv-BRe_CMklxfLvfgrtt-CNS3Rgj_SqVj-jTY6o370o/edit?usp=sharing

Data Collection:

We collect data with the help of google form. It helps us to collect larger no of data precisely with out any problem.

Objectives:

- Toothpaste Preference: Our study aims to identify the toothpaste brands and types most commonly used by people.
- Brushing Habits: We will investigate how frequently people brush their teeth, including daily routines and the times of day when brushing occurs.
- Number of times people do brush.
- Dental Disease Assessment: We will gather data on the prevalence of oral diseases, such as cavities, gum disease, and tooth sensitivity, among participants.

Methodology:

- Surveys: A comprehensive survey will be conducted, collecting data from a wide cross-section of participants. In-depth surveys will provide many information regarding this.
- Data Collection: We will compile detailed data on toothpaste brands, brushing frequencies, oral disease history and many other information.
- Data Visualization: Creating graphs and charts to provide clear insights into the data.

Outcomes:

- Identification of the most commonly used toothpaste brands among participants.
- Insights into how dental issues may be influenced by toothpaste preferences, brushing habits, and beverage consumption.
- An understanding of whether participants adhere to recommended oral hygiene practices.
- An assessment of the impact of hot and cold beverage consumption on dental health. - Insights into dental check-up behaviour and its association with dental health.

Problem Statement:

In the current health-conscious era, the significance of maintaining optimal oral hygiene is undeniable. However, a lack of in-depth understanding persists regarding the intricate interplay between individual habits, choices, and their influence on dental health. The "Dental Health Analysis" project addresses this knowledge gap by systematically collecting and analysing data, specifically focusing on toothpaste usage, brushing frequency, and associated factors. The project seeks to unravel the complex relationships between these variables and potential implications for oral diseases, ultimately contributing to the development of targeted strategies for promoting and enhancing overall dental health.

Impact:

"Dental Health Insights" aspires to contribute essential knowledge to both individuals and dental health professionals. By understanding the relationship between toothpaste choices, brushing practices, and oral diseases, we hope to empower people to make informed decisions about their oral care routines and ultimately improve their dental health.

This project promises to be a valuable resource for dental care providers, public health agencies, and individuals seeking to maintain and enhance their dental well-being.

Reference:

- McKinney, W. (2017). Python for Data Analysis: Data Wrangling with Pandas, NumPy and IPython. 2nd edition. O'Reilly Media.
- O'Neil, C., & Schutt, R. (2013). Doing Data Science: Straight Talk from the Frontline O'Reilly Media
- https://www.w3schools.com/python/pandas/default.asp
- https://www.codecademy.com/article/introduction-to-numpy-and-pandas

Nishant Yadav

BSc(H) Computer Science

2k21/CS/73