Health Care Analysis Report

Problem Statement:

1. Total Number of patient's diagnosis done in the dataset.

2. What is the percentage of patients who has the history of Heart Attack.

3. What is the percentage of patients who has the history of Stroke

4. Count of Female patients who are not overweight

5. Number of patients based on Health Risk

6. Average weight of the people based on Occupation.

7. Total Number of Overweight patients based on Race

8. Find out the number of Normal health candidate in each age group

9. Number of patients who possess the habit of smoking and are at the HIGH health Risk.

10. Number of patients who exercise less than 30 min and at HIGH health or moderate health Risk.

Problem Explanation:

This project involves analyzing patient data to extract meaningful insights based on various health factors, demographic details, and lifestyle choices. The key objectives revolve around identifying patterns in patient diagnoses, health risks, habits, and the impact of factors like exercise, weight, smoking, occupation, and more. Here's an explanation of each task within the project:

1. Total Number of Patient's Diagnoses Done in the Dataset:

The goal here is to calculate how many patients' health diagnoses were recorded in the dataset. This helps establish the dataset size and the scope of the analysis.

2. Percentage of Patients with a History of Heart Attack:

Determine the percentage of patients who have reported experiencing a heart attack at any point. This involves dividing the number of patients with a heart attack history by the total number of patients.

3. Percentage of Patients with a History of Stroke:

Calculate the percentage of patients who have a history of stroke. This provides insights into how prevalent strokes are within this patient population.

4. **Count of Female Patients Who Are Not Overweight:**

This task focuses on identifying the number of female patients who are not considered overweight. Filter the dataset by gender and weight to find female patients who fall within the normal weight category based on a defined standard, such as BMI.

5. **Number of Patients Based on Health Risk:**

The objective is to categorize patients based on their health risk level (e.g., low, moderate, high). This can be determined using factors such as their medical history, weight, smoking habits, and exercise levels.

6. **Average Weight of People Based on Occupation:**

This involves calculating the average weight of patients in different occupations. The dataset likely contains occupation fields, and by grouping patients according to their jobs, find the average weight in each occupation group.

7. **Total Number of Overweight Patients Based on Race:**

Analyze the relationship between weight and race by counting the number of overweight patients from each racial group. This can help reveal how weight distribution varies across different racial demographics.

8. **Number of Normal Health Candidates in Each Age Group:**

This task involves identifying patients who fall into the "normal" health category based on their age group. Age groups (e.g., 20-30, 30-40) will be predefined, and count the number of patients in each group who are considered healthy based on factors such as BMI and health history.

9. **Number of Patients Who Smoke and Are at High Health Risk:**

The goal here is to find how many patients who are classified as smokers also fall into the high health risk category. This analysis explores the connection between smoking and severe health risks.

10. **Number of Patients Who Exercise Less Than 30 Minutes and Are at High or Moderate Health Risk:**

Identify patients who report exercising for less than 30 minutes per day and are also at a high or moderate health risk. This task helps explore the impact of low physical activity on health risk levels.

Project Purpose:

The project aims to analyze patient health data to understand how various factors (lifestyle choices, gender, occupation, race, etc.) influence health outcomes. This information can be valuable for public health planning, risk prevention, and improving healthcare services by highlighting at-risk groups based on lifestyle and demographics.P0P