# **CARDIAC PATIENTS REPORT ANALYSIS**

## **Executive Summary**

The "Cardiac Patients Medical Report Analysis" is a comprehensive study focused on gaining insights into cardiac health and efficiency, with the ultimate goal of contributing to medical knowledge, enhancing patient care, and improving outcomes for individuals at risk of heart issues. The study involved a detailed analysis of medical reports from heart patients, with the aim of identifying the most vulnerable age group, gender predisposition to heart diseases, and the impact of factors such as chest pain, fasting blood sugar, and serum cholesterol. The dataset used for the analysis was sourced from Kaggle.

## **Methodology**

The following methods are followed in our data analysis-

1. Data Collection: We downloaded the csv dataset from Kaggle <https://www.kaggle.com/datasets/johnsmith88/heart-disease-dataset>
2. Data Cleaning & organization: The collected data is cleaned and organized in a comprehensive manner. The date and time are converted into suitable formats and organized, and thorough understanding of the data dictionary is done to do necessary analysis.
3. Data Analysis: Using Excel formulas we performed necessary calculations. The obtained data is visualized using Excel tools like Pivot table graphs and charts.
4. Conclusions: On the basis of our analysis, we identified the business trends, sales patterns, peak hours and more opportunities for business growth.

## **Goals**

The goals of the analysis included identifying the age group most vulnerable to heart disease in specific countries, evaluating gender-related predispositions, determining the most threatening type of chest pain, and analysing the impact of fasting blood sugar and serum cholesterol in causing cardiac diseases. The study utilized concepts such as data cleaning and analysis, conditional formatting, sorting, pivot tables, and charts to process the data and derive meaningful insights.

## **Findings**

The analysis revealed that individuals in the age group of 39-58 years are the most affected by heart diseases, and both men and women are equally prone to heart diseases. Non-anginal chest pain was identified as the most common type and poses a severe threat to heart attacks. Furthermore, the impact of fasting blood sugar on the occurrence of heart diseases was found to be less significant, while serum cholesterol was identified as a significant factor in causing cardiac diseases. The study also highlighted the importance of closely monitoring individuals in the age group of 39-58 years and emphasized the need for regular health check-ups, awareness initiatives for women's health, and the adoption of a proper diet and exercise regimen to mitigate the risk of heart diseases.

## **Conclusions**

In conclusion, the study provides valuable insights into the factors influencing cardiac health, emphasizing the need for proactive measures such as regular health check-ups, lifestyle modifications, and increased awareness to mitigate the risk of heart diseases. The findings underscore the significance of age, gender, chest pain type, and metabolic factors such as fasting blood sugar and serum cholesterol in the occurrence of cardiac diseases, offering actionable recommendations to improve patient care and outcomes.