PROJECT REPORT

COMPREHENSIVE ANALYSIS OF PAKISTAN'S HEALTH DATA

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PROJECT INTRODUCTION

Introduction

This project aims to analyze a comprehensive health dataset from various hospitals across Pakistan. The data includes detailed patient visit records, enabling a deep dive into demographics, disease prevalence, treatment costs, and hospital performance. This report summarizes the findings and includes visual representations through charts and graphs created in Excel.

Dataset Description

The dataset consists of 2000 rows and 15 columns, each representing a patient's hospital visit. The columns include the hospital name, patient name, age, gender, dates of admission and discharge, primary disease treated, treatment cost in PKR (Pakistani Rupees), insurance coverage status, blood group, height in centimeters, weight in kilograms, contact number, and the patient’s city and province of residence.

OBJECTIVES OF PROJECT

Objective

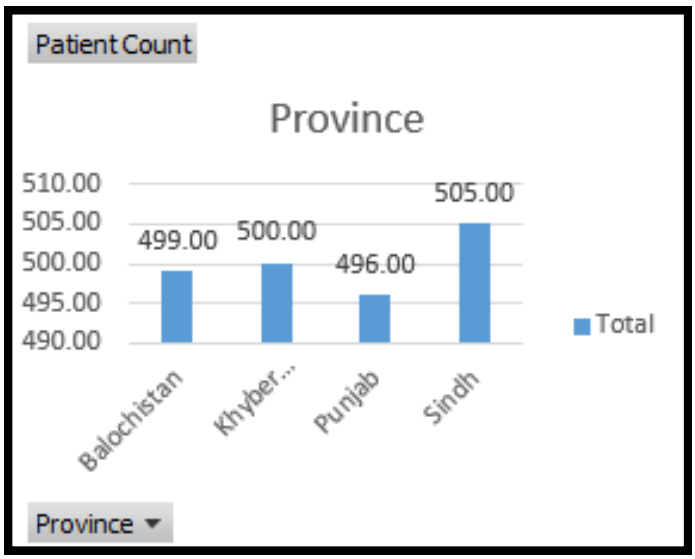
The analysis addresses multiple objectives: understanding patient demographics by analyzing the distribution of age, gender, height, and weight across hospitals; identifying common diseases and their geographical distribution across cities and provinces; assessing treatment costs and the financial burden on patients, both with and without insurance; comparing hospital performance based on patient volume, treatment costs, and other key metrics; identifying peak times for hospital admissions and discharges; evaluating the impact of insurance on healthcare costs; studying the distribution of blood groups among patients; gaining geographical insights into patient distribution and healthcare needs; investigating correlations between patient demographics and treatment costs; and enabling data-driven decision-making for healthcare providers and policymakers to improve healthcare services and outcomes in Pakistan

ANALYSIS AND FINDINGS

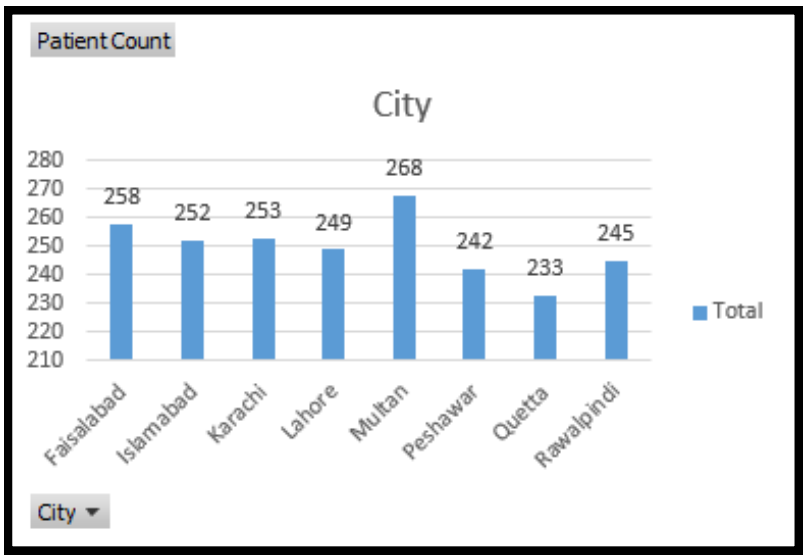
Geographical Insights

City and Province Counts: Patient counts from each city and province

Province



City



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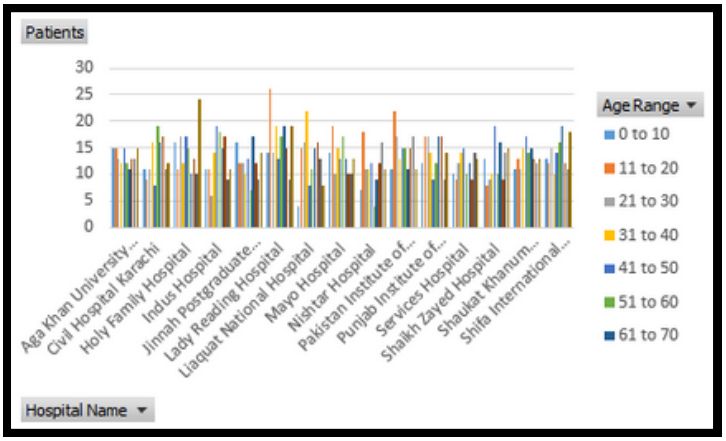
Patient Demographics

Age Distribution: The age distribution across different hospitals



Gender Ratio: The gender ratio of patients for each disease

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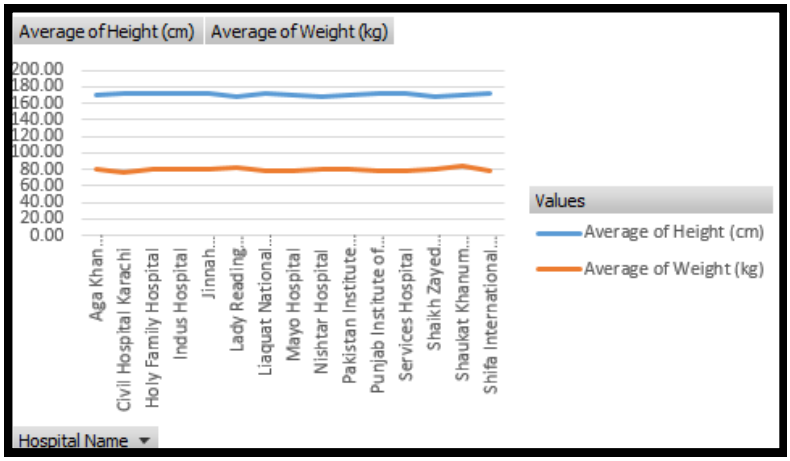
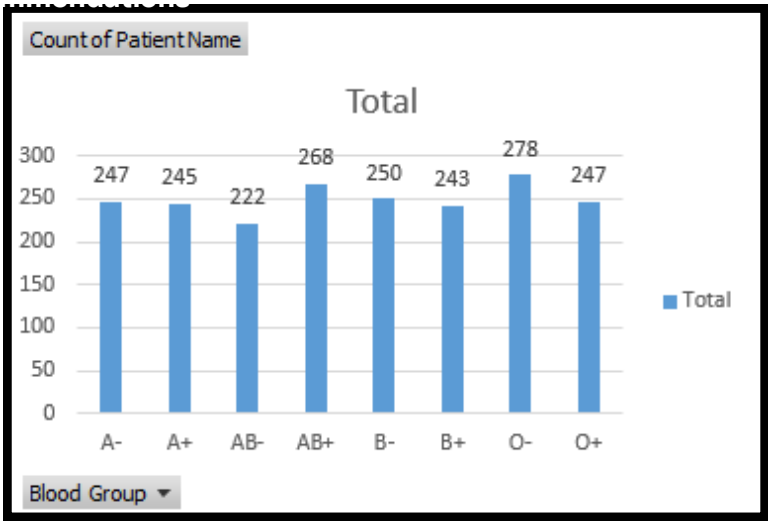
Height and Weight: Average height and weight of Patients in each Hospital



Blood Group Distribution

The distribution of blood groups among patients



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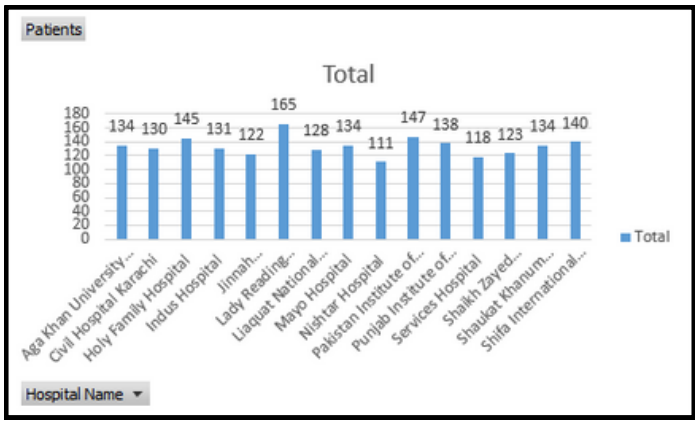
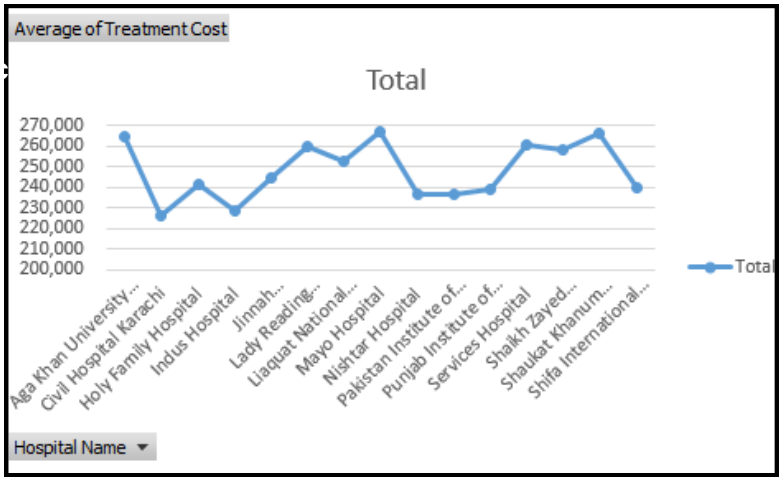
Hospital Performance

Patient Volume: Patient distribution across each hospital



Treatment Costs: Comparative analysis of treatment costs across hospital



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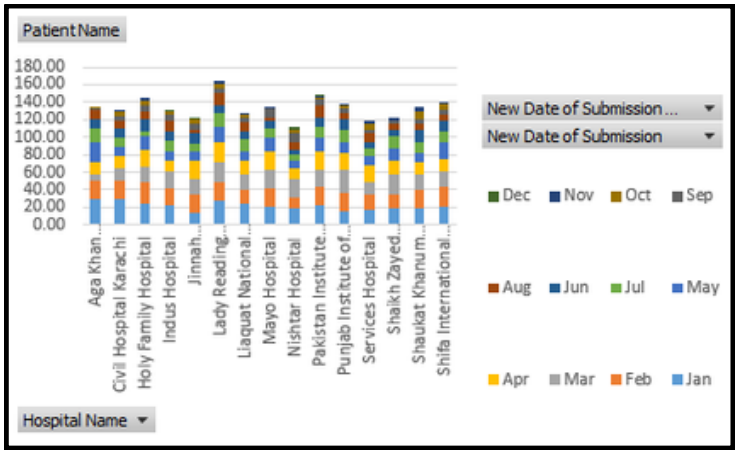
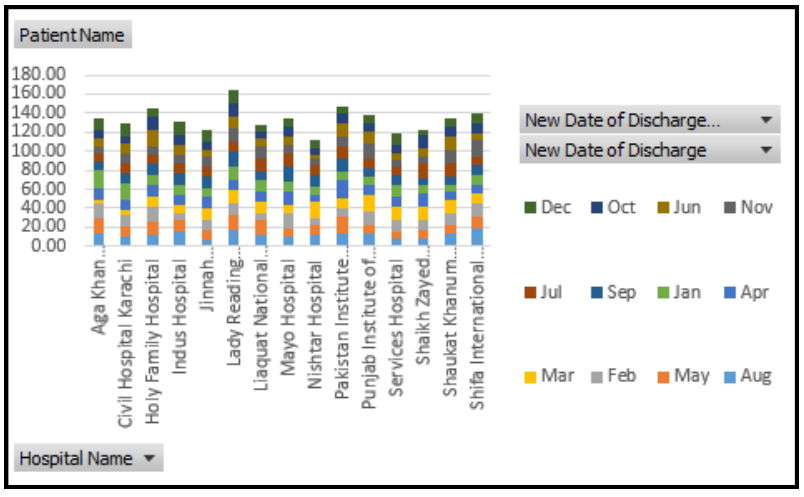
Admissions and Discharges: Peak times for admissions and discharges

Perk time for Admissions in hospital is January



Perk time for Discharge from hospital is August



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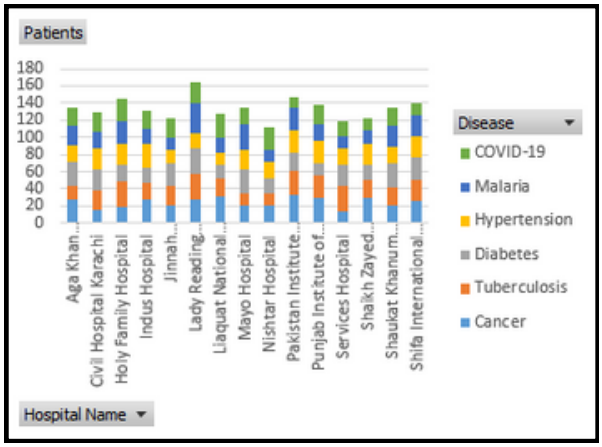
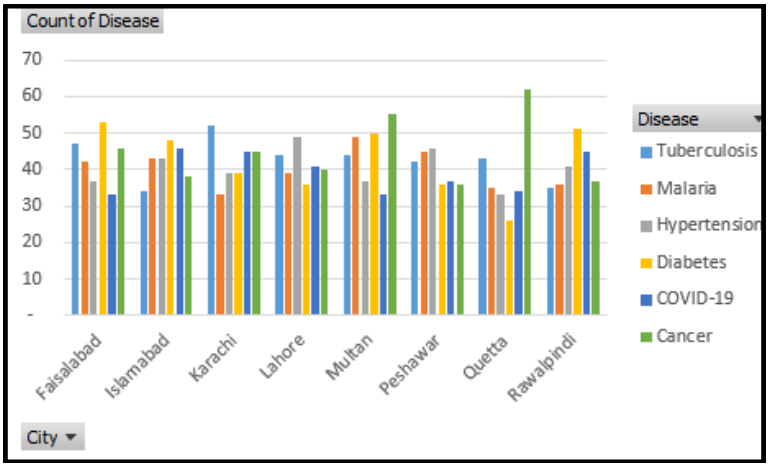
Disease Prevalence

Common Diseases: The most common diseases treated in hospitals

The most common disease treated in Hospitals is Cancer



Geographical Distribution: Disease distribution across cities



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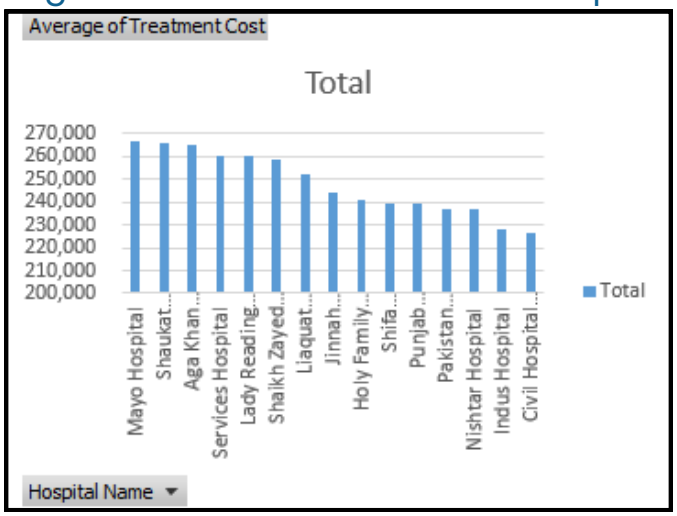
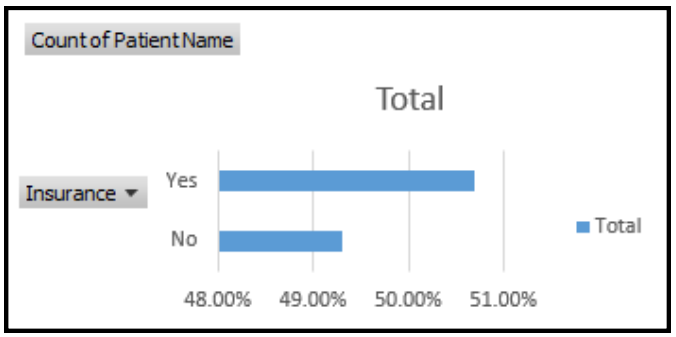
Treatment Cost Analysis

Hospital Costs: Variation in treatment costs across hospitals

The highest average treatment Cost is at Mayo Hospital
The lowest average treatment cost is at Civil Hospital Karachi



Insurance Coverage: Analysis of insurance coverage



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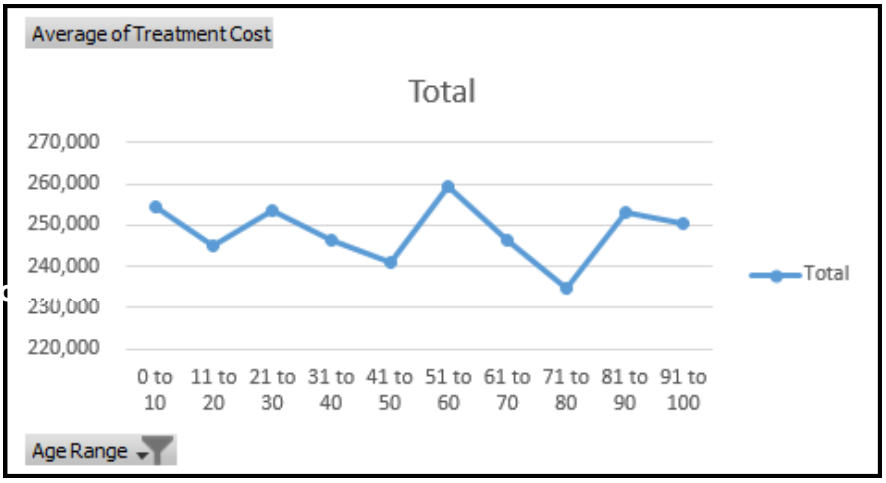
Age vs. Cost: Correlation between patient age and treatment costs

The chart showing average treatment costs by age range reveals significant fluctuations without a clear trend, suggesting no straightforward correlation between age and healthcare spending. This indicates that additional factors, possibly specific health conditions or treatment types prevalent in certain age groups, play a critical role in influencing treatment costs.



CONCLUSION

The analysis provides valuable insights into demographics, disease prevalence, treatment costs, and hospital performance. These findings can guide healthcare providers and policymakers in improving healthcare services and outcomes.

THANK YOU

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