Healthcare Analytics Portfolio

Visualizing Patient Insights with Tableau

Created by:

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Project Overview

This portfolio presents a healthcare analytics project created using Tableau. The aim of this project is to analyze patient demographics, medical conditions, admission types , and billing trends. The dashboards provide valuable insights that can help hospitals improve decision-making , optimize resources, and enhance patient care.
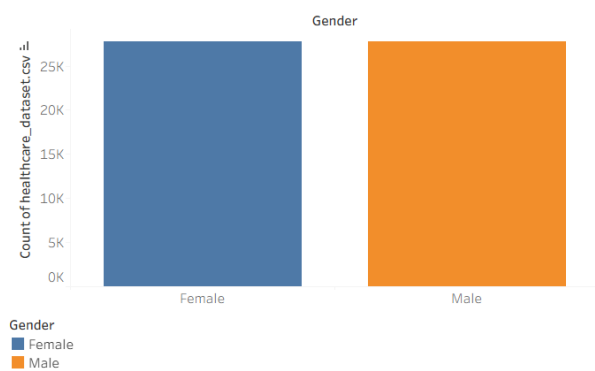
Tools and Techniques Used:

- Tableau Desktop
- Data Visualization & Analytics
- Dashboard Design & Storytelling
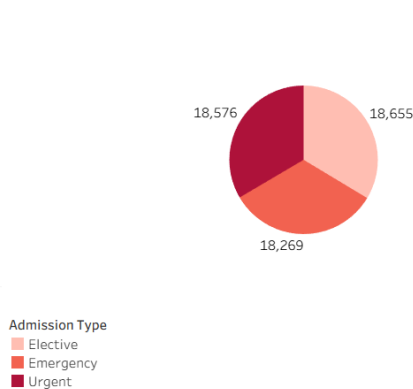- Healthcare Dataset Exploration

Dashboard 1: Healthcare Patient Overview

Healthcare Patient Overview Dashboard
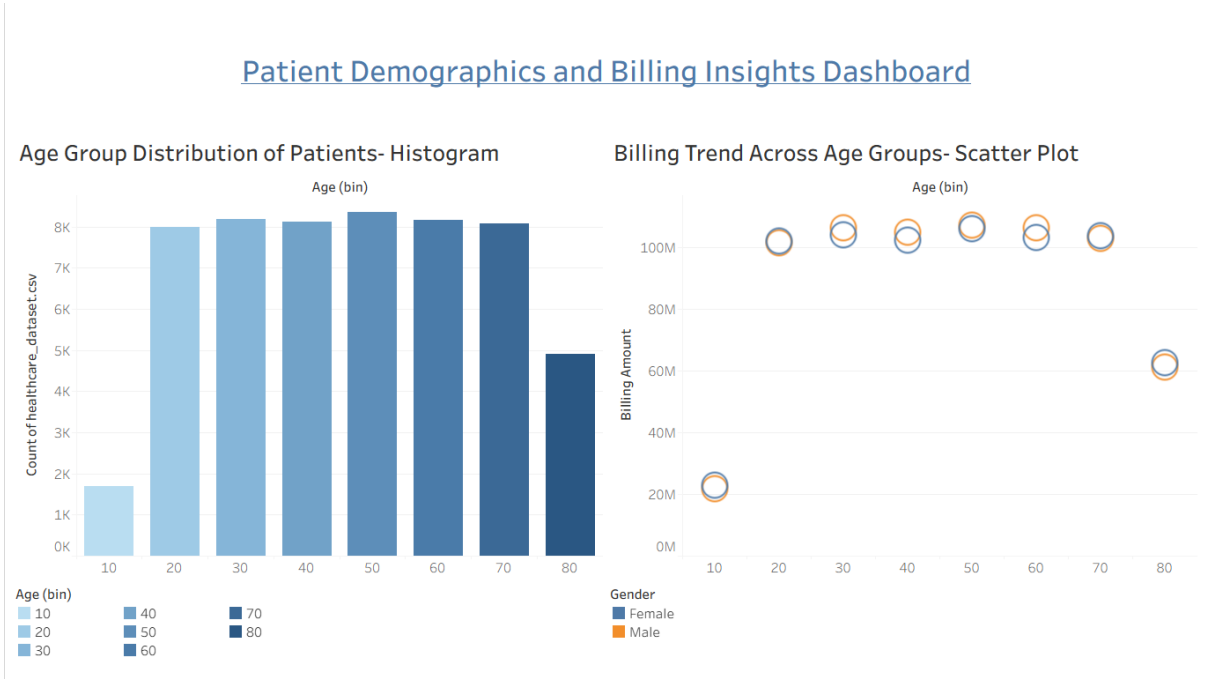
Gender-wise Patient Count- Bar Chart

Distribution of Admission Types-Pie Chart

Gender
- Female
- Male

Admission Type
- Elective
- Emergency
- Urgent

18,576   18,655

18,269

This dashboard provides a high-level overview of patient gender distribution and admission types. It helps identify the percentage of emergency vs. scheduled hospital visits, supporting resource and staff planning.

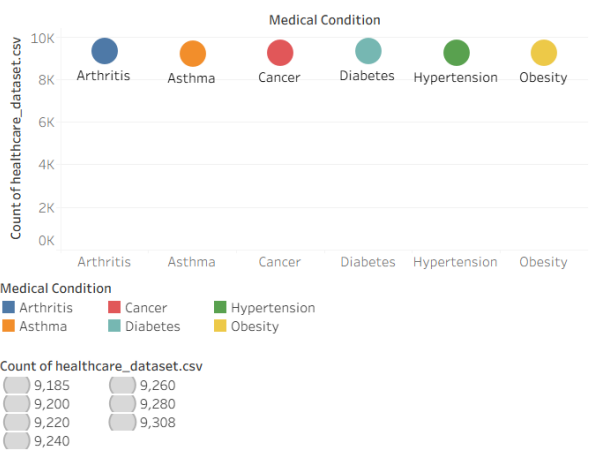# Dashboard 2: Patient Demographics & Billing Insights

This dashboard highlights patient distribution across age groups and billing trends. It reveals that middle-aged and senior patients contribute to higher hospital visits and increased billing costs, helping optimize healthcare service planning for different age segments.
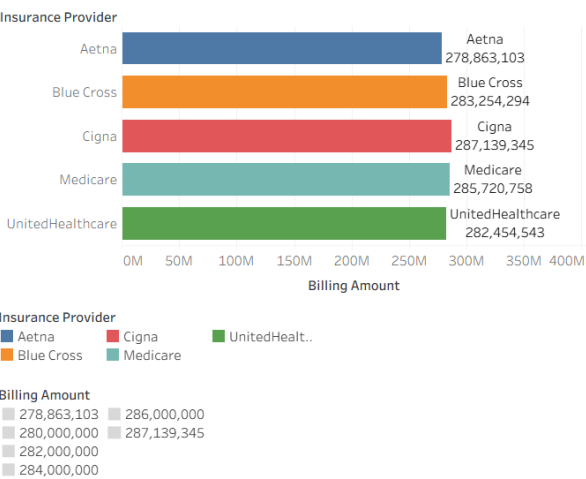
Dashboard 3: Medical Condition & Insurance Billing Insights

[Medical Condition and Insurance Billing Insights Dashboard](#)

Distributuion of Patients by Medical Condition- Packed Bubbles

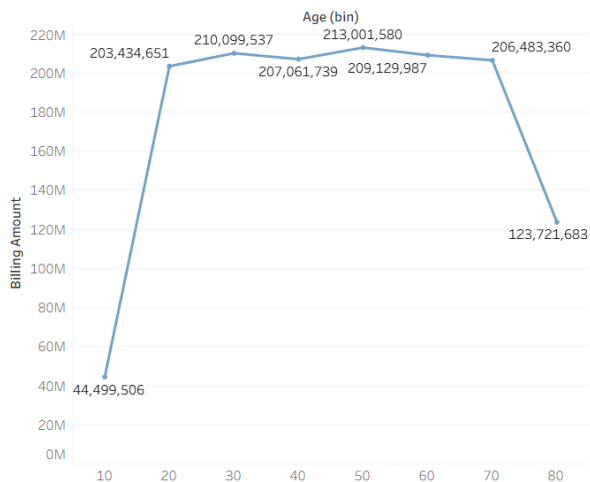## Billing Amount by Insurance Provider- Tree Map

This dashboard focuses on patients based on medical conditions and insurance providers. The bubble chart highlights the most common diseases such as diabetes and hypertension. The billing chart shows which insurance providers cover higher-cost treatments, helping hospitals in financial planning and negotiations.
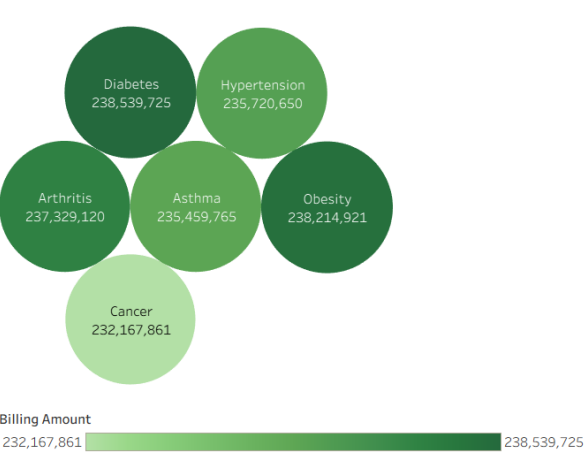
Dashboard 4: Billing Insights by Age and Medical Condition

Average Billing Amount by Age-Line Chart

Age (bin)

203,434,651   210,099,537   213,001,580   206,483,360
207,061,739   209,129,987

123,721,683

44,499,506

Billing Amount by Medical Condition-Bubble Chart

Diabetes 238,539,725
Hypertension 235,720,650
Arthritis 237,329,120
Asthma 235,459,765
Obesity 238,214,921
Cancer 232,167,861

Billing Amount
232,167,861   238,539,725

This dashboard analyzes billing patterns by age groups and medical conditions. The line chart shows a rise in billing with increasing age. The bubble chart highlights the cost variation between diseases, helping hospitals budget effectively and support financial decision-making.

Conclusion

The dashboards provide clear insights into patient demographics, medical conditions, admission trends, and hospital billing expenses. The analysis helps identify the most common diseases, high-cost age groups, and insurance provider billing patterns. These insights enable better resource allocation, financial planning, and improved healthcare service delivery.

Skills and Tools Used

- Tableau Desktop
- Dashboard Design & Data Visualization
- Analytical Thinking & Insight Interpretation
- Healthcare Data Exploration
- Microsoft Word(Documentation)

Thank you for reviewing my portfolio.