

Expt 3: Healthcare

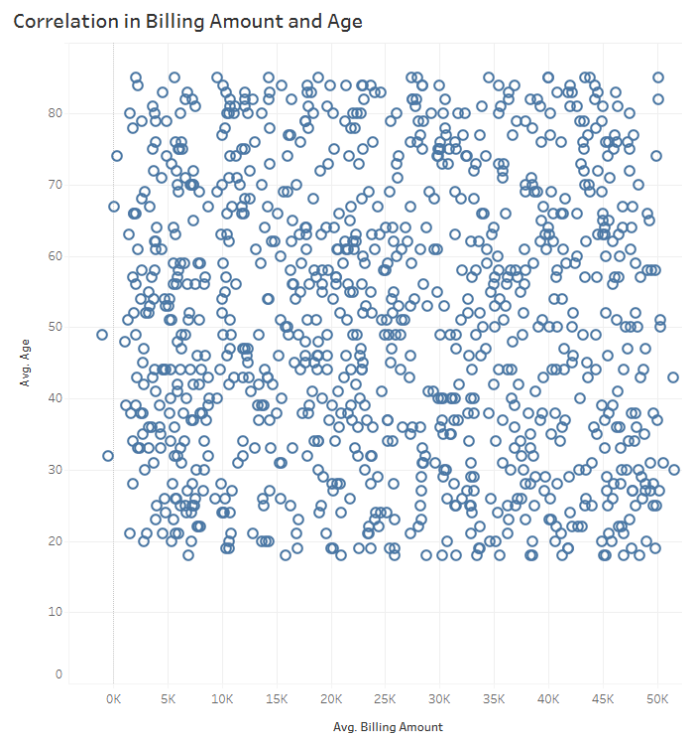
- Design Interactive Dashboards and Storytelling using Tableau / Power BI / R (Shiny) / Python
- (Streamlit/Flask) / D3.js to be performed on the dataset - Disease spread / Healthcare
-
- • Create interactive dashboard - Write observations from each chart given below
- • (Advanced - Word chart, Box and whisker plot, Violin plot, Regression plot (linear and nonlinear), 3D chart, Jitter, Line, Area, Waterfall, Donut, Treemap, Funnel
- • Basic - Bar chart, Pie chart, Histogram, Timeline chart, Scatter plot, Bubble plot)

Software Used: Tableau

Dataset Used: <https://www.kaggle.com/datasets/prasad22/healthcare-dataset>

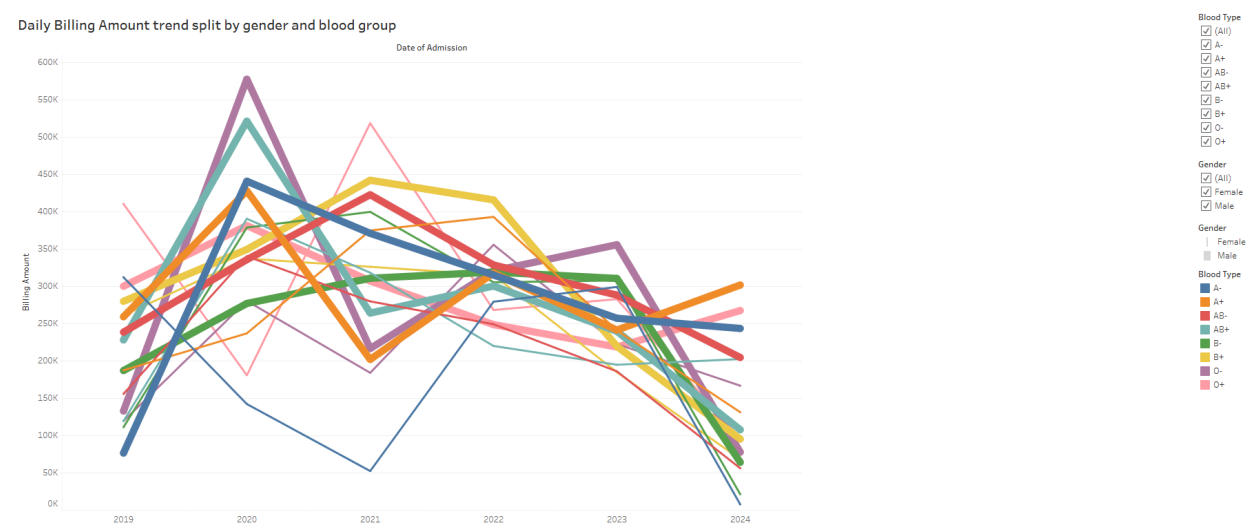
This synthetic healthcare dataset has been created to serve as a valuable resource for data science, machine learning, and data analysis enthusiasts. It is designed to mimic real-world healthcare data, enabling users to practice, develop, and showcase their data manipulation and analysis skills in the context of the healthcare industry.

Scatterplot



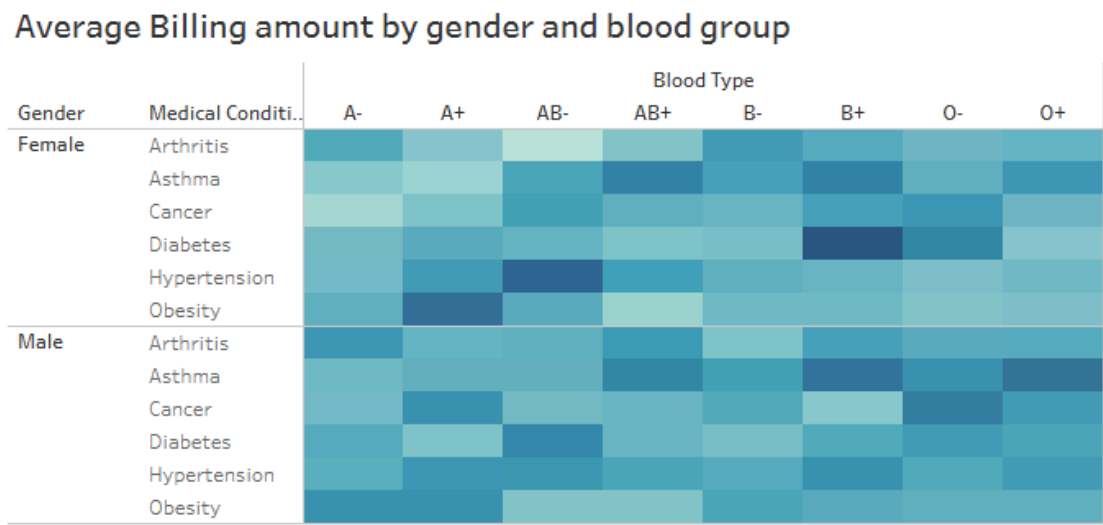
There is no significant relation in age and billing amount, it depends more on the disease.

Line chart



This interactive graph lets you observe trend in no. of patients of each blood group and gender combination using filters.

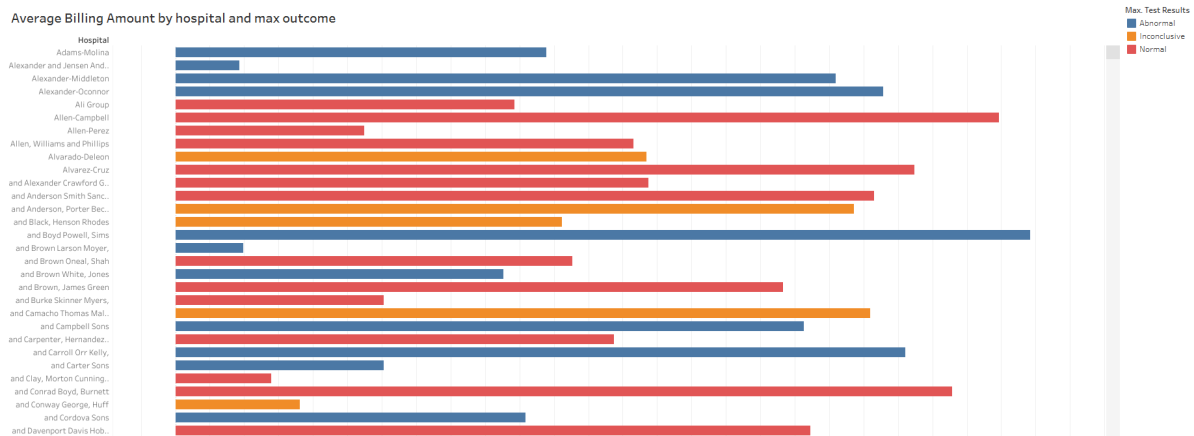
Heatmap



Notable are obesity A+, Diabetes B+ and Hypertension AB- females being billed more than others which needs real case investigation.

Bar Chart

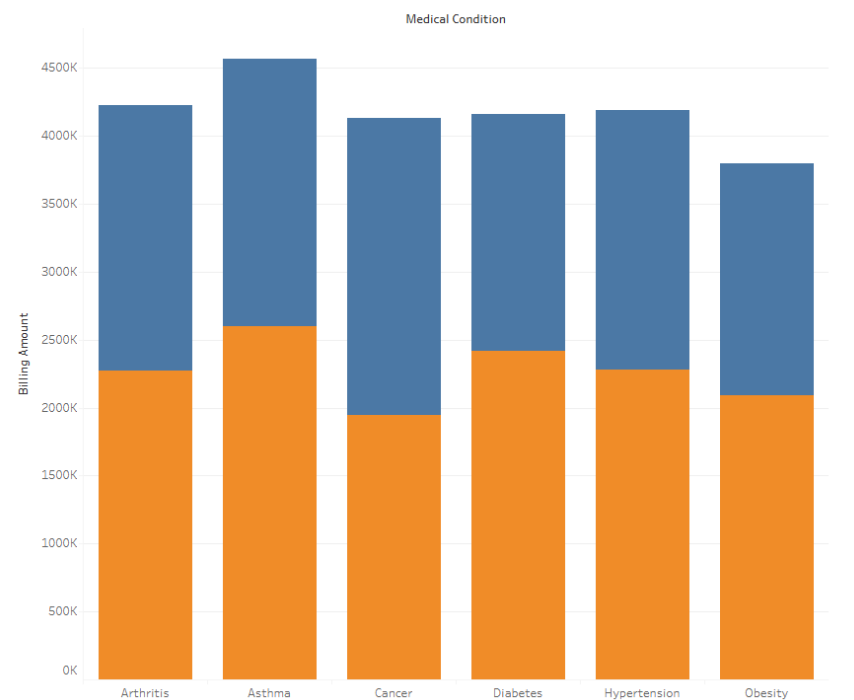
Average Billing Amount by hospital and max outcome



We can see the billing amount per hospital and what is the most occurring outcome there such as tests being abnormal/inconclusive/normal.

Split Bar Chart

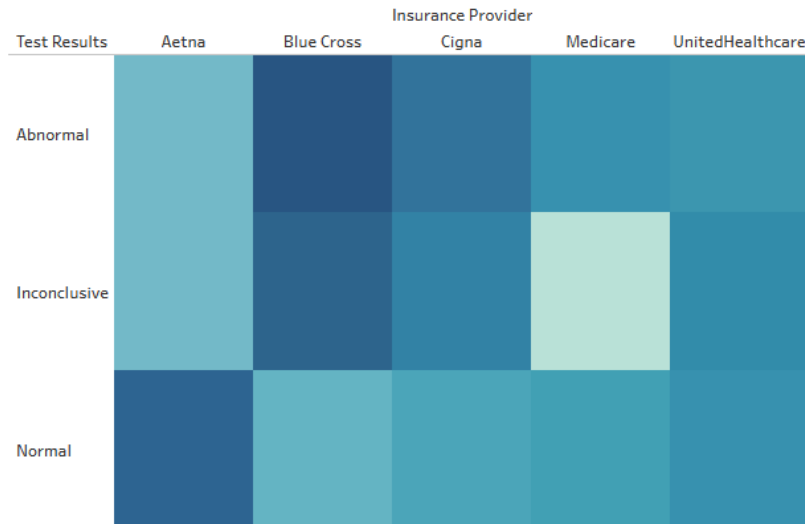
Split in Billing Amount by Gender and Disease



The billing amount for asthma is the highest, and males(orange) are billed more than females for almost all diseases(except cancer)

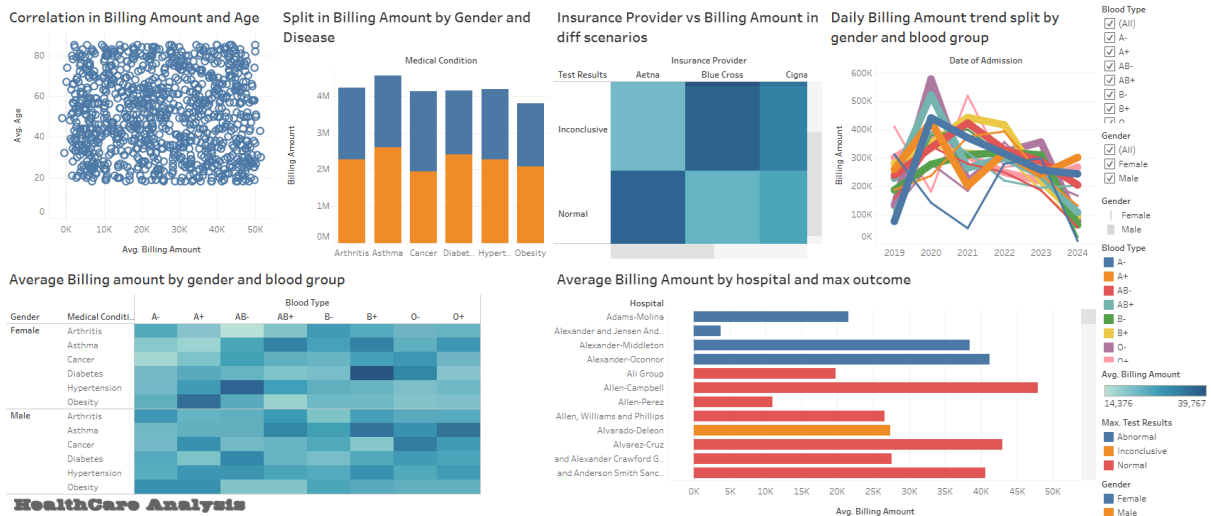
Heatmap

Insurance Provider vs Billing Amount in diff scenarios



We can see the trends in the billing for various cross categories, most notable is the low billing by Medicare for inconclusive results.

Dashboard:



https://public.tableau.com/views/HealthcareAnalysis_17312979195930/Dashboard1?:language=en-US&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link