

preludesys

# Power BI Healthcare Dashboard Accelerator



 Microsoft  
Gold Partner

# Business Pain Points / Challenges

Early disease prediction facilitates timely treatment availability for patients.

Delays in time to market

Avoid data errors by eliminating manual report execution

Real-time data synchronization

Better patient experience, Healthcare staffing shortage

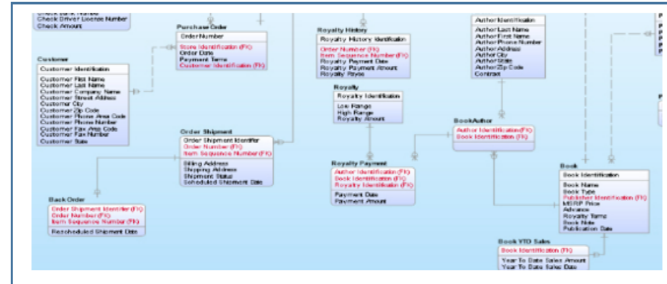
Siloed Reporting Infrastructure (Excel, SSRS, Power BI, etc.,)

No Standardized Reports / KPIs

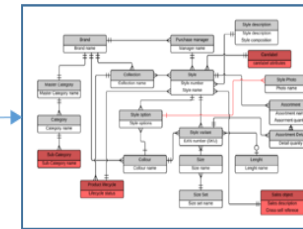


# Industrial Insights Accelerator

## Customer Data Model



## Pre-Build Data Model



## Pre-Build Visualizations (Industry Specific)



Mapping

### Highlights:

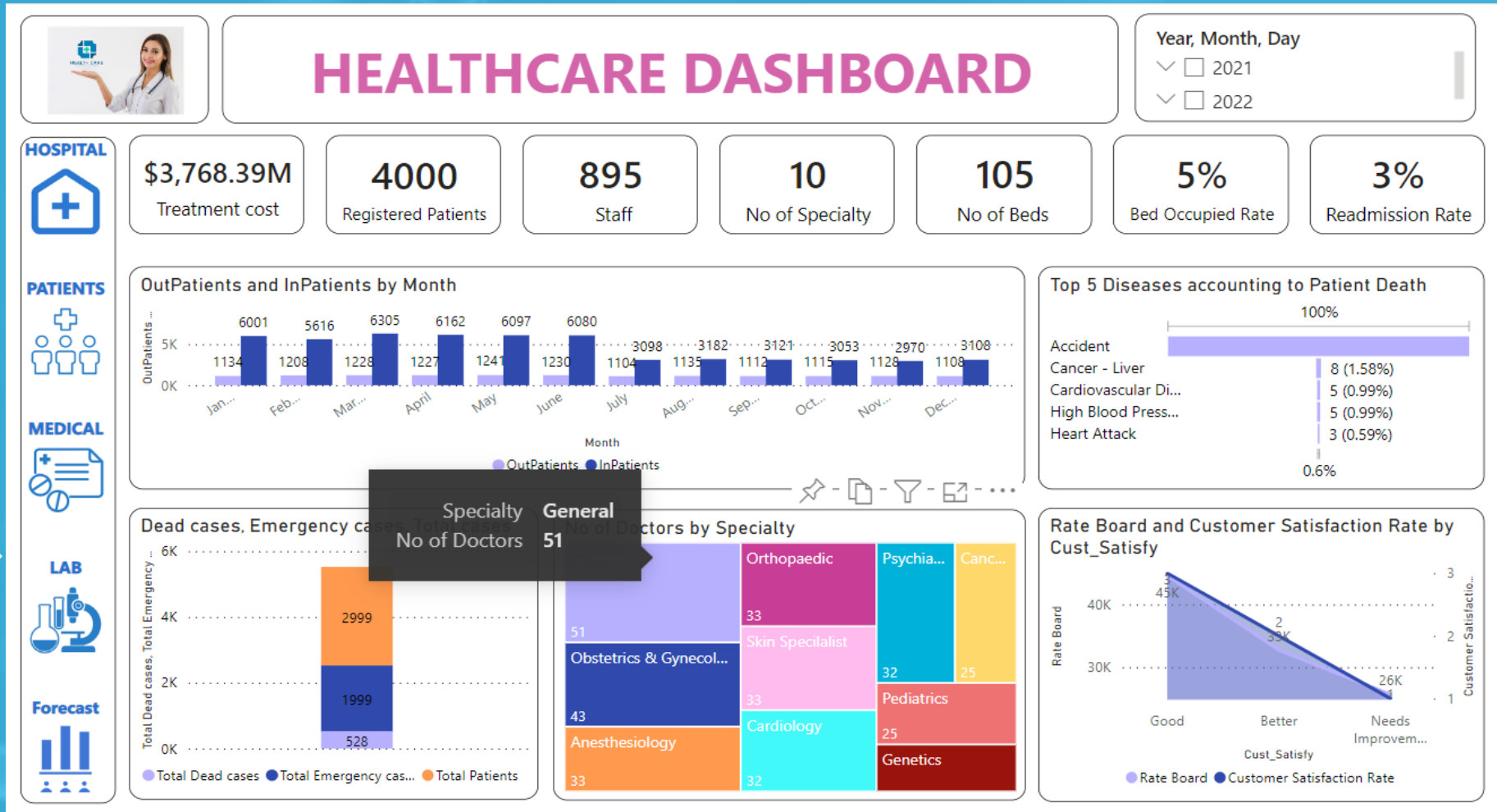
- ✓ Pre-Build Data Model & Visualizations were developed in reference to extensive research and analysis through healthcare experts.
- ✓ Quick to plug-in the Customer Data Model with Pre-Build Data Model through mapping key dimensions and measures (metrics) using Power BI Dataflows.
- ✓ Equipped to enhance data model to address customer specific reporting demands.
- ✓ Inbuilt accurate Stroke prediction using Decision tree algorithm, Disease prediction using SVC, random forest classifier and Naïve Bayes.

- ✓ Centralized with standard reporting structure for all the healthcare sub-functions (Hospital, Patients, Medical, Lab, Disease Forecast), with a functional coverage of **45-60%\***
- ✓ Efficient Hospital and Patient Management through insightful reporting. Inpatient and Outpatient information is available distinctively.
- ✓ Extensive Collaborating and sharing features of Power BI
- ✓ Monitor and forecast the disease trend in the hospital to have necessary treatment readily available to patients at the right time.
- ✓ Highly improved performance (in comparison with Excel & SSRS)
- ✓ Crucial KPIs like Bed occupied rate, Readmission rate, Drug cost per stay are captured.

\* Functional coverage range varies based on the domain areas

## Quick Wins - Industrial Insights Accelerator (IIA)

# Healthcare Dashboard



# PATIENT DASHBOARD

Year, Month, Day

▼  2021

▼  2022



Summary

Inpatient

Outpatient

4000

Registered Patients

48

Diagnosis

8

Blood Group

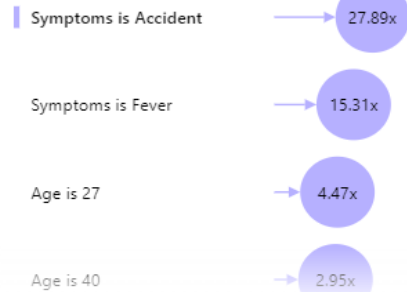
\$1.64

Drug Cost Per Stay

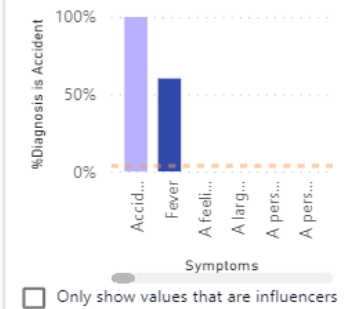
Key influencers Top segments

What influences Diagnosis to be Accident

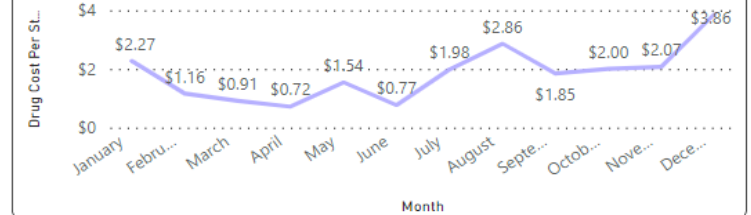
When... Symptoms is Accident ...the likelihood of Diagnosis being Accident increases by



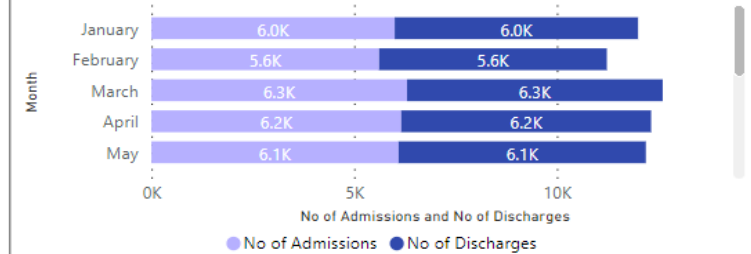
← Diagnosis is more likely to be Accident when Symptoms is Accident than otherwise (on average).



Drug Cost Per Stay by Month



No of Admissions and No of Discharges by Month



## Patient Summary Dashboard

### Key Insights:

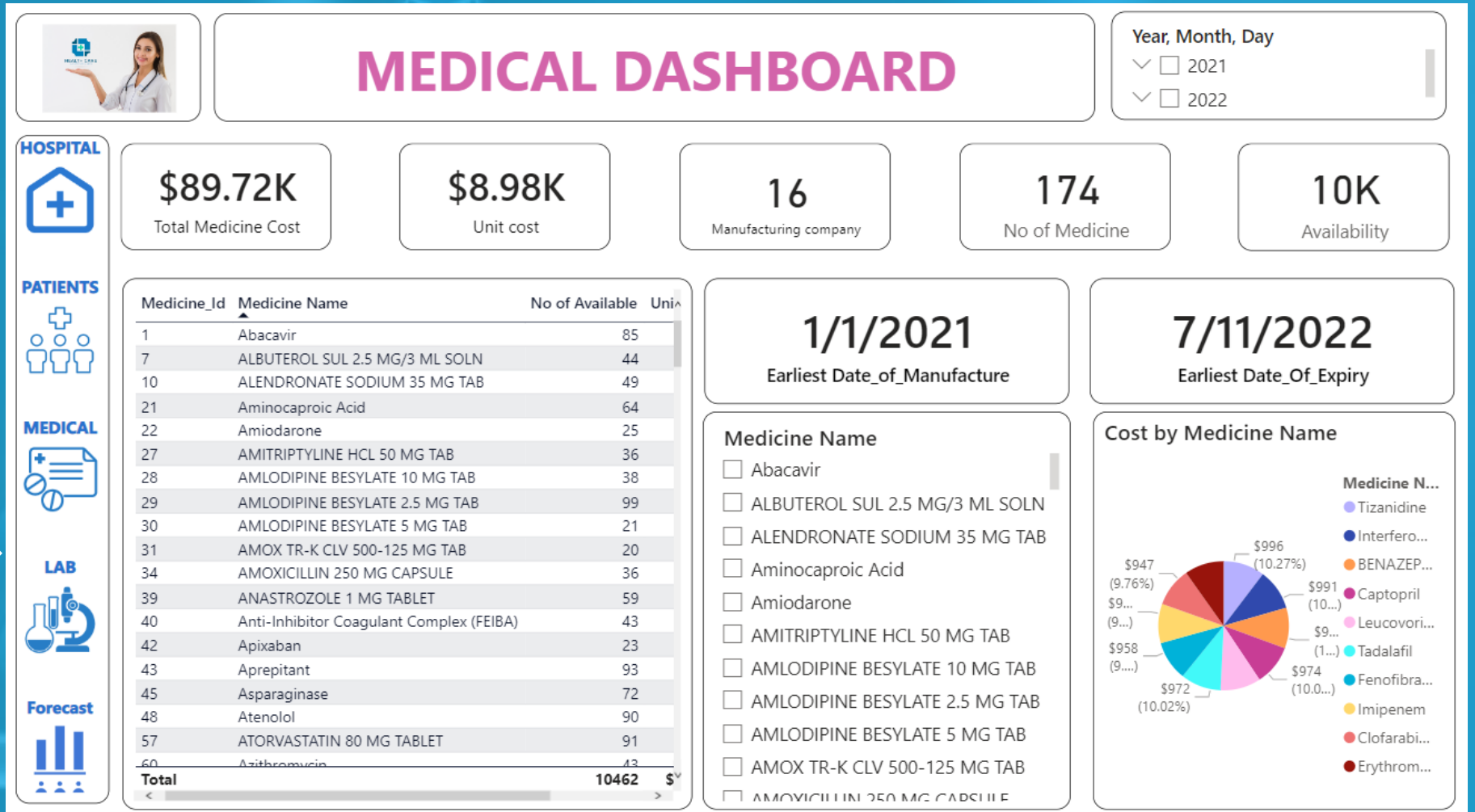
- ✓ Insightful Visual to study the factors/symptoms leading to Different Diagnosis.
- ✓ Insightful KPI's like Patients Details and Drug cost per Stay.
- ✓ Interactive filter selection at Time Period.







# Medical Dashboard

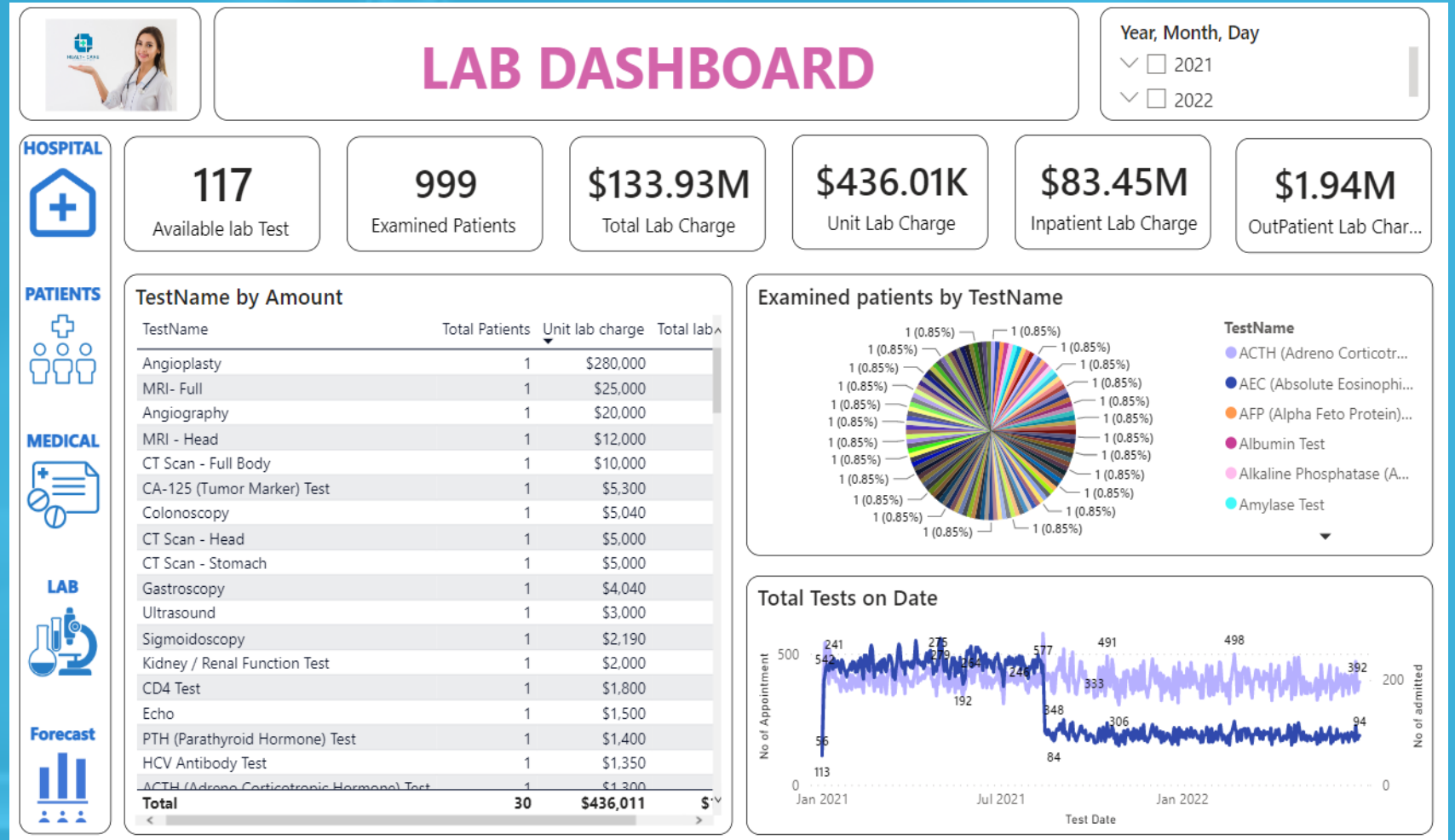


### Key Insights:

- ✓ KPIs like Total Medical Cost, Unit Cost, Manufacturing company count, No of Medicine availability and Quantity availability.
- ✓ Medicine names and its Availability.
- ✓ Cost of Medicines shown in Pie chart.
- ✓ Manufactured Date and Expiry date of Medicine

\* Data in reports is only for illustration purposes.

# Lab Dashboard



### Key Insights:

- ✓ KPIs like total lab Test, total Lab charge, unit lab charge, Inpatient lab charge, outpatient lab charge & examined Patients .
- ✓ Examined Patient On basis of Lab test shown in Pie chart.
- ✓ Lab Test by dates in Line chart
- ✓ Lab Test Details By amount in Tabular Chart

\* Data in reports is only for illustration purposes.

# Forecast Dashboard



## FORECAST DASHBOARD

### Predicted Diagnosis

- Accident
- AIDS (HIV/AIDS)

### HOSPITAL



### PATIENTS



### MEDICAL



### LAB

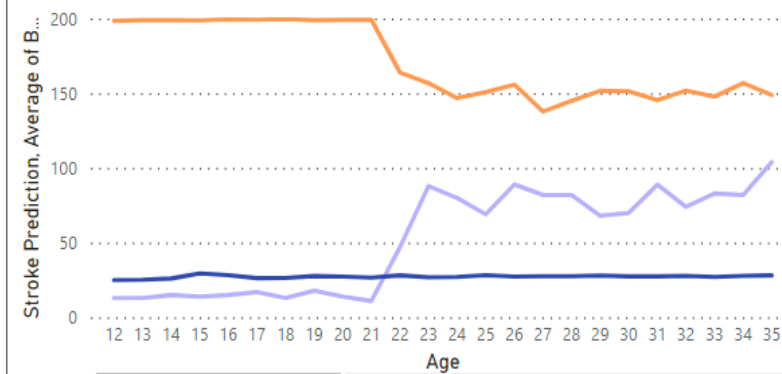


### Forecast



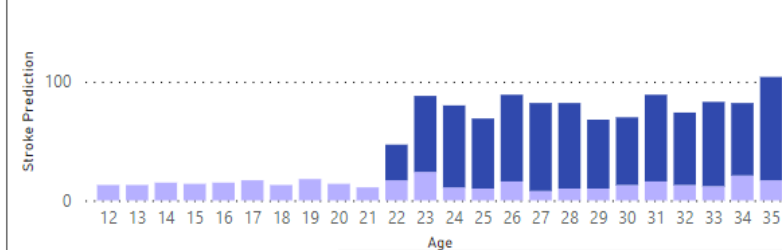
### Age wise - Stroke prediction by Glucose level and BMI

Stroke Prediction ● Average of BMI ● Average Of Glucose level



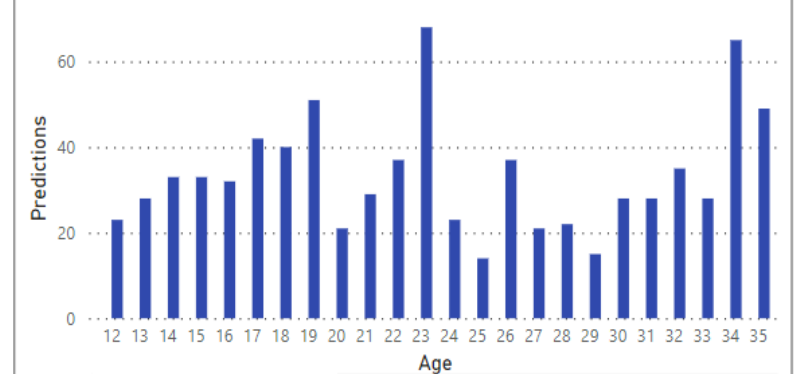
### Age and Gender wise Stroke prediction

Sex ● Female ● Male



### Predicted Diagnosis by Age

Predicted Diagnosis ● Heart Attack ● Heart Disease



At 104, 35 had the highest Stroke Prediction and was 10.56 higher than 56, which had the lowest Stroke Prediction at 9.

Stroke Prediction and total Average of glucose level are negatively correlated with each other.

age of 35 accounted for 3.47% of Stroke Prediction.

Across all 66 Age, Stroke Prediction ranged from 9 to 104, Average of glucose level ranged from 137.84 to 199.90, and Average of BMI ranged from 25 to 30.30.

23 had the highest Predictions at 68, followed by 34 and 68. 25 had the lowest Predictions

### Key Insights:

- ✓ Stroke prediction by Decision tree algorithm, Disease prediction by Random Forest Algorithm.
- ✓ Smart narration on Disease prediction.



**Thank You!**

prelude**sys**