



HOSPITAL EMERGENCY ROOM DASHBOARD

An End-to-End Excel BI Project using Power Pivot and Visual Analytics

Project Objective

- ☐ Analyze emergency room operations to improve service efficiency.
- ☐ Create an interactive dashboard using Excel to help stakeholders monitor key metrics.
- ☐ Track KPIs like wait time, patient load, admission rate, and referrals.

Technical Workflow

- ❑ Used Power Pivot for data modeling and linking tables.
- ❑ Created a dynamic calendar table using List.Dates() function.
- ❑ Built DAX-like formulas for Age Grouping and Wait Time Classification.
- ❑ Designed interactive slicers for year/month navigation.
- ❑ Structured sheets into Raw Data, Calculations, Visuals, Dashboard.

Dashboard



Hospital Emergency Room Dashboard

Select Year

2023

2024

Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

Sep

Oct

Nov

Dec

485

No. of patient

35.51

Avg. wait time(min)

4.71

Patient satisfaction score

Admission status

No. of Patient

% in Total

status in %

Not Admitted

250

51.55%

51.55%

Admitted

235

48.45%

48.45%

59

55

69

64

56

60

51

71

0-9

10-19

20-29

30-39

40-49

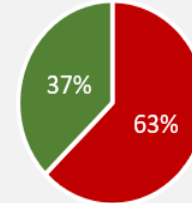
50-59

60-69

70-79

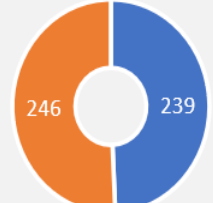
No. of Patient by Age group

Delay Overtime

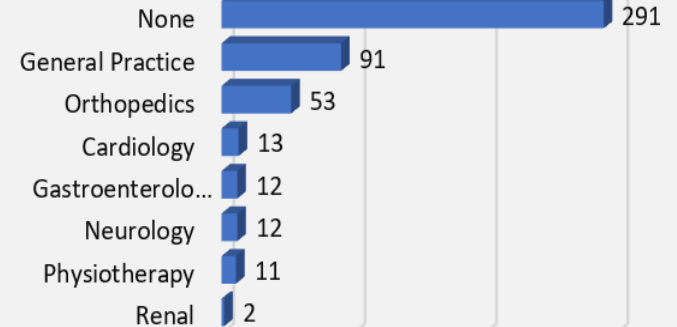


Patient attended with in

Female Male

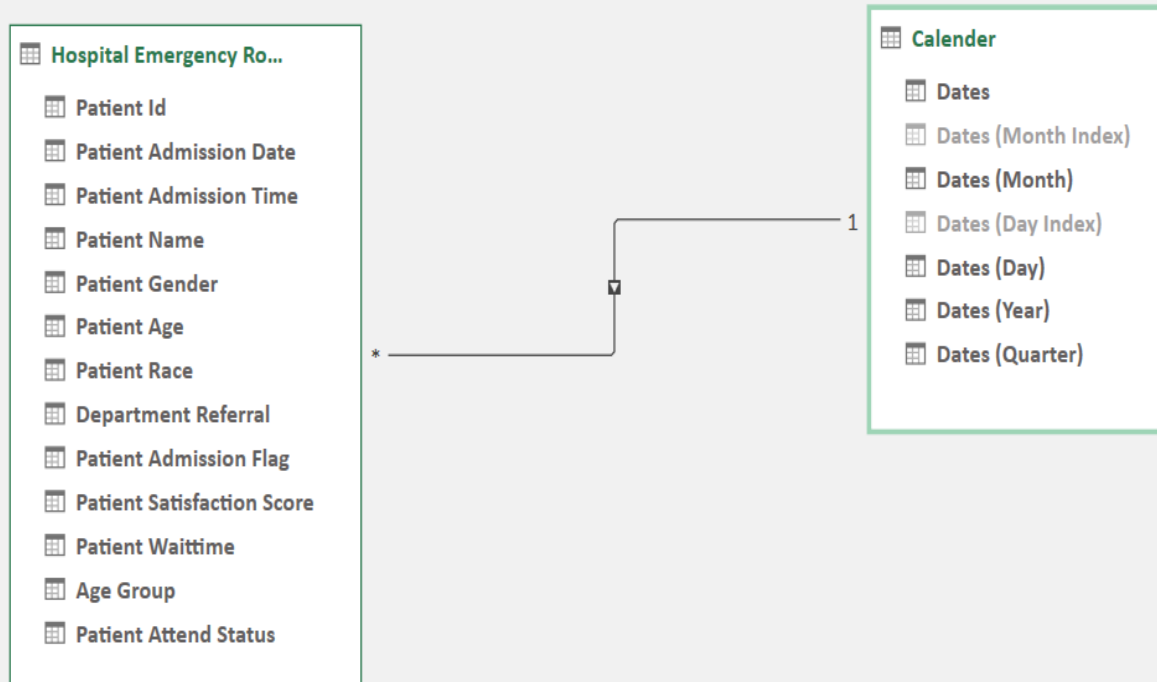


No. of Patient by gender



No. of patient by Department referral

Data Model



One to many relationship between Calender and Hospital emergency room table

Hyperlink



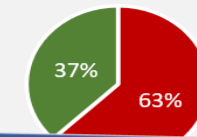
Hospital Emergency Room Dashboard

Select Year

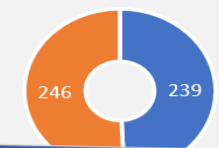
2023

2024

Delay Ontime



Female Male



Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

Sep

Oct

Nov

Dec

485

No. of patient



35.51

Avg. wait time(min)

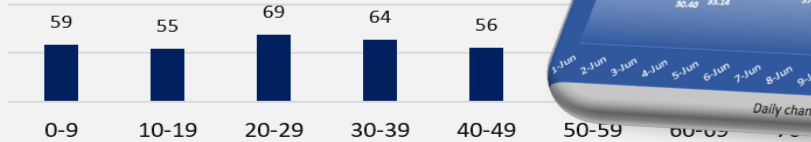


4.71

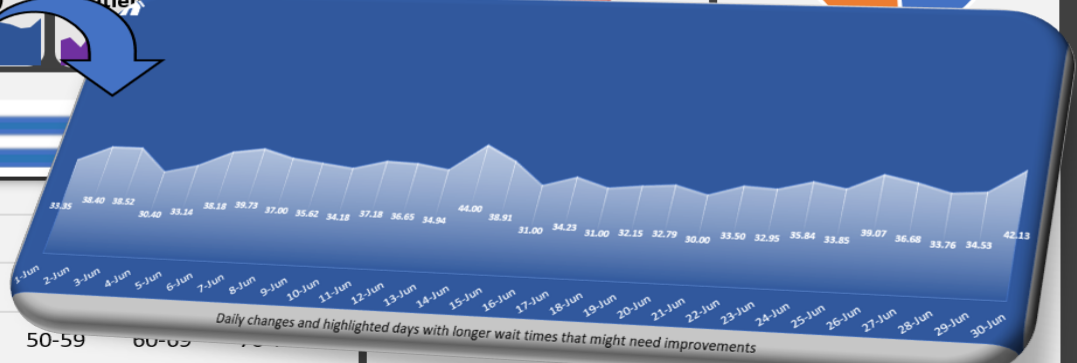
Patient satisfaction score



Admission status	No. of Patient	% in Total
Not Admitted	250	51.55%
Admitted	235	48.45%



No. of Patient by Age group



No. of patient by Department referral



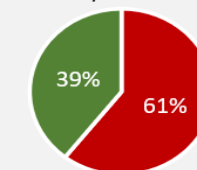
Hospital Emergency Room Dashboard

Select Year

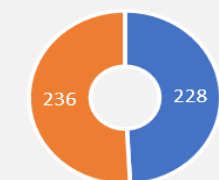
2023

2024

Delay Ontime



Female Male



Apr

May

Jun

Jul

Aug

Sep

Oct

Nov

Dec

Jan

Feb

Mar

464

No. of patient



34.72

Avg. wait time(min)

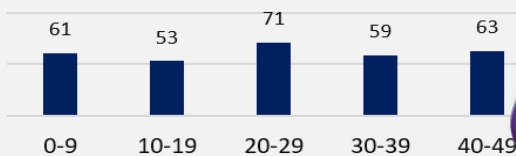


4.99

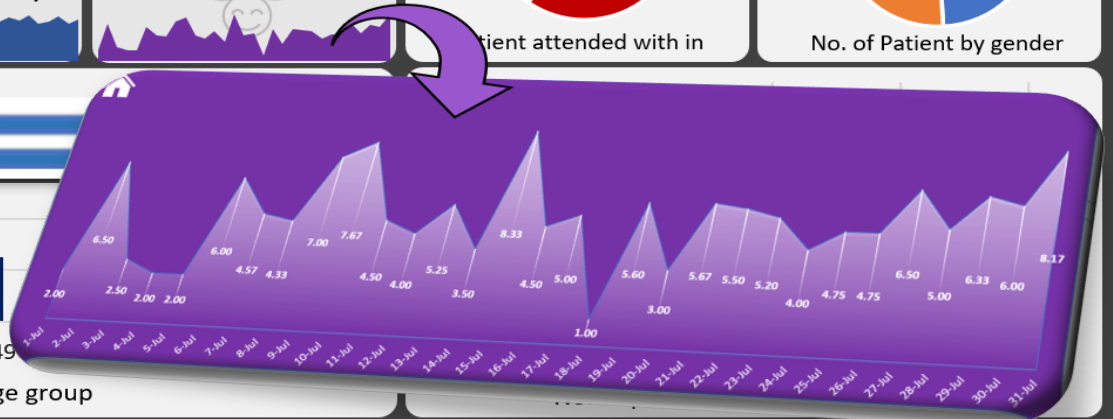
Patient satisfaction score



Admission status	No. of Patient	% in Total
Not Admitted	228	49.14%
Admitted	236	50.86%



No. of Patient by Age group



Key Insights from Dashboard

- ✓ 32% of patients experienced delays > 30 minutes.
- ✓ General Practice & Orthopedics were top referral departments.
- ✓ Satisfaction scores dropped with higher wait times.
- ✓ Most patients were aged 5-14 and 30-44.
- ✓ Gender distribution skewed slightly toward females.

The background is a blurred, blue-tinted photograph of a long hospital corridor with doors on both sides and a series of lights on the ceiling. Overlaid on this background are several semi-transparent medical icons: a stethoscope on the left, a heart with an ECG line in the center, a large plus sign on the right, and a syringe in the bottom right corner.

THANK YOU