

# Hospital Emergency and Operations Management Dashboard

A Power BI Project for Real-Time Healthcare Insights



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# Welcome Everyone Here is The Project Overview

Title:

Project Objective & Scope

Content:

- 📌 Objective: To improve hospital efficiency, patient care, and decision-making through dynamic dashboards.
- 🧠 Scope: 5 dashboards covering emergency trends, patient insights, referrals, billing, doctor load, and more.
- 📊 Tools Used: Power BI, DAX



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# Business Requirements

Title:

Key Metrics & Stakeholder Needs

Content (use bullet points or icons):

-  Total Patients, Wait Time, Referrals, Bed Usage
-  Patient Satisfaction, Feedback by Doctor
-  Billing: Insurance vs. Self-paid
-  Doctor Load, Department Efficiency
-  Stakeholders: Admin, ER Head, Analysts, IT





# HOSPITAL EMERGENCY ROOM MANAGEMENT DASHBOARD

MONTHLY VIEW

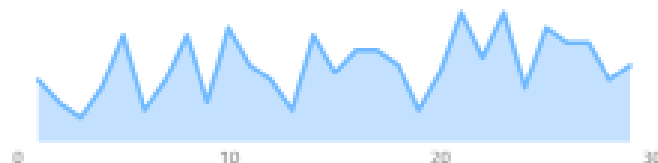
Feb 2024

Year  
2024

Month Name  
Feb

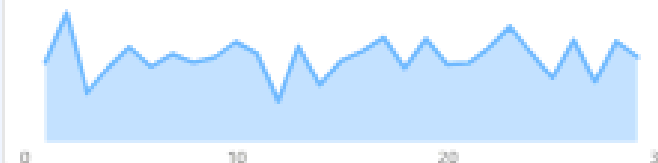
No. of Patients

431



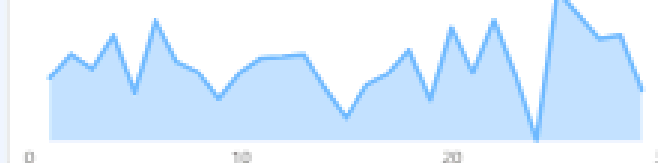
Avg. Wait Time

36.7 Min



Patients Satisfaction Score

4.72



No. of Patients Referred

179

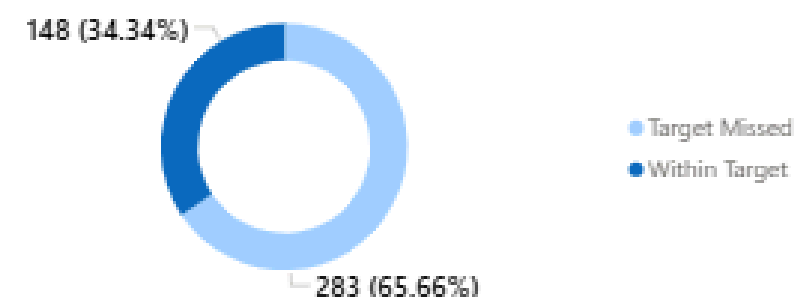


Patient Admission Status

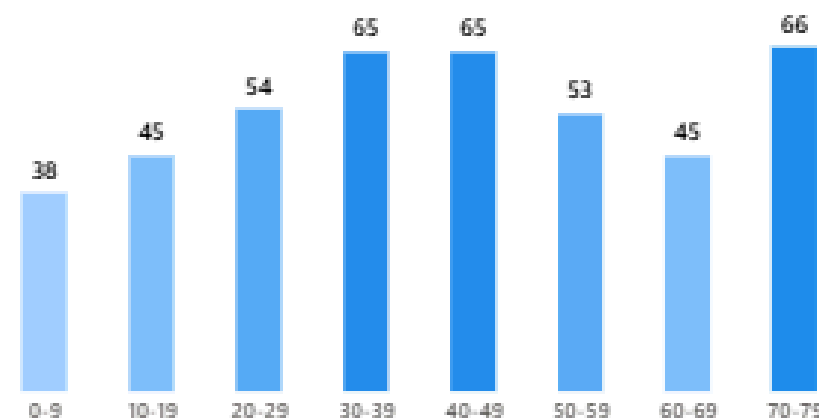
Admission Status Patients % of Total

Admitted	224	51.97%
Not Admitted	207	48.03%

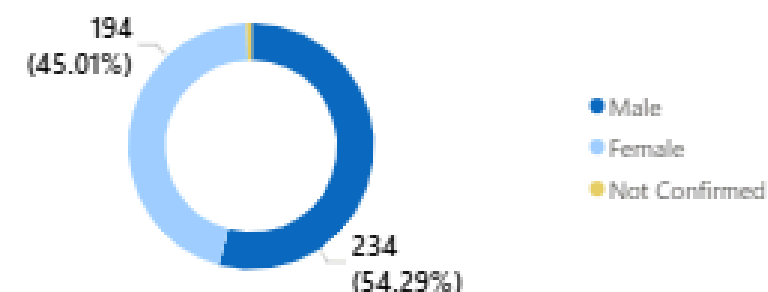
% of Patients Seen Within 30 Mins



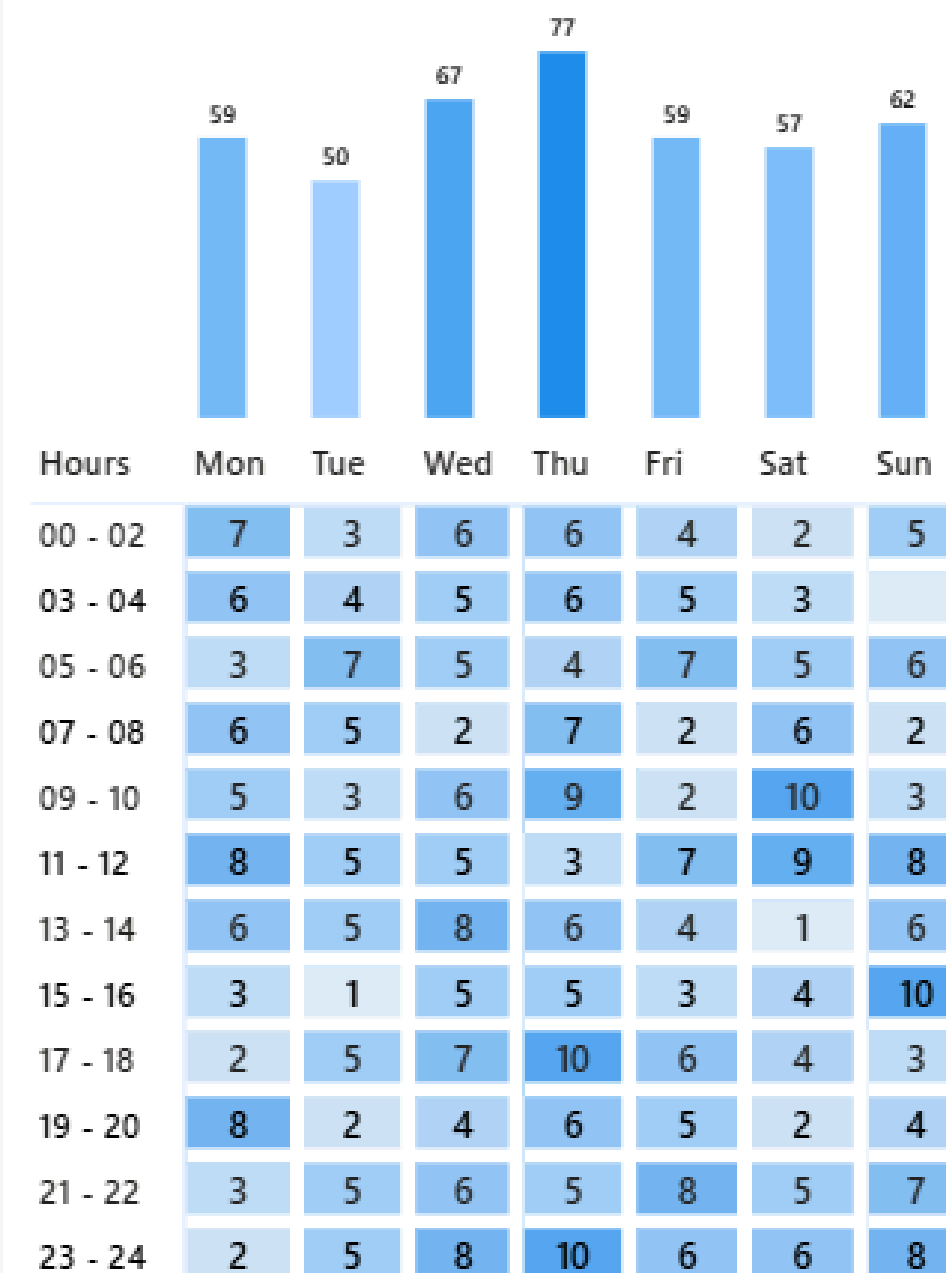
No. of Patients by Age Group



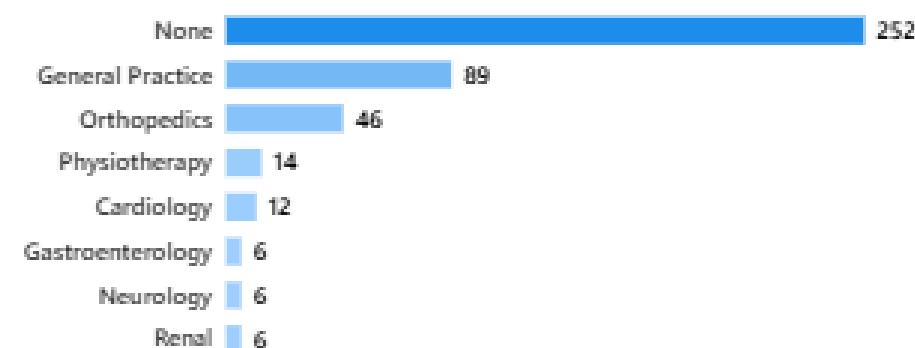
No. of Patients by Gender



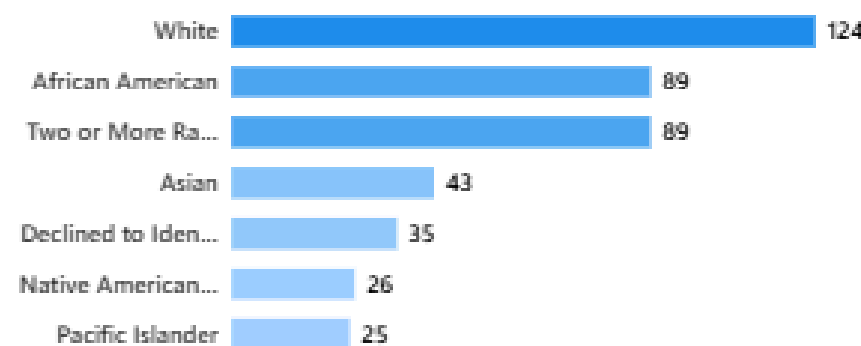
No. of Patients by Days and Hours



No. of Patients by Department Referral



No. of Patients by Patient Race



Monthly View

Consolidated View

Patients's Details

Key Takeaway





# HOSPITAL EMERGENCY ROOM MANAGMENT DASHBOARD

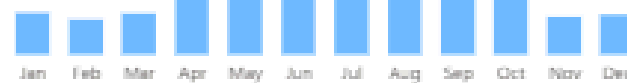
01-04-2023

30-10-2024

## CONSOLIDATED VIEW

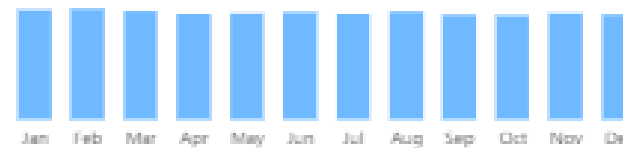
### No. of Patients

9216



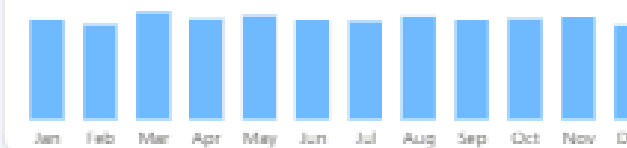
### Avg. Wait Time

35.3 Min



### Patients Satisfaction Score

4.99



### No. of Patients Referred

3816

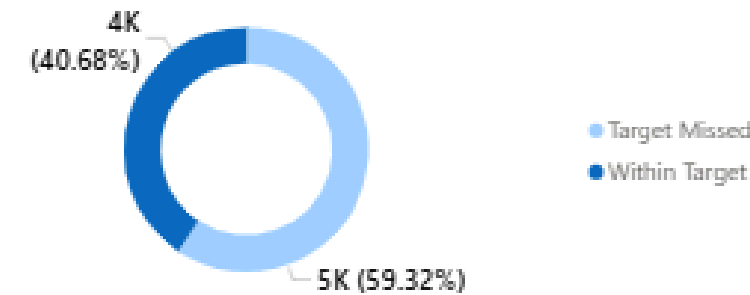


### Patient Admission Status

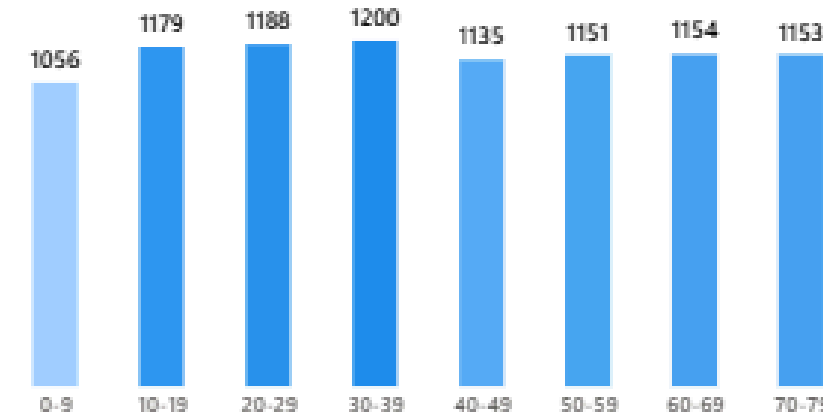
Admission Status Patients % of Total

Admitted	4612	50.04%
Not Admitted	4604	49.96%

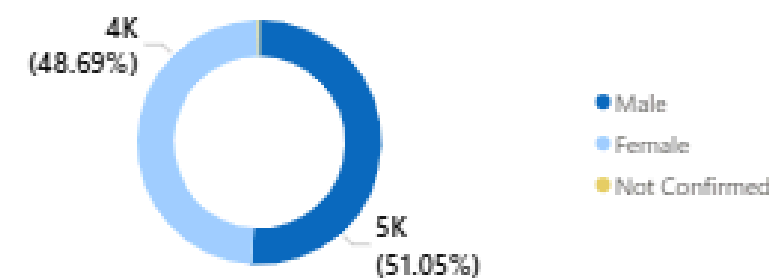
### % of Patients Seen Within 30 Mins



### No. of Patients by Age Group



### No. of Patients by Gender



### No. of Patients by Days and Hours

Hours	Mon	Tue	Wed	Thu	Fri	Sat	Sun
00 - 02	114	107	102	106	113	118	118
03 - 04	111	107	104	100	113	128	98
05 - 06	125	122	104	104	98	114	110
07 - 08	84	123	111	124	127	102	119
09 - 10	116	112	107	113	102	124	100
11 - 12	107	106	98	111	122	109	99
13 - 14	115	107	117	105	107	123	102
15 - 16	99	94	117	111	102	110	129
17 - 18	104	116	102	121	98	99	97
19 - 20	123	84	94	105	124	113	110
21 - 22	110	105	97	116	89	110	121
23 - 24	106	122	107	116	115	127	115

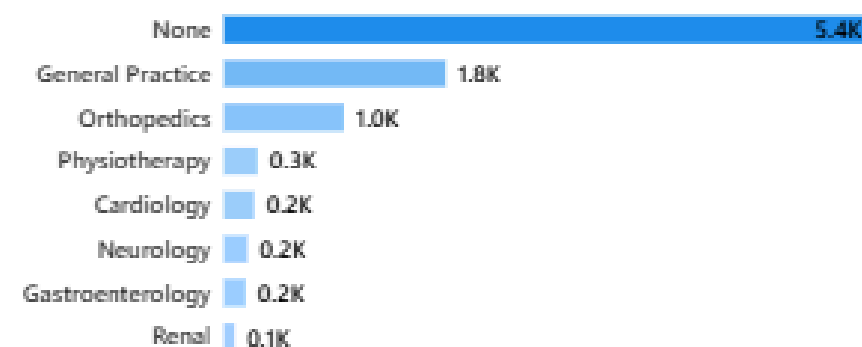
Monthly View

Consolidated View

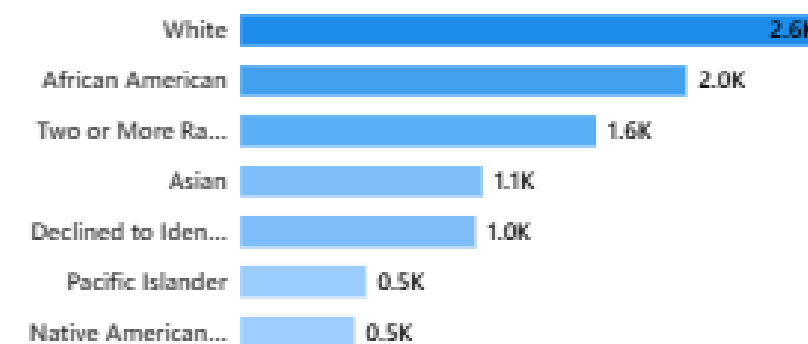
Patients's Details

Key Takeaway

### No. of Patients by Department Referral



### No. of Patients by Patient Race





# HOSPITAL EMERGENCY ROOM MANAGMENT DASHBOARD

01-04-2023

30-10-2024

## PATIENT'S DETAILS

Patient Id	Patient's Name	Patient Gender	Patient Age	Patient Admin Date	Patient Race	Patient Waittime	Department Referral	Admission Status
100-04-3993	M St Ange	Female	29	04 April 2023	White	16	None	Not Admitted
100-17-5081	V Flicker	Male	67	14 January 2024	African American	60	None	Not Admitted
100-21-9648	W Marran	Female	39	17 January 2024	Pacific Islander	22	None	Admitted
100-34-6753	B Paulus	Male	43	13 May 2024	Pacific Islander	25	General Practice	Admitted
100-34-9587	U Lamburn	Male	20	01 April 2024	Declined to Identify	24	Neurology	Not Admitted
100-40-2709	O Cammack	Male	77	08 May 2024	White	48	None	Not Admitted
100-66-0896	I Prickett	Male	2	26 March 2024	African American	23	Orthopedics	Admitted
100-66-8222	F Mullane	Female	65	23 December 2023	Asian	17	General Practice	Not Admitted
100-67-1276	S Hallbird	Male	55	03 November 2023	White	11	Orthopedics	Admitted
100-70-0071	R Downham	Male	38	14 January 2024	African American	57	None	Not Admitted
100-72-5705	N Dudny	Female	60	19 June 2024	African American	45	None	Admitted
100-74-3943	M Hallard	Female	3	17 September 2023	White	14	None	Admitted
100-74-5636	A Warwicker	Female	47	13 August 2024	Declined to Identify	25	None	Not Admitted
100-79-0109	P Ulyatt	Female	19	27 February 2024	Pacific Islander	36	Neurology	Admitted
100-81-9769	Y Moncaster	Male	28	09 March 2024	White	59	None	Admitted
100-84-7203	K Ybarra	Female	37	13 June 2023	White	55	None	Not Admitted
101-08-8798	L Willeson	Female	72	31 July 2024	Two or More Races	48	None	Admitted
101-13-4808	V Gowdridge	Female	30	25 April 2023	Declined to Identify	30	None	Admitted
101-35-3930	W Andreotti	Female	30	24 January 2024	White	25	None	Admitted
101-35-7039	T Ganter	Male	26	08 February 2024	White	56	General Practice	Admitted
101-38-5868	J Saddington	Male	14	08 October 2024	White	20	None	Admitted
101-50-7359	D Sabey	Female	50	13 October 2023	White	56	None	Admitted
101-56-3319	M Kilduff	Female	44	08 October 2023	Asian	55	None	Admitted
101-60-5189	G Georger	Female	45	04 August 2024	White	43	None	Not Admitted
101-63-3628	P Quest	Male	38	29 July 2023	Two or More Races	53	None	Not Admitted

Monthly View

Consolidated View

Patients's Details

Key Takeaway



# HOSPITAL EMERGENCY ROOM MANAGMENT DASHBOARD

## KEY-TAKEAWAYS

### Descriptive Analysis

(April 2023 - October 2024)

The emergency room dataset, covering a period of 19 months, records a total of 9,216 unique patients.

#### Patients Wait Time and Satisfaction :

The Average wait time was approximately **35.3 minutes**, including a need for improvement to enhance patient flow. The **average satisfaction score** was **4.99 out of 10**, suggesting moderate satisfaction and highlighting areas of improving patients experiences.

#### Departmental Referrals :

A significant number of patients (5400) did not required referrals. Among those referred, the most common were **General Patients(1840 cases)** and Orthopedics (995 cases), followed by Physiotherapy (276 cases) and Cardiology(248 cases)

#### Peak Busy Periods :

The busiest day were **Mondays(1377 patients)**, Saturdays(1322 patients), and Tuesdays (1318 patients). The busiest hours were 11 AM, 7 PM, 01 PM, 11PM indicating need of ample staffing during these periods.

#### Patients Demographics :

Age Group : Adults **(30-39 years)** formed a large group **(1200 patients)**, followed by young adults (20-29 years) with 1188 patients. Other significant groups included middle aged as well (40-50 years).

#### Race Distributions :

The largest racial group was **White (2571)**, followed by African American (1951), multi racial (1557), and Asian (1060) patients. A significant number of patients (1030) declined to identify their race.

#### Admissions Patterns :

Nearly half of the patients **(4612) were admitted** , while the rest **(4604) were treated and released**.

#### Summary:

The data set reveals high patients volumes, moderate satisfaction levels, and common referrals to general practices and orthopedics. Mondays and late night to early mornings hours are particularly busy. The patients demographics show a diverse age and racial composition, with nearly equal number of admitted and non admitted patients. These insight can help optimize resource allocations and improved patients care in the emergency room

Monthly View

Consolidated View

Patients's Details

Key Takeaway



# Hospital's Operations Managment Dashboard

Patient\_ID

All



Admit Date

05-Dec-22



Discharge Date

12-Jan-23



Follow Up Date

10-Dec-22



Bill Amount

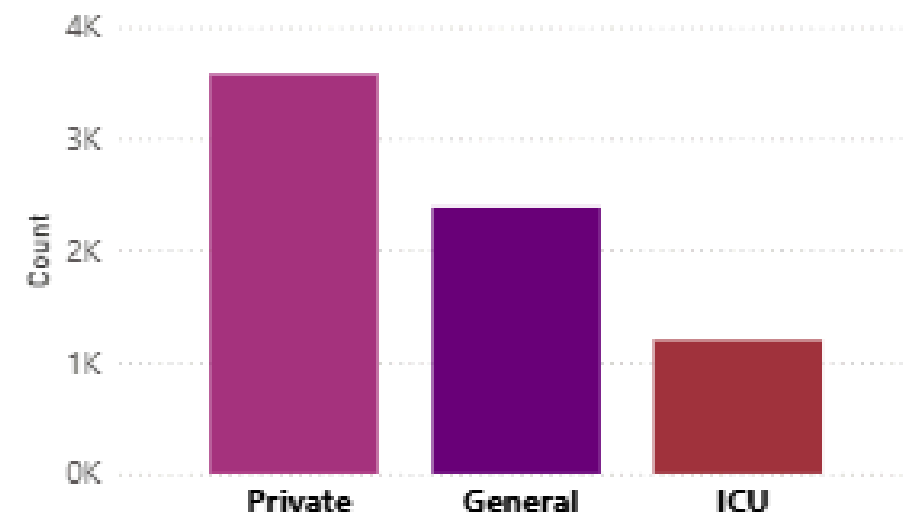
₹190.43M

Date Range

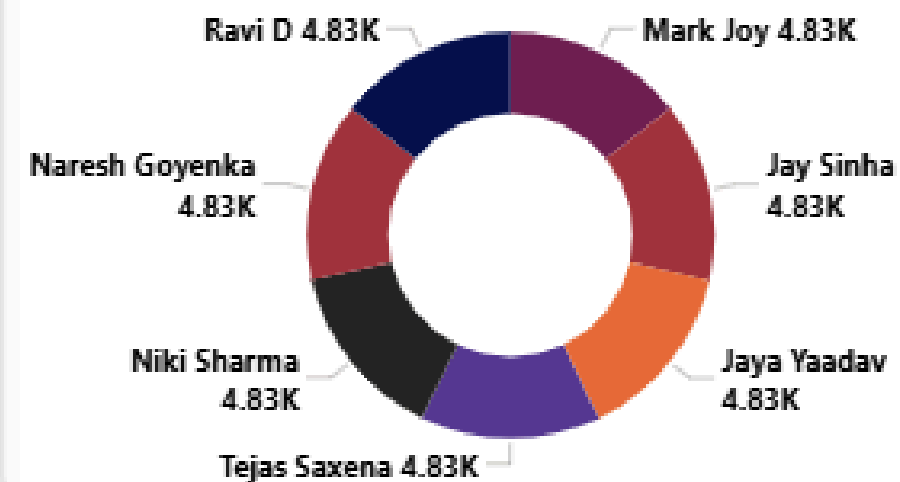
12-01-2023

07-03-2024

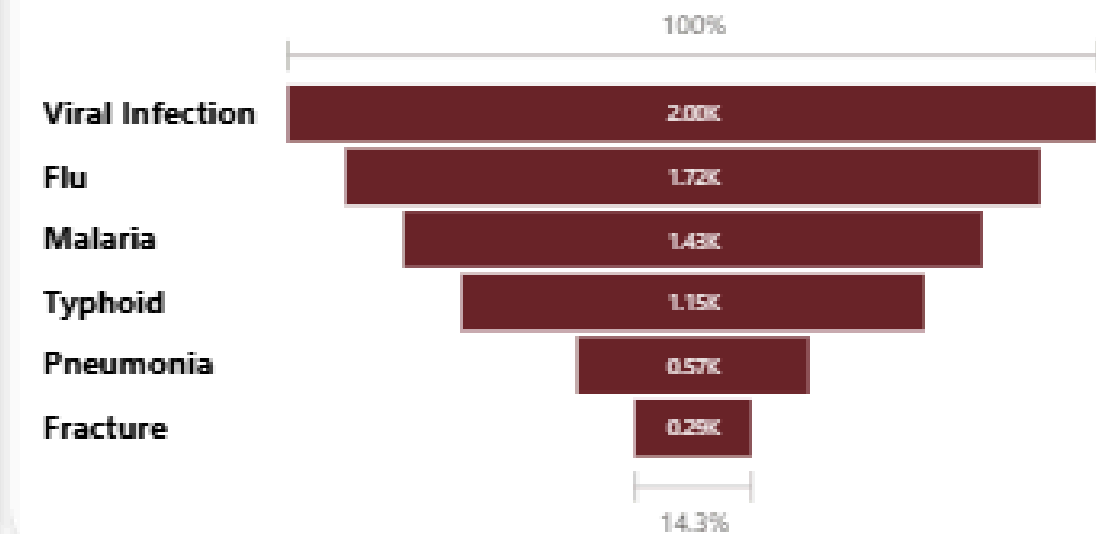
## Bed Occupancy



## Feedback Volume per Doctor

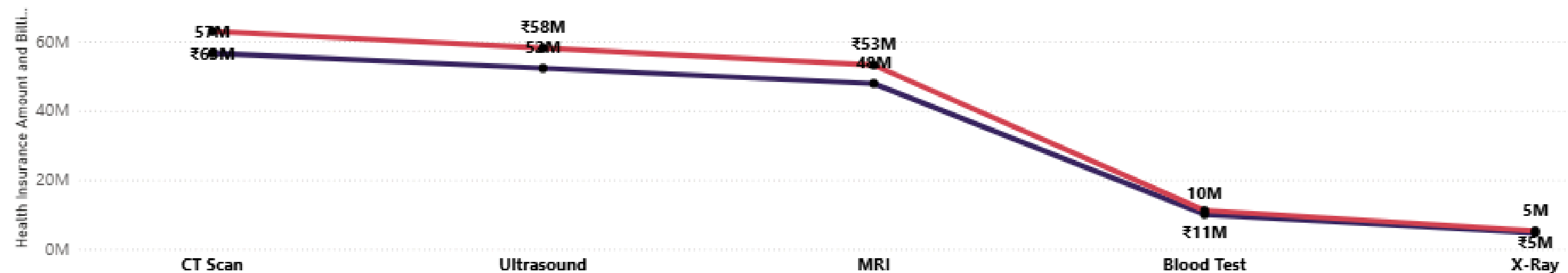


## Diagnosis-wise Patient Count



## Tests Done

● Health Insurance Amount ● Billing Amount







# Thank You

## Q And A Session