**HOSPITAL EMERGENCY ROOM DASHBOARD**

**STEPS IN PROJECT:**

* **Requirement Gathering/ Business Requirements**
* **Data Walkthrough**
* **Data Connection**
* **Data Cleaning / Quality Check**
* **Data Modeling**
* **Data Processing**
* **DAX Calculations**
* **Dashboard Lay outing**
* **Charts Development and Formatting**
* **Dashboard / Report Development**
* **Insights Generation**

**DASHBOARDS:**

1. **Monthly View**
2. **Consolidated View**
3. **Patient Details**
4. **Key Takeaways**

**BUSINESS REQUIREMENTS:**

**KPI’s Requirements:**

To enhance operational efficiency and provide actionable insights into emergency room performance, we need to create a Hospital Emergency Room Analysis Dashboard in Power BI. This solution will enable stakeholders to track, analyze, and make data-driven decisions regarding patient management and service optimization

* **Number of Patients:**

Measure the total number of patients visiting the ER daily.

Display a daily trend using an area sparkline to understand patterns over time, such as peak days or seasonal trends.

* **Average Wait Time:**

**Calculate the average time patients wait before being attended to by a medical professional.**

**Use an area sparkline to show daily fluctuations and identify days with higher wait times that may require operational adjustments.**

* **Patient Satisfaction Score:**

**Analyze the average satisfaction score of patients on a daily basis to evaluate the quality of service provided.**

**Present a daily trend using an area sparkline to identify dips in satisfaction and correlate them with operational challenges or peak times.**

* **Number of Patients Referred:**

**Count the number of patients referred to specific departments from the ER each day.**

**Use an area sparkline to track daily trends and identify departments with high referral rates, which may require additional resources.**

**BUSINESS REQUIREMENTS:**

**Dashboard 1: Monthly View**

**Objective:** Monitor key metrics and trends on a month-by-month basis to identify patterns and areas for improvement.

**Charts to Develop:**

* + Patient Admission Status: Track admitted vs. non-admitted patients.
  + Patient Age Distribution: Group patients by 10-year age intervals.
  + Department Referrals: Analyze referral trends across different departments.
  + Timeliness: Measure the percentage of patients seen within 30 minutes.
  + Gender Analysis: Visualize patient distribution by gender.
  + Racial Demographics: Analyze patient data by race.
  + Time Analysis: Assess patient volume by day and hour.

**BUSINESS REQUIREMENTS:**

**Dashboard 2: Consolidated View**

**Objective:** Provide a holistic summary of hospital performance for a selected date range**.**

**Charts to Develop:**

* + Similar metrics as the Monthly View, but aggregated over a customizable date range for broader insights and trend analysis

**BUSINESS REQUIREMENTS:**

**Dashboard 3: Patient Details**

**Objective:** Offer granular insights into patient-level data to enable detailed analysis and troubleshooting.

**Charts to Develop:** A grid displaying essential fields:

* **Patient ID**
* **Patient Full Name**
* **Gender**
* **Age**
* **Admission Date**
* **Patient Race**
* **Wait Time**
* **Department Referral**
* **Admission Status**

**BUSINESS REQUIREMENTS:**

**Dashboard 4: Key Takeaways**

**Objective:** Summarize the findings from all dashboards to provide clear and actionable insights for stakeholders.

**Charts to Develop:**

* + Descriptive analysis of each metric and visualization, including patterns, anomalies, and actionable recommendations to optimize emergency room operations and patient care.

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