

Healthcare Analytic Dashboard

Dashboard link: https://app.powerbi.com/links/dnOsMsb0Of?ctid=7e2137dd-6ef9-46eb-974e-5086fd7cdd20&pbi_source=linkShare&bookmarkGuid=1510c2c2-2f63-4324-a556-b64224161765

Project Objective

The objective of this project is to design and develop a comprehensive healthcare dashboard that enables healthcare providers, administrators, and decision-makers to effectively monitor, analyze, and manage key health metrics and operational data. This dashboard aims to enhance patient care, streamline operations, and support data-driven decision-making through the following specific goals

Import data to Power BI

1. Prepare csv file
2. Import CSV file to Power BI
3. Data cleaning
4. Data Processing

DAX Queries

1. Total Billing Amount

Total Billing amount = [Total Medication cost]+[Total Treatment cost]+[Total Room Charge]

2. Total Patients

Total Patients = DISTINCTCOUNT(visits[Patient ID])

3. Total Room Charge

Total Room Charge = sumx(visits,
visits[Room Charges(daily rate)]*visits[Admitted day])

4. Length of Admitted days

Admitted day = DATEDIFF(
visits[Admitted Date],
visits[Discharge Date],DAY
)

5. Out of Pocket Billing amount (Without Insurance)

Out-of-Pocket = [Total Billing amount]-[Total insurance coverage]

6. Percentage of Billing Amount by Procedure

% Procedure =
divide(
[Total Billing amount],
(CALCULATE([Total Billing amount],
ALL(procedures[Procedure]))
)

)

7. Percentage of Billing Amount by Department

% department =

```
divide(  
    [Total Billing amount],  
    (CALCULATE([Total Billing amount],  
        ALL(departments[Department]))  
    )  
)
```

8. Average Billing Amount Per Visit

Average Billing amount per visit =

```
divide(  
    [Total Billing amount],  
    [Total Patients]  
)
```

9. Average Out of pocket =

```
divide(  
    [Out-of-Pocket],  
    [Total Patients]  
)
```

Project Insight

Overview

- Total Billing Amount are 3.36 M
- Total Patients are 4973
- Total Out Of Pocket Billing is 1.13 M
- Average Billing amount per Visit is 674.86 pound
- Average out of pocket charge is 227.26 pound
- Cardiology department contributes the highest to the billing amount 25.24%
- X-Ray services contributes to the highest billing amount
- The state Wales contributes highest to the billing amount

Healthcare Provider Power Bi Dashboard

1. Patient Demographics Analysis:

- Visualize patient demographics including age, gender, location, and race to understand patient population characteristics and tailor services accordingly.

2. Clinical Performance Metrics:

- Monitor key clinical performance indicators such as the key procedures performed on patient, the diagnosis done and the department contributing in the highest revenue

3. Financial Analytics:

- Analyze revenue streams, including insurance claims, out-of-pocket payments, and reimbursements.

4. Patient Health Trends:

- Monitor trends in patient health metrics such as blood pressure, glucose levels, and weight.
- Identify common health issues and chronic conditions within the patient population for proactive management.

5. Patient Satisfaction and Feedback:

- Collect and analyze patient feedback from surveys and reviews.
- Track patient satisfaction scores and identify areas for improvement to enhance patient experience.