**Analysis Report On**

**Healthcare Dashboard**

**By**

**Gauri Pise**

**1)Basic Insights:**

**a)Missing Values:** There are no missing values in the dataset all columns are complete.

**b)Duplicates:** There are no duplicate rows in the dataset. all records are unique.

**c)No. of rows:** The dataset contains 5,000 rows and 8 columns.

**d)Unique values:**

* **Age:** Ranges from 0 to 100.
* **Gender:** Male, Female.
* **Diagnosis:** Multiple unique medical conditions.
* **Treatment:** Various treatment types.
* **Outcome:** Recovered, Deceased, Other.
* **Length of Stay:** Different hospitalization durations.
* **Readmission:** Yes, No.

**e)Features:**

* Patient ID
* Age
* Gender
* Diagnosis
* Treatment
* Outcome
* Length of Stay
* Readmission

2)Statistical Summary:

**a)Mean:**

* Age: 50.02 years
* Length of Stay: 7.49 days

b) **Median:**

* Age: 50 years
* Length of Stay: 7 days

**c)Mode:**

* Age: 45 years
* Length of Stay: 5 days

**d) Distribution Type:**

* **Age:** Slightly right-skewed (positive skew).
* **Length of Stay:** Positively skewed, meaning most patients have a short stay, but some have much longer hospitalizations.

**3)Feature Wise Interpretation:**

**a) Patient ID (Categorical, Unique Identifier)**

* **Type:** Object (String)
* **Interpretation:** This is a unique identifier for each patient.

**b)Age (Numerical, Continuous)**

* **Type:** Integer
* **Interpretation:** Represents the age of the patient.

**c)Gender (Categorical, Nominal)**

* **Type:** Object (Male, Female)
* **Interpretation:** Gender can impact medical conditions and treatment responses.

**d)Diagnosis (Categorical, Nominal)**

* **Type:** Object (Various medical conditions)
* **Interpretation:** Indicates the patient’s medical condition.

**e)Treatment (Categorical, Nominal)**

* **Type:** Object (Different treatment types)
* **Interpretation:** Type of medical procedure or medication given.
* **Observations:** Include many unique values.

**f)Outcome (Categorical, Ordinal)**

* **Type:** Object (Recovered, Deceased, Other)
* **Interpretation:** Reflects the effectiveness of treatment.

**g)Length of Stay (Numerical, Continuous)**

* **Type:** Integer (Days)
* **Interpretation:** Duration of hospital stay, which impacts healthcare costs and patient recovery.
* **Observations:** Positively skewed (most patients have shorter stays, fewer have long stays).

**h)Readmission (Categorical, Binary)**

* **Type:** Object (Yes, No)
* **Interpretation:** Indicates if a patient was readmitted after discharge, important for measuring healthcare quality.

**4)Transformation:** No Transformation.

**5)Insights and patterns:**

**a)Diagnosis Breakdown :** Column Chart Used.

**x-axis:** Diagnosis  **y-axis:** Count of patient

* **Female: Max** count of female suffer “Heart Disease”.

**Min** count of female suffer “Flu”.

* **Male: Max** count of male suffer “Flu”.

**Min** count of male suffer “COVID-19”.

* **Other: Max** count of other suffer “Hypertension”.

**Min** count of other suffer “COVID-19”.

**b)Gender Distribution:** Pie Chart Used.

**Female:**1659 **Male:**1656 **Other:**1685

* **Female: Max** no of **female** is **26** whose **age** is **68.**

**Min** no of **female** is **7** whose **age** is **52.**

* **Male: Max** no of **male** is **28** whose **age** is **86.**

**Min** no of **male** is **7** whose **age** is **97.**

* **Other: Max** no of **other** is **26** whose **age** is **75.**

**Min** no of **other** is **8** whose **age** is **99.**

**c)Readmission Rate:** Bar chart Used.

**x-axis:** Count of patient **y-axis:** Readmission Rate .

**Gender wise readmission rate:**

* **Female:** **Max** readmission of female for “Heart Disease” is 181.

**Min** readmission of female for “COVID-19” is 149.

* **Male: Max** readmission of male for “COVID-19” is 176.

**Min** readmission of male for “Hypertension” is 153.

* **Other: Max** readmission of other for “Hypertension” is 199.

**Min** readmission of other for “Heart Disease” and “COVID-19”is 181.

**d)Outcome Trend By Age**: Column Chart Used.

**x-axis:** **Age y-axis:** Count of patients .

**Outcome Trend:**

**Deceased:1214**

**Deteriorated:1248**

**Improved:1261**

**Recovered:1277**

**e)Outcome Effectiveness:**

**Outcome:**

**Deceased:1214 -Female:421,Male:392,Other:401**

**Deteriorated:1248 -Female:412,Male:420,Other:416**

**Improved:1261-Female:413,Male:401,Other:447**

**Recovered:1277- Female:413,Male:443,Other:421**

**f)Diagnosis Average Length Of Stay:**

**COVID-19: 15.42857143**

**Diabetes: 15.96568627**

**Flu:15.4146563**

**Heart Disease:14.57768924**

**Hypertension:15.17971014**

**6)Recommendation:No.**