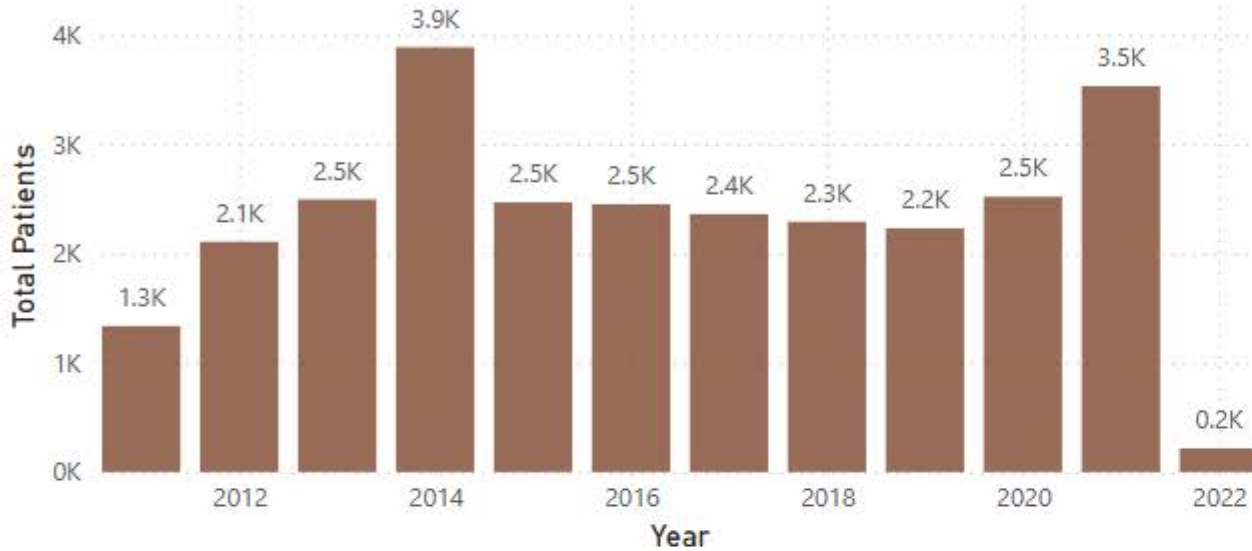


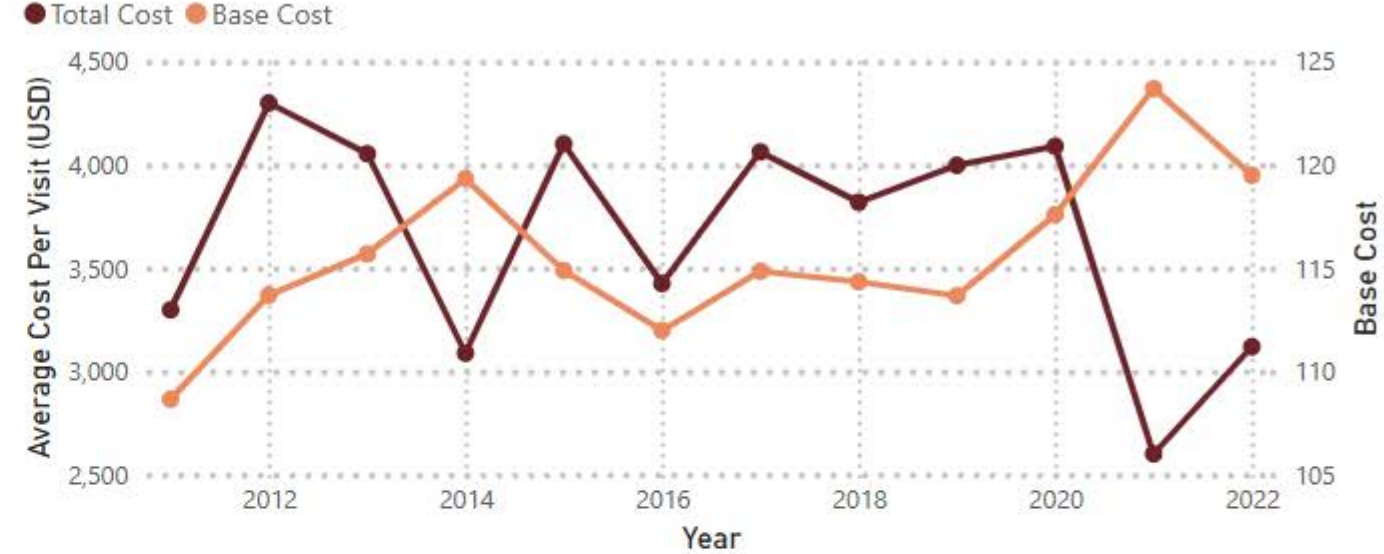


# Hospital Patients Analysis

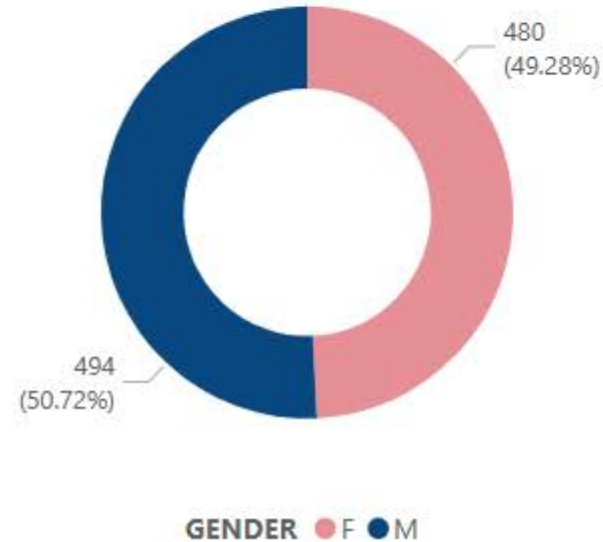
Total Patients Visiting the Hospital (2011 - 2022)



Average cost per year (USD)



Gender Distribution



28K

Total Patients

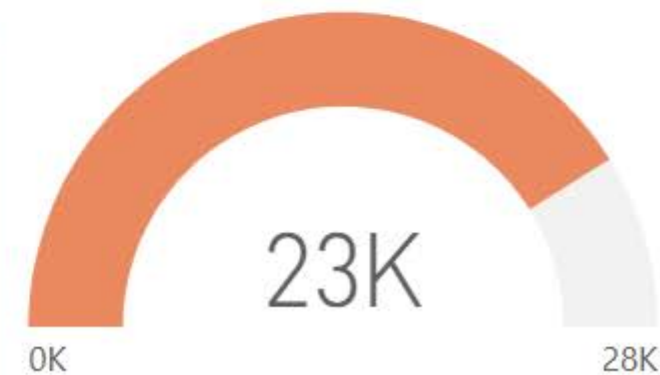
48K

procedure count

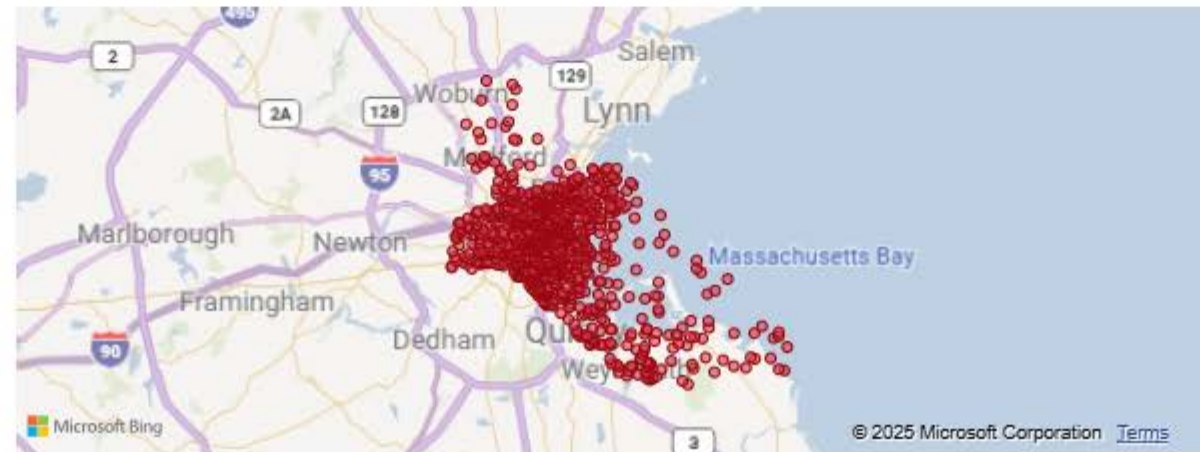
101.51M

Revenue Generated

Total Insurance Cover (Patient Count)



Patients Location



### **1. Patient Visits Over the Years (2011-2022)**

- There was a steady increase in patient visits from 2011 to 2014, peaking at 3.9K visits in 2014.
- Post-2014, patient visits remained stable at around 2.4K-2.5K per year.
- The sharp drop in 2022 is expected since data is only available until February.
- February had the highest patient visits across all years, indicating potential seasonal trends or hospital events. It could be due to seasonal illnesses, insurance policy renewals, or scheduled check-ups.

### **2. Gender Distribution**

- The gender split is nearly equal: 50.72% male (494 patients) and 49.28% female (480 patients). No significant gender disparity in hospital visits.

### **3. Insurance Coverage**

- 23K patients (out of 28K total) have insurance coverage, indicating that a majority are insured. This suggests financial security for most patients but still leaves 5K uninsured patients.

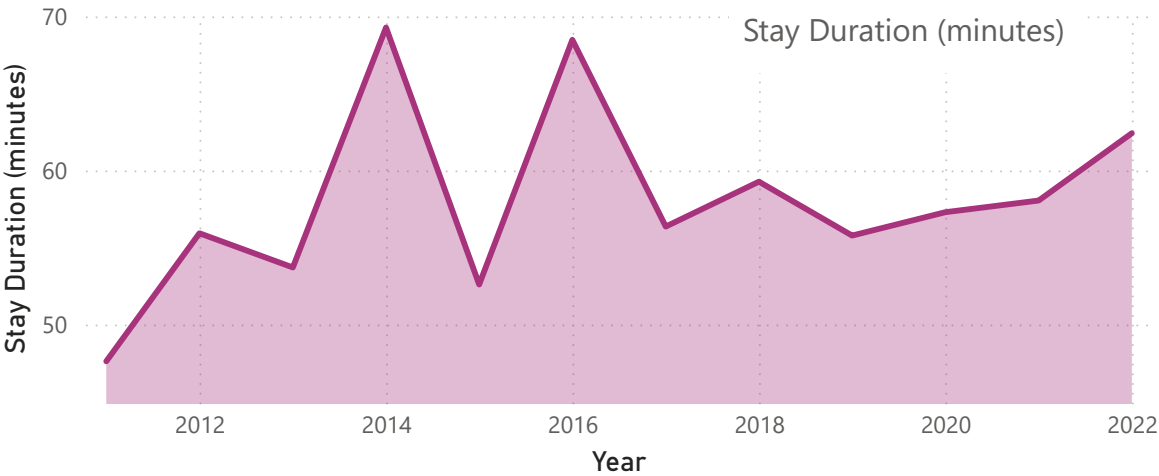
### **4. Average Cost per Visit (Yearly Trends)**

- The total and base costs per visit fluctuate but show a gradual upward trend.
- Cost per visit peaked between 2012 and 2014, with a drop in 2022 (data cutoff effect).
- The base cost (in orange) follows a relatively stable trend, while the total cost has more fluctuations..
- Analyze fluctuations in total cost: Are they due to more complex procedures, inflation, or operational changes?

### **5. Total Patients & Procedures**

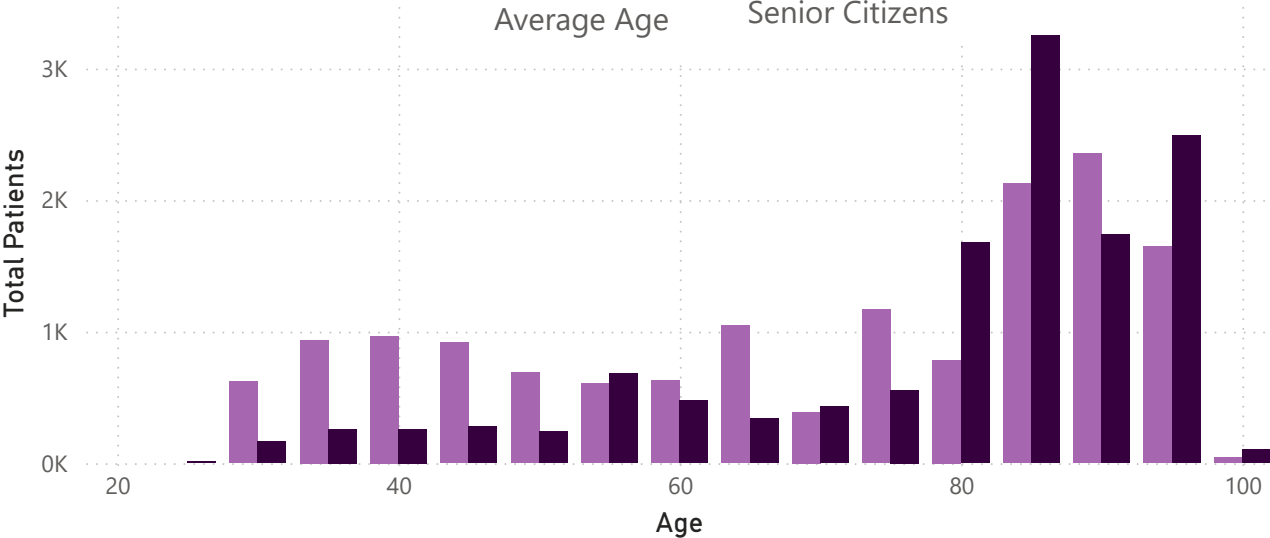
- 28K total patients and 48K procedures performed, indicating an average of ~2 procedures per patient.
- Revenue generated: \$101.51M.

Average Length of Stay (minutes) over Time



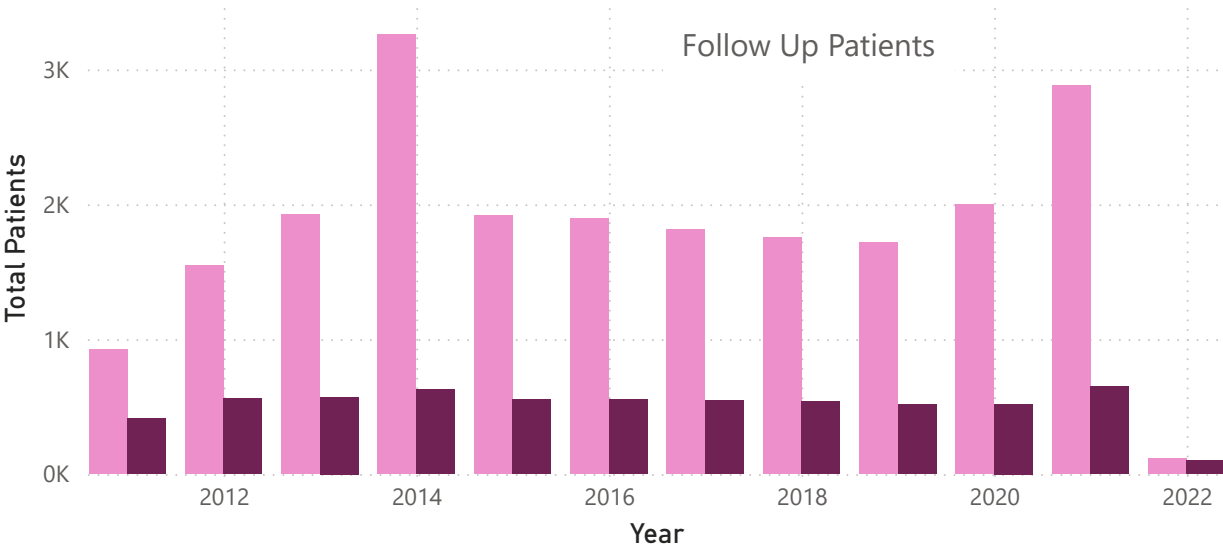
Patient Demographic

GENDER F M

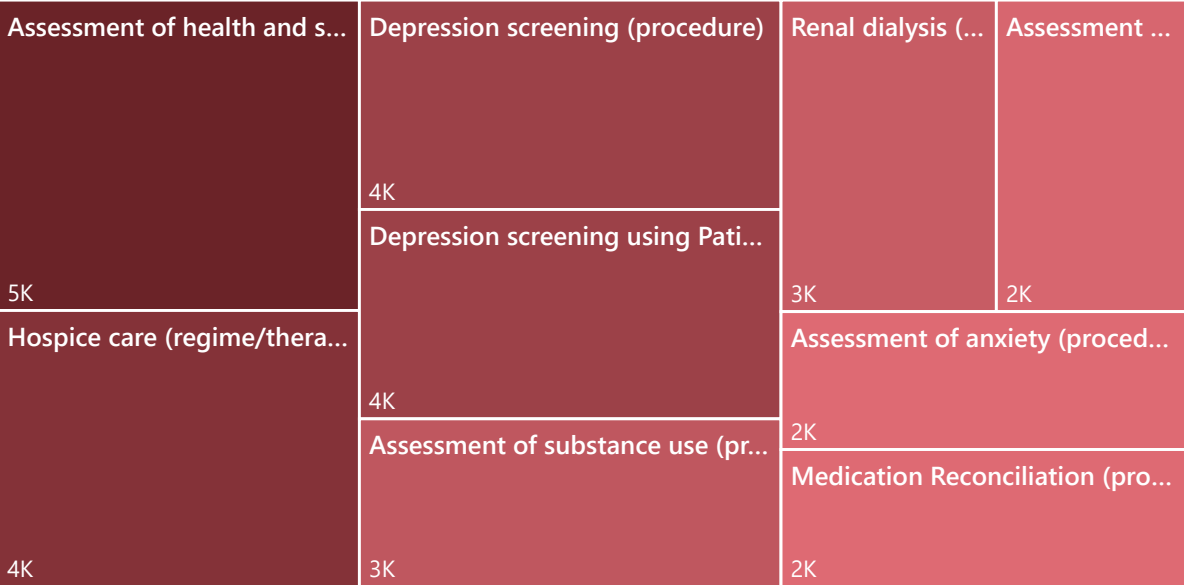


Repeat Patients vs New Patients

Repeat Patients New Patients



Maximum Procedures Performed



### **1. Average Length of Stay Over Time**

- The average length of stay is 58.74 minutes.
- There is a fluctuating trend, peaking around 2014 and 2016, with dips in between.
- length of stay peaked in certain years maybe because of the the operational inefficiencies, more complex procedures, or staffing shortages?

### **2. Patient Demographics**

- Average patient age is 69, indicating an older patient population.
- 21K patients are senior citizens, making up a significant portion of hospital visits.
- The age distribution shows a spike in patients aged 70-90, confirming that elderly patients are the majority hospital visitors.
- Focus on geriatric care improvements (fall prevention, chronic disease management, specialized senior health programs).

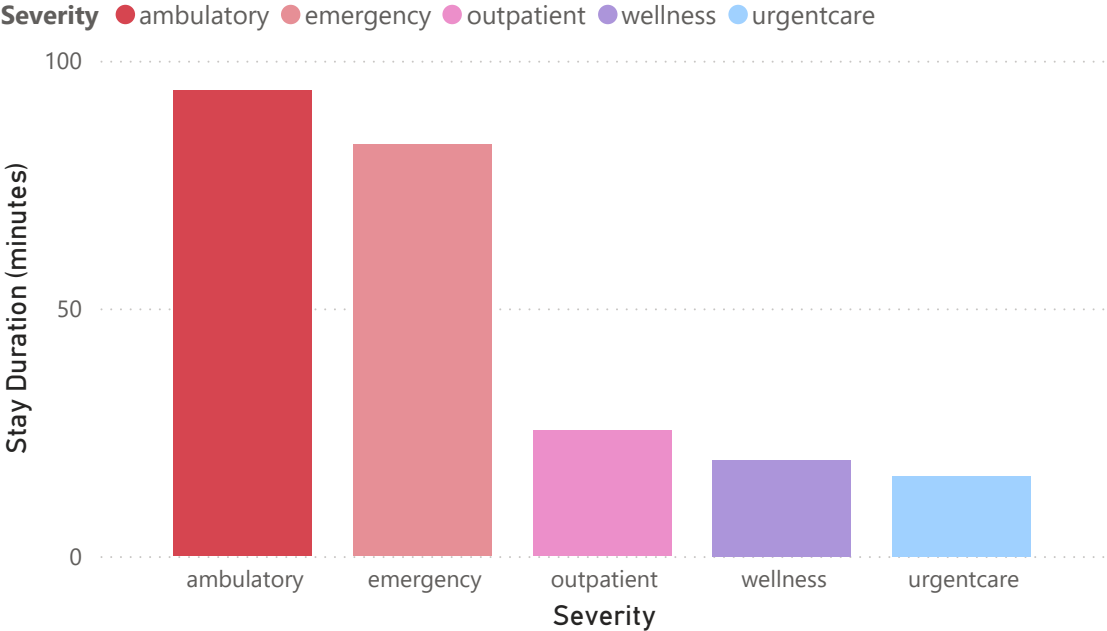
### **3. Repeat Patients vs. New Patients**

- The number of repeat patients is consistently higher than new patients.
- The year 2014 had the highest spike in follow-up patients, aligning with increased hospital visits that year.
- Repeat patients indicate a strong need for chronic disease management programs.
- Introduce long-term patient care programs for frequent visitors.

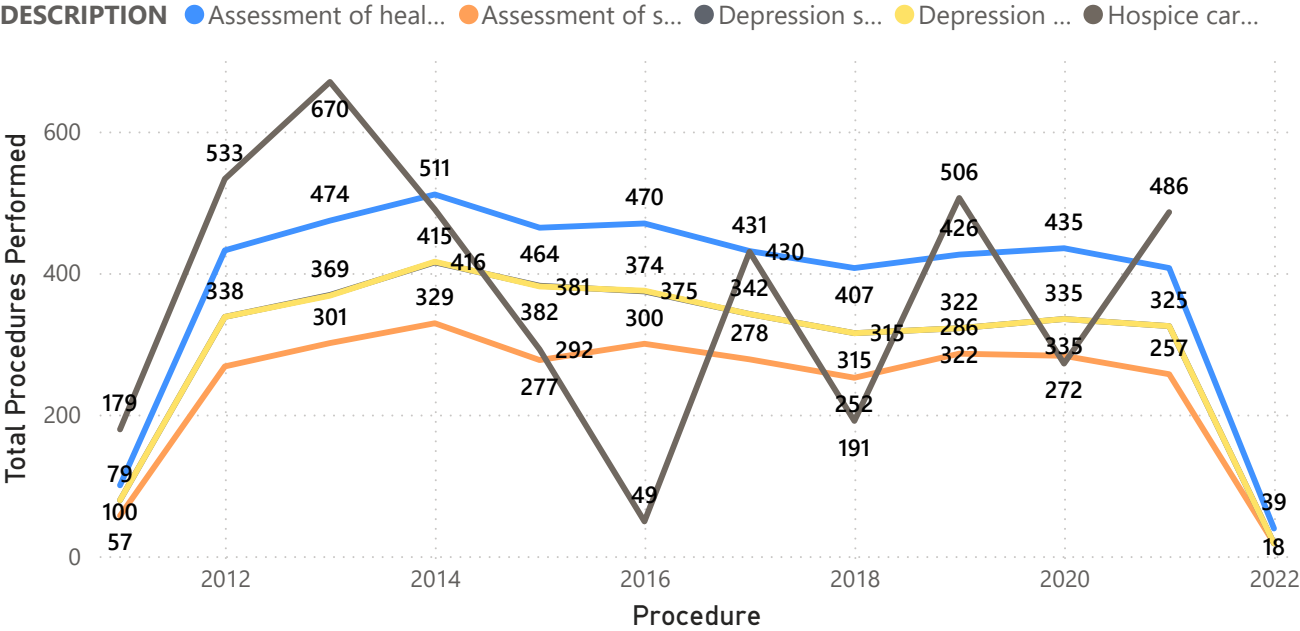
### **4. Maximum Procedures Performed**

- The most common procedures include:
  - Health and social care (highest)
  - Depression screening
  - Renal dialysis
  - Substance use and anxiety assessments
  - Medication reconciliation
- A significant focus on mental health (depression, anxiety, substance use) and chronic illnesses (dialysis, hospice care, medication management).
- Expand mental health services, as depression and substance use assessments are highly frequent.
- Strengthen preventive screenings for early detection of kidney disease (due to high dialysis numbers).
- Improve care coordination for chronic illness management to reduce hospital dependency.

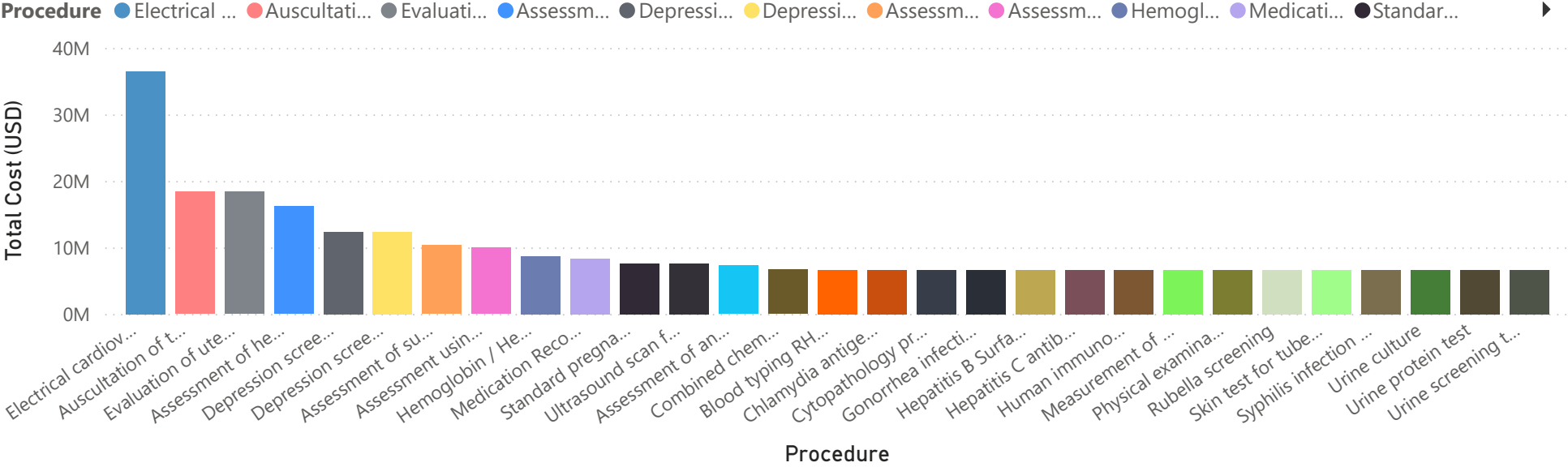
Case Severity and Length of Hospital Stay



Top 5 Most Frequent Performed Procedures



Total Cost (USD) for each Procedure



Most Frequent Procedure

4596

Health Assesement...

Electrical Cardioversion

36.46M

Highest Revenue

### **1. Case Severity and Length of Hospital Stay**

- Ambulatory cases have the longest hospital stay duration, followed by emergency cases.
- Outpatient, wellness, and urgent care cases have significantly shorter stay durations.
- Ambulatory cases often involve more complex treatments or extended monitoring.
- Improve ambulatory service efficiency to reduce hospital time.
- Invest in early detection and outpatient treatment options to prevent hospital stays.
- Optimize emergency care workflows to minimize unnecessary admissions.

### **2. Most Frequently Performed Procedures**

- The top 5 procedures include:
  - Health assessments
  - Depression screenings
  - Hospice care
  - Substance abuse assessments
  - Standard evaluations
- Health assessments (4596 procedures) are the most common, indicating a focus on preventive healthcare.
- Depression-related procedures are frequently performed, reinforcing a trend in mental health services demand.

### **3. Total Cost of Procedures**

- Electrical cardioversion is the most expensive procedure, generating \$36.46 million in revenue.
- Other costly procedures include:
  - Auscultation (heart/lung evaluation)
  - General assessments and screenings
  - Depression screenings
- High-cost procedures indicate significant hospital spending on cardiac and diagnostic treatments.