Data Visualization Using Tableau
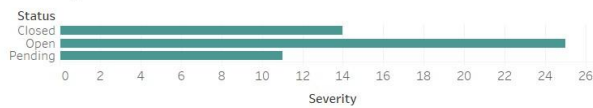

Severity Status
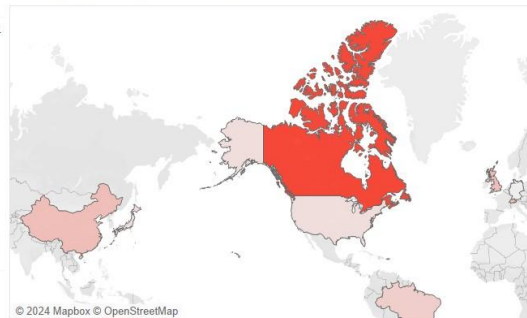
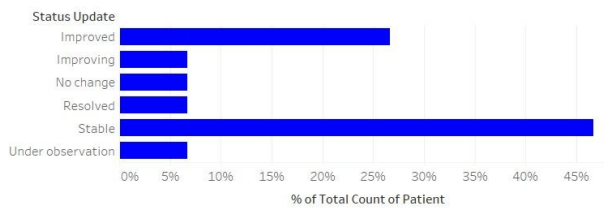### Follow Up by Reported Cases

Monthly Trends in Cases

Geographical Overview of Cases

Patient Status

1. **Follow-up by Reported Cases (e.g., Patient self-reported, Medical Staff, etc.)**

SQL Query:

```
SELECT
    ReportedBy,
    COUNT(*) AS FollowupCount
FROM
    Follow_up
GROUP BY
    ReportedBy
ORDER BY
    FollowupCount DESC;
```

Visualization: A pie chart to show proportions of follow-up types.

2. Cases distribution by regulatory agency regions.

SQL Query:

```
SELECT
    ra.Country,
    COUNT(*) AS TotalCases
FROM
    Regulatory_Case_Reports rcr
JOIN
    Regulatory_Agency ra
ON
    rcr.AgencyID = ra.AgencyID
GROUP BY
    ra.Country
ORDER BY
    TotalCases DESC;
```

Visualization: a map for cases by country

3. Monthly Trends in Cases

SQL Query:

```
SELECT
    YEAR(CaseDate) AS Year,
    MONTH(CaseDate) AS Month,
    COUNT(*) AS CaseCount
FROM
    [Case]
GROUP BY
    YEAR(CaseDate), MONTH(CaseDate)
ORDER BY
    Year, Month;
```

Visualization: A line chart for monthly trends

4. Severity Status

This visualization is based on a database table containing issue data, including Severity (a numeric value) and Status (categorical values like "Open," "Closed," and "Pending").

Key Points:
1. The chart aggregates the Severity values for each Status and displays them as horizontal bars.
2. The Open status has the highest total severity, followed by Pending and Closed.
3. This visualization helps identify which status category has the most significant severity impact, useful for prioritizing actions.

Visualization: A bar chart for severity status.

5. Patient Status

This visualization represents the percentage distribution of patient counts across various status updates such as "Improved," "Improving," "No change," "Resolved," "Stable," and "Under observation."

Key Points:

1. The **"Stable"** category has the highest proportion of patients, accounting for nearly 45% of the total.
2. Categories like **"Improved," "Improving,"** and **"Resolved"** have relatively lower patient counts.
3. This chart aids in tracking the status of patients, highlighting the dominance of stable cases for resource allocation or further action planning.

Visualization: A bar chart for patient status.