COVID-19 Impact Analysis in Pakistan

Tools:

Python (pandas), Power BI

Prepared by:

Abu Ubaidah Khan

Objective

The objective of this project is to analyze the spread and impact of COVID-19 in Pakistan using confirmed cases, deaths, recoveries, and travel history data to identify trends, hotspots, and high-risk regions.

Dataset Description

- Source: Pakistan COVID-19 dataset
- Columns:
    - Date
    - Cases
    - Deaths
    - Recovered
    - Travel History
    - Province
    - City

Tools & Technologies

- Python (pandas) – data cleaning and analysis
- Power BI – data visualization and dashboard creation
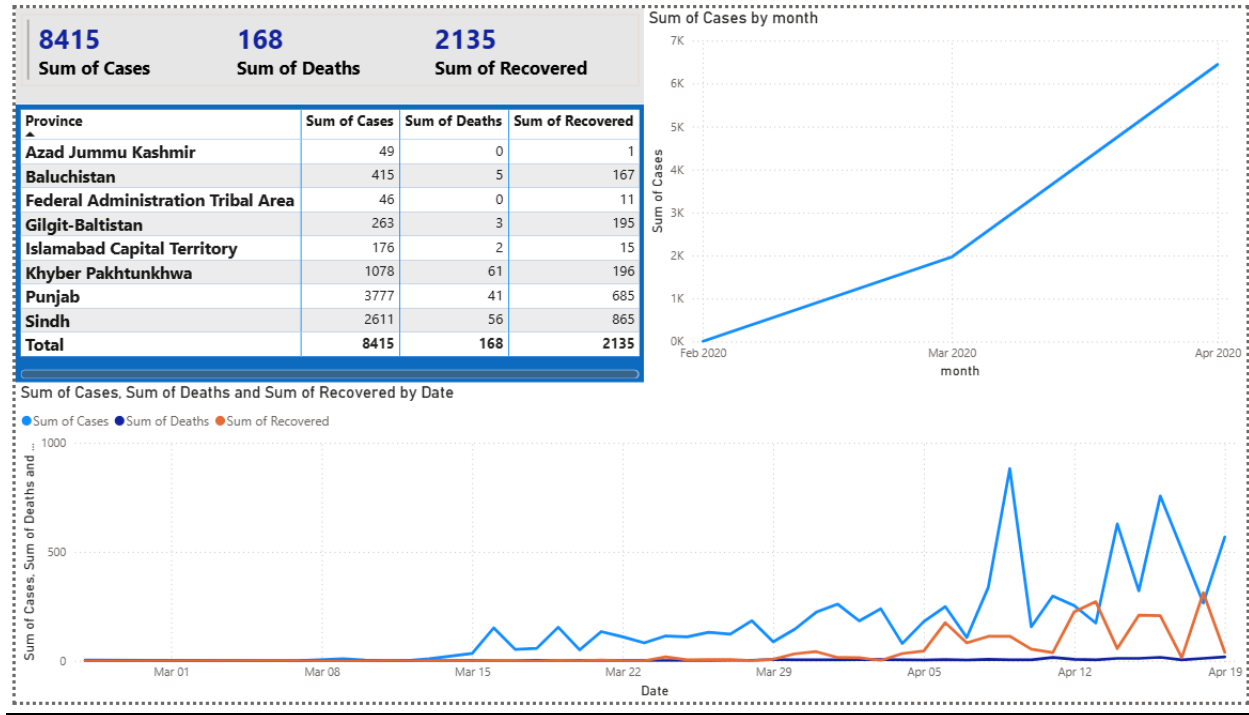
Key KPIs

- Total Cases
- Total Deaths
- Total Recovered
- Recovery Rate (%)
- Death Rate (%)
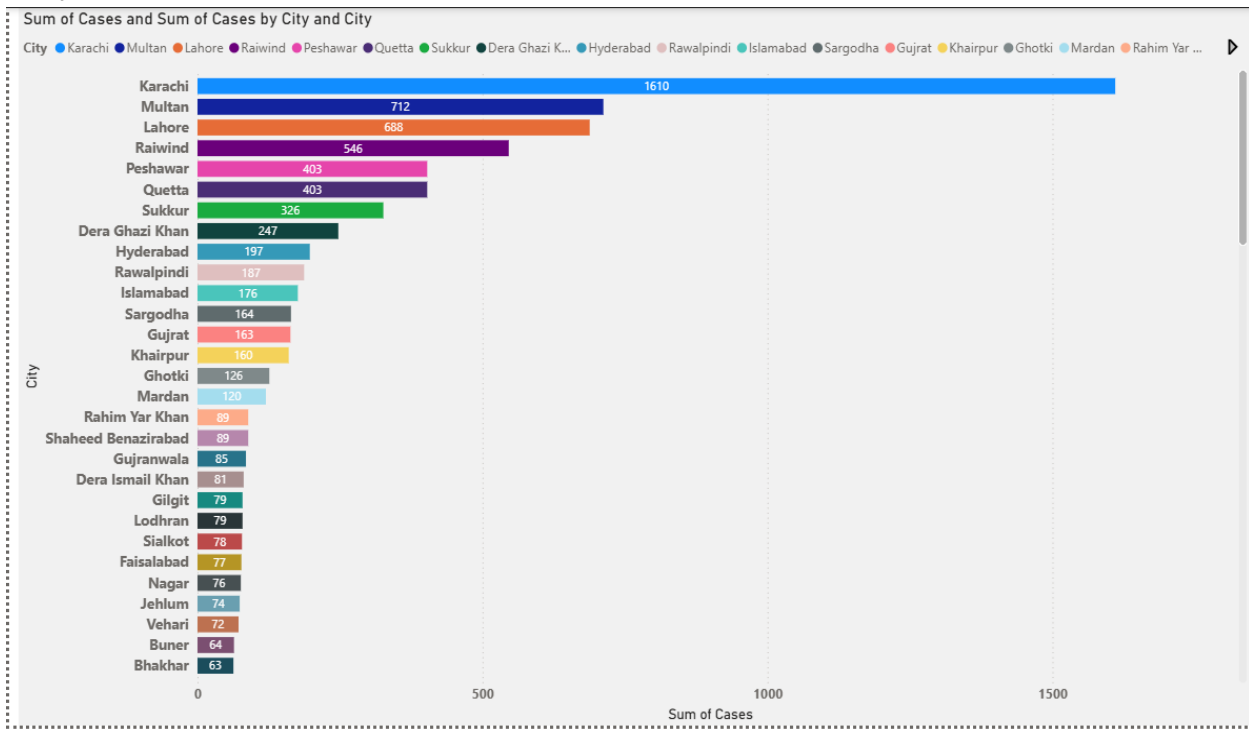- Peak Day and Peak Cases

Analysis & Insights

- COVID cases peaked during April.
- Punjab and Sindh were the most affected provinces.
- Karachi and Lahore emerged as major COVID hotspots.
- Recovery rate improved over time.
- Early spread showed strong linkage with travel history.
- COVID spread through social interactions among people.
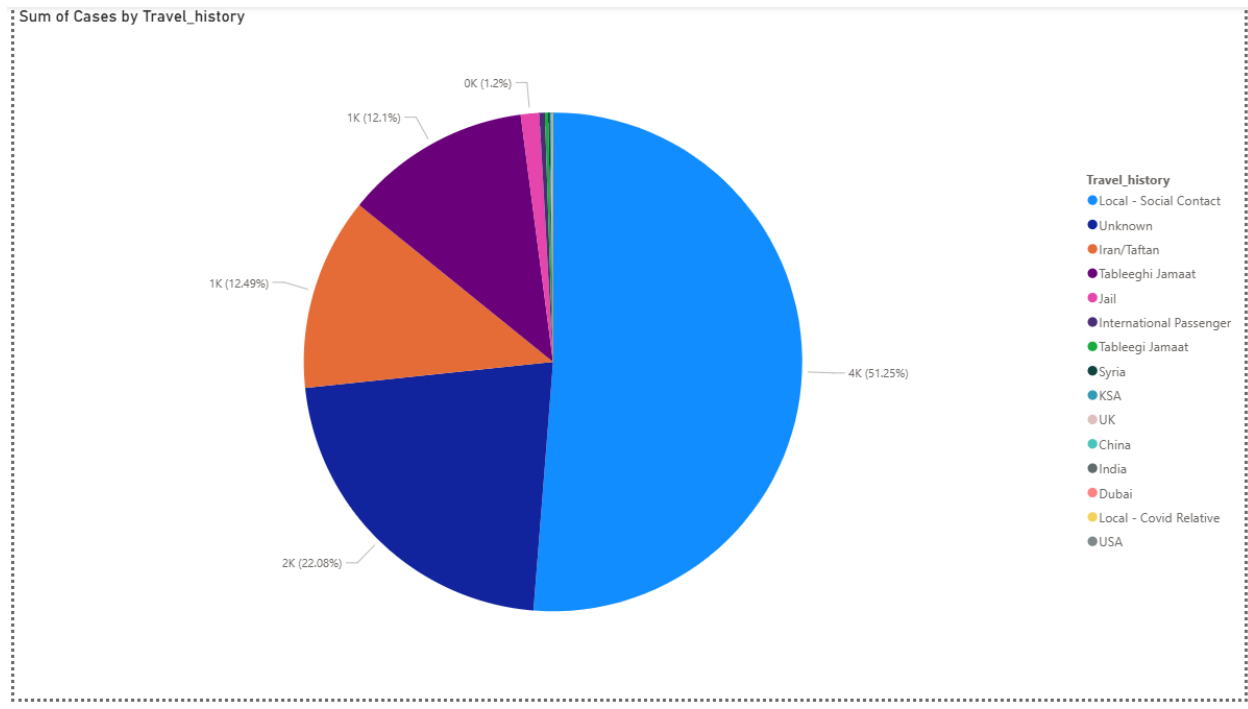- The death rate remained low, while the recovery rate was good.

Dashboard Snapshot

Overall Situation

Province	Sum of Cases	Sum of Deaths	Sum of Recovered
Azad Jummu Kashmir	49	0	1
Baluchistan	415	5	167
Federal Administration Tribal Area	46	0	11
Gilgit-Baltistan	263	3	195
Islamabad Capital Territory	176	2	15
Khyber Pakhtunkhwa	1078	61	196
Punjab	3777	41	685
Sindh	2611	56	865
Total	**8415**	**168**	**2135**

City Wise Situation

Traveling Impact

Sum of Cases by Travel_history

Conclusion

This project provides a clear overview of COVID-19 trends and regional impact in Pakistan and demonstrates how data analytics can support data-driven insights.