

Hospital Emergency Room Analysis Dashboard Using Excel

Problem Statement

Hospitals face significant challenges in managing emergency room (ER) operations efficiently due to unpredictable patient inflow, varying case severity, limited medical staff, and time-sensitive treatments. Delays in patient care, uneven departmental workload, and lack of real-time performance visibility can negatively impact patient satisfaction and overall hospital efficiency.

The objective of this project is to design an interactive Excel dashboard that analyzes emergency room data to monitor key performance indicators such as total patient visits, average waiting time, admission rates, patient satisfaction, demographic distribution, and departmental case load.

By transforming raw hospital data into meaningful visual insights, the dashboard aims to:

- Identify delays in patient service.
- Analyze admission vs. non-admission trends.
- Understand patient distribution by age and gender.
- Evaluate department-wise workload.
- Support hospital management in making data-driven decisions for resource allocation and operational improvements.

This project demonstrates how data visualization and analytical techniques can enhance transparency, efficiency, and strategic planning in healthcare operations.