

COVID-19 Patient Health Analysis Dashboard Documentation

A. Dataset Name :

COVID-19 Patient Symptoms and Diagnosis Dataset

B. Problem Statement :

To create a Power BI report for analyzing 'COVID-19 patient health' data using tabular, matrix, and graphical visualizations in order to understand patient distribution, infection outcomes, symptom patterns, exposure risks, and clinical severity.

C. Data Description :

The dataset contains patient-level COVID-19 health information, including demographic details, clinical symptoms, exposure history, and diagnostic results. Key attributes include patient ID, age, gender, symptoms (fever, cough, fatigue, etc.), oxygen level, body temperature, travel and contact history, comorbidities, and COVID-19 test result (positive or negative).

D. Visualizations Used :

◆ KPI Cards –

- **Total Patients:** Shows the total number of patient records available in the dataset.
 - **COVID Positive Cases:** Displays the total number of patients tested positive for COVID-19.
 - **Average Oxygen Level:** Indicates the average oxygen saturation level of patients to assess severity.
 - **Average Body Temperature (°C):** Represents the average body temperature to analyze fever trends.
 - **Contact with Patient:** Shows the count of patients who had contact with COVID-positive individuals.
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◆ Donut Chart – COVID Result Distribution -

Purpose:

To visually compare the proportion of COVID-positive and COVID-negative patients in the dataset.

◆ Stacked Column Chart – COVID Result by Exposure History -**Purpose:**

To analyze the relationship between exposure factors (contact with COVID patients) and test outcomes, helping identify risk patterns.

◆ Column Chart – Oxygen Level Distribution in COVID-Positive Patients -**Purpose:**

To assess the clinical severity of COVID-positive patients by grouping oxygen saturation levels using bins.

◆ Column Chart – COVID Cases by Age Group -**Purpose:**

To study the distribution of COVID cases across different age groups and identify vulnerable age segments.

◆ Horizontal Bar Chart – Symptoms Observed in COVID-Positive Patients -**Purpose:**

To identify the most commonly reported symptoms among COVID-positive patients and analyze symptom frequency.

E. Conclusion :

The dashboard provides a comprehensive analysis of COVID-19 patient health data by combining demographic, clinical, and exposure-related insights. It helps identify key trends such as symptom prevalence, age-based impact, exposure risks, and severity indicators, making it useful for healthcare analysis and decision-making.
