Nigerian Covid-19 Analysis Using Python

Analyzing COVID-19 trends, impacts, and recommendations for Nigeria

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Introduction

Purpose of the Analysis:

- To investigate trends in COVID-19 cases in Nigeria, focusing on daily confirmed, recovered, and death cases.

Problem Statement:

- Understand the progression and peaks of COVID-19 in Nigeria.
- Identify high-risk states and their vulnerabilities.

Data Source:

- COVID-19 dataset from [source, e.g., WHO or local health authority].

Data Overview

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Dataset Description

- Time Period: January 2020 - May 2023
- Features Analyzed: Daily confirmed cases, recoveries, deaths, and state-wise data.

Data Processing

- Cleaned for inconsistencies.
- Calculated daily differences and trends.

Methodology

Tools Used:

Python (Libraries: Pandas, Matplotlib, Seaborn)

Steps:

Data Cleaning: Removed anomalies and missing values.

Exploratory Data Analysis: Analyzed time-series trends and state-wise distributions.

Visualization: Developed charts to illustrate findings.

Key Findings (Nationwide Trends)

1. Daily Confirmed Cases:
- Peaks observed during January 2021 and early 2022.
- Gradual decline post-2022.

2. Daily Recovered Cases:
- Significant recovery peaks but inconsistencies noted in data reporting.

3. Daily Death Cases:
- Remained low compared to global averages.

State-Level Insights

State-Level Insights

Top 10 States by Confirmed Cases:

- States like Abia, Osun, and Bauchi reported the highest confirmed cases.
- Community Vulnerability Index (CVI) highlighted disparities in preparedness and risk.

Key Visuals:

- Bar chart of confirmed cases and CVI for top 10 states.

Conclusions

- COVID-19 trends in Nigeria peaked in early 2021 and 2022, followed by a steady decline.
- Some states exhibited higher vulnerability despite lower case counts.