



Priyadarshini engineering college

Covid-19 cases analysis



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Introduction

The pandemic of Coronavirus Disease 2019 (COVID-19) is a timely reminder of the nature and impact of Public Health Emergencies of International Concern. As of 12 January 2022, there were over 314 million cases and over 5.5 million deaths notified since the start of the pandemic. The COVID-19 pandemic takes variable shapes and forms, in terms of cases and deaths, in different regions and countries of the world. The objective of this study is to analyse the variable expression of COVID-19 pandemic so that lessons can be learned towards an effective public health emergency response.

Key component of covid-19 cases analysis

Epidemiological Data: This includes data on the number of cases, deaths, recoveries, and hospitalizations. It helps in tracking the spread of the virus.

Demographics: Analyzing the age, gender, and location of cases can provide insights into who is most affected and where the virus is spreading.

Testing Data: Information on the number of tests conducted, testing positivity rate, and types of tests used is crucial to assess testing adequacy and accuracy.

Hospitalization and ICU Data: Tracking the number of COVID-19 patients in hospitals and ICU beds helps assess the strain on the healthcare system.

Vaccination Data: Monitoring vaccine distribution and coverage is essential for understanding the impact of

vaccination campaigns on case numbers.

Genomic Sequencing: Analyzing the genetic makeup of the virus can help identify variants and track their spread.

Public Health Measures: Assessing the impact of interventions like lockdowns, mask mandates, and social distancing on case numbers.

Contact Tracing: Understanding how well contact tracing is being conducted to identify and isolate cases.

Healthcare Capacity: Monitoring the availability of medical resources like ventilators, PPE, and healthcare personnel.

Public Compliance: Gauging how well the public is adhering to safety guidelines and recommendations.

Mutations and Variants: Continuously monitoring for new mutations and variants that may impact the virus's

behavior. **International Data:** Analyzing global trends and comparing data with other countries for context and insights.

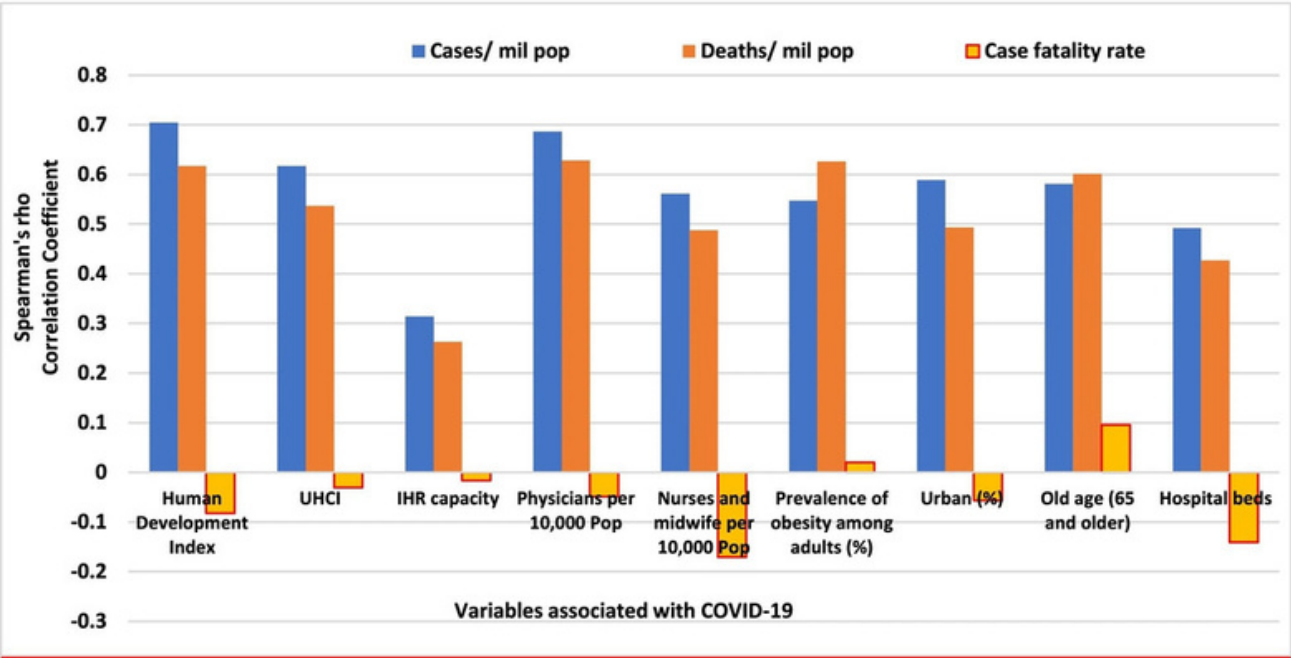
These components collectively help public health officials, researchers, and policymakers make informed decisions to control the spread of COVID-19.

Analysis covid-19 pandemic through the cases, death and recoveries

Data Analysis

Background and aims The novel Coronavirus disease (COVID-19) in Wuhan, China, became a pandemic after its outbreak in January 2020. Countries one after the other are witnessing peak effects of the disease, and they need to learn from the experience of others already affected or peaked countries. Thus, this

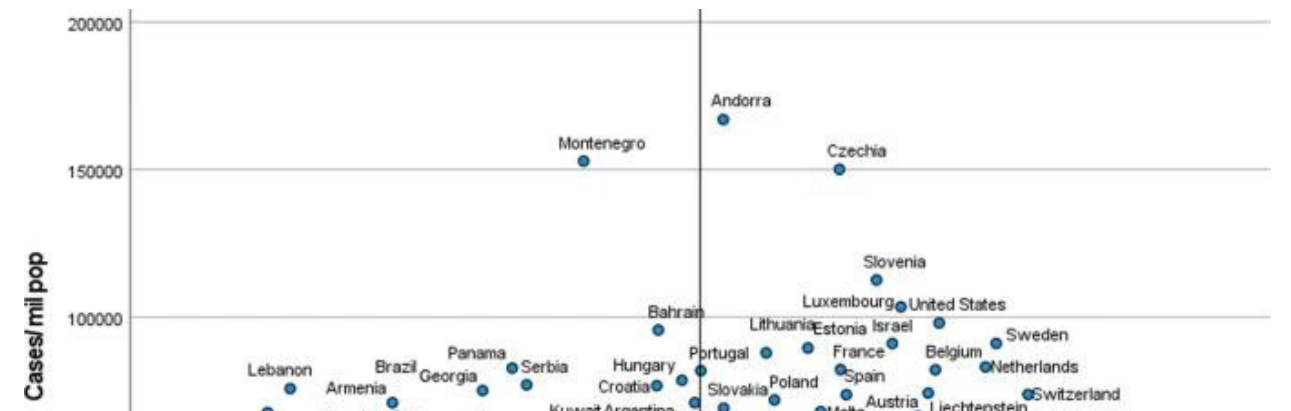
paper aims to analyse the effect of the Covid-19 pandemic on different countries through COVID-19 cases, resulting in deaths and recoveries. **Methods** This study analyses quantitatively the lethal effects of the pandemic through the study of infections, deaths, and recoveries on the 13 most-affected COVID-19 countries as of 1st June. The daily change in cases, deaths, and recoveries for all the 13 countries were considered. Combined analysis for comparison and separate analysis for the detailed study were both taken for every country. All the graphs were made in RStudio using the R programming language, as it is best for statistical analysis. **Results** The casual and ignorant behaviour of people is a major reason for such a large scale spread of the coronavirus. The government of every country should be strict as well as considerate to all sections of people while making policies. There is no room for mistakes, as one wrong decision or one delayed decision can worsen the situation. However, some countries which were once the epicentre of this pandemic are now corona-free, proving that this global threat can be tackled and we should all keep our morale high. **Conclusions** The coronavirus disease is not any ordinary viral infection; it has become a pandemic as it has an impact on health, mortality, economy and social well being of the entire world. Qualitative and Quantitative analysis of the statistics related to COVID-19 in different countries is done based on their officials' data. The primary objective of this analysis is to learn about the relationships of various countries in containing the spread of COVID-19 and the various factors such as government policies, the cooperation of people, economy, and tourism.

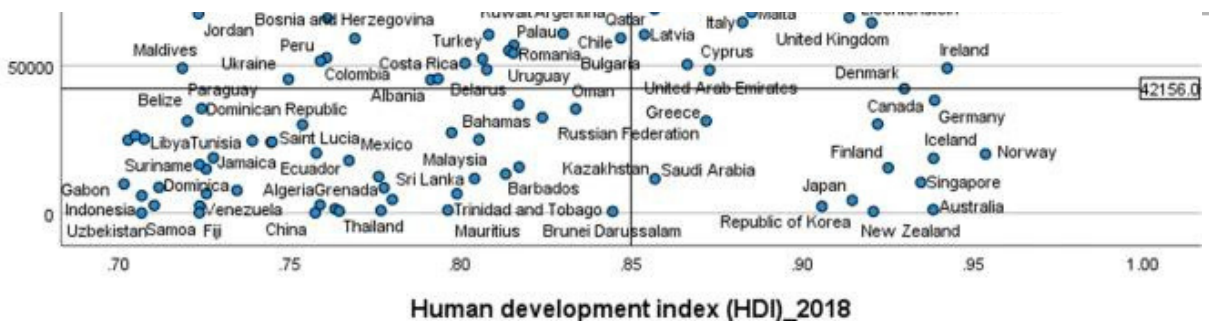


Covid-19 cases analysis in India

I can provide some general information about COVID-19 cases in India up to my knowledge cutoff date in September 2021, but please keep in mind that the situation may have changed since then.

As of September 2021, India had experienced several waves of COVID-19, with the largest surge occurring in the first half of 2021. At that time, India had reported millions of confirmed cases and a significant number of deaths. Various factors, including population density and healthcare infrastructure, influenced the impact of the virus in different regions of the country. For the most up-to-date and accurate information on COVID-19 cases in India, I recommend checking the latest reports from trusted sources such as the World Health Organization (WHO) or the Ministry of Health and Family Welfare in India





Scatter plot of COVID-19 deaths per million population in countries with high human development index

Conclusion

The COVID-19 pandemic demonstrates that the world remains vulnerable to public health emergencies with significant health and other socio-economic impacts. The pandemic takes variable shapes and forms across regions and countries around the world. The pandemic has impacted countries with inadequate governance of the epidemic, fragmentation of their health systems and higher socio-economic inequities more than others. We argue that adequate response to public health emergencies requires that countries develop and implement a context-specific national strategy, enhance governance of public health emergency, build the capacity of their health systems, minimize fragmentation, and tackle socio-economic inequities. This is possible through a PHC approach that provides universal access to good-quality health services through empowered communities and multi-sectoral policy and action for health development. The pandemic has affected every corner of the world; it has demonstrated that “no country is safe unless other countries are safe”. This should be a call for a strong global health system based on the values of justice and capabilities for health.