

Covid-19 pandemic and the role of vaccinations

Project 1

Group 2- Dominika, Meng, Makaran Jyoti

18th, Dec2021

- 1 Covid-19 Background
 - The outbreak of Covid-19 and impacts
- 2 Methodology
 - Statistical analysis
- 3 Comparative Analysis
 - Regression analysis using full-sample
 - Case in the UK
 - Case in Africa
- 4 Statistical Test
- 5 Conclusions

Motivations of the project analysis

- Since the Covid-19 outbreak in December 2019 in Wuhan, China, the deadly disease has made 5,320,878 people died at global level
- The deaths number were found highly geographically uneven across the country
- With the development of vaccines and the process of vaccinations, we are aiming to find if the application of vaccines do improve the negative impacts of Covid-19 to people's death rate

The Covid-19 at global glance

Correlations between death and Covid cases

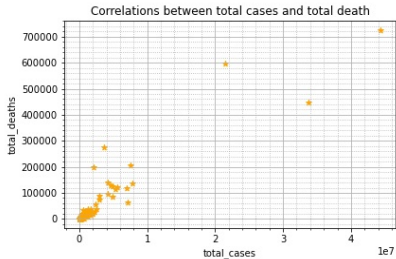


Figure 1. Correlations between total death and total cases

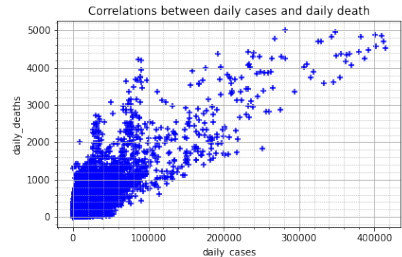


Figure 2. Correlations between daily death and daily cases

Correlations in dynamics

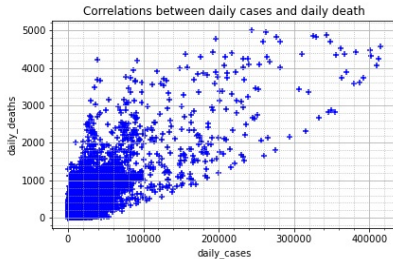


Figure 1. Correlations between cases after 1 day and death

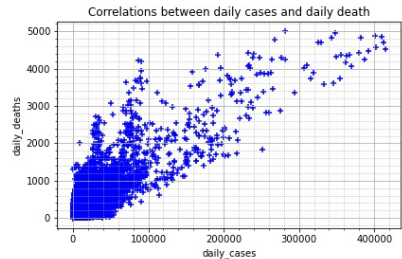


Figure 2. Correlations between cases after 7 days and death

Correlations in dynamics

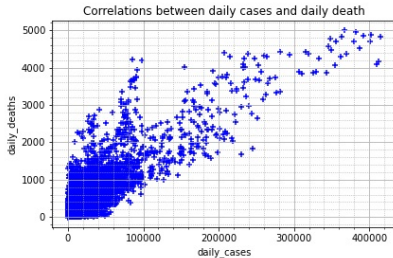


Figure 3. Correlations between cases after 14 days and death

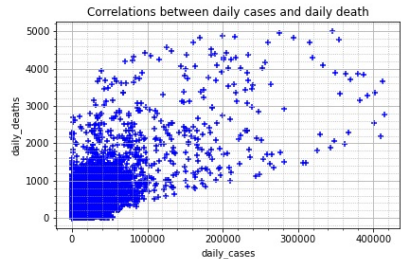
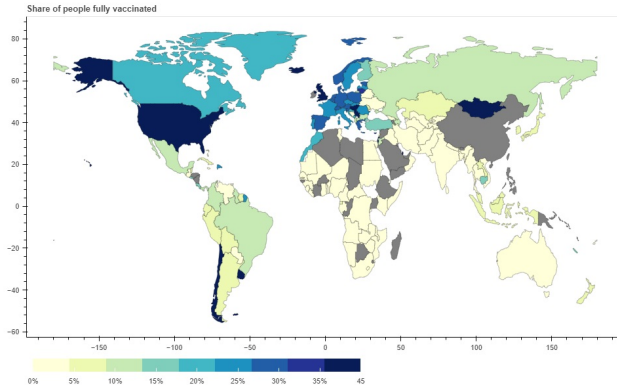


Figure 4. Correlations between cases after 30 days and death

The Vaccinations distributions



Summary

- Covid-19 is a deathly disease showing a high death rate in a short time period
- The Covid-19 cases confirmed distribution at global is quite uneven
- The Vaccine-invented countries(OECD countries) shows a higher vaccination rate than emerging economies
- An comparative analysis across the country is necessary

Linear regression model

Case in the UK

Case in Africa

Conclusions