

OBJECTIVE: To create a global response plan in order to be better equipped to combat future pandemics and decrease the spread of disease

Motivation & Background

- The COVID-19 pandemic illustrates how ill-prepared the United States government along with many other countries have been when faced with a situation where resources are extremely limited.
- People infected with the disease were allowed to travel around the world too long after the announcement of the initial outbreak in China, testing kits were far too few in number
- Lack of personal protective equipment for use in hospitals by healthcare workers has led to essential care providers contracting the disease themselves and in some cases, even death of the provider.
- While the initial policies put in place by the U.S. Federal government and Center for Disease Control (CDC) of limiting social contact through social distancing and home-quarantining have been effective to slow the spread and reduce the strain on the healthcare system, the U.S. enforcement of policies has remained less severe than other parts of the world who took quicker action to prevent widespread transmission.

Our Idea

- The goal of this project is to collect data on how other countries have responded to the pandemic to begin to formulate a pandemic response and set of guidelines that can be used to learn from the COVID-19 outbreak and better prepare for the future.
- With the allocated grant funds, we will perform a meta-analysis to collect data on when various governments publicly declared border shut downs, closed schools and local businesses, their speed of testing, enforcement of state and local policies, and how hospitals have dealt with increased demand with limited resources.

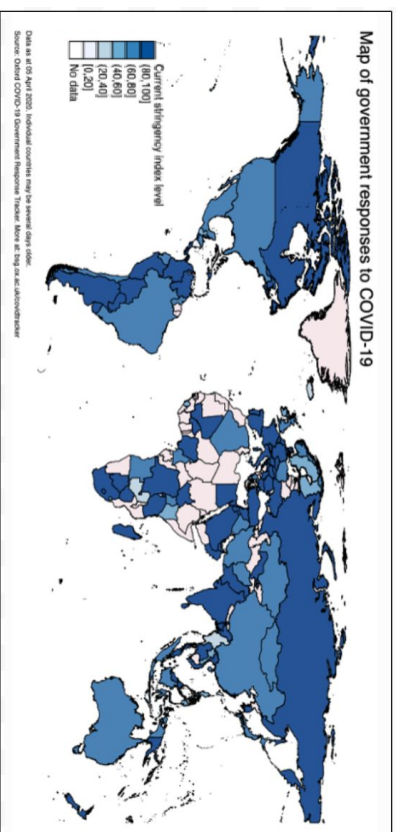
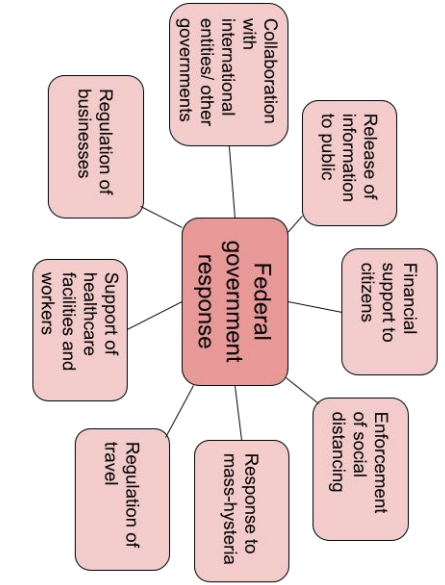


Figure 1

Oxford created a stringency hierarchy which allows for comparison between countries across the globe; this is a visual representation of the country's government response to the novel COVID-19.

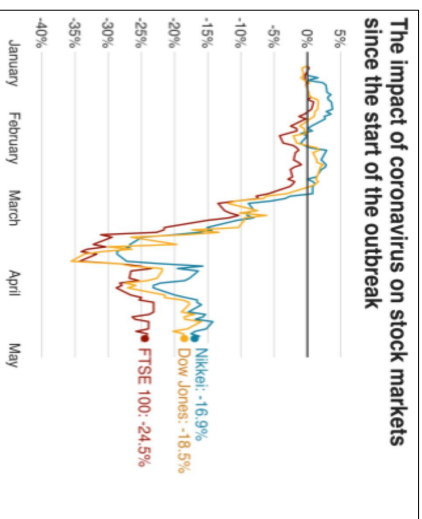


Figure 2

At baseline measures of the stock market (0%) before the COVID-19 outbreak, prominent indicators of stock market health plummeted right when social distancing requirements were established. The curve normal conditions and if this is prolonged, companies in these indicators will continue to endure significant financial loss. Without a concrete plan to handle inflation/deflation rates the global economy will undoubtedly suffer further.

References

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Expected Outcomes

We hope to gather information from foreign federal agencies, local businesses, and first-hand accounts on (but not limited to) the following areas:

1. Government statements to the public about COVID-19
 - a. Scientific information
 - b. Recommendations for social distancing, other measures to prevent infection
 - c. Reports to WHO and media
2. Policy changes
 - a. Government aid to those affected by virus financially
 - b. Enforcement of social distancing or quarantine
 - c. Regulation of business operation
 - d. Discrepancies between federal and local policies
 - e. Regulation on travel (both domestic and international)
 - f. Closure of government-run facilities
 - g. Aid and instruction to healthcare facilities and workers
 1. Availability of correct equipment for treating patients, personal protective equipment, the maintenance of the Strategic National Stockpile, as well as other healthcare needs.
 - h. Communication and collaboration with international entities
3. Actions by general public
 - a. How closely the public followed government regulations
 - b. Public perception on the severity of COVID-19 pandemic

Future Directions

- Upon collecting this meta-data, we intend to analyze and report our findings. Identifying trends and important factors in foreign government regulation alongside reports from the United States will illuminate fundamental differences in government response. We hope to compare and contrast our findings with the United States federal response to identify potential shortcomings.
- We hope that this data will be used alongside epidemiological reports to identify response measures that were successful and could be applied in the United States. Discovering such measures could prevent future outbreaks and the negative outcomes that come along with them such as the closure of the economy.

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