Team 13

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Chika Chuku, Rankin D'Souza, Yi-Hsuan Chen, Marilyn Pothen

COVID-19 Global Symptoms Tracker

Background:

The COVID-19 pandemic has globally impacted human life in unprecedented ways. In order to monitor how this virus is spreading, UMD's COVID-19 Global Symptoms Tracker team conducted surveys with people from different countries, asking them how they are feeling, the symptoms they have experienced, and possible correlational factors that can increase/decrease their chance at contracting the virus.

Objective:

The objective of our analysis is to use this survey to study how the pandemic specifically impacts countries in North and South America to predict how COVID might spread among these regions. Our research will answer the following questions: What factors correlate with a high amount of COVID symptoms in a given area? Does the spread of COVID like symptoms vary between developing and developed regions? Based on population characteristics and symptoms, are the number of people reporting COVID like illnesses going to increase? Finally, how can lawmakers and health officials use this information to better track where to allocate resources.

Null Hypothesis:

Various factors such as hygiene, finance, and attitudes towards COVID **play a role** in predicting the spread of the virus.

Alternative Hypothesis:

Various factors such as hygiene, finance, and attitudes towards COVID **do not play** a role in predicting the spread of the virus.

Methods

We first sourced survey data from the University of Maryland COVID-19 World Survey Data API. This was done with Python requests and filtering the API data into CSV files in order to analyse the data.

To represent the sum of COVID like symptoms for each country, a map was constructed in Tableau for each survey date. Additionally, all surveyed countries were ranked with the iteration over time.

Next, we constructed a linear regression to check the significance of our chosen variables and used a F test to measure the variance of covid like symptoms among developed and developing regions.