DC21042

Summary

For the 2021 UMD Data Challenge our team chose to analyze the level three, COVID-19 World Survey Data API. In order to acquire data for this project we built a data scraper. It used a series of loops to build the links necessary to call the API for every data point it contained. The program built links for each of the 21 indicators for every date and country available. After cleaning the data and getting it into workable CSV formatting we began to narrow down our problem statement. Our motivation to solve these problems came from wanting to make an impact in the fight against COVID. People all over the world are dealing with the impact and burden of disease that COVID-19 has left. Using the data available to us we were motivated to help the general public and Public Health officials with our data analysis and findings.

Additional data analysis led us to focus on three primary questions for our problem statement; the first being, for countries in the Schengen Area (the countries in Europe that have open borders with one another), does a spike in COVID-19 related indicators in one country correlate to a delayed spike in indicators in their neighboring countries? The next question we posed was do the people's trust in government, trust in healthcare officials, and trust in the WHO, have an effect on the number of people willing to take a vaccine? To tie together the rest of our findings we asked how do social behaviors (contact with someone outside your household) correlate to mask wearing habits, COVID-19 cases in the community, and financial worries?

In analysis of our first primary question we came to the conclusion that there is a correlation in COVID-19 spikes between neighboring countries in the Schengen region. All countries of the region had similar trends in the indicators we deemed most important to focus on. Next we strove to answer how notable figures and peoples' opinions of trust in the vaccine affect their peers' willingness to take the vaccine; we found healthcare officials garnered the most trust while politicians, the least. Finally, in our analysis of survey respondents mask

wearing habits we found that in summer months mask wearing decreased however this did not lead to a notable increase in COVID-19 like symptoms.