Summary

- Covid-19 is the world’s latest tragedy, to have rapidly impacted worldwide mortality, accounting for over 6 million deaths.
- Preemptive government’s effort to safeguard the public health included lockdown, confinement and limited movement order and social distancing, deal a heavy impact on all sectors in economy coupled with the reduction in labour forces³.
- In this poster we will analyse the effect that new daily cases (and as a result government policies and changing attitudes to the pandemic from the public) had on visitors to retail and recreation in both the US and India.

Research aims

- We want to draw an observation of the extent that covid impacted the daily lives of people living in different areas of the world, particularly in the United States and India both being infamous for their responses to the pandemic.
- Hence to discern the difference in the populations responsiveness and engagement to the social restrictions implemented during each countries’ implementations of lockdown.
- Hypothesising that a greater number of new daily cases will lead to a greater decrease in recreational mobility people will be less likely to go out for fear of becoming infected with Covid.

Methodology

- The data used to observe and interpret the data of both the US and India’s changes in visits to retail and recreational areas was gathered from Our World in Data¹, with the percentage change being measured against a “base day” which is an average of the previous 10 days’ visits to retail and recreation in both countries before the time period measured in the pandemic.
- The data sets was then downloaded from the website in a CSV format so it can be later processed; in preparation to graphing the data as trends we had to first alter the data range of the data sets so that they covered the same date range in order to compare in a more coherent way.
- All statistical analysis of the data was conducted using R, where we plotted the points of data starting from the 17/2/2020 to the 29/08/2021 (in day/month/year format) for both countries and drawing a local polynomial regression line on top of the data to better visualize the overall trend of the data throughout the development of the pandemic.

Analysis & conclusions

- With the implementations of Lockdown originally being pre-emptive to the surge of new daily cases, originally the sudden decrease in visits to retail and recreational areas were associated in both countries with a time period of low new daily cases, additionally in both countries the first few peaks of covid were associated with an increase in recreational mobility which in both cases but more particularly in India led to a rapid surge in cases once it increased to high followed by a decrease in cases that followed the the re-implementation of lockdown rules and a sudden drop in retail and recreational visits.
- Whilst the two data sets aren’t necessarily linearly correlated and many other contextual factors do need to be considered, we could state that (whilst not the original way round we thought) recreational mobility does to a moderate extent have an effect on the new daily cases of covid.

Results

- Both countries experience high peaks at different times and in the case of the US, fluctuations in the number of new daily cases seem much more prevalent.
- They also maintained a higher mean and median new daily cases than India suggestion that over the time period performed worse than India at managing the spread of Covid.
- This could be attributed to many factors such as Inadequate tracing, poor response to isolating and quarantines, Slow and flawed testing and Confusion among the public.
- This paled in comparison to the second peak at around day 430 in which 414188 cases were recorded in India on the 6/5/2021 which again far exceeds America’s peak on the 27/08/2021 which reached 322934 new cases, implicating that India did not necessarily out perform the United States at monitoring covid transmission even when considering the differences in population size in the two countries.

References