**TOPIC:**

Non-Pharmaceutical Interventions (NPI) as an effective tool for suppressing the high transmission rate of corona virus

**OVERVIEW:**

The novel corona virus that emerged from Wuhan China in November 2019 has spread to over 120 countries; more than 700,000 people have been infected with a death toll of over 37,000 people.

Although there is currently no effective treatment or vaccine for the virus, the bigger challenge is the unprecedented rate of transmission, enabled by the pre-symptomatic transmission feature of the virus. This is where a person who has contacted the virus with no symptoms infects other people. With the high infection rate, medical facilities and personnel are grossly inadequate for the number of infected people, hence leading to numerous deaths.

As a strategy to flatten the transmission rate, many governments have implemented non-pharmaceutical interventions in the form of social distancing which includes closure of schools and non-essential businesses; travel restrictions, banning public gatherings; remote working; quarantine and in some extreme cases complete lockdown of cities example China.

**PROBLEM STATEMENT:**

Communist countries like China can effectively implement social distancing to extreme levels of complete lockdown of cities, however, democratic countries like the United States are constrained by their constitution and the federal system of government. Democratic countries require voluntary co-operation of the citizenry to successfully implement social distancing. The people need to understand that in the absence of an effective treatment, adherence to social distancing directives is required to suppress the transmission rate of corona virus.

If the citizenry commitment to social distancing is not fully achieved, the transmission rate of corona virus will continue to grow, putting more pressure on medical facilities and personnel, leading to more deaths and lengthening the epidemic.

In event that a treatment for corona virus is developed, there is still a time lag for when the treatment will become effective.

**OBJECTIVE:**

To illustrate that social distancing is an effective strategy for flattening the corona virus transmission curve and build a dynamic dashboard over it.

**TOOLS:**

We are planning to use PowerBI, a data visualization tool to build dashboard. Also, data exploratory analysis on R prior to it.

**AUDIENCE:**

College students

**CALL TO ACTION:**

Commit to voluntarily comply to social distancing.

**DATA SOURCE:**

We are planning to use following datasets but not limited to:

Centre for Disease Control and Prevention

World Health Organization

Imperial College London