

## **Final Project Proposal:**

### **Texas COVID-19 cases analysis with major event from March 2020 to March 2021**

#### **Abstract:**

Coronavirus, an ongoing outbreak of respiratory disease, has been greatest threat to the global health. The transmissible disease spread from one human to another and caused pandemic all around the world. The United States has been an epicenter of its outbreak and constitutently the state of Texas among the top four state. In this study, we study the COVID outbreak in Texas, analyze the effect on lockdown, post lockdown, festive season, and political event.

#### **Background:**

Respiratory disease named as Corona virus, occurred in the Wuhan city of China. From December 2019, since its occurrence, the disease has been quickly spreading from the city to the other areas of the world. The novel corona virus was discovered which causes acute respiratory failure syndrome (ARDS) (Yuki et al., 2020). Initially it is believe as the zoonotic transmission with the sea food market in Wuhan city but the human transmission has major role on the outbreak of Coronavirus (Li et al., 2020). World Health Organization declares global pandemic on all the 200 countries. 23 Jan, 2020, the United States of America reports first case of covid19 who was a traveler from Wuhan city of China (Ghinai et al., 2020). Since then the U.S has been an epicenter of novel corona virus with more than 31 million cases reported on 31 March 2021 (Morgan Hines, 2021).

Texas state reports the first case on 4<sup>th</sup> March 2020 and a fatality on 15<sup>th</sup> March 2020 after the governor declares the statewide emergency on 13<sup>th</sup> March 2020. The office of governor signs an executive order on first lockdown from last week of March 2020 to the month of May. Our study will primarily focus on the government decision on the controlling pandemic in Texas and co-relating it with other different events.

#### **Data:**

Central for Disease Control (CDC.gov), Texas Department of State Health Services (ds.hs.texas.gov), and Office of The Texas Governor (gov.texas.gov) are the major source of our data.

## Research Question:

The state of Texas has been second most effected state by coronavirus. There has been several orders and/or decision been made during a period of time. The people reaction to the orders and social gathering during the festival period and political campaign may impact on covid cases.

1. Is the order effective on controlling the pandemic?
2. The impact of festival season on the number of cases may be correlative because of social gathering
3. Political events impose higher risk of spreading the disease because of larger number of presence of people. The impact of 2020 election campaign will be studied.

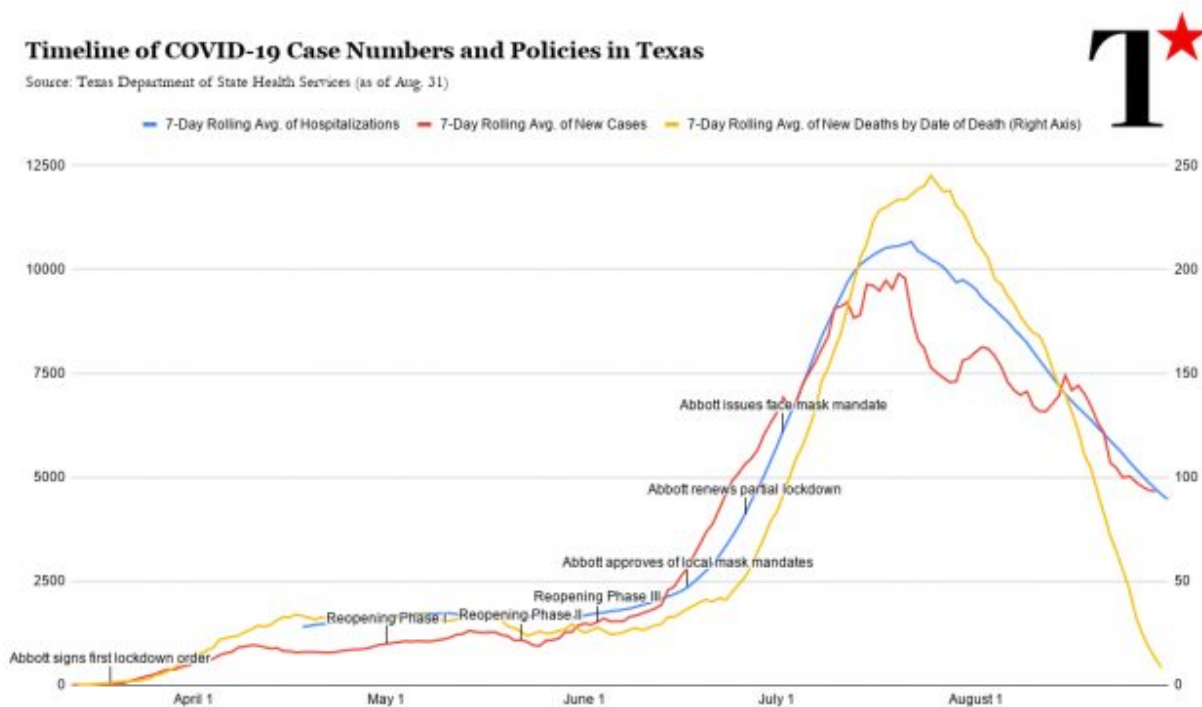


Figure 1: Covid 19 cases, hospitalization case, and death (7 Day Rolling Average) as of 31 August,2020.

## Timeline:

- 4/6 = Collection of all data
- 4/11 = Processing and managing the data.
- 4/18 = Plotting of all possible charts and diagram
- 4/21 = Writing and making the initial draft.
- 5/2 = Presentation and Paper final.

## References:

- Ghinai, I., McPherson, T. D., Hunter, J. C., Kirking, H. L., Christiansen, D., Joshi, K., Rubin, R., Morales-Estrada, S., Black, S. R., Pacilli, M., Fricchione, M. J., Chugh, R. K., Walblay, K. A., Ahmed, N. S., Stoecker, W. C., Hasan, N. F., Burdsall, D. P., Reese, H. E., Wallace, M., ... Uyeki, T. M. (2020). First known person-to-person transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the USA. *The Lancet*, 395(10230), 1137–1144. [https://doi.org/10.1016/S0140-6736\(20\)30607-3](https://doi.org/10.1016/S0140-6736(20)30607-3)
- Li, Q., Guan, X., Wu, P., Wang, X., Zhou, L., Tong, Y., Ren, R., Leung, K. S. M., Lau, E. H. Y., Wong, J. Y., Xing, X., Xiang, N., Wu, Y., Li, C., Chen, Q., Li, D., Liu, T., Zhao, J., Liu, M., ... Feng, Z. (2020). Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus–Infected Pneumonia. *New England Journal of Medicine*, 382(13), 1199–1207. <https://doi.org/10.1056/NEJMoa2001316>
- Morgan Hines. (2021, March 29). *CDC reiterates that Americans should “please limit travel” as US hits 30 million cases of COVID-19*. USA TODAY. <https://www.usatoday.com/story/travel/news/2021/03/29/covid-travel-should-avoided-cdc-continues-advice-trips-surge/7050320002/>
- Yuki, K., Fujiogi, M., & Koutsogiannaki, S. (2020). COVID-19 pathophysiology: A review. *Clinical Immunology*, 215, 108427. <https://doi.org/10.1016/j.clim.2020.108427>