**Introduction:** We are living in a critical era as the numbers of the new COVID\_19 cases and death due to COVID-19 are increasing worldwide and in the US. So far COVID-19 cases are approximately [73 million worldwide including 16 million cases in the United States](https://coronavirus.jhu.edu/map.html). [Mask wearing as part of the social distancing methods](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html) is recommended as to subside the spread of this virus. However, [twelve states in the US have very limited mask wearing requirements and South Dakota has absolutely no requirement](https://masks4all.co/what-states-require-masks/). This project evaluated the effect of mask wearing policy on the COVID-19 burden (i.e. new cases and new deaths). The data from two neighbor states (Georgia and Alabama) with different mask wearing policies where considered to minimize the effect of confounding factors (e.g. weather, demographics). Georgia has a very limited policy only for certain employees while Alabama required mask wearing from July 17th.

**Methods:** All the analysis was done on the subset of the data from July 17th to November 11th. The number of new cases and new deaths were normalized to the population in each state. Timeseries graphs were used to show the trend of new cases and deaths over time and repeated measured ANOVA was used to compare the daily new cases and new death comparing two states.

**Results:** The mean of new daily new cases was higher in Alabama (253.6 daily new cases per 1,000,000) compared to Georgia (195.2 daily new cases per 1,000,000) contrary to what was expected. However, the mean of new daily deaths was lower in Alabama compared to Georgia (3.4 vs. 4.6 cases per 1,000,000 respectively). Timeseries graphs for daily new cases did not show a decline of cases in Alabama compared to Georgia, contrary to what was expected. However, daily new death graph shows that overall Alabama had lower number of deaths and the trend was more stable compared to Georgia. The number of daily new cases was higher in Alabama compared to Georgia contrary to our hypothesis (P- value <0.001), but number of new deaths was lower in Alabama compared to Georgia (P- value = 0.03) aligned with our hypothesis.

**Conclusions and implications:** In conclusion the findings from this research support the hypothesis that mask wearing policy could be associated with lower number of death but not cases of COVID-19. Even though no causality can be inferred, but results support advocating for mask wearing policies to decrease the burden of COVID-19.

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