



Factors Associated with COVID-19 Infections and Deaths in the Gulf Cooperation Council (GCC) Countries: A Time Series Cross-Section Analysis

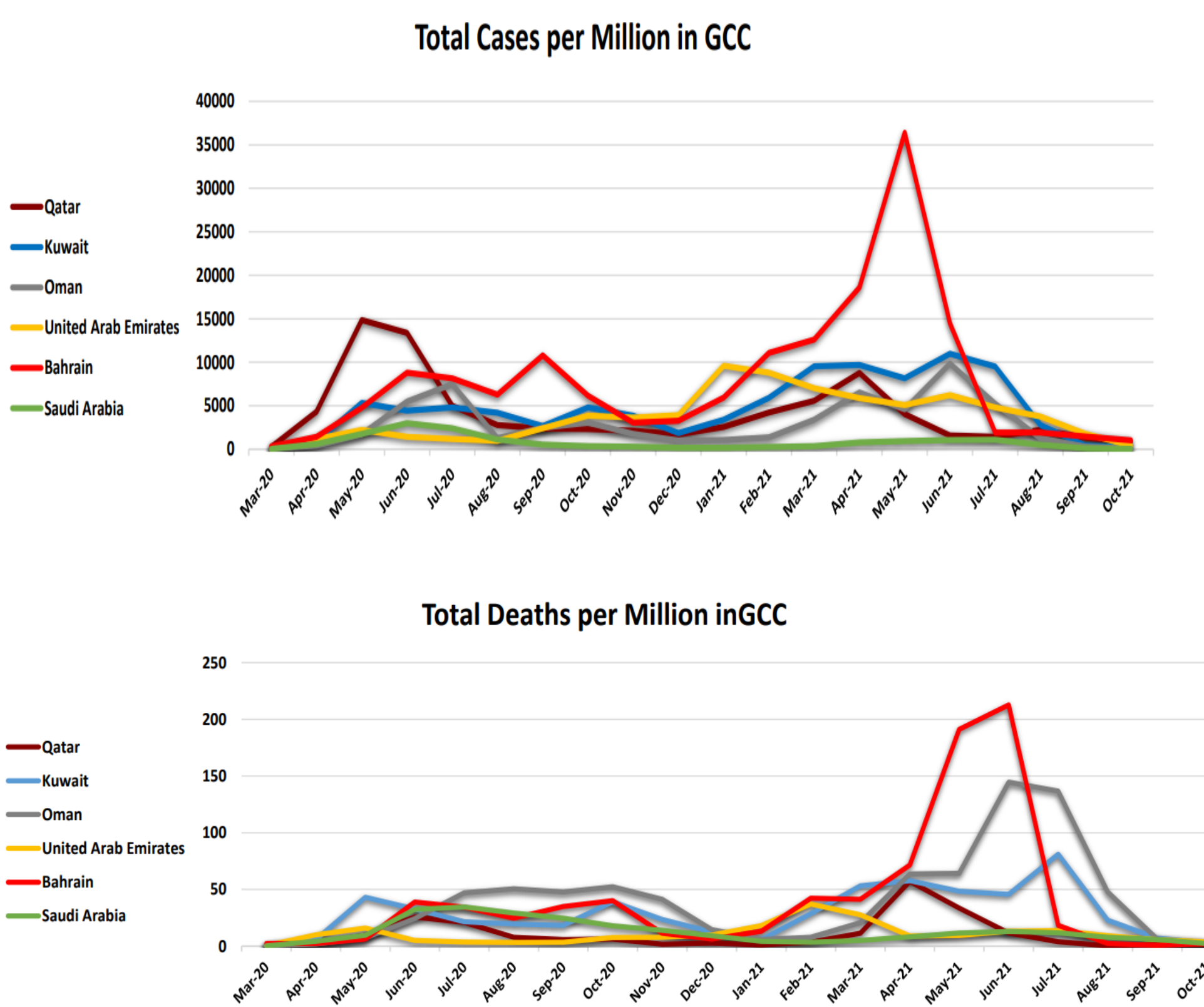
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BACKGROUND

- COVID19 has caused significant health and economic burden globally
- Prevalence of COVID19 infections and deaths has been lower in GCC countries, compared with other high-income nations
- Limited evidence on the role of socio-economic, demographic and governmental interventional factors on COVID19 cases and deaths, especially in GCC countries
- The study aims to investigate trends and factors associated with COVID19 cases and deaths in GCC countries

RESULTS



- COVID-19 cases increased during Mar -Aug 2020 in all 6 countries, it decreased for a while and then started to increase during Jan 2021
- Covid19 deaths increased during May-Dec 2020 in all 6 countries, it decreased for a while and then started to increase in Feb in 2021
- Highest monthly death rate was 222.79 in Bahrain during Jun 2021
- For COVID19 cases
 - +ve correlation for SI, diabetes, age, pop density & Govt. res index
 - -ve correlation for GDP, CVD, containment index, No. of hosp beds
- For COVID19 deaths
 - Hosp beds, GDP showed -ve corr.
 - SI showed +ve corr

CONCLUSION

- In GCC countries, COVID19 cases and deaths increased at the start of pandemic, then decreased and again started to increase in mid-2021
- Both COVID19 cases and deaths were associated with a no. of socio-economic, demographic and Govt. interventional factors
- Continuous monitoring and reporting were crucial to contain the pandemic in the region
- Strengths – first research in the GCC countries on the topic
- Limitations – Excluded the period of Omicron variant

REFERENCES

- Benerjee et al. 2021
- COVID19 – Govt. Response Tracker, 2020
- Goh et al. 2020
- Younis et al 2021

METHODS

- Publicly available data source – World o meter, World Bank, Oxford COVID19 Government Response Tracker, from Mar. 2020 to Oct. 2021
- Daily numbers of COVID19 cases and deaths converted to monthly rate (per million population) for 6 GCC countries
- Included 2 outcome variables & 12 independent variables
- Descriptive analysis & Spearman rank correlation
- Multivariate analysis to investigate association between COVID19 cases and deaths and socio-economic, demographic and interventional factors, adjusted for time trend
 - Negative Binomial Regression model

