Since the first suspected case of the coronavirus disease-2019 (COVID-19) on 1 December 2019 in Wuhan, China, a total of 35,192 confirmed cases have been reported in the UAE up to 1 June 2020, which is about 0.5% of the total confirmed cases worldwide. The first confirmed case with COVID-19 in the UAE was announced on 29 January 2020. Based on publicly available epidemiological data for the UAE from 29 January 2020 to 1 June 2020, the research team provide estimates of the main epidemiological parameters. In particular, they provide an estimation of the fatality and recovery ratios, with 90% confidence intervals as the outbreak evolves. The study involves the impact of lockdown on these numbers using existing analysis tools. The developed model depends on the Kermack-Mckendrick Epidemic Model, which is based on relatively simple assumptions on the rates of flow between different classes of members of the population. Kermack- Mckendrick Epidemic Model has been used in epidemic modeling of SARS during the period 2002-2003. In this model, the population was divided into two groups including Susceptible individuals (S) and Infective individuals (I), assuming no birth, death, immigration or emigration. Therefore, N (number of population) = S(t) + I(t), where t is the time in days. The (SI) model later on is complexed with other facts including recovered people and death, with their rates (Rr) and (Rd). Furthermore, Machine Leaning (ML) forecasting models that have been used for COVID-19 pandemic have also been considered.

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If you are interested in sharing your COVID-19 related research, please send your contribution to research.office@uaeu.ac.ae