Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

changes in population mobility patterns across the province of Ontario, Canada and the state of California, U.S.A. Data from the Ontario-Marginalization Index at the Census Subdivision (CSD) level, as well as the California Healthy Places Index (HPI) at the Census Tract (CT) level, were used to determine the census geographical units in the lowest and highest quantiles of socioeconomic indicators during the COVID-19 pandemic.

Ontario was under three province-wide stay-at-home orders between March 17, 2020 and June 2, 2021. California was under statewide stay-at-home orders from March 19, 2020 to January 25, 2021. Weekly data from March 15, 2020 to June 19, 2021 were analyzed for Ontario, and weekly data were analyzed from March 15, 2020 to March 20, 2021 for California. We used the percentage of time spent away from home as the indicator for mobility and analyzed differences in mobility trends between the populations grouped by material deprivation score (Ontario) and HPI scores.

Results: In Ontario, populations with highest material deprivation spent an average of 25.7% of time away from home, while the populations with lowest material deprivation spent an average of 22.6% of their time away from home (difference: 3.1%, p <0.001) across the entire duration of the COVID-19 pandemic.

Similarly, in California, the least advantaged populations spent an average of 30.0% of time away from their home, while the most advantaged populations spent 24.3% of their time away from home (difference: 5.7%, p <0.001).

Conclusion: Across both geographical locations, the least advantaged populations observed highest mobility compared to the most advantaged populations throughout the pandemic. This indicates that populations in communities with the least advantage in Ontario and California may have less ability or inadequate resources to comply with stay-at-home orders, leading to increased risk of COVID-19 exposure among these more mobile populations. Strategies to protect those most at risk of exposure to COVID-19 are imperative for controlling spread within communities.

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Characteristics and Early Predictors of Intensive Care Unit Admission among COVID-19 Patients in Qatar

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Purpose: This study aimed to explore the early predictors of intensive care unit (ICU) admission and in-hospital mortality among patients diagnosed with Coronavirus disease (COVID-19).

Methods & Materials: This was a case-control study of adult patients with confirmed COVID-19. Cases were defined as patients admitted to ICU during the period February 29 - May 29, 2020. For each case enrolled, one control was matched by age and gender. Univariate and multivariate logistic regression models were used to identify the predictors for ICU admission and in-hospital mortality among the COVID-19 patients.

Results: A total of 1560 patients with confirmed COVID-19 were included. Each group included 780 patients with a predominant male gender (89.7%) and a median age of 49 years (interquartile range, IQR=18). Predictors independently associated with ICU admission included having cardiovascular disease (CVD) (adjusted odds ratio (aOR)=1.64, 95% confidence interval (CI): 1.16 - 2.32, p= 0.005), diabetes (aOR=1.52, 95% CI: 1.08 - 2.13, p= 0.016), body mass index ≥30 kg/m2 (aOR=1.46, 95% CI: 1.03-2.08, p= 0.034), lymphocytes ≤0.8 × 103/μL (aOR=2.69, 95% CI: 1.80-4.02, p<0.001), aspartate aminotransferase (AST) >120 U/L (aOR= 2.59, 95% CI: 1.53-4.36, p<0.001), ferritin >600 μg/L (aOR=1.96, 95% CI: 1.40-2.74, p<0.001), C-reactive protein (CRP) >100 mg/L (aOR=4.09, 95% CI: 2.81-5.96, p<0.001), and dyspnea (aOR=2.50, 95% CI: 1.77-3.54, p <0.001). Similarly, significant predictors of mortality included CVD (aOR=2.16, 95% CI: 1.32- 3.53, p=0.002), diabetes (aOR=1.77, 95% CI: 1.07-2.90, p=0.025), cancer (aOR=4.65, 95% CI: 1.50-14.42, p= 0.008), lymphocytes ≤0.8 x,103/μL (aOR=2.34, 95% CI: 1.45-3.78, p= 0.001), and AST >120 U/L (aOR= 1.89, 95% CI: 1.04-3.43, p=0.036).

Conclusion: Having CVD, diabetes, lymphopenia, and increased AST were independent predictors for both ICU admission and in-hospital mortality in patients with COVID-19. In addition, obesity, high ferritin, and CRP levels were also associated with increased risk of ICU admission, while cancer was strongly associated with in-hospital mortality. Early identification and monitoring of patients at risk is essential in planning the level of care needed to prevent delay in medical intervention.

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Early phase of COVID-19 epidemic in Albania

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Purpose: The index case of COVID-19 was diagnosed on March 8th with symptoms onset identified on March 6th, with a travel history within Italy. During the first month the number of identified imported cases was 25. The first 291 laboratory-confirmed cases of the COVID -19 outbreak are used to characterize the epidemiological pattern and estimate the epidemiological parameters such as serial interval, basic and effective reproduction numbers and to evaluate the effectiveness of first timely disease spread containment measures.

Methods & Materials: Epidemiological data were collected through case-based disease COVID -19 surveillance, outbreak investigation and contact tracing data for every confirmed case comprising information on demographics, travel history, date of symptom onset, clinical symptoms, laboratory results, hospitalization, and contacts details. Estimates of the reproduction number and serial interval were performed in R statistical software using R packages developed by the R Epidemics Consortium.

Results: Public health authorities were able to identify and trace an average of 10 close contacts per for every positive case. The number of transmission events reported per infector ranges from 1 to 16, with 30% having two secondary cases per infector. The median value of every positive case was with 2 secondary infected cases (mean 3.3, standard deviation 3.2). Based on 43 pairs of primary infectors and secondary cases the mean serial interval was estimated 4.8 days (standard deviation 3.9). The basic reproduction number has been estimated at 2.19 (95% CI 1.6 to 2.8), while effective reproduction number showed a decreasing trend by the second week and reaching a plateau around the critical value during the first month. The social distance measures such as were im-