

# SCIENTIFIC RESEARCH MONITORING ON COVID-19

28 OCTOBER 2020

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# SCIENTIFIC RESEARCH MONITORING ON COVID-19

## (ISSUE 539 )

Abu Dhabi Public Health Center (ADPHC) is gathering the latest scientific research updates and trends on coronavirus disease (COVID-19) in a daily report. The report provides summaries on breakthrough or updated research on COVID-19 to allow health care professionals and public health professionals get easy and fast access to information.

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Note : All articles presented in this report represent the authors' views and not necessarily represents Abu Dhabi Public Health Center views or directions. Due the nature of daily posting , some minor language errors are expected.

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# RESEARCH UPDATES

The views and opinions expressed in this report are those of the authors and do not reflect the official policy or position of the Abu Dhabi Public Health Center (ADPHC).

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## Epidemiology

**Population Migration, Confirmed COVID-19 Cases, Pandemic Prevention, and Control: Evidence and Experiences from China**

## Epidemiology

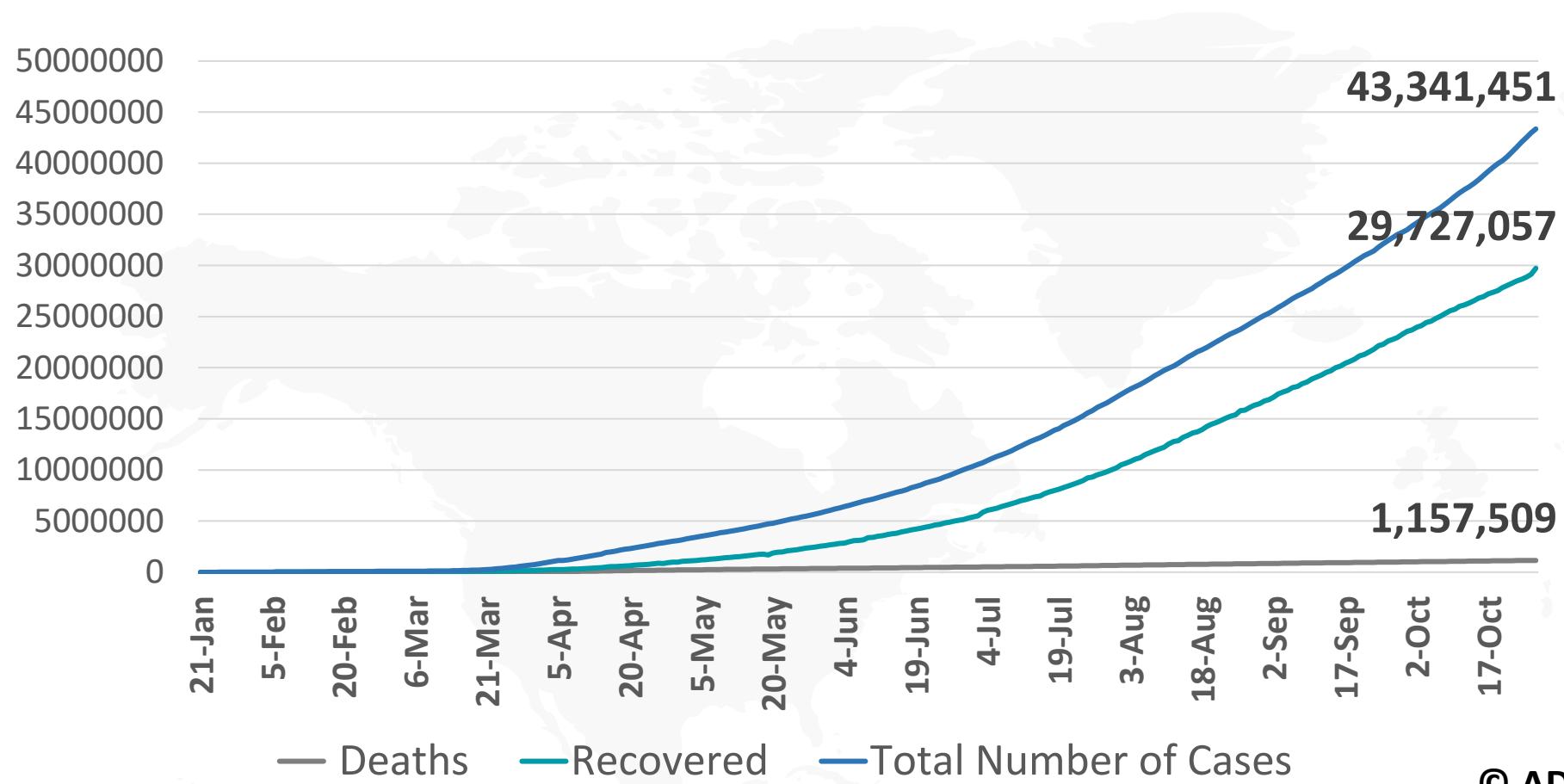
**Impact of Social Distancing Measures on Coronavirus Disease Healthcare Demand, Central Texas, USA**

## Clinical Features

**Tinnitus and Equilibrium Disorders in COVID-19 Patients: Preliminary Results**

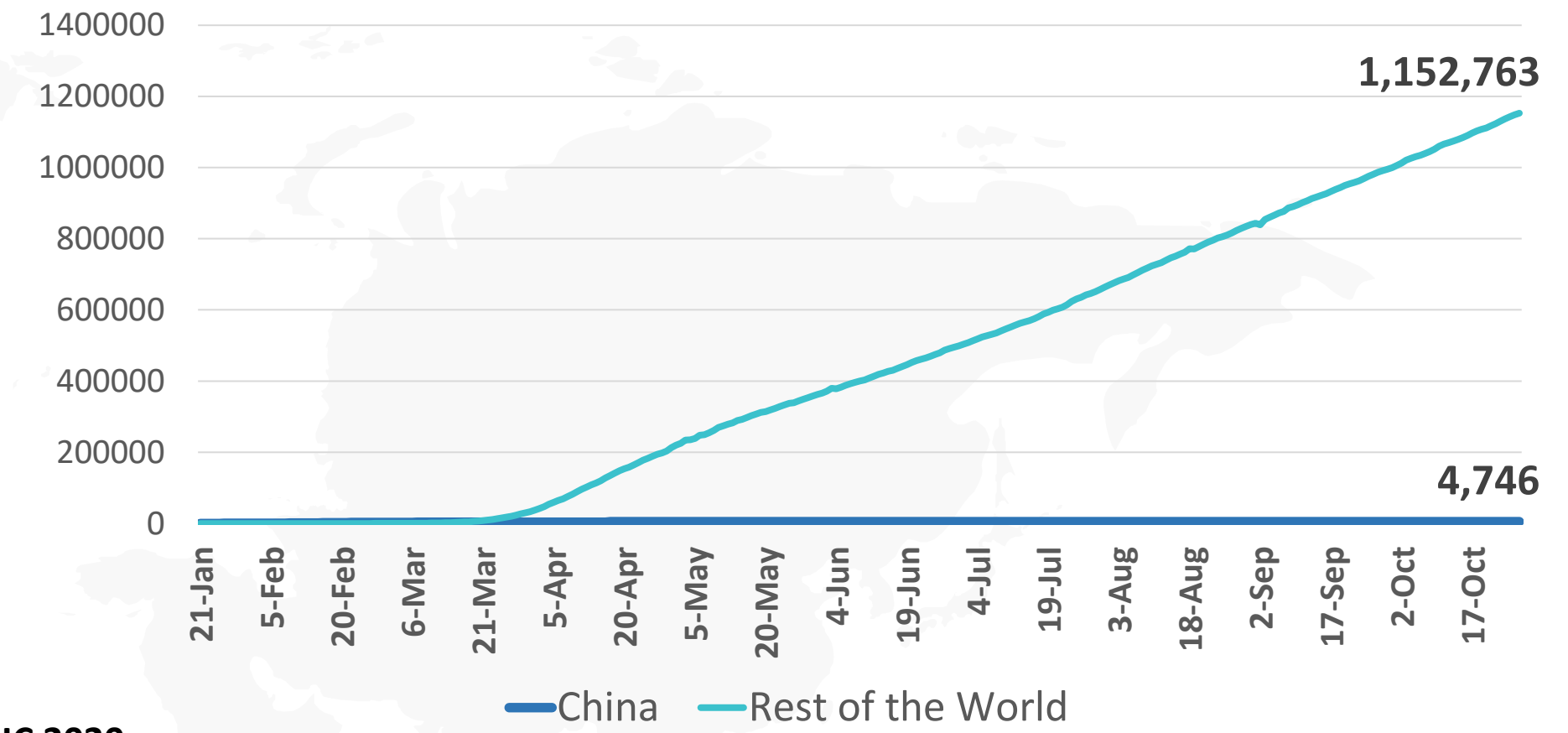


**Figure 1: Total Number of Infected, Recovered, and Death Cases**

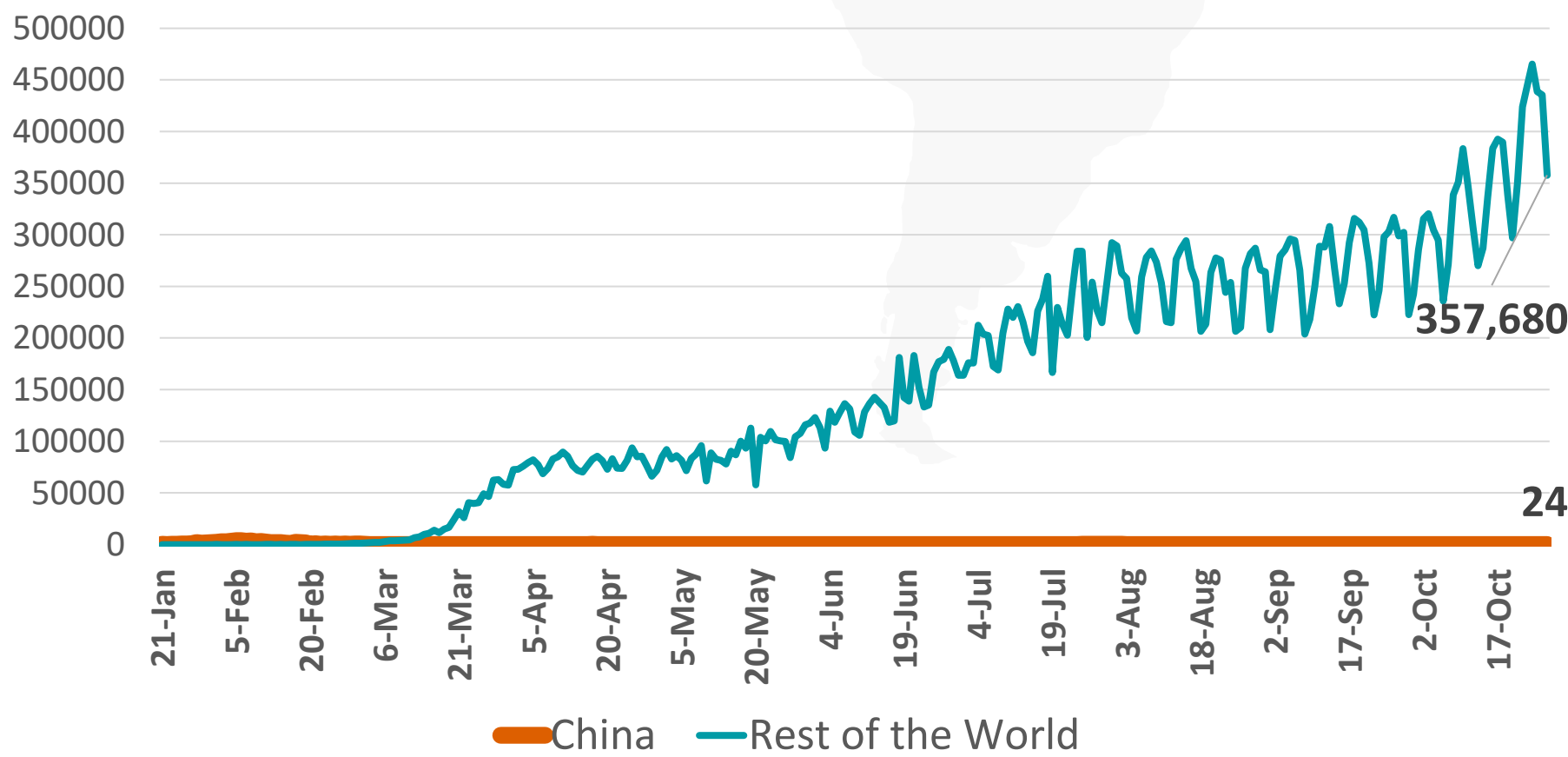


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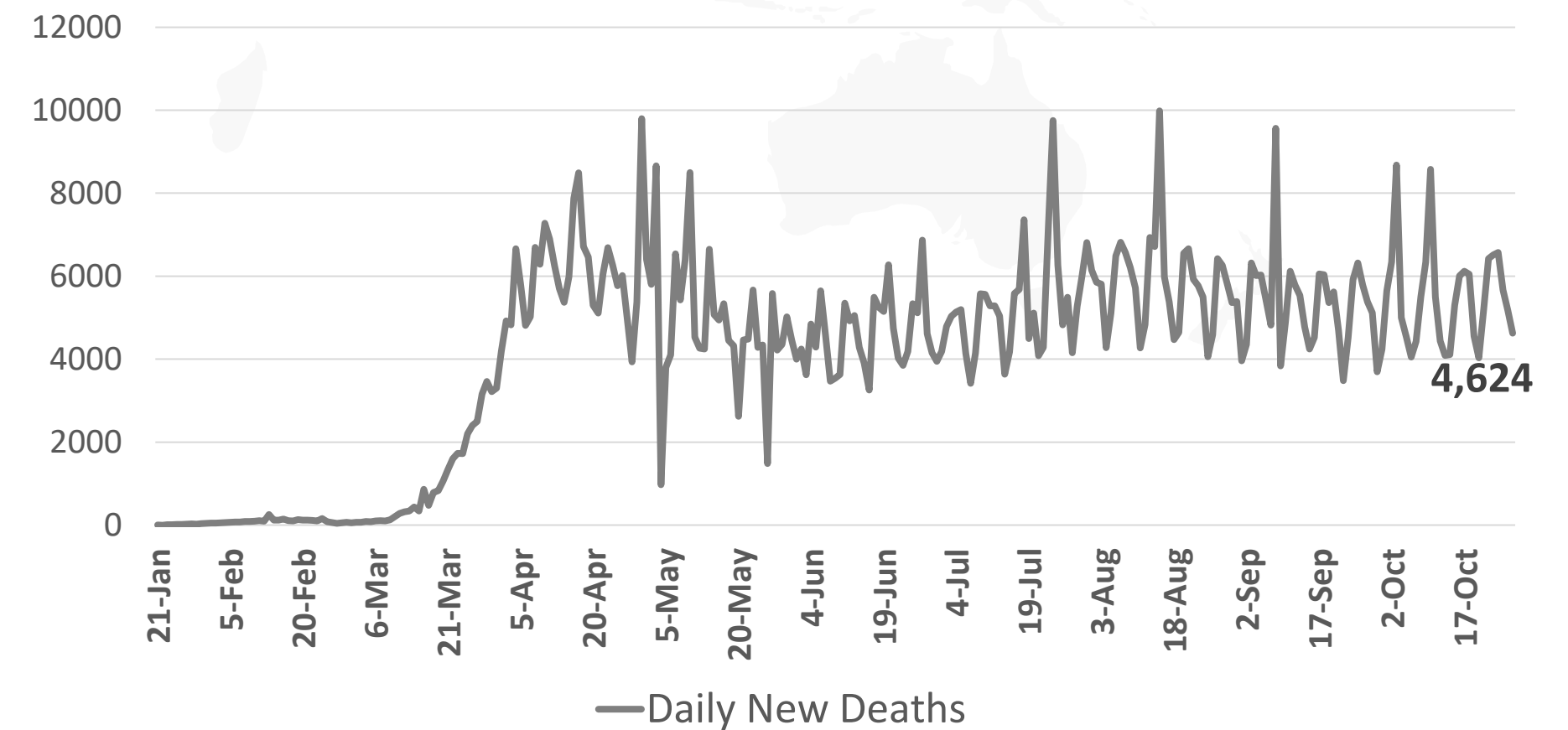
**Figure 3: Total Number of Death Due to COVID-19 (china and result of the world)**



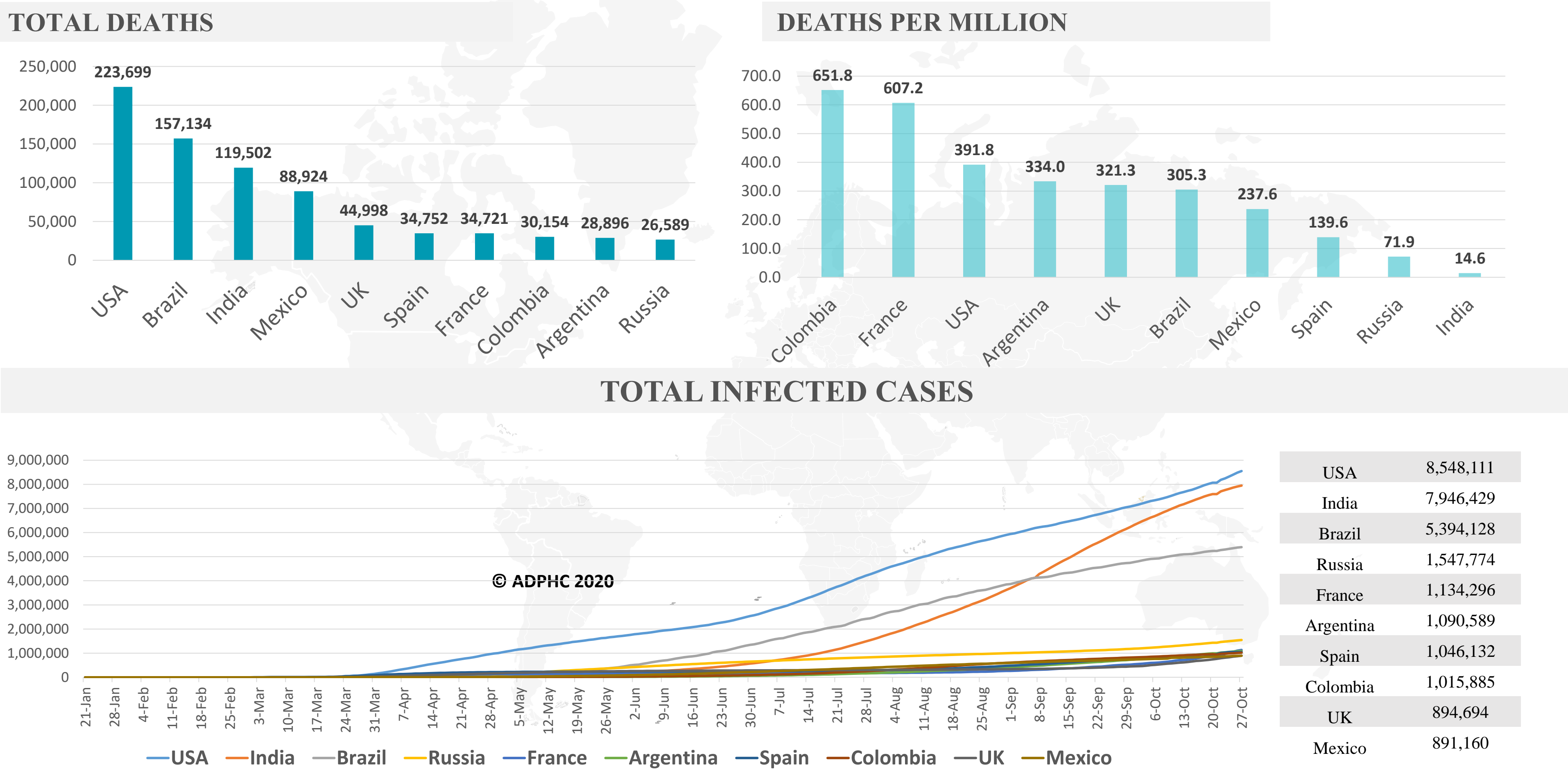
**Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)**



**Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)**



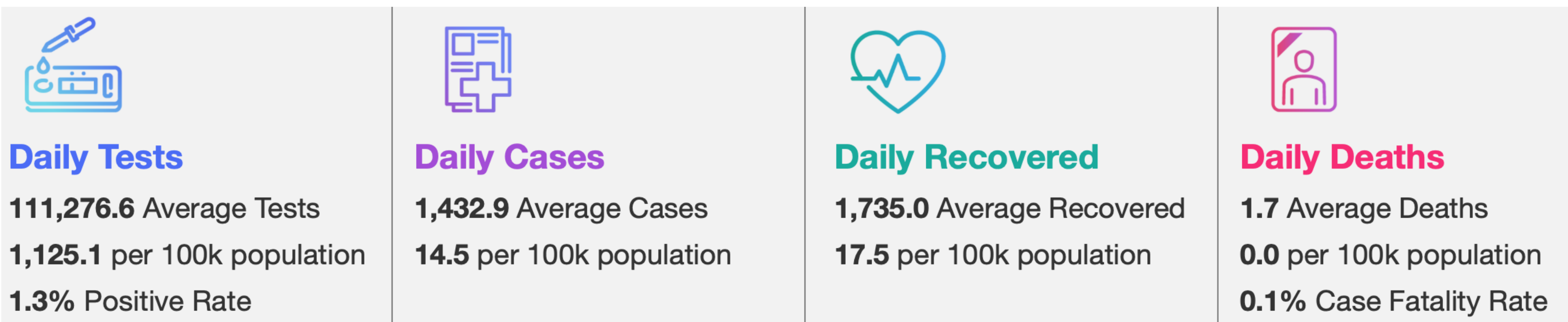
## Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19



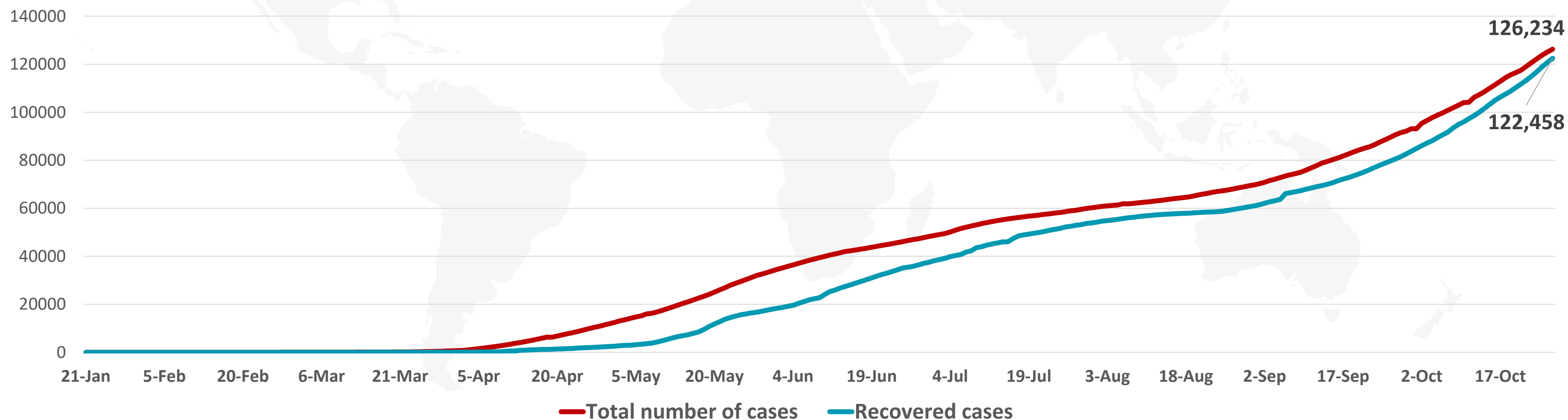
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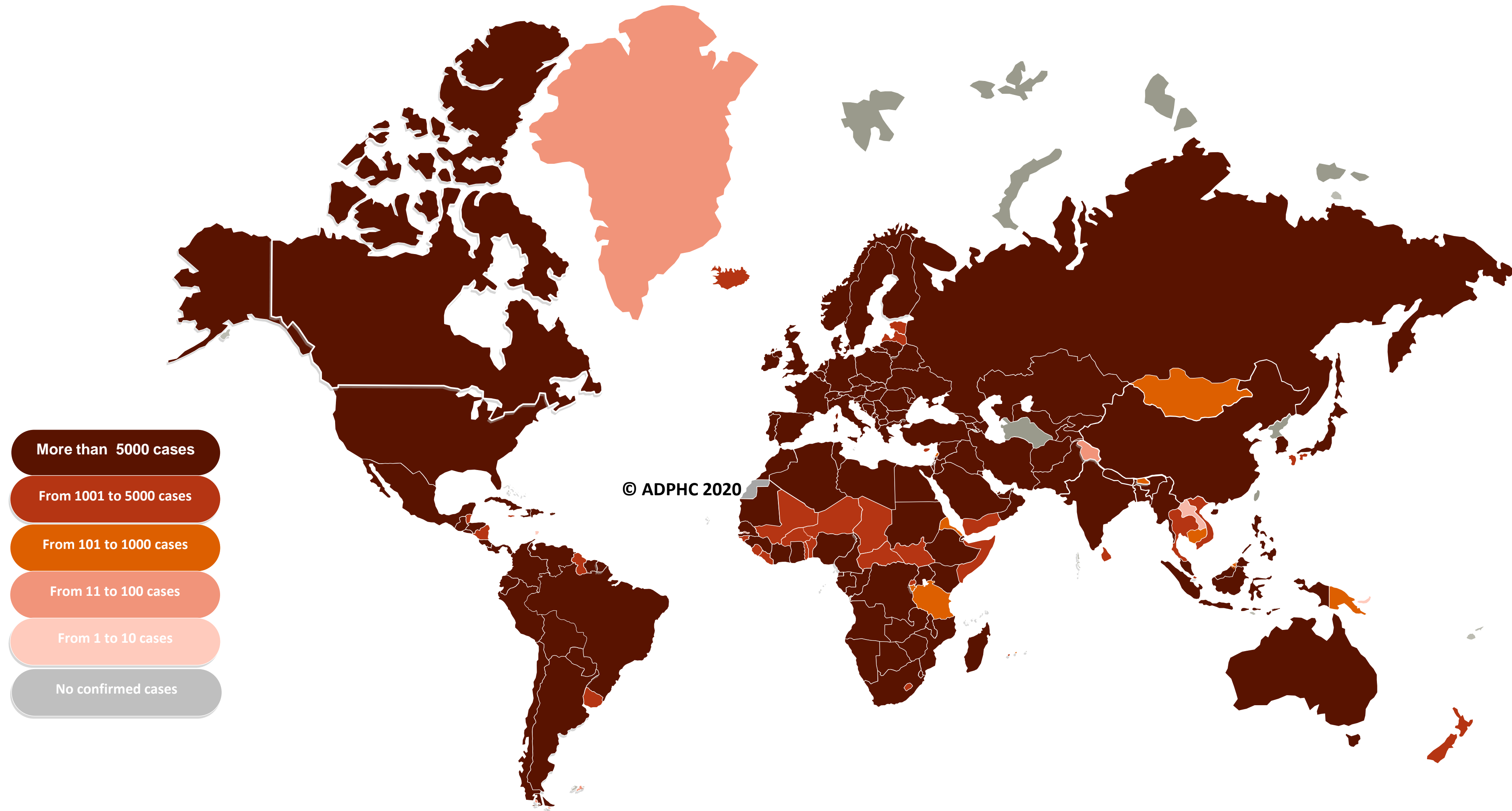
**Figure 6: COVID-19 Status in the UAE** (Federal Competitiveness and Statistics Authority Dashboard)



## TOTAL NUMBER OF INFECTED AND RECOVERED CASES DUE TO COVID-19 REPORTED BY THE UAE



## Figure 7A : Global Distribution of COVID-19 Cases



More than 5000 cases

From 1001 to 5000 cases

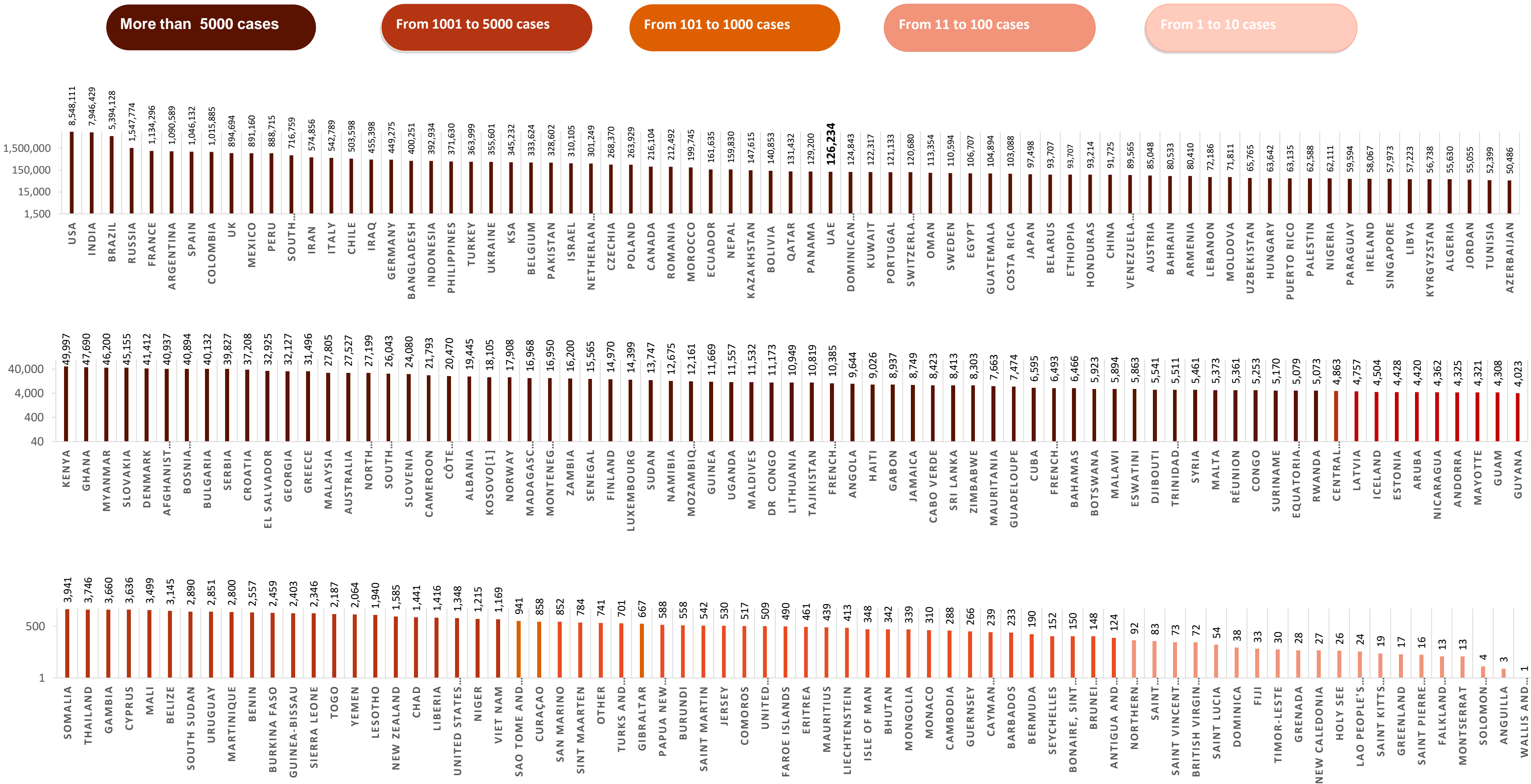
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

## Figure 7B: Bar Chart Illustrates the Global Distribution of COVID19 Cases



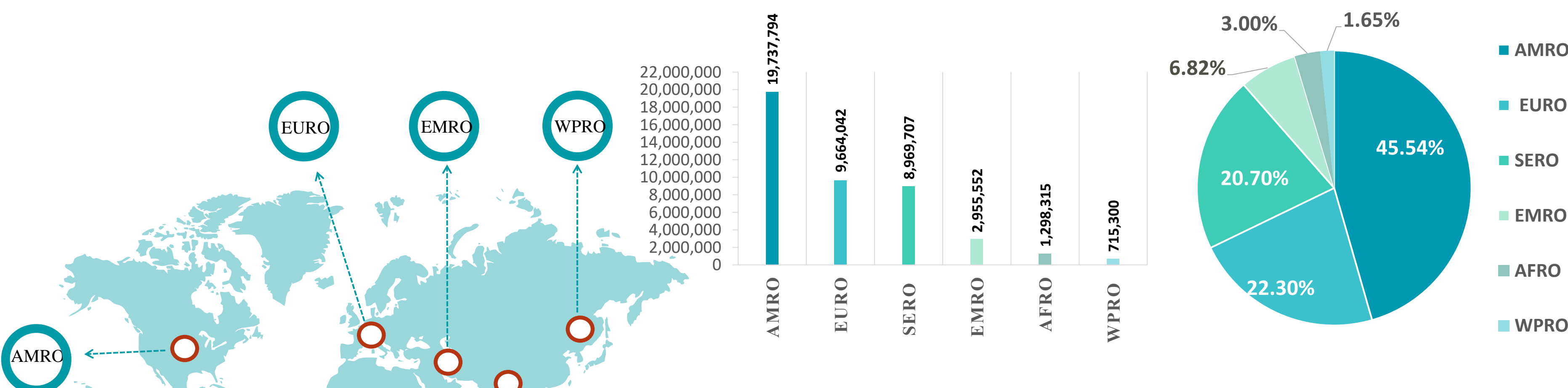
Other\*: includes cases and deaths reported under the international conveyance(Diamond Princess)



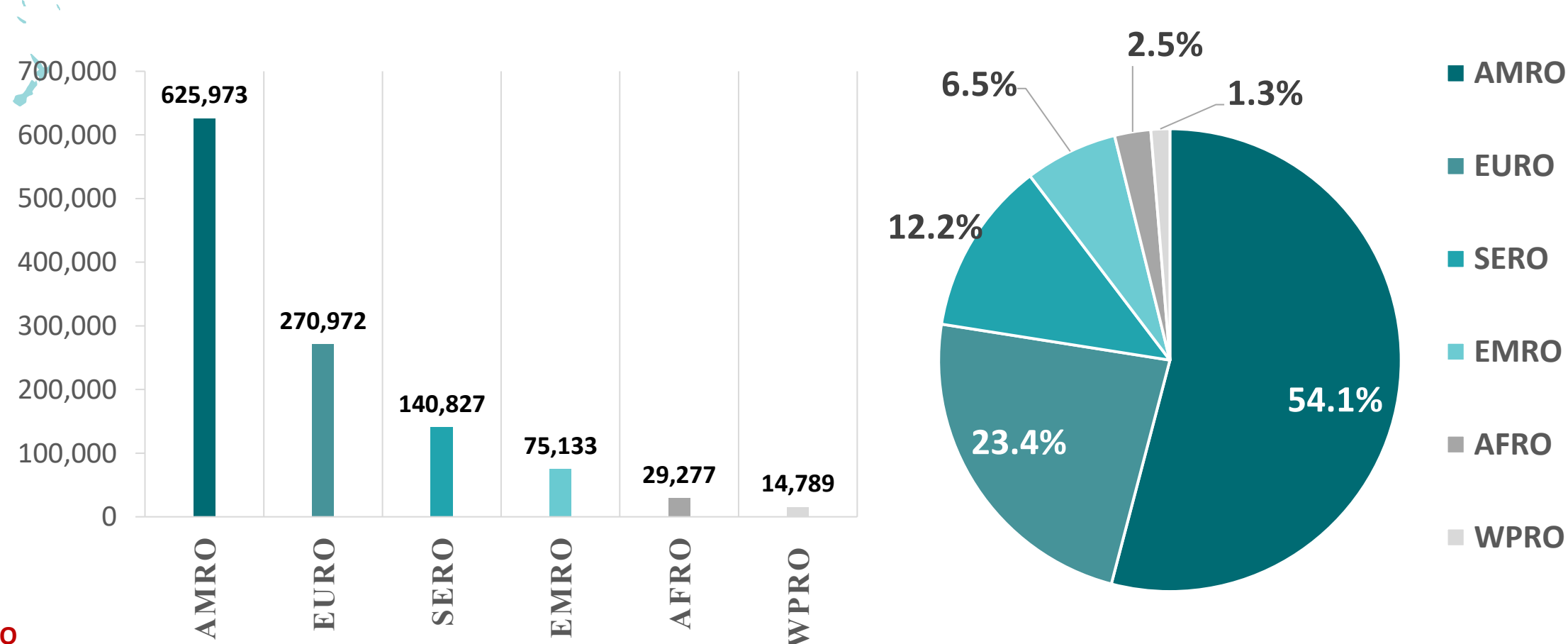


## Figure 8: Global Distribution of COVID-19 Cases per Region

### INFECTED

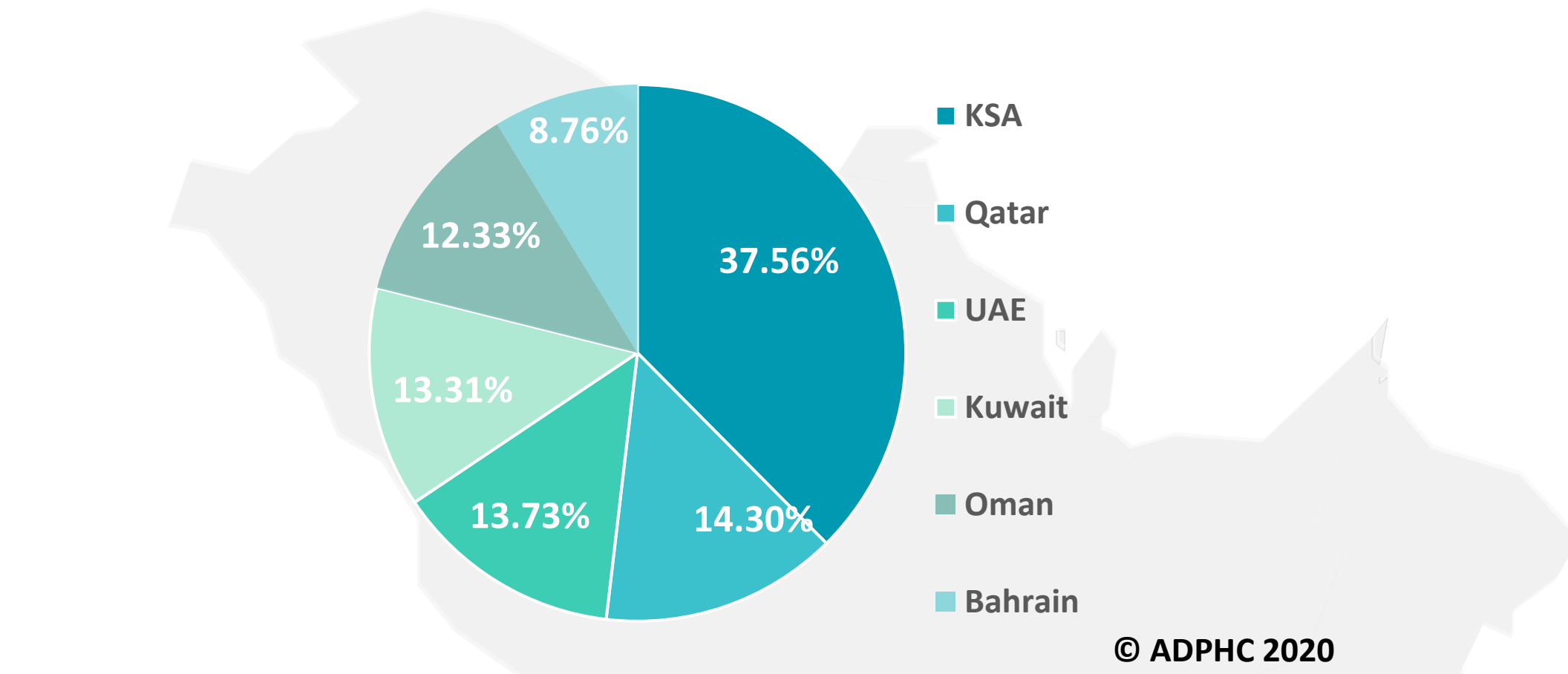


### DEATHS

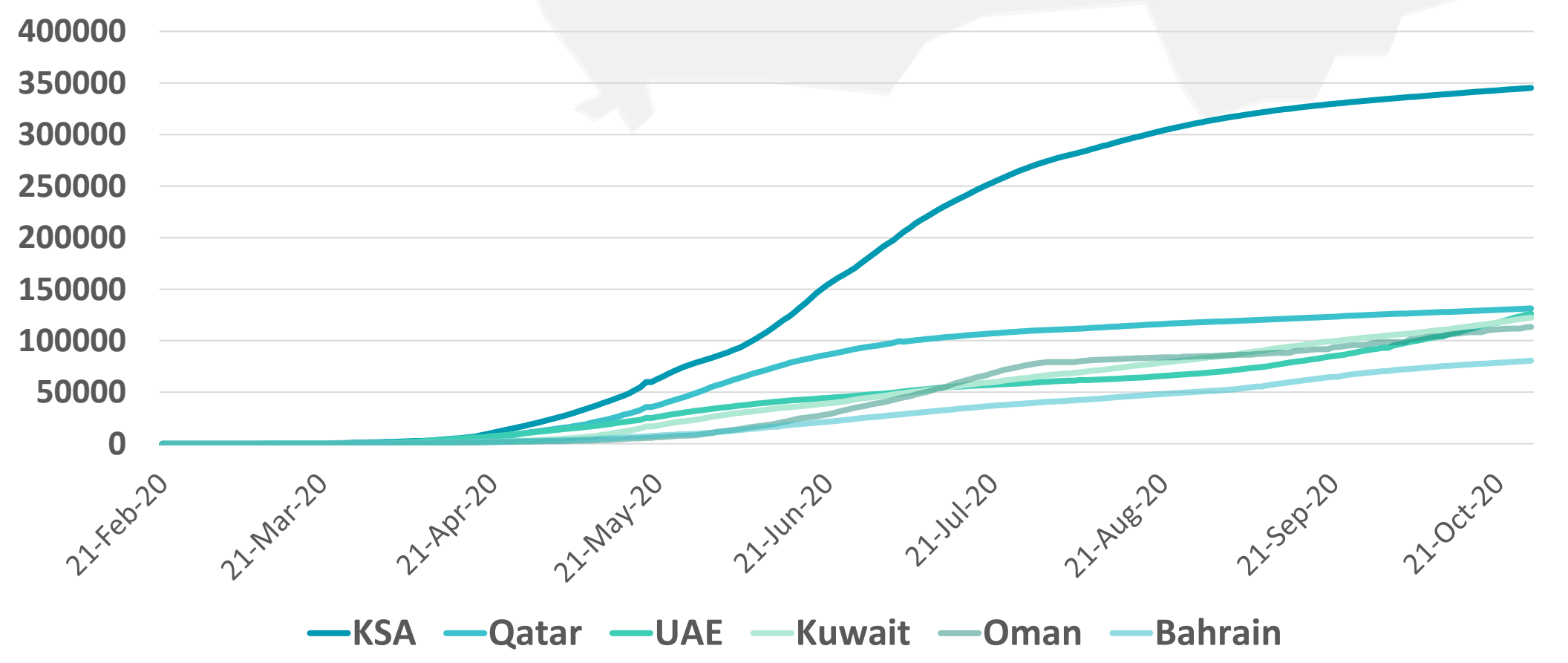
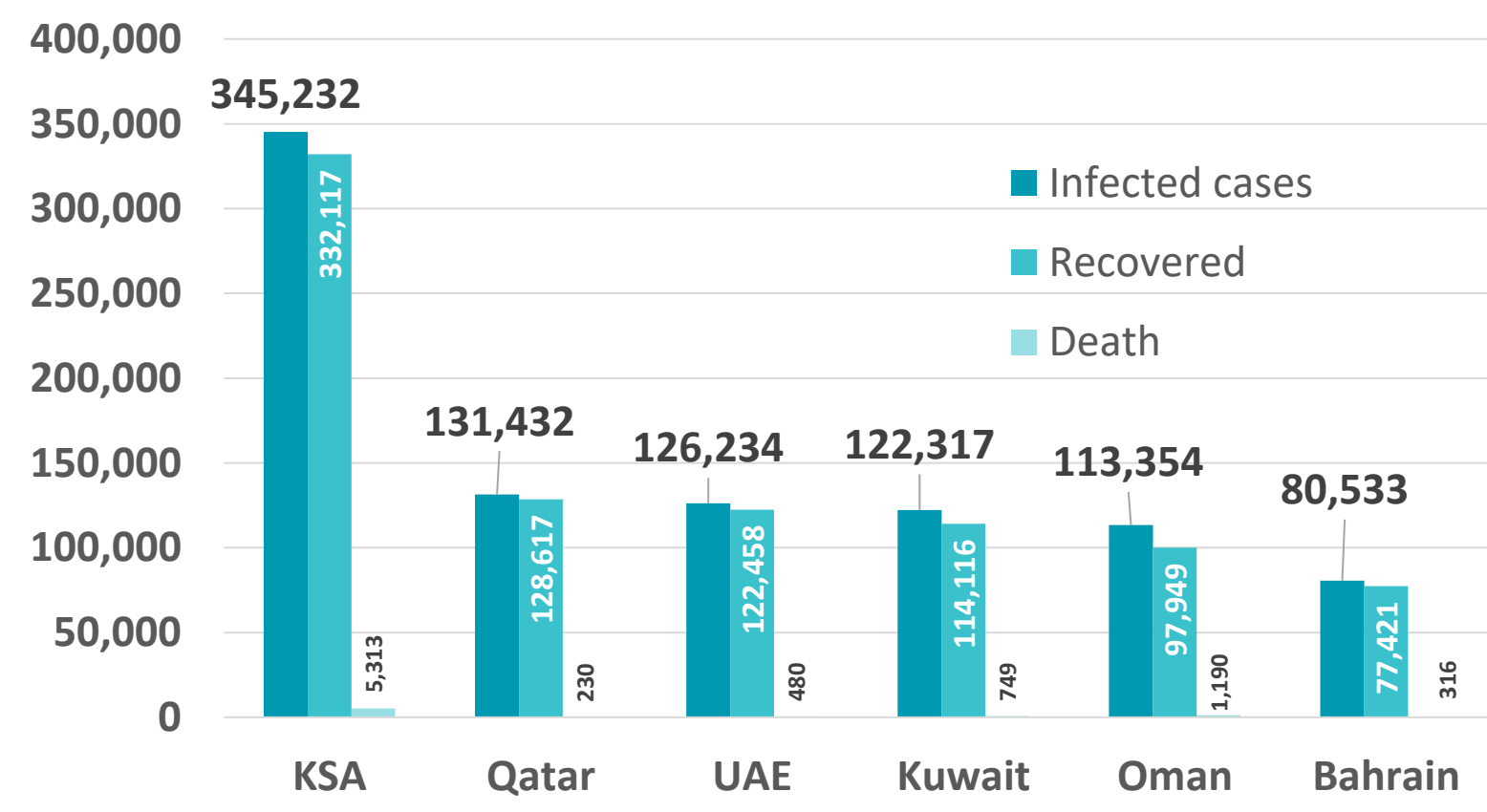


## Figure 9: Comparative Analysis of the Distribution of COVID-19 Cases in GCC Countries

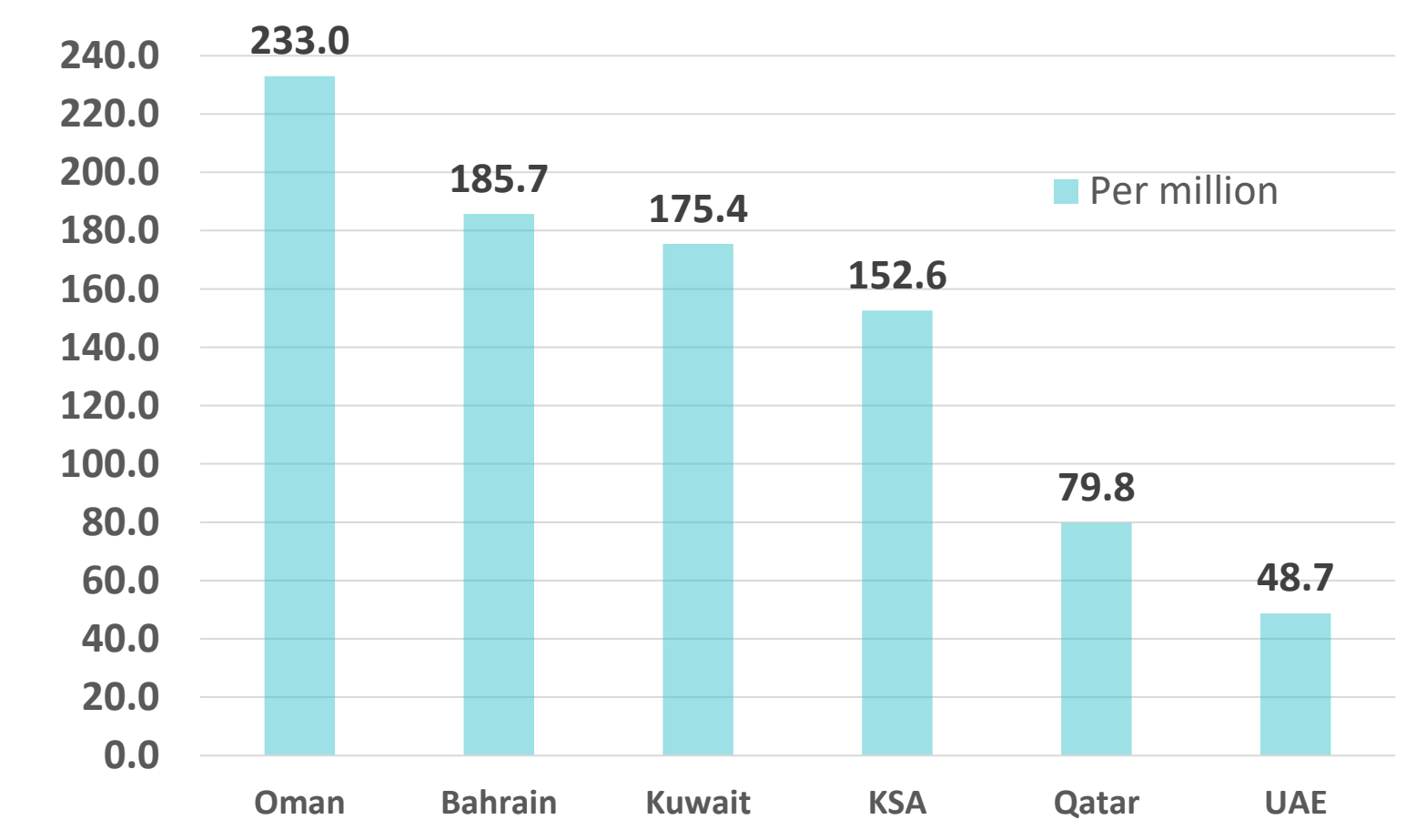
### TOTAL NUMBER OF INFECTED CASES



### TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



### DEATHS PER MILLION



Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: [John Hopkins](#), [WHO](#)

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هذه الوثيقة مملوكة لمركز أبوظبي للصحة العامة، ولا يجوز استخدامها لغير الأغراض المخصصة لها. ويحظر استخدام أو إعادة إنتاج هذه الوثيقة بدون إذن

## Figure 10: Comparative Analysis of the Distribution of COVID-19 New Cases in GCC Countries

### UAE



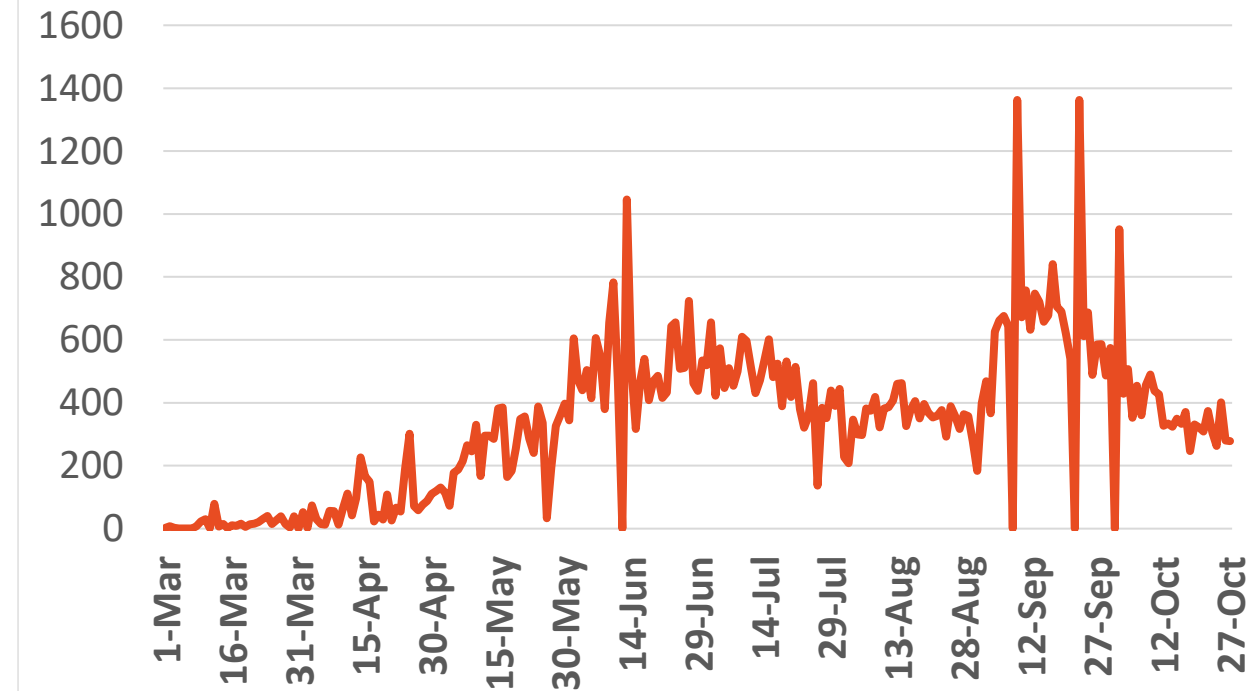
Source : National Emergency Crisis and Disaster Management Authority

### KSA



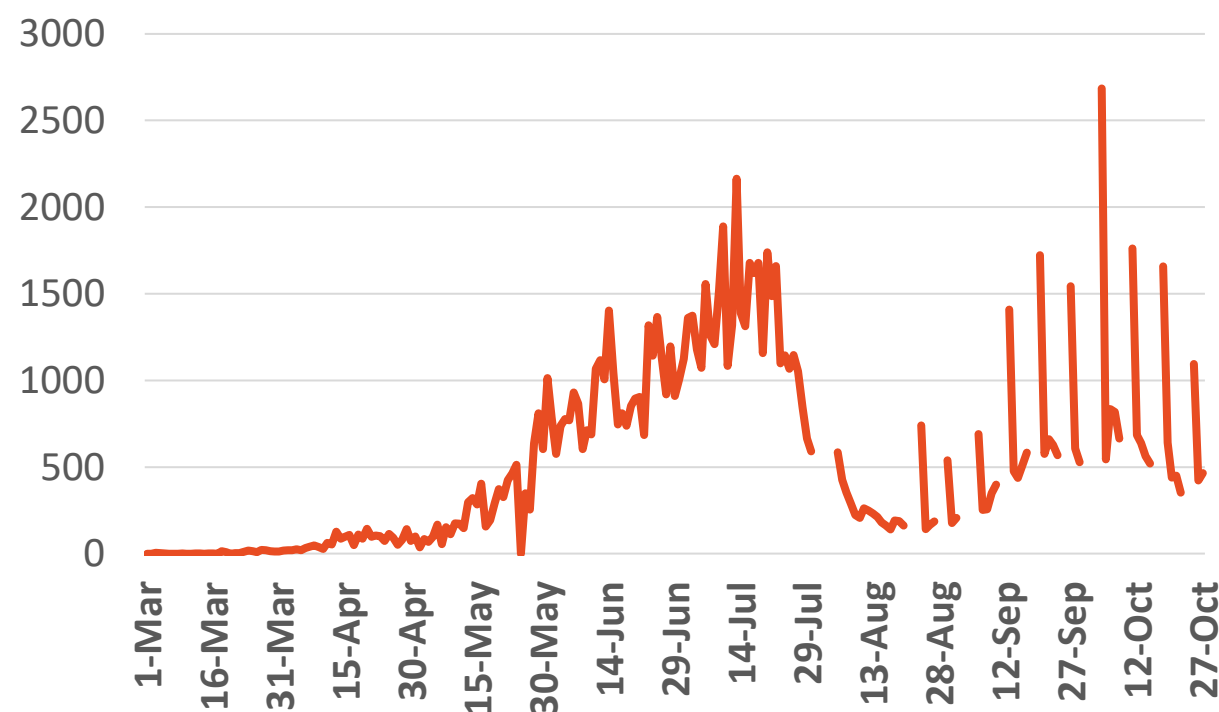
Source : KSA ministry of health

### Bahrain



Source :WHO

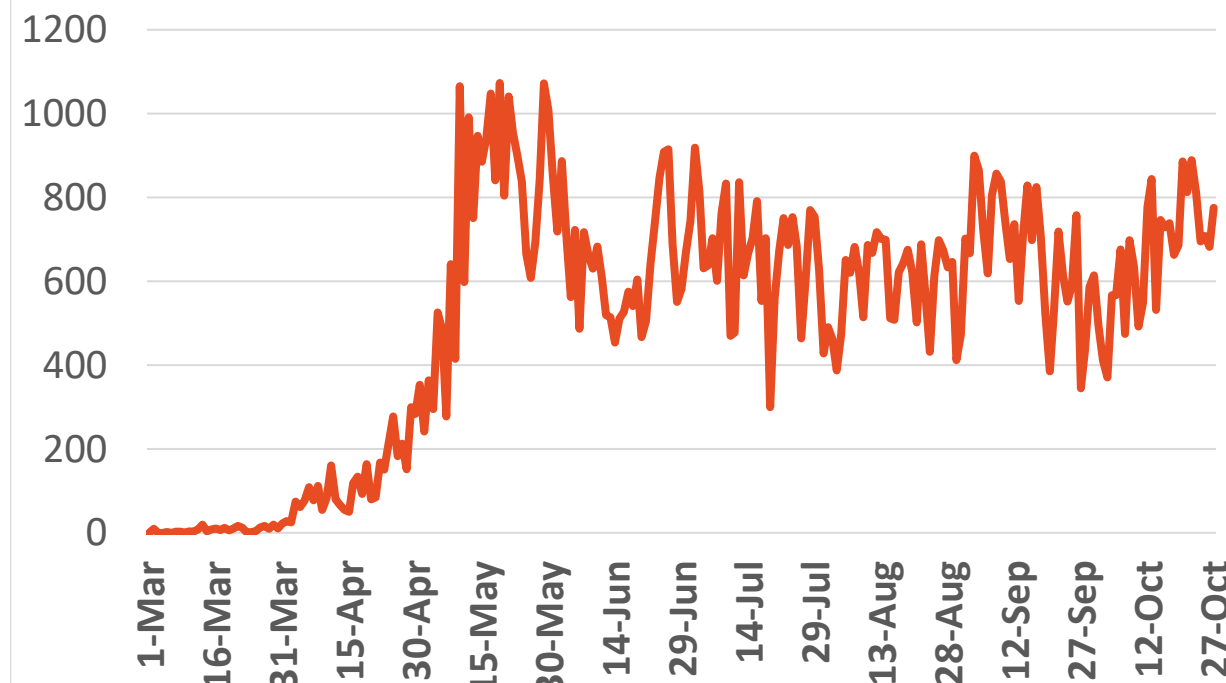
### Oman



Source :Oman ministry of health

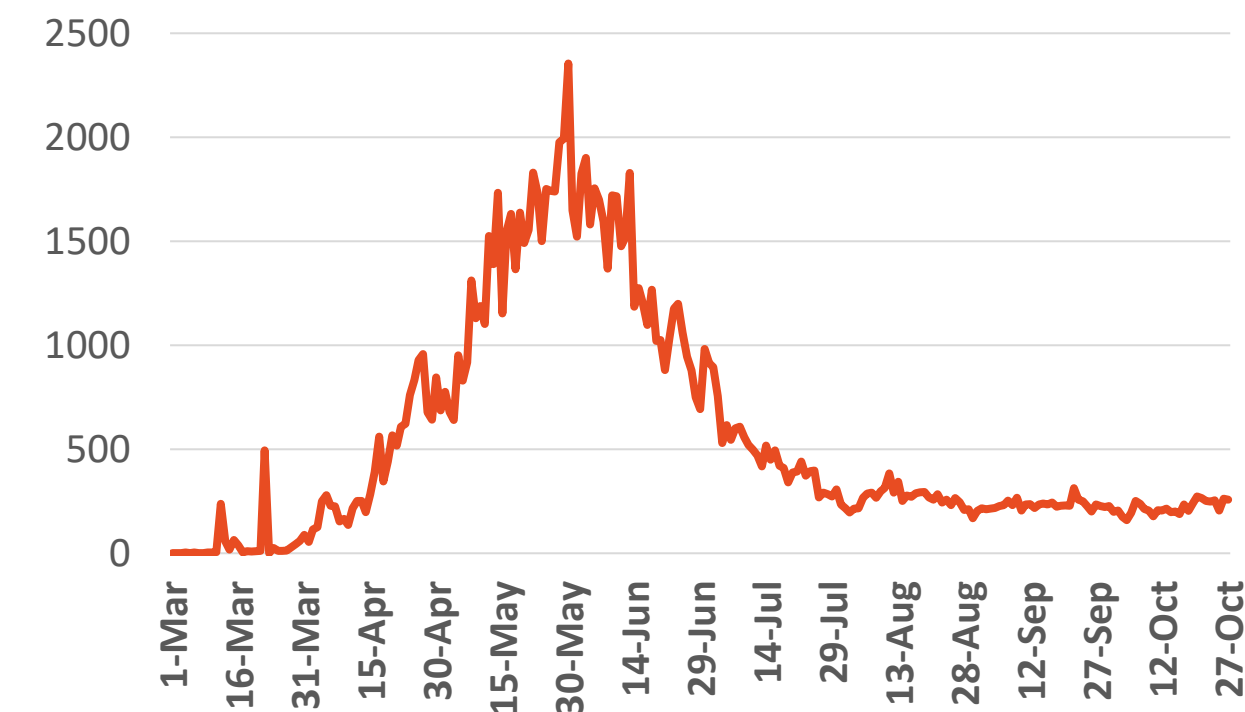
### Kuwait

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Source : Kuwait ministry of health

### Qatar

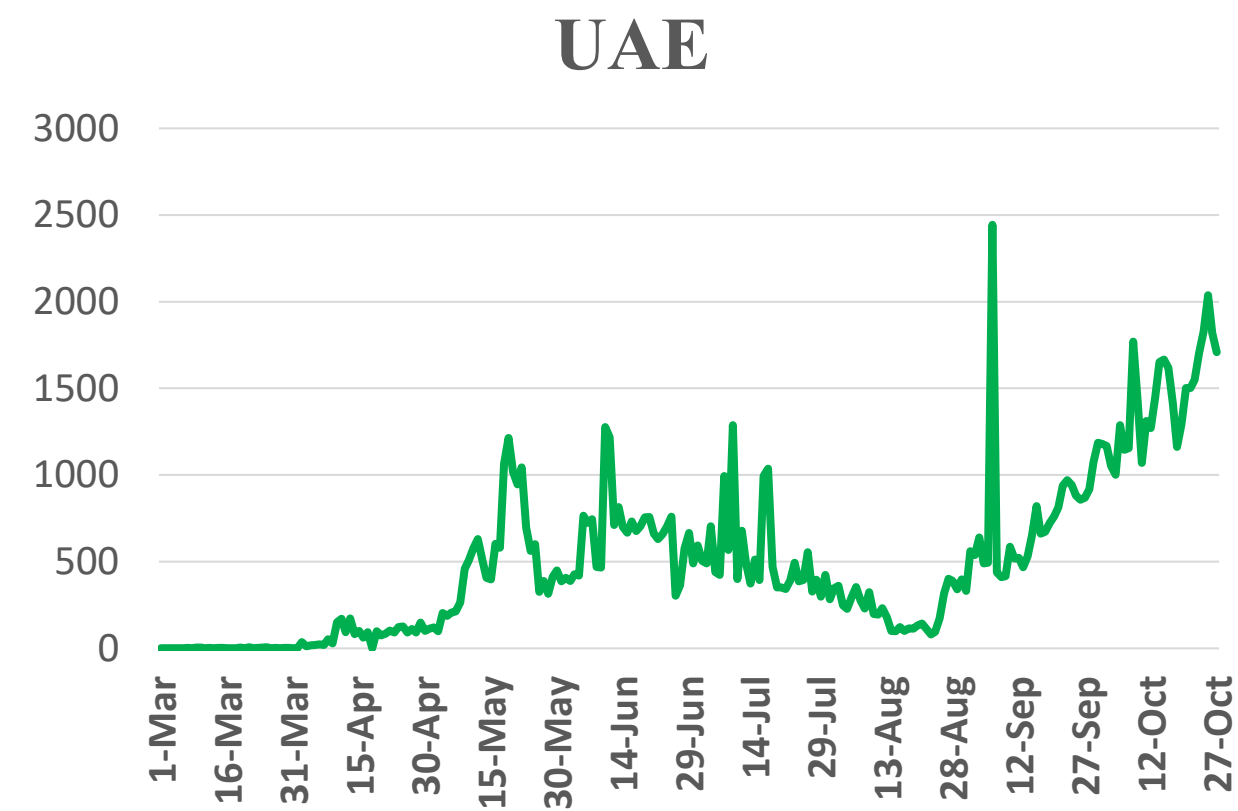


Source : Qatar ministry of health

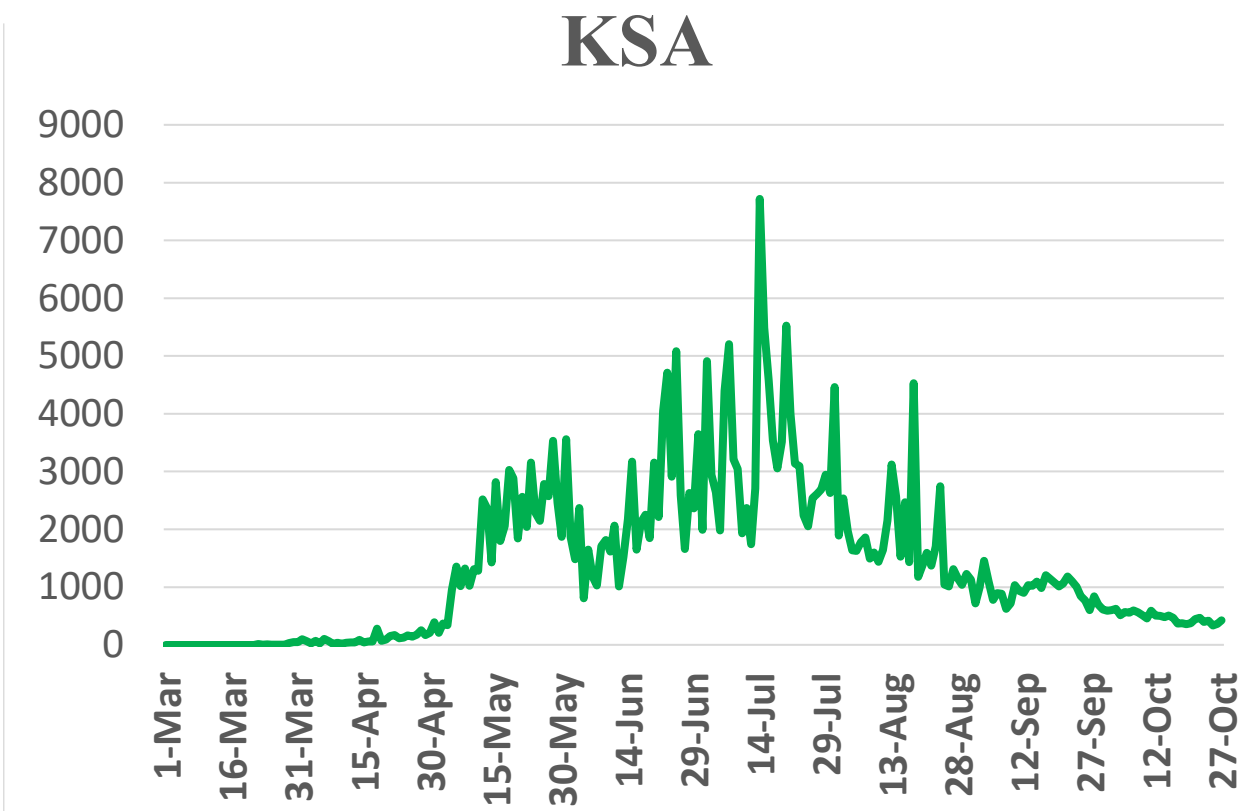
\*No announced statistic data from 31 July to 4 August, 21,23,28,30 August 2, 4, 5,11,12,18,19,25, 26,30 September,1,2,9,10,16,17,23 & 24 October  
\*No announced statistic data on weekends and official holidays.



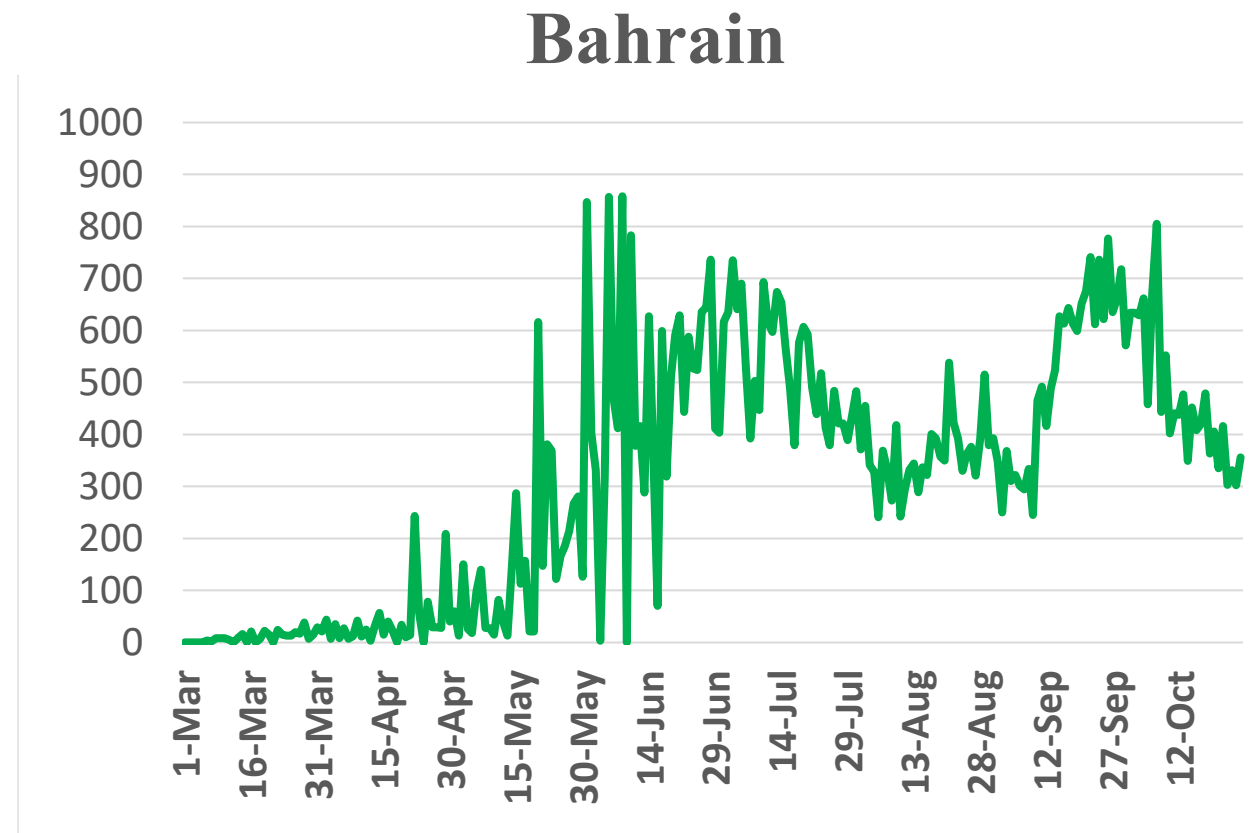
**Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries**



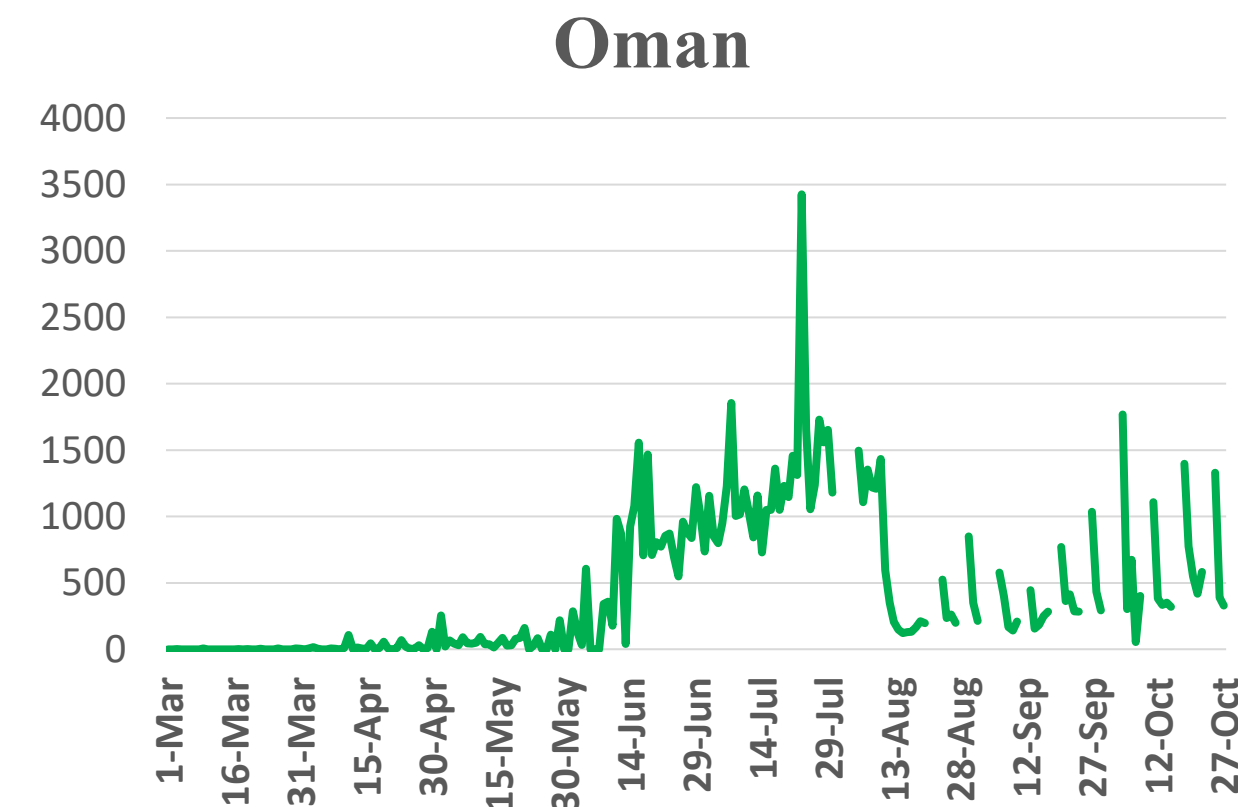
Source : National Emergency Crisis and Disaster Management Authority



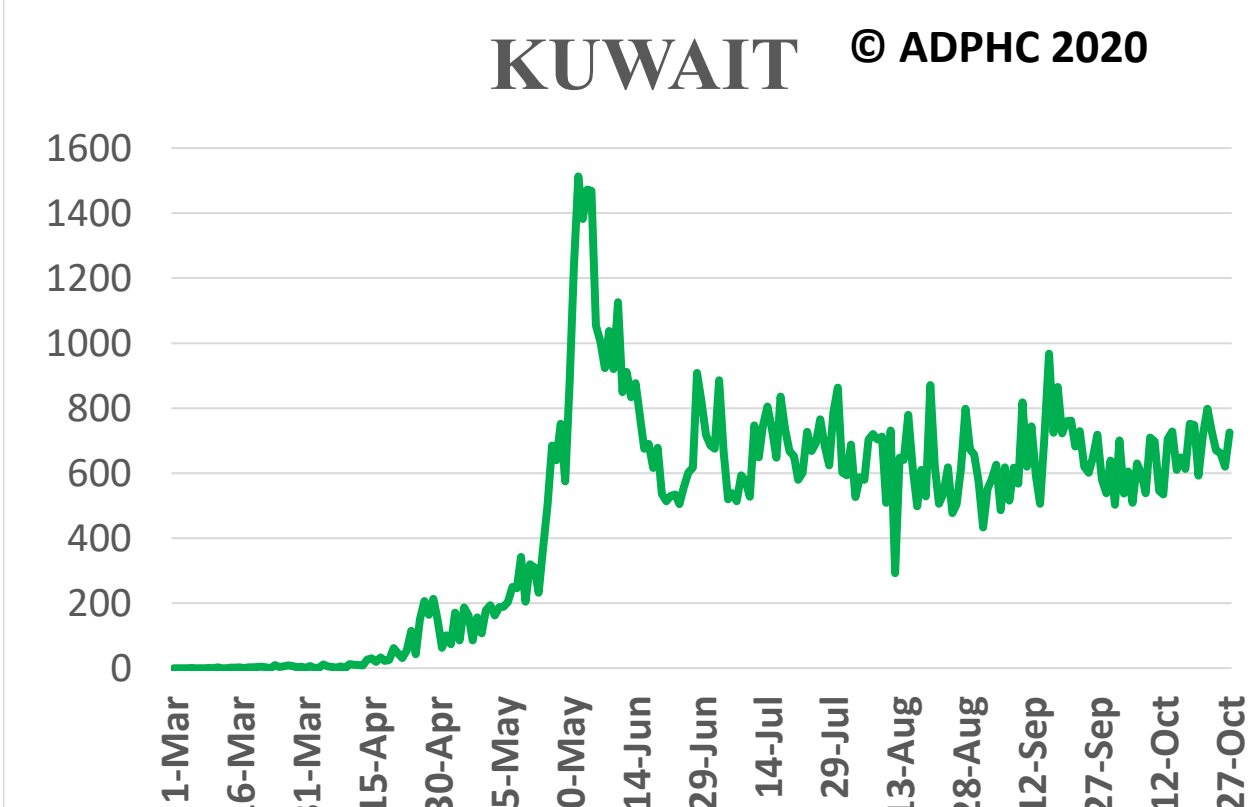
Source : KSA ministry of health



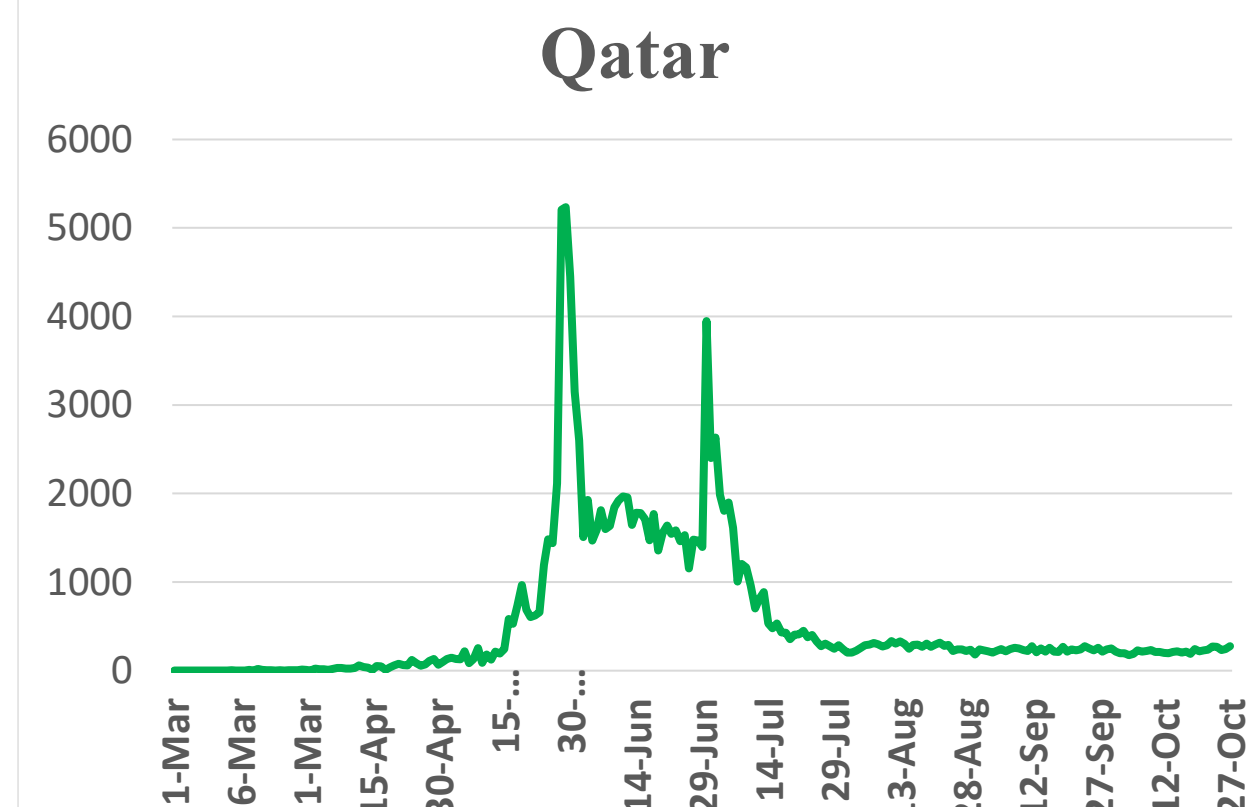
Source : Bahrain ministry of health



Source : Oman ministry of health



Source : Kuwait ministry of health



Source : Qatar ministry of health

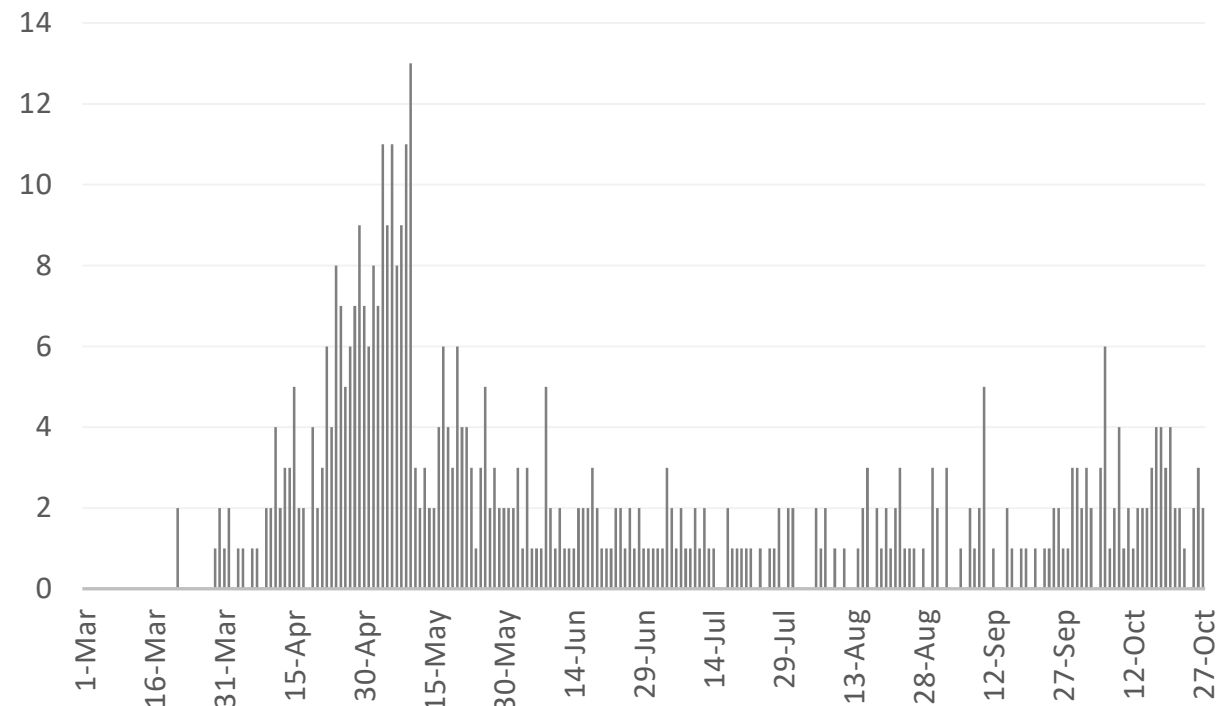
\*No announced statistic data from 31 July to 4 August, 21,23,28,30 August 2,4, 5,11,12,18,19,25,26,30 September,1,2,9,10,16 &17,23 &24 October  
\*No announced statistic data on weekends and official holidays.





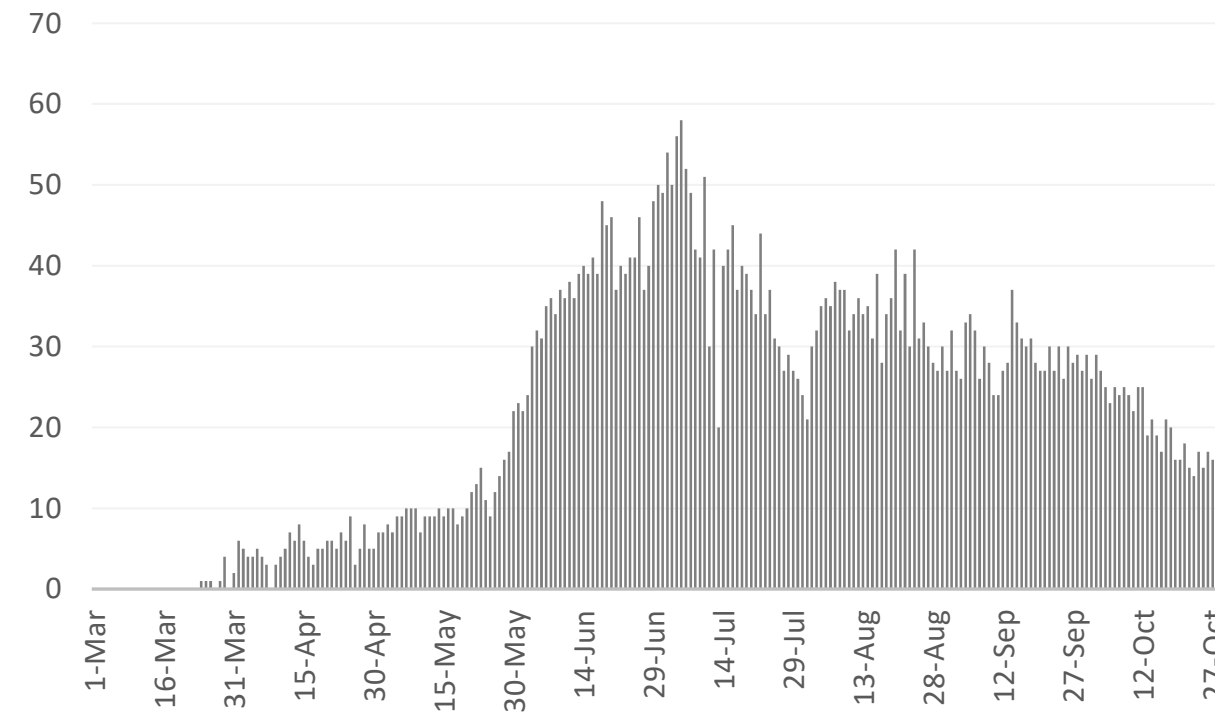
## Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

### UAE



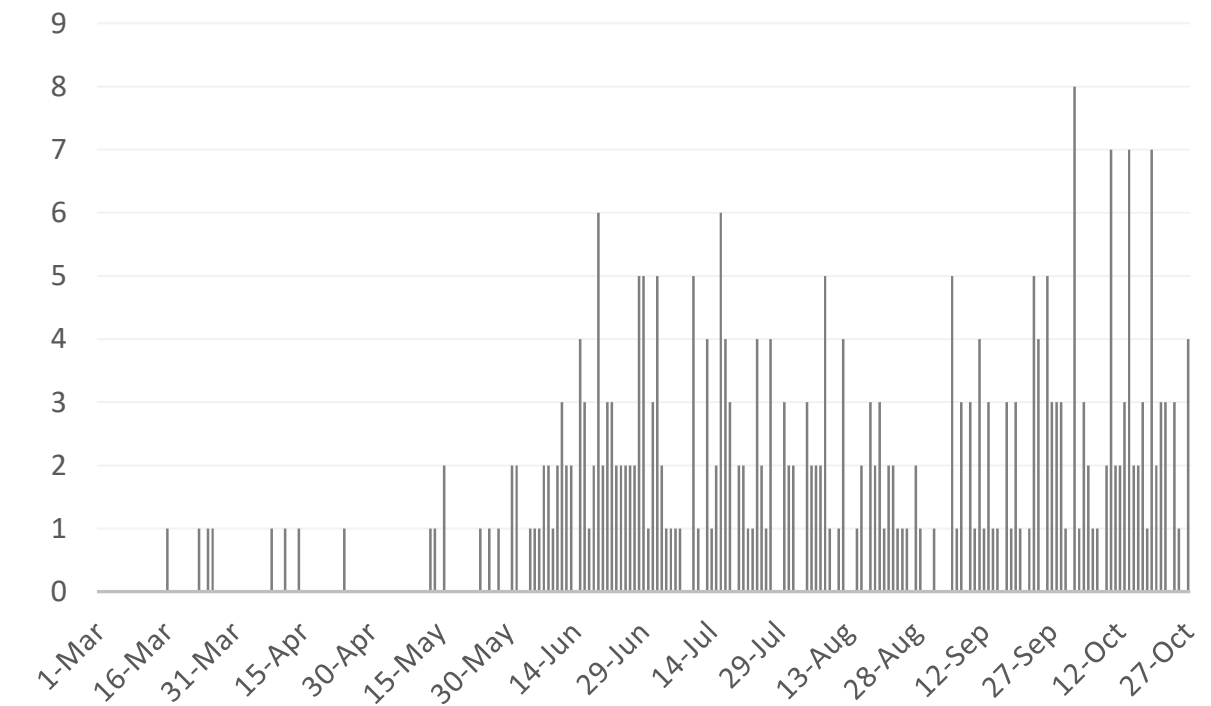
Source : National Emergency Crisis and Disaster Management Authority

### KSA



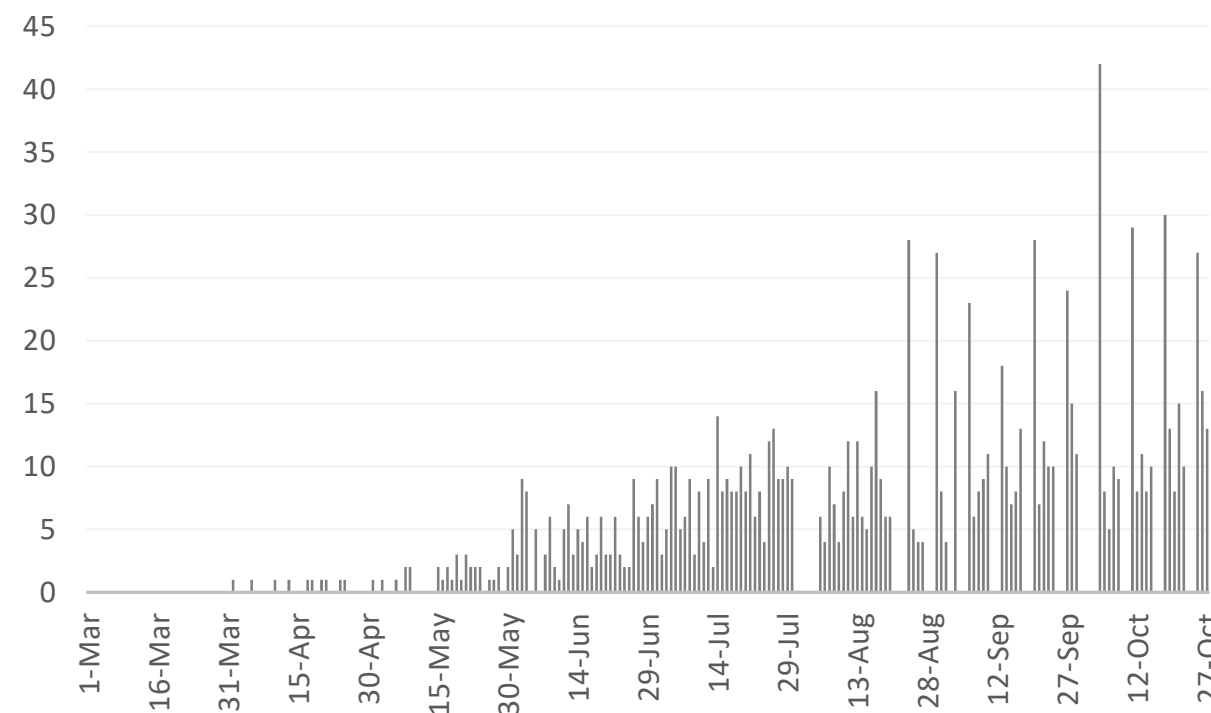
Source : KSA ministry of health

### Bahrain



Source :WHO

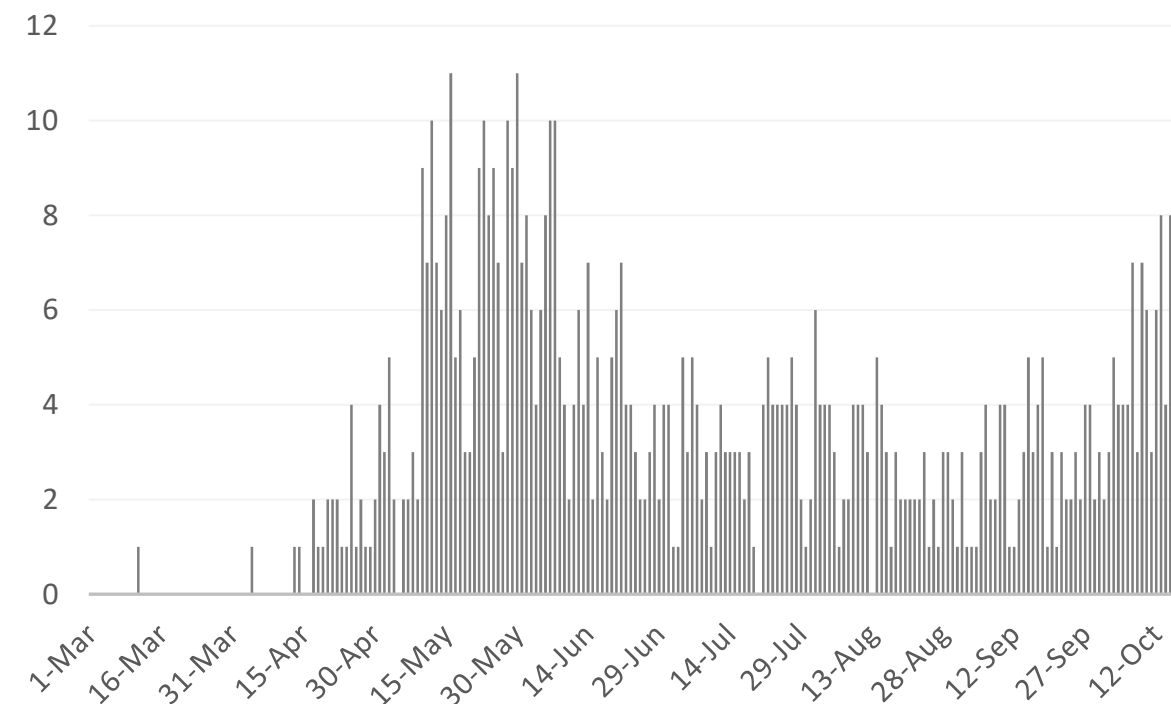
### Oman



Source :Oman ministry of health

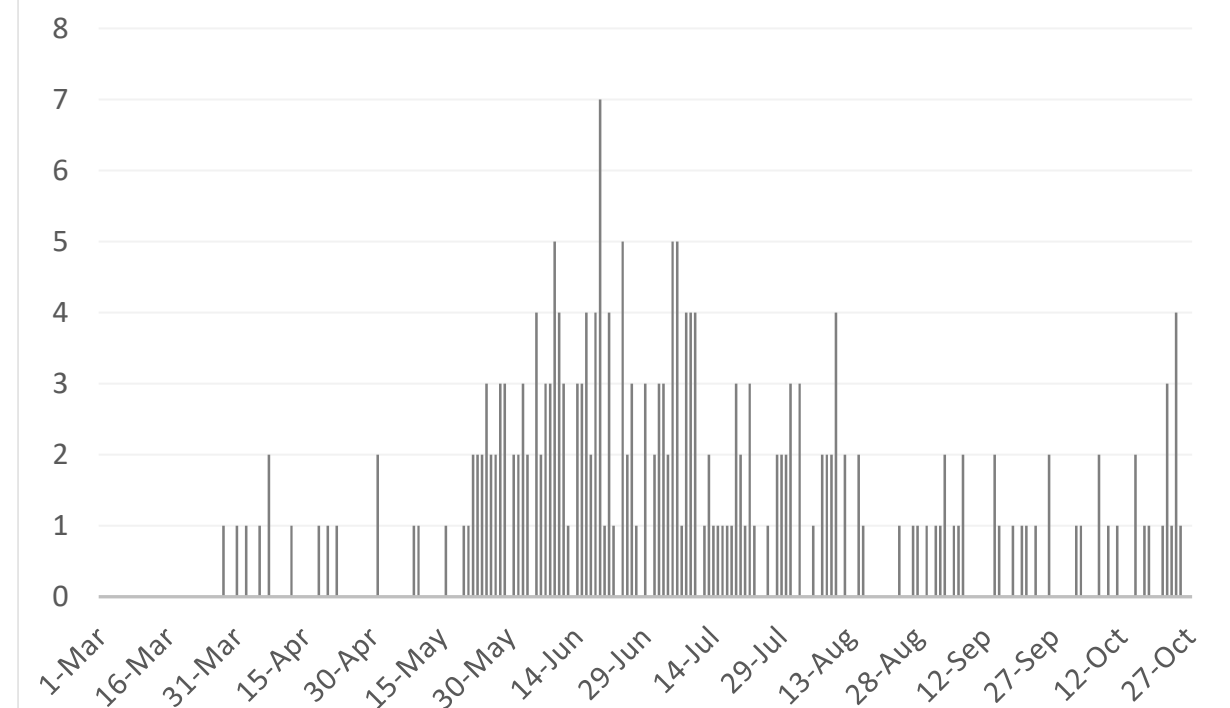
### Kuwait

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Source : Kuwait ministry of health

### Qatar



Source : Qatar ministry of health

\*No announced statistic data from 31 July to 4 August, 21,23,28,30 August 2,4, 5,11,12,18,19,25,26,30 September,1,2,9,10,16 &17,23 &24 October  
\*No announced statistic data on weekends and official holidays.





## Article 1

### Published

# Population Migration, Confirmed COVID-19 Cases, Pandemic Prevention, and Control: Evidence and Experiences from China

October 24, 2020 [Journal of Public Health](#)

- This study aims to investigate the association between population migration and the number of confirmed COVID-19 cases in China while investigating its measures for pandemic prevention and control. The authors created a susceptible–exposed–infected–recovered–dormancy (SEIRD) model for the spread of COVID-19 in China to theoretically simulate the association between the populations migrating from Wuhan and the number of confirmed cases. The findings revealed that populations migrating from Wuhan to other cities amplified the initial number of latently infected cases in these cities, raising the number of confirmed cases. Thus, implementing social distancing between the infected and susceptible populations can effectively reduce the number of infected cases. Utilizing the Baidu’s real-time dynamic pandemic monitoring system, the empirical findings revealed that an increase of 1000 persons migrating from Wuhan raised the number of confirmed cases by 4.82 persons. The study therefore, encompasses lessons for early warning, prevention, and control of similar public health emergencies.





## Article 2

Published

# Impact of Social Distancing Measures on Coronavirus Disease Healthcare Demand, Central Texas, USA

Number 10—October 2020 [CDC](#)

- The study estimated the impact of the timing and intensity of social distancing measures. The authors built a mathematical model of COVID-19 transmission that incorporated age-stratified risks and contact patterns and projects numbers of hospitalizations, patients in intensive care units, ventilator needs, and deaths within US cities. Focusing on the Austin metropolitan area of Texas, the investigators found that extensive and immediate social distancing measures were needed to ensure that COVID-19 cases did not exceed local hospital capacity by early May 2020. School closures alone hardly altered the epidemic curve. A 2-week delay in implementation was projected to accelerate the timing of peak healthcare needs by 4 weeks and cause a bed shortage in intensive care units. This analysis informed the Stay Home-Work Safe order enacted by Austin on March 24, 2020.





## Article 3

# Tinnitus and Equilibrium Disorders in COVID-19

Published

## Patients: Preliminary Results

October 25, 2020 [Eur Arch Otorhinolaryngol](#)

- This multicentric study aimed to study the prevalence of subjective tinnitus and dizziness in a sample of COVID-19 patients using an online 10-item close-ended questionnaire from 15 Italian hospitals in different regions. The questionnaire was administered to 185 patients in a period of > 30 - < 60 days after diagnosis of COVID-19; responses were recorded in an online Excel spreadsheet.
- The questionnaire was composed of three sections:
  - Demographic information
  - Presence and characteristics of tinnitus and dizziness after COVID-19 diagnosis
  - Possible association with migraine
- Around 34% of the patients (18.4%) reported equilibrium disorders after COVID-19 diagnosis. Of these, 32 patients reported dizziness (94.1%) and 2 (5.9%) reported acute vertigo attacks. 43 patients (23.2%) reported tinnitus; 14 (7.6%) reported both tinnitus and equilibrium disorders. The findings demonstrated that the presence of subjective otoneurological symptoms such as tinnitus and balance disorders can affect COVID-19 patients. Additional studies are needed in future to investigate the prevalence and pathophysiological mechanisms underlying these subjective symptoms in COVID-19 patients.





# THANK YOU

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