

# SCIENTIFIC RESEARCH MONITORING ON COVID-19

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# SCIENTIFIC RESEARCH MONITORING ON COVID-19

## (ISSUE 253)

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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## Transmission

**The US Centers for Disease Control and Prevention Say that Young Children in Childcare Centers Can Spread COVID-19**

## Clinical Features

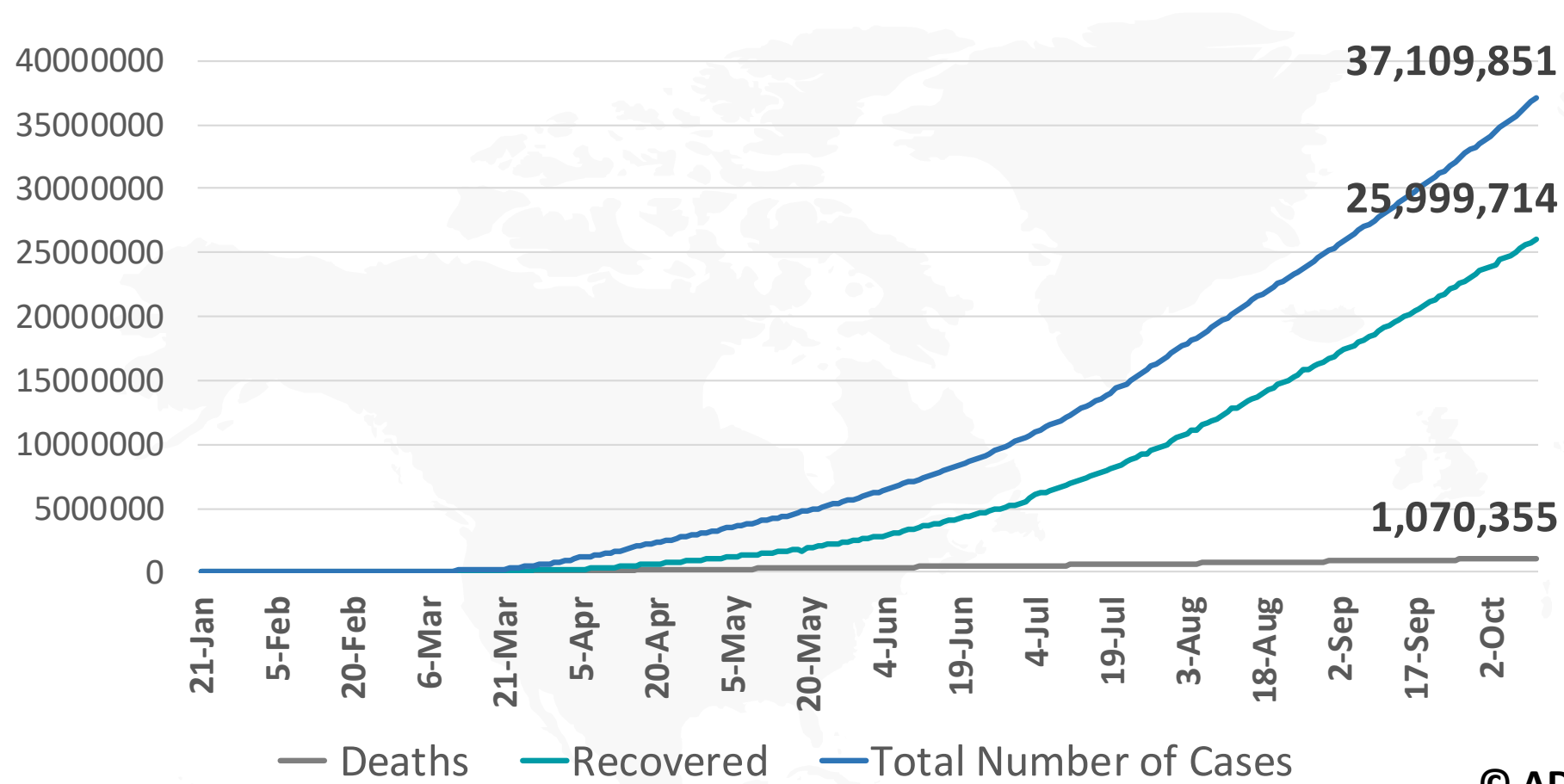
**Clinical Screening for COVID-19 in Asymptomatic Patients With Cancer**

## Treatment

**Risk of COVID-19-Related Death Among Patients with Chronic Obstructive Pulmonary Disease or Asthma Prescribed Inhaled Corticosteroids: An Observational Cohort Study Using the OpenSAFELY Platform**

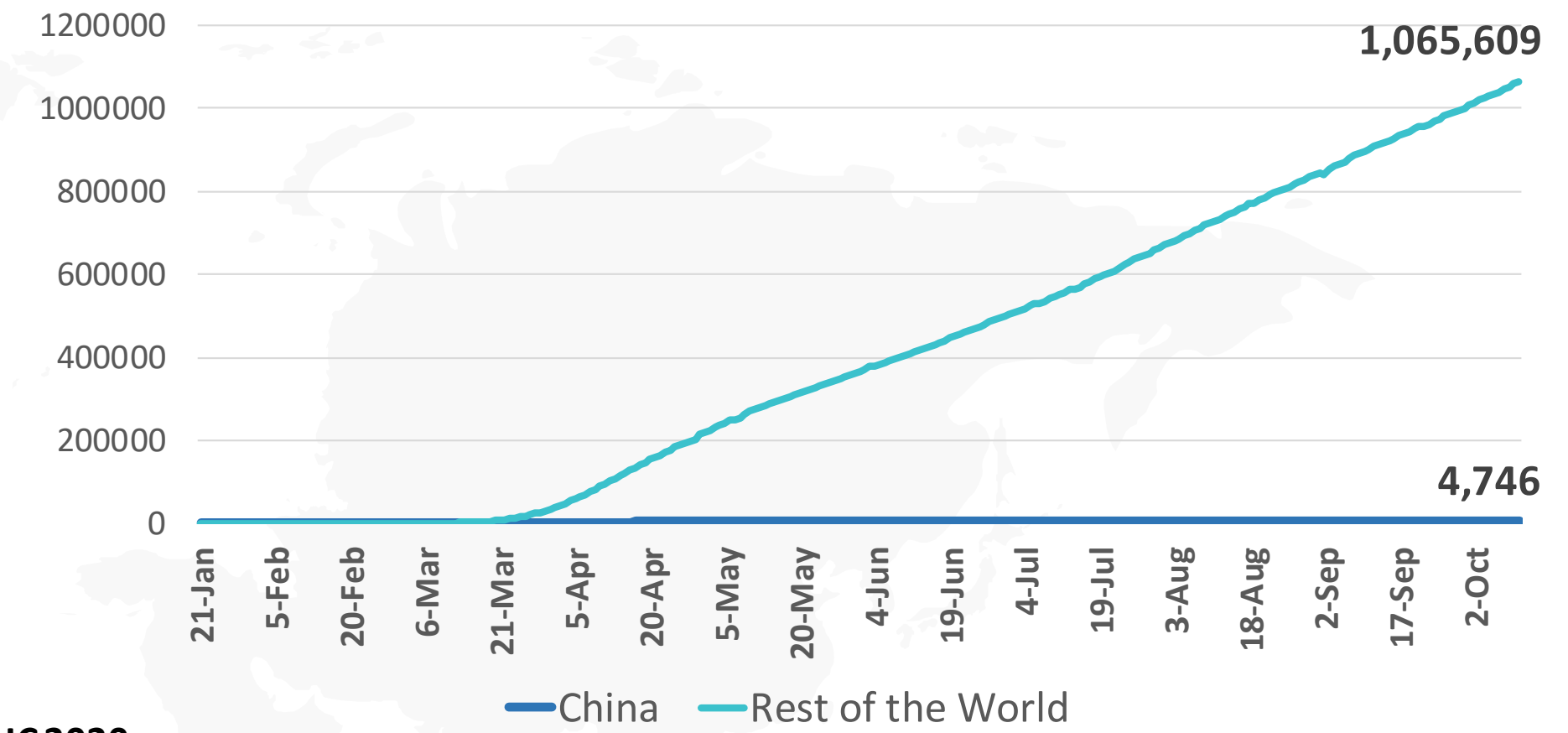


**Figure 1: Total Number of Infected, Recovered, and Death Cases**

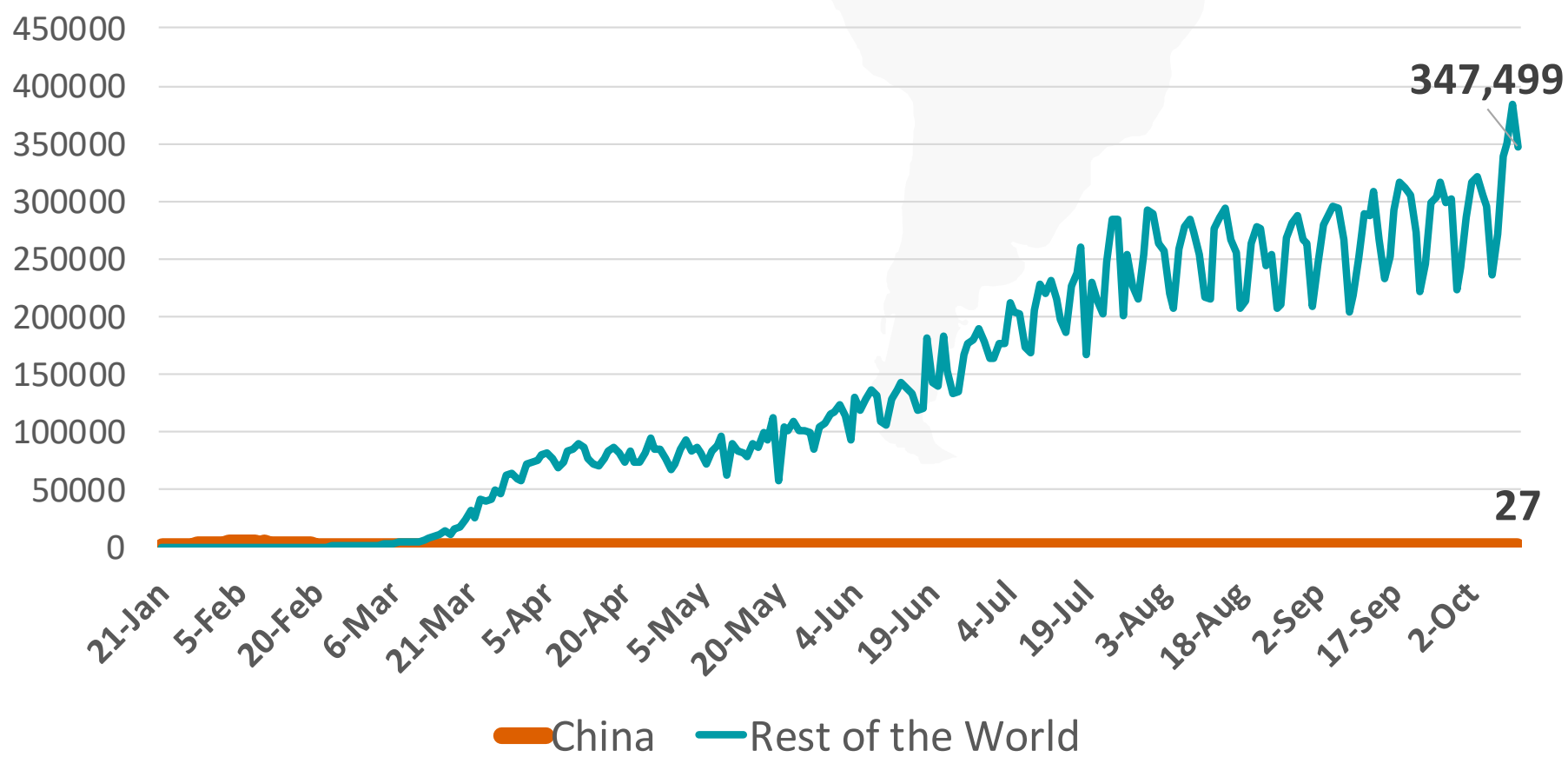


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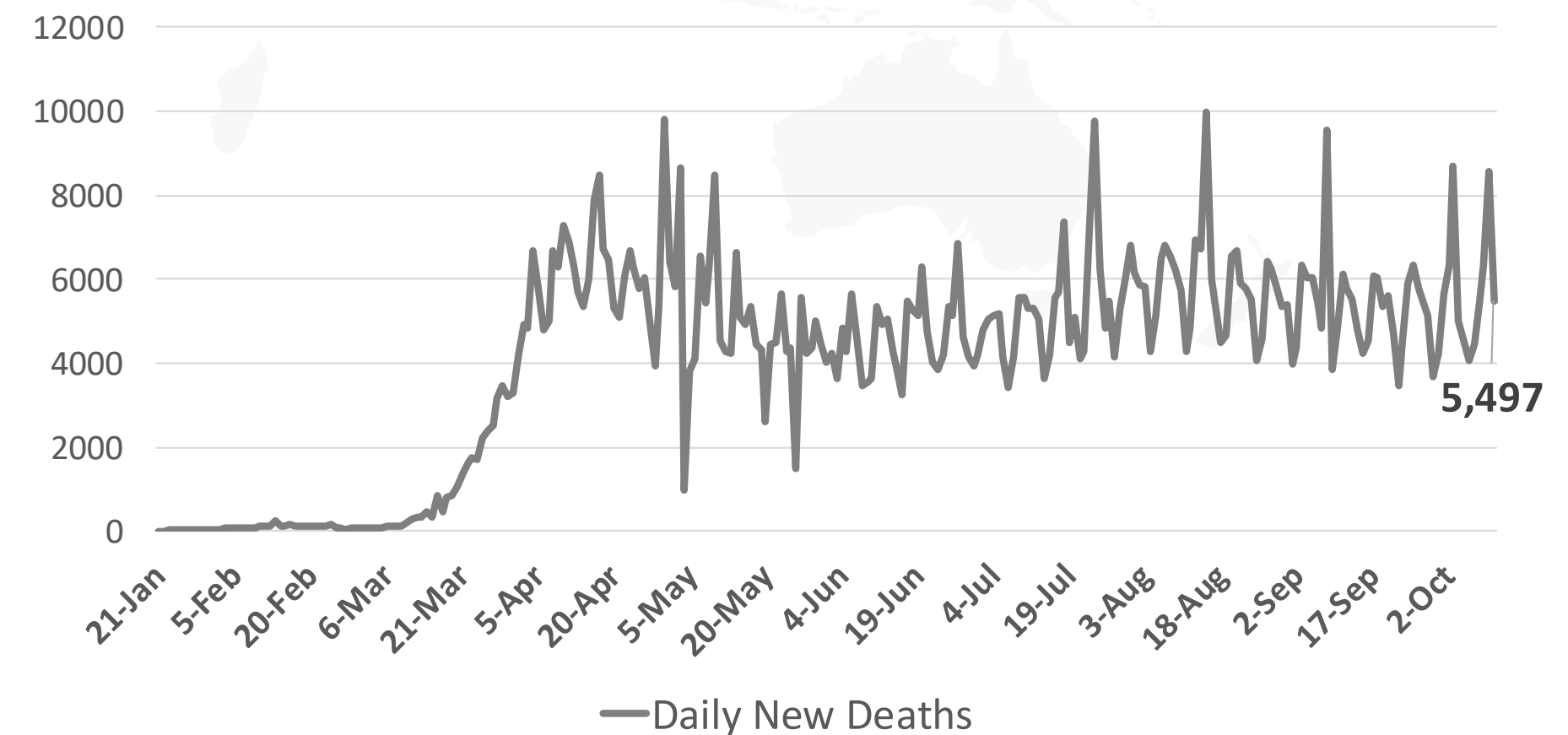
**Figure 3: Total Number of Death Due to COVID-19 (china and result of the world)**



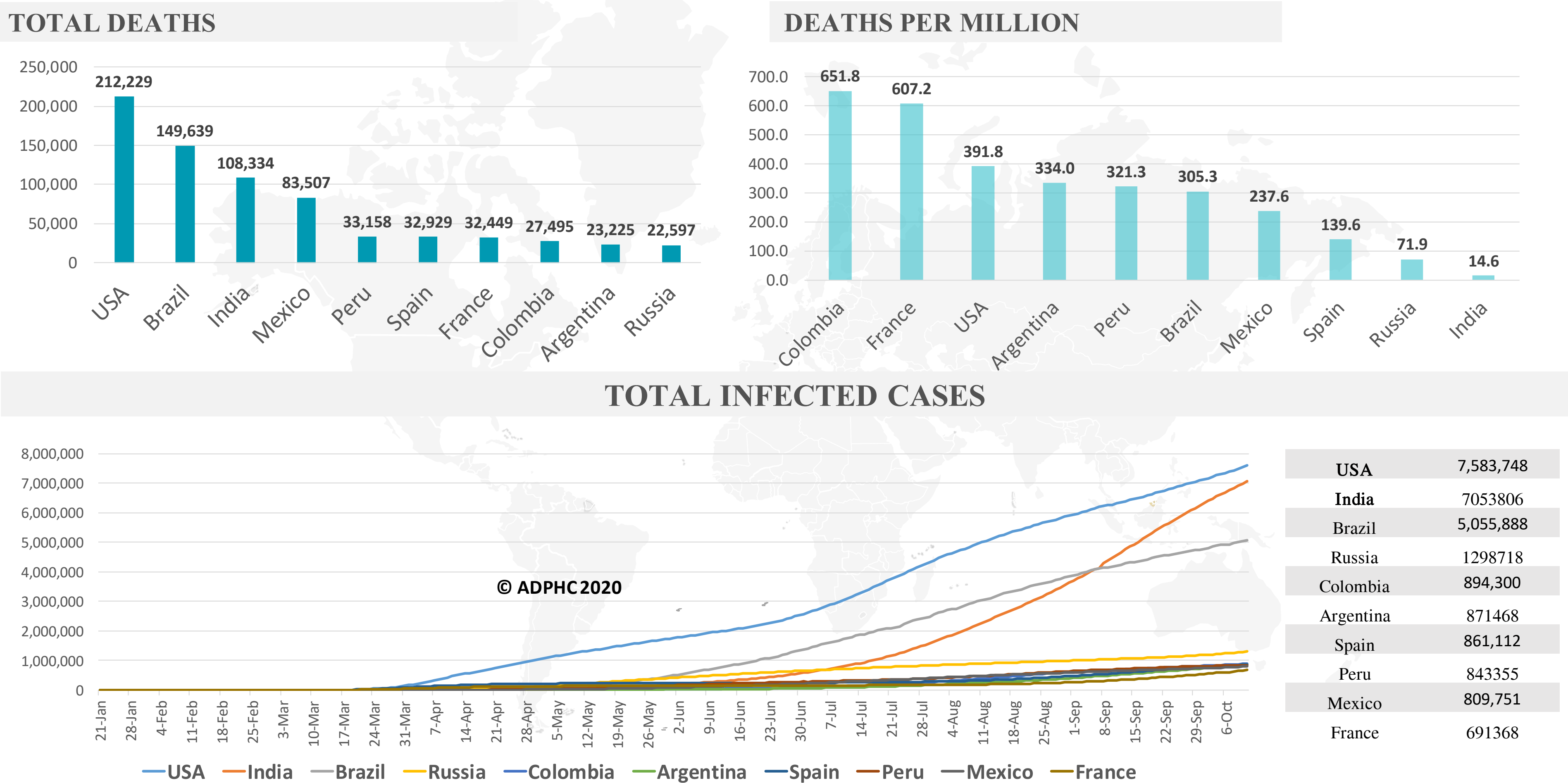
**Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)**



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

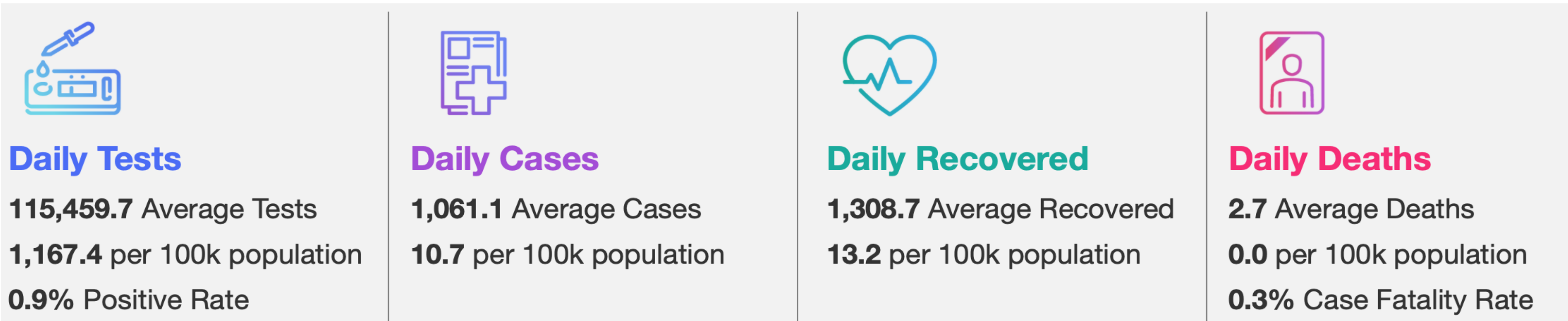


## Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19

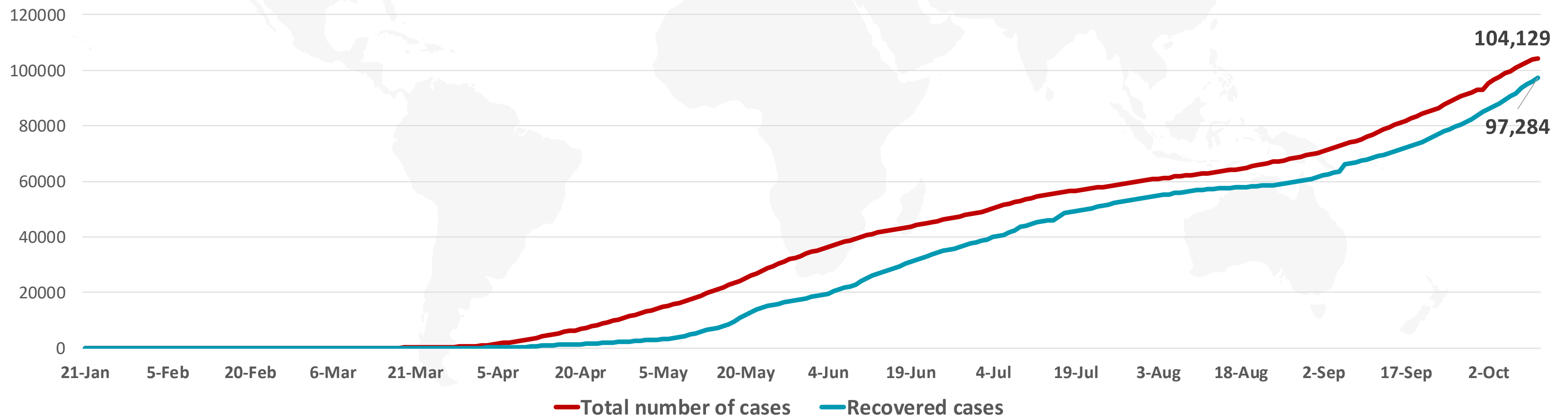


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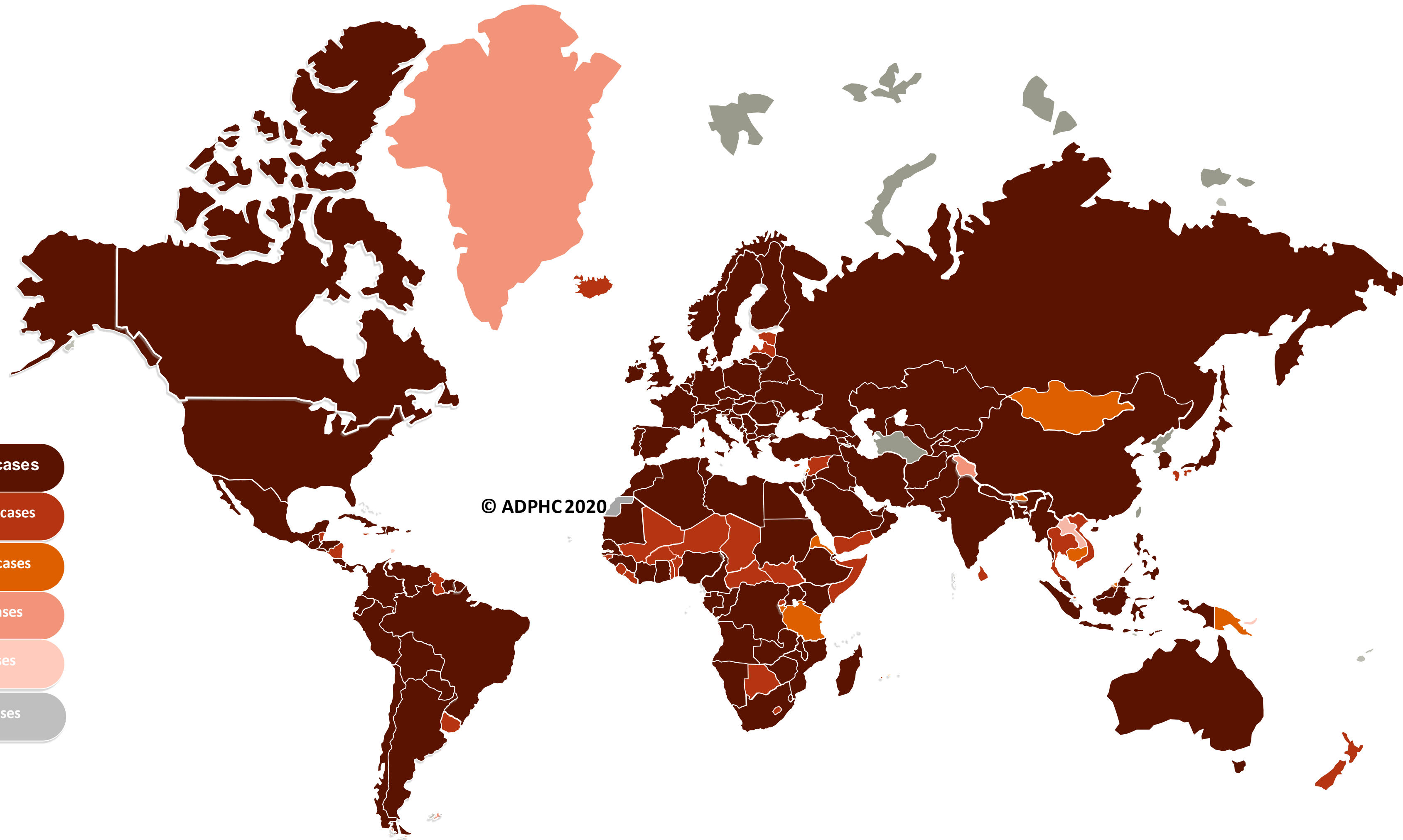
**Figure 6: COVID-19 Status in the UAE** (Federal Competitiveness and Statistics Authority Dashboard)



## 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

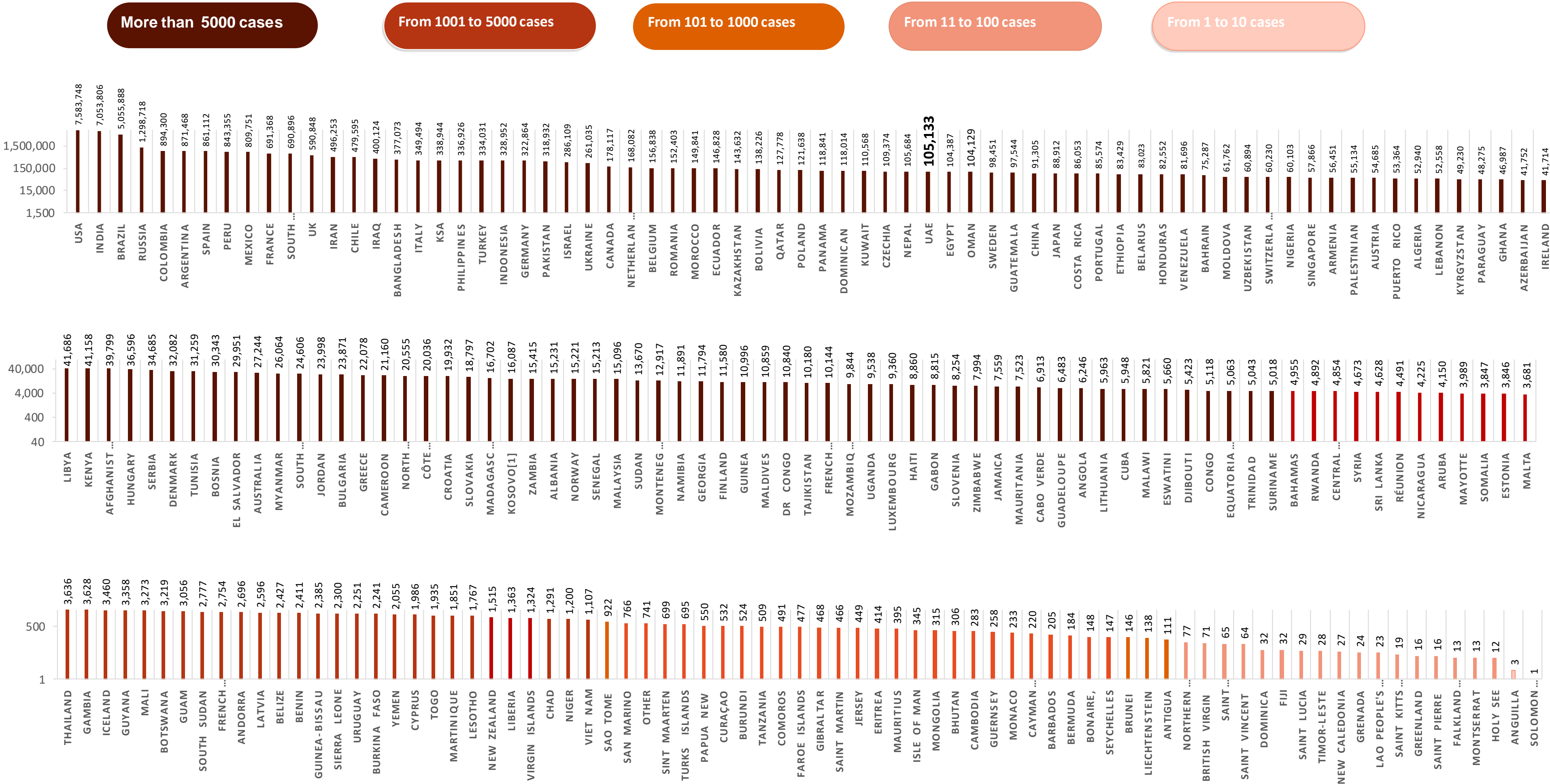
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

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



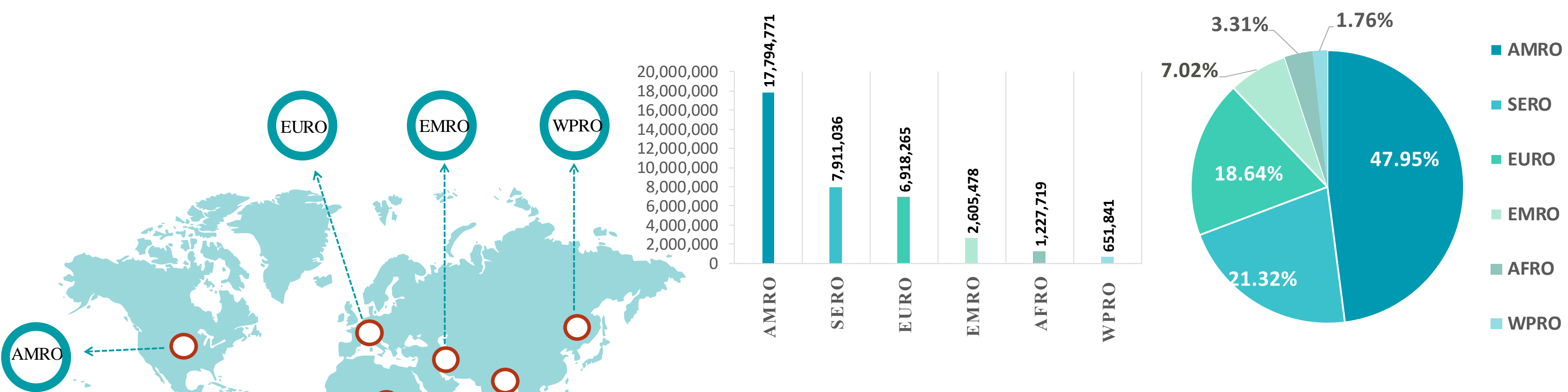
Other\*: includes cases and deaths reported under the international conveyance (Diamond Princess)



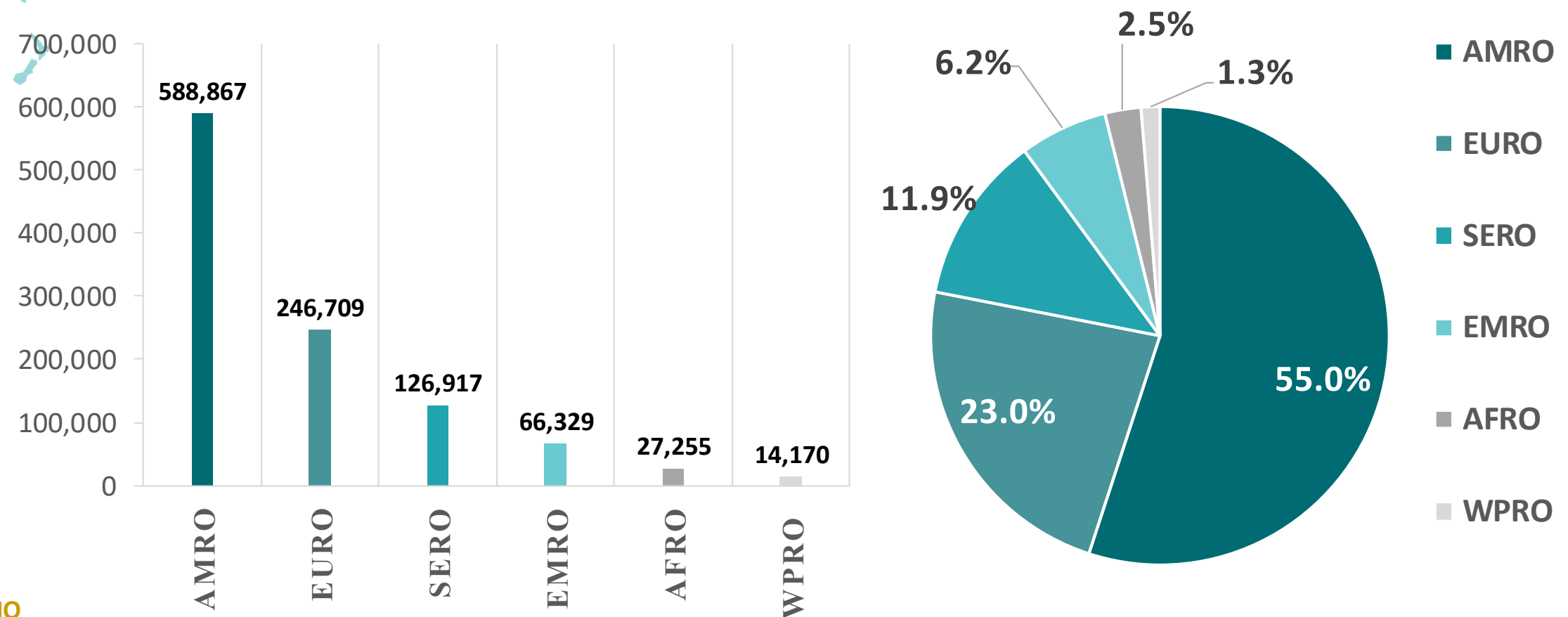


Figure 8: Global Distribution of COVID-19 Cases per Region

## INFECTED

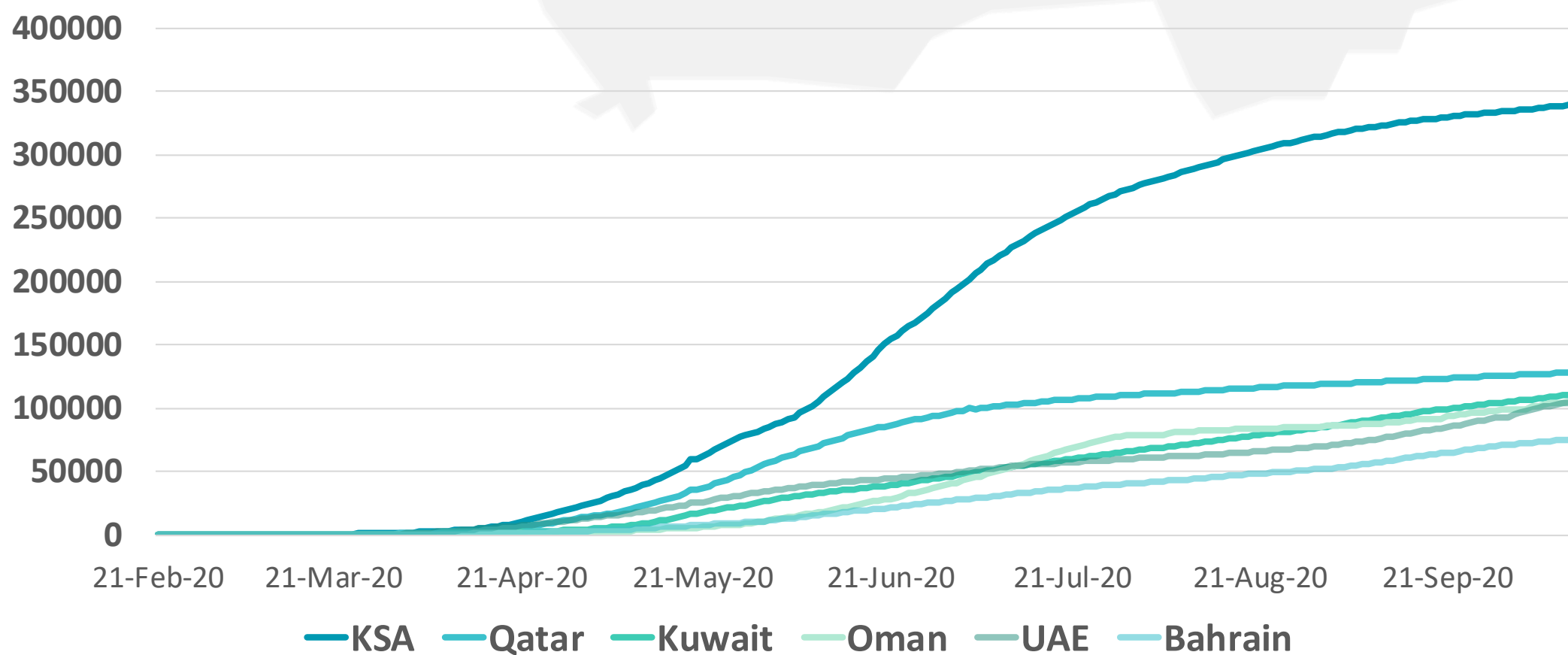
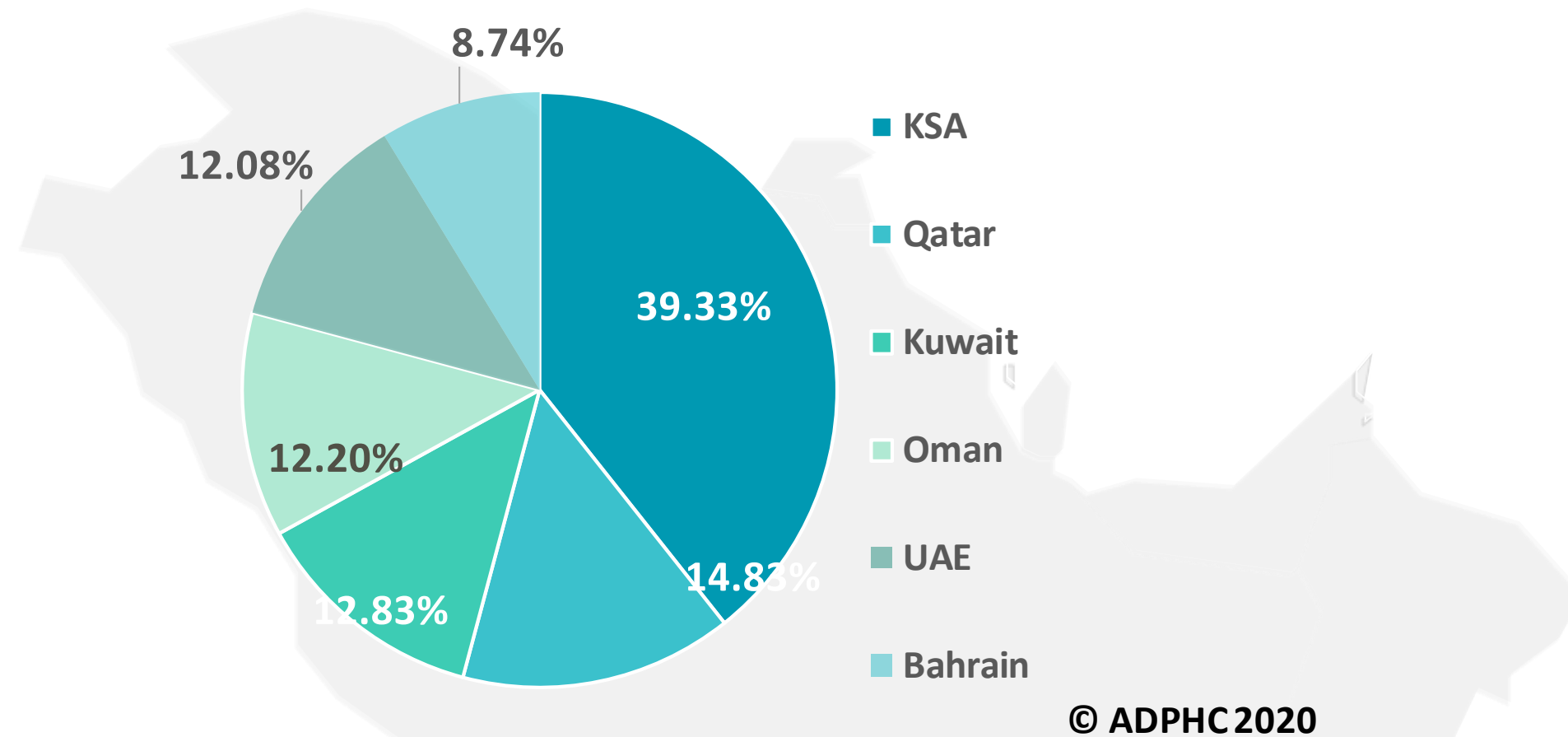


## DEATHS

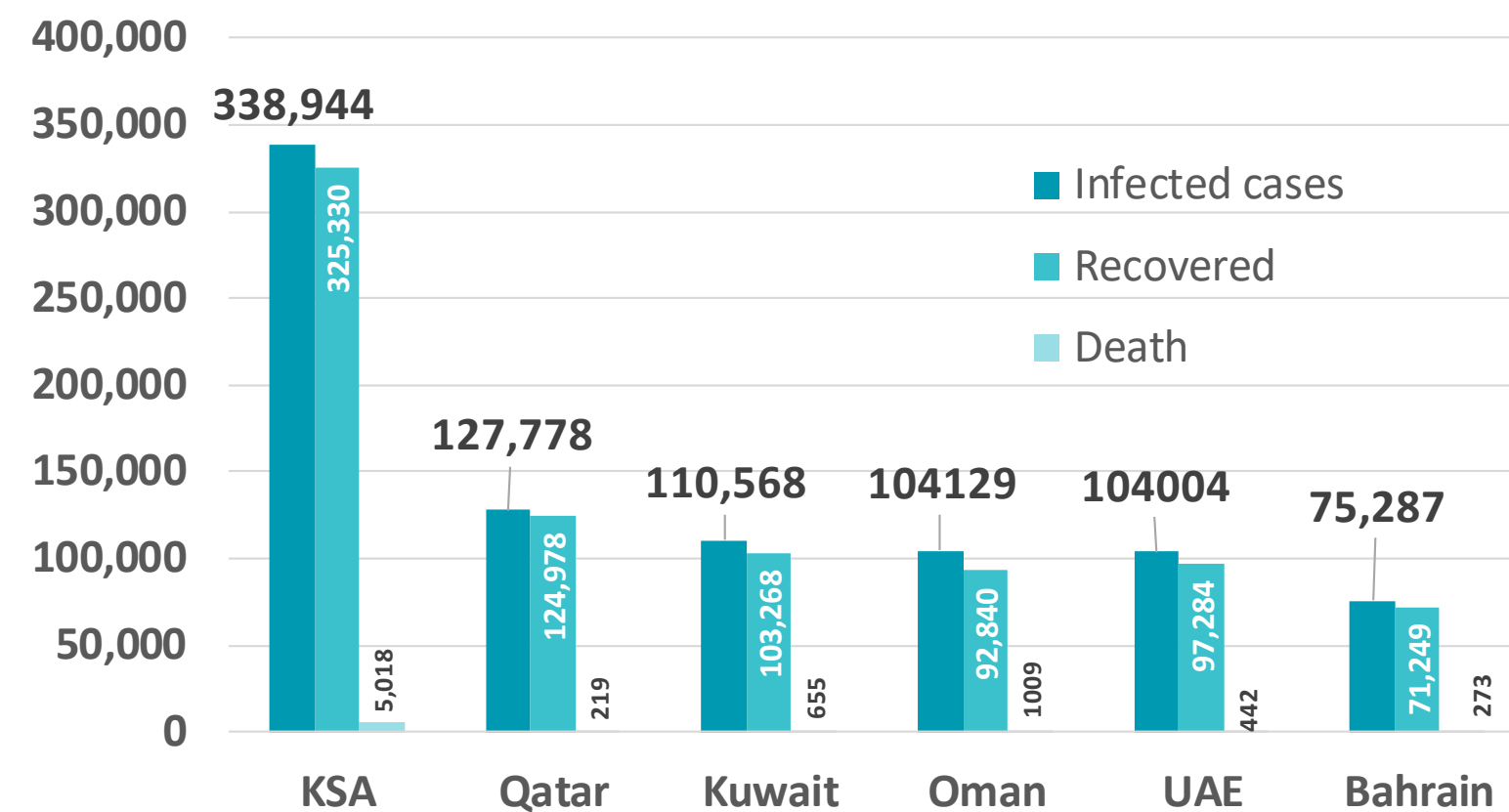


## Figure 9: Comparative Analysis of the Distribution of COVID-19 Cases in GCC Countries

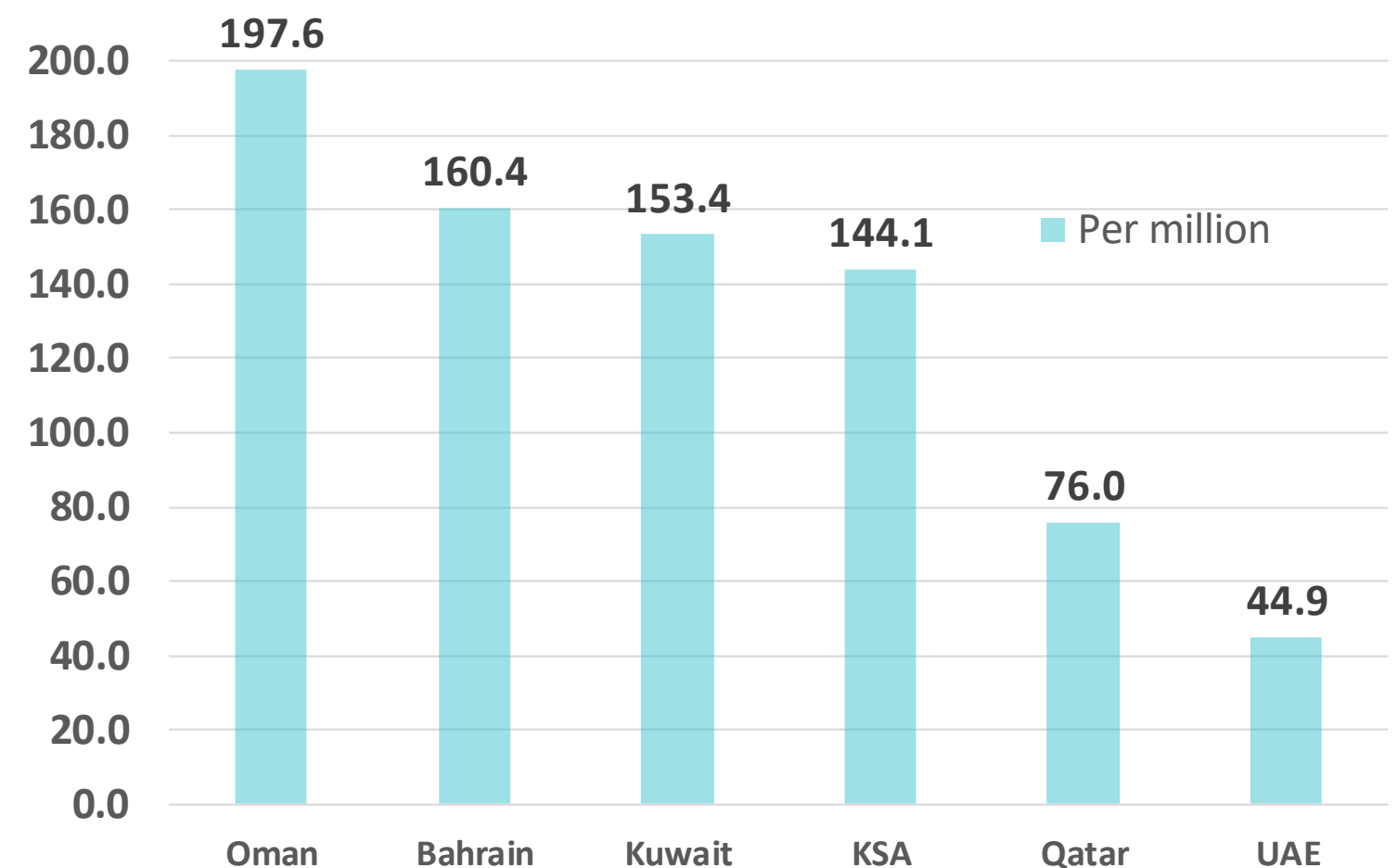
### TOTAL NUMBER OF INFECTED CASES



### TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



### DEATHS PER MILLION



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

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

### UAE



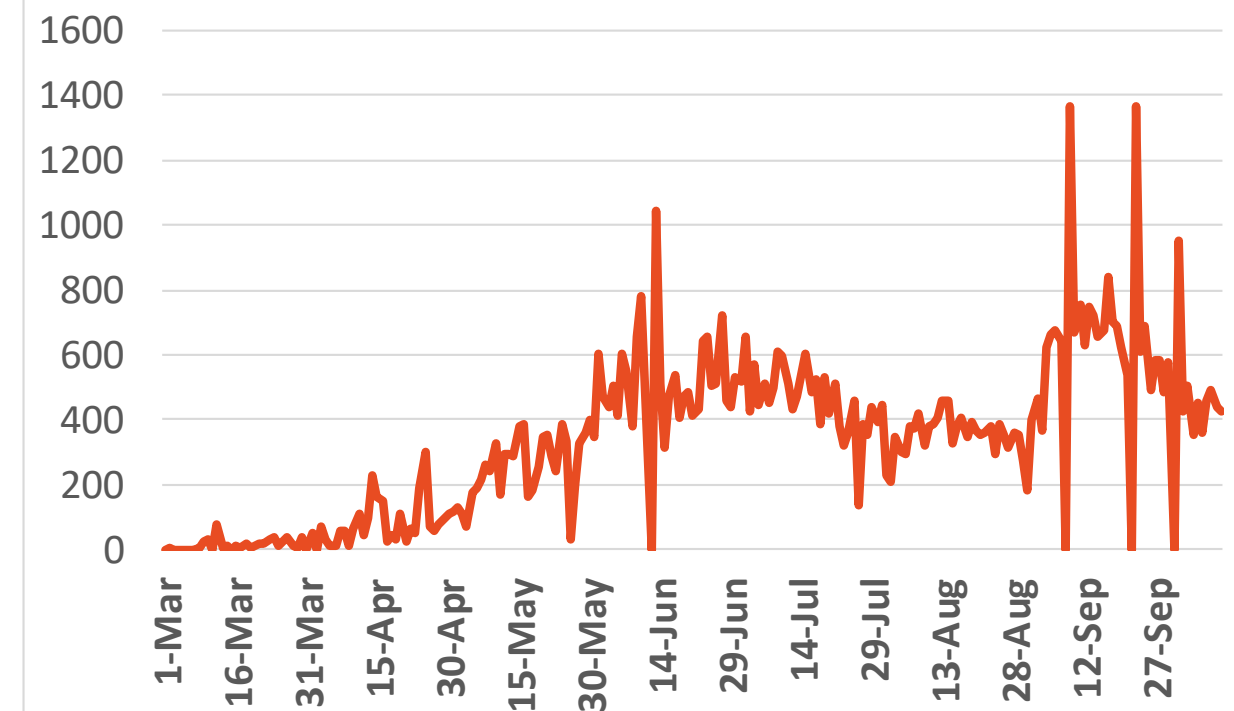
Source : National Emergency Crisis and Disaster Management Authority

### KSA



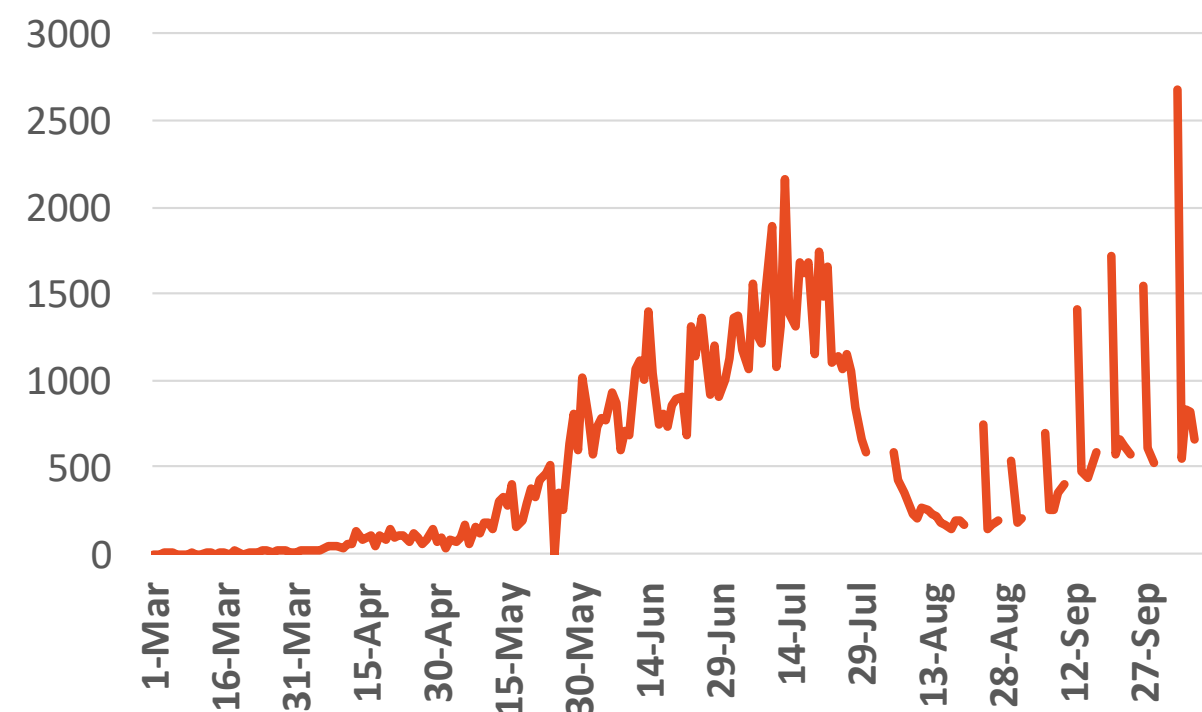
Source : KSA ministry of health

### Bahrain



Source :WHO

### Oman



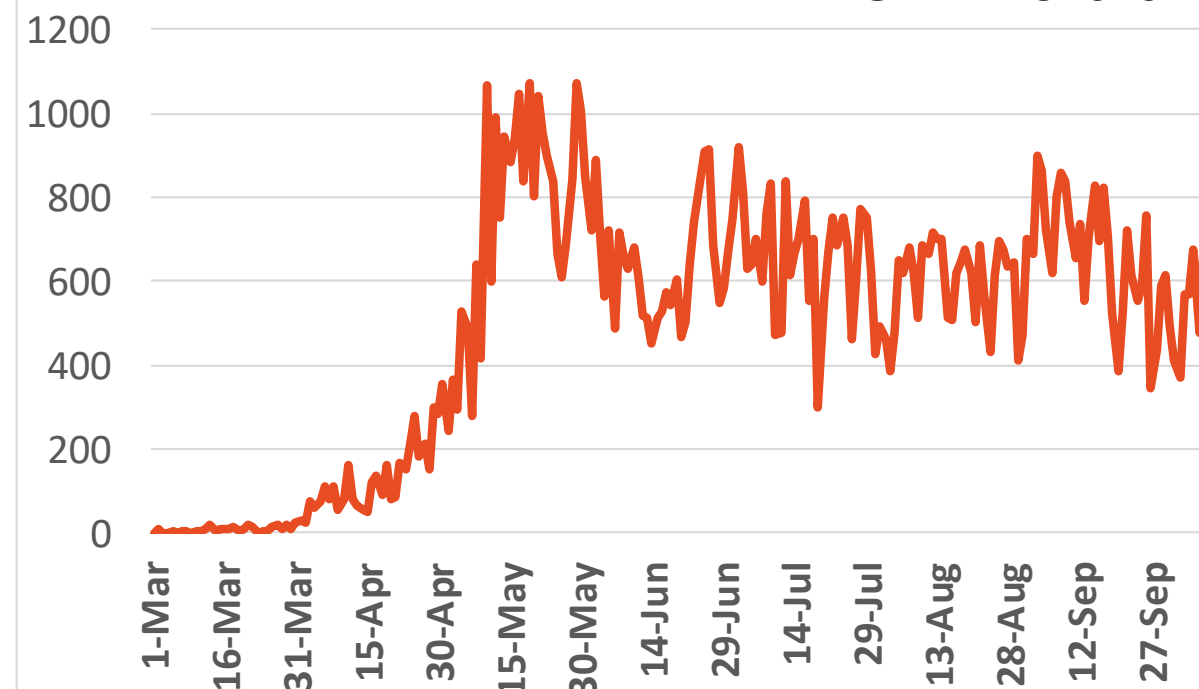
Source :Oman ministry of health

\*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 October

\*No announced statistic data on weekends and official holidays.

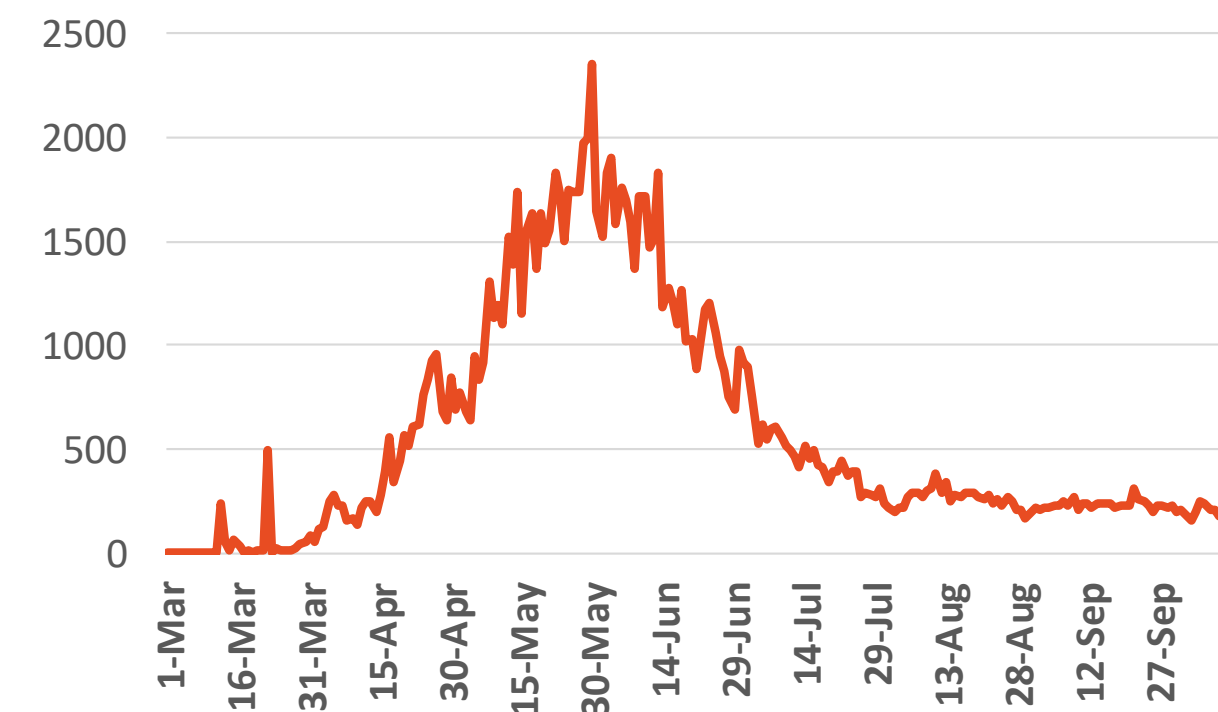
### Kuwait

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Source : Kuwait ministry of health

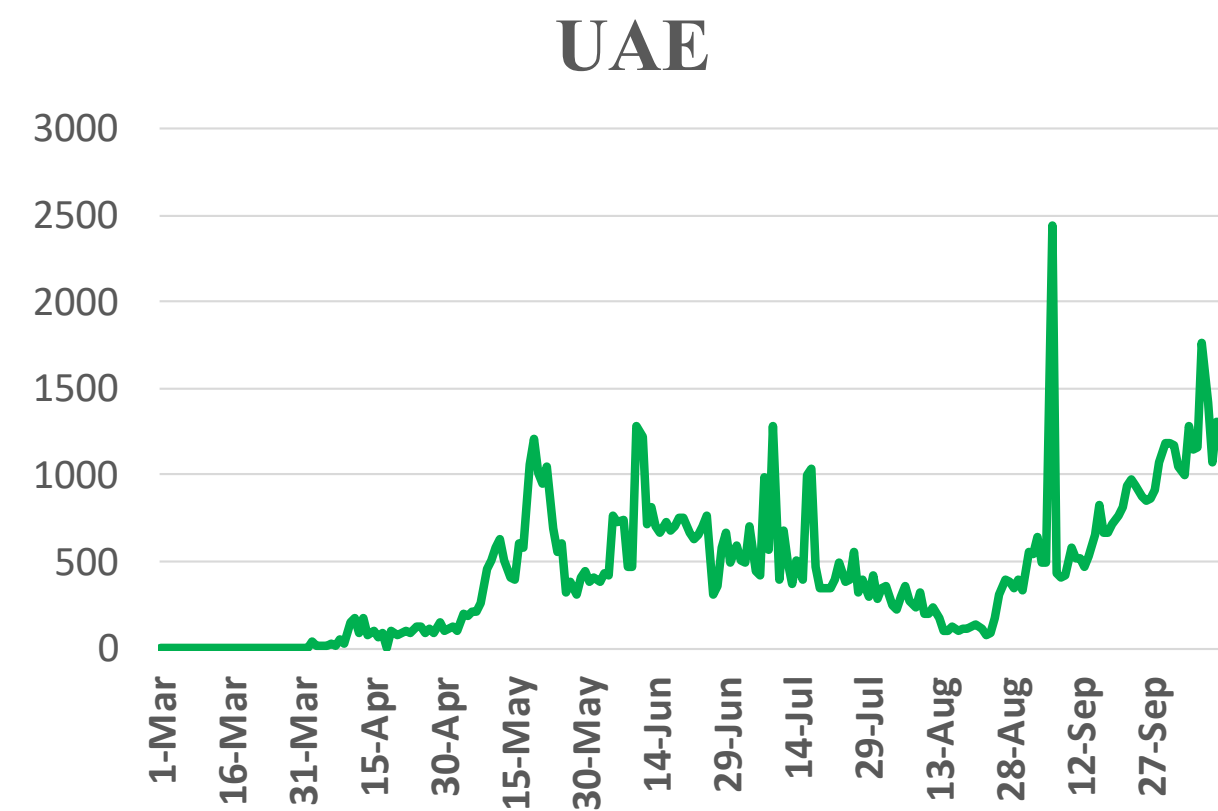
### Qatar



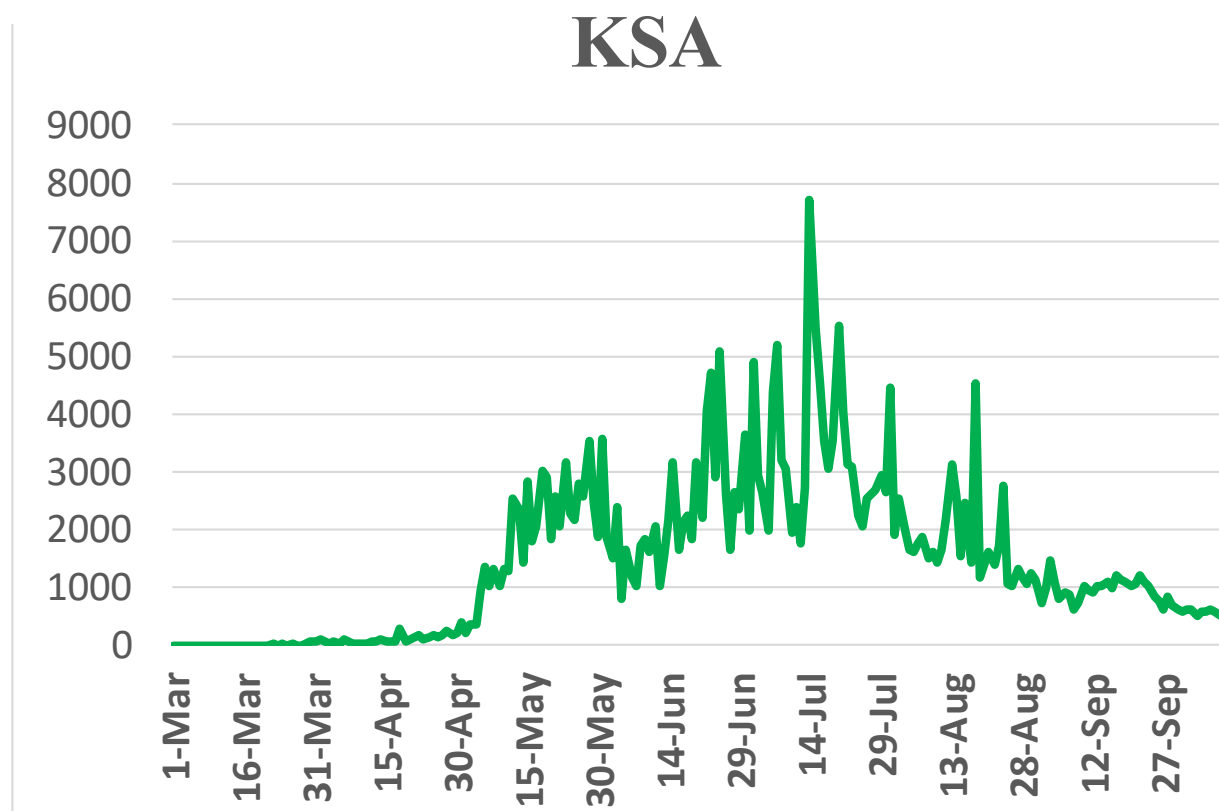
Source : Qatar ministry of health



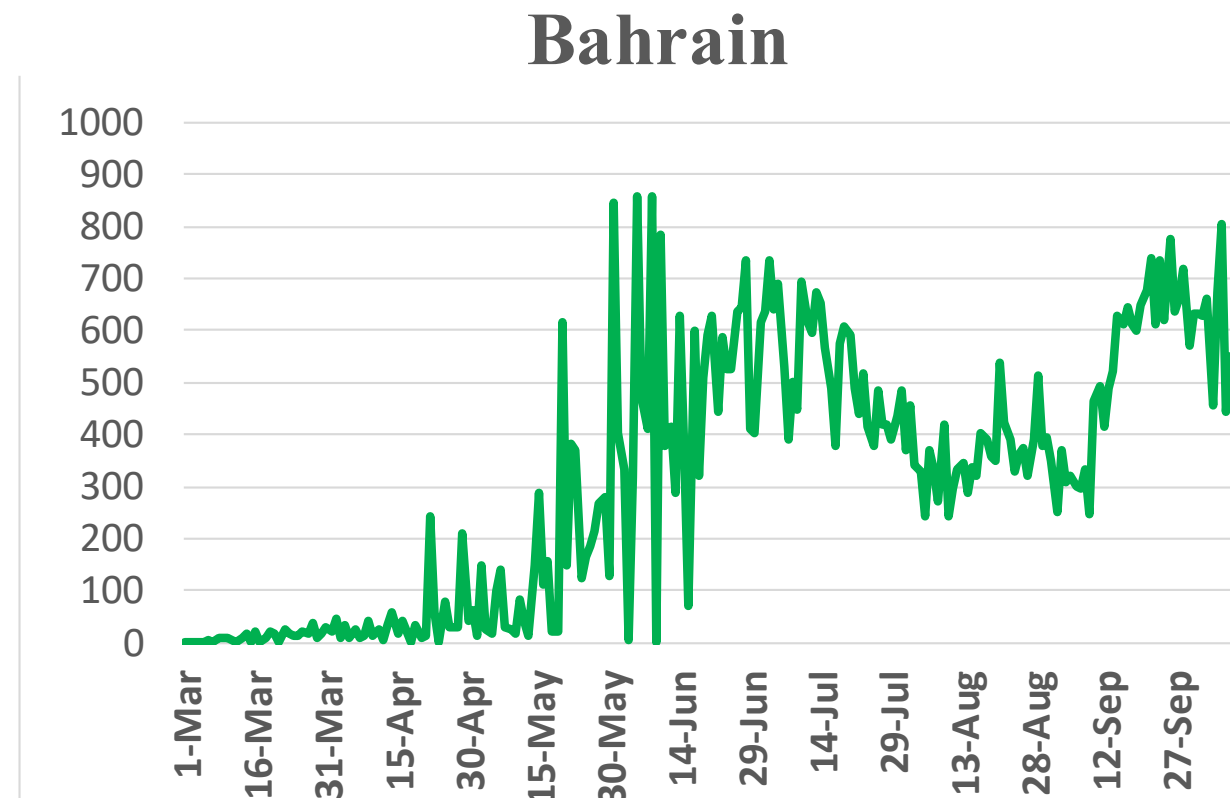
**Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries**



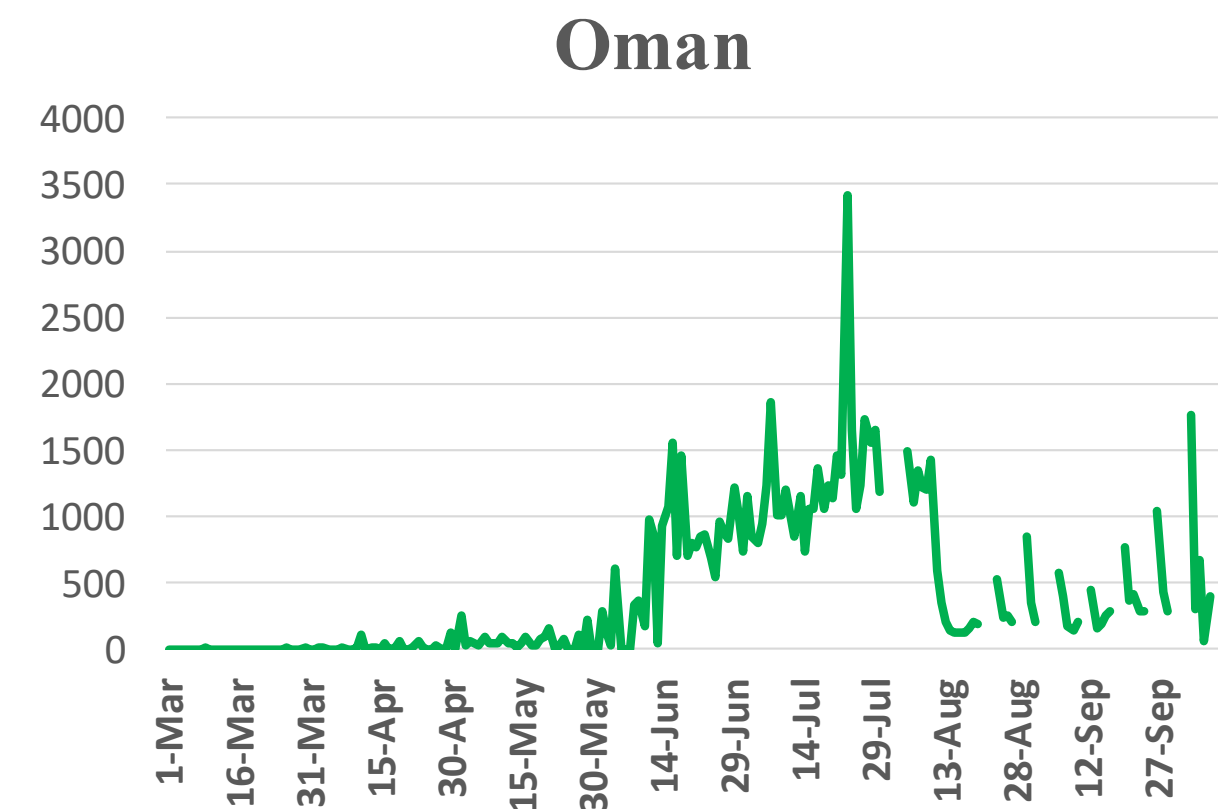
Source : National Emergency Crisis and Disaster Management Authority



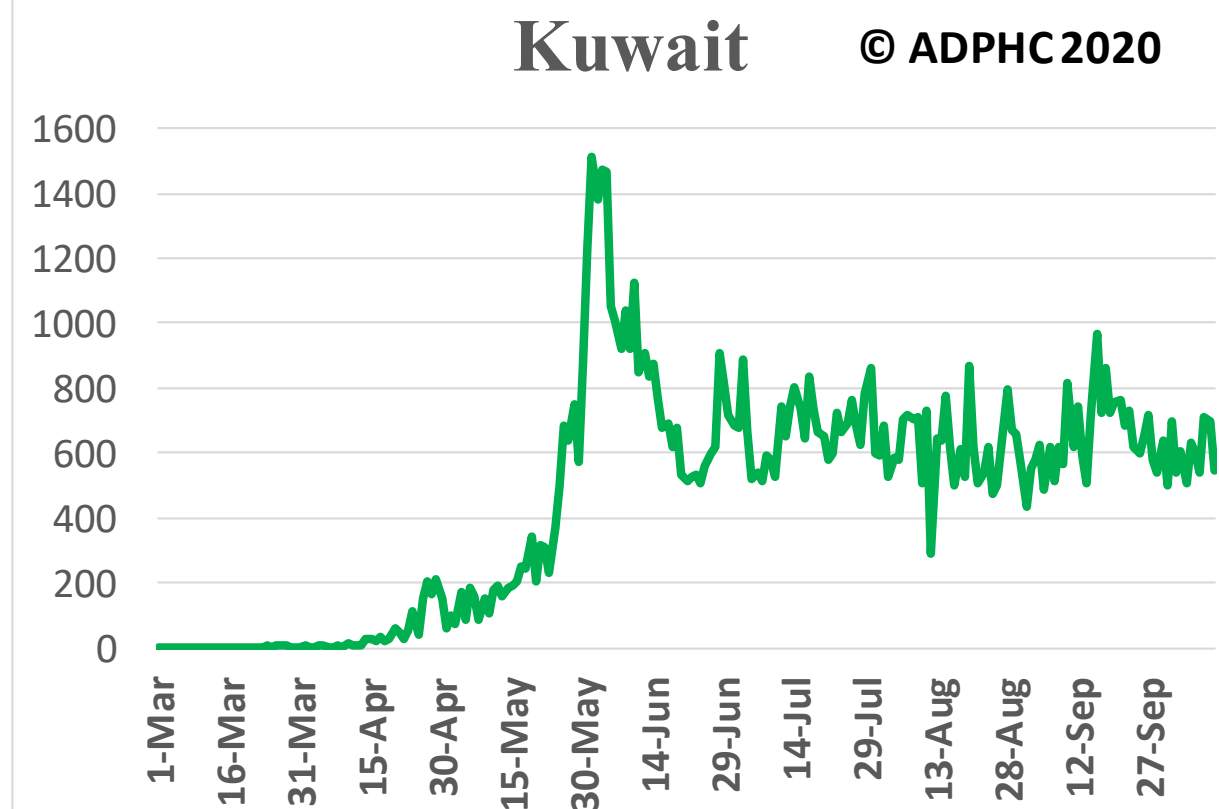
Source : KSA ministry of health



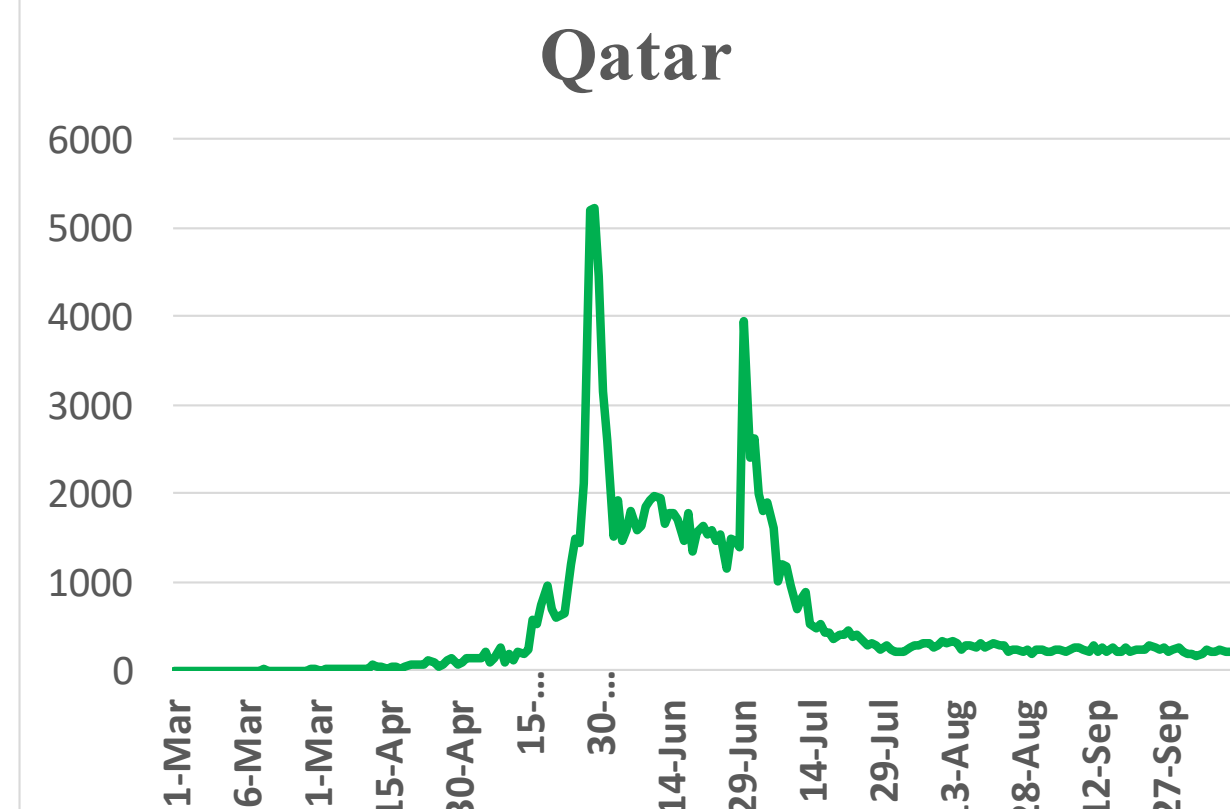
Source : Bahrain ministry of health



Source : Oman ministry of health



Source : Kuwait ministry of health



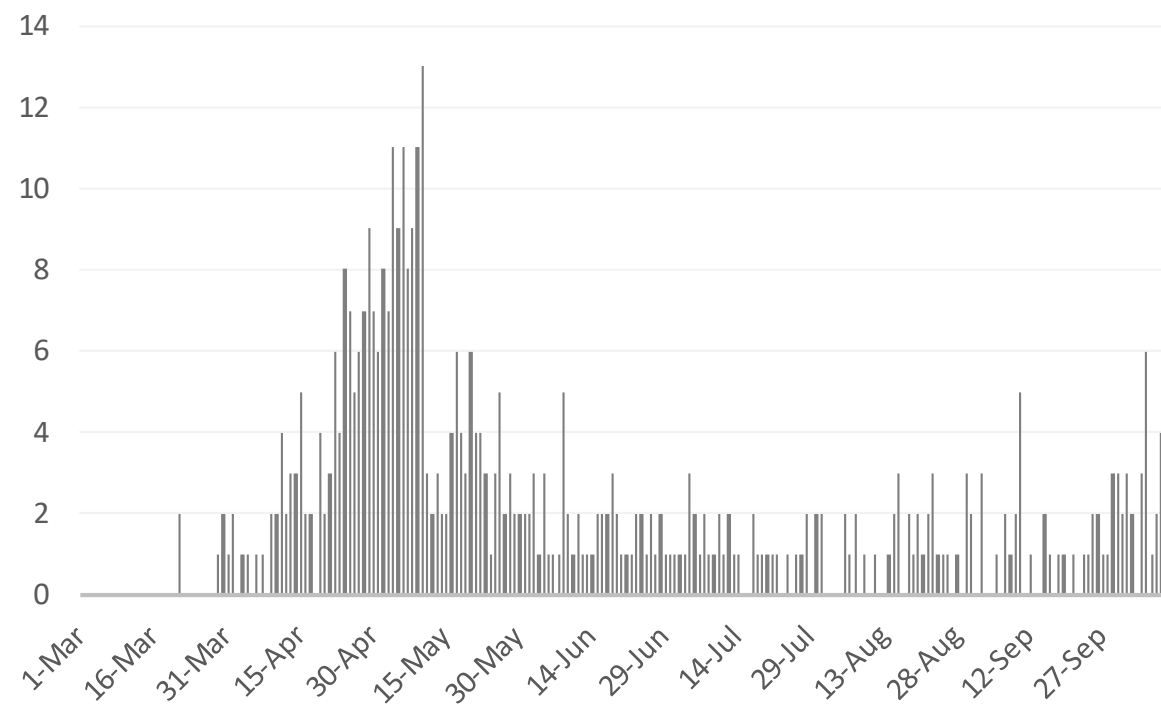
Source : Qatar ministry of health

\*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 October  
\*No announced statistic data on weekends and official holidays.



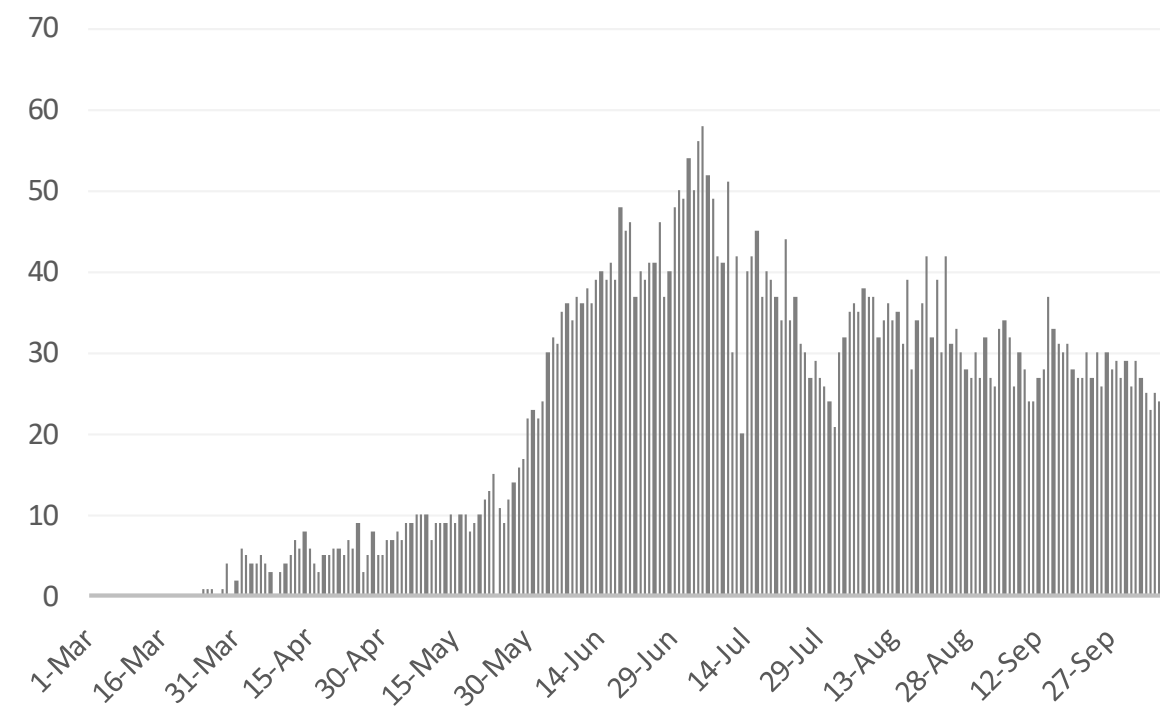
## Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

### UAE



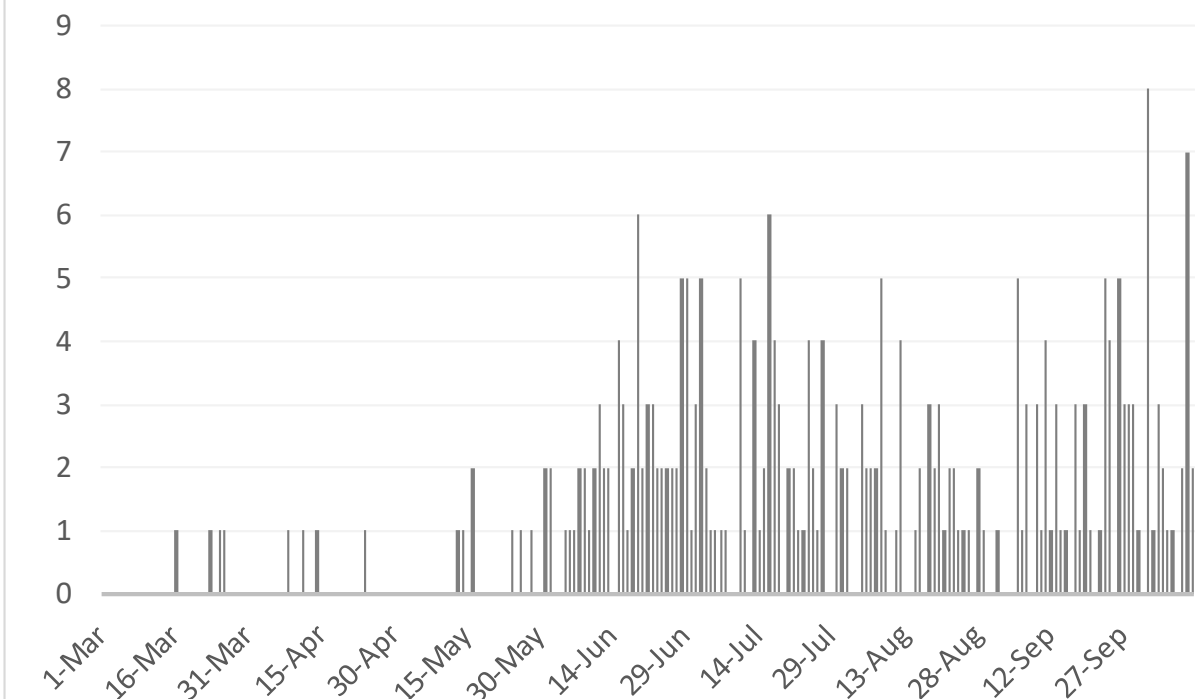
Source : National Emergency Crisis and Disaster Management Authority

### KSA



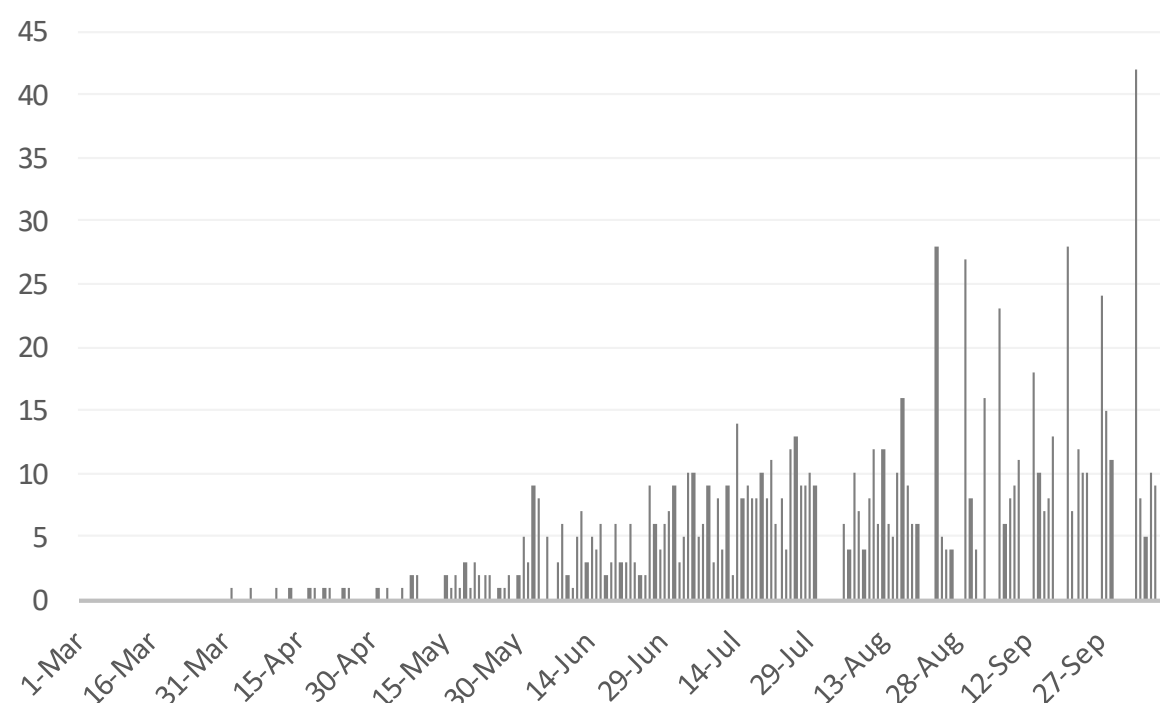
Source : KSA ministry of health

### Bahrain



Source :WHO

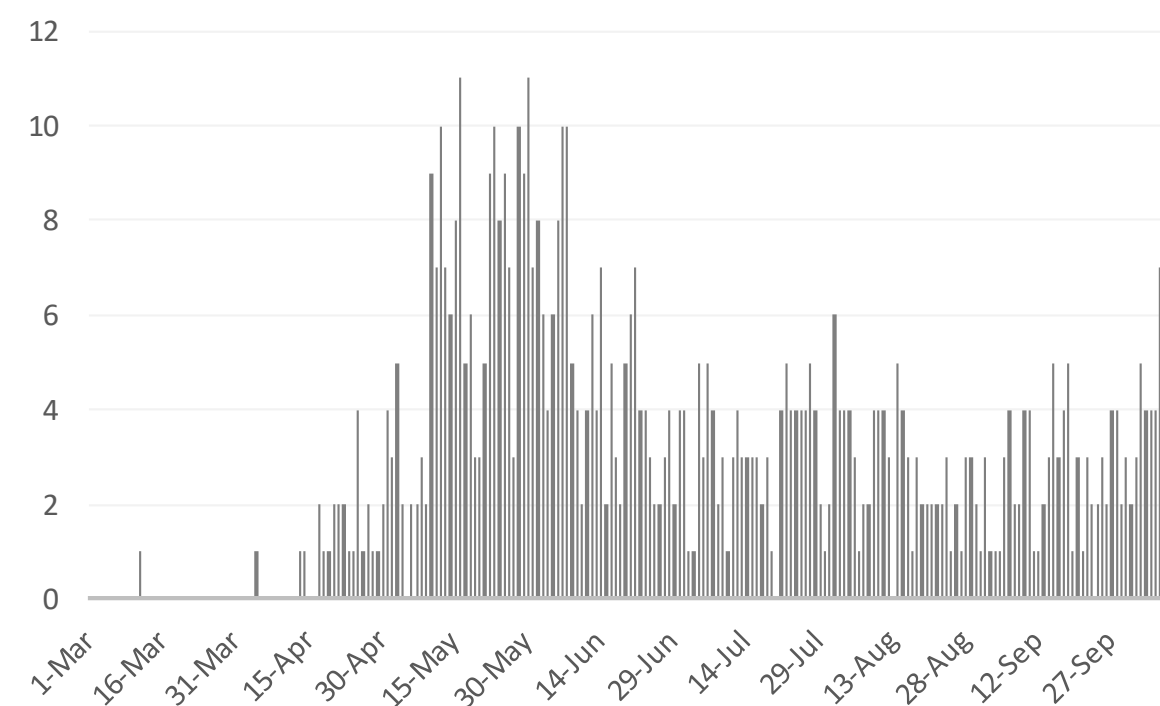
### Oman



Source :Oman ministry of health

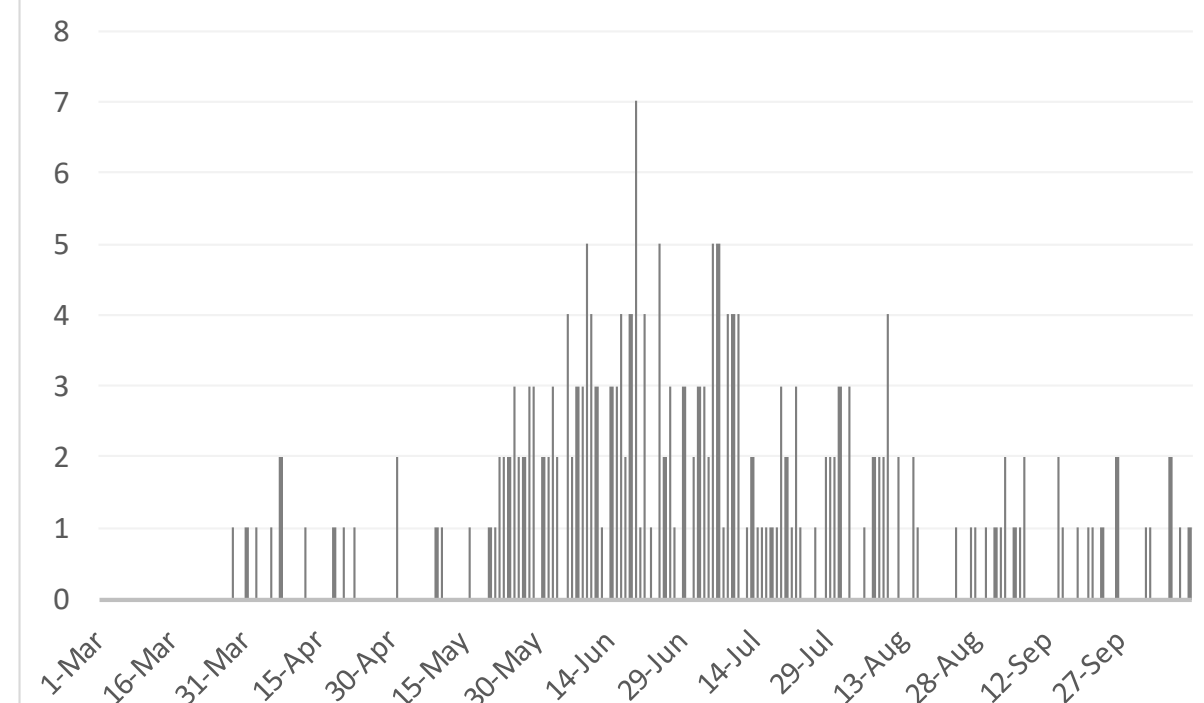
### Kuwait

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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 October  
\*No announced statistic data on weekends and official holidays.





# TRANSMISSION

## Article 2

### Published

## The US Centers for Disease Control and Prevention Say that Young Children in Childcare Centers Can Spread COVID-19

September 29, 2020, [THE JAMA](#)

- In the United States (US), in 3 outbreaks at childcare centers in Salt Lake City, Utah, the children with infections had mild to no symptoms, and 2 of the children without symptoms likely transmitted SARS-CoV-2 to their parents, other family members, and teachers. The Centers for Disease Control and Prevention (CDC) reported how researchers used contact tracing data to retrospectively construct transmission chains identifying three outbreaks of COVID-19. They found that in these outbreaks, which were initially linked to 3 index cases of COVID-19 among adults, more than half of the cases linked to the facilities were in children.
- The investigation also reported that staff members worked at the childcare centers when their household contacts were sick with COVID-19 symptoms that support the CDC guidance for childcare programs that advises staff members and attendees to quarantine and seek testing if household members have symptoms.
- The CDC reported that mitigation strategies could have helped limit transmission at childcare centers specifically wearing masks is recommended for children aged  $\geq 2$  years. It is important that staff members wear a mask themselves, washing hand, and frequent disinfection of high touch surfaces when caring for children too young to wear masks. Testing of contacts of people with confirmed COVID-19 in childcare centers including children with no symptoms could improve control of transmission from childcare attendees to family members.





## Article 1

# Clinical Screening for COVID-19 in Asymptomatic Patients With Cancer

Published

September 29, 2020, [JAMA NETWORK](#)

- In New York (USA), a quality improvement study (n=537) was conducted between April 30 and June 2, 2020. Patients with hematologic or solid tumor malignant neoplasms were considered asymptomatic if they had no recent fever; no COVID-19 symptoms such as cough, headache, loss of taste, and shortness of breath; or high-risk exposure within last 14 days. Diagnosis of COVID-19 was confirmed using SARS-CoV-2 nasal swab polymerase chain reaction (PCR) test and SARS-CoV-2 IgM and IgG serological tests.
- The rate of SARS-CoV-2 positivity was 0.64%. Only four patients had test results positive for COVID-19, two each for hematologic and solid tumor neoplasms. Serological tests were conducted on 236 patients (between May 18 and June 2, 2020). The rate of COVID-19 prior exposure in these cancer patients was 4.23%; however, at the same time, SARS-CoV-2 PCR positivity rate in New York City was 20%.
- These findings indicated that the rate of past infection among the cancer patients was extremely low (4%), and the rate of SARS-CoV-2 PCR positivity was <1%. In contrast, at the same time prevalence of COVID-19 in New York City was approximately 20%. It is anticipated that the highly motivated cancer patients followed social distancing recommendations, masking, and personal hygiene. These results provide reassurance to health care providers and patients that oncological treatment may continue safely during this pandemic.





## Continued

Table 2. SARS-CoV-2 PCR and COVID-19 Serology Testing in Clinically Screened Asymptomatic Patient Populations

Tumor type	SARS-CoV-2 PCR tests			COVID-19 serology tests			
	No.			No.			
	Total	Positive result	Positive rate (95% CI), %	Total	Positive result <sup>a</sup>	Indeterminate result <sup>a</sup>	Positive rate (95% CI), %
Solid tumor	270	2	0.74 (0.10-2.65)	131	3	8	2.29 (0.48-6.55)
Hematologic malignant neoplasm	351	2	0.57 (0.07-2.04)	105	7	3	6.67 (2.72-13.25)
Total	621	4	0.64 (0.18-1.64)	236	10	11	4.23 (2.05-7.65)

Abbreviations: COVID-19, coronavirus disease 2019; PCR, polymerase chain reaction; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2.

<sup>a</sup> Positive was defined as value 1 or greater, and intermediate was defined as the mean index value plus 3 × SD divided by the instrument cutoff.







## Article 1

### Published

## Risk of COVID-19-Related Death Among Patients with Chronic Obstructive Pulmonary Disease or Asthma Prescribed Inhaled Corticosteroids: An Observational Cohort Study Using the OpenSAFELY Platform

September 24, 2020, [THE LANCET](#)

- In the United Kingdom (UK), this observational cohort study (from March 1 to May 6, 2020) included data extraction for two cohorts of patients [chronic obstructive pulmonary disease (COPD) and asthma] from primary care electronic health records (EHRs) data linked with death data from the Office for National Statistics. In the COPD population, patients were prescribed an inhaled corticosteroid (ICS) or long-acting  $\beta$  agonist with a long-acting muscarinic antagonist (LABA-LAMA) as a combination therapy within the four months before the index date (start of follow-up). In the asthma population, patients were prescribed an ICS (low-dose or medium-dose and high-dose) or short-acting  $\beta$  agonist (SABA) within the four months before the index date. The outcome of COVID-19 related death between patients prescribed an ICS and those prescribed alternative respiratory medications, were compared.
- Patients with COPD (n=148,557) who were prescribed ICS were at higher risk of COVID-19 related death as compared with those prescribed LABA-LAMA combination [adjusted Hazard Ratio (aHR)-1.39; 95% CI: 1.10-1.76]. For patients with asthma (n=818,490), compared with those prescribed SABA, individuals who were prescribed high-dose ICS were at higher risk of death [aHR-1.55; 95% CI: 1.10-2.18]; however, those prescribed a low- or medium-dose were not [aHR-1.14; 95% CI: 0.85-1.54].
- **These findings show that there is no evidence of a beneficial effect of regular ICS use among patients with COPD and asthma on COVID-19 related death. The results do not support any change to the current clinical guidelines for the routine treatment of patients with COPD or asthma with ICS during this pandemic.**



# THANK YOU

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