

# SCIENTIFIC RESEARCH MONITORING ON COVID-19

**7 OCTOBER 2020**

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# SCIENTIFIC RESEARCH MONITORING ON COVID-19

## (ISSUE 249)

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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**Research**

Update



**Statistics**



**Articles**

Summary

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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## Treatment

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## Vaccine

Draft Landscape of COVID-19 Candidate Vaccines

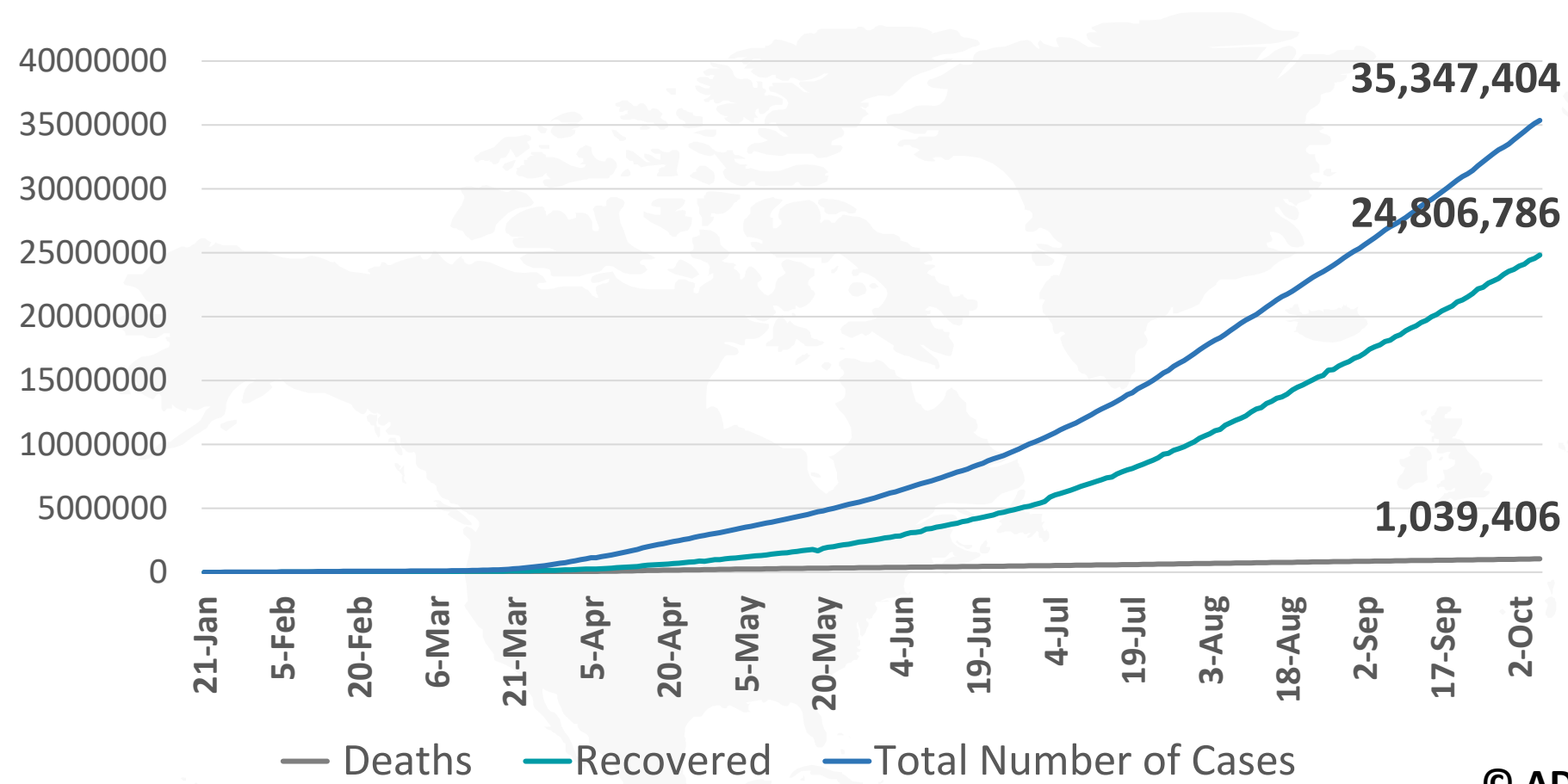


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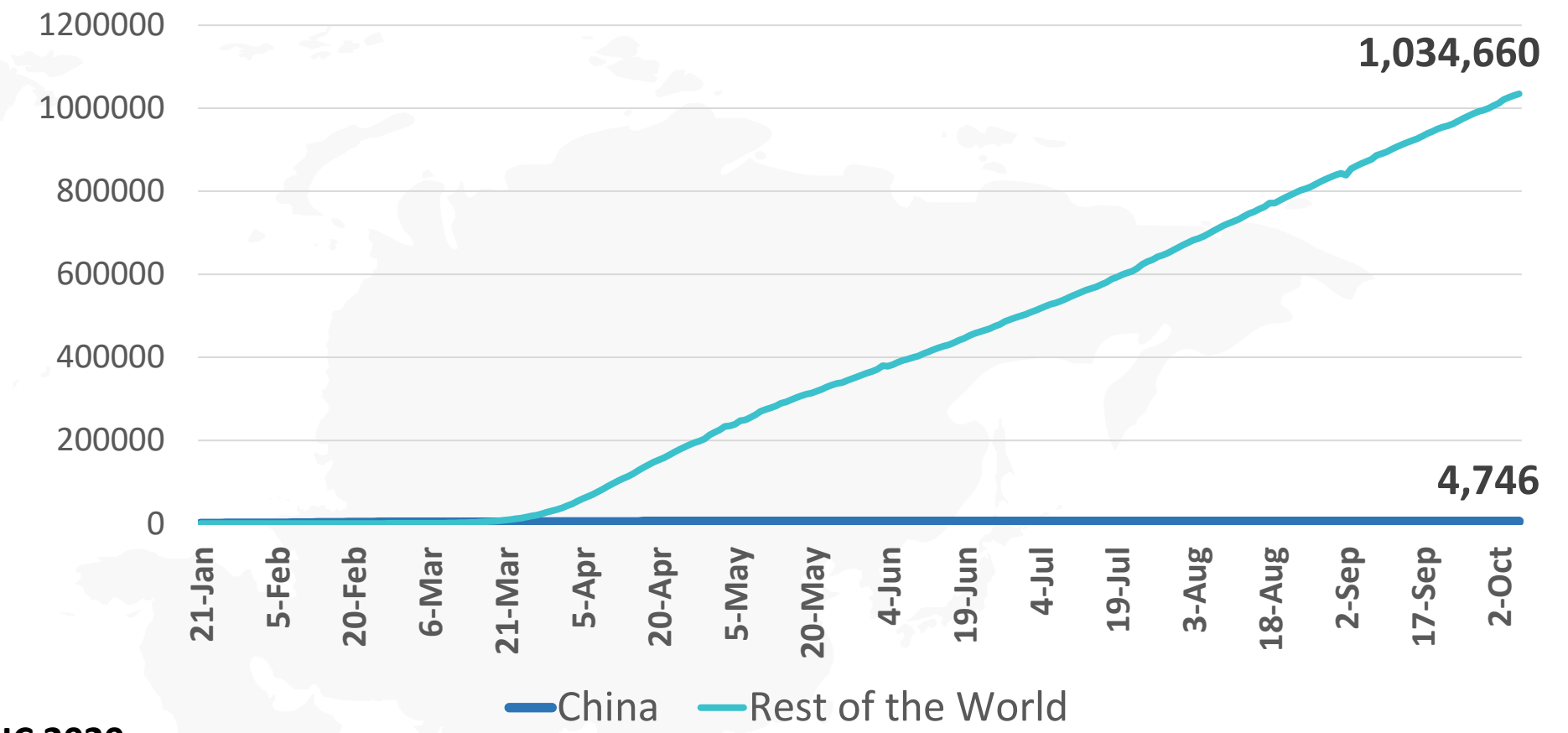
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**Figure 1: Total Number of Infected, Recovered, and Death Cases**

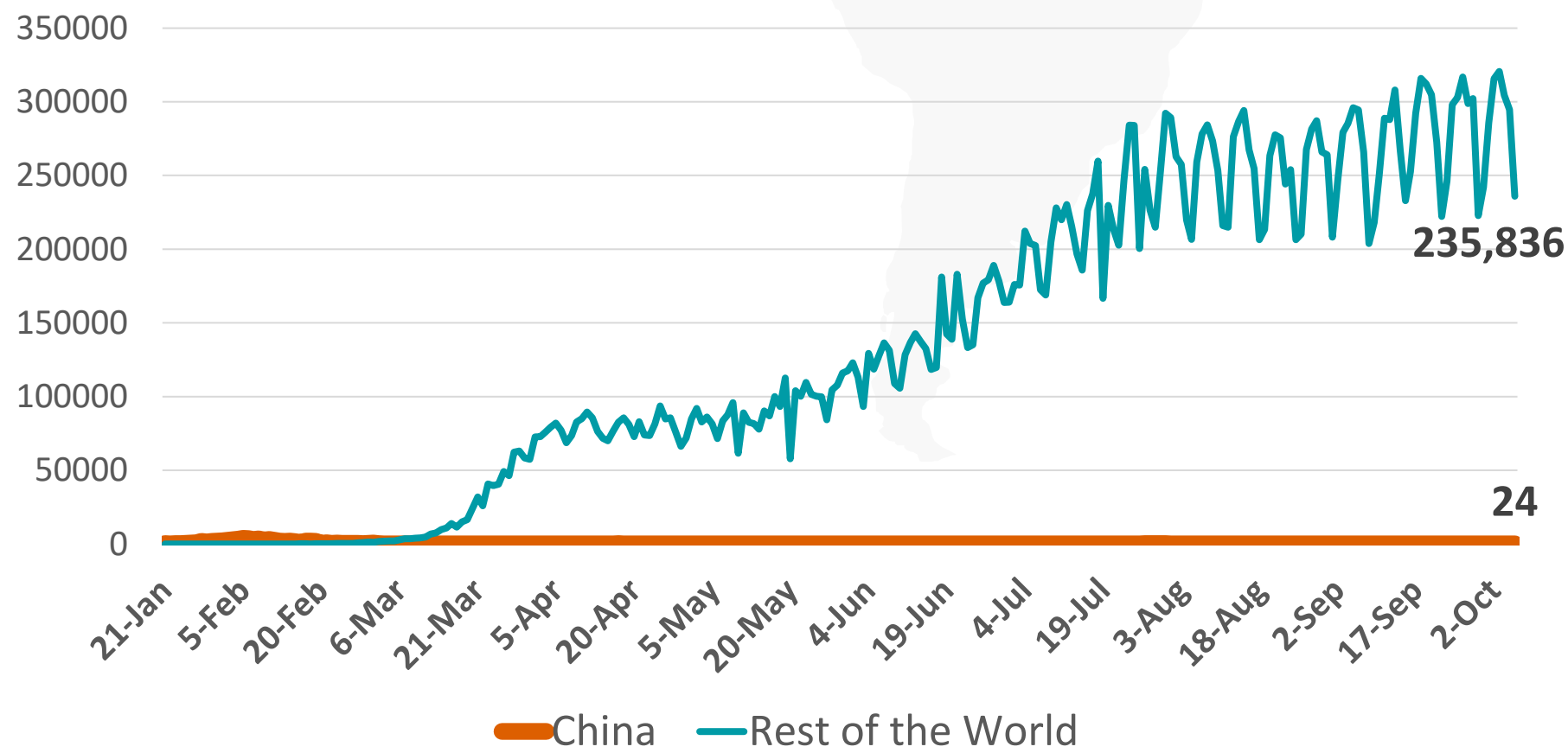


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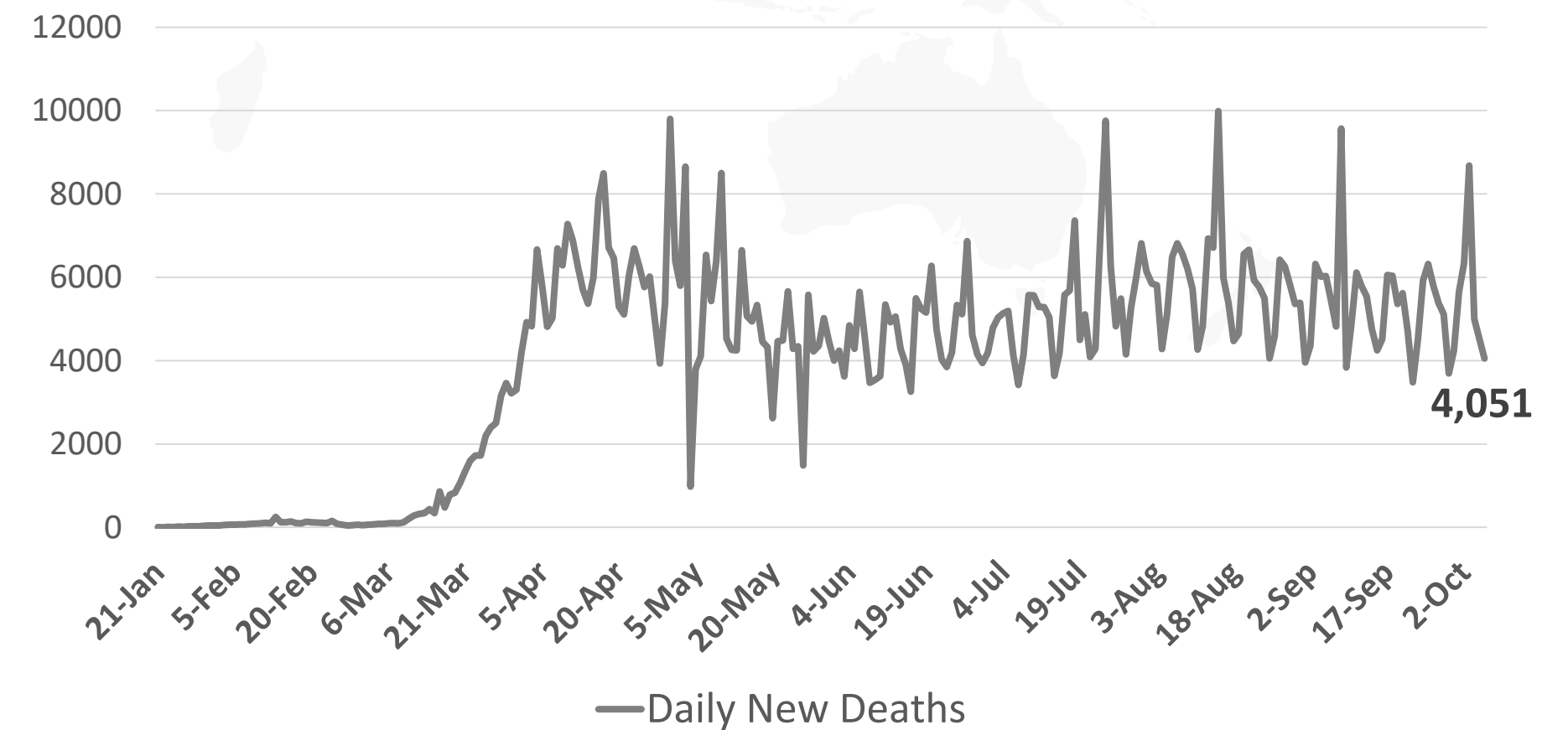
**Figure 3: Total Number of Death Due to COVID-19 (china and result of the world)**



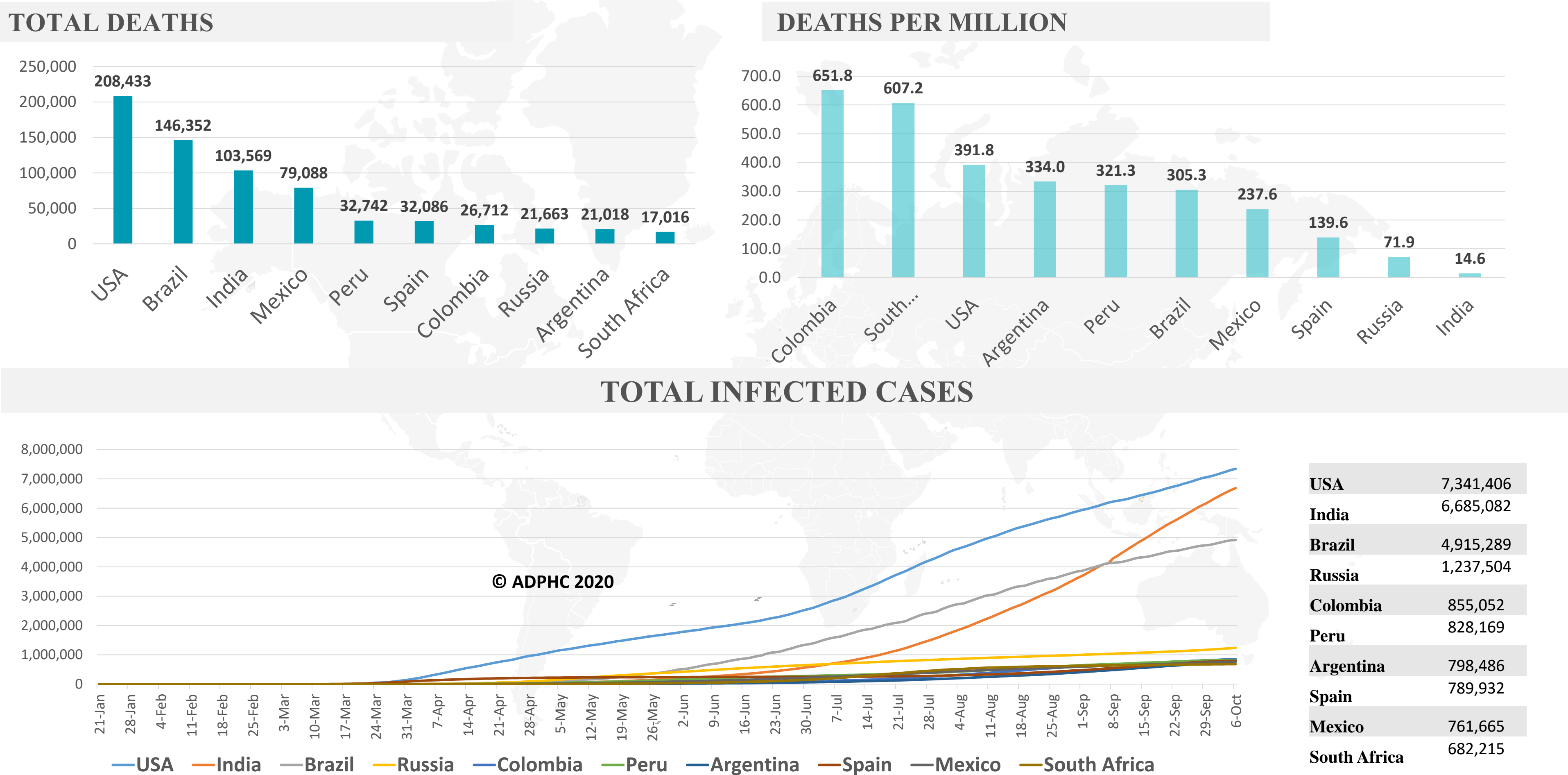
**Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)**



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



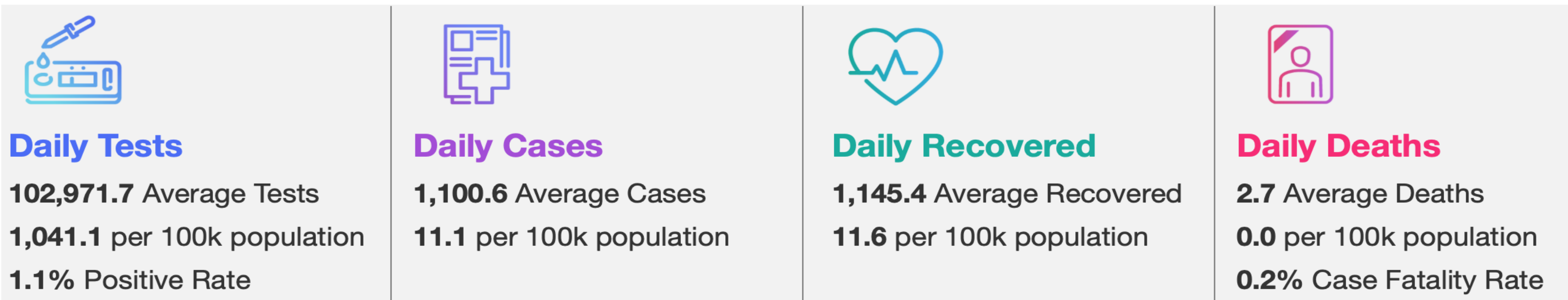
## Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19



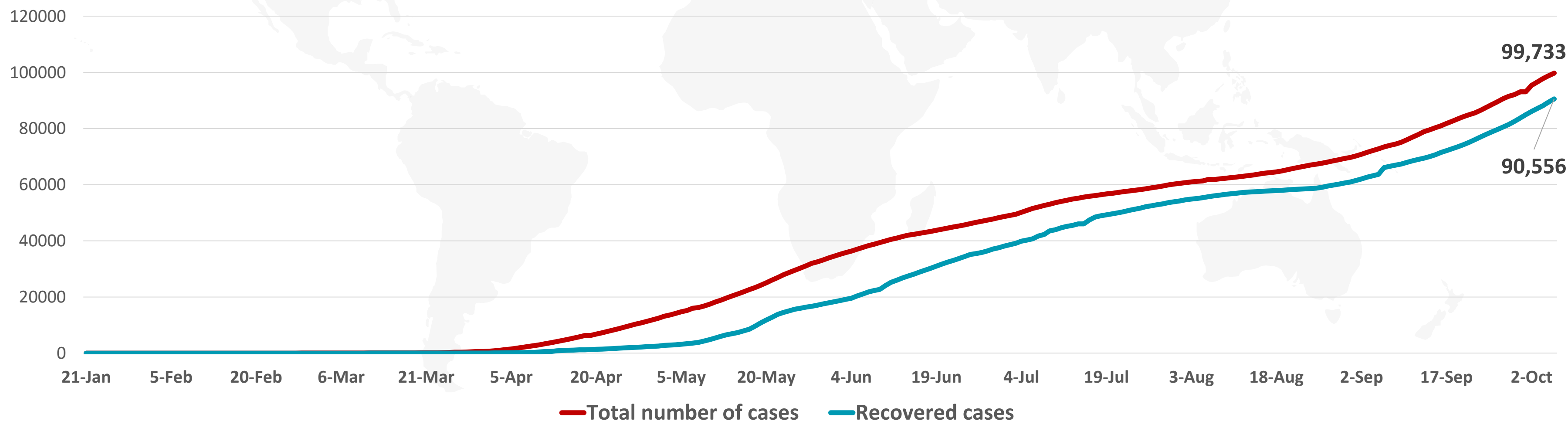
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USA	7,341,406
India	6,685,082
Brazil	4,915,289
Russia	1,237,504
Colombia	855,052
Peru	828,169
Argentina	798,486
Spain	789,932
Mexico	761,665
South Africa	682,215

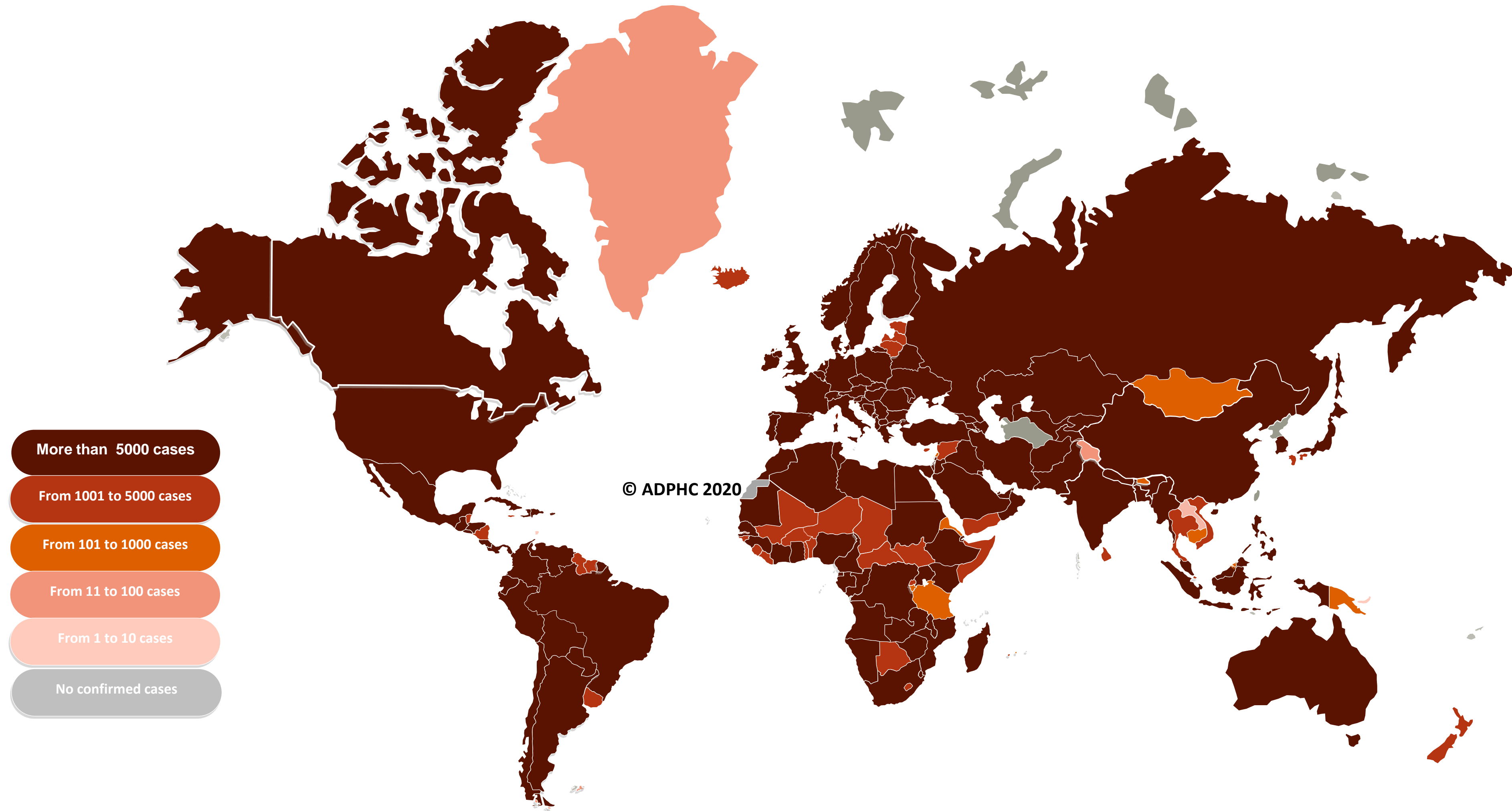
**Figure 6: COVID-19 Status in the UAE** (Federal Competitiveness and Statistics Authority Dashboard)



## 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

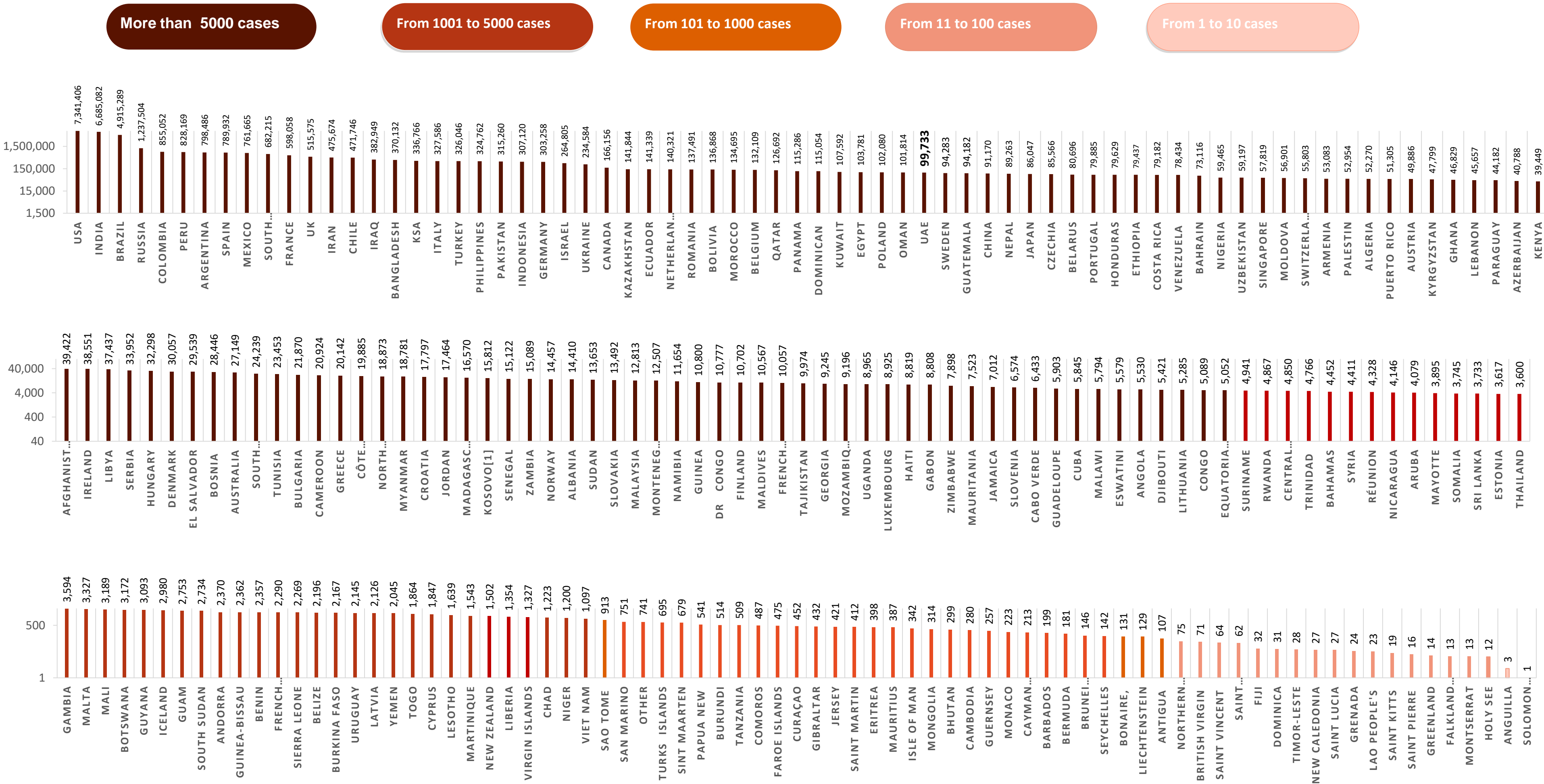
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

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



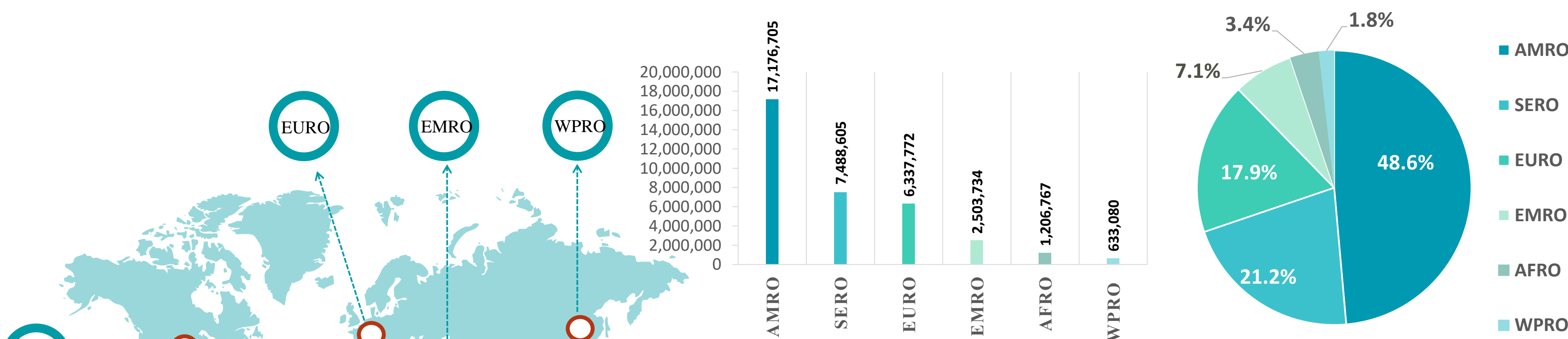
Other\*: includes cases and deaths reported under the international conveyance(Diamond Princess)



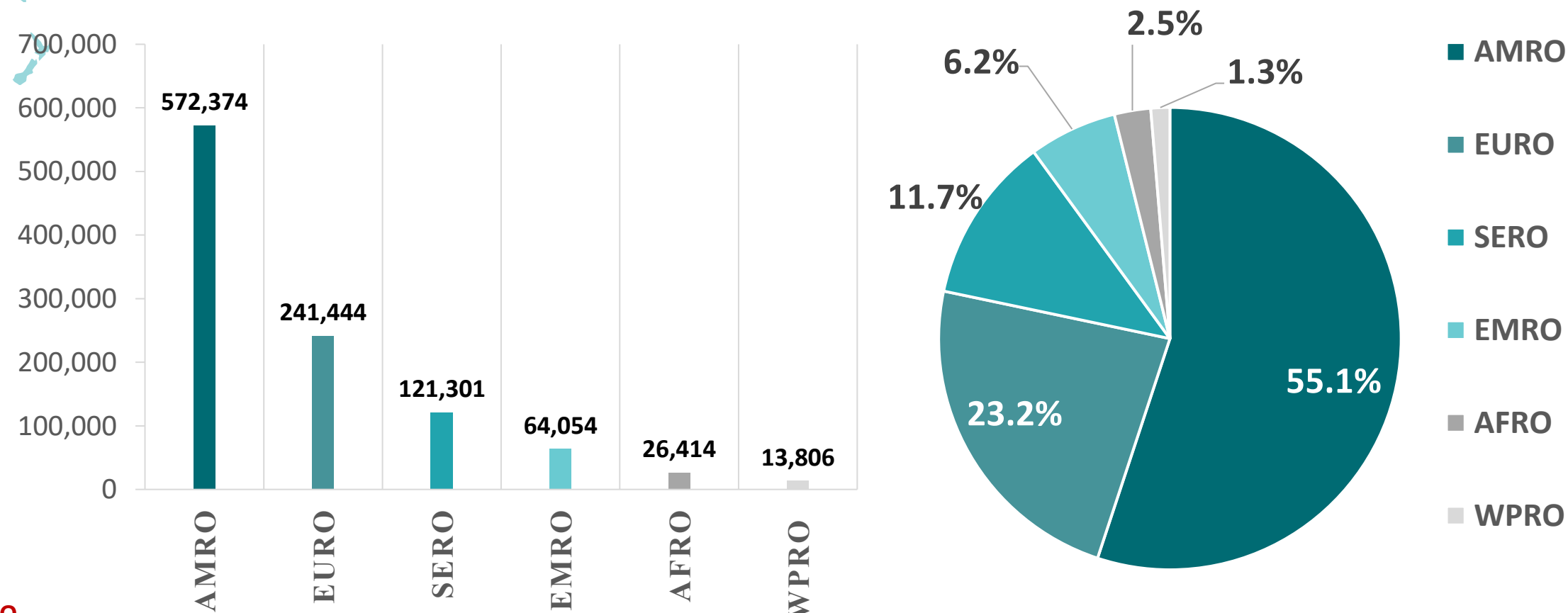


## Figure 8: Global Distribution of COVID-19 Cases per Region

### INFECTED

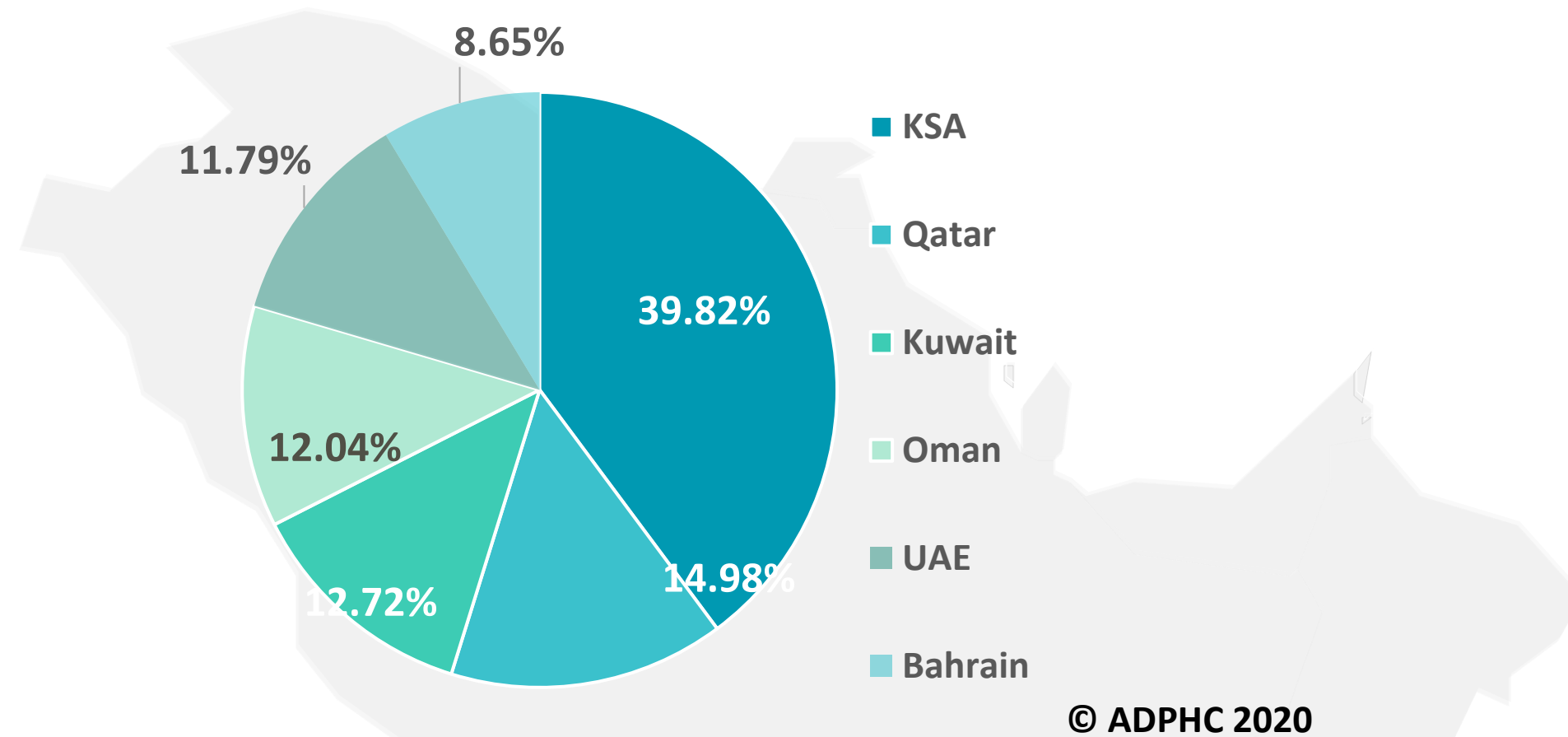


### DEATHS

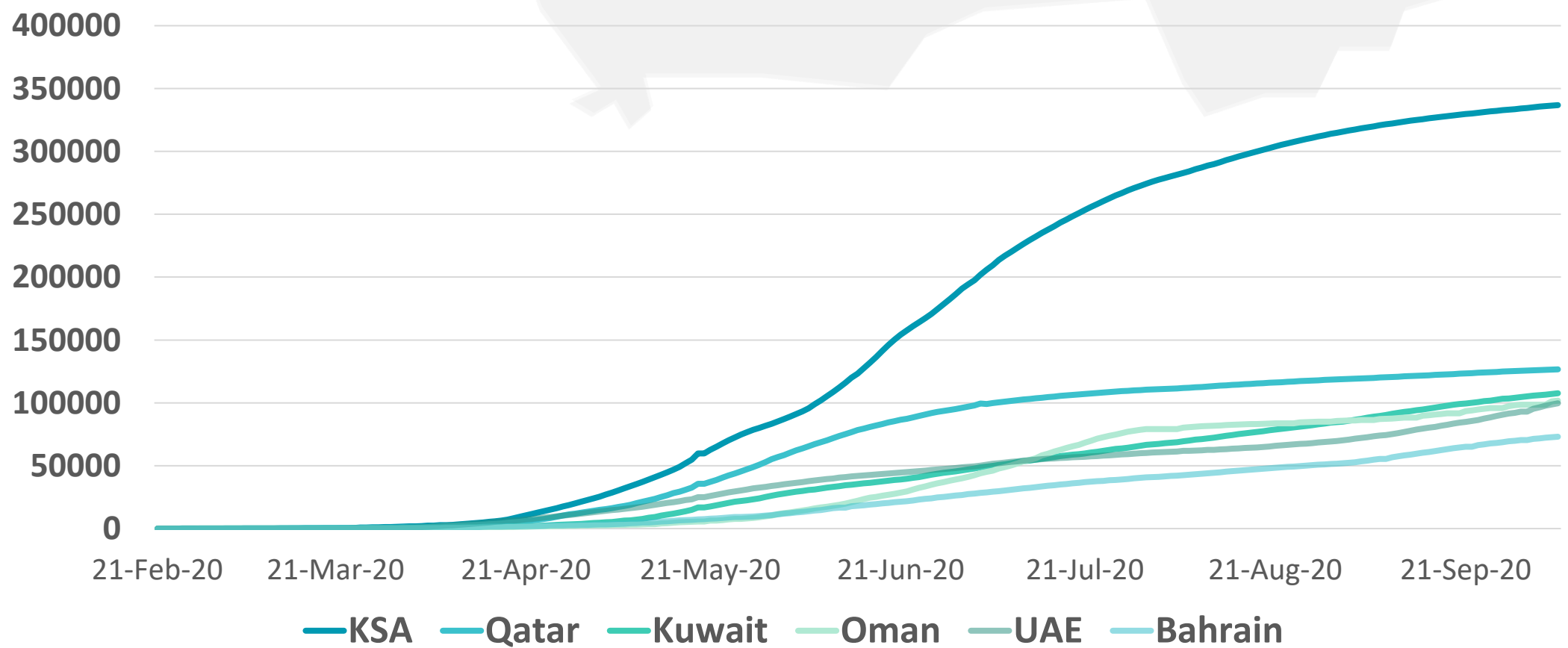
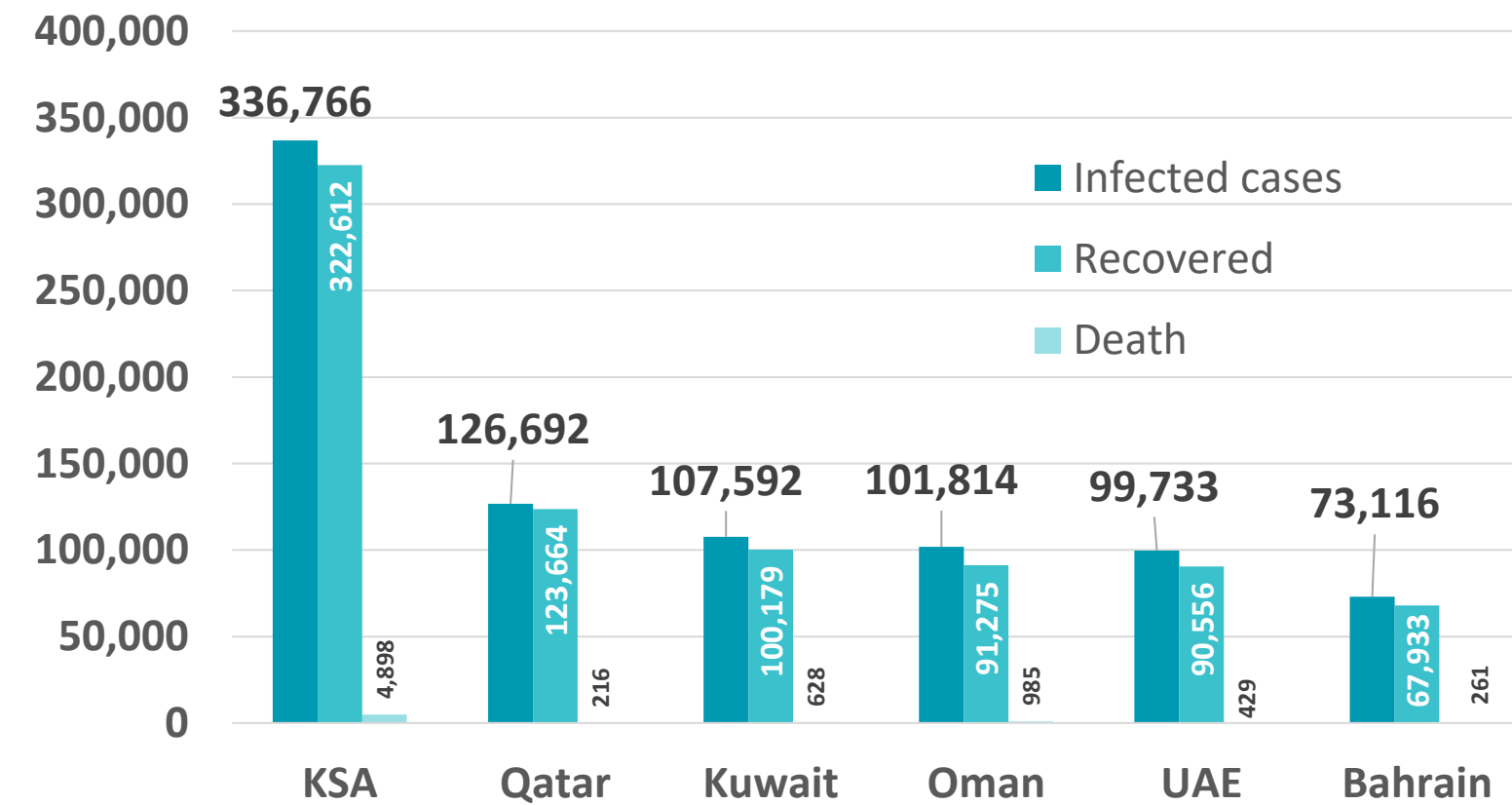


## Figure 9: Comparative Analysis of the Distribution of COVID-19 Cases in GCC Countries

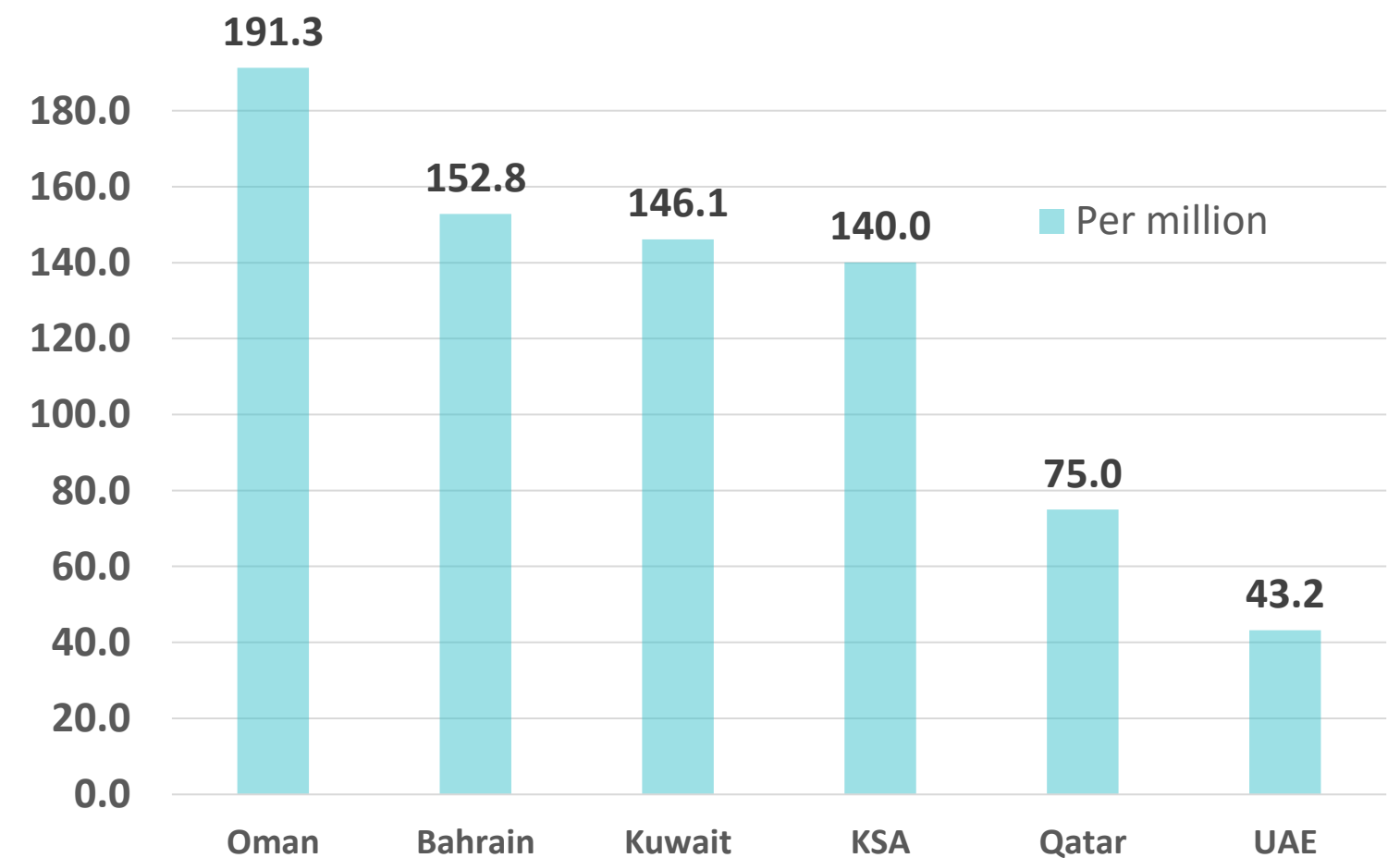
### TOTAL NUMBER OF INFECTED CASES



### 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



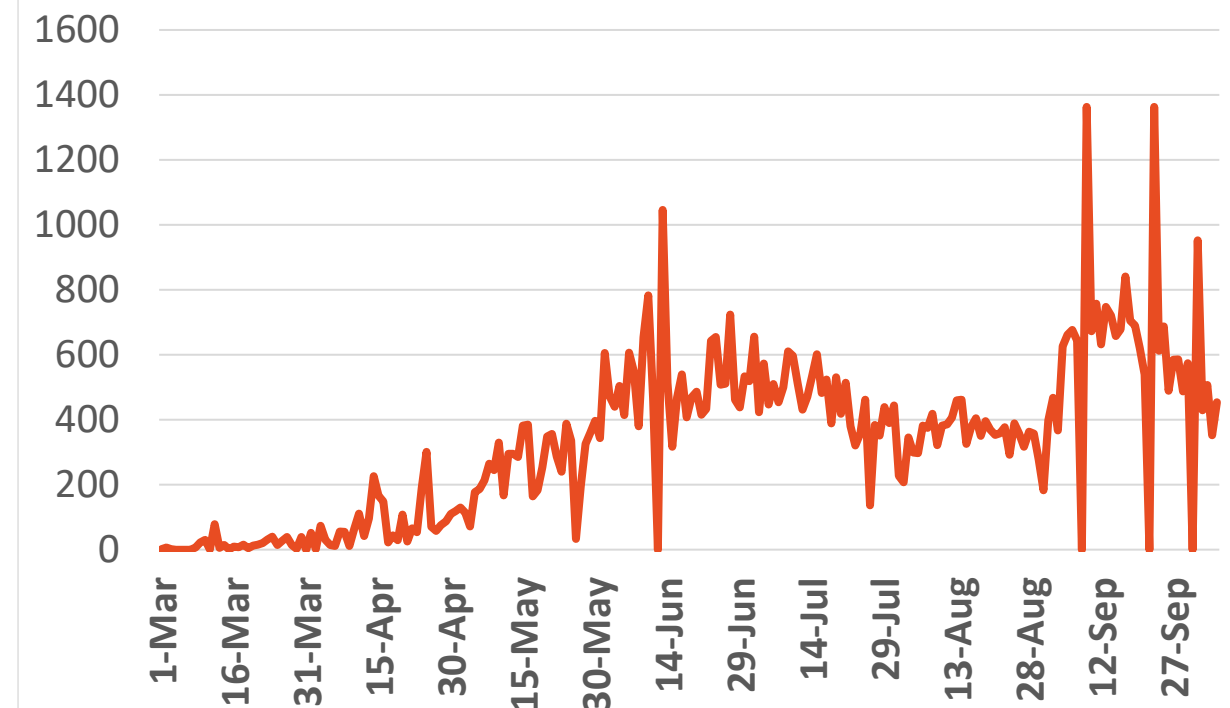
Source : National Emergency Crisis and Disaster Management Authority

### KSA



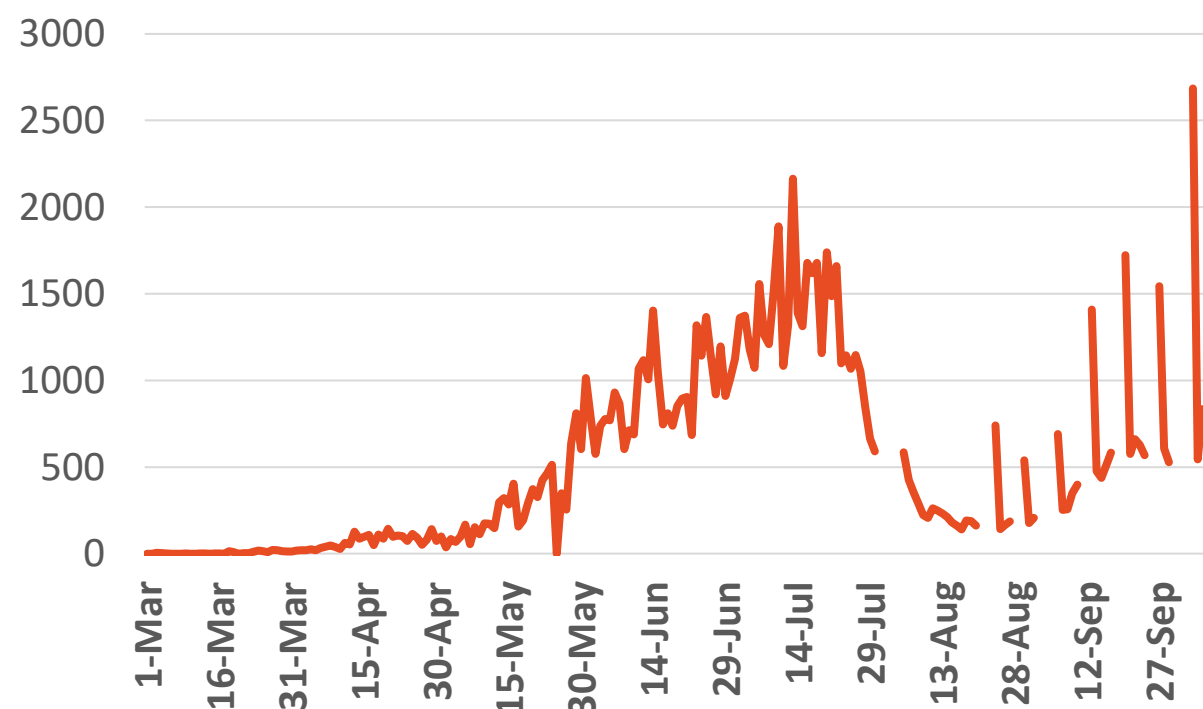
Source : KSA ministry of health

### Bahrain



Source :WHO

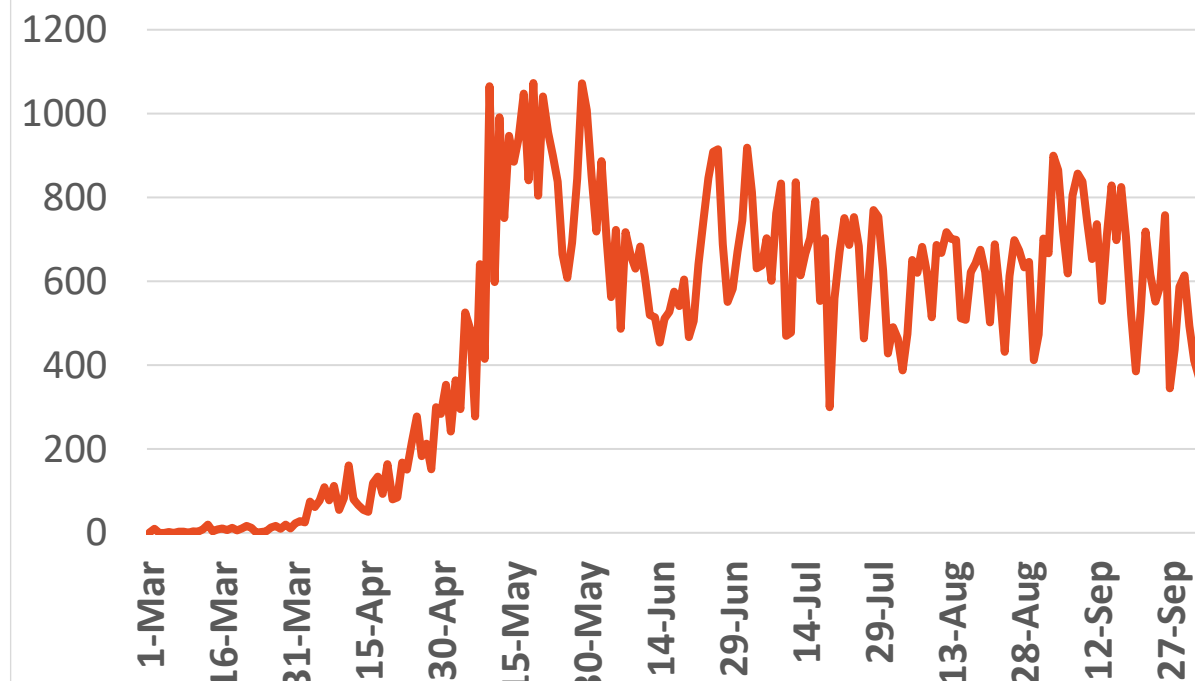
### Oman



Source :Oman ministry of health

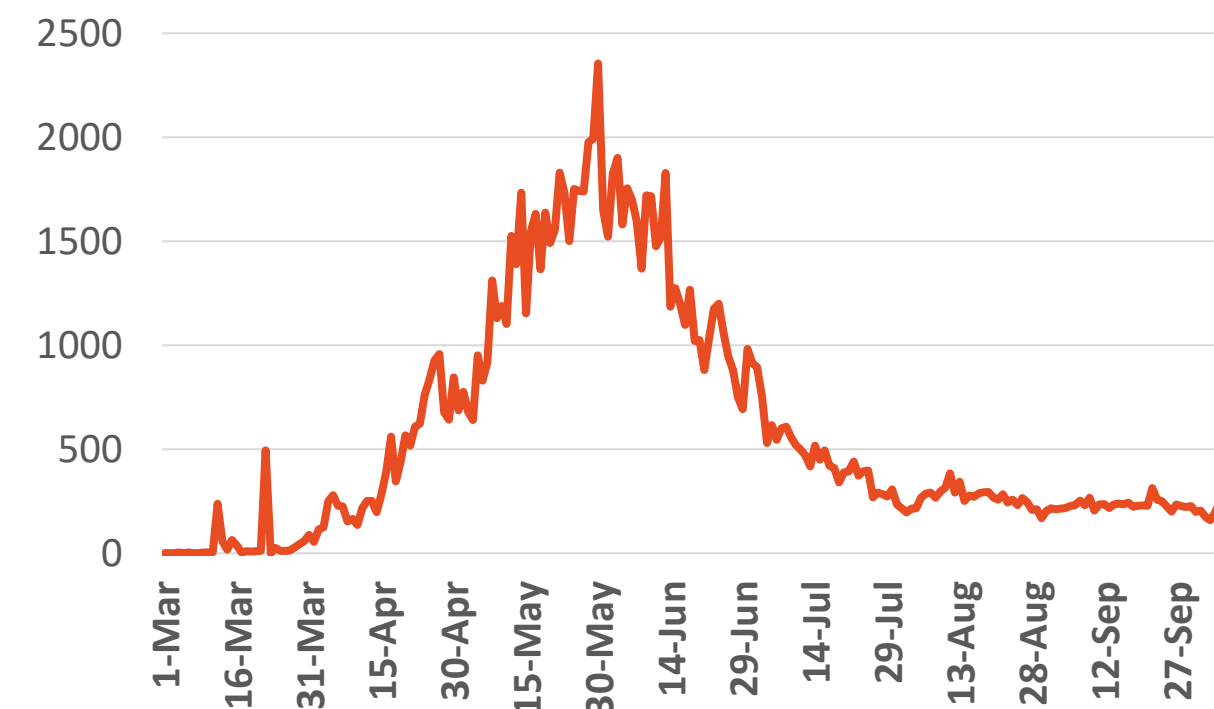
### Kuwait

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Source : Kuwait ministry of health

### Qatar



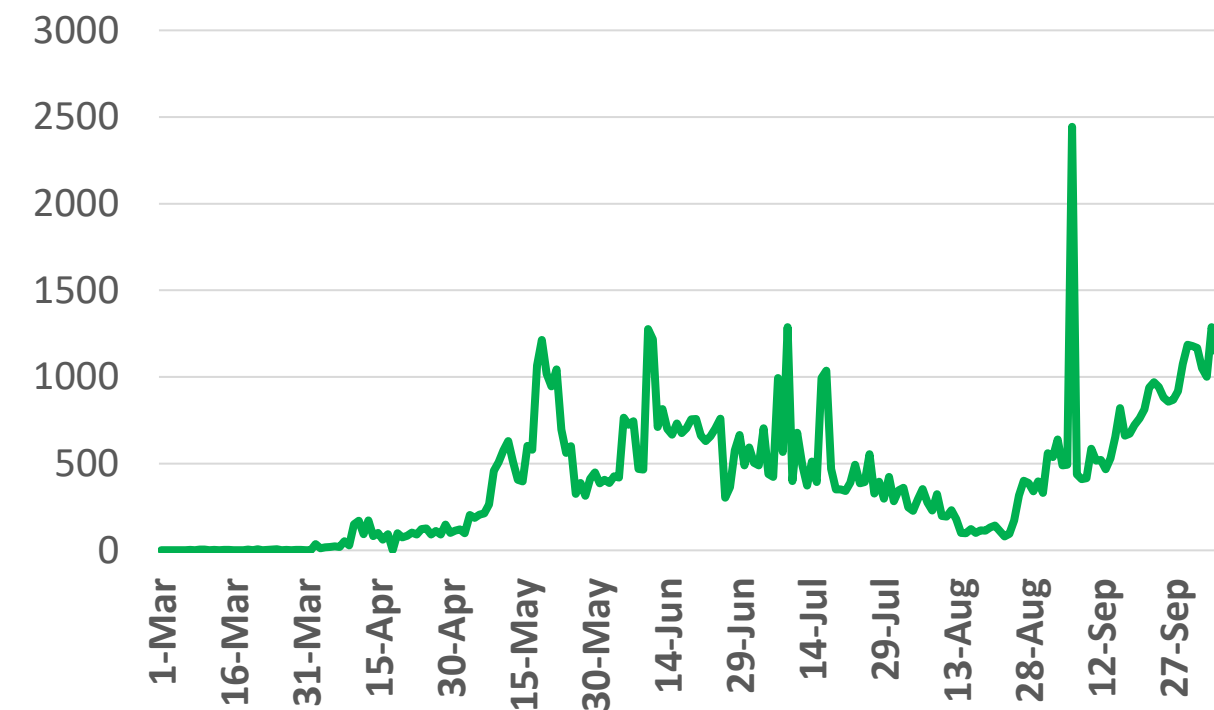
Source : Qatar ministry of health

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



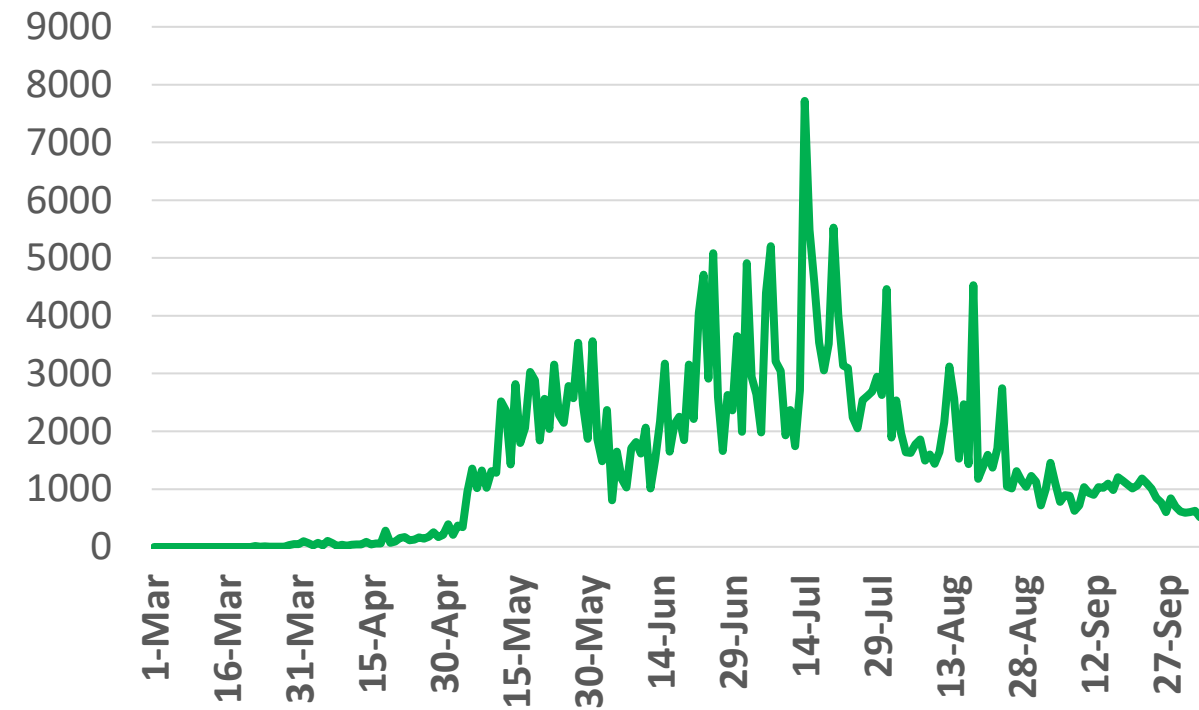
**Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries**

## UAE



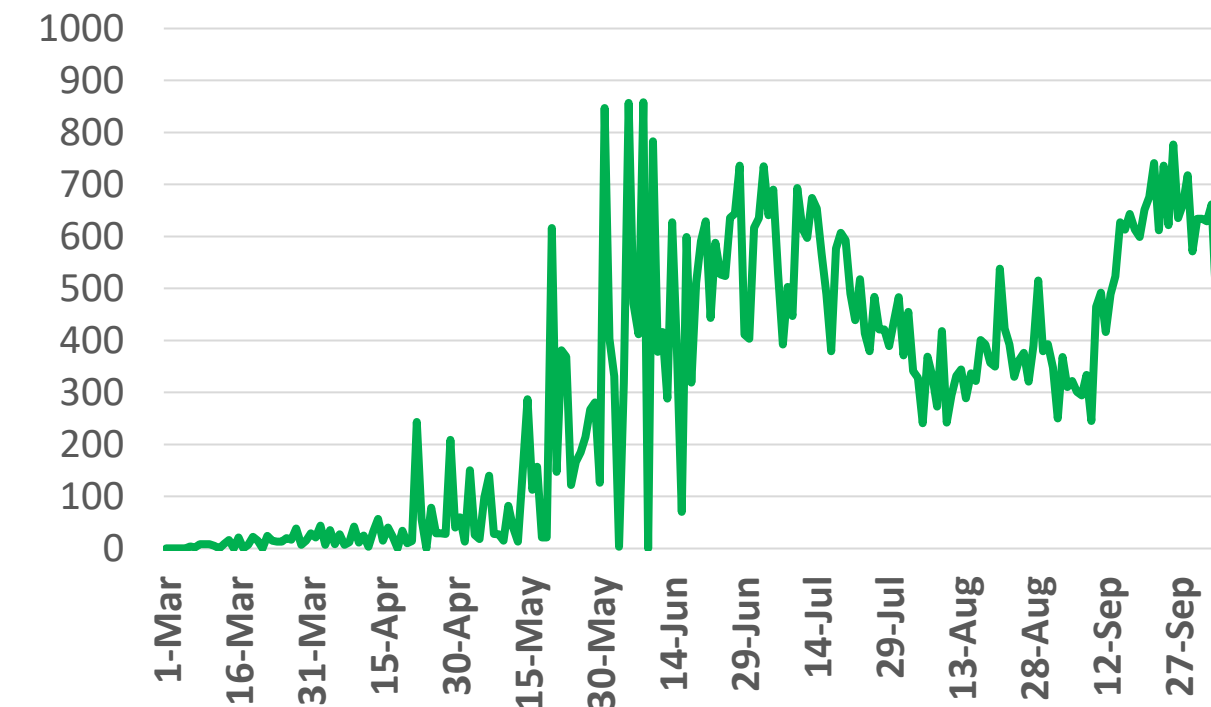
Source : National Emergency Crisis and Disaster Management Authority

## KSA



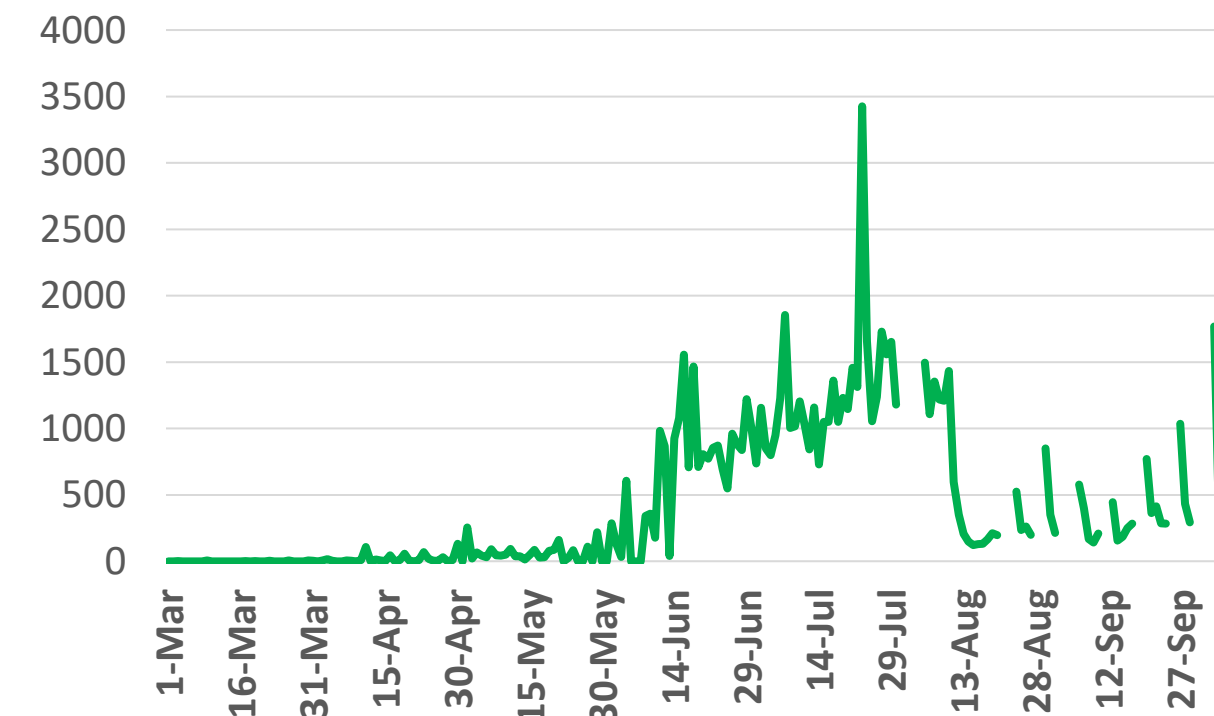
Source : KSA ministry of health

## Bahrain



Source : Bahrain ministry of health

## Oman



Source : Oman ministry of health

## Kuwait

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Source : Kuwait ministry of health

## Qatar



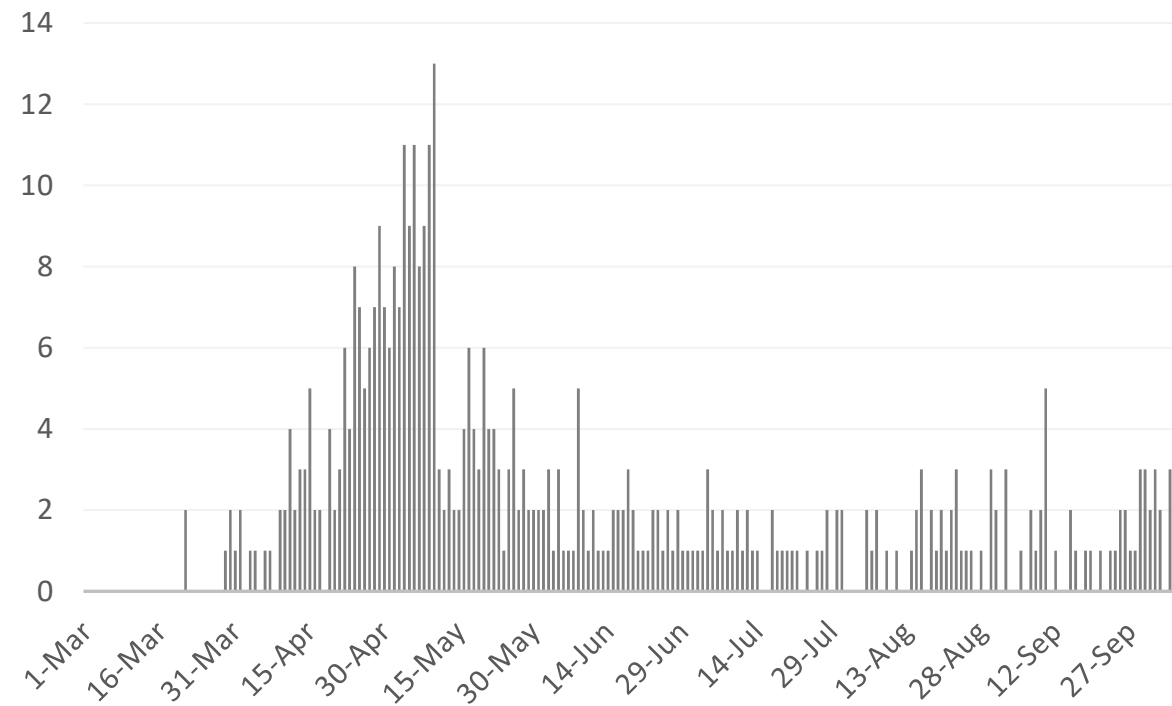
Source : Qatar ministry of health

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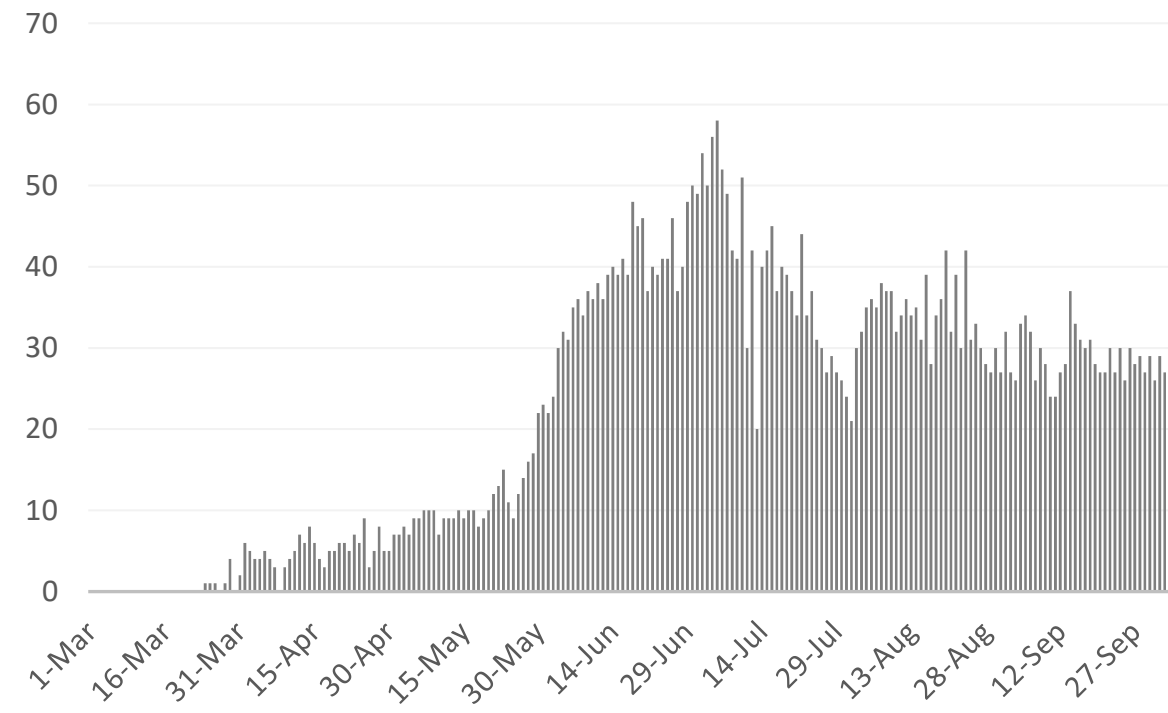
## Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

### UAE



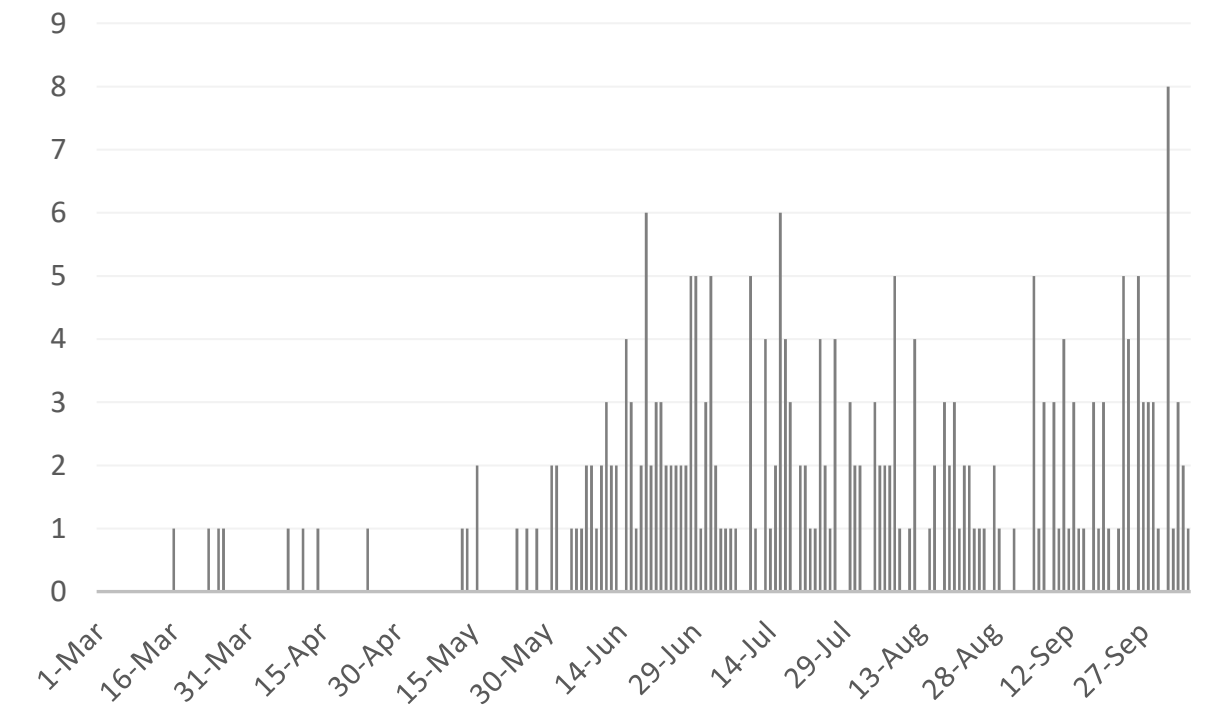
Source : National Emergency Crisis and Disaster Management Authority

### KSA



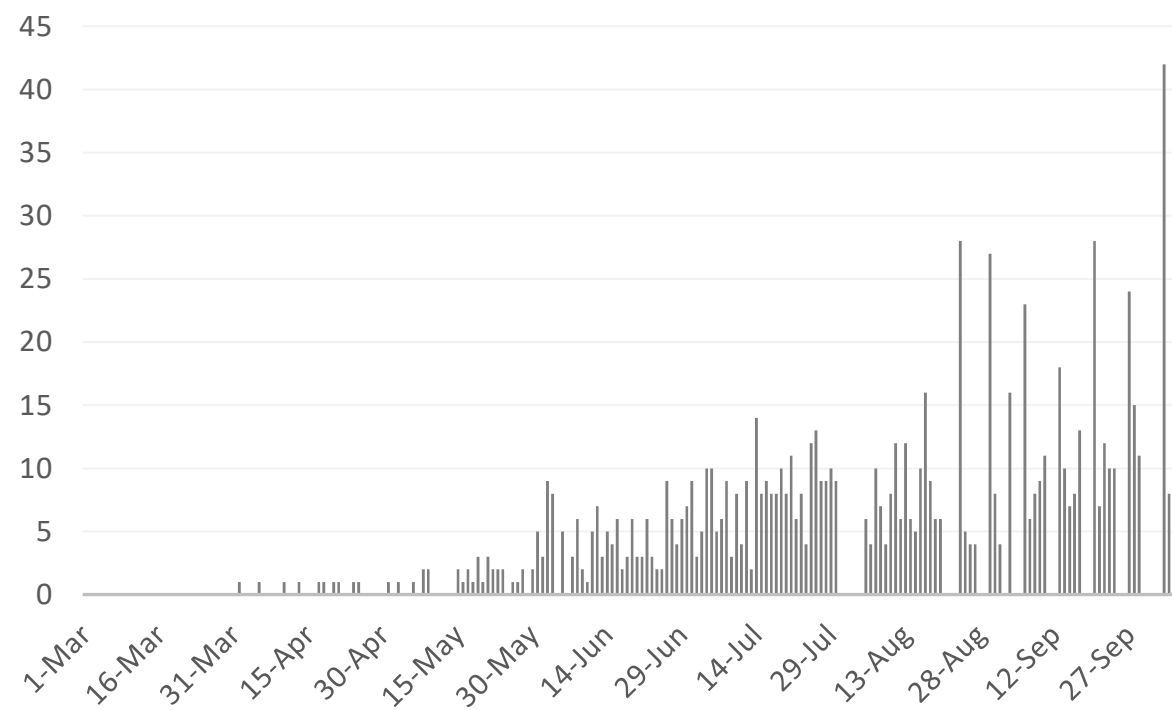
Source : KSA ministry of health

### Bahrain



Source :WHO

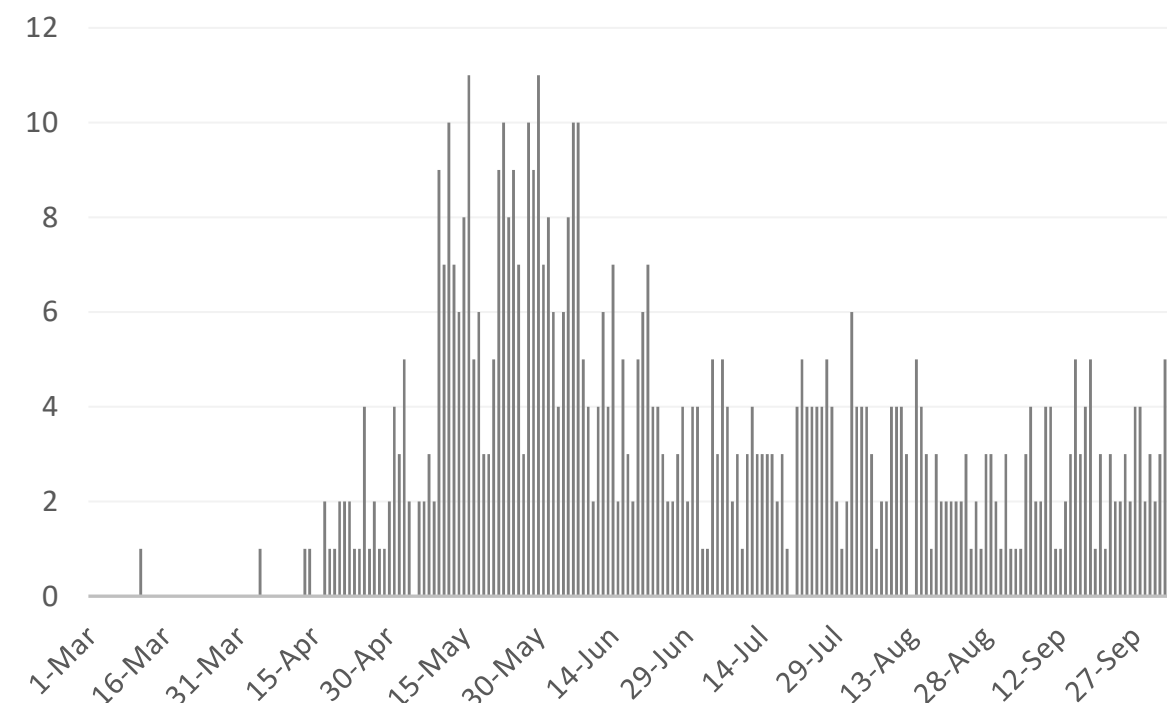
### Oman



Source :Oman ministry of health

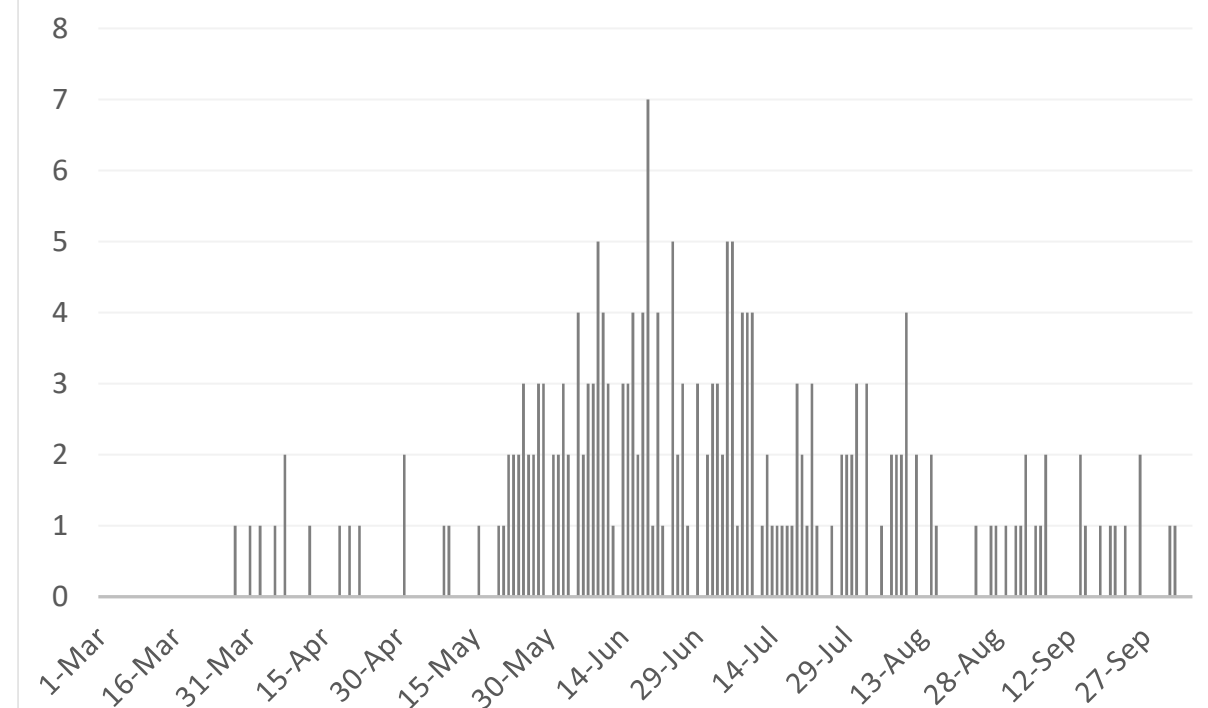
### Kuwait

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





## Article 1

# Characteristics of US Adults Delaying Dental Care Due to the COVID-19 Pandemic

Published

September 27, 2020 [SAGE journals](#)

**The objective of this cross-sectional study was to describe and quantify US adults who delayed dental care due to the COVID-19 pandemic.**

## Methodology

- The survey included questions about dental care delayed due to the COVID-19 pandemic, purpose of the delayed dental visits, timing of future dental visits, and demographic information.
- The multivariable regression model, adjusted for:
  - Age
  - Race
  - Hispanic ethnicity
  - Census division
  - Rurality,was estimated to predict the odds of reporting delayed dental care.

## Results

- Around half of the respondents (46.7%) reported delaying going to the dentist or receiving dental care because of the COVID-19 pandemic.
- Among adults who reported delaying dental care because of the pandemic, 74.7% reported delaying a check-up, 12.4% reported delaying care to address something that was bothering them, and 10.5% reported delaying care to get planned treatment.
- About 44.4% of adults reported that they planned to visit the dentist within the next 3 months.





## Article 2

### Published

October 5, 2020 [THE LANCET](#)

## Safety Lopinavir–Ritonavir in Patients Admitted to Hospital with COVID-19 (RECOVERY): A Randomized, Controlled, Open-Label, Platform Trial

- Results from the RECOVERY trial do not support the use of lopinavir-ritonavir to treat patients admitted to hospital with COVID-19.
- Lopinavir-ritonavir treatment does not significantly reduce deaths, length of hospital stays, or the risk of needing to be placed on a ventilator.
- The authors recommend that clinical guidelines must be updated based on findings from the RECOVERY trial.





## Article 3

# The Environmental Consequences of the COVID-19 Pandemic

Published

August 19, 2020 [THE LANCET](#)

- The Government has much to do to prevent a second wave of COVID-19, and the use of Personal Protective Equipment (PPE) is an important part of that strategy.
- However, we cannot continue to dump masks and other Personal Protective Equipment's and degrade our environment further.
- The Government must lead the way in determining how to decontaminate and recycle the PPE that we are using.







## Article 4

# Neurological Consequences of COVID-19: What Have We Learned and Where Do We Go From Here?

Published

September 30, 2020 [NCBI](#)

**This study summarizes the current body of literature regarding the central nervous system (CNS) effects of SARS-CoV-2 as well as discusses several potential targets for therapeutic development to reduce neurological consequences in COVID-19 patients.**

- A rapidly accumulating set of clinical studies revealed atypical symptoms of COVID-19 that involves neurological signs, including headaches, anosmia, nausea, dysgeusia, damage to respiratory centres, and cerebral infarction.
- These unexpected findings offer significant clues concerning the pathological sequela of SARS-CoV-2 infection. Furthermore, no efficacious therapies or vaccines are presently available, that complicates the clinical management of COVID-19 patients and it therefore, emphasizes on the public health need for controlled, hypothesis-driven experimental studies to provide a framework for therapeutic development.
- Different biological variables, such as sex, age, comorbid conditions (e.g., hypertension, diabetes, stress), pre-existing neurological diseases, and other yet undefined genetic polymorphisms dictate the clinical course of SARS-CoV-2 infection.





## Article 5

Published

# COVID-19 Target Product Profiles for Priority Diagnostics to Support Response to the COVID-19 Pandemic v.1.0

September 29, 2020 [WHO](#)

**The final version of Target Product Profiles (TPP) for priority COVID-19 diagnostics has been published by the WHO.**

These TPPs describe the desirable and minimally acceptable profiles for four tests.

- Point of care test for suspected COVID-19 cases and their close contacts to diagnose acute SARS-CoV-2 infection in areas where reference assay testing is unavailable, or turnaround times obviate clinical utility.
- Test for diagnosis or confirmation of acute or subacute SARS-CoV-2 infection, suitable for low or high-volume needs:
  - Point of care test for prior infection with SARS-CoV-2.
  - Test for prior infection with SARS-CoV-2 for moderate to high volume needs.





## Article 6

Published

# Efficacy and Safety of Hydroxychloroquine vs Placebo for Pre-Exposure SARS-CoV-2 Prophylaxis Among Health Care Workers: A Randomized Clinical Trial

September 30, 2020 [JAMA Network](#)

**This randomized, double-blind, placebo-controlled clinical trial tested the hypothesis that administering daily hydroxychloroquine would prevent SARS-CoV-2 infection in hospital-based health care workers over 8 weeks of exposure via RT-PCR testing of nasopharyngeal (NP) swabs and serologic antibody testing from participants at baseline, 4 weeks and 8 weeks of the treatment.**

## Methodology

- This study was conducted in two tertiary urban hospitals, with enrolment of 132 health care workers from April 9, 2020, to July 14, 2020; follow-up ended on August 4, 2020.

## Results

- The findings demonstrated that there was no significant difference in a reverse-transcriptase polymerase chain reaction–confirmed SARS-CoV-2 incidence between hydroxychloroquine and placebo cohorts. Therefore, daily hydroxychloroquine **did not prevent** SARS-CoV-2 infection among hospital-based health care workers, although the trial was terminated early and may have been underpowered to detect a clinically important difference.





## Article 7

# Draft Landscape of COVID-19 Candidate Vaccines

Published

October 2, 2020 [WHO](#)

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