

SCIENTIFIC RESEARCH MONITORING ON COVID-19

11 NOVEMBER 2020

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SCIENTIFIC RESEARCH MONITORING ON COVID-19

(ISSUE 282)

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.

For further inquiries you may communicate with us as PHP@adphc.gov.ae

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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Ministry of Health AND Prevention contribution

Treatment

Remdesivir for the Treatment of Covid-19 — Final Report

Public Health Response

Considerations for Implementing and Adjusting Public Health and Social Measures in the Context of COVID-19

Pathology

Persistence of Viral RNA, Pneumocyte Syncytia and Thrombosis are Hallmarks of Advanced COVID-19 Pathology

Diagnosis

Frequently Asked Questions About Coronavirus (COVID-19) for Laboratories (Serology)

Public Health Response

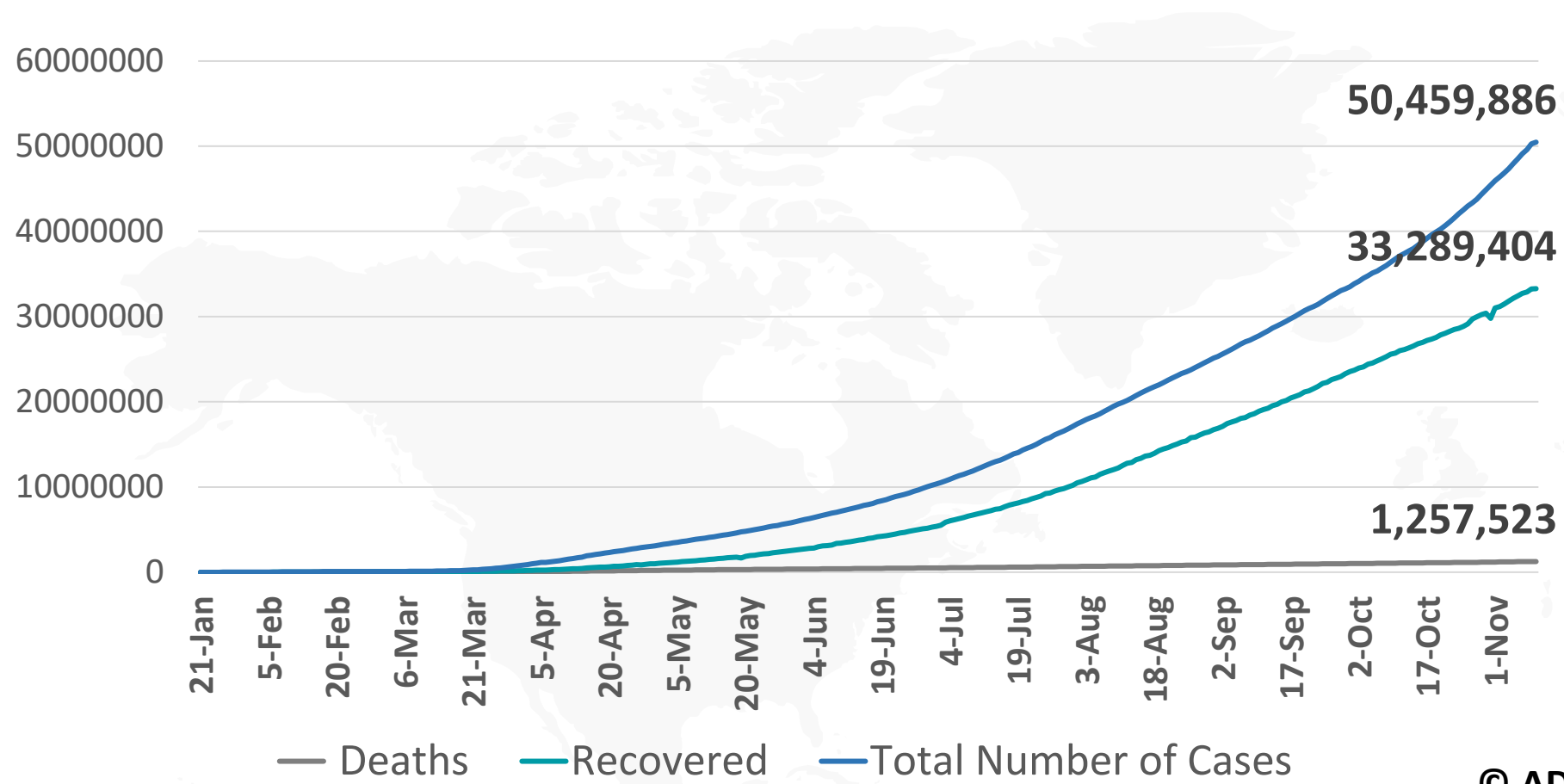
Understanding the COVID-19 Pandemic- Online Course

Public Health Response

Persistence of Viral RNA, Pneumocyte Syncytia and Thrombosis are Hallmarks of Advanced COVID-19 Pathology



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



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Note: the number of recovered cases in 31st October recorrected from 30 million to 29 million in Johns Hopkins website

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

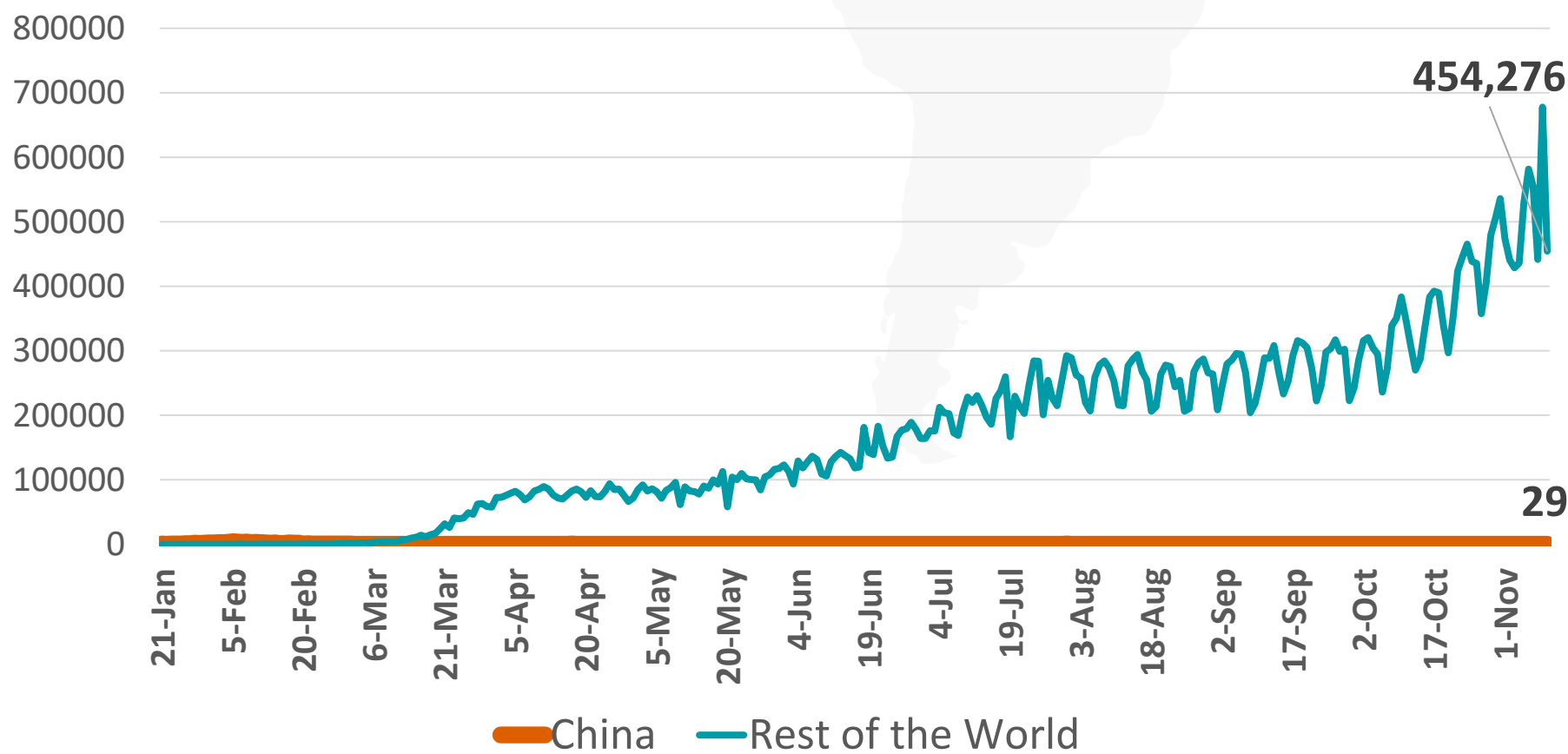


Figure 3: Total Number of Death Due to COVID-19 (china and result of the world)

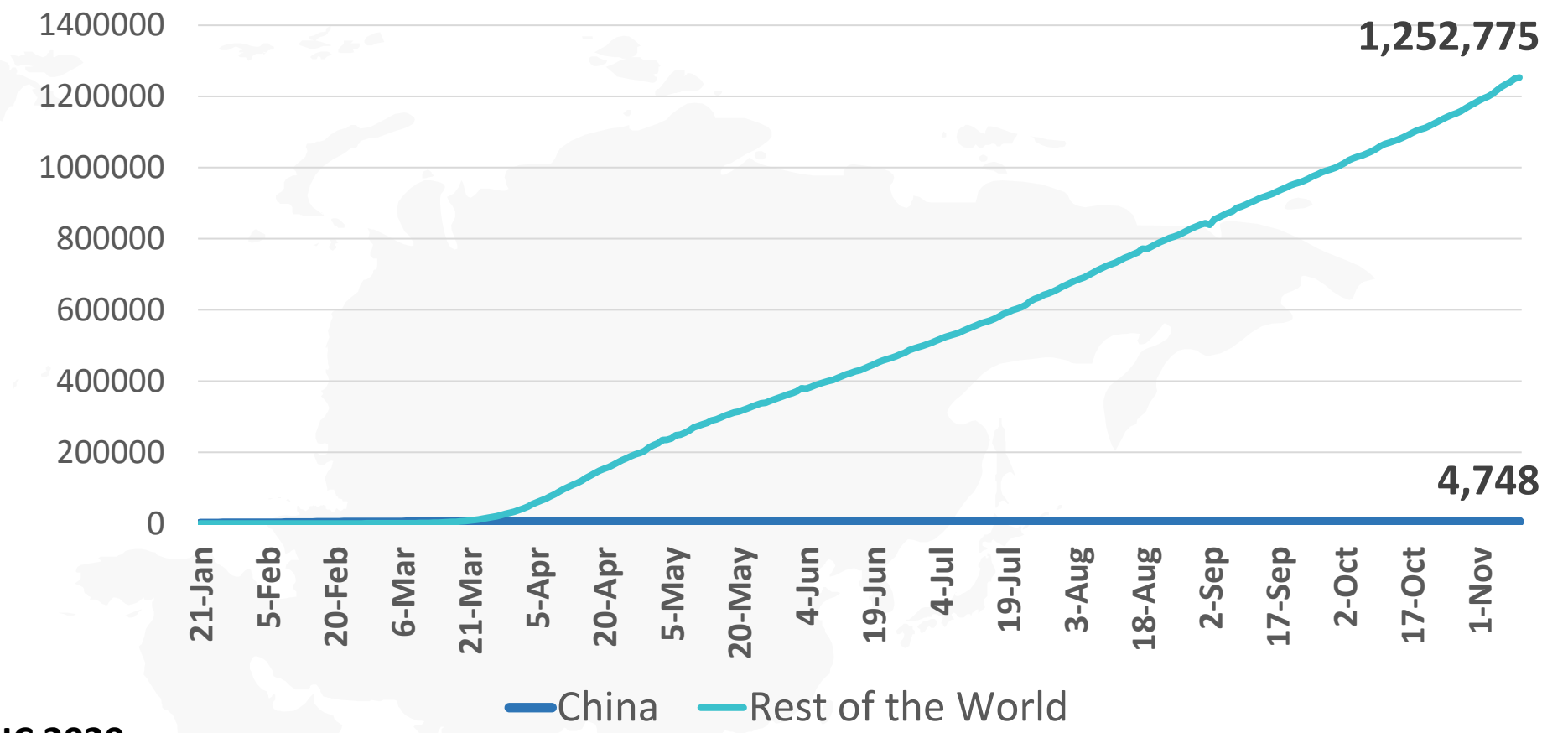


Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)

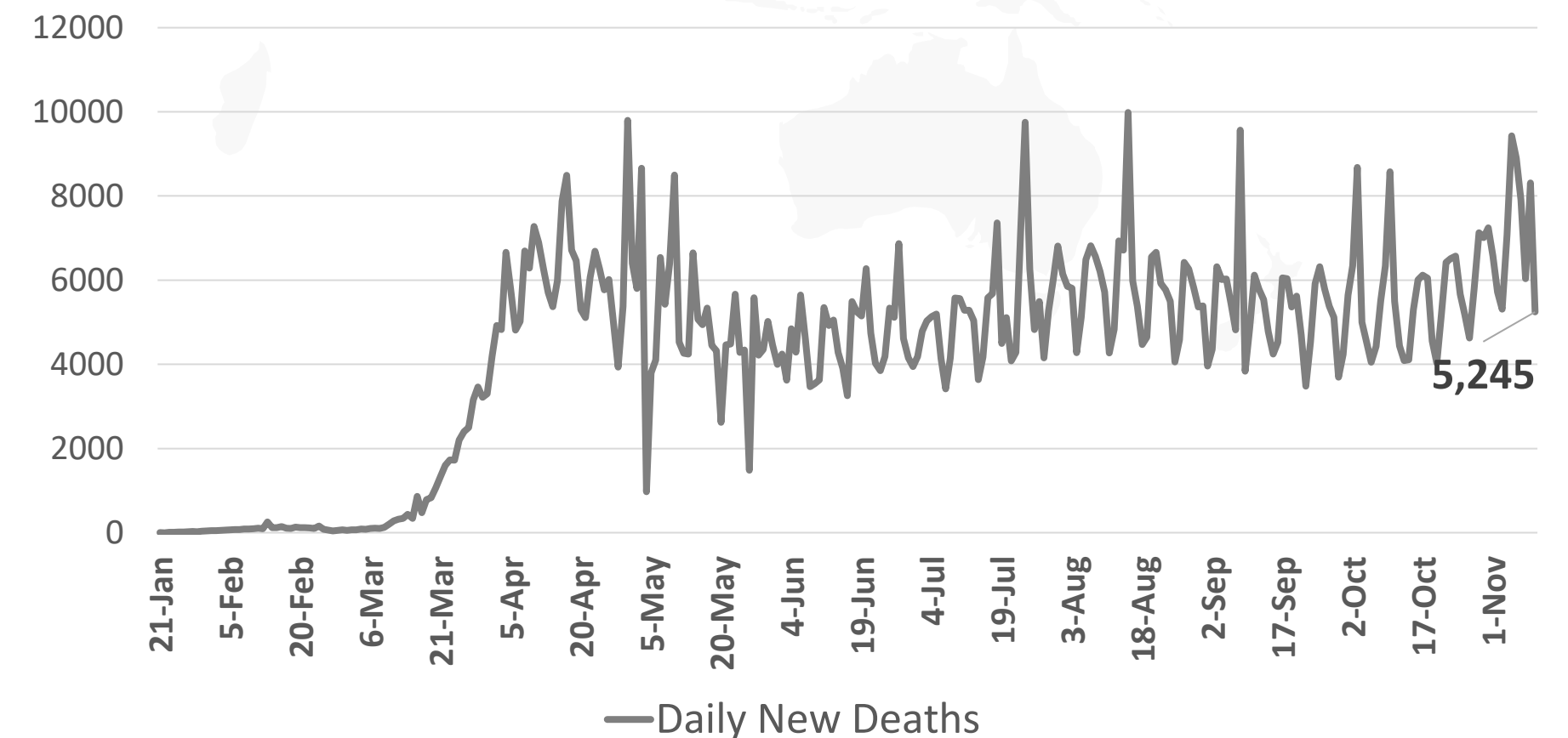
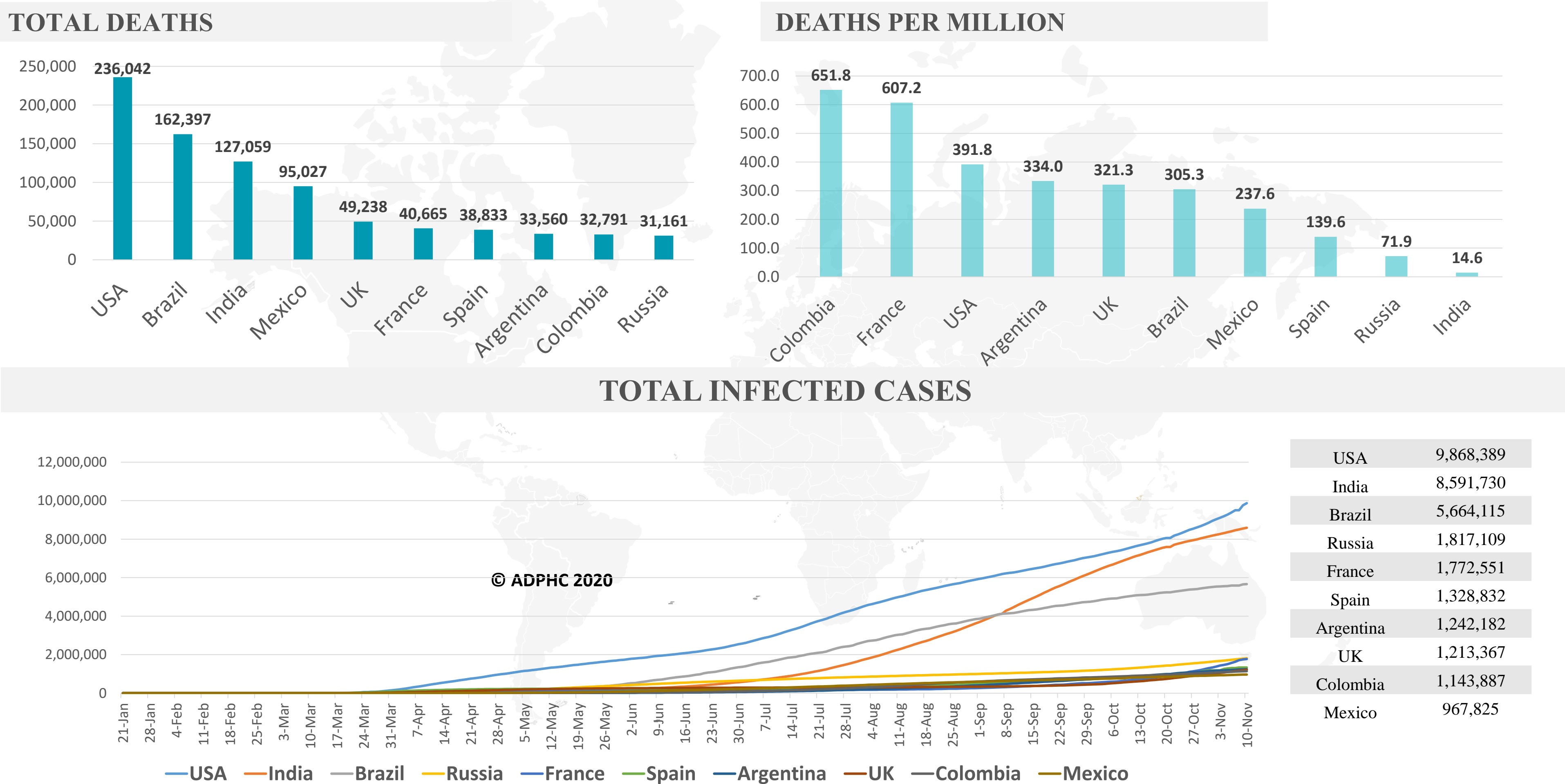
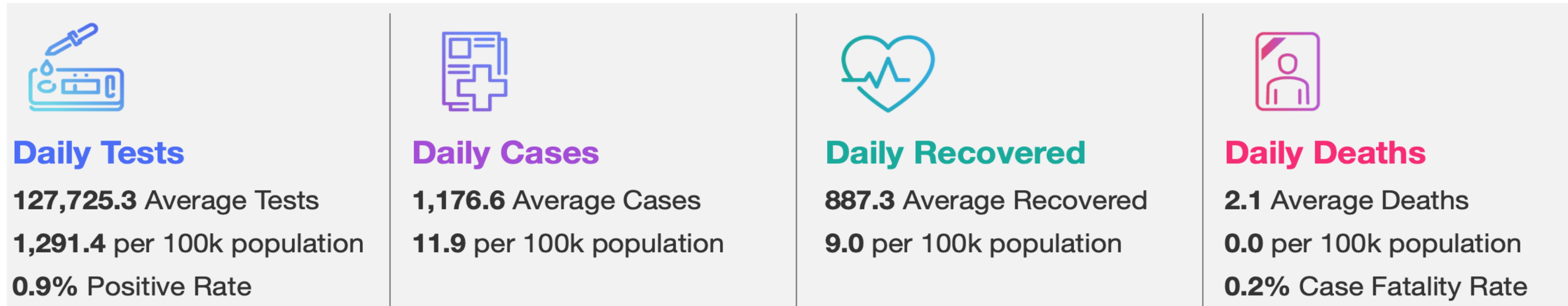


Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19



USA	9,868,389
India	8,591,730
Brazil	5,664,115
Russia	1,817,109
France	1,772,551
Spain	1,328,832
Argentina	1,242,182
UK	1,213,367
Colombia	1,143,887
Mexico	967,825

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

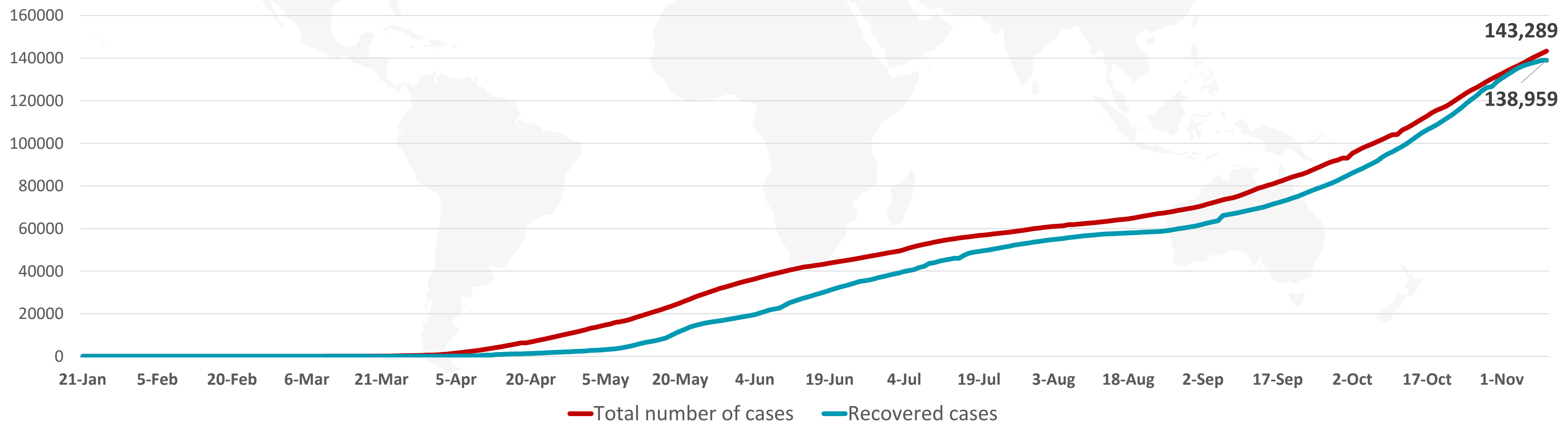
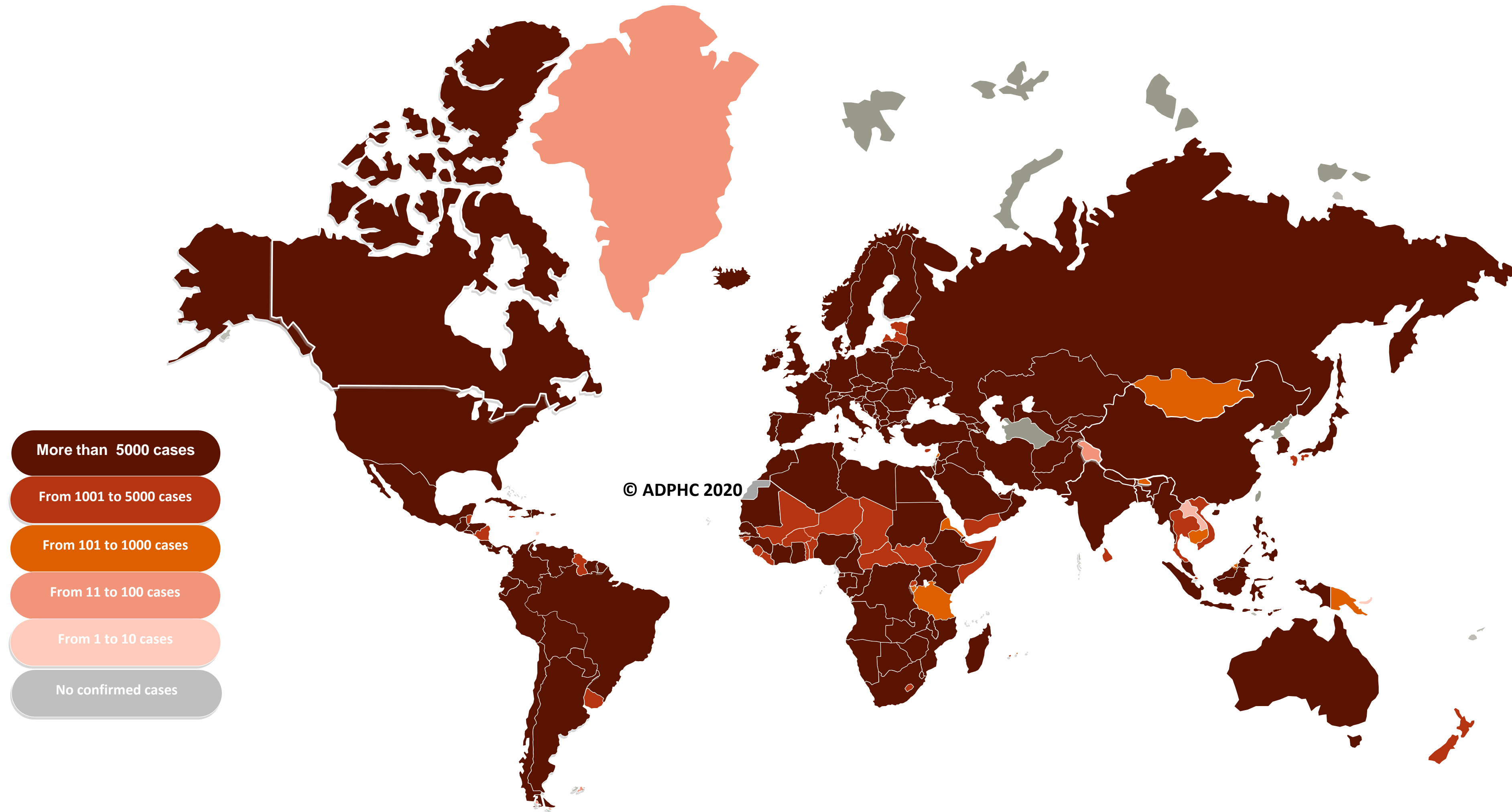


Figure 7A : Global Distribution of COVID-19 Cases



More than 5000 cases

From 1001 to 5000 cases

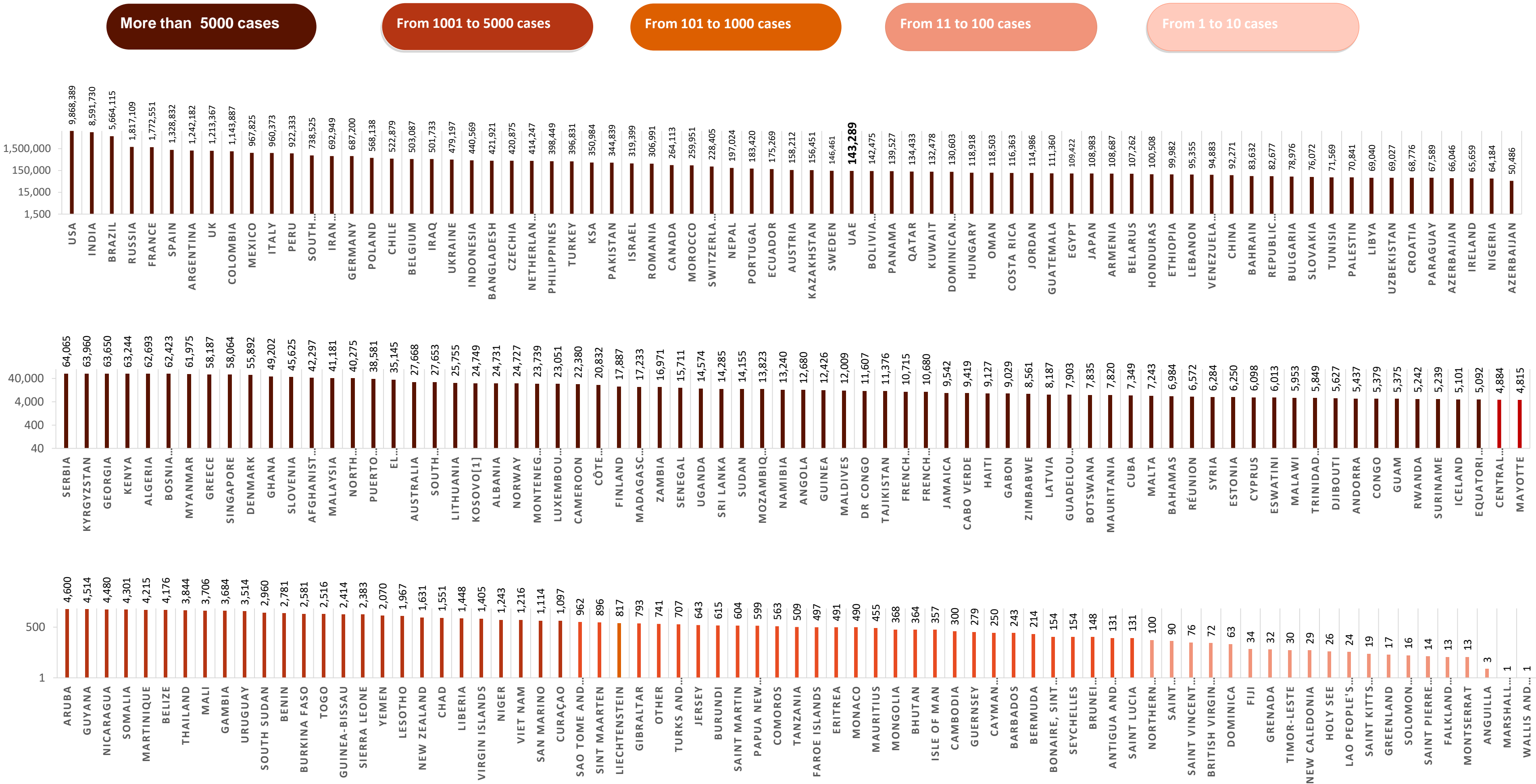
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

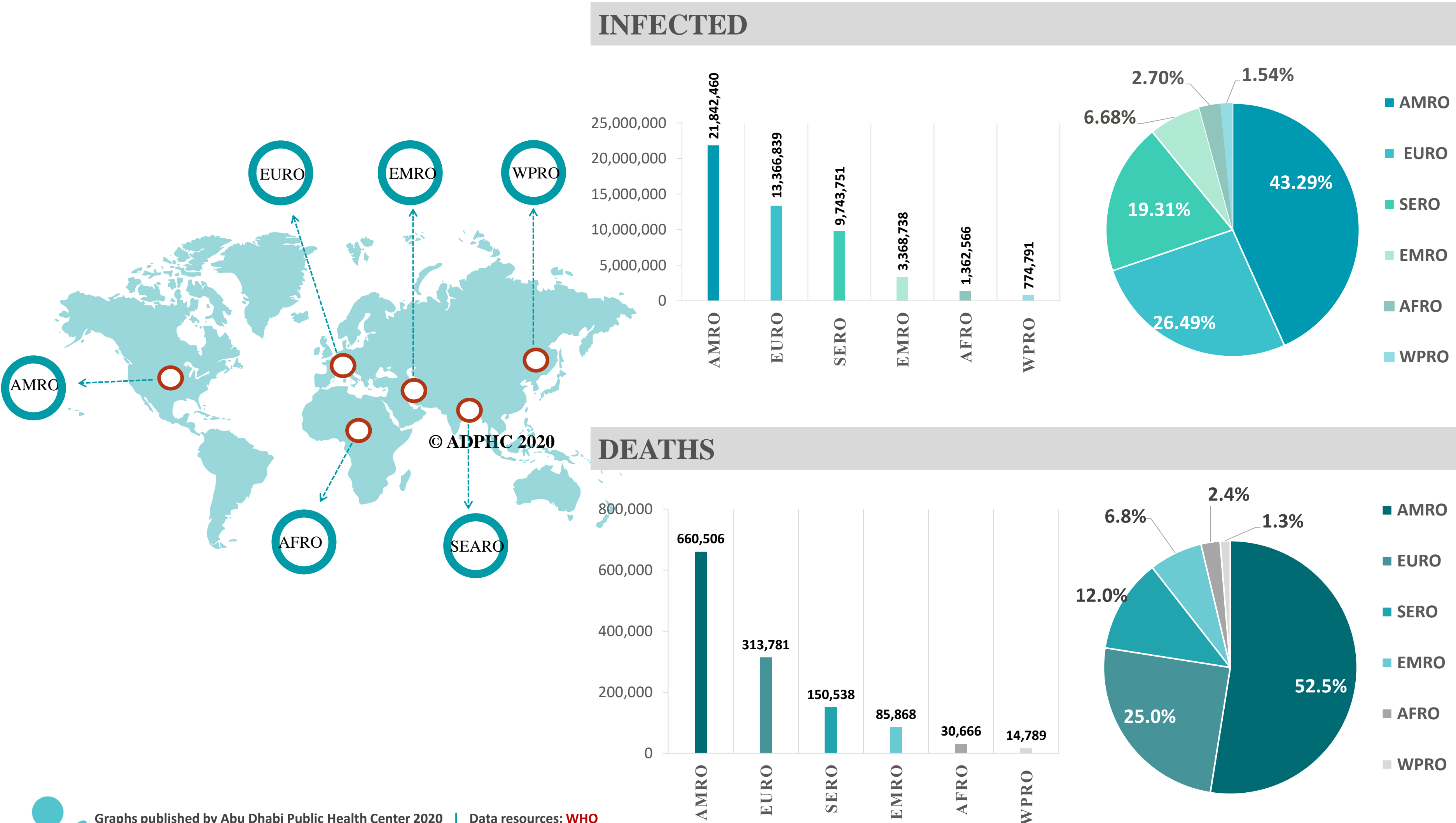
Figure 7B: Bar Chart Illustrates the Global Distribution of COVID19 Cases



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



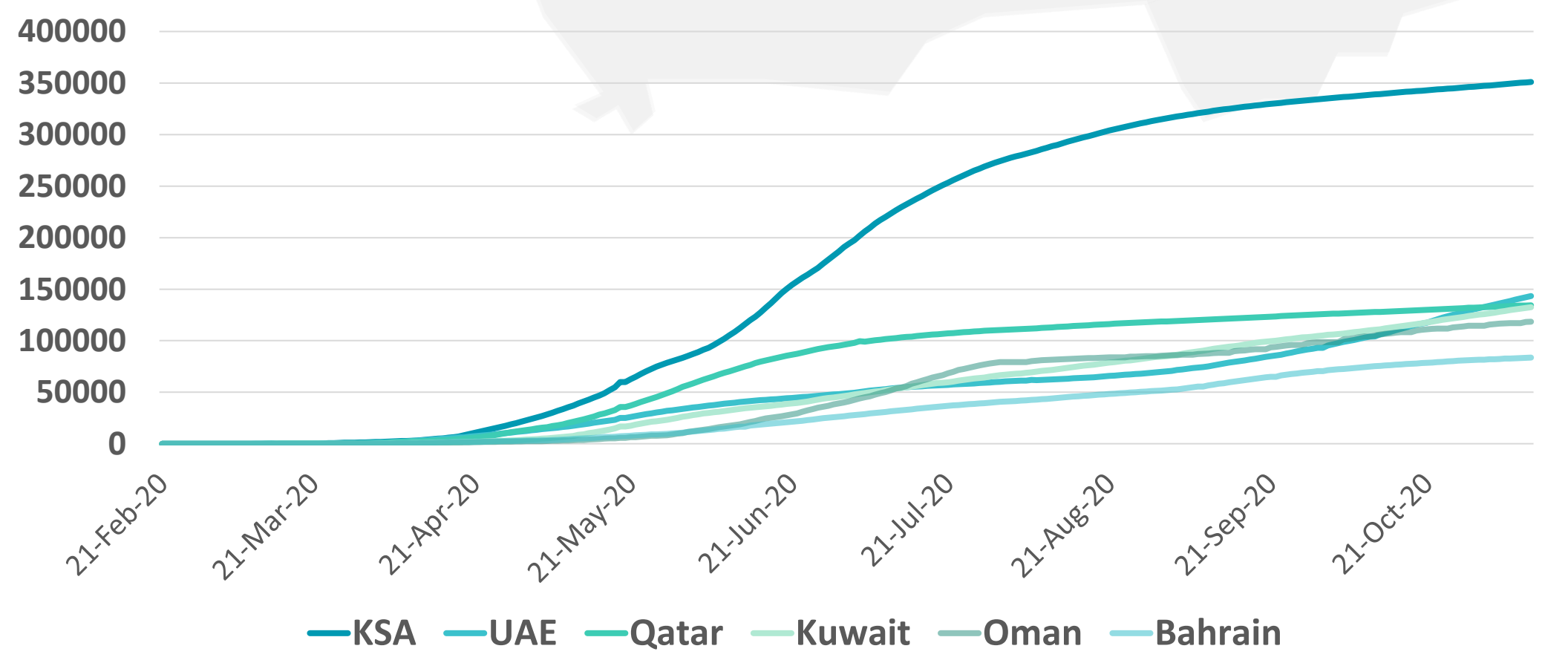
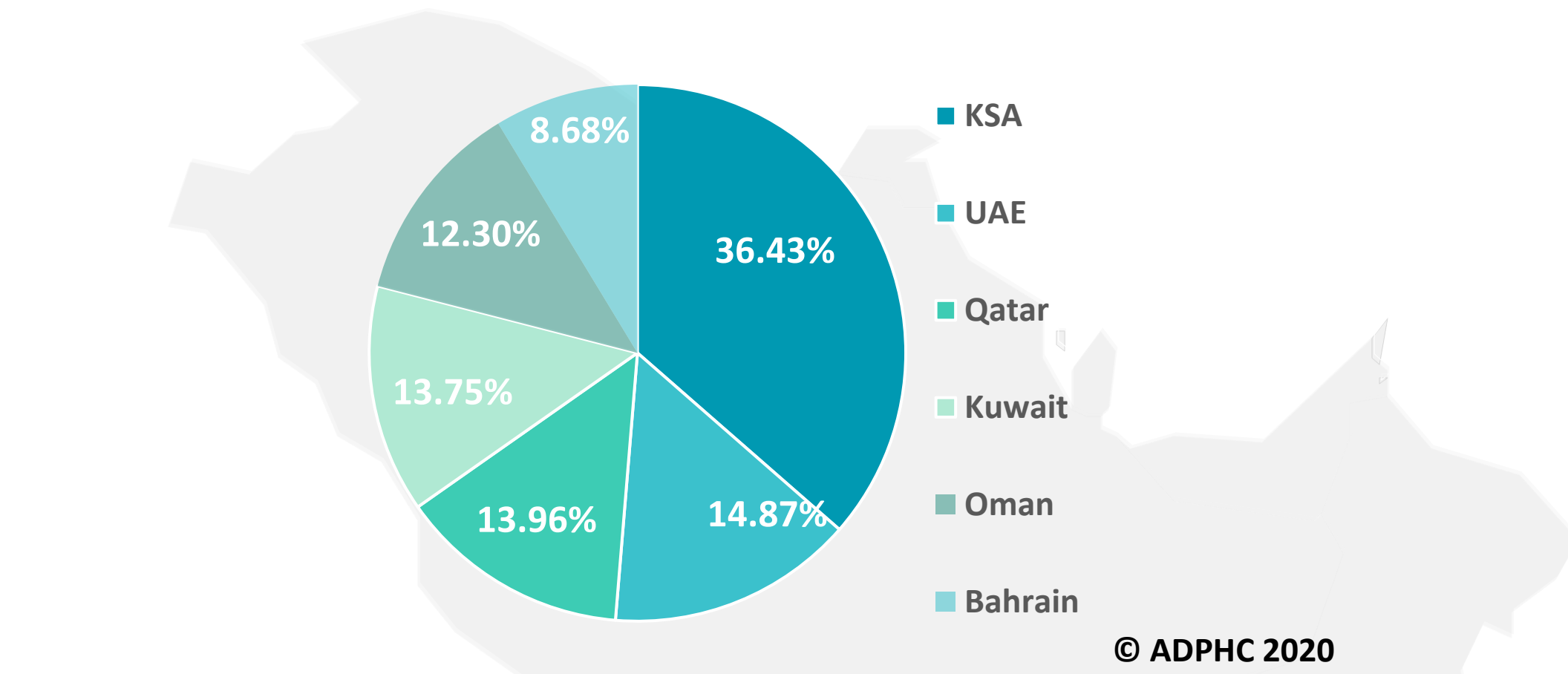
Figure 8: Global Distribution of COVID-19 Cases per Region



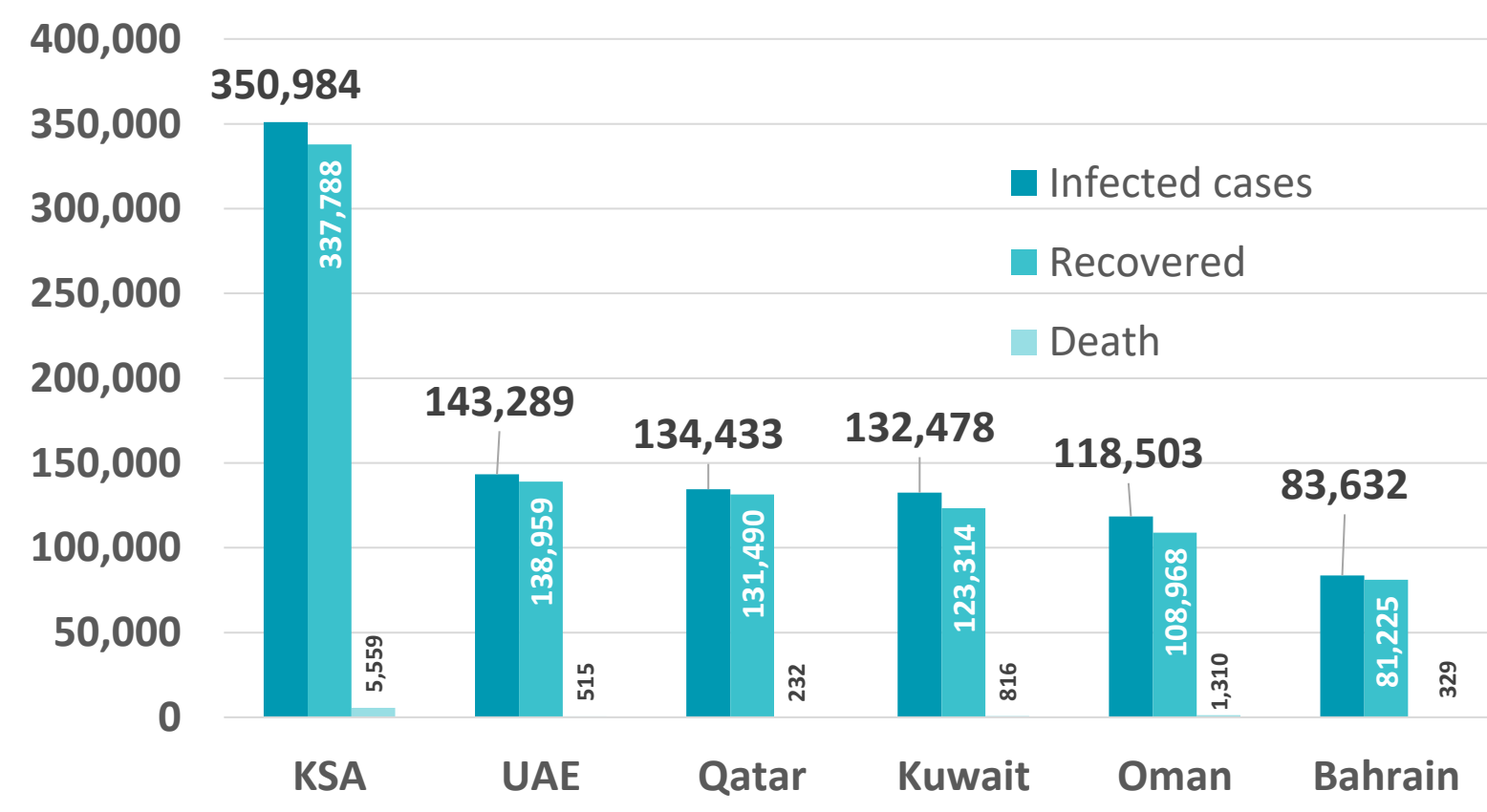
Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: [WHO](#)

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

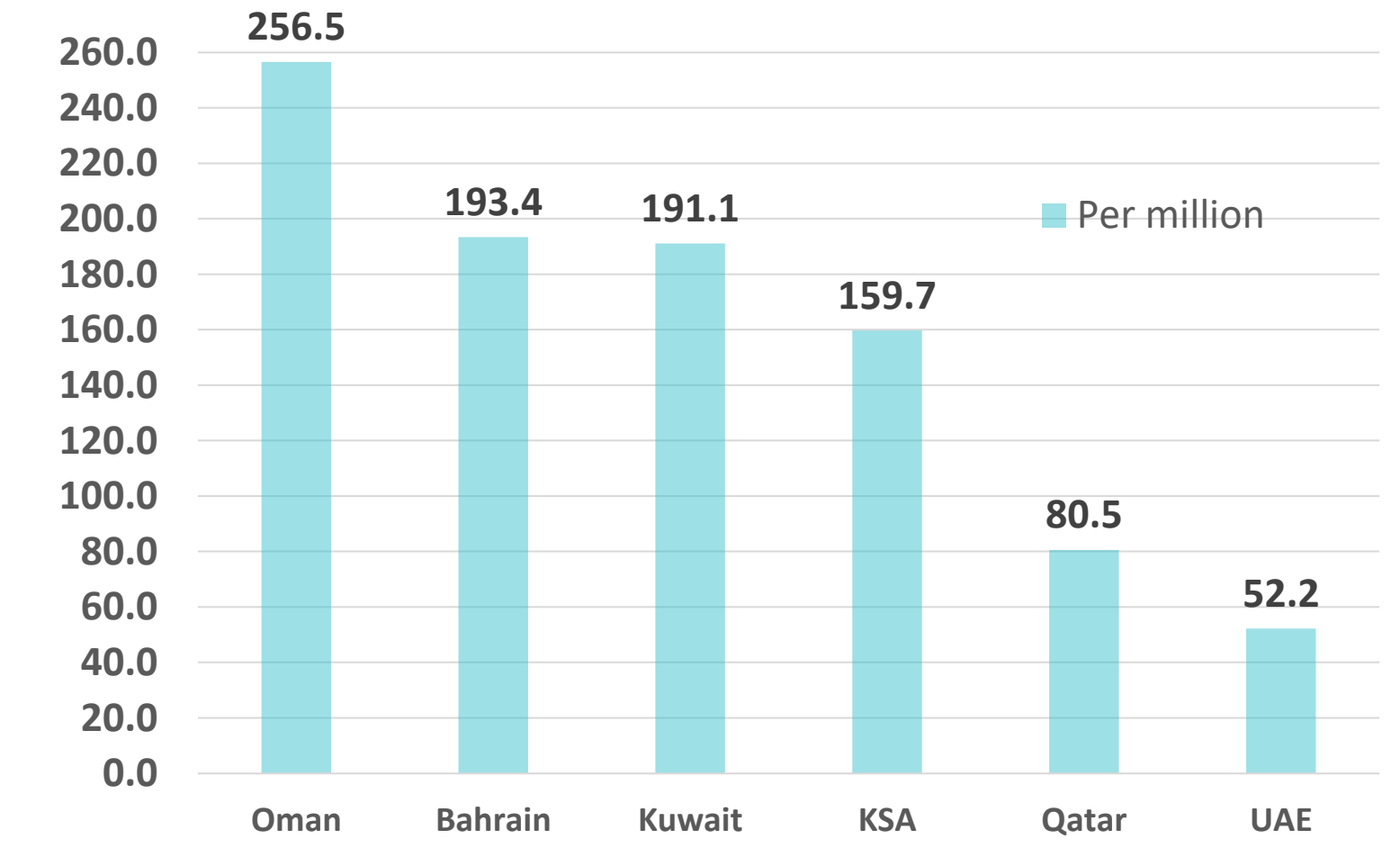
TOTAL NUMBER OF INFECTED CASES



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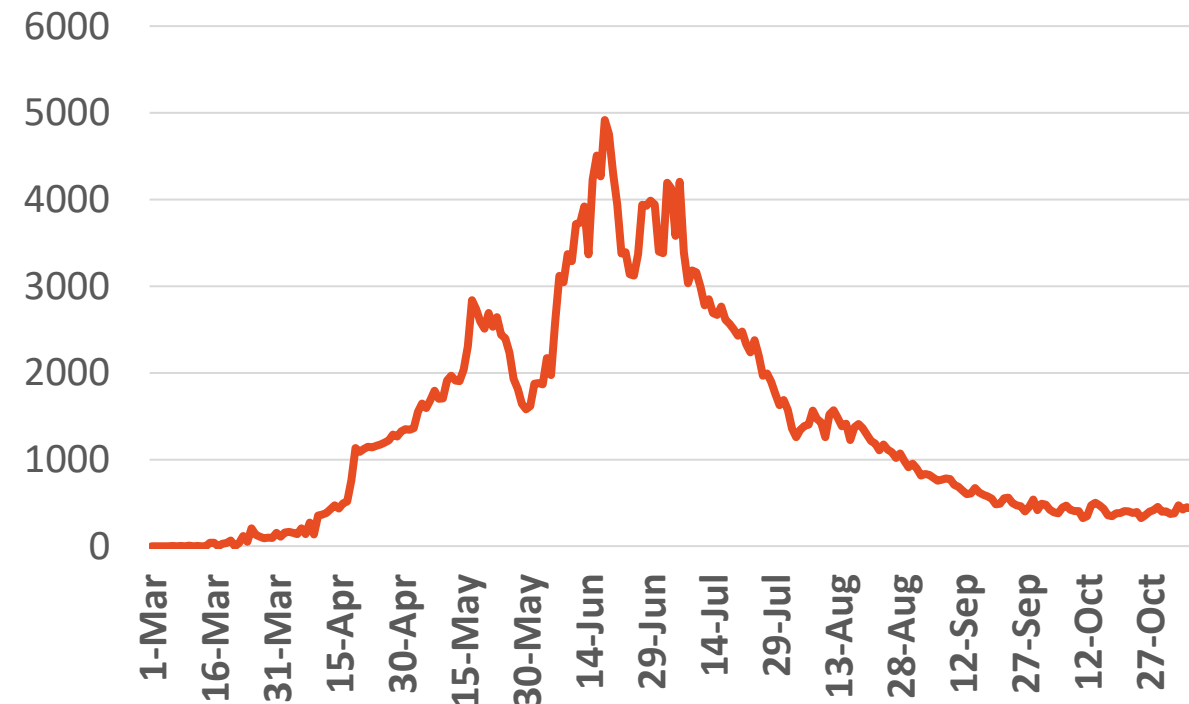
Figure 10: Comparative Analysis of the Distribution of COVID-19 New Cases in GCC Countries

UAE



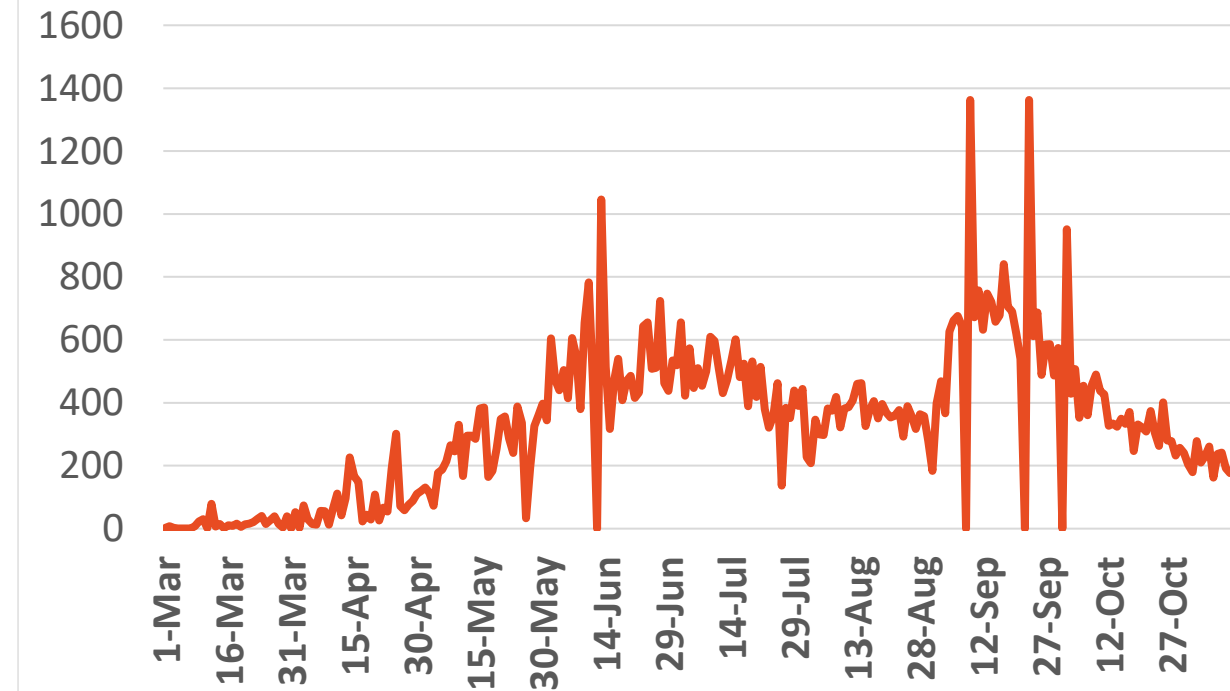
Source : National Emergency Crisis and Disaster Management Authority

KSA



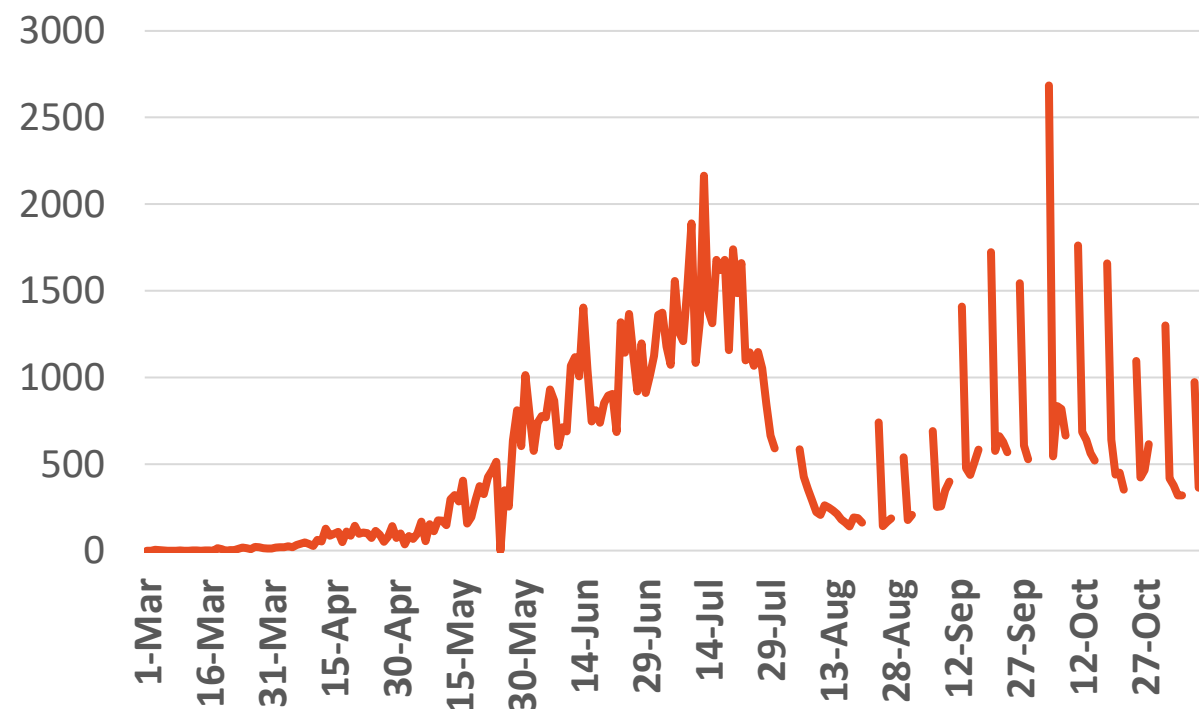
Source : KSA ministry of health

Bahrain



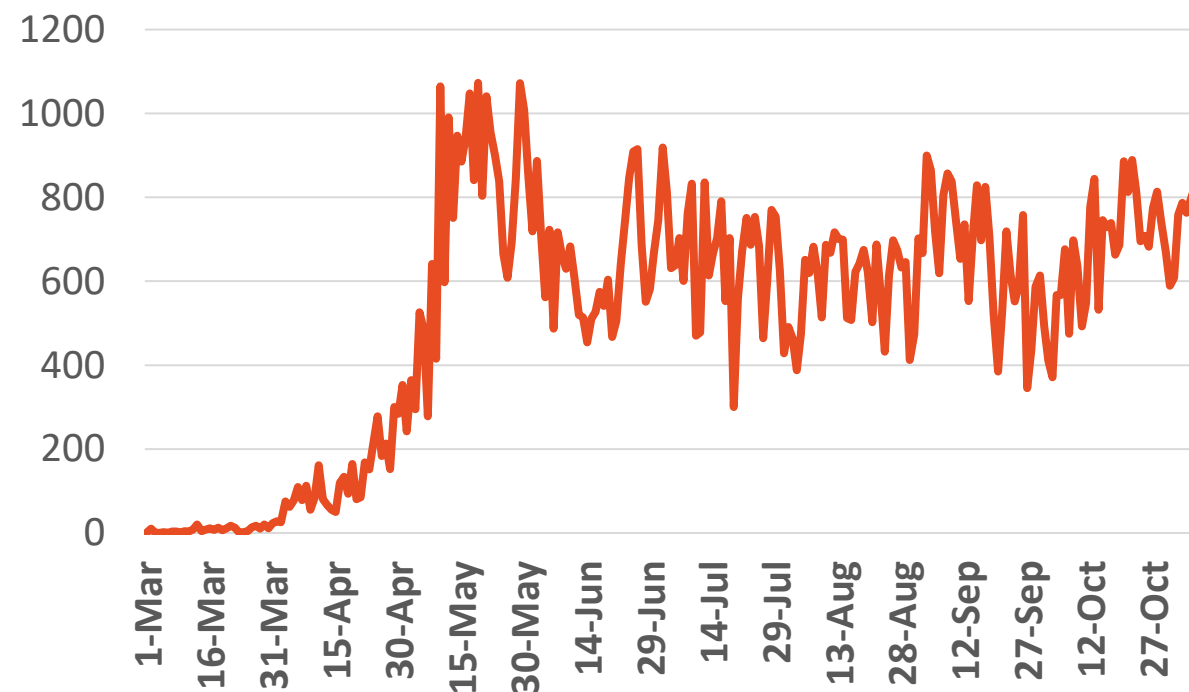
Source :WHO

Oman



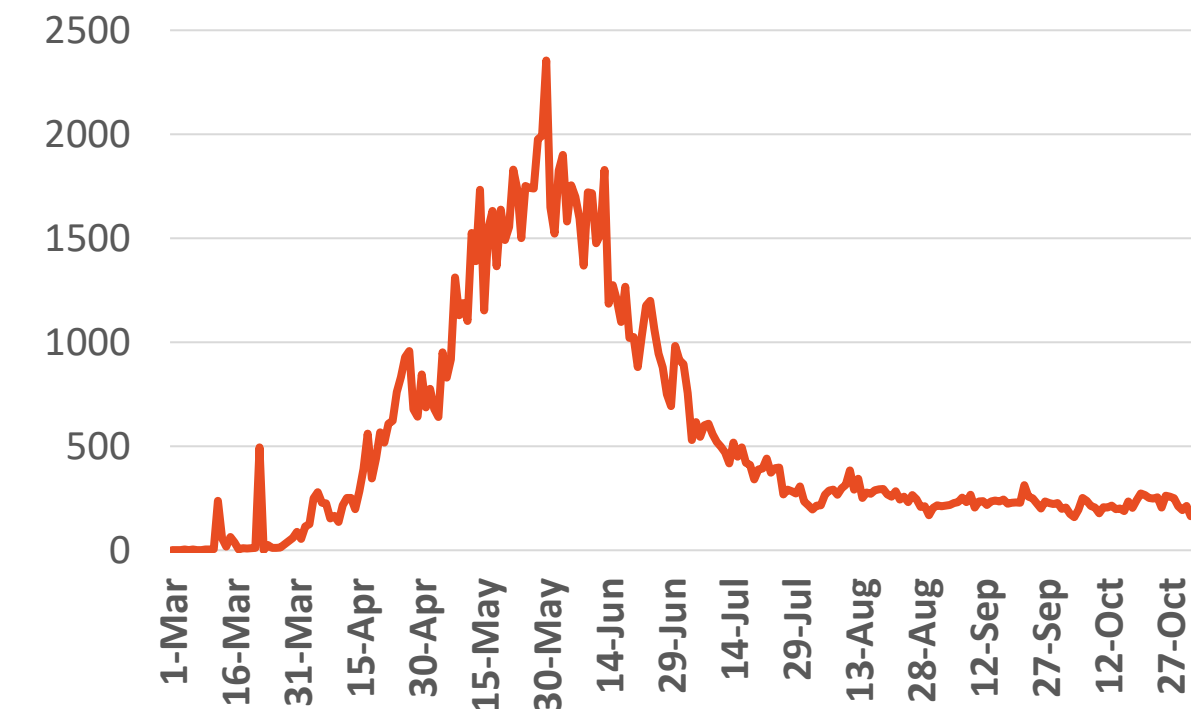
Source :Oman ministry of health

Kuwait



Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health

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*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.



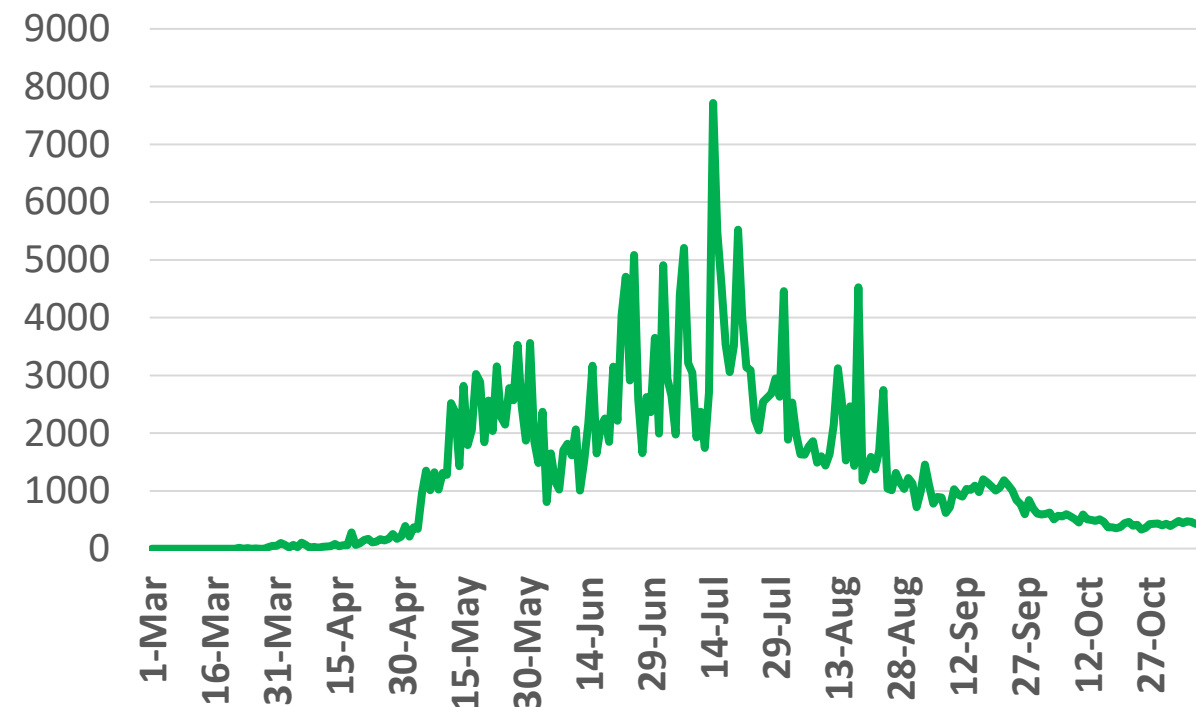
Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries

UAE



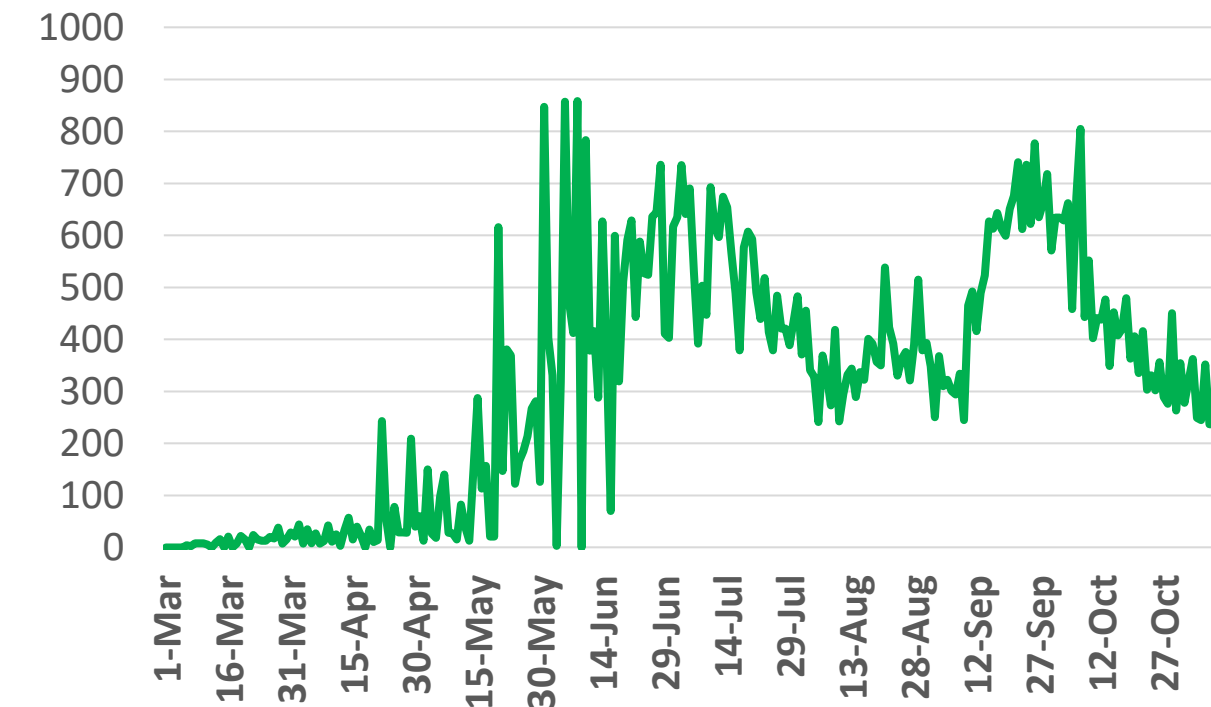
Source : National Emergency Crisis and Disaster Management Authority

KSA



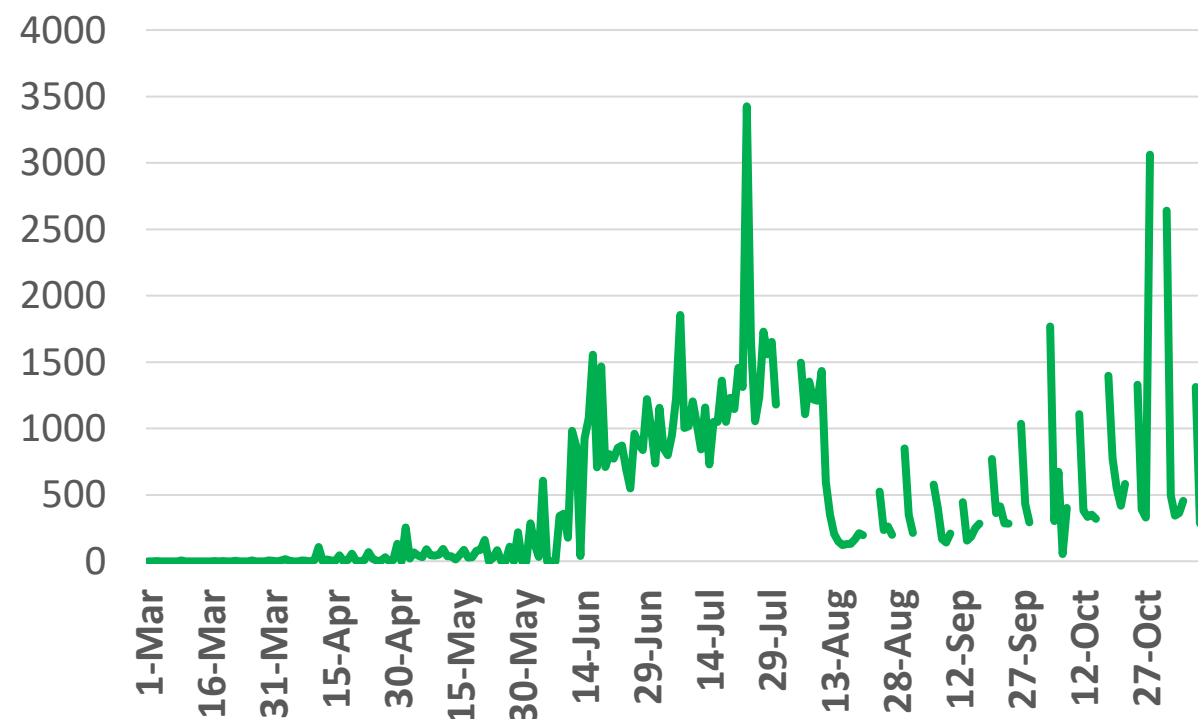
Source : KSA ministry of health

Bahrain



Source : Bahrain ministry of health

Oman



Source : Oman ministry of health

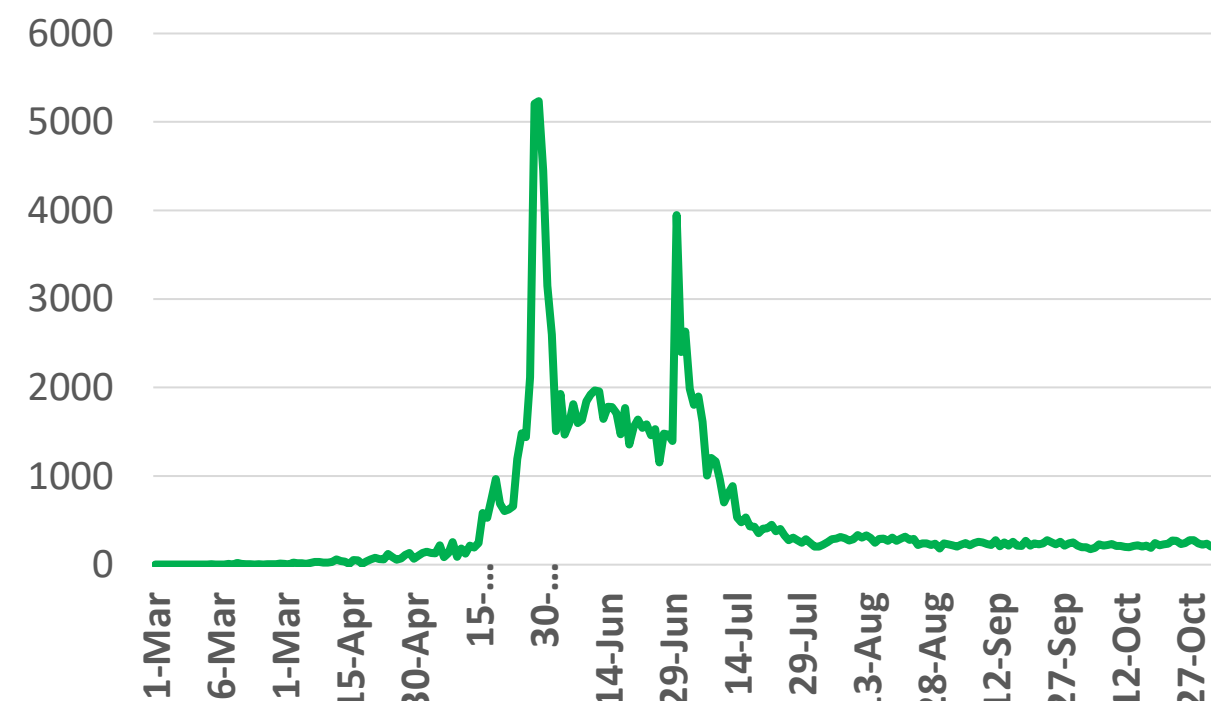
KUWAIT



Source : Kuwait ministry of health

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Qatar



Source : Qatar ministry of health

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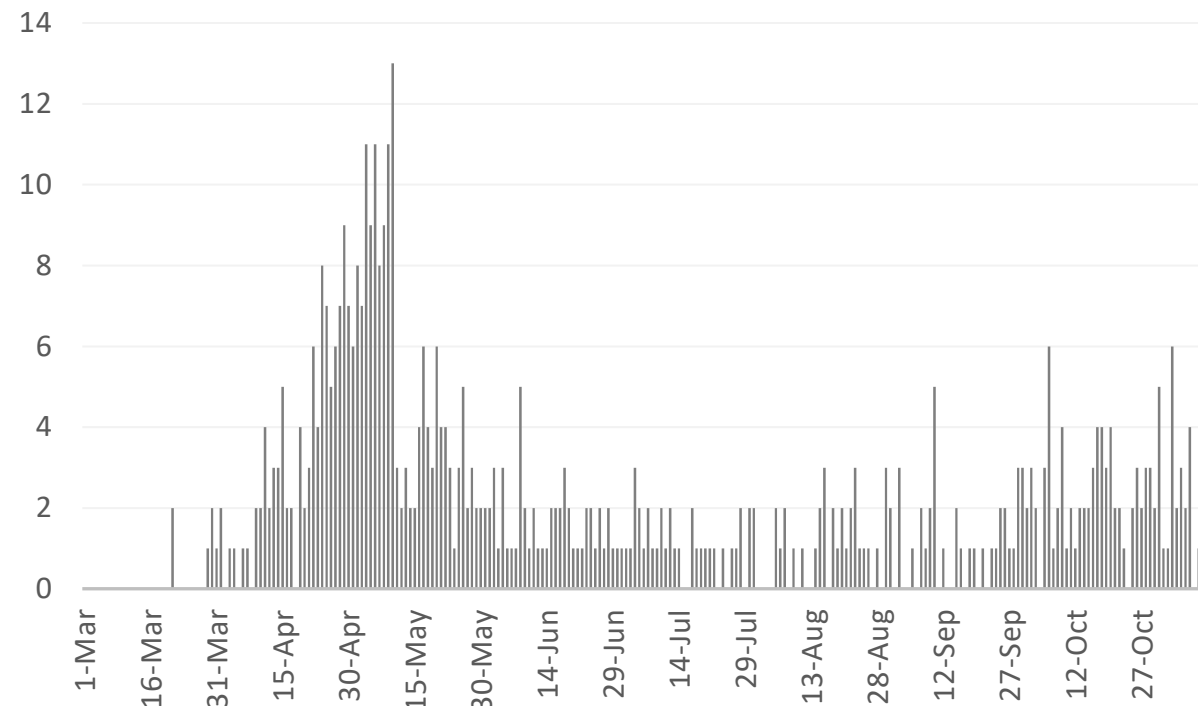
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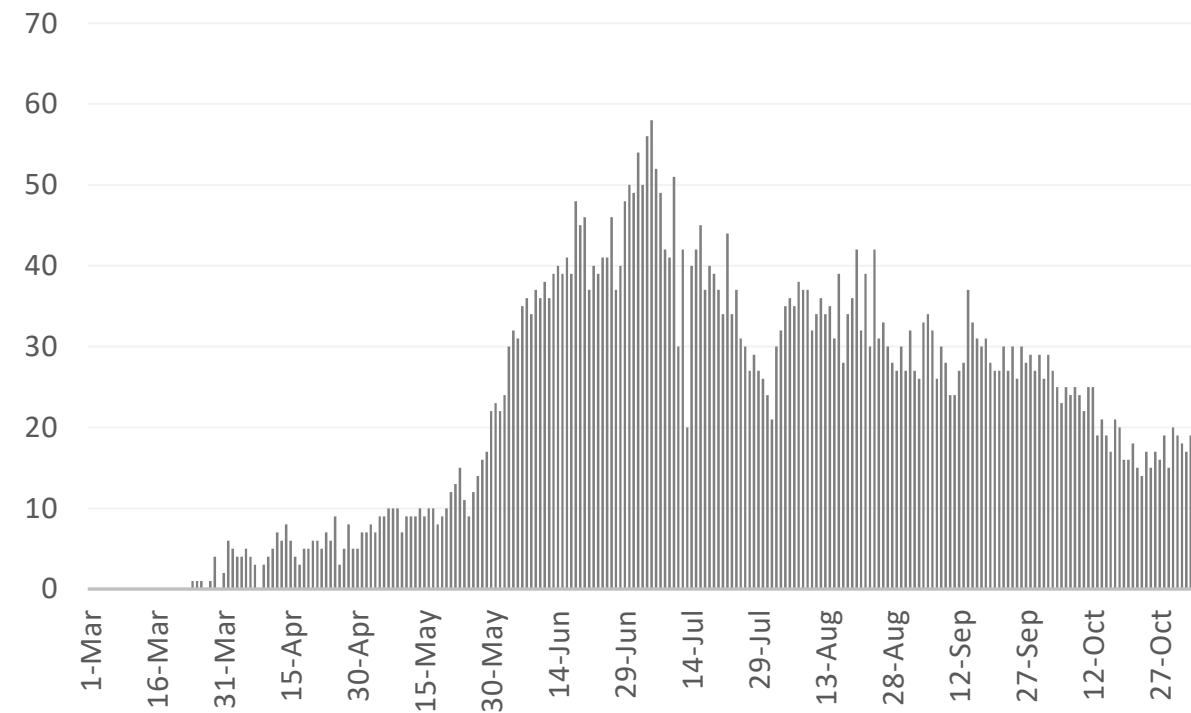
Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

UAE



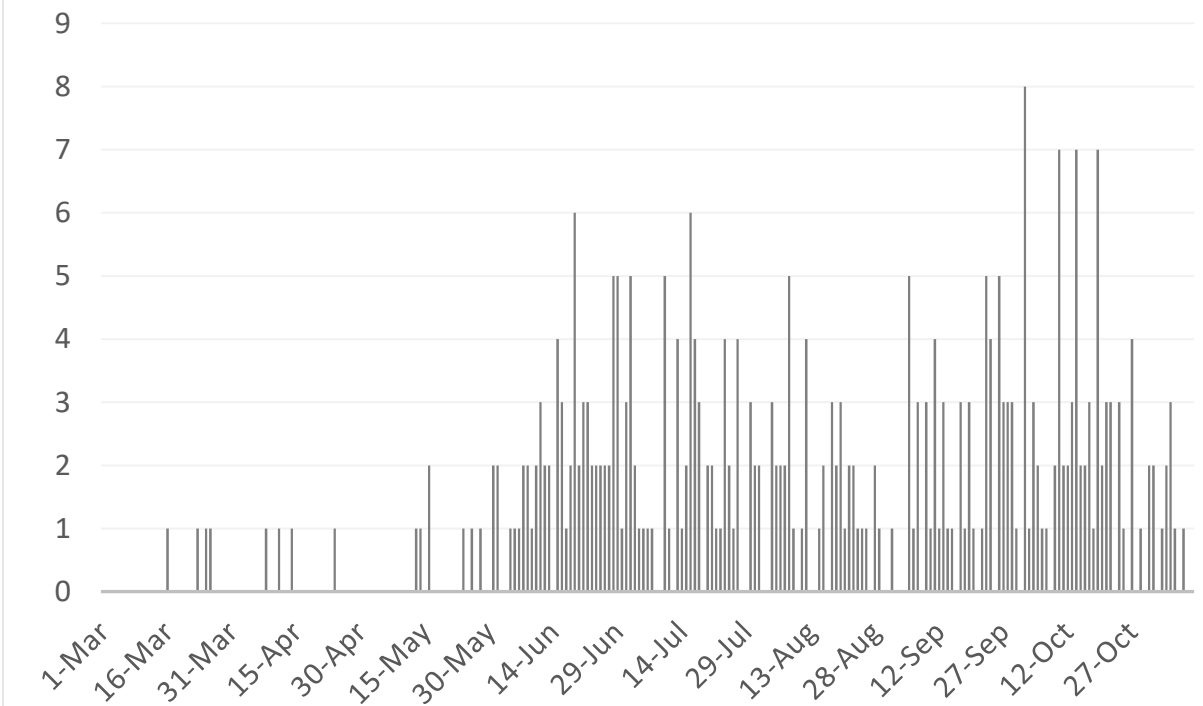
Source : National Emergency Crisis and Disaster Management Authority

KSA



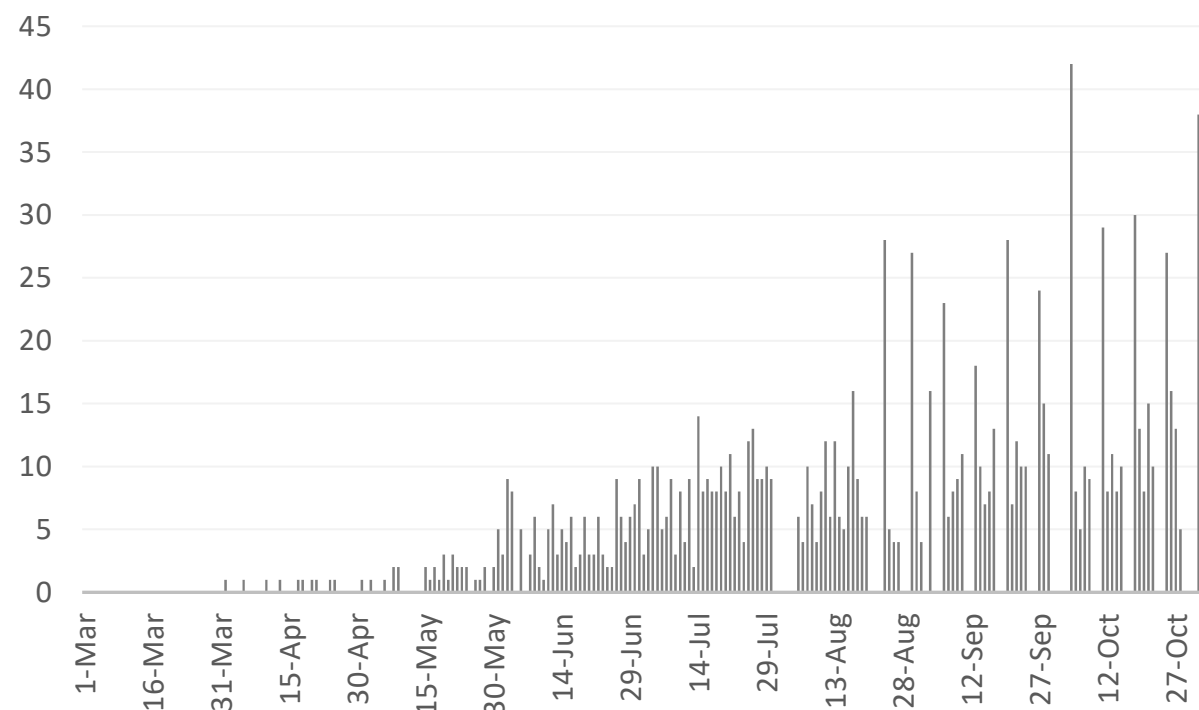
Source : KSA ministry of health

Bahrain



Source :WHO

Oman

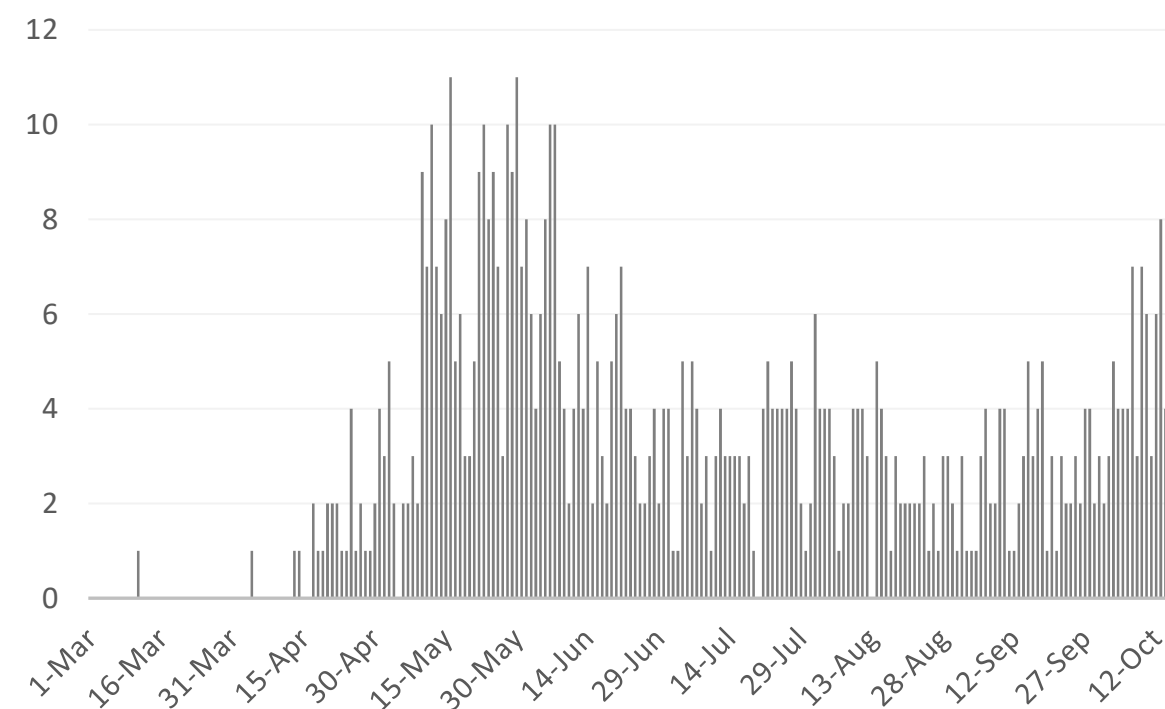


Source :Oman ministry of health

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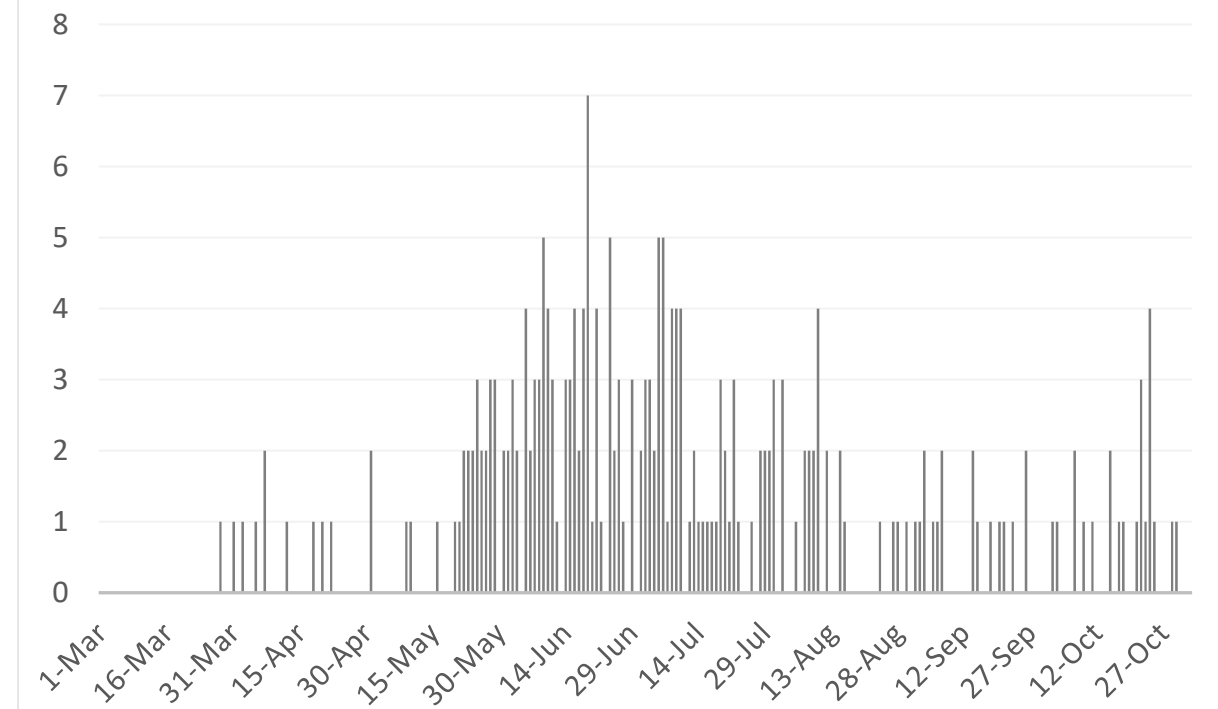
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Kuwait



Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health





Article 1

Remdesivir for the Treatment of Covid-19 - Final Report

Published

November 05, 2020, [THE NEJM](#)

- This study aimed to evaluate the clinical efficacy and safety of putative investigational therapeutic agents among hospitalized adults with laboratory-confirmed COVID-19.
- The authors designed an adaptive platform trial to rapidly conduct a series of phase 3, randomized, double-blind, placebo-controlled trials where 1062 patients underwent randomization (541 assigned to Remdesivir and 521 to placebo).
- Patients were randomly assigned to receive either Remdesivir (200 mg loading dose on day 1, followed by 100 mg daily for up to 9 additional days) or placebo for up to 10 days.
- The primary outcomes included the time to recovery, defined by either discharge from the hospital or hospitalization for infection-control purposes only.
- The results indicated serious adverse events in 131 of the 532 patients who received Remdesivir (24.6%) and in 163 of the 516 patients who received placebo (31.6%).
- The results showed that Remdesivir was superior to placebo in shortening the time to recovery in adults who were hospitalized with COVID-19 and had evidence of lower respiratory tract infection.





Article 2

Published

November 4, 2020, [THE WHO](#)

Considerations for Implementing and Adjusting Public Health and Social Measures in the Context of COVID-19

- This document is intended for national authorities and decision-makers in countries that have introduced large scale public health and social measures. It offers guidance for adjusting public health and social measures while managing the risk of a resurgence of cases.
- Public health and social measures (PHSM) have proven critical to limiting transmission of COVID-19 and reducing deaths.
- Public health and social measures must be continuously adjusted to the intensity of transmission and capacity of the health system in a country and at sub-national levels.
- This document also provides a range of indicators to capture transmission intensity, thereby aiding decision making. When PHSM are adjusted, communities should be fully consulted and engaged before changes are made.





Article 3

Published

Persistence of Viral RNA, Pneumocyte Syncytia and Thrombosis are Hallmarks of Advanced COVID-19 Pathology

November 3, 2020, [THE LANCET](#)

- This case-cohort study proposed that several of the COVID-19 unique features are due to the persistence of abnormal, virus-infected cells in the lungs for prolonged periods of time.
- The study reported the systematic analysis of 41 consecutive post-mortem samples from individuals who died of COVID-19. The histological analysis was complemented by immunohistochemistry for cellular and viral antigens and the detection of viral genomes by in situ RNA hybridization.
- The findings of the study suggested that COVID-19 is characterized by extensive alveolar damage (41/41 of patients) and thrombosis of the lung micro- and macro-vasculature (29/41, 71%). Pneumocytes and endothelial cells contained viral RNA even at the later stages of the disease. An additional feature was the common presence of a large number of dysmorphic pneumocytes, often forming syncytial elements (36/41, 87%). Despite occasional detection of virus-positive cells, no overt signs of viral infection were detected in other organs, which showed non-specific alterations.





Article 4

Frequently Asked Questions about Coronavirus (COVID-19) for Laboratories (Serology)

Published

November 3, 2020, [CDC](#)

- CDC answers to frequently asked questions regarding laboratory testing.
- <https://www.cdc.gov/coronavirus/2019-ncov/lab/faqs.html>

Article 5

Understanding the COVID-19 Pandemic- Online Course

Published

[Johns Hopkins Website](#)

- Johns Hopkins University hosted a free, publicly available course entitled “Understanding the COVID-19 Pandemic: Insights from Johns Hopkins University Experts.” This course is set up as a series of short modules to explore the COVID-19 pandemic.

Article 6

AORN Tool Kit

Published

October 22, 2020, [AORN](#)

- AORN continues to monitor the coronavirus status and has provided the tool kit below with regularly updated links to important resources to support decision-making in perioperative practice.



THANK YOU

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