

SCIENTIFIC RESEARCH MONITORING ON COVID-19

16 DECEMBER 2020

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SCIENTIFIC RESEARCH MONITORING ON COVID-19

(ISSUE 316)

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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MOHAP contribution

Mental Health

Trajectories of anxiety and depressive symptoms during enforced isolation due to COVID-19 in England: a longitudinal observational study

Public health response

Effect of internationally imported cases on internal spread of COVID-19: a mathematical modelling study

Clinical Feature

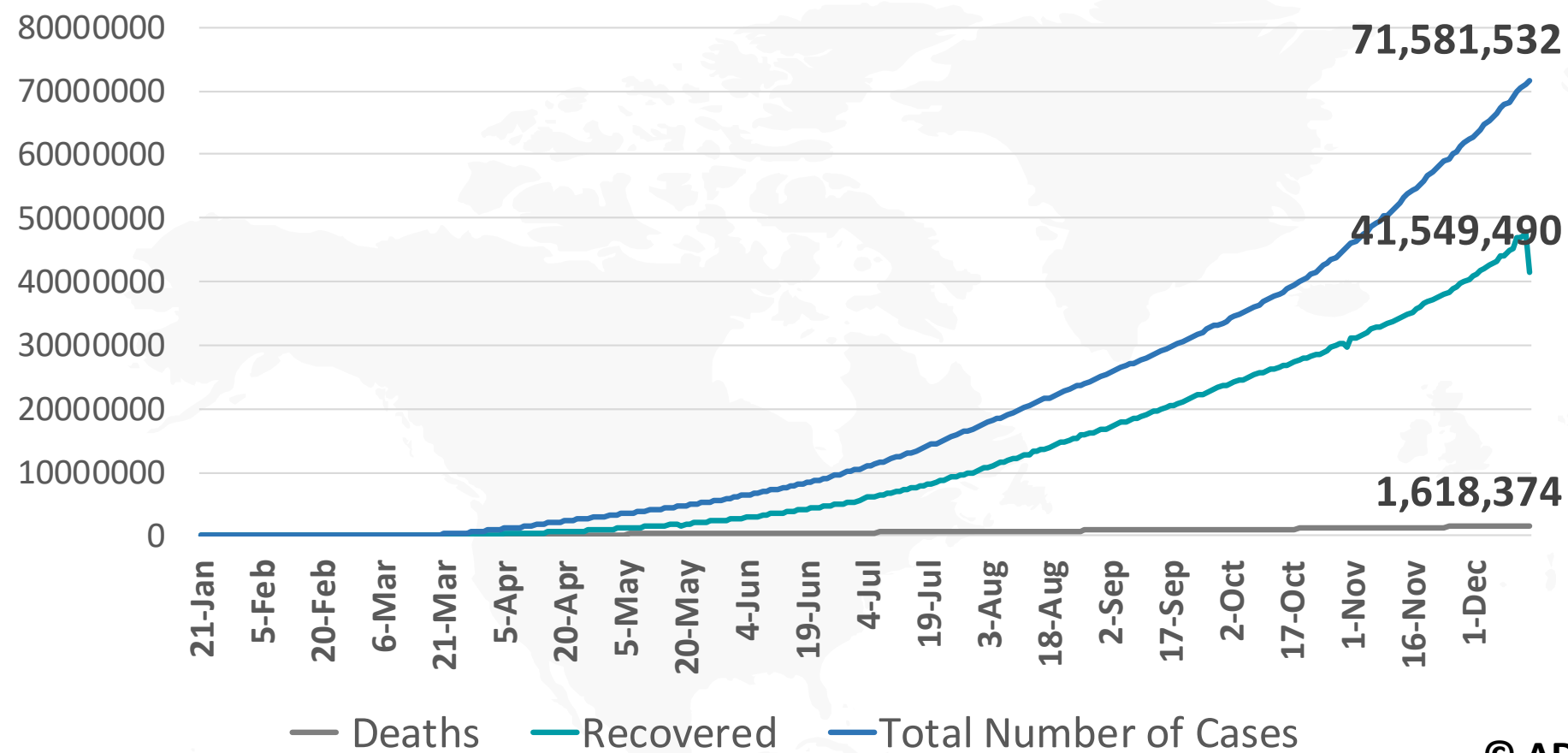
Male sex identified by global COVID-19 meta-analysis as a risk factor for death and ITU admission

Vaccine

How Moderna's Vaccine Works (94.1%)



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



Note: the number of recovered cases in 31st October rechecked from 30 million to 29 million, and in 15th December rechecked from 47 million to 41 million in Johns Hopkins website

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

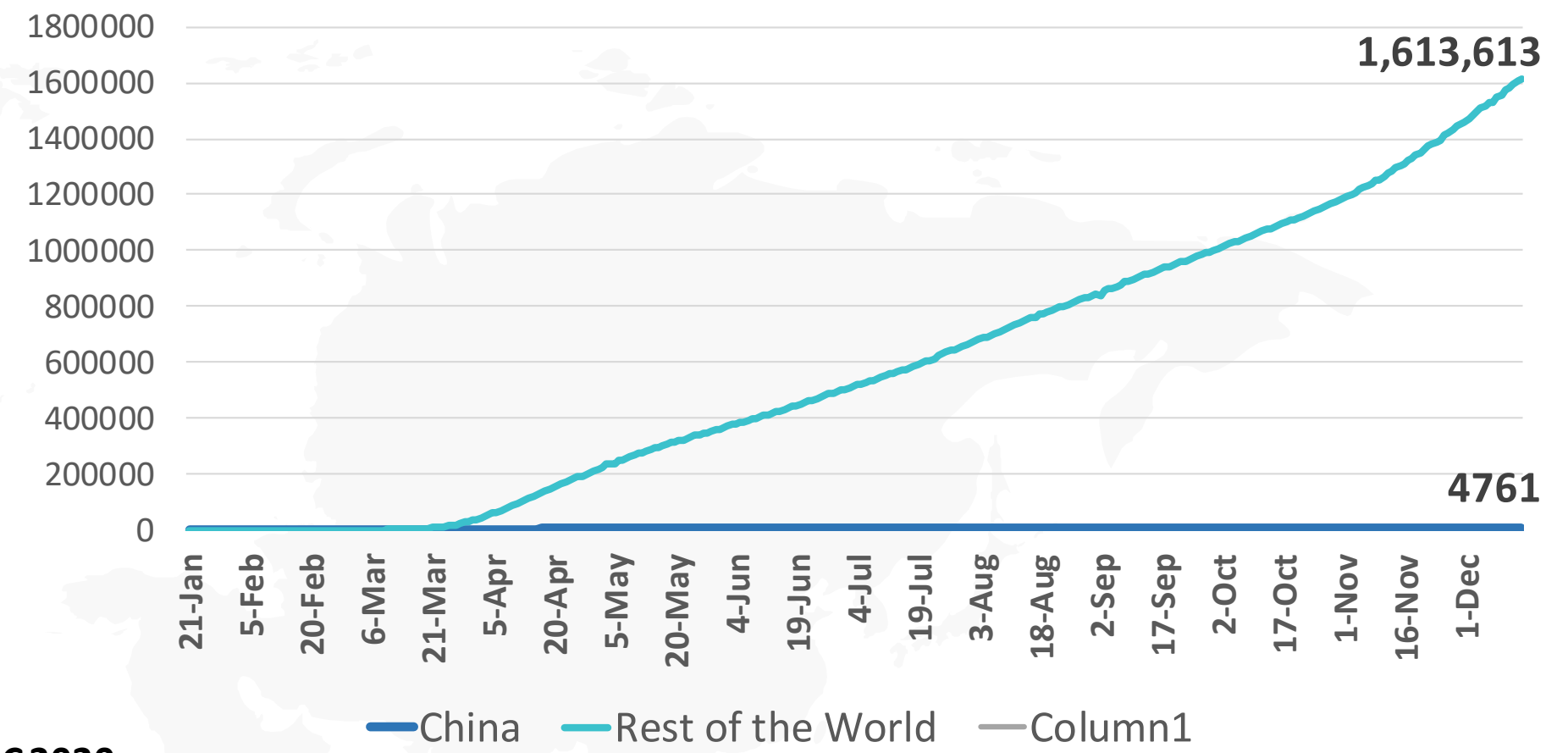


Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)

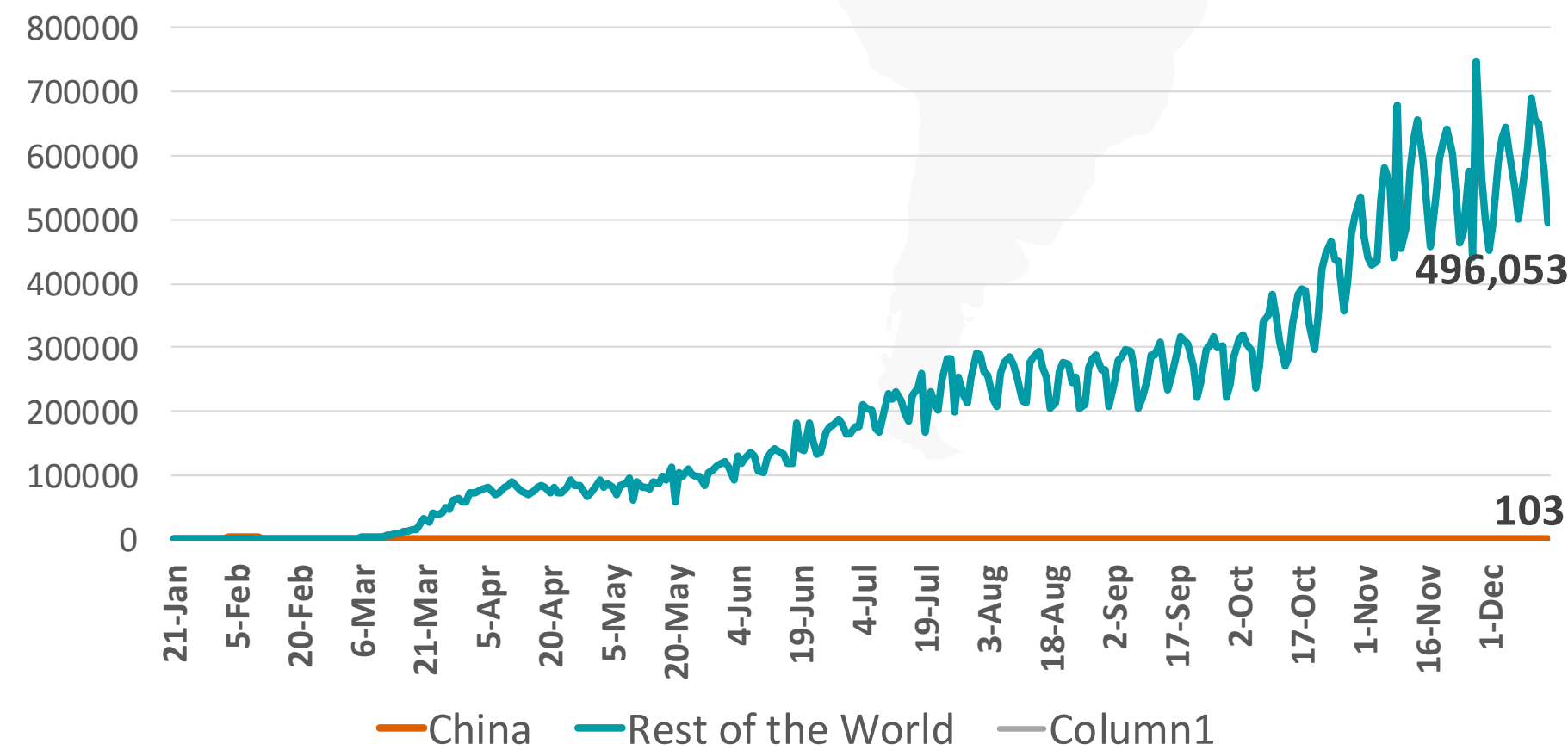


Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)

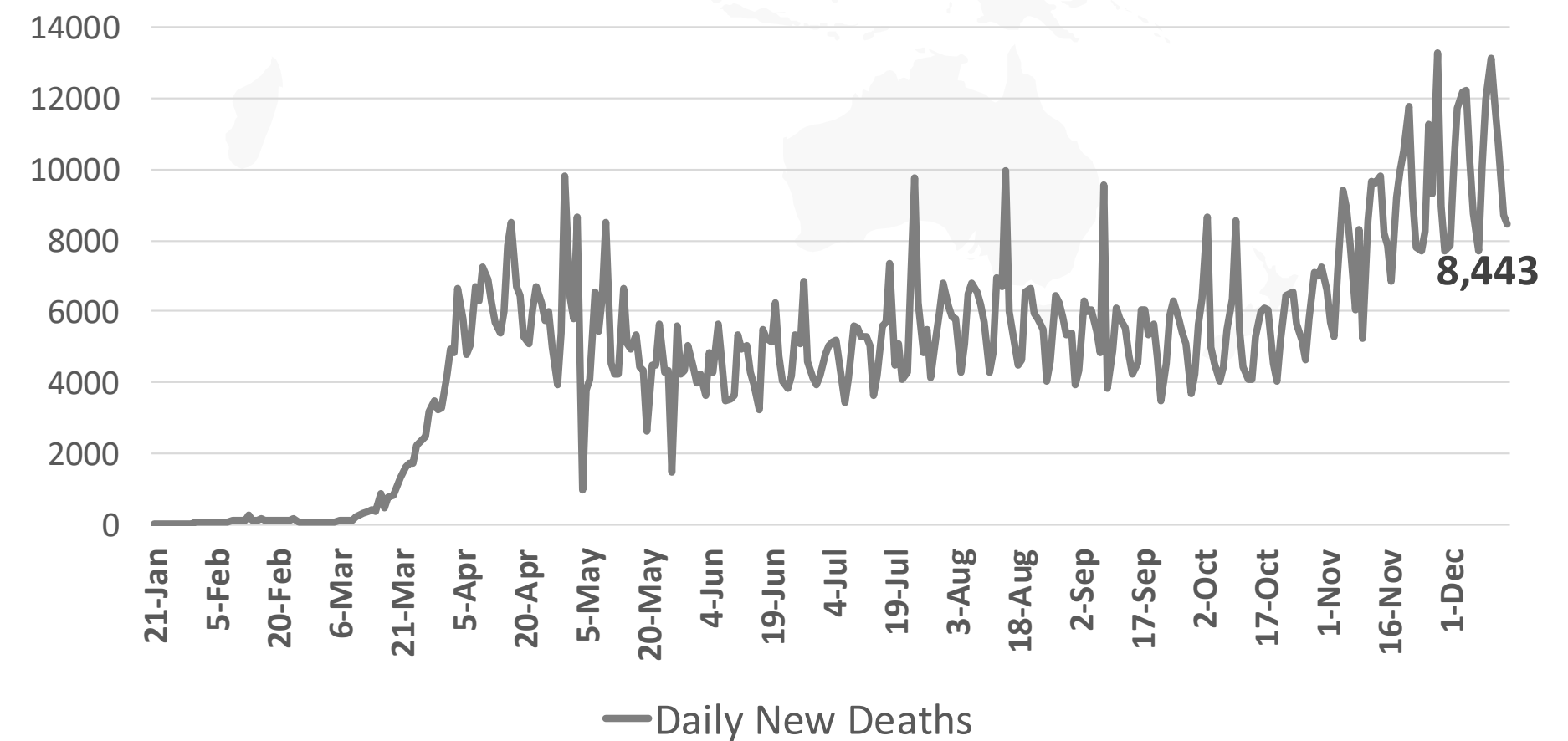
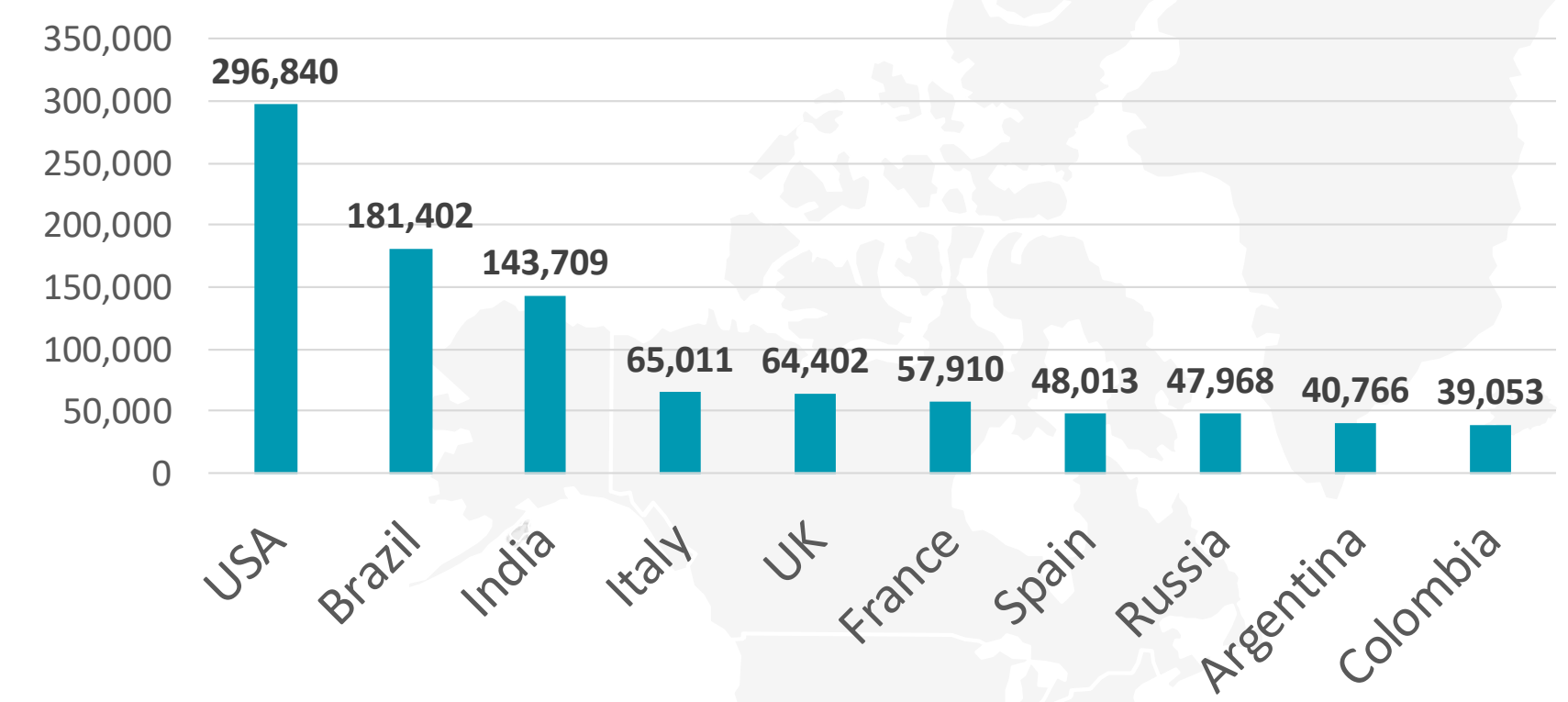
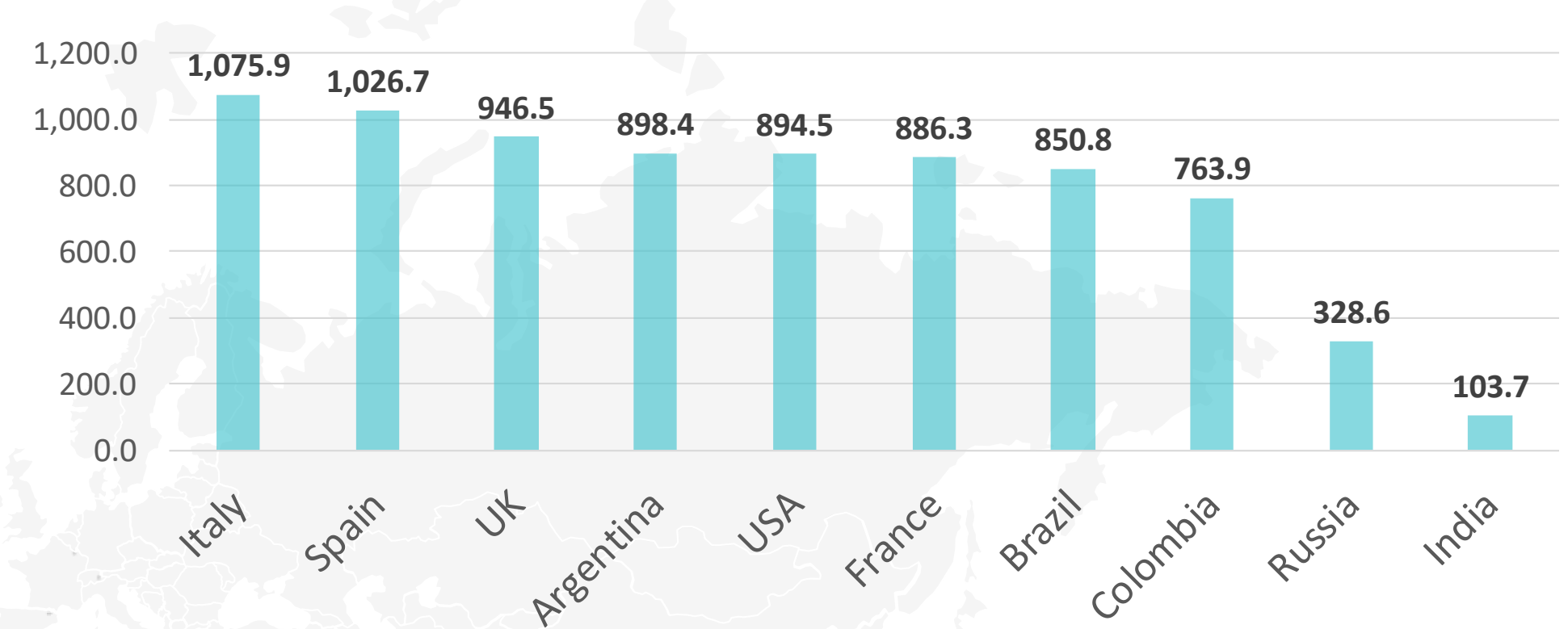


Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19

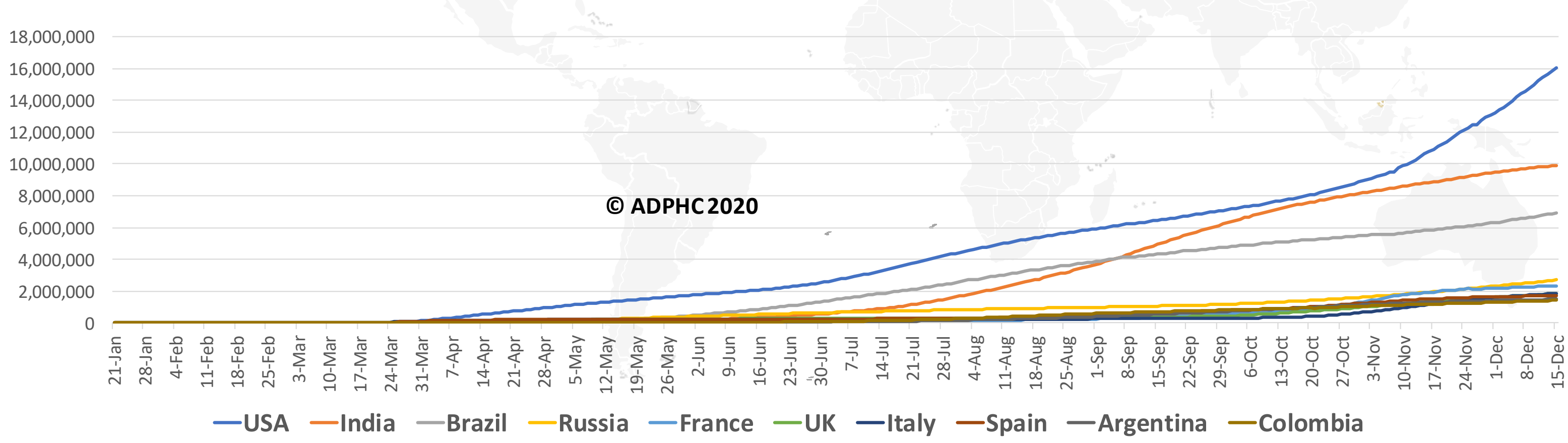
TOTAL DEATHS



DEATHS PER MILLION



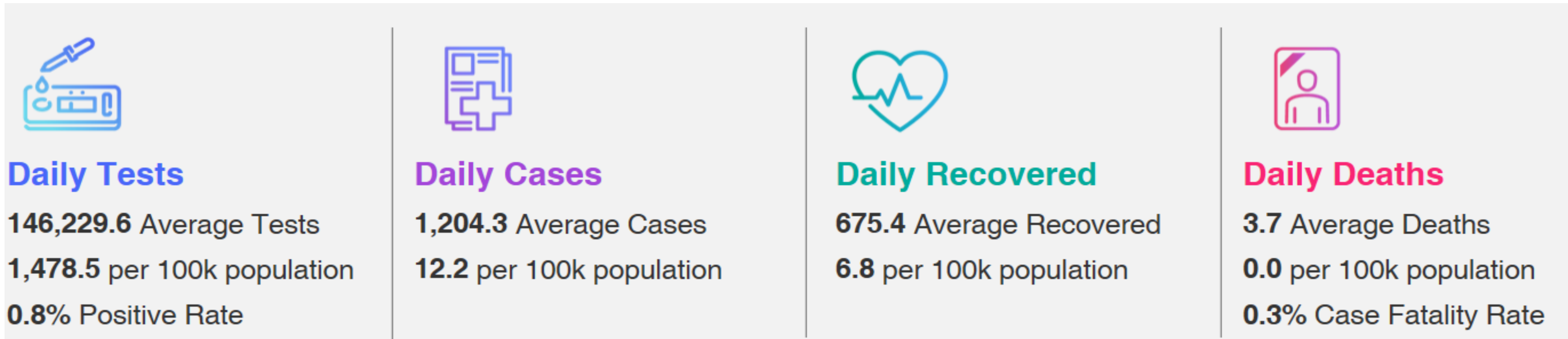
TOTAL INFECTED CASES



USA	16,041,095
India	9,906,165
Brazil	6,901,952
Russia	2,707,945
France	2,338,726
UK	1,869,670
Italy	1,855,737
Spain	1,751,884
Argentina	1,498,160
Colombia	1,425,774



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

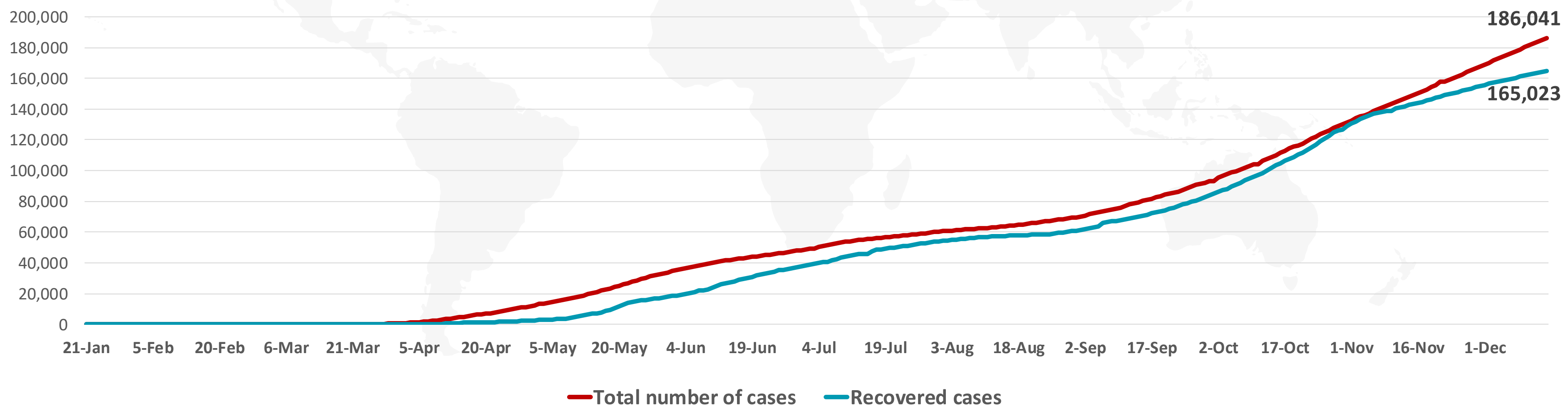


Figure 7A : Global Distribution of COVID-19 Cases

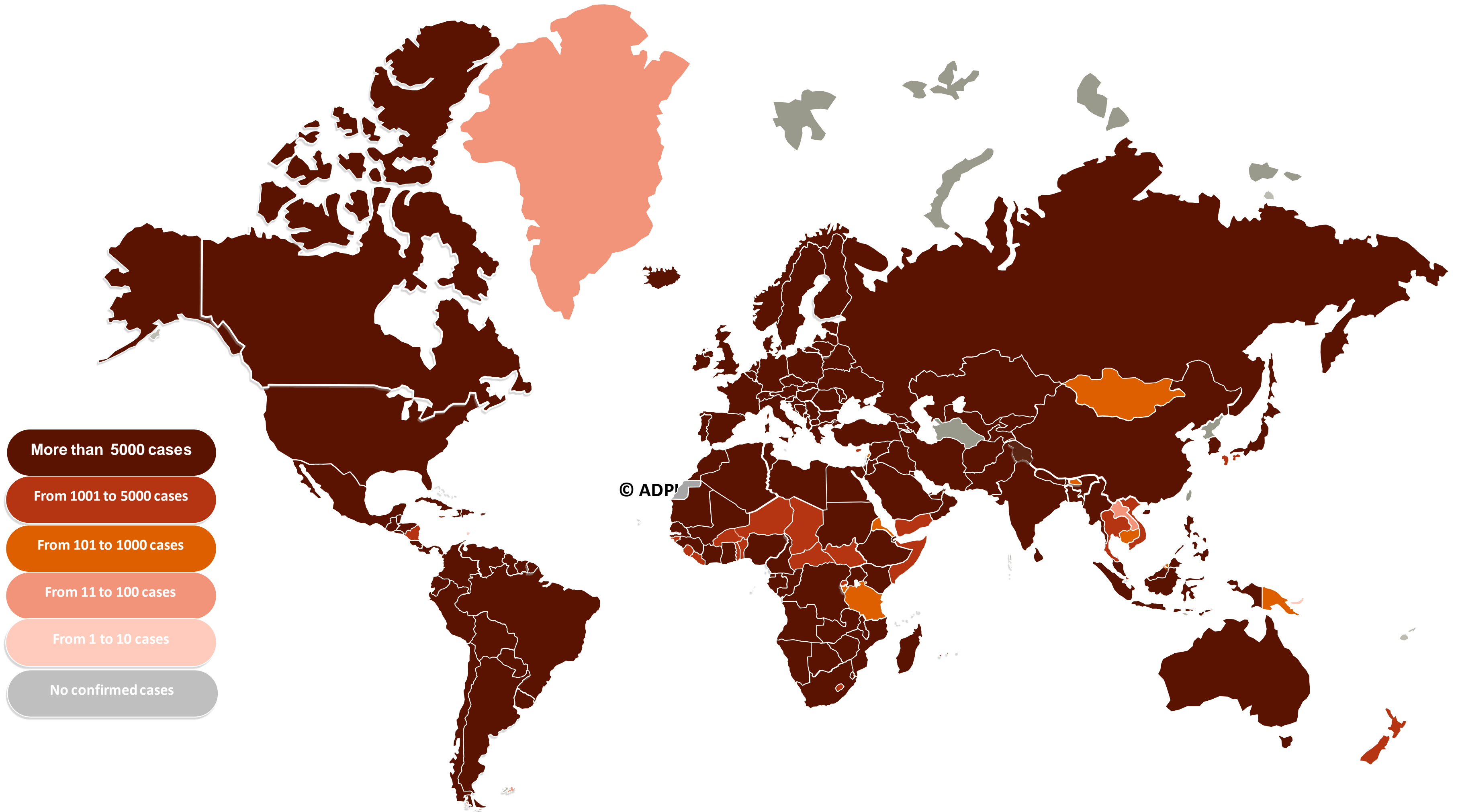
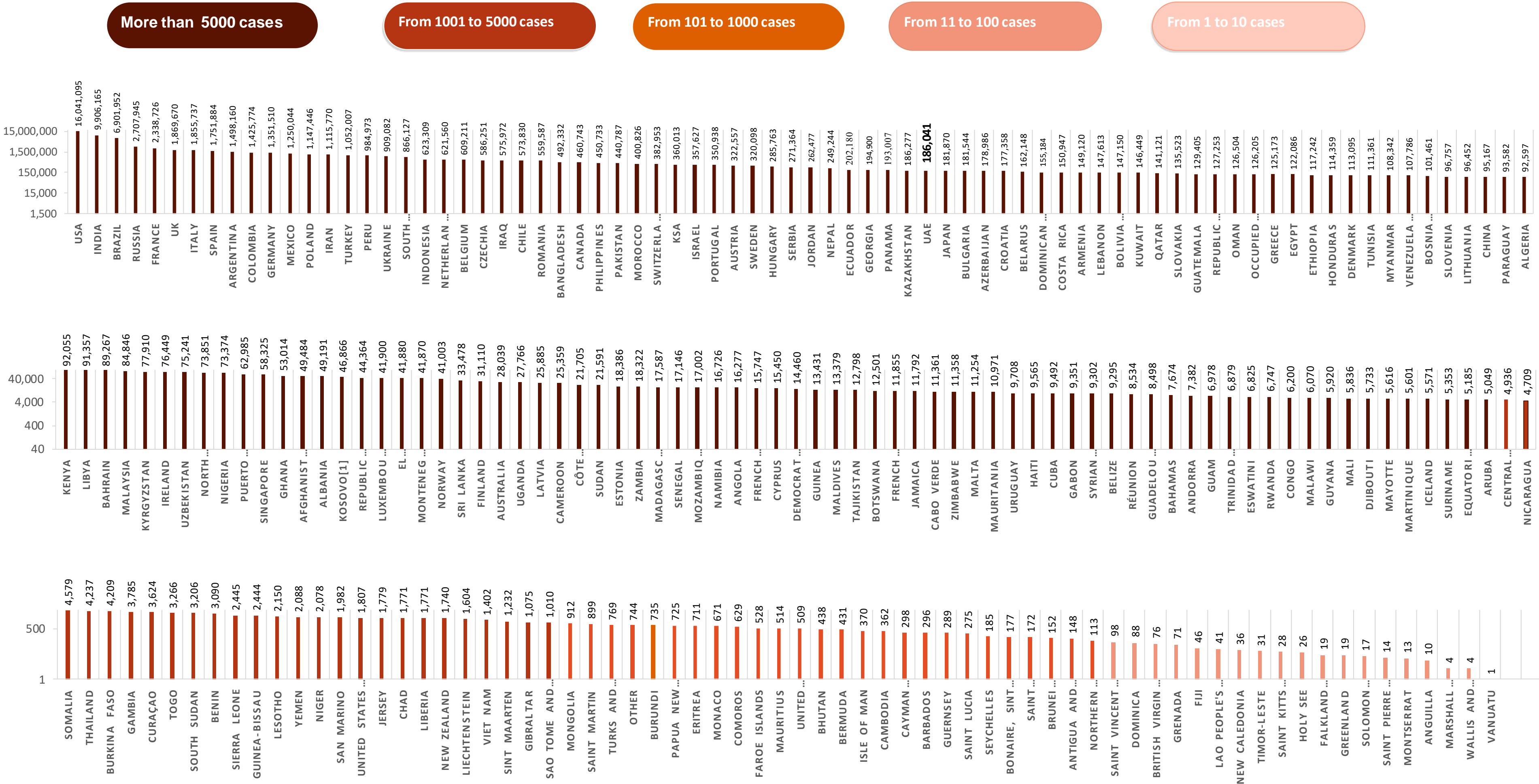


Figure 7B: Bar Chart Illustrates the Global Distribution of COVID19 Cases



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

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

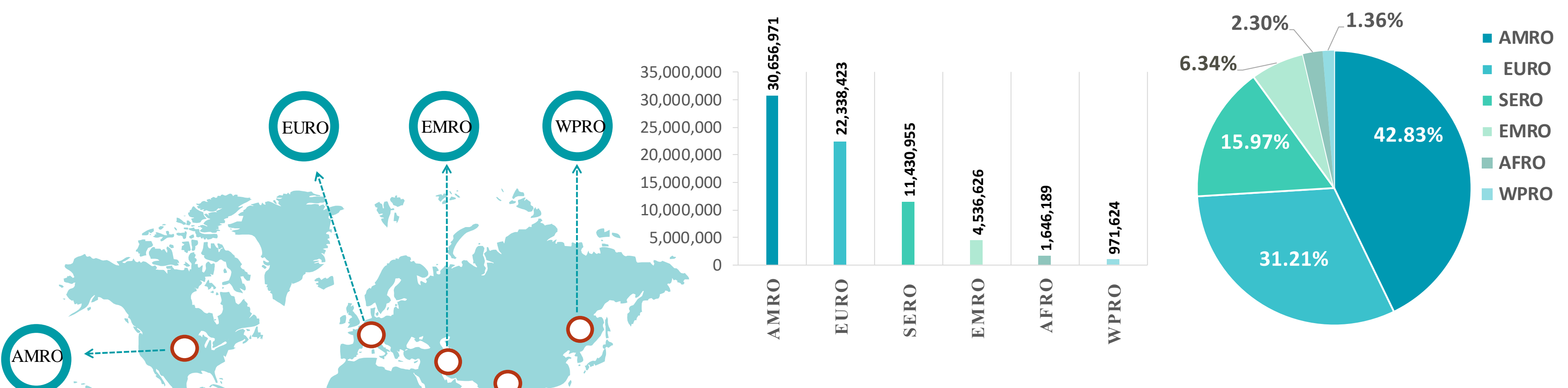
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Figure 8: Global Distribution of COVID-19 Cases per Region

INFECTED



DEATHS

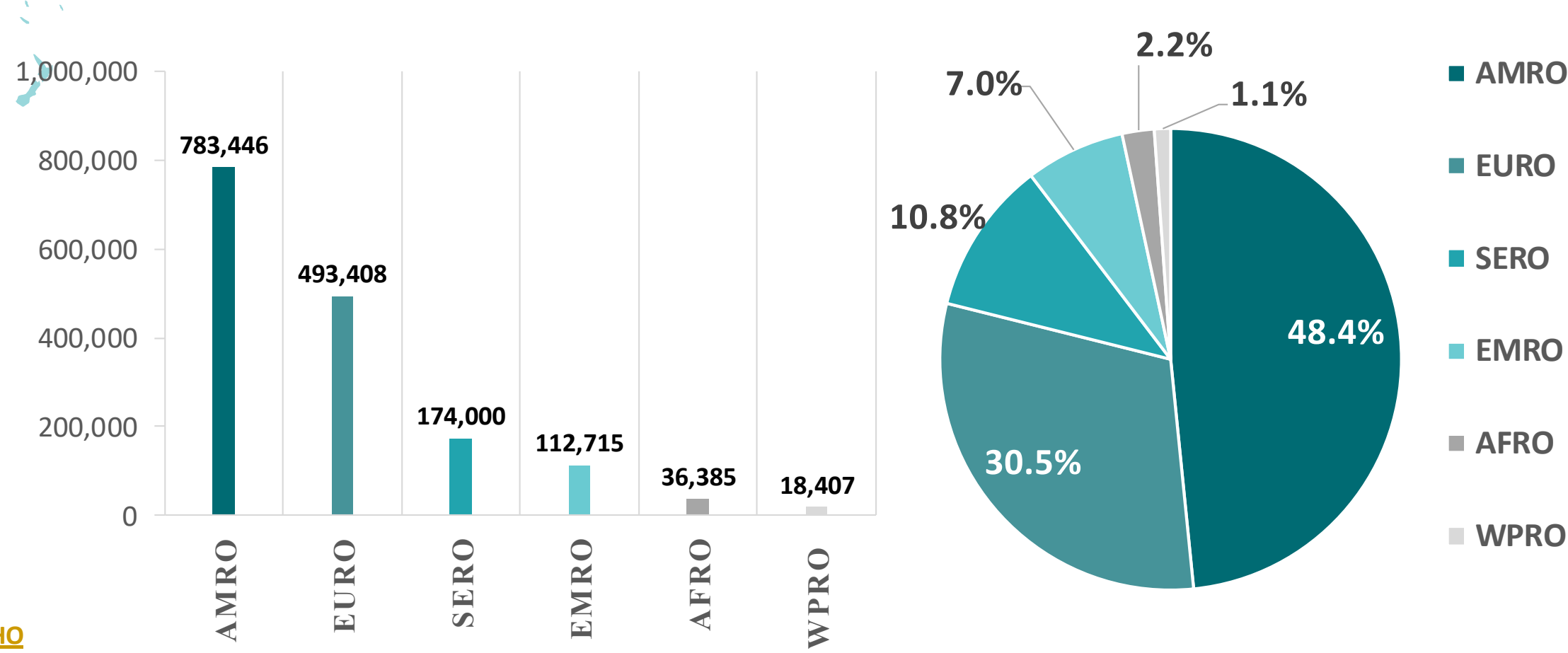
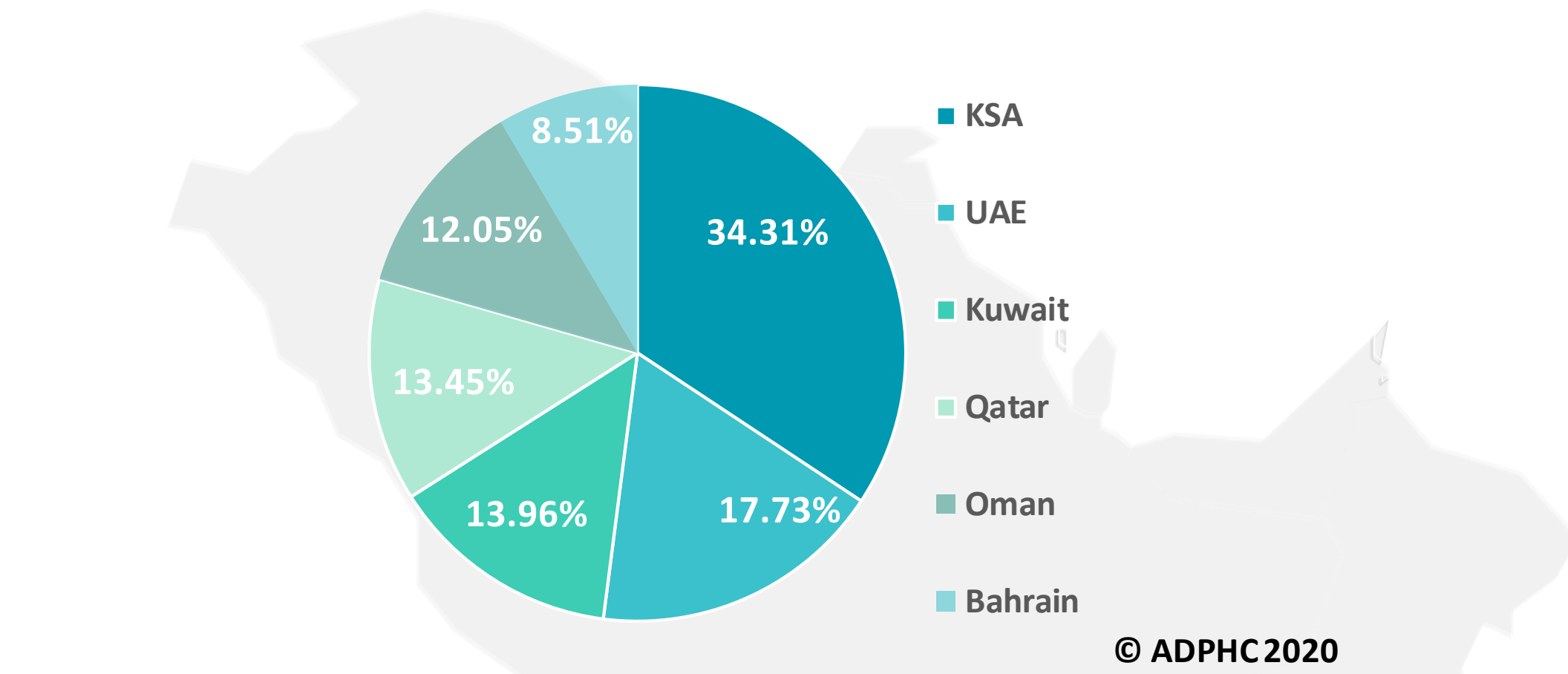
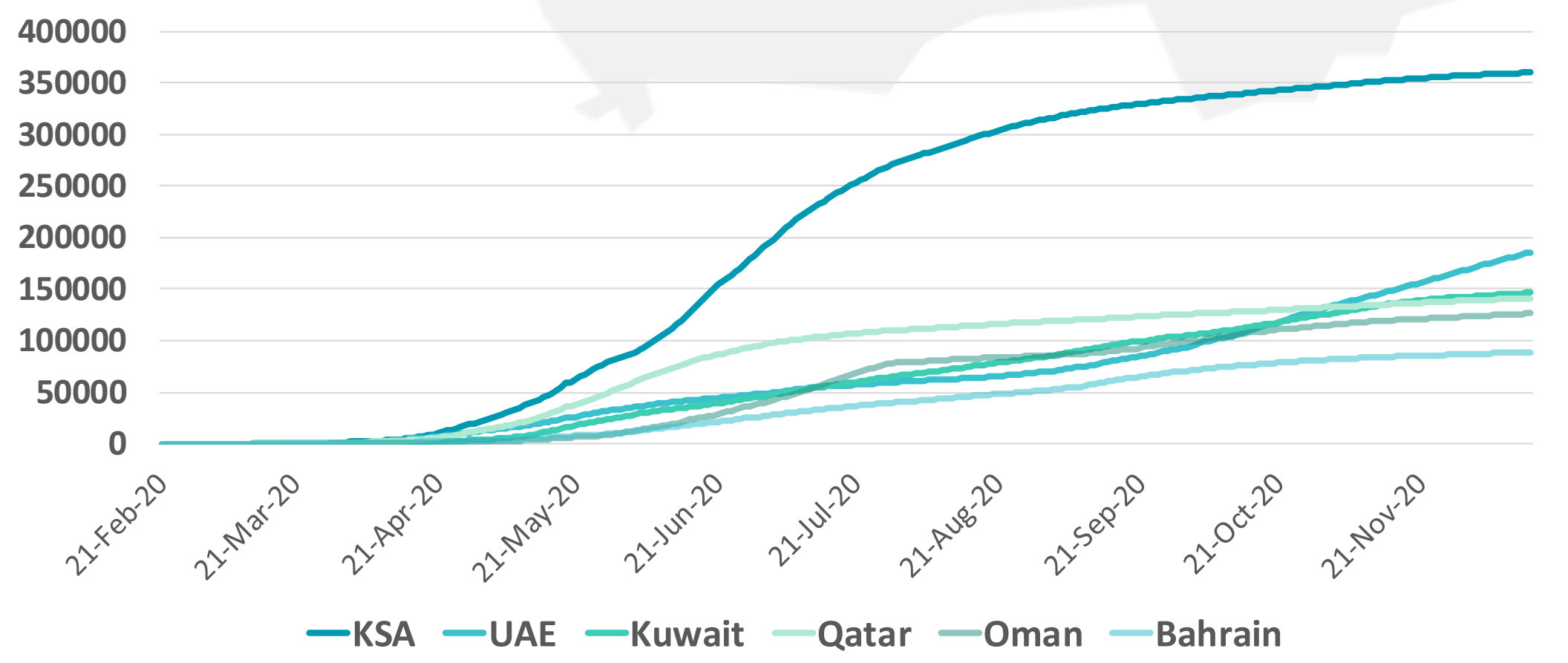
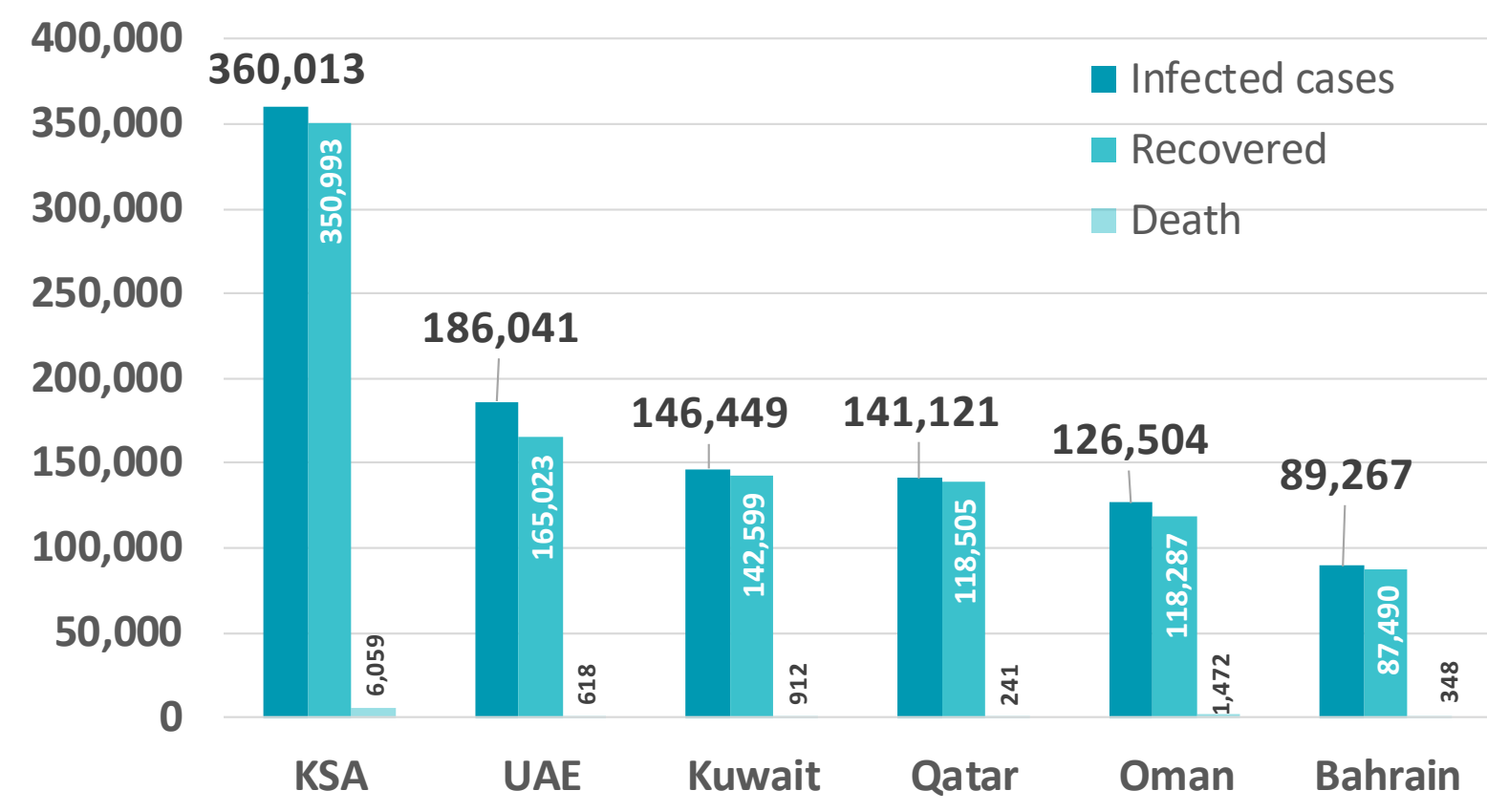


Figure 9: Comparative Analysis of the Distribution of COVID-19 Cases in GCC Countries

TOTAL NUMBER OF INFECTED CASES



TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



DEATHS PER MILLION

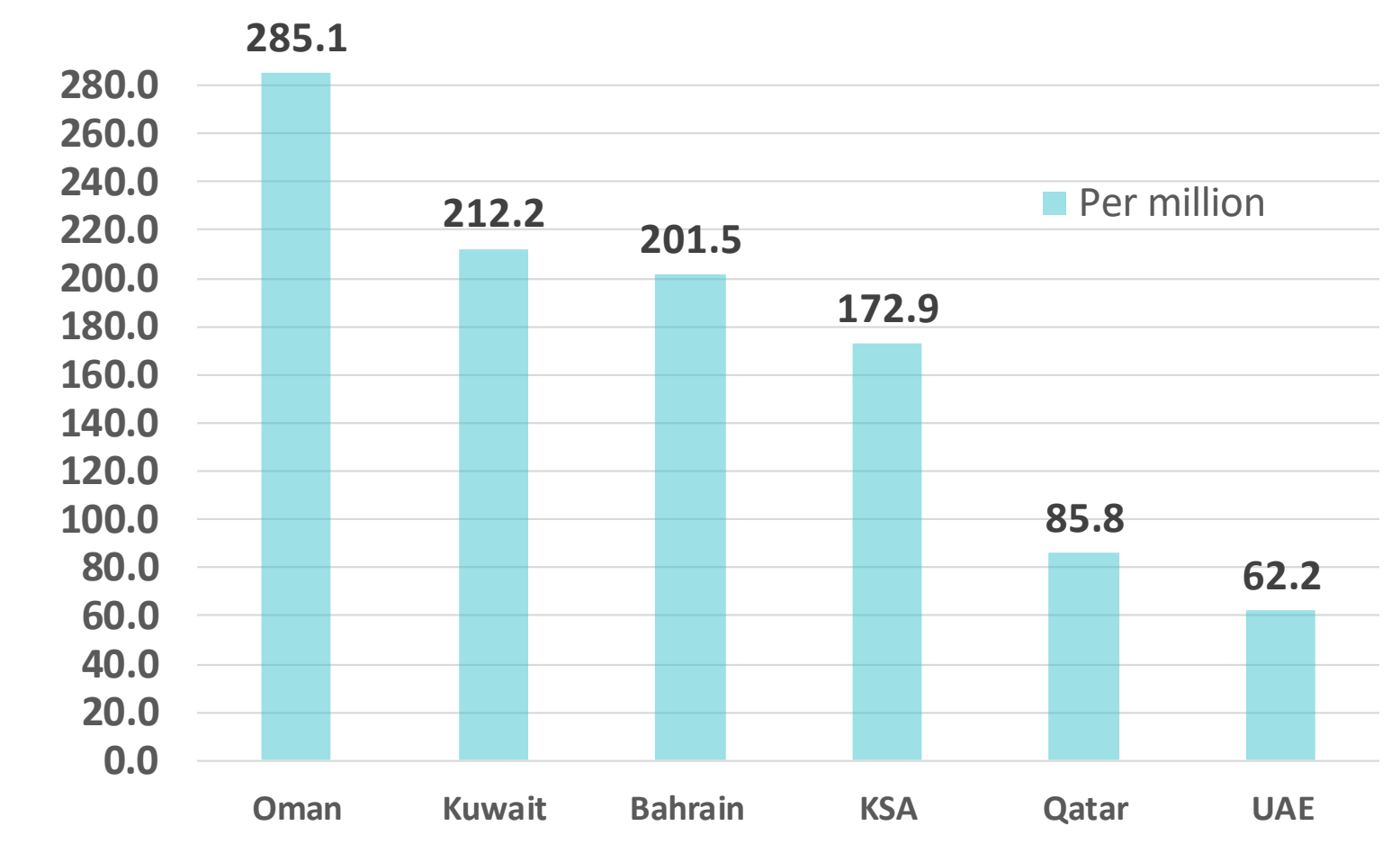
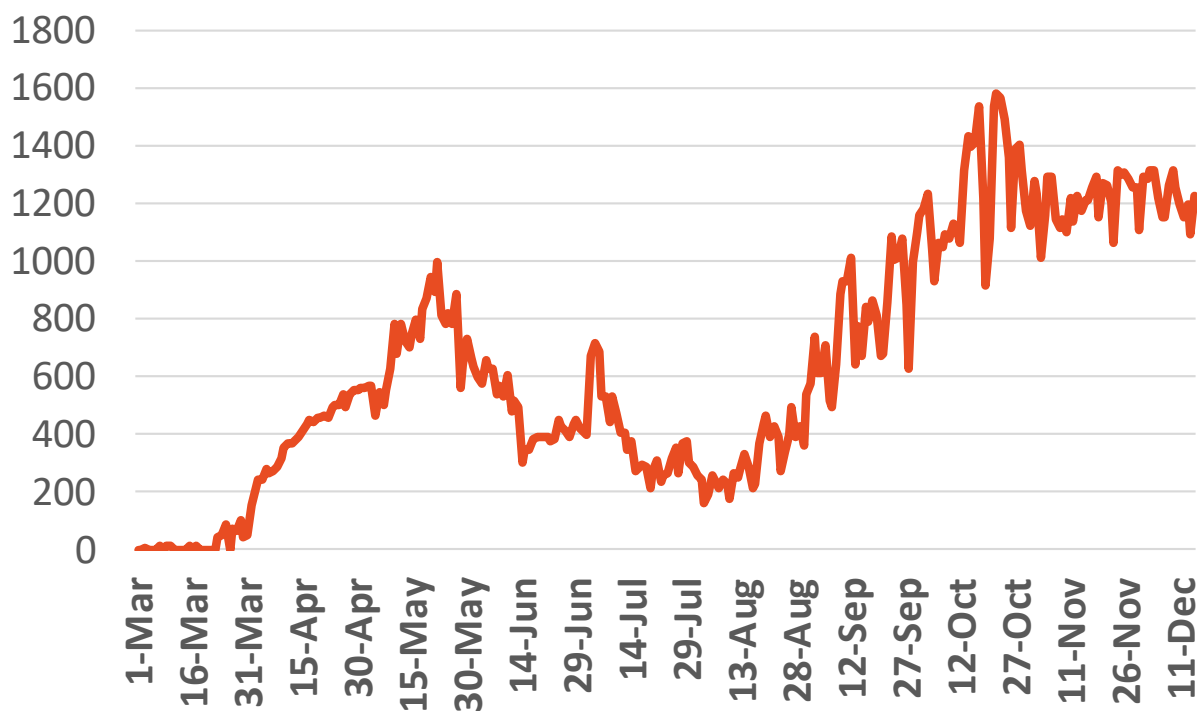


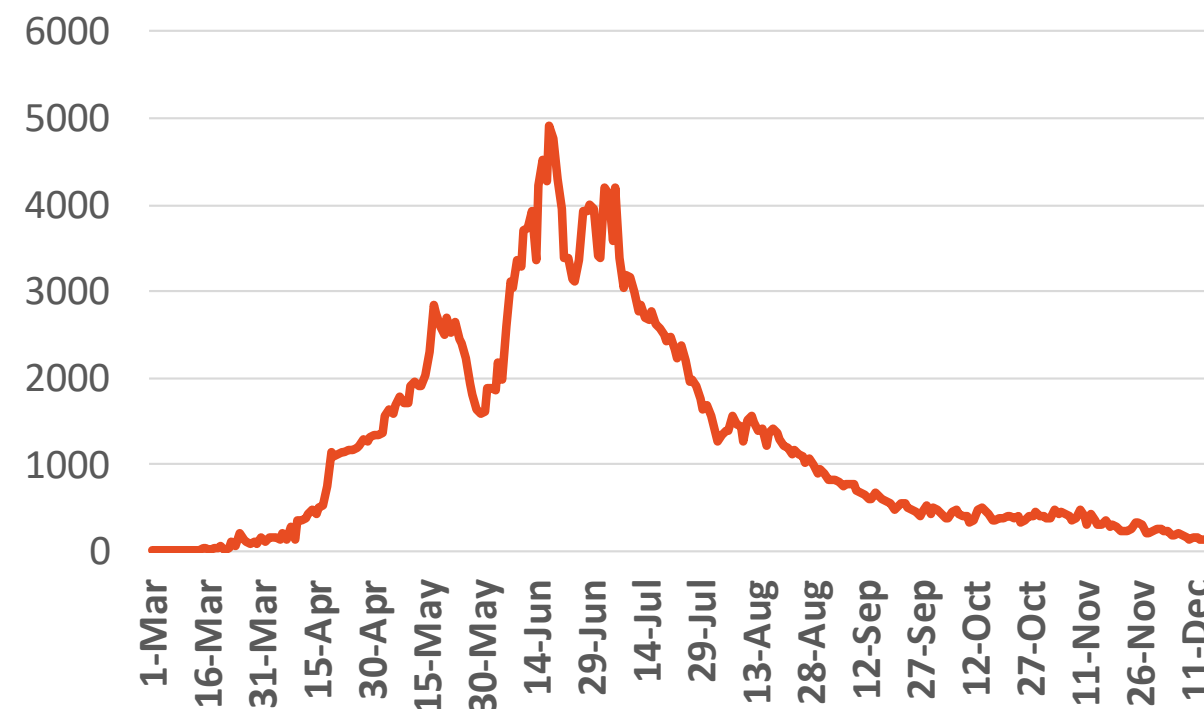
Figure 10: Comparative Analysis of the Distribution of COVID-19 New Cases in GCC Countries

UAE



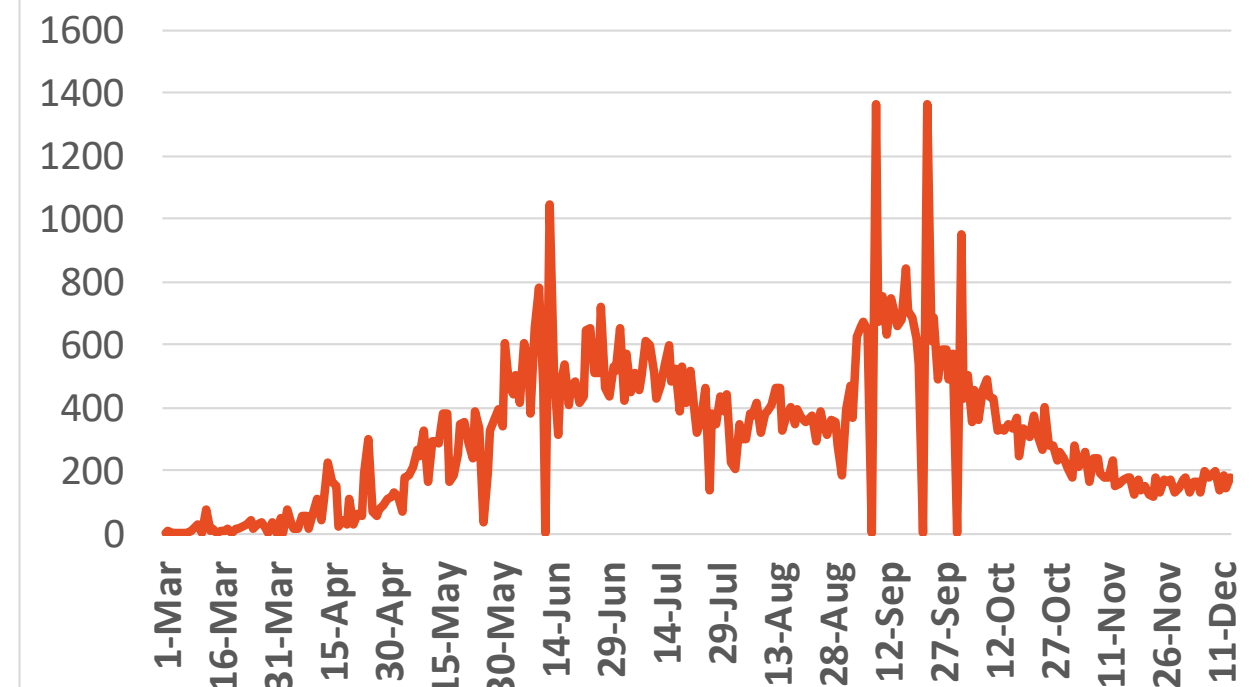
Source : National Emergency Crisis and Disaster Management Authority

KSA



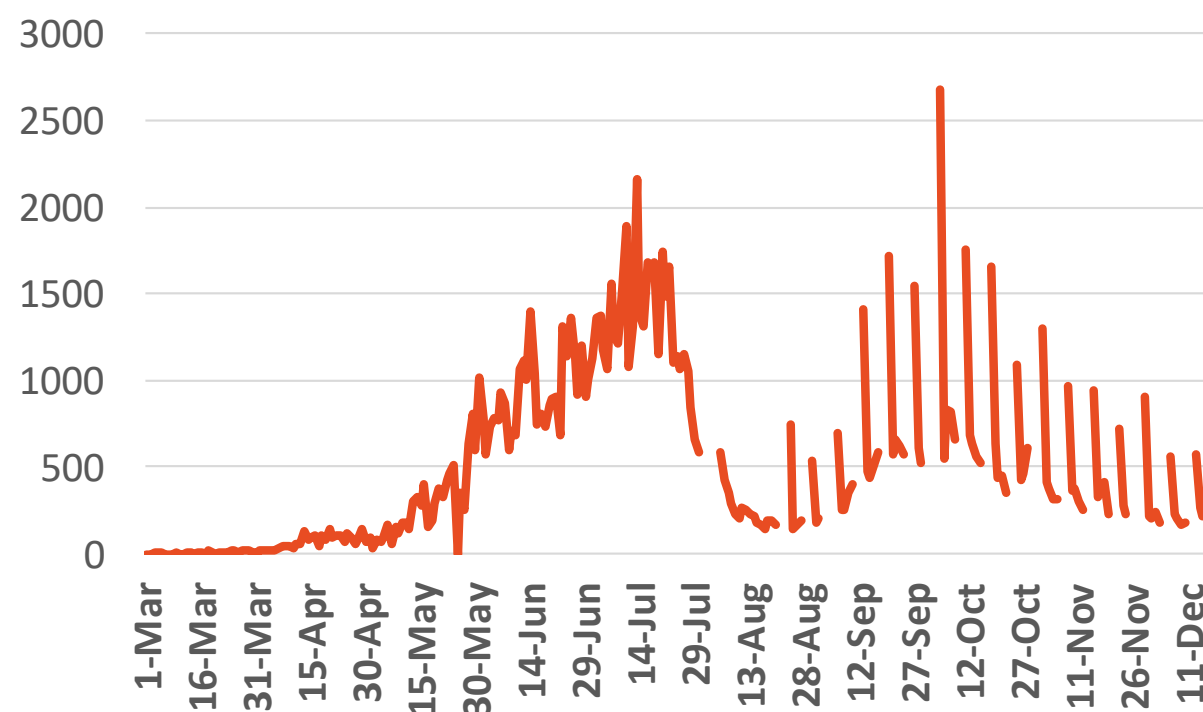
Source : KSA ministry of health

Bahrain



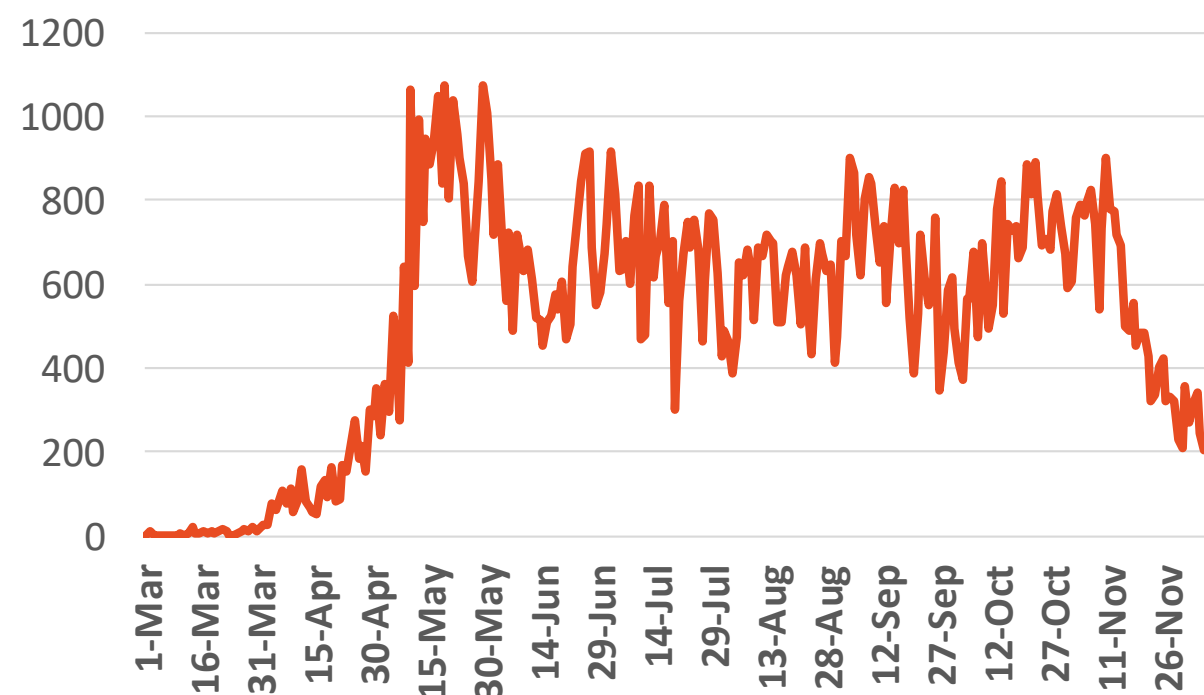
Source :WHO

Oman



Source :Oman ministry of health

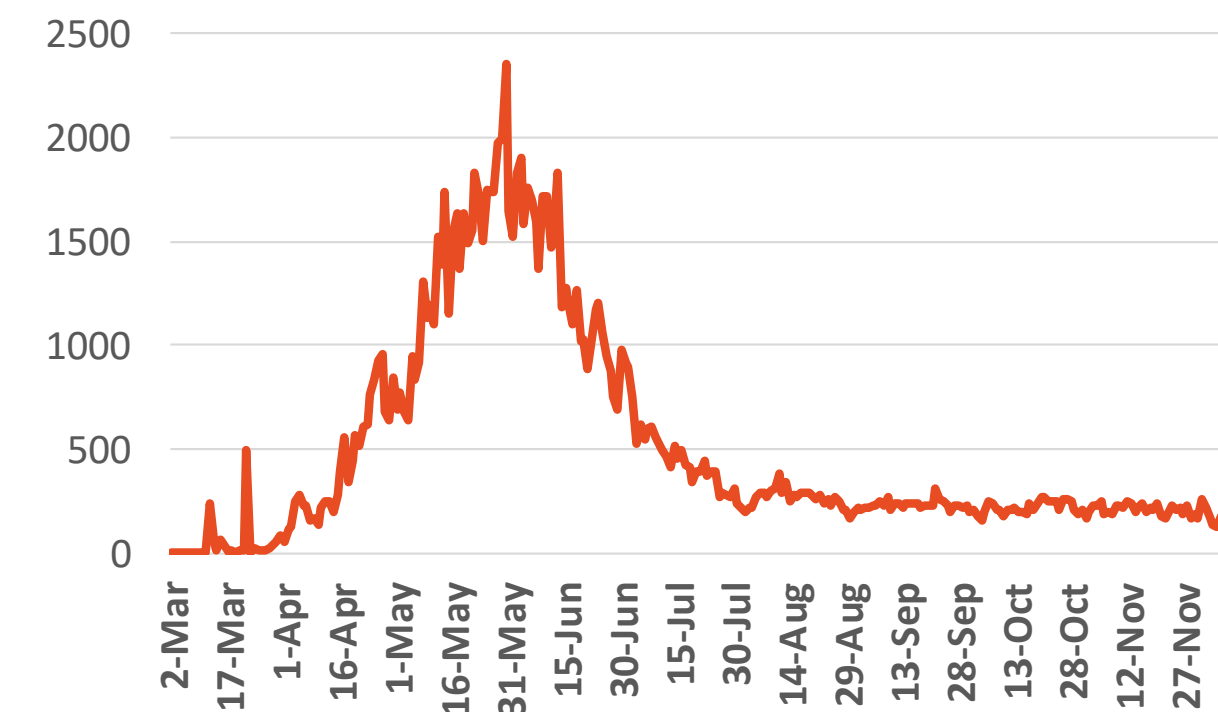
Kuwait



Source : Kuwait ministry of health

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Qatar



Source : Qatar ministry of health

*No announced statistic data from 31 JUL to 4 AUG, 21,23,28,30 AUG 24- 5,11,12,18,19,25 ,26,30 SEP,1,2,9,10,16,17,23,24,30,21 OCT, 6,7,13,14,17,20,21, 25,26,6 DEC
*No announced statistic data on weekends and official holidays.

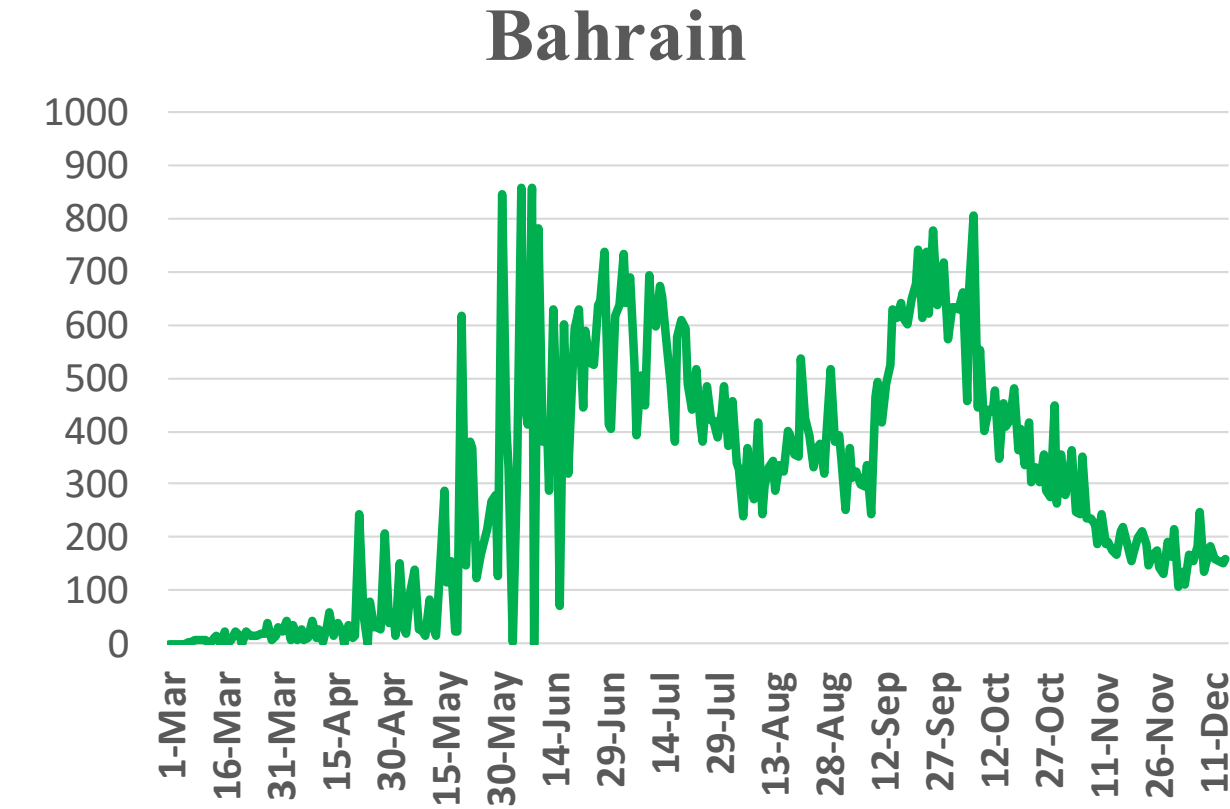
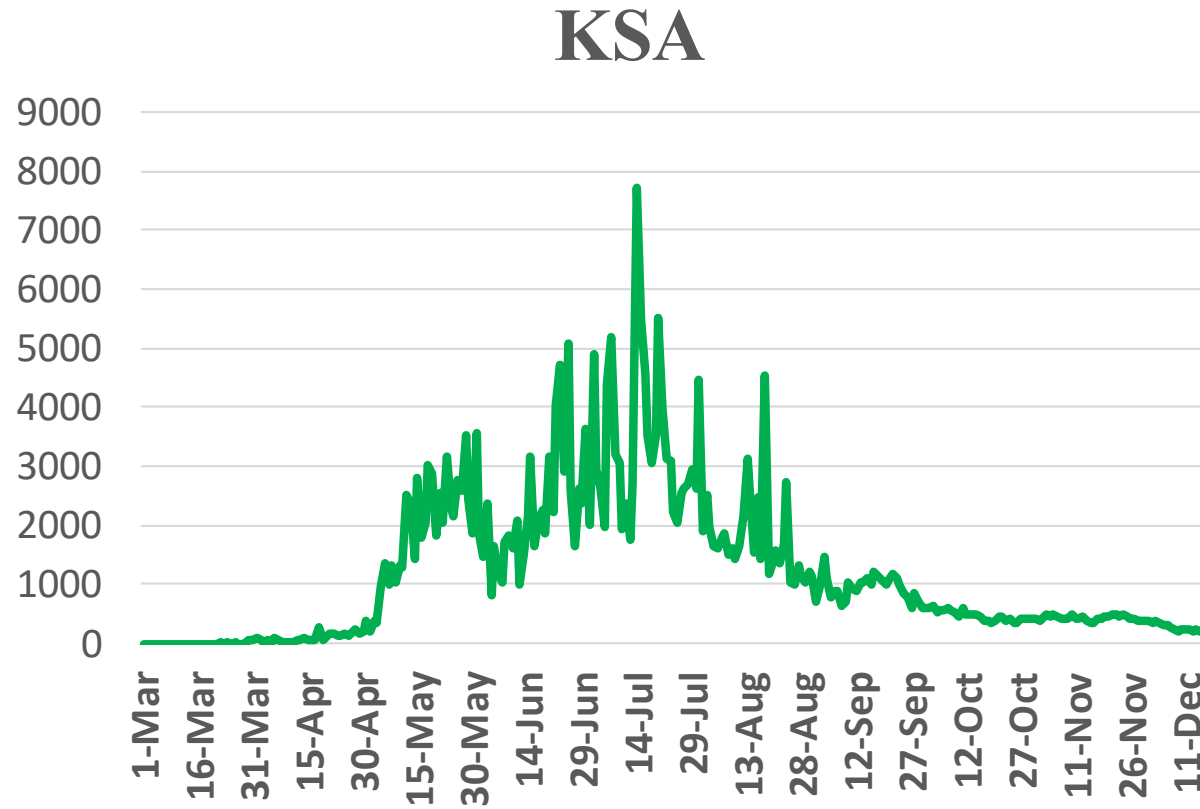
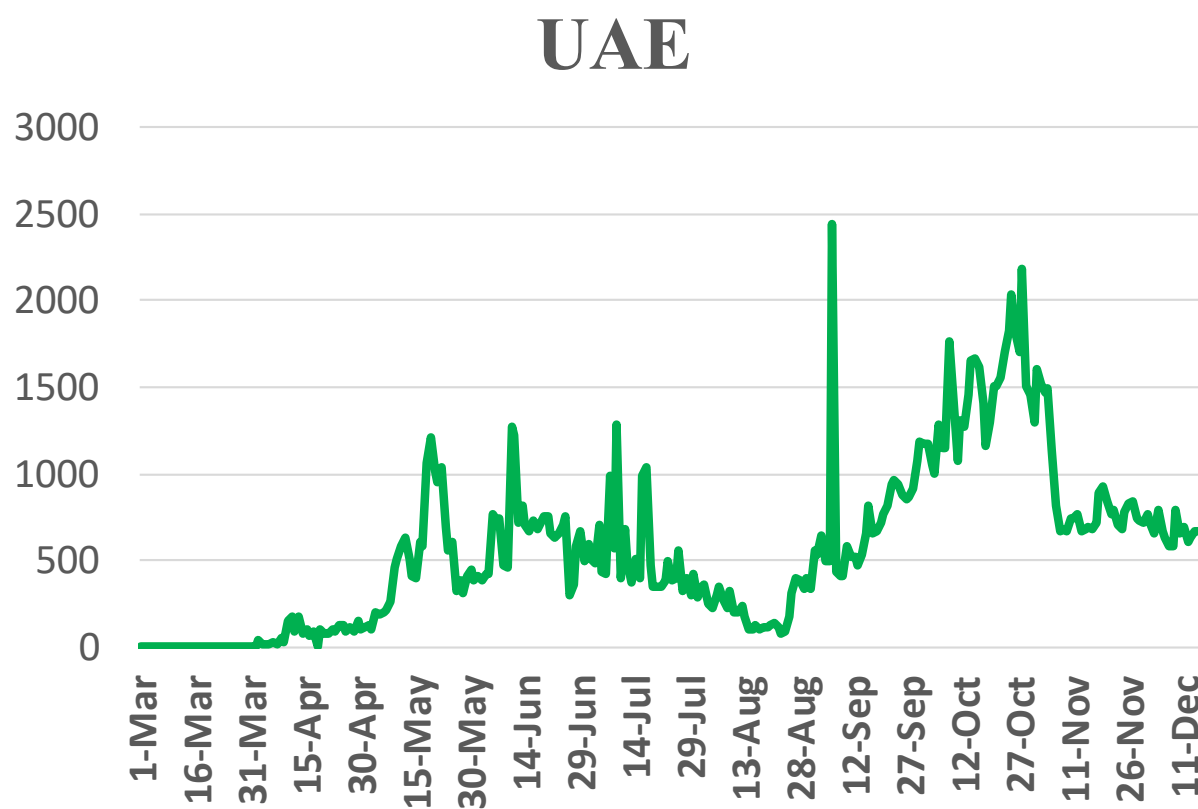


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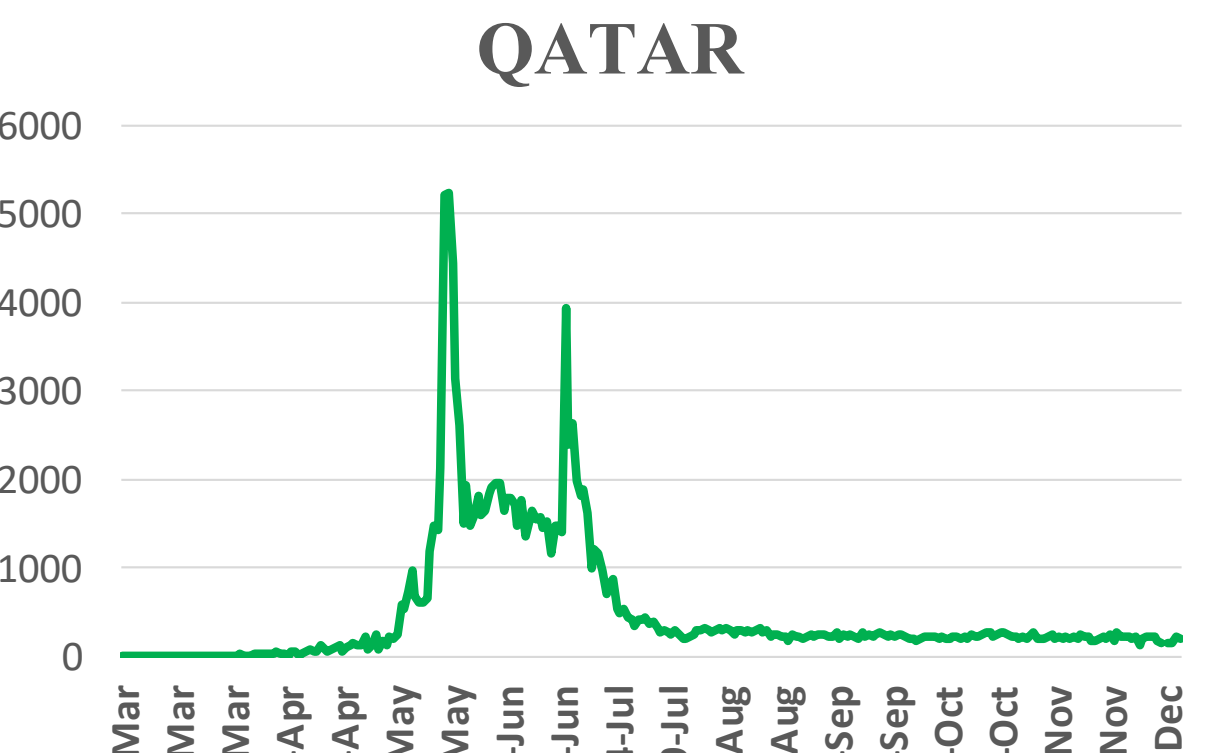
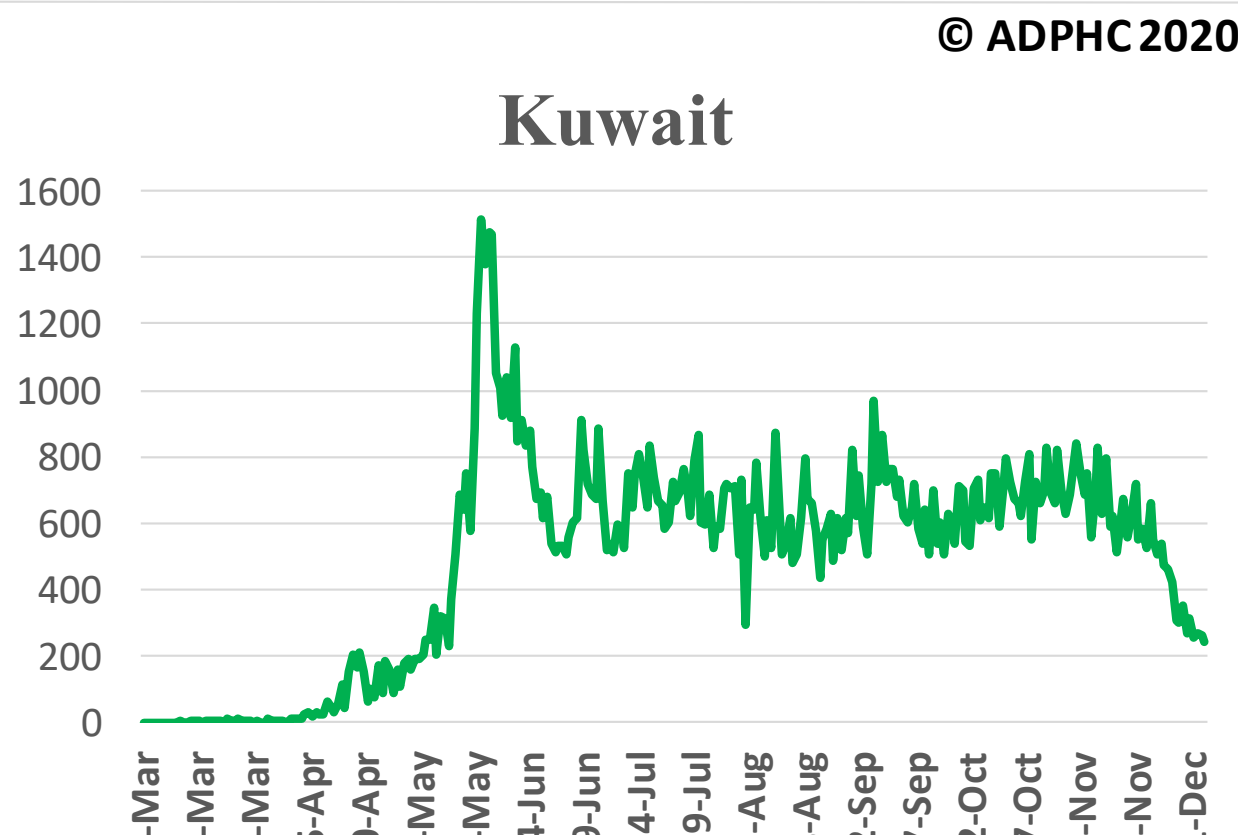
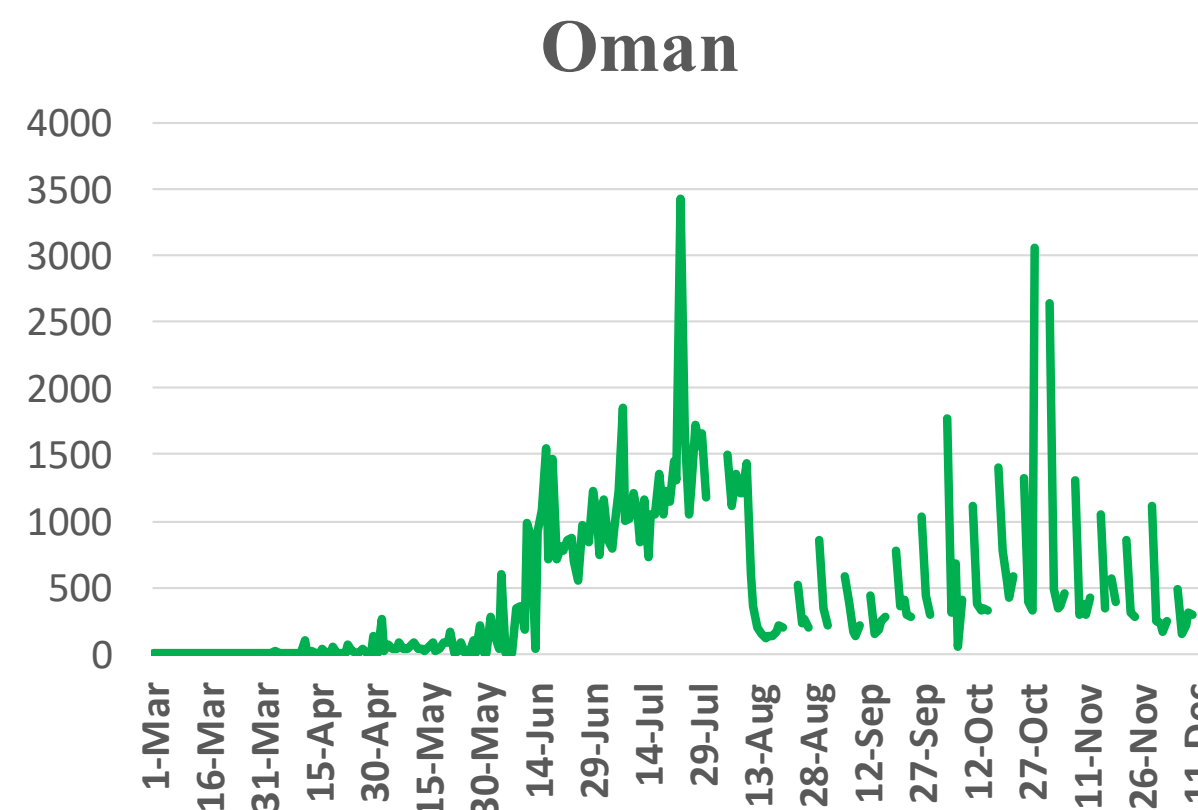
Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries



Source : National Emergency Crisis and Disaster Management Authority

Source : KSA ministry of health

Source : Bahrain ministry of health



Source : Kuwait ministry of health

Source : Qatar ministry of health

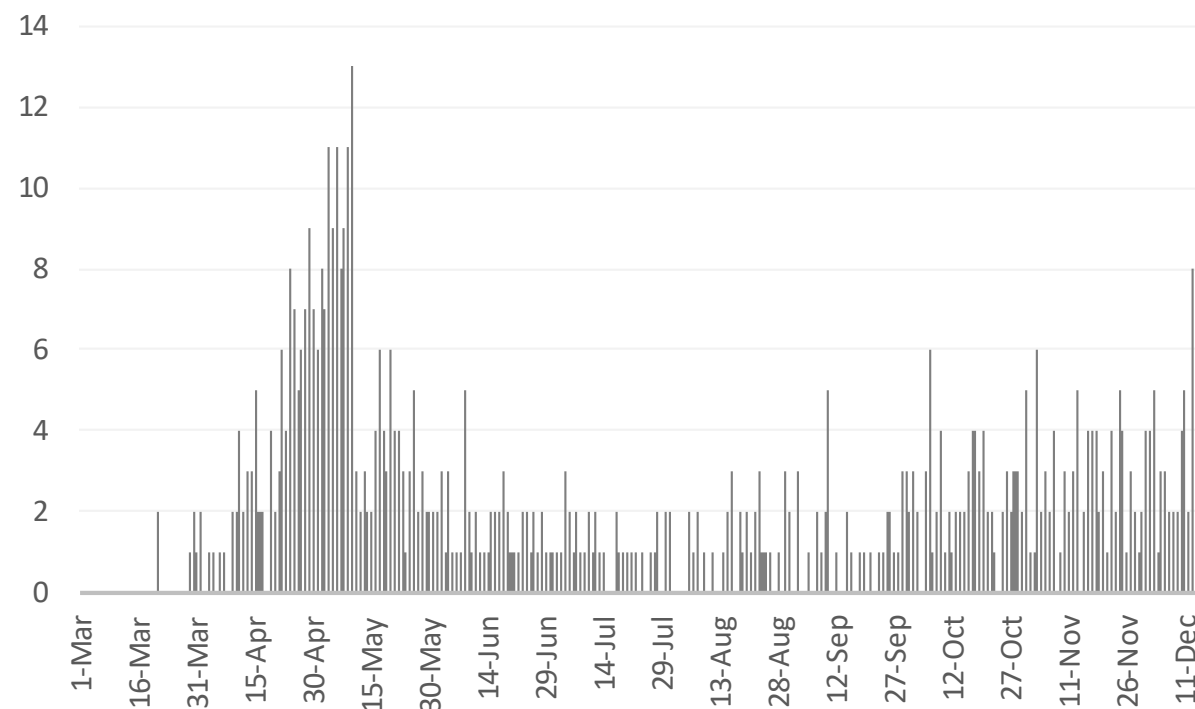
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No announced statistic data on weekends and official holidays.



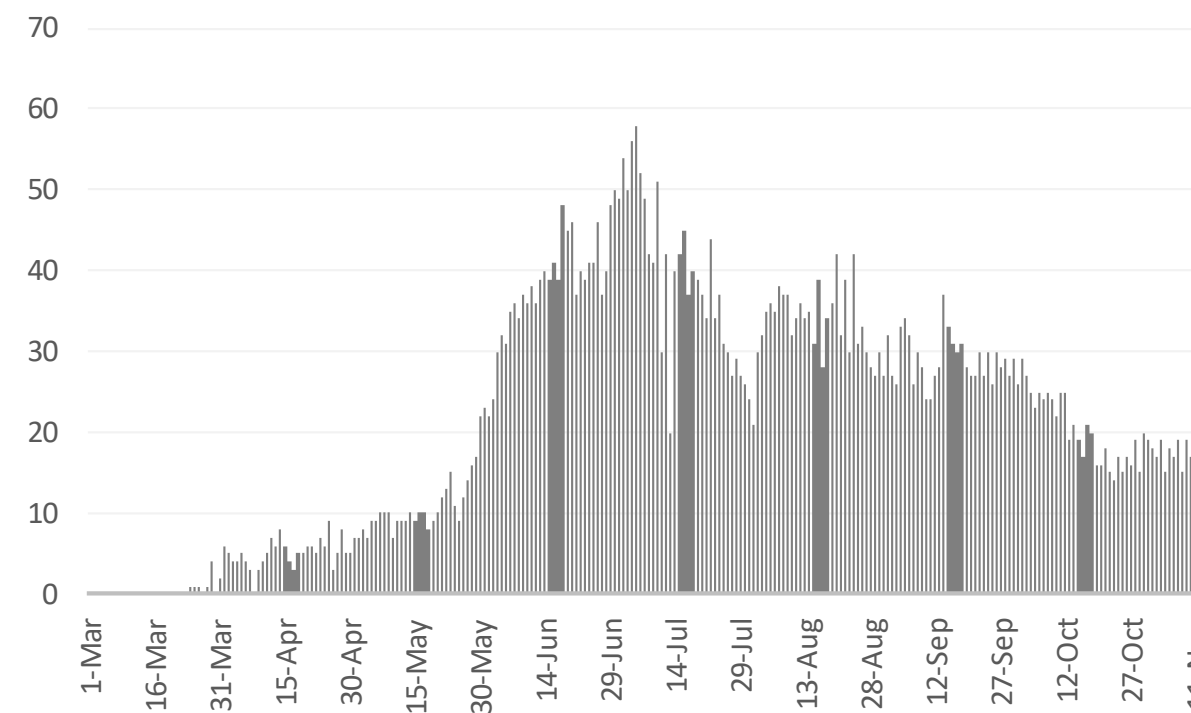
Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

UAE



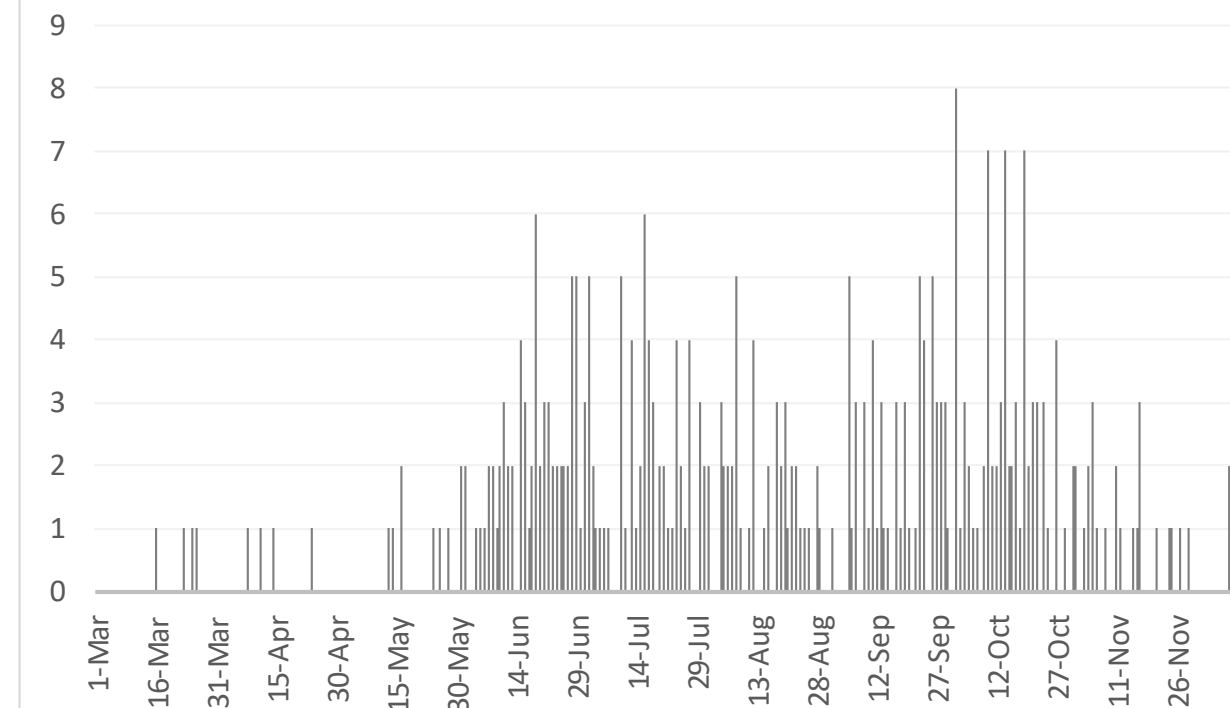
Source : National Emergency Crisis and Disaster Management Authority

KSA



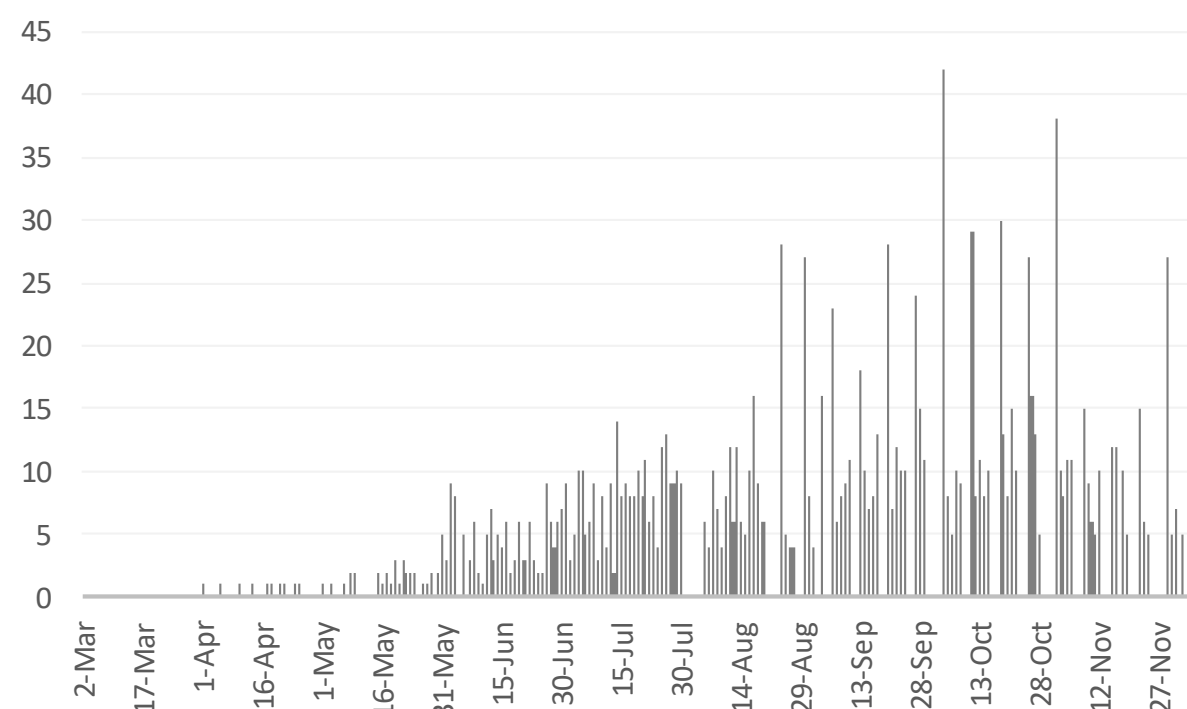
Source : KSA ministry of health

Bahrain



Source :WHO

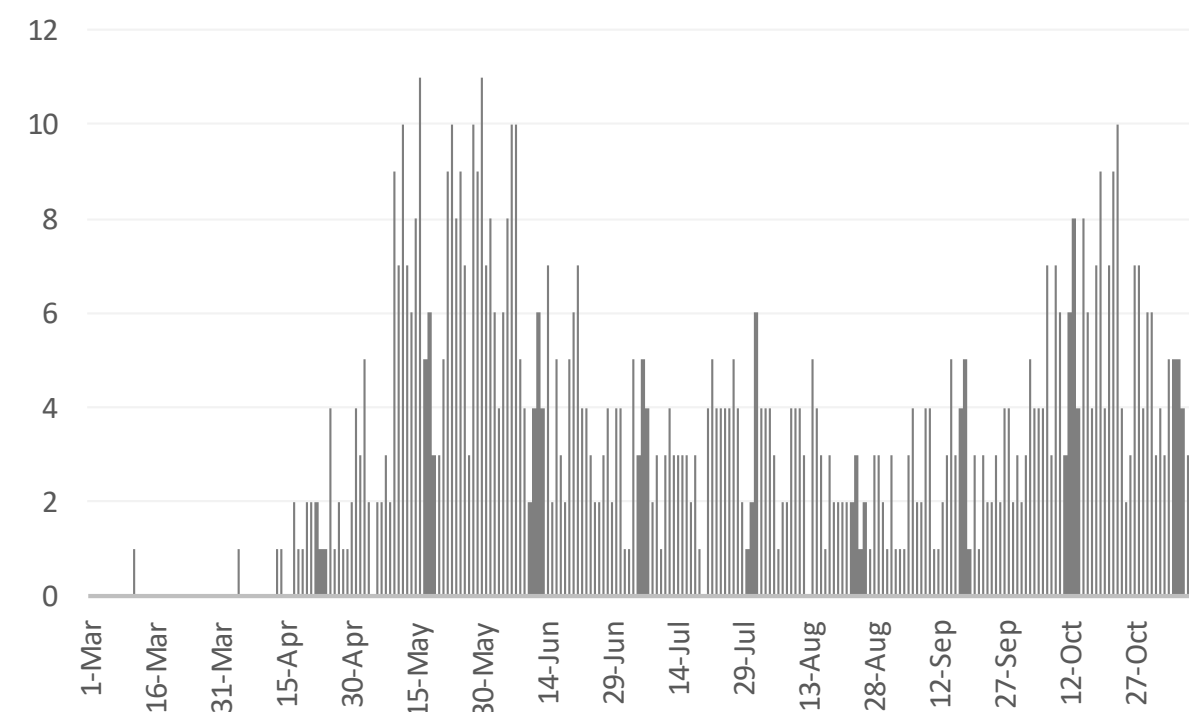
Oman



Source :Oman ministry of health

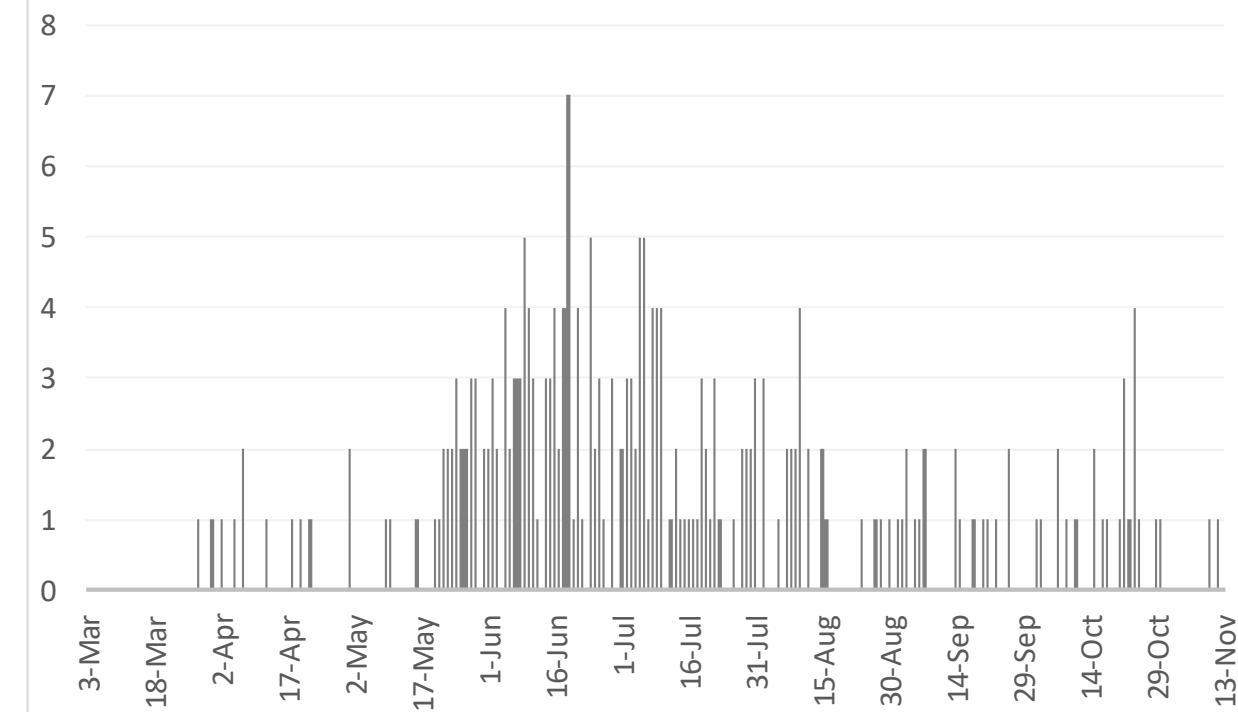
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Kuwait



Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health

*No announced statistic data from 31 JUL 4 AUG, 21,23,28,30 AUG 2, 4 5,11,12,18,19,25,26,30 SEP,1,2,9,10,16,17,23,24,30,21 OCT, 6,7,13,14,17,20,21,25,26,6 DEC
*No announced statistic data on weekends and official holidays.





Article 1

Published

December 09, 2020, the [LANCET](#)

Trajectories of anxiety and depressive symptoms during enforced isolation due to COVID-19 in England: a longitudinal observational study

- This prospective longitudinal observational study aimed to explore the trajectories of anxiety and depression over the 20 weeks after lockdown was announced in England, and compare the growth trajectories by individual characteristics. Analyses was performed using latent growth models, which were fitted to account for sociodemographic and health covariates. The analytic sample consisted of 36 520 participants. The average depression score was 6.6 (SD=6.0, range 0–27) and the average anxiety score 5.7 (SD=5.6, range 0–21) in week 1. Anxiety and depression levels both declined across the first 20 weeks following the introduction of lockdown in England.
- **Being a woman or younger, having lower educational attainment, lower income, or pre-existing mental health conditions, and living alone or with children were all risk factors for higher levels of anxiety and depression at the start of lockdown.**
- Many of these inequalities in experiences were reduced as lockdown continued, but differences were still evident 20 weeks after the start of lockdown. These data indicate that the highest levels of depression and anxiety occurred in the early stages of lockdown but declined fairly rapidly, possibly because individuals adapted to circumstances. The results of the study focused on the importance of supporting individuals in the lead-up to future lockdowns to try to reduce distress, and highlight that groups already at risk for poor mental health before the pandemic have remained at risk throughout lockdown and its aftermath.



Article 2

Published

December 7, 2020 [THE LANCET](#)

Effect of internationally imported cases on internal spread of COVID-19: a mathematical modelling study

This study aimed to investigate the extent to which imported cases contribute to local transmission under a diversity of the epidemic conditions. To inform decisions about international travel restrictions, the investigators calculated the ratio of expected COVID-19 cases from international travel (assuming no travel restrictions) to expected cases arising from internal spread, expressed as a proportion, on an average day in May and September, 2020, in each country. Countries can expect travelers infected with SARS-CoV-2 to arrive in the absence of travel restrictions. Although such restrictions probably contribute to epidemic control in many countries, in others, imported cases are likely to contribute little to local COVID-19 epidemics. Stringent travel restrictions might have little impact on epidemic dynamics except in countries with low COVID-19 incidence and large numbers of arrivals from other countries, or where epidemics are close to tipping points for exponential growth. Hence, the results indicate that countries should consider local COVID-19 incidence, local epidemic growth, and travel volumes before implementing such restrictions.



Article 3

Published

[Nature](#)

Male sex identified by global COVID-19 meta-analysis as a risk factor for death and ITU admission

This meta-analysis of 3,111,714 reported global cases demonstrated that while there is no difference in the proportion of males and females infected with SARS-CoV-2, males face higher odds of both intensive therapy unit (ITU) admission and death compared to females. With few exceptions, the sex bias observed in COVID-19 is a worldwide phenomenon. The confirmation of this sex disparity with global data has significant implications for the continuing public health response to this pandemic.



Article 4

How Moderna's Vaccine Works (94.1%)

Published

[Moderna, the LANCET commentary article](#)

Moderna, a Massachusetts-based vaccine developer, partnered with the National Institutes of Health to develop and test a coronavirus vaccine known as mRNA-1273. A clinical trial demonstrated that the vaccine has an efficacy rate of 94.1 percent in preventing Covid-19.

THANK YOU

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