

SCIENTIFIC RESEARCH MONITORING ON COVID-19

18 NOVEMBER 2020

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SCIENTIFIC RESEARCH MONITORING ON COVID-19

(ISSUE 289)

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

Safety and Efficacy of Inhaled Nebulized Interferon Beta-1a (SNG001) for Treatment of SARS-CoV-2 Infection: A Randomized, Double-Blind, Placebo-Controlled, Phase 2 Trial

Mental Health

Bidirectional Associations Between COVID-19 and Psychiatric Disorder: Retrospective Cohort Studies of 62,354 COVID-19 Cases in the USA

Epidemiology

Ethnicity and Clinical Outcomes in COVID-19: A Systematic Review and Meta-Analysis

Public Health Response

Cost-Effectiveness of Public Health strategies for COVID-19 Epidemic Control in South Africa: A Microsimulation Modelling Study

Public Health Response

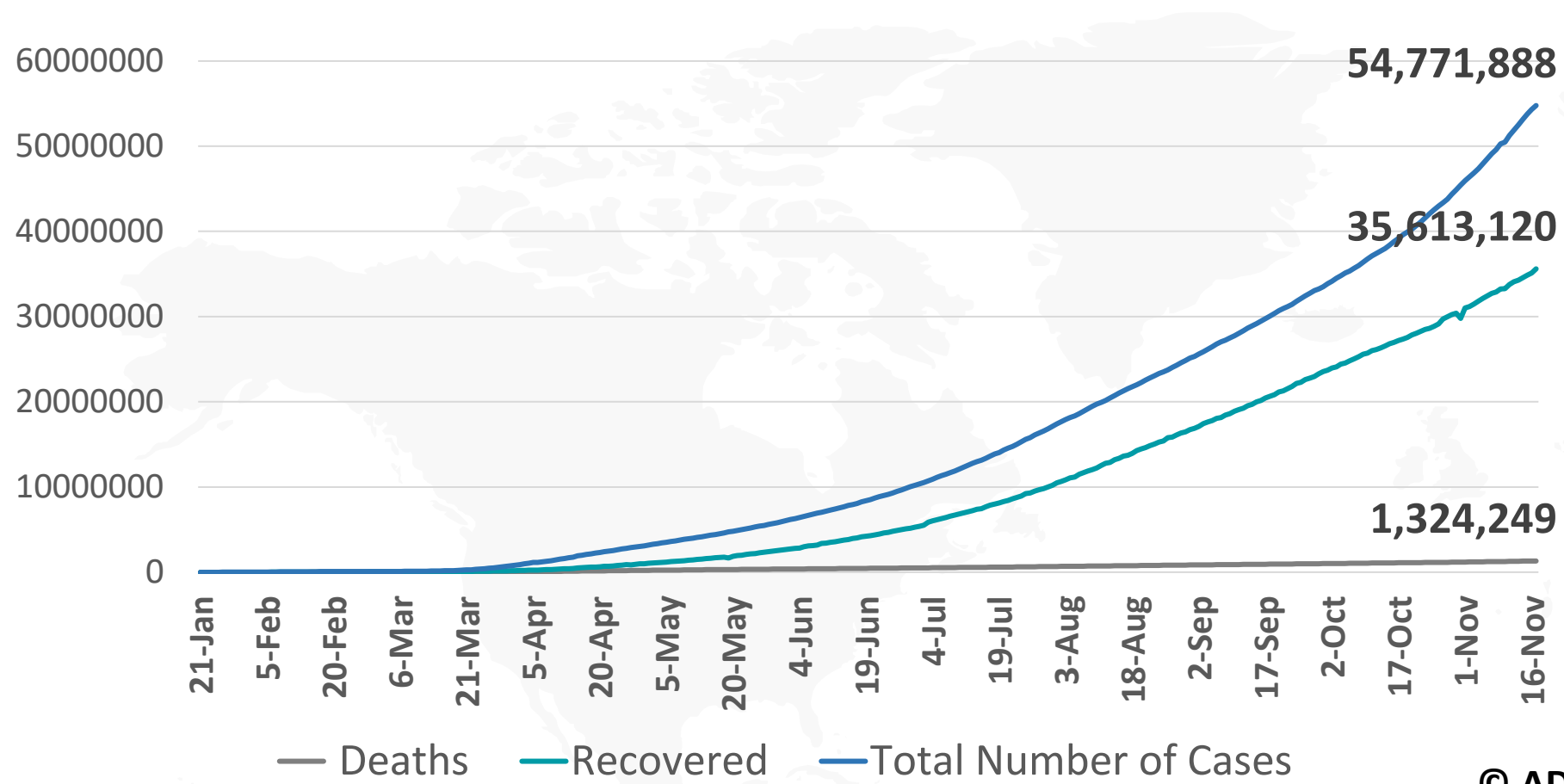
Frequently Asked Questions about Coronavirus (COVID-19) for Laboratories (Serology)

Treatment

Guidance Documents

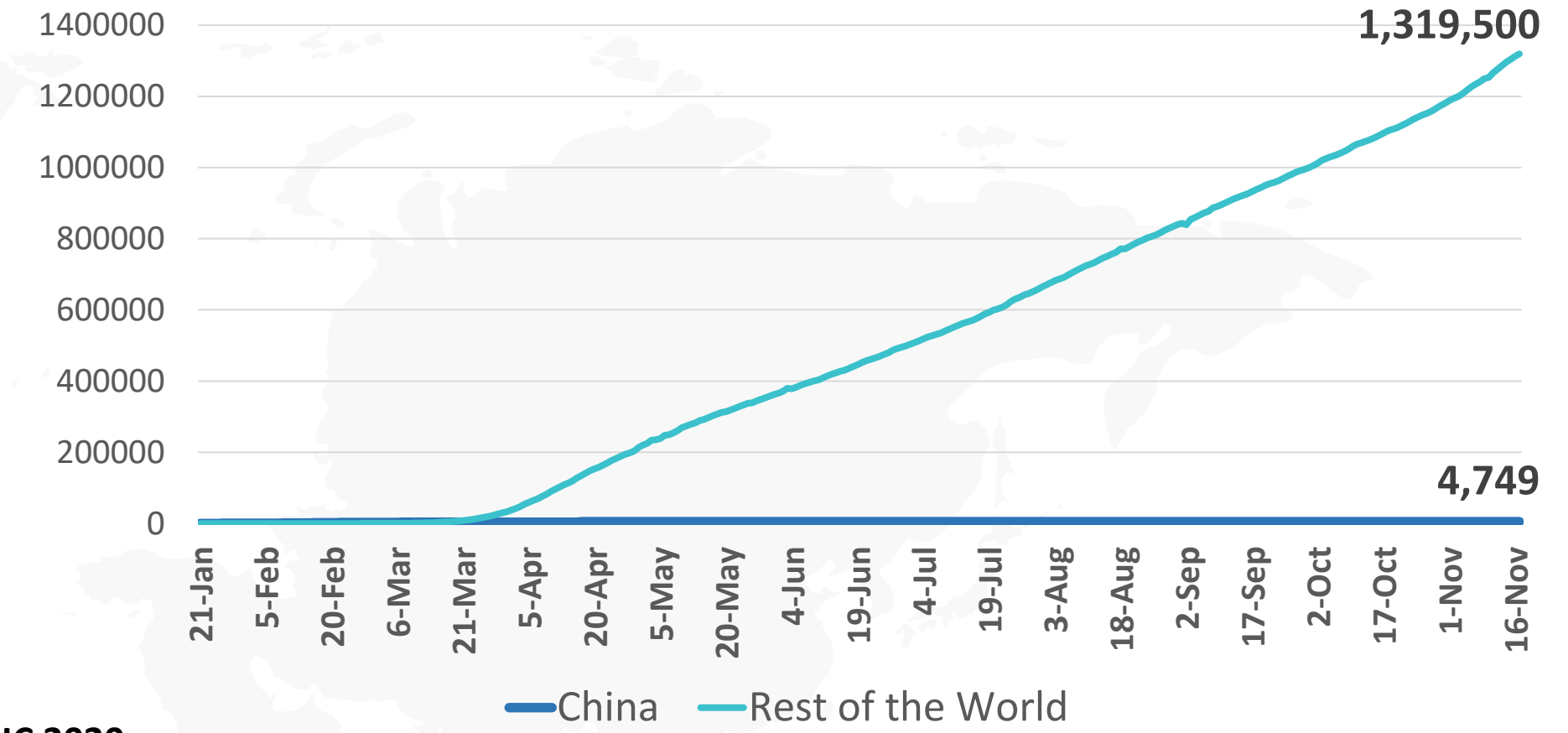


Figure 1: Total Number of Infected, Recovered, and Death Cases



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



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)

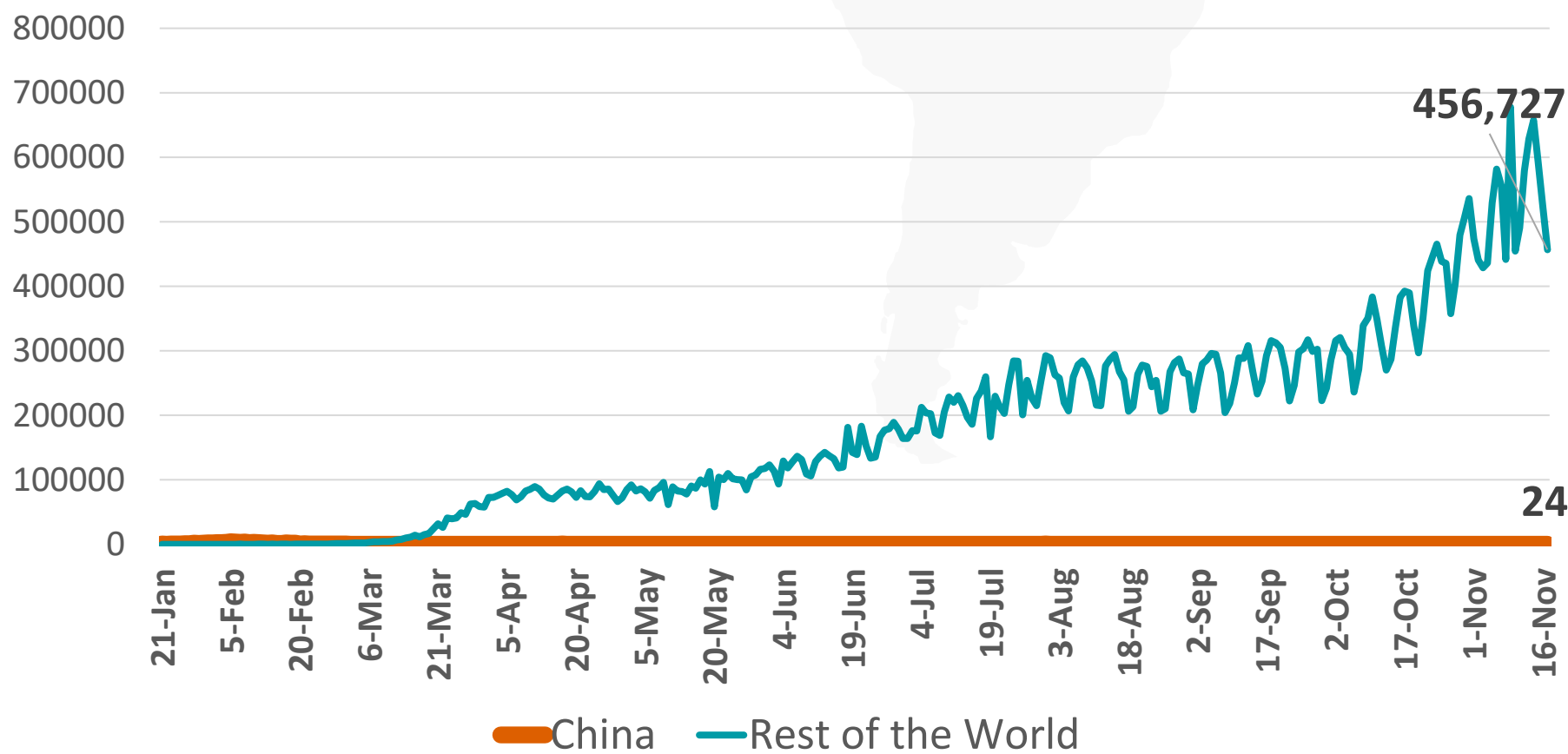


Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)

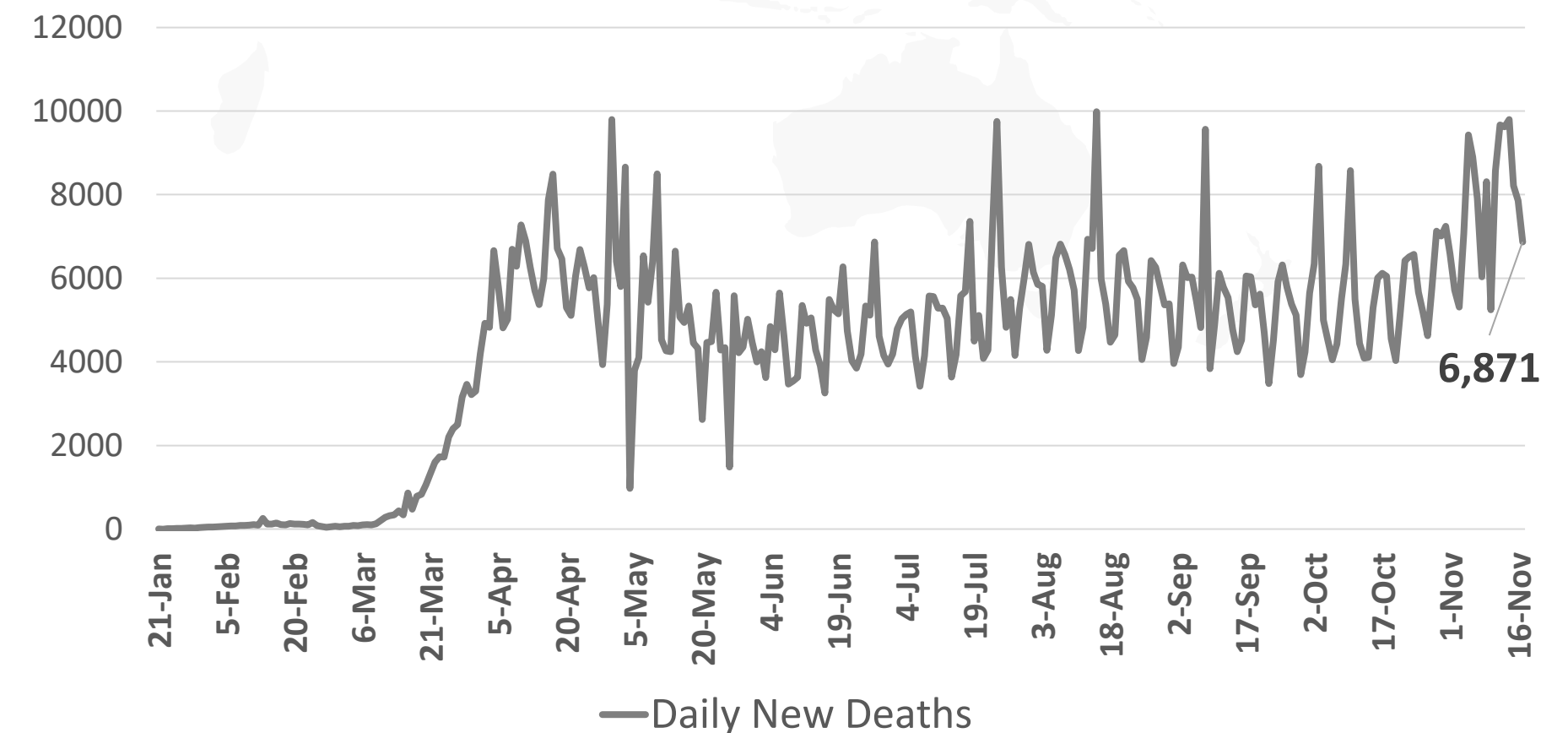
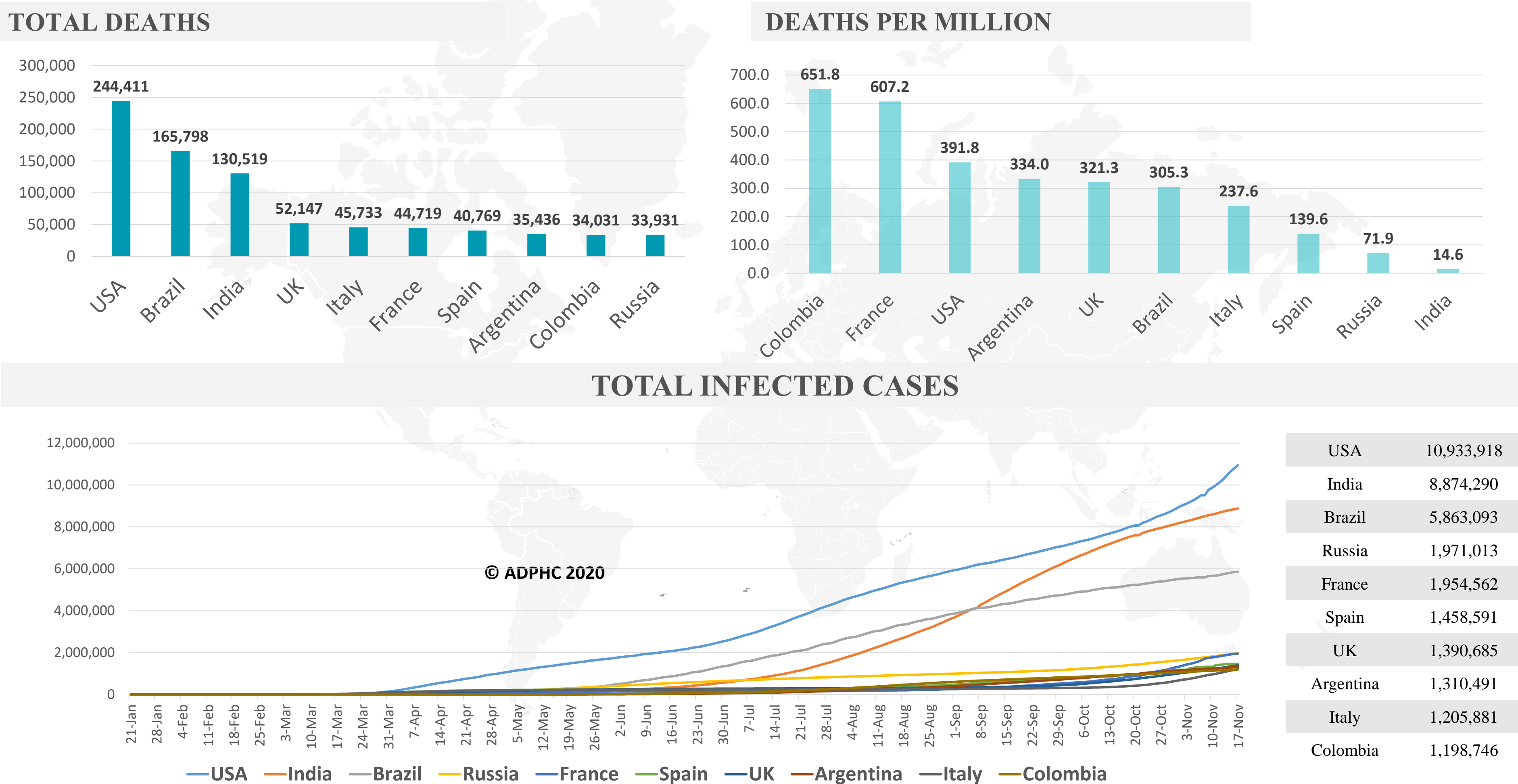


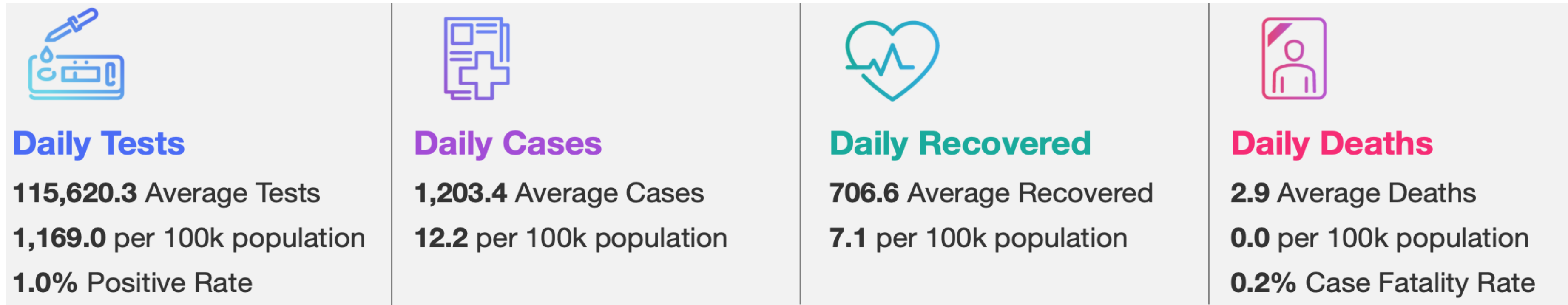
Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19



USA	10,933,918
India	8,874,290
Brazil	5,863,093
Russia	1,971,013
France	1,954,562
Spain	1,458,591
UK	1,390,685
Argentina	1,310,491
Italy	1,205,881
Colombia	1,198,746



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

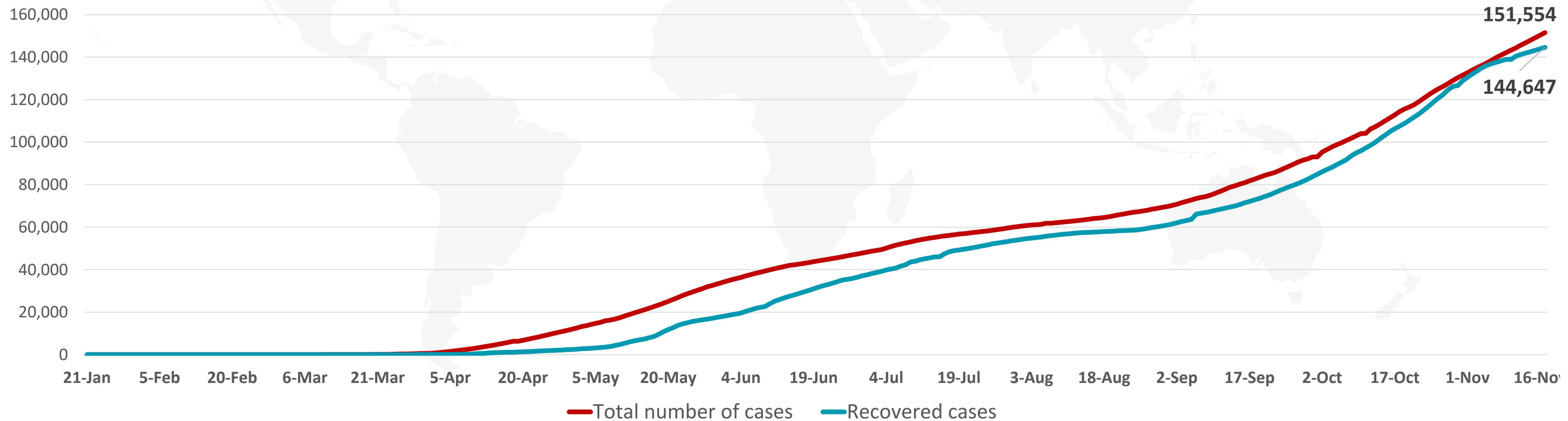
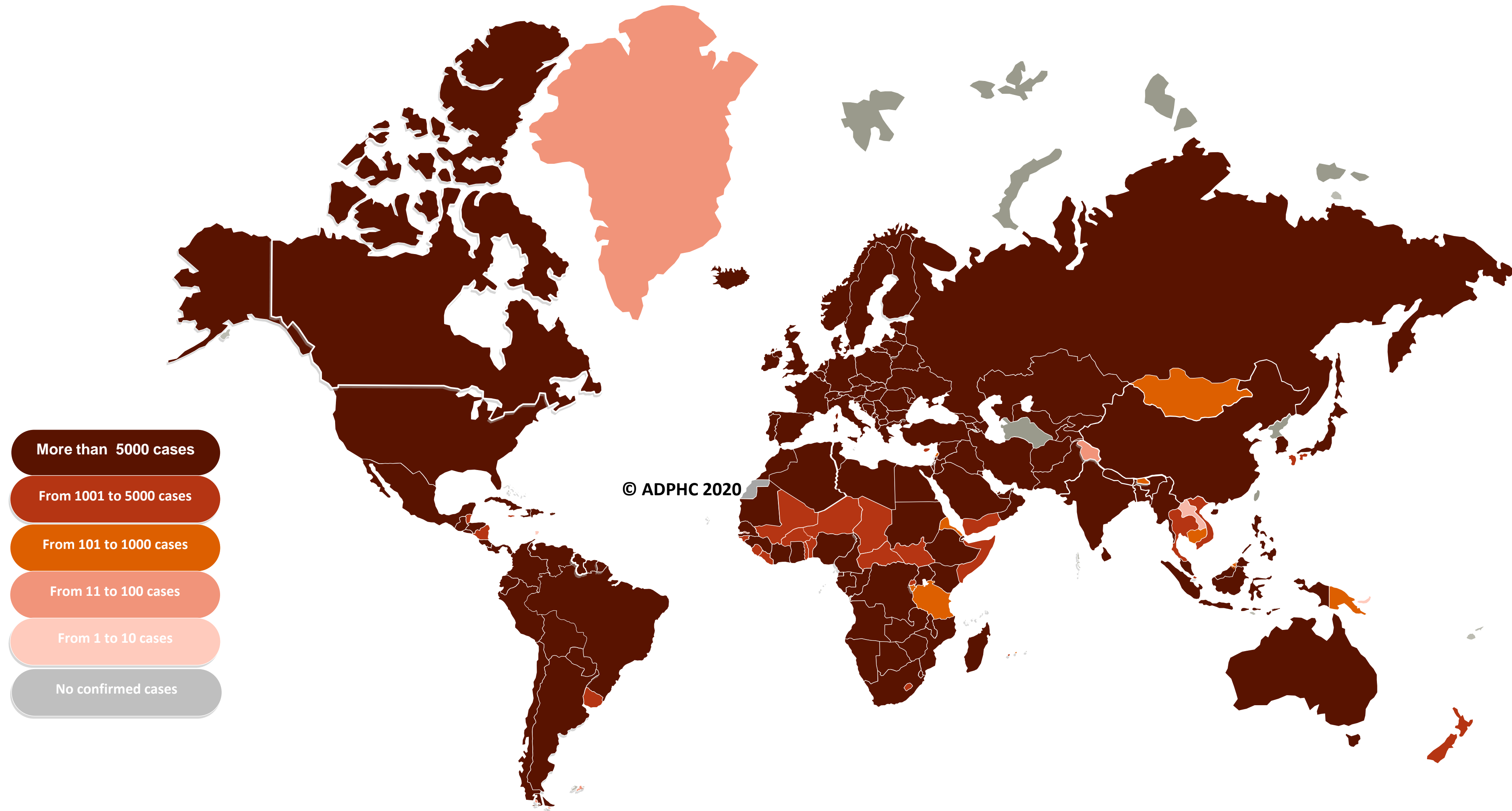


Figure 7A : Global Distribution of COVID-19 Cases



More than 5000 cases

From 1001 to 5000 cases

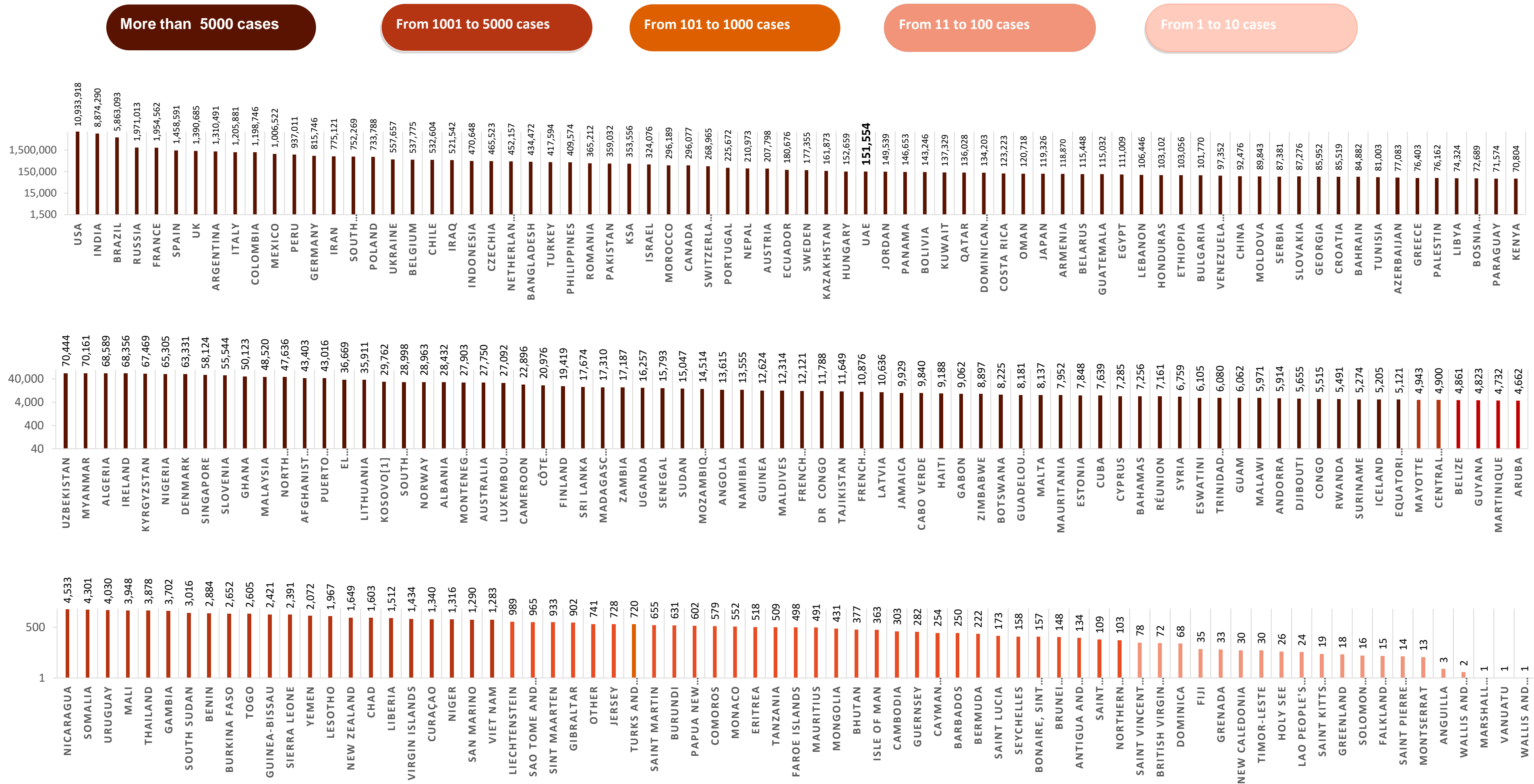
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

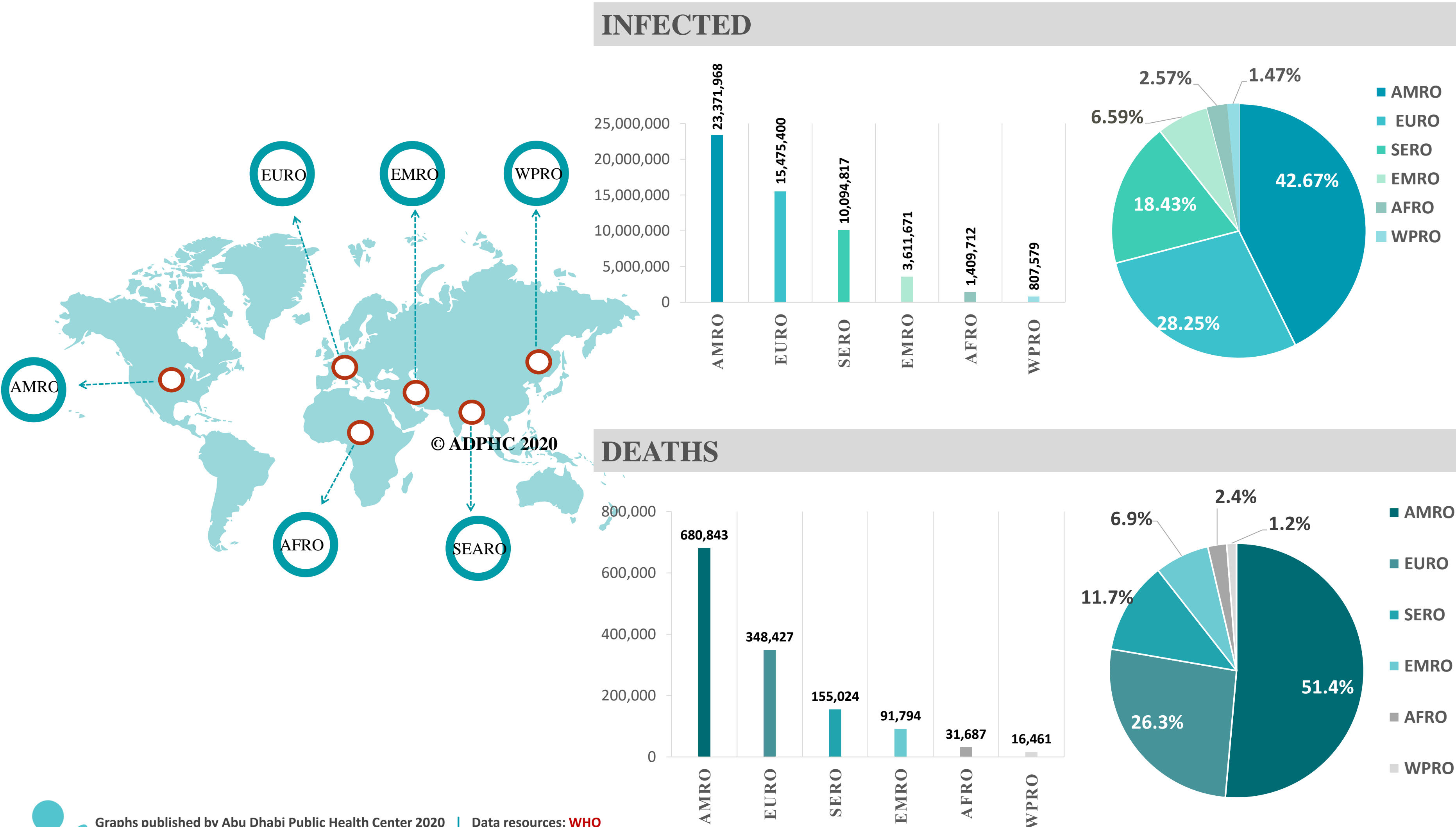
Figure 7B: Bar Chart Illustrates the Global Distribution of COVID19 Cases



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



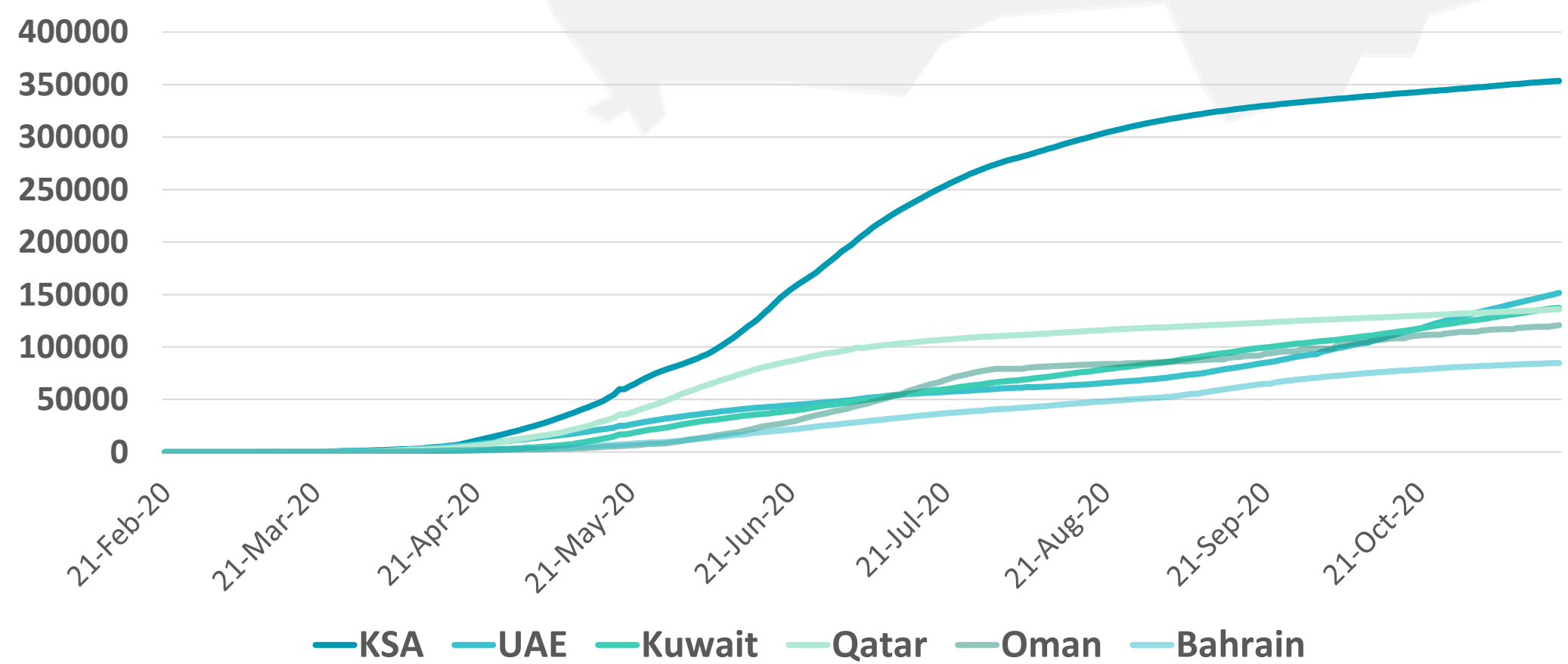
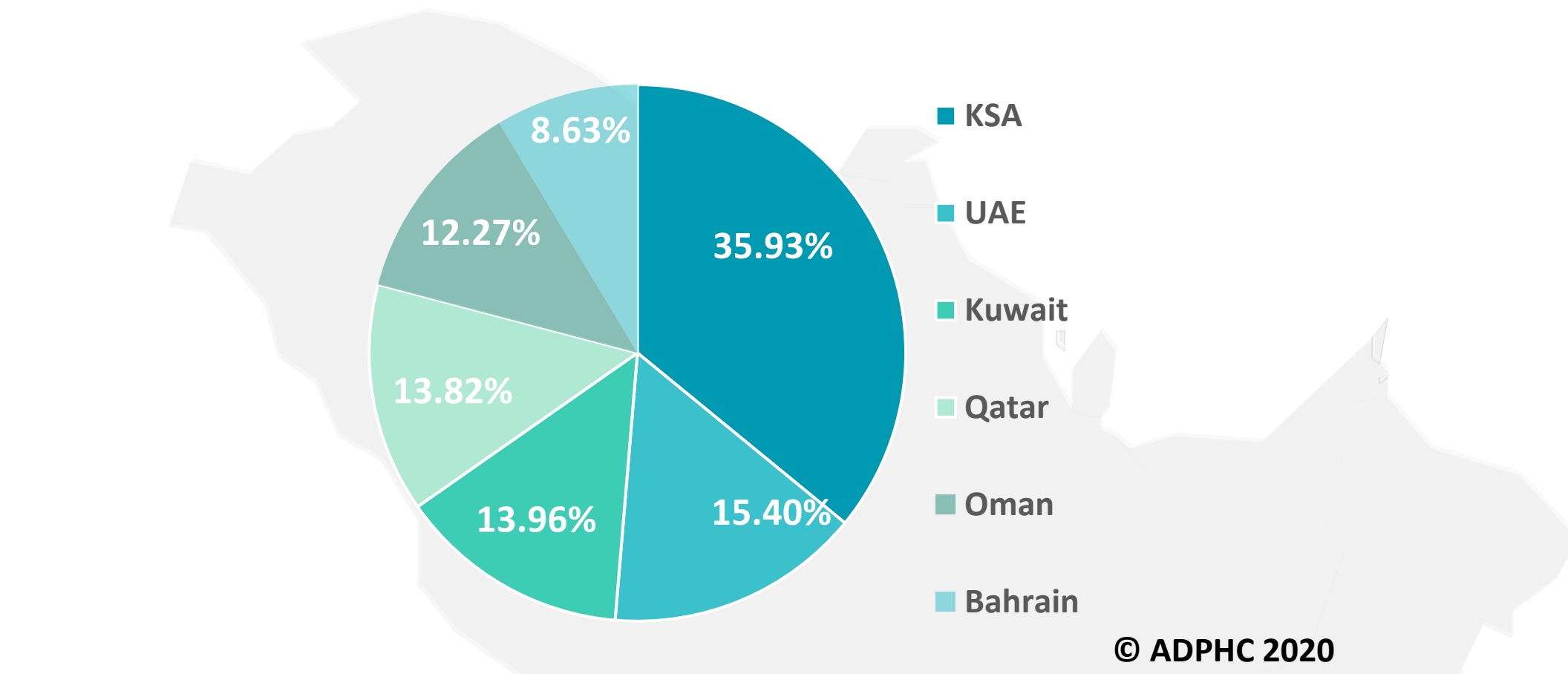
Figure 8: Global Distribution of COVID-19 Cases per Region



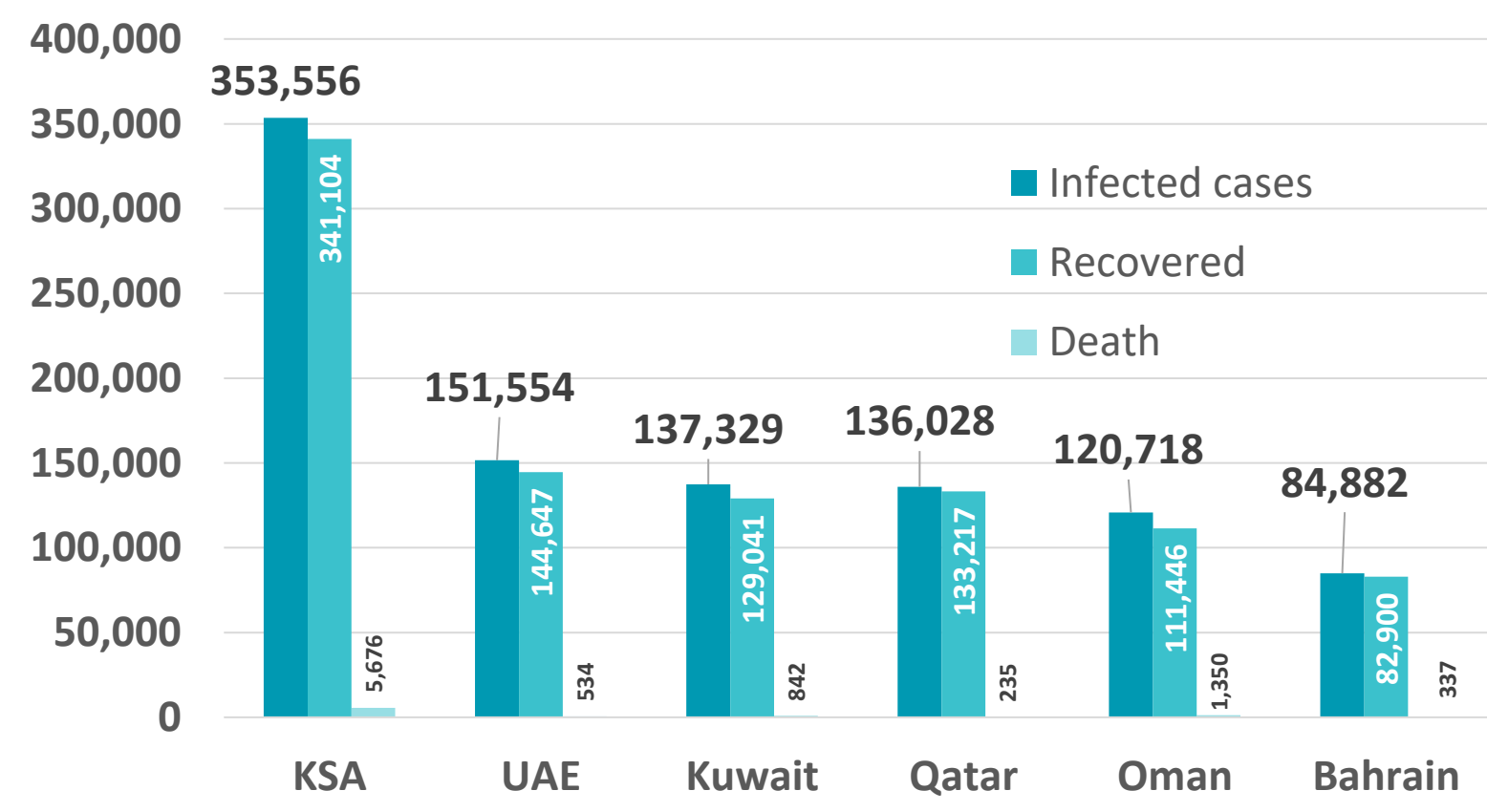
Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: [WHO](#)

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

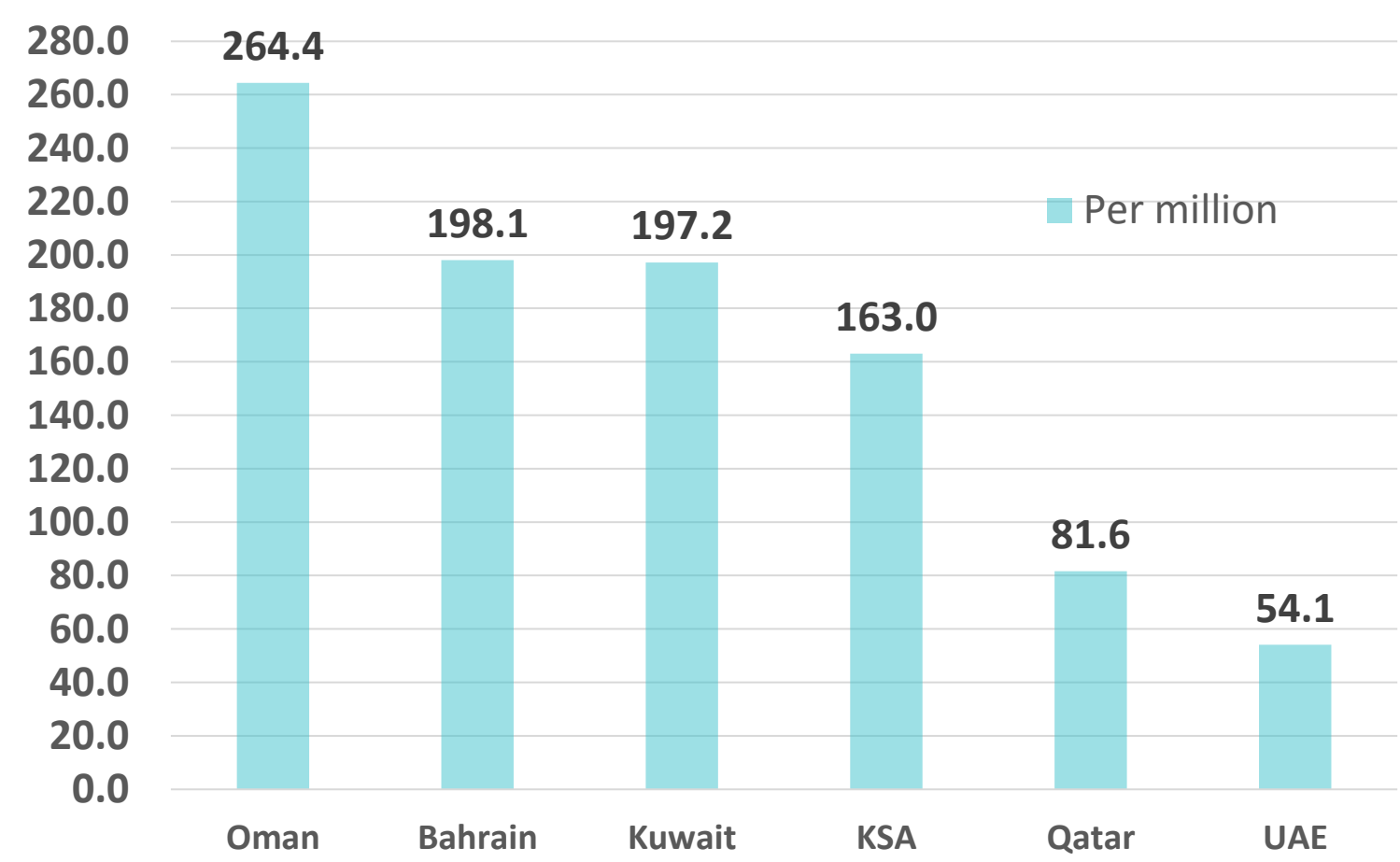
TOTAL NUMBER OF INFECTED CASES



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



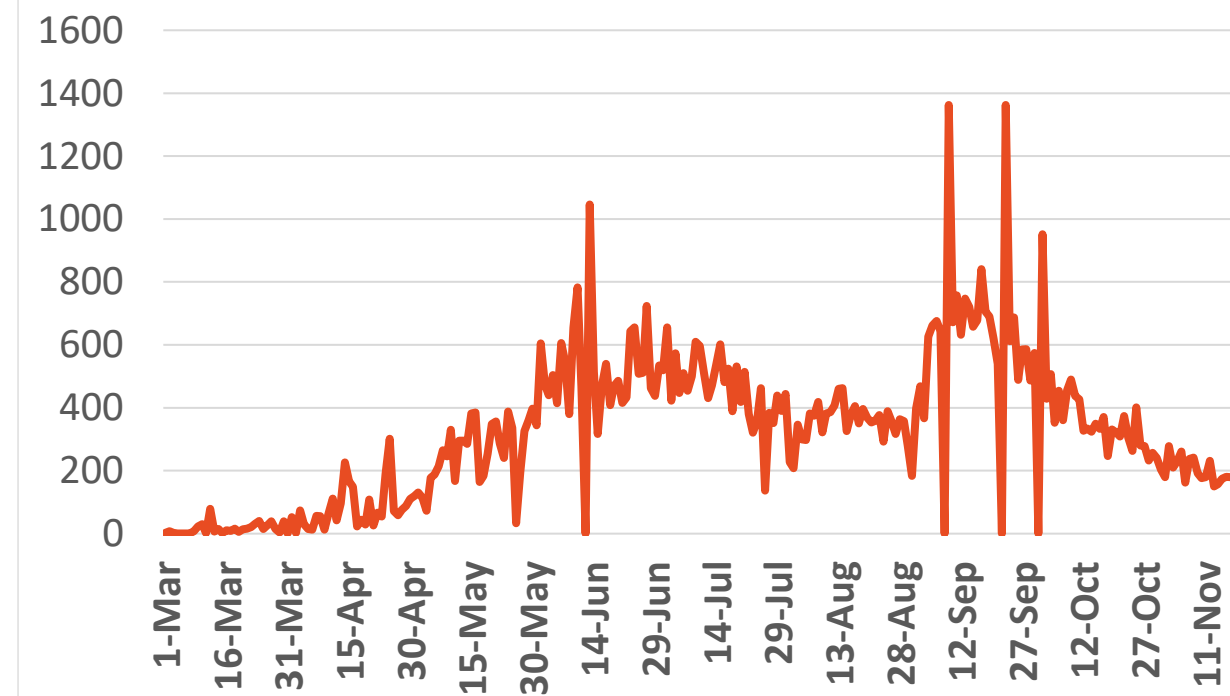
Source : National Emergency Crisis and Disaster Management Authority

KSA



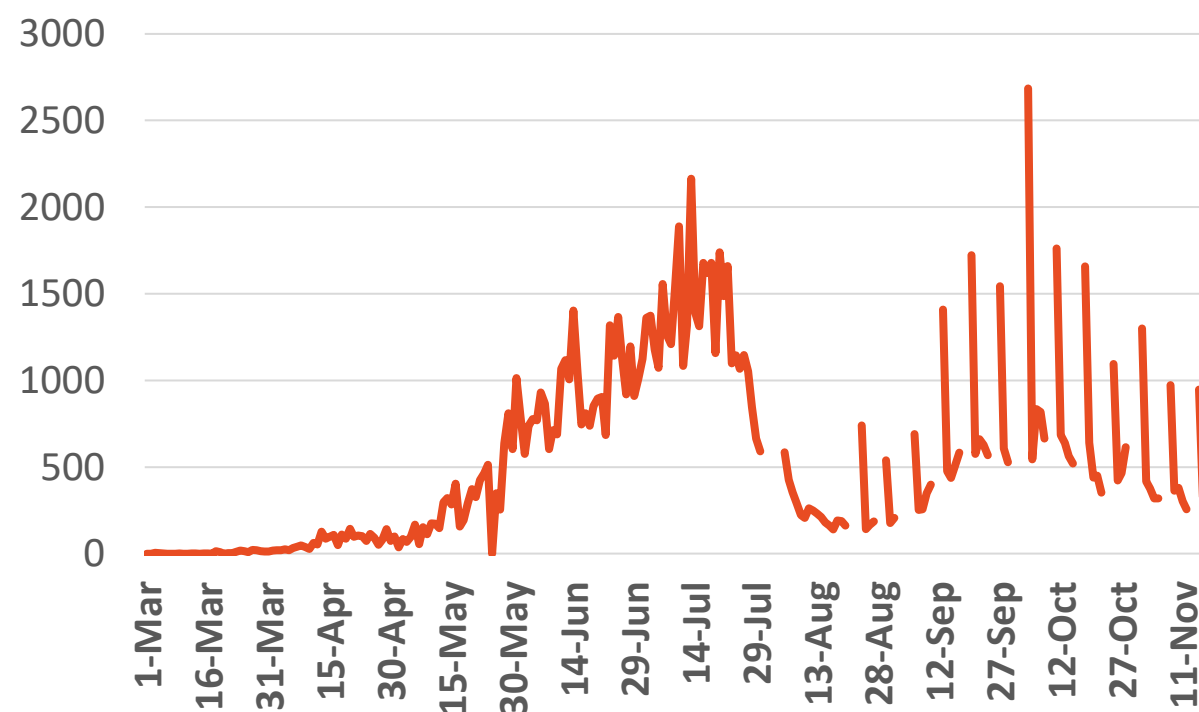
Source : KSA ministry of health

Bahrain



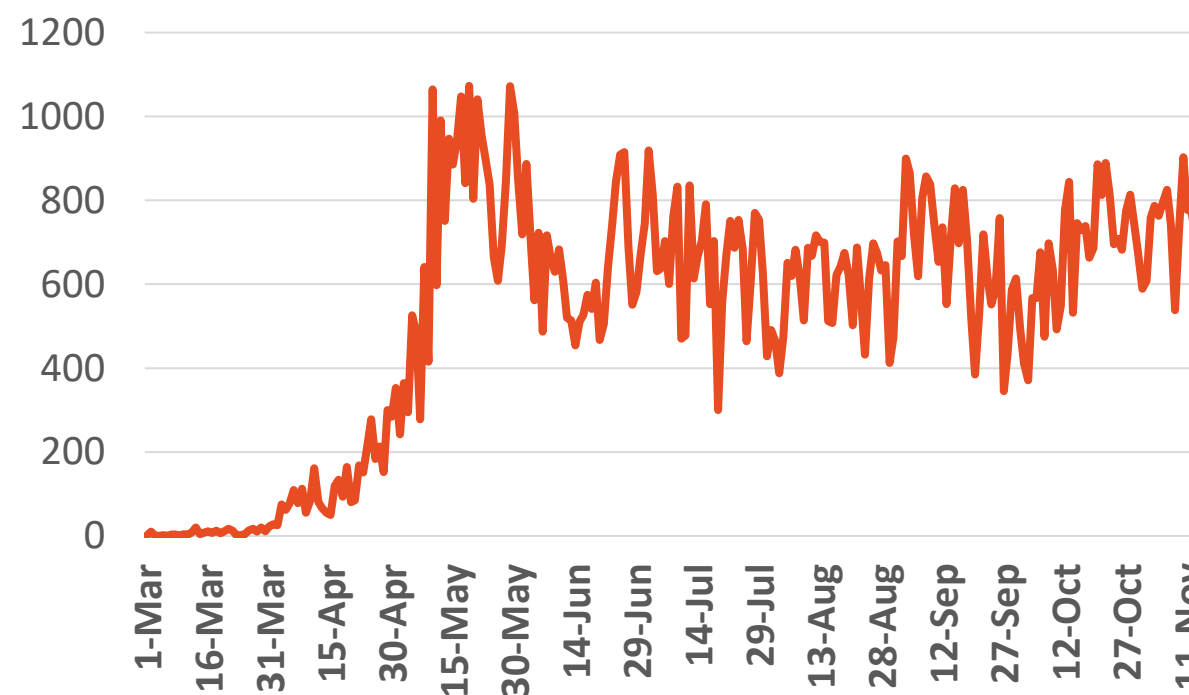
Source :WHO

Oman



Source :Oman ministry of health

Kuwait



Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health

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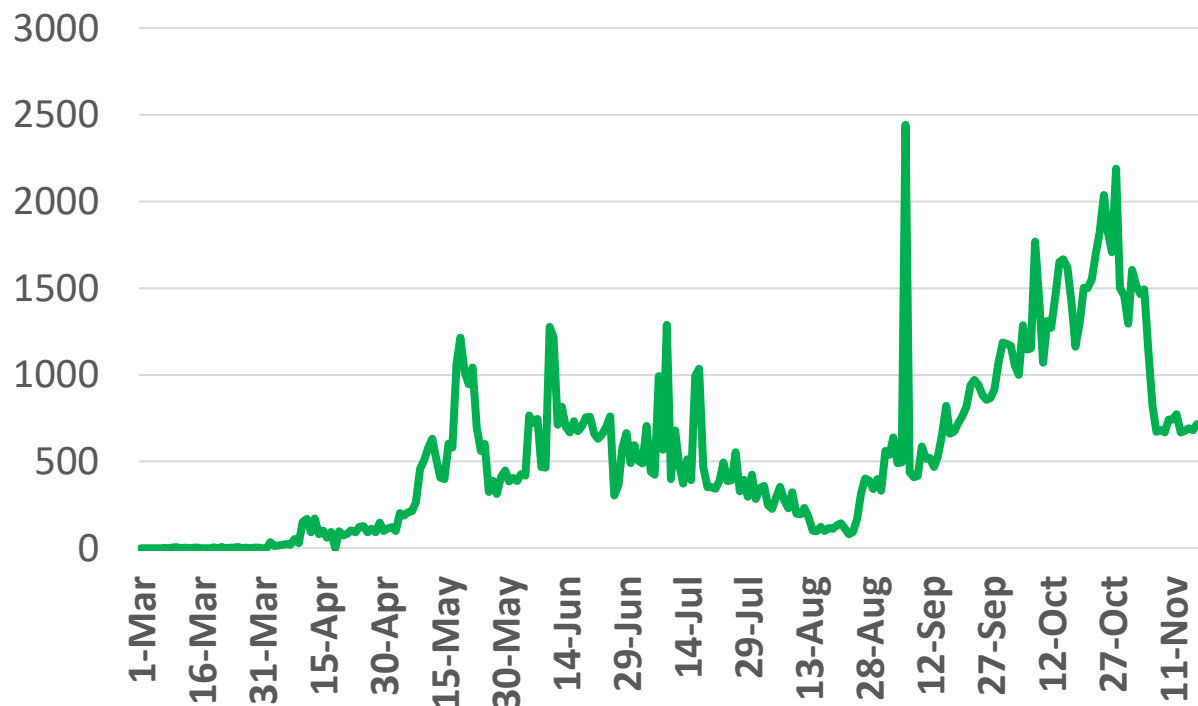
*No announced statistic data from 31 JUL to 4 AUG, 21,23,28,30 AUG 2, 4, 5,11,12,18,19,25 ,26,30 SEP,1,2,9,10,16,17,23,24,30,21 OCT, 6,7,13,17 NOV

*No announced statistic data on weekends and official holidays.



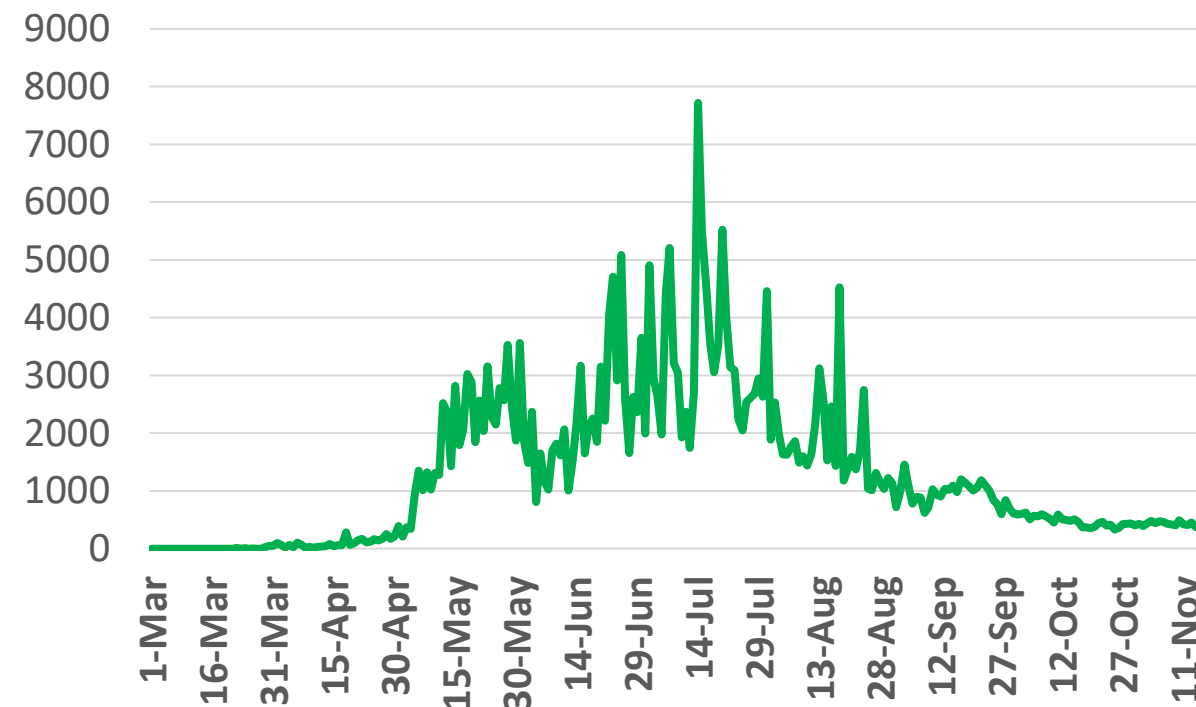
Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries

UAE



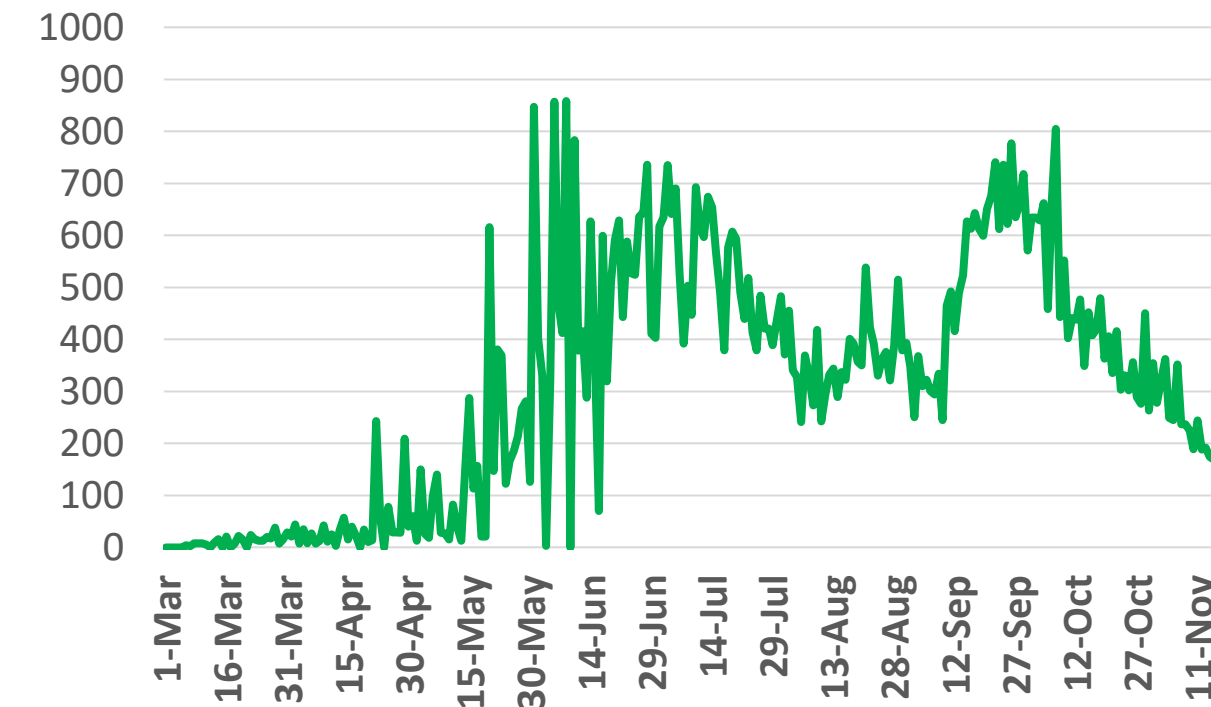
Source : National Emergency Crisis and Disaster Management Authority

KSA



Source : KSA ministry of health

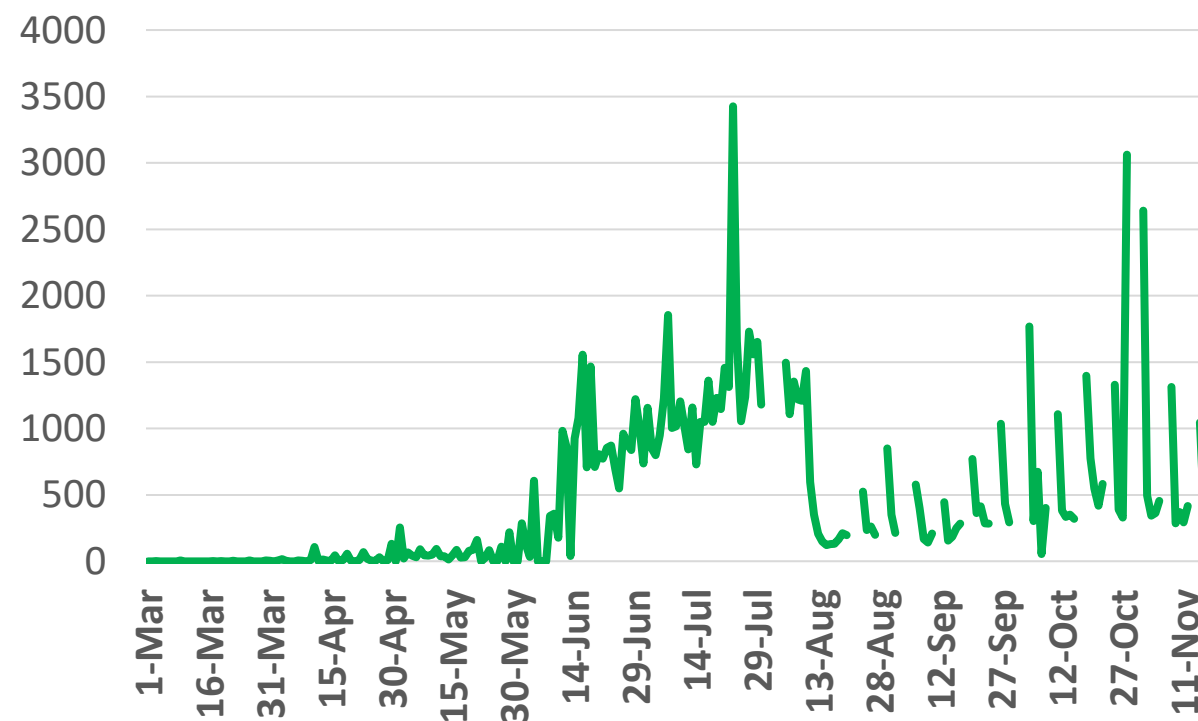
Bahrain



Source : Bahrain ministry of health

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Oman



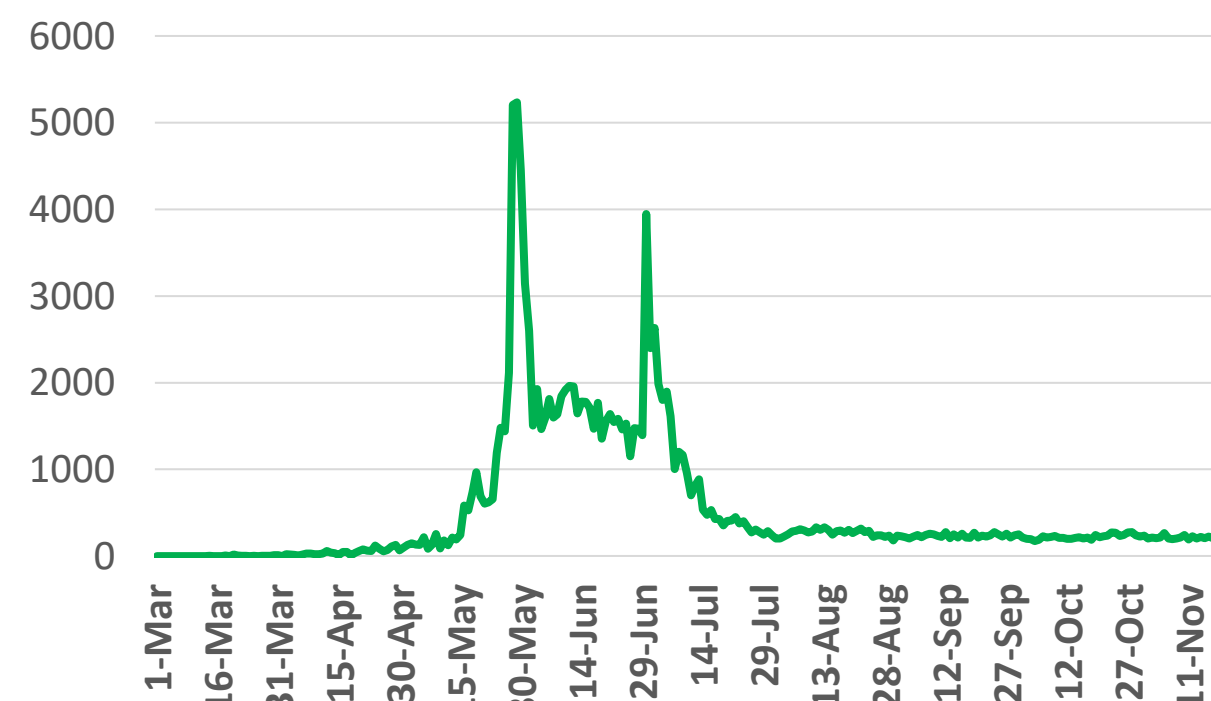
Source : Oman ministry of health

KUWAIT



Source : Kuwait ministry of health

QATAR



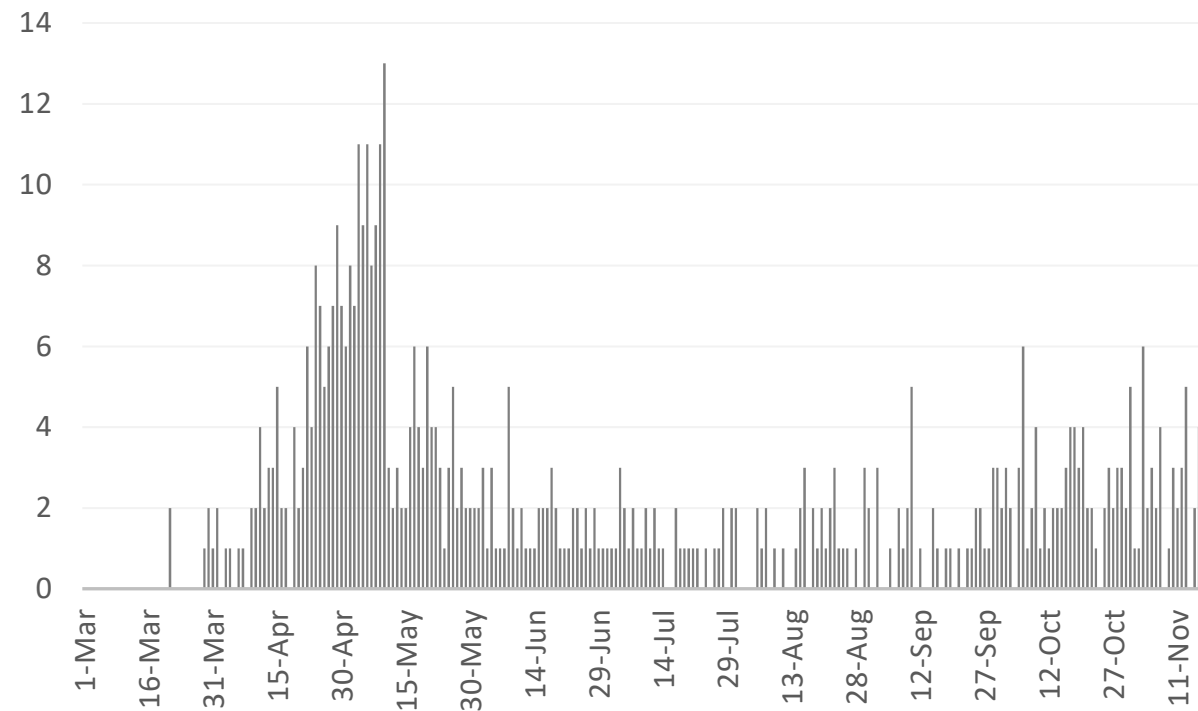
Source : Qatar ministry of health

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, 6,7,13,17 NOV
No announced statistic data on weekends and official holidays.



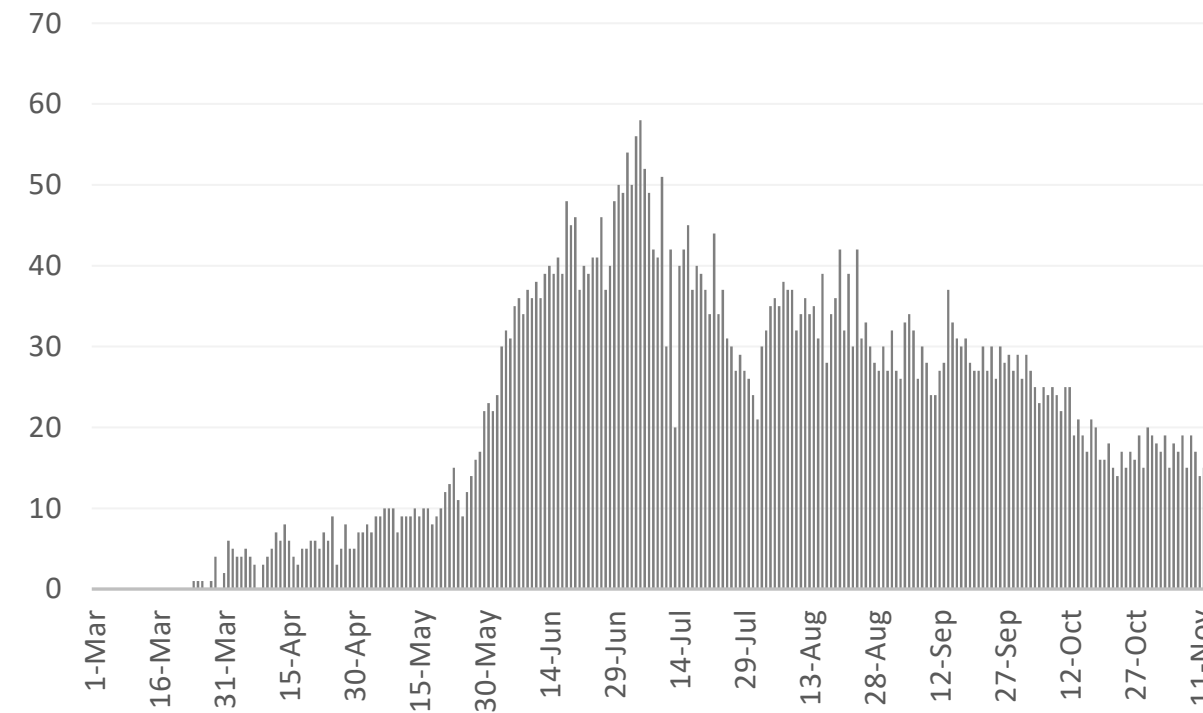
Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

UAE



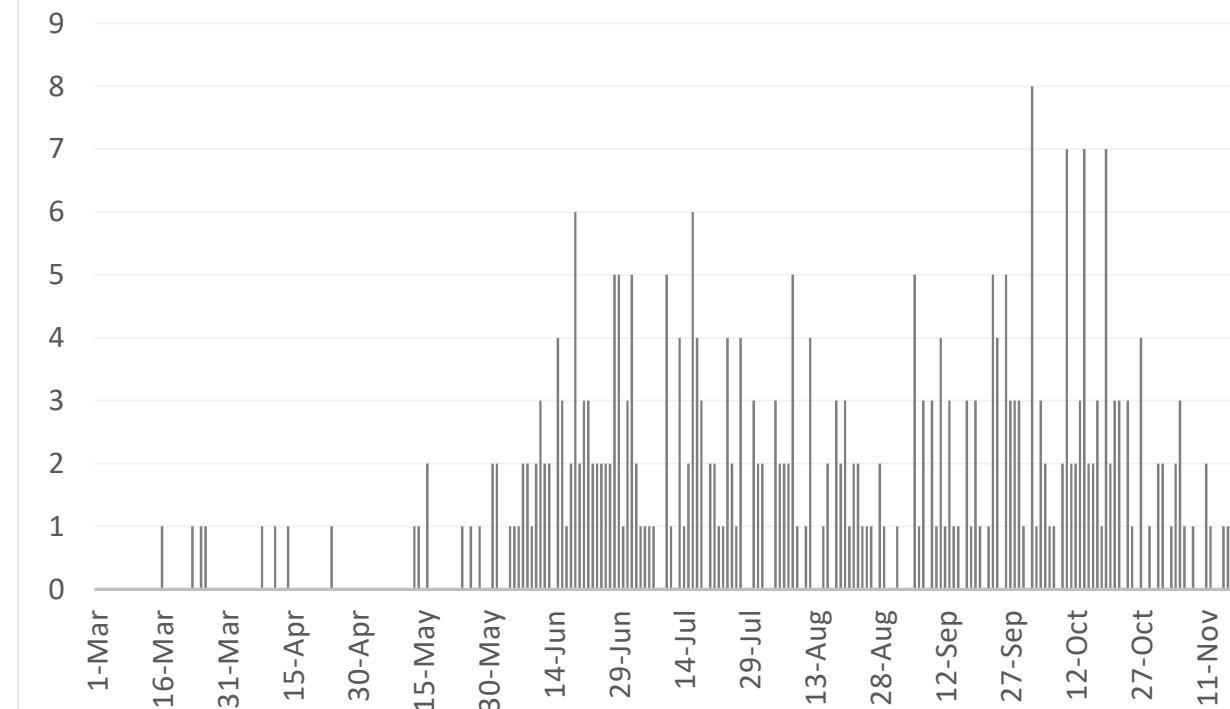
Source : National Emergency Crisis and Disaster Management Authority

KSA



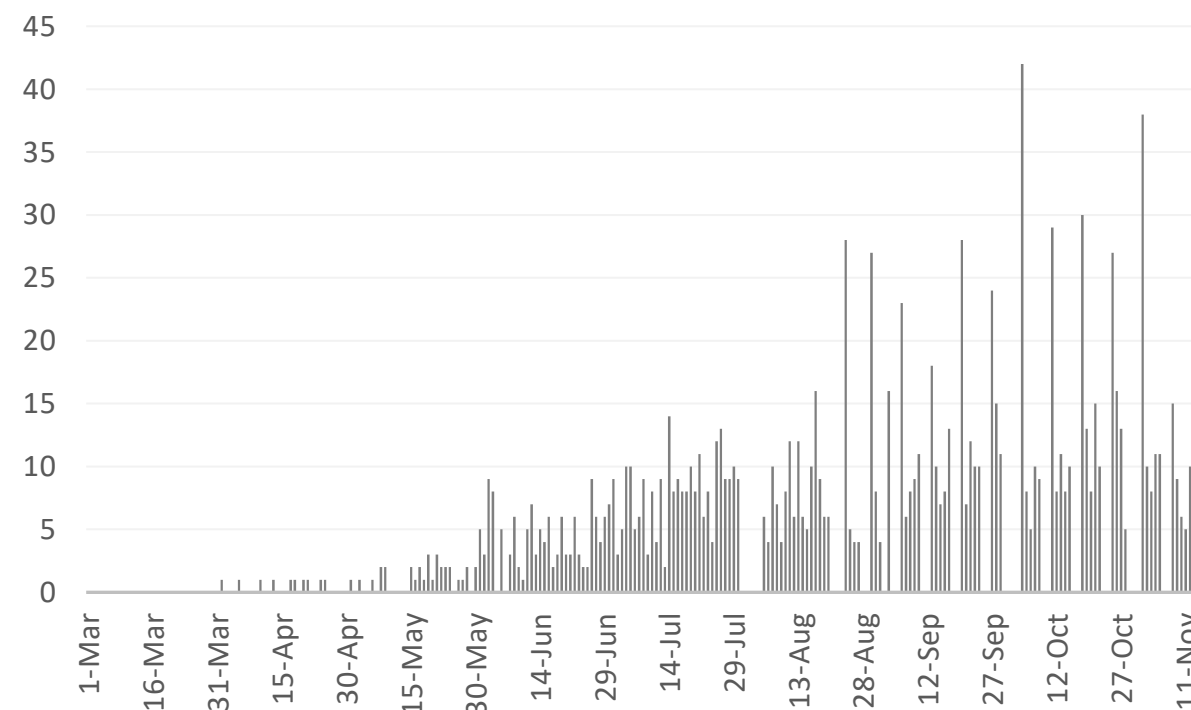
Source : KSA ministry of health

Bahrain



Source :WHO

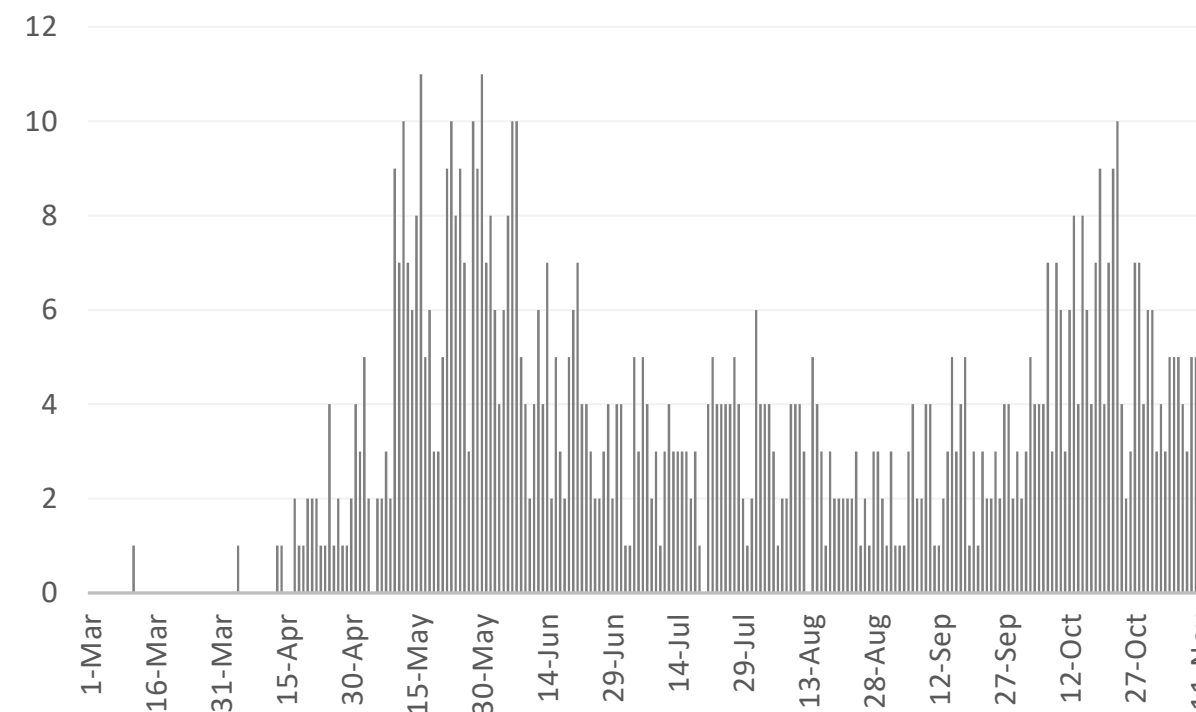
Oman



Source :Oman ministry of health

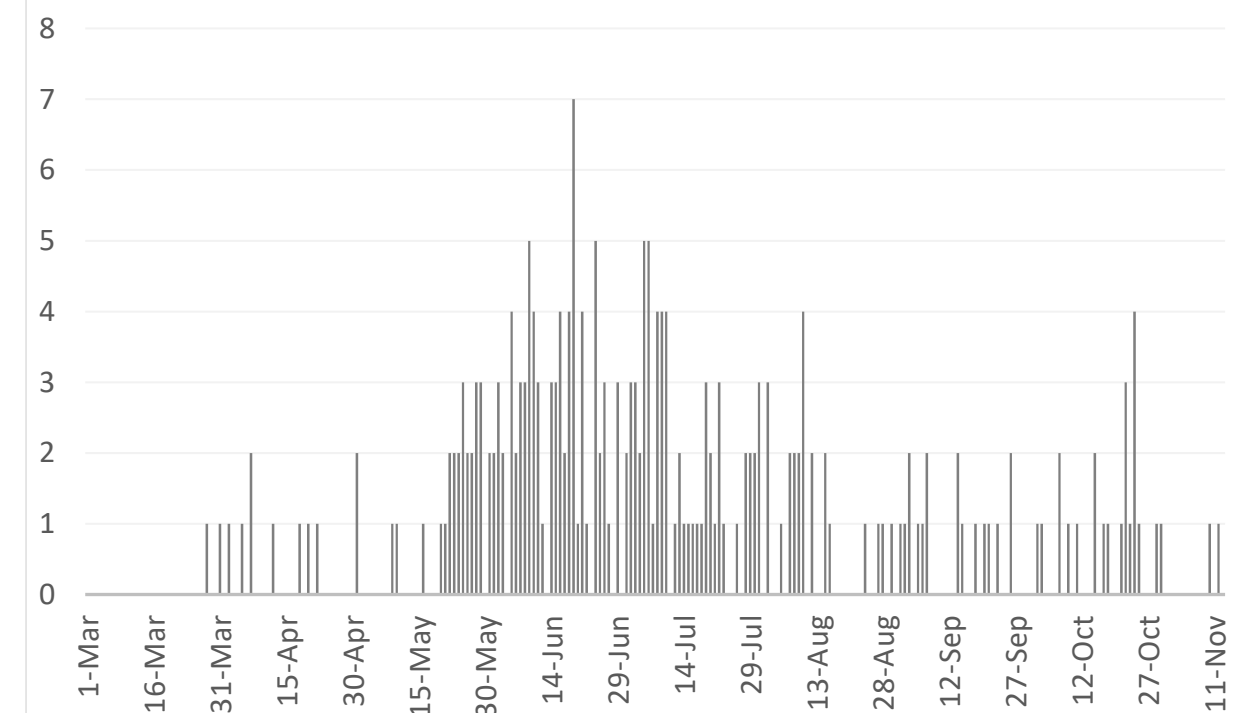
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Kuwait



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, 6,7,13,17 NOV
*No announced statistic data on weekends and official holidays.





Article 1

Published

Safety and Efficacy of Inhaled Nebulized Interferon Beta-1a (SNG001) for Treatment of SARS-CoV-2 Infection: A Randomized, Double-Blind, Placebo-Controlled, Phase 2 Trial

November 12, 2020, [THE LANCET](#)

- This study aimed to evaluate the potential effects of an inhaled interferon beta-1a formulation (SNG001) in 98 patients admitted to hospital with confirmed SARS-CoV-2 infection.
- The existing clinical data for inhaled SNG001, coupled with the known suppression of interferon- β by SARS-CoV-2, provided the rationale for a randomised, double-blind, placebo-controlled, phase 2 pilot study to determine whether inhaled SNG001 has the potential to reduce the severity of lower respiratory tract illness and accelerate recovery in patients diagnosed with COVID-19.
- The design of this trial was based on the WHO R&D Blueprint Novel Coronavirus COVID-19 Therapeutic Trial Synopsis.
- The findings suggest that SNG001 increased the odds of improvement in clinical status (based on the 9-point WHO Ordinal Scale for Clinical Improvement [OSCI]) and enhanced the likelihood of recovery to a score of 1 on the OSCI (no limitation of activities).
- SNG001 was also well tolerated compared with placebo. Hence, individuals who received SNG001 had greater odds of improvement and recovered more rapidly from SARS-CoV-2 infection compared to the patients who received placebo, providing a strong rationale for further trials.





Article 2

Published

Bidirectional Associations Between COVID-19 and Psychiatric Disorder: Retrospective Cohort Studies of 62,354 COVID-19 Cases in the USA

November 9, 2020, [THE LANCET](#)

- An electronic health record network cohort study using data from 69 million individuals, 62,354 of whom have had a diagnosis of COVID-19, was used to assess whether a diagnosis of COVID-19 was associated with increased rates of subsequent psychiatric diagnoses and whether patients with a history of psychiatric illness are at a higher risk of being diagnosed with COVID-19.
- The researchers used the TriNetX Analytics Network, a global federated network that captures anonymised data from electronic health records in 54 health-care organisations in the USA, totalling 69.8 million patients. TriNetX included 62 354 patients diagnosed with COVID-19 between Jan 20, and Aug 1, 2020.
- The investigators created cohorts of patients who had been diagnosed with COVID-19 or a range of other health events. The incidence of and hazard ratios (HRs) for psychiatric disorders, dementia, and insomnia, during the first 14 to 90 days after a diagnosis of COVID-19 was determined.
- The findings suggested that survivors of COVID-19 appear to be at increased risk of psychiatric sequelae, and a psychiatric diagnosis might be an independent risk factor for COVID-19.
- This study demonstrated a need to have prospective cohort studies in future.





Article 3

Ethnicity and Clinical Outcomes in COVID-19:

Published

A Systematic Review and Meta-Analysis

November 12, 2020, [THE LANCET](#)

- This study aimed to identify ethnic differences in the risk of becoming infected with SARS-CoV-2 as well as subsequent intensive therapy unit (ITU) admission (a surrogate marker for severe COVID-19 pneumonia) and death.
- Patients from ethnic minority groups are disproportionately affected by COVID-19. The findings showed an increased risk of infection amongst those of Black and Asian ethnicities compared to White individuals.
- Asian individuals may also be at higher risk of ITU admission and death, even when adjustment was made for confounders such as age, sex and comorbidities. Future studies must explore the reasons for this suggested association, adjusting for the risk of infection.
- The results from this study are of critical public health importance and should inform policy on minimising SARS-CoV-2 exposure in ethnic minority groups.





Article 4

Published

Cost-Effectiveness of Public Health strategies for COVID-19 Epidemic Control in South Africa: A Microsimulation Modelling Study

November 11, 2020, [THE LANCET](#)

- This study aimed to develop a dynamic COVID-19 microsimulation model to assess clinical and economic outcomes and cost-effectiveness of epidemic control strategies in KwaZulu-Natal province, South Africa.
- The study projected health-care resource use and health sector budget impact for 360 days for each strategy. An extensive sensitivity analysis to account for uncertainty in epidemic growth and the efficacies and costs of different interventions was executed.
- The study found that strategies combining household contact tracing, isolation of individuals with COVID-19, mass symptom screening, and quarantine of household contacts of COVID-19 cases would substantially reduce mortality and would be cost-effective.
- The optimal combination of interventions was dependent on epidemic growth characteristics, efficacies and costs of interventions.
- The results of the study show that isolation combined with contact tracing, mass symptom screening, and quarantine of household contacts of cases is a cost-effective strategy for epidemic control and that upfront expenditures could reduce downstream costs by preventing infections, hospital admissions, and additional resource use.
- Active case finding led by community health workers, which has been established in public health activities in South Africa and other low-income and middle-income countries, could be leveraged to control the spread of COVID-19 in an economically efficient manner. Where quarantine is not possible due to implementation barriers or poor public support, a combination of the other interventions would be cost-effective.



Article 5

Published

November 12, 2020, [CDC](#)

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

- This resource includes key clinical questions and answers on COVID-19 pandemic.
- The COVID-19 questions and answers page by CDC is updated frequently to provide guidance and resources for healthcare professionals.
- <https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html>

Article 6

Published

November 17, 2020, [CDC](#)

Guidance Documents

- Access CDC's guidance documents for Coronavirus Disease 2019 (COVID-19), sorted by audience.
- <https://www.cdc.gov/coronavirus/2019-ncov/communication/guidance-list.html?Sort=Date%3A%3Adesc>



THANK YOU



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