

SCIENTIFIC RESEARCH MONITORING ON COVID-19

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SCIENTIFIC RESEARCH MONITORING ON COVID-19

(ISSUE 193)

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



WHO
Report



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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Transmission

CDC Revises Guidance on Isolation After Positive COVID-19 Test, Reports Prolonged COVID-19 Illness Among Non-Hospitalized Patients

Clinical Features

Recovery from Severe COVID-19 Leveraging the Lessons of Survival from Sepsis

Epidemiology

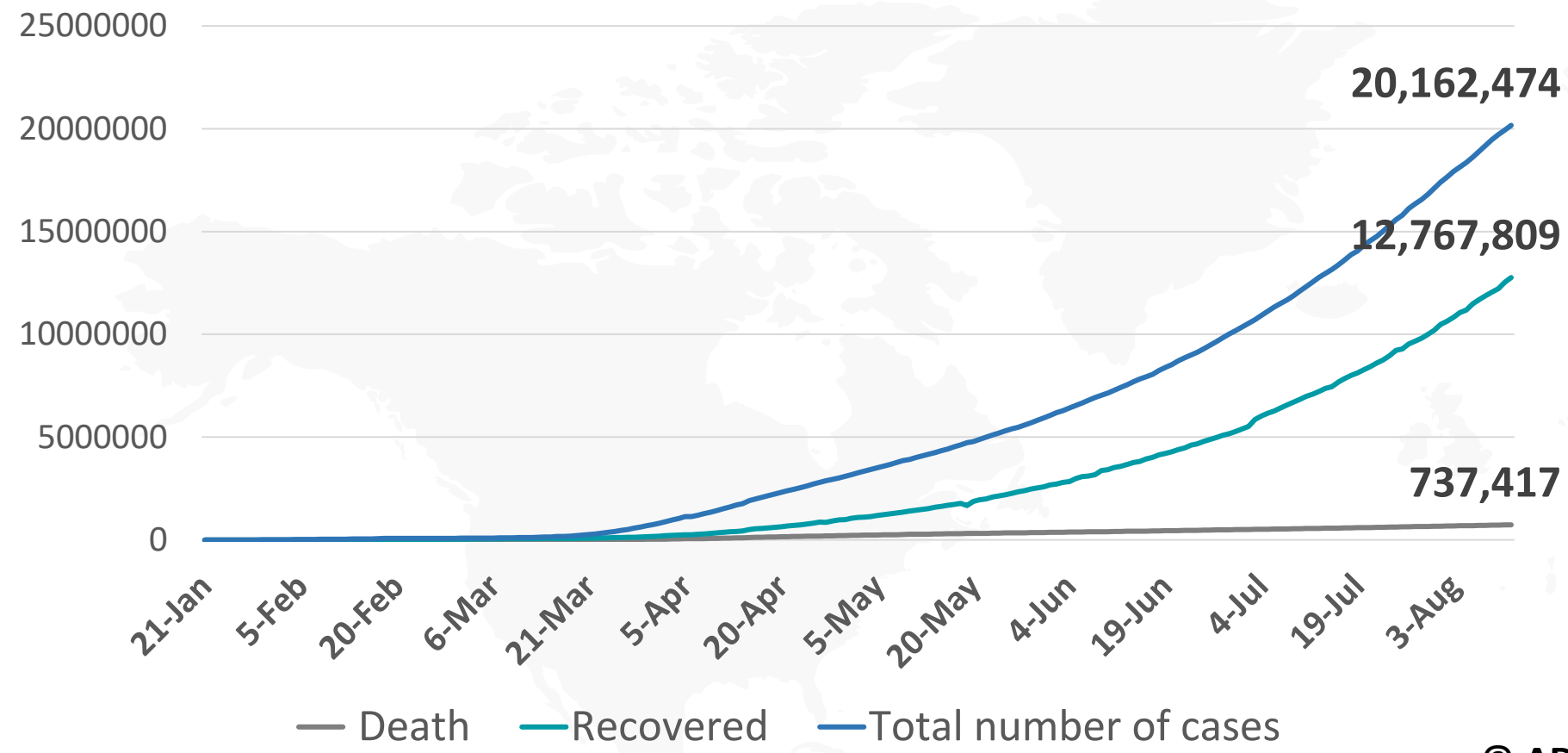
Wrong Person, Place and Time: Viral Load and Contact Network Structure Predict Sars-Cov-2 Transmission and Super-Spreading Events



- The COVID-19 pandemic, which has killed over 390 000 people in the Americas, is threatening regional plans to eliminate and control infectious diseases including tuberculosis, HIV, hepatitis and others, WHO Regional Director for the Americas, Dr Carissa F. Etienne said yesterday.
- The WHO Regional Office for Europe is convening a Pan-European Commission on Health and Sustainable Development. The Commission will draw lessons on how different countries' health systems have responded to the pandemic and will make recommendations on investments and reforms to improve the resilience of health and social care systems.
- WHO and the Iraqi Ministry of Health have launched the second phase of a COVID-19 awareness-raising campaign. Teams will distribute more than 360 000 information, education and communication materials, as well as personal protective equipment to approximately 5 million people.
- WHO has published the Emergency Global Supply Chain System (COVID-19) catalogue, which lists all medical devices, including personal protective equipment, medical equipment, medical consumables, single-use devices, laboratory and test-related devices that may be requested through the COVID-19 Supply Portal.



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)

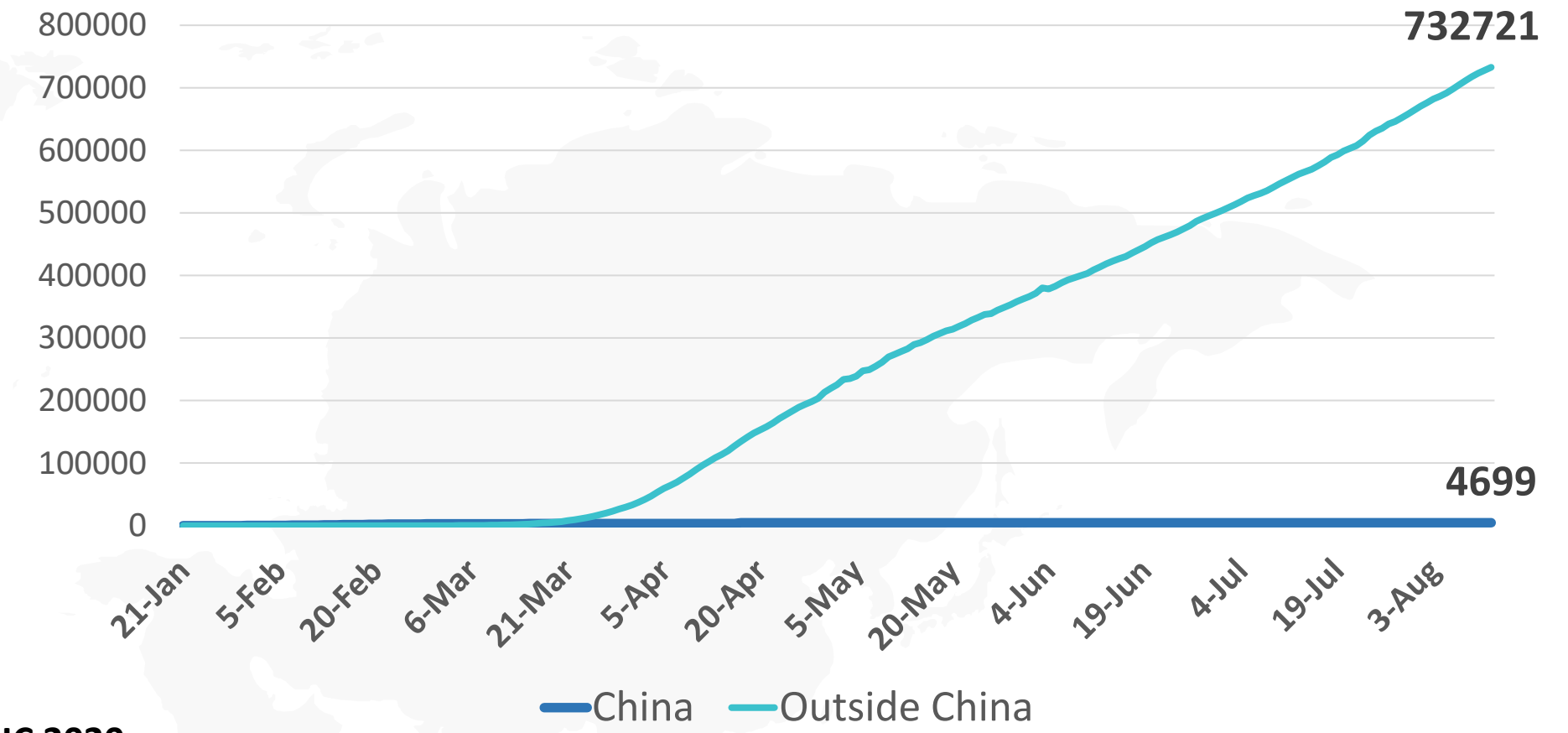


Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)

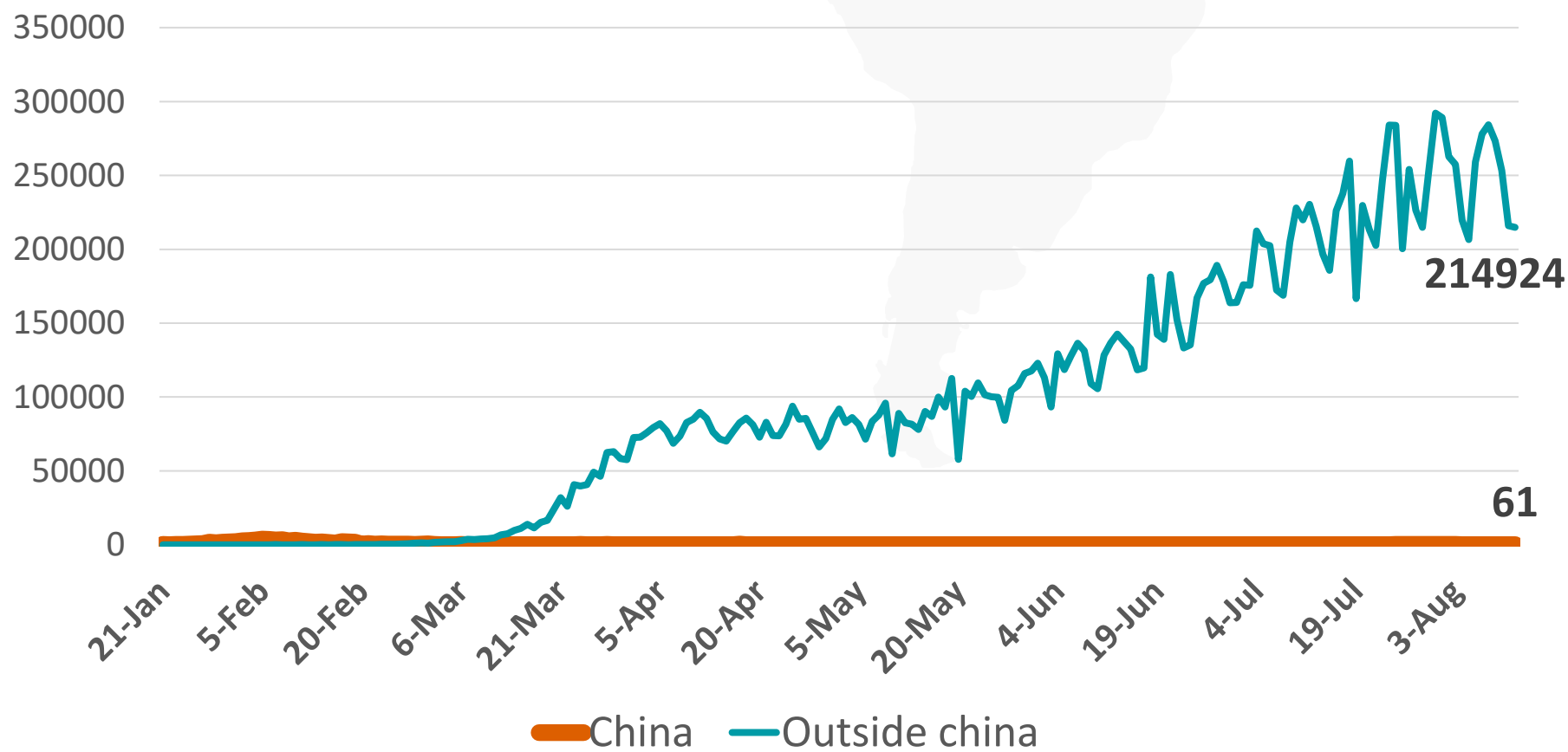


Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)

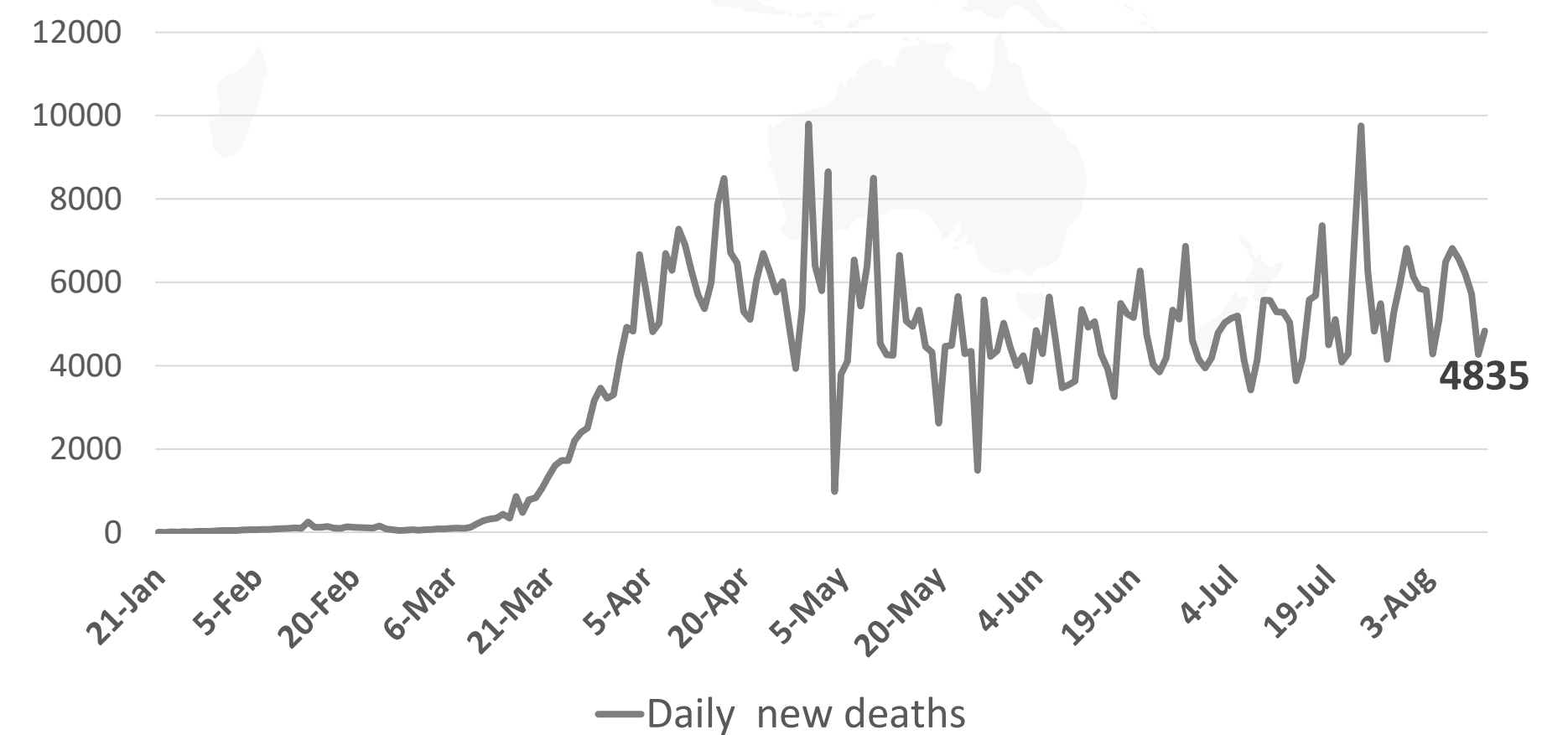
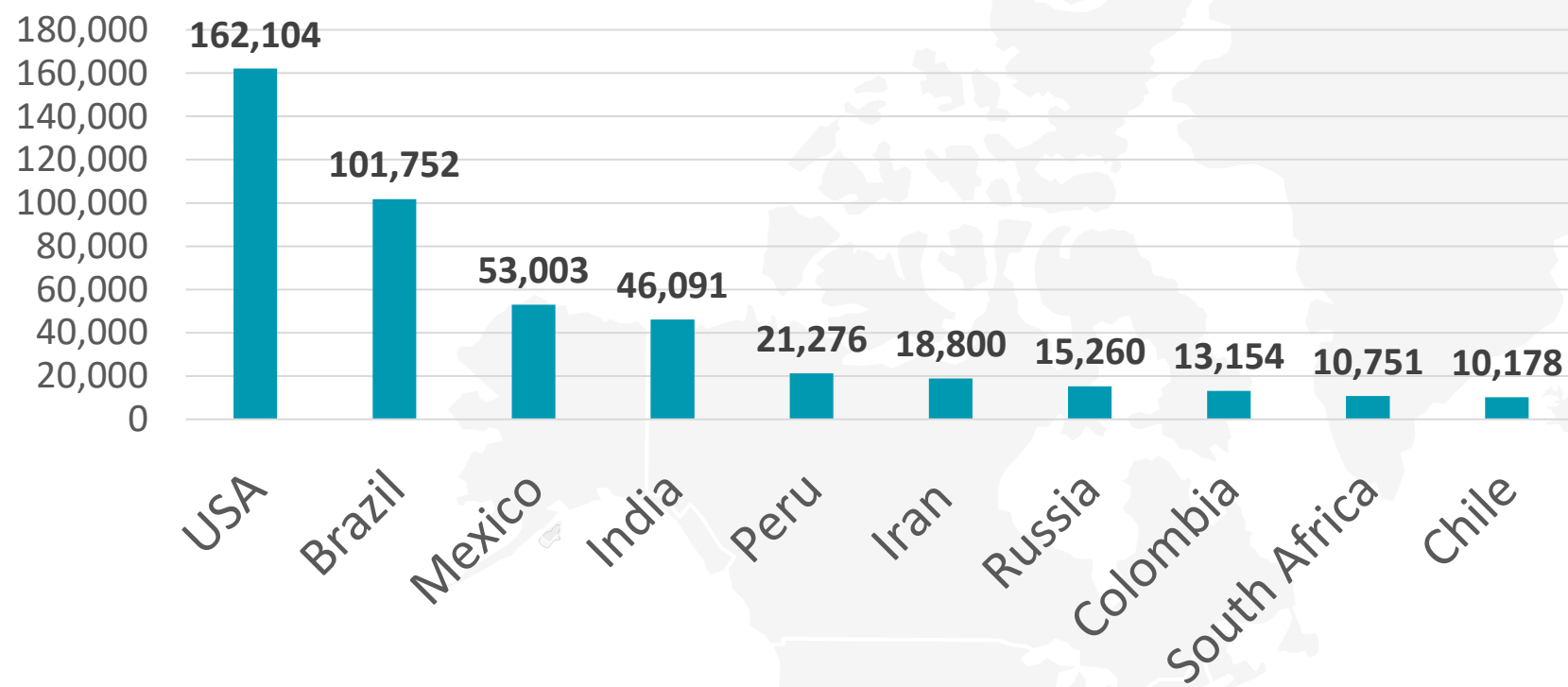
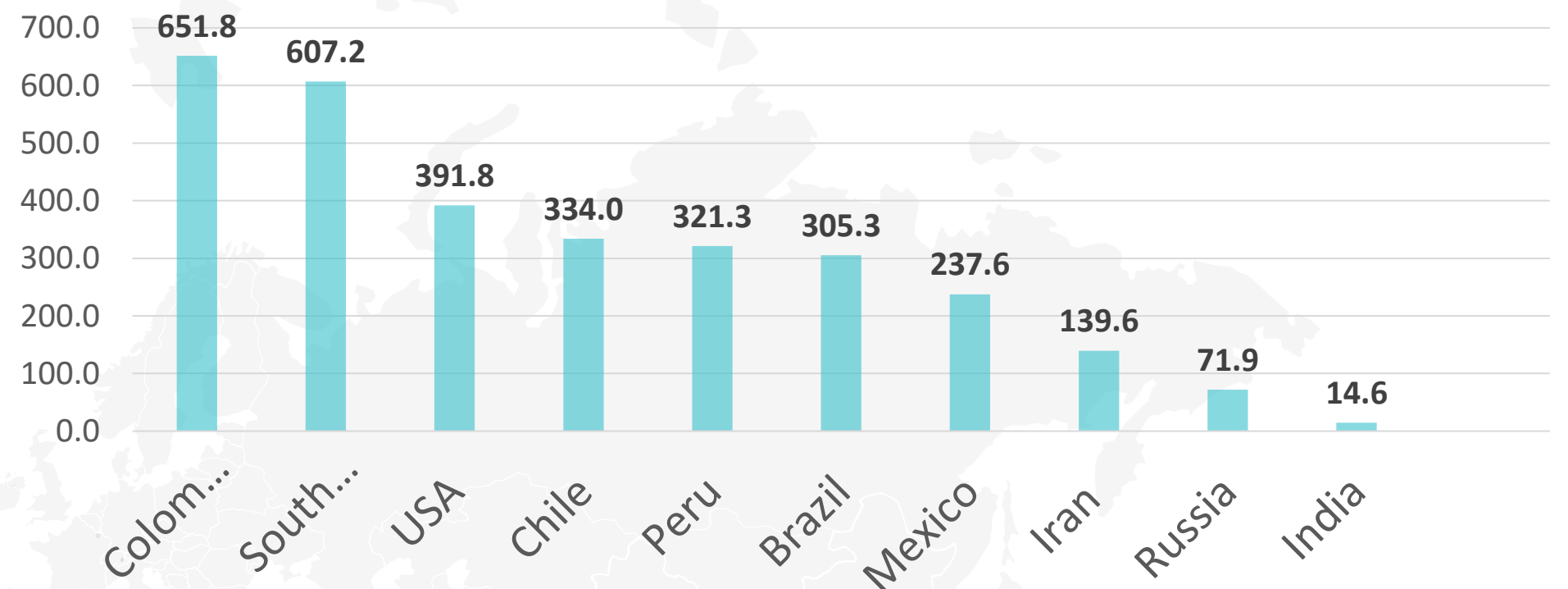


Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19

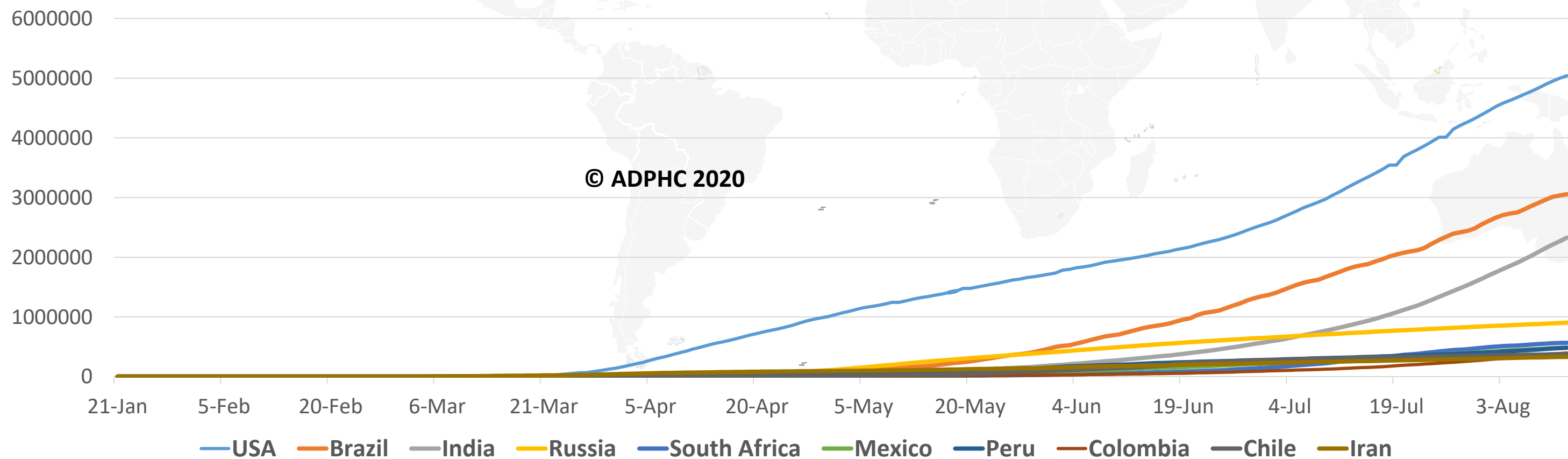
TOTAL DEATHS



DEATHS PER MILLION

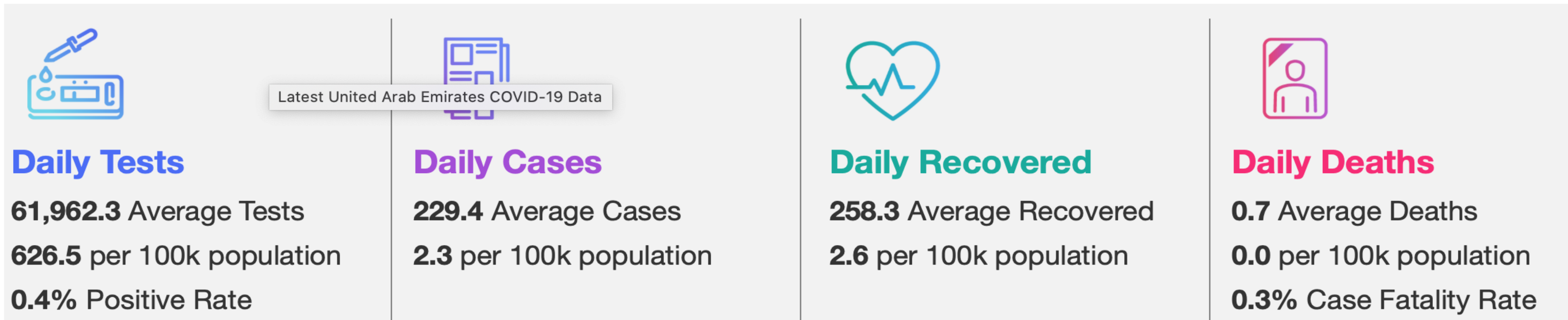


TOTAL INFECTED CASES



USA	5,039,709
Brazil	3,057,470
India	2,329,638
Russia	902,701
South Africa	566,109
Mexico	485,836
Peru	483,133
Colombia	397,623
Chile	376,616
Iran	331,189

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

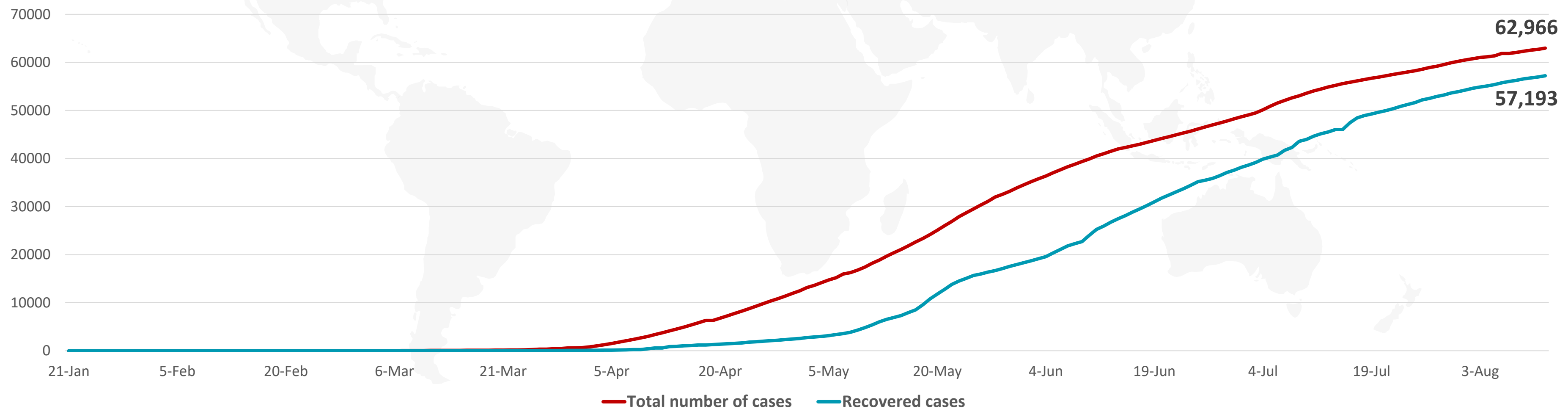


Figure 7A : Global Distribution of COVID-19 Cases

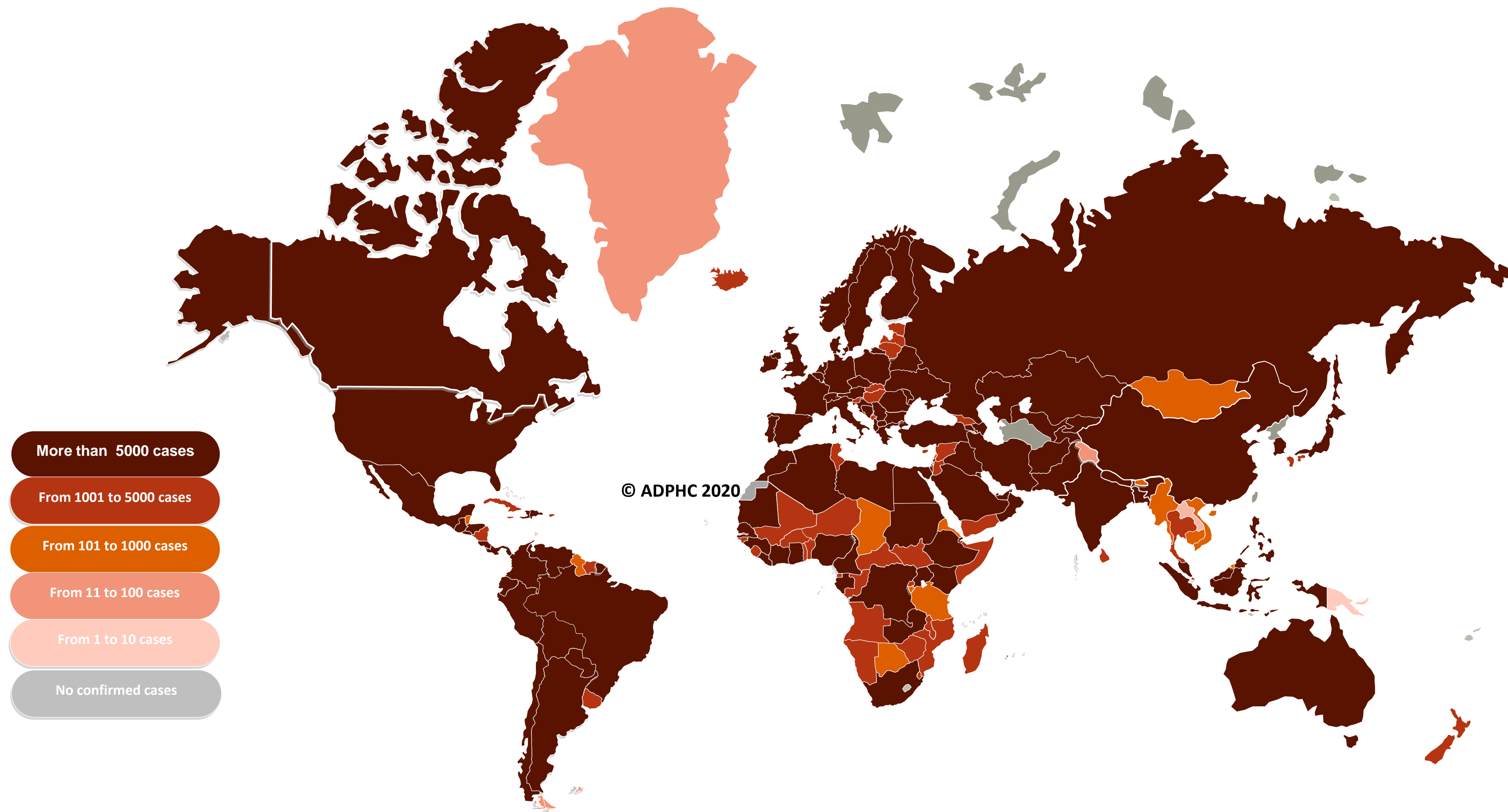
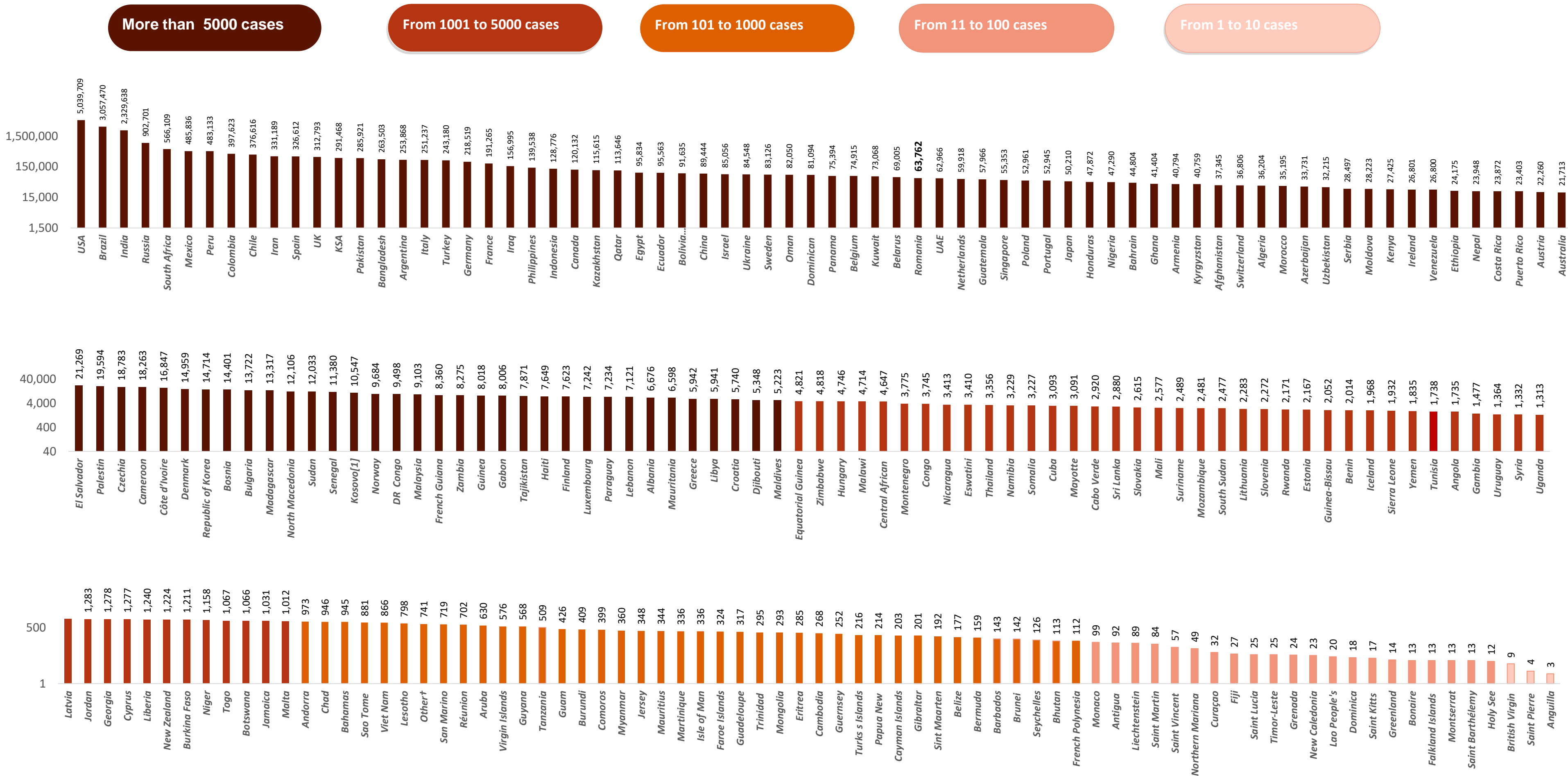
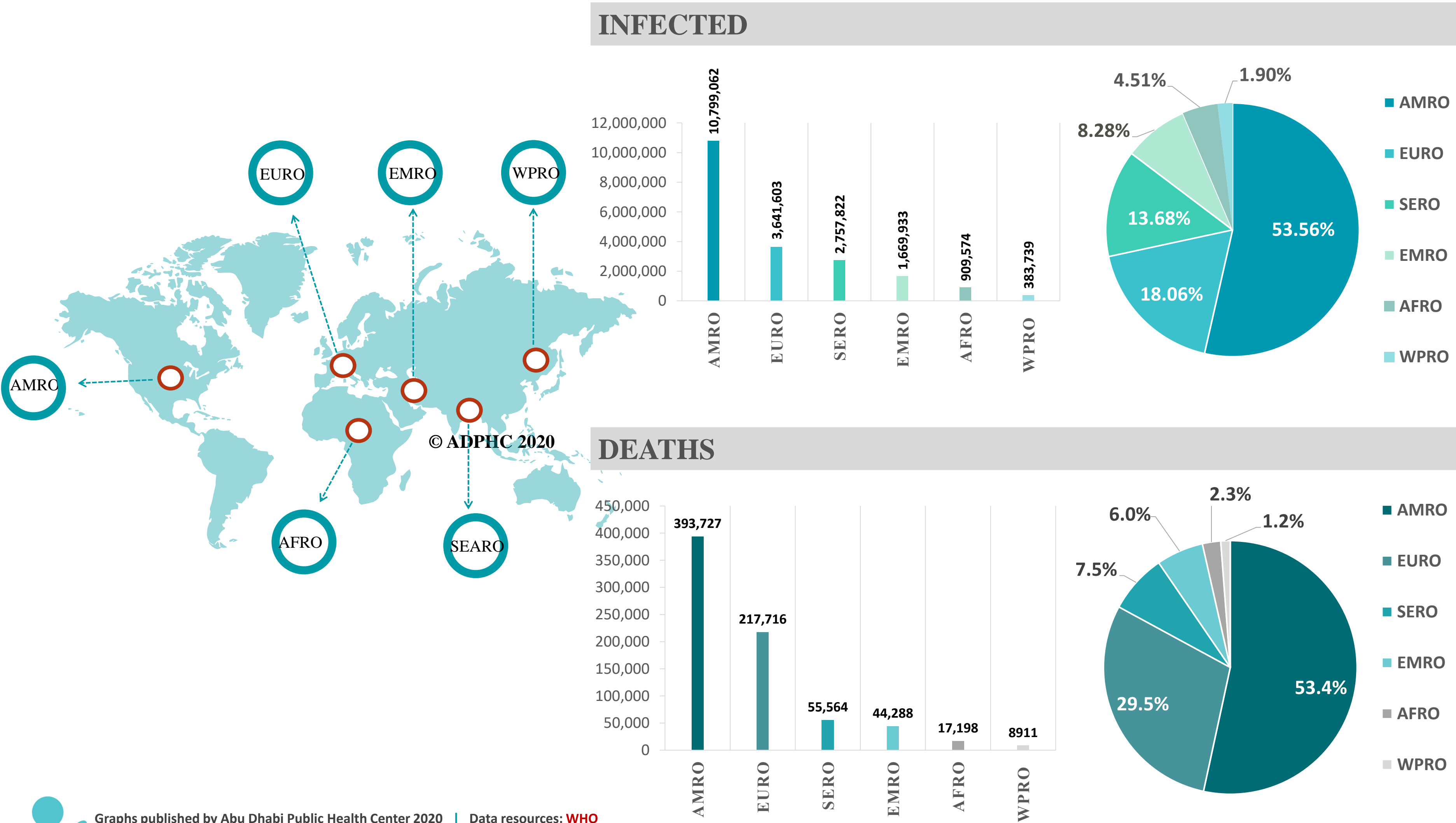


Figure 7B: Bar Chart Illustrates the Global Distribution of COVID19 Cases



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

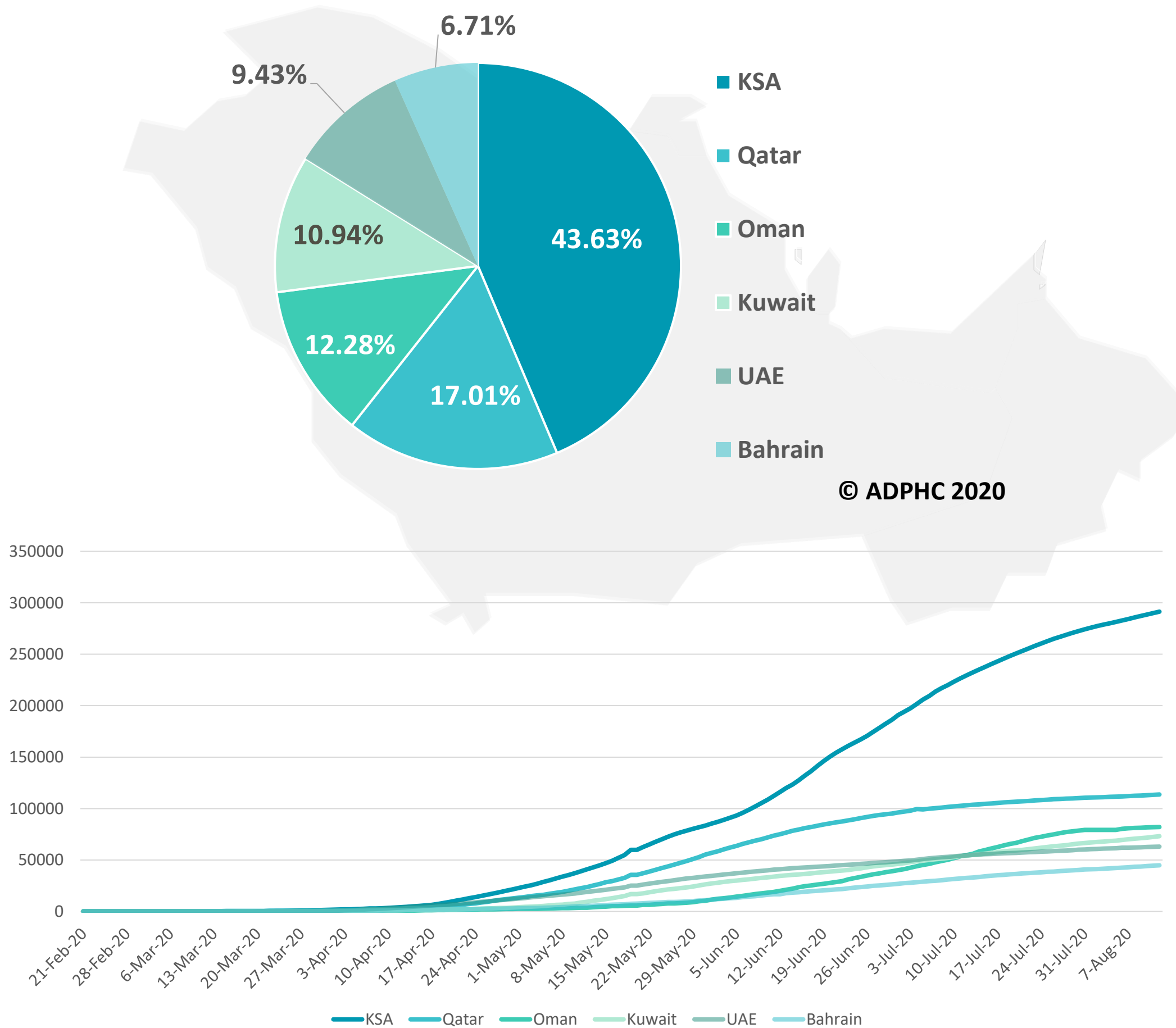
Figure 8: Global Distribution of COVID-19 Cases per Region



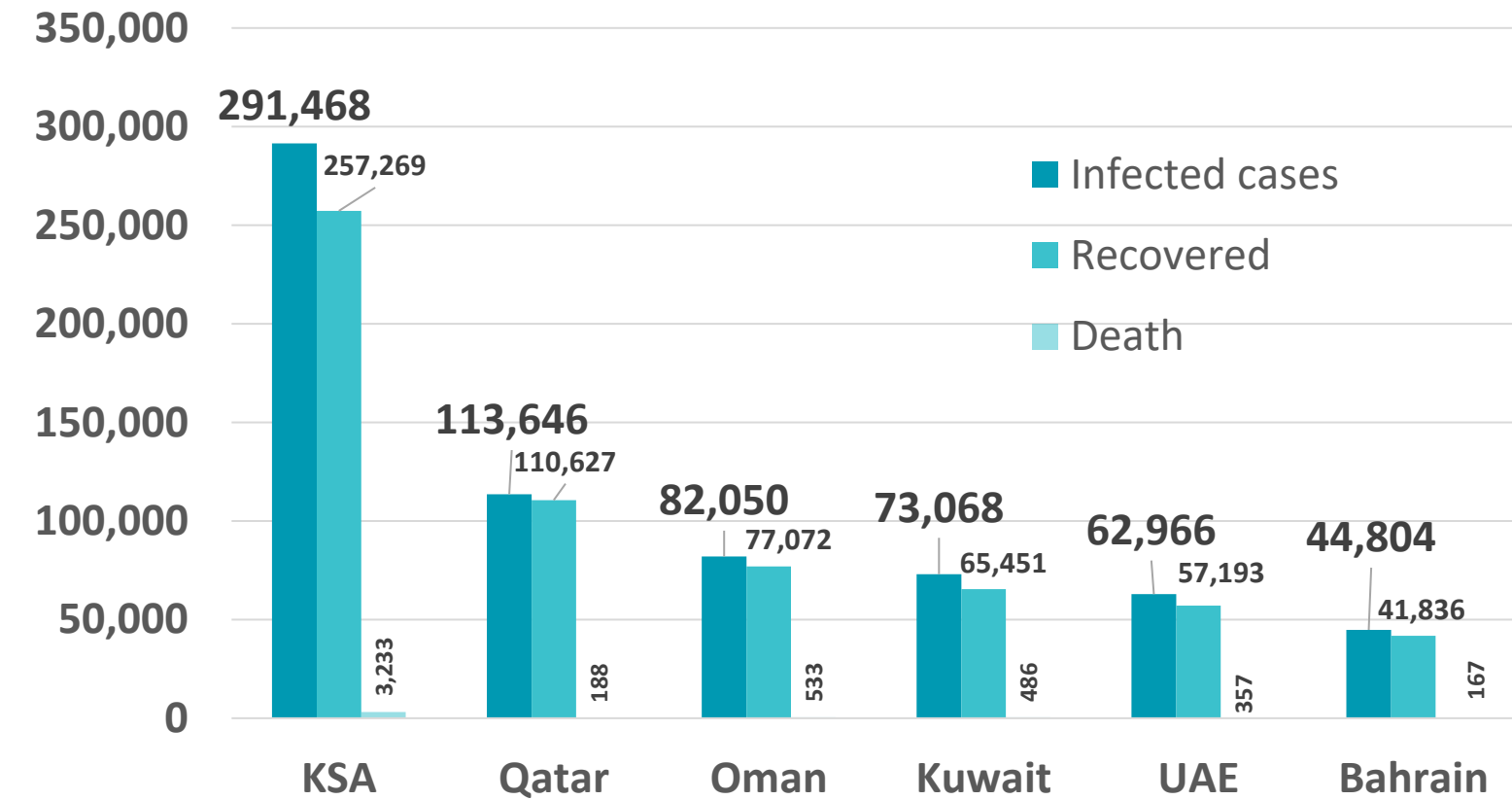
Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: [WHO](#)

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

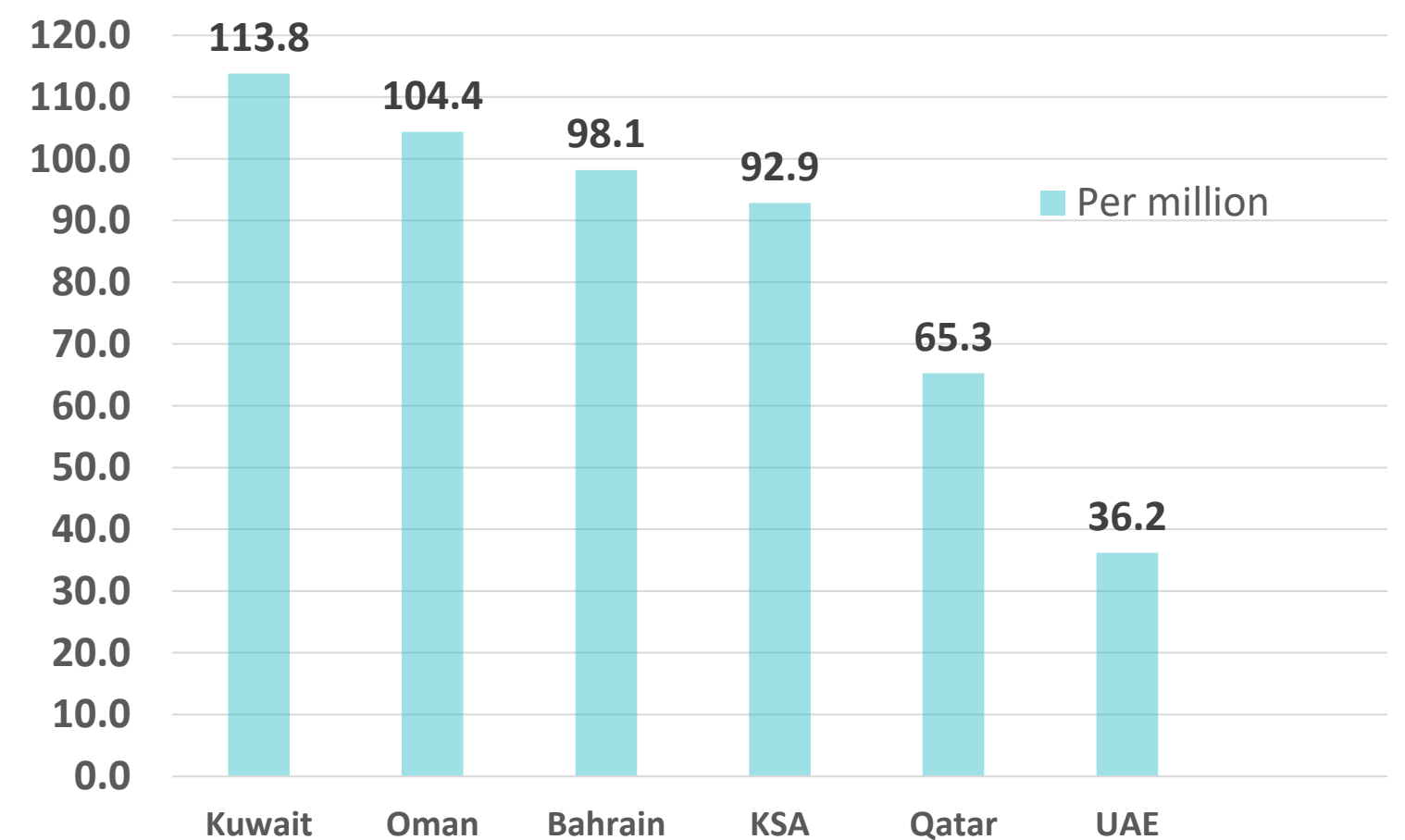
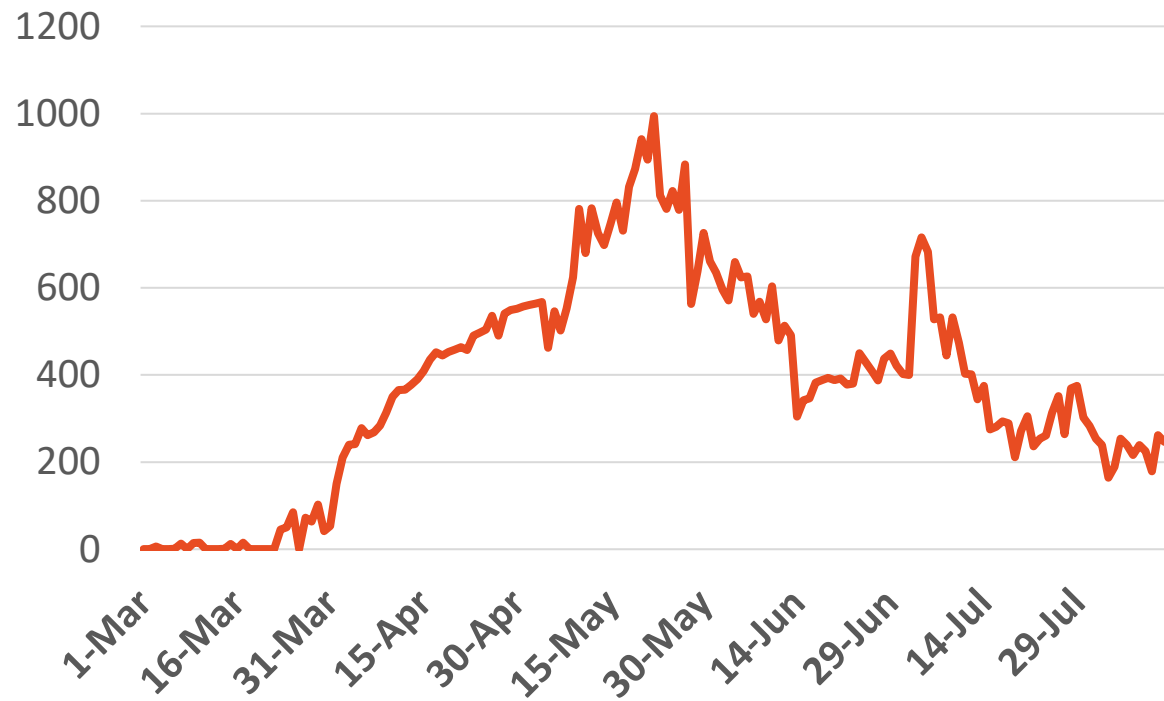


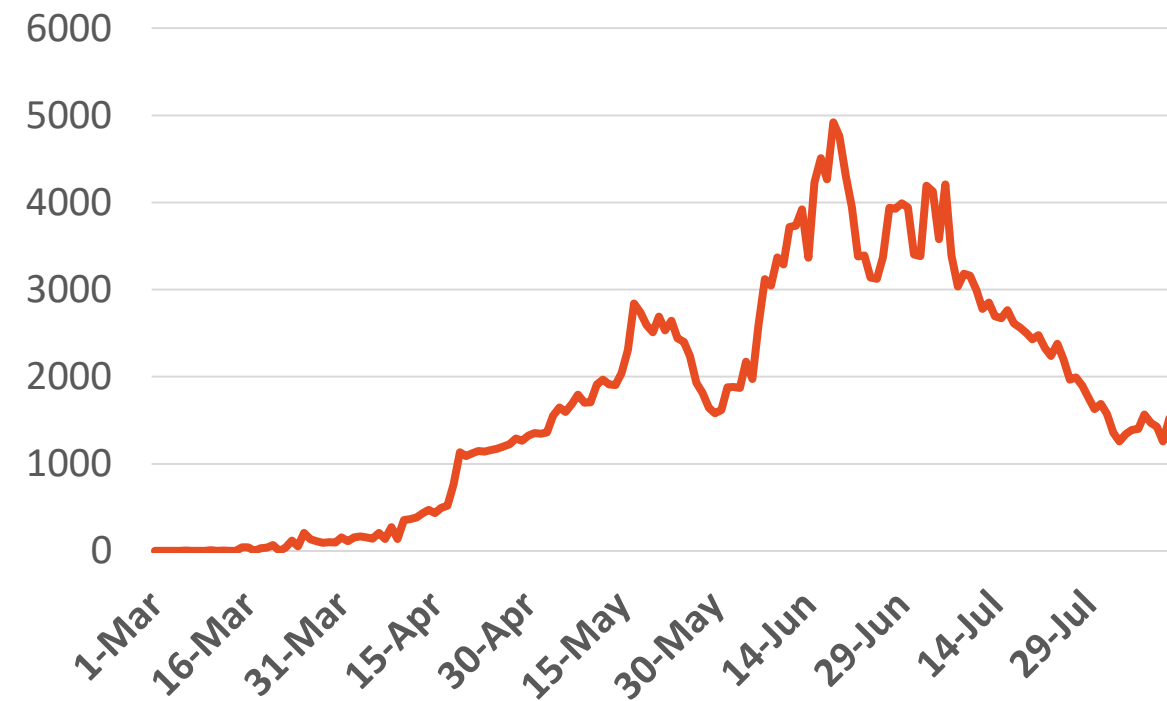
Figure 10: Comparative Analysis of the Distribution of COVID-19 New Cases in GCC Countries

UAE



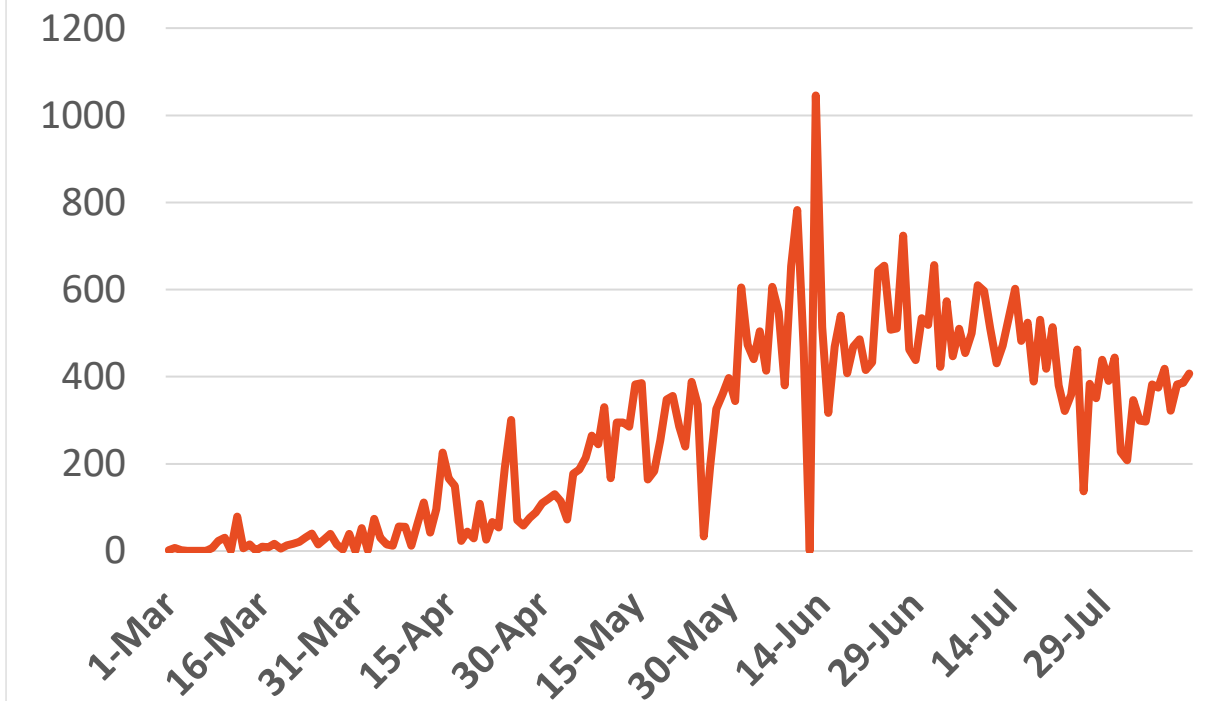
Source : National Emergency Crisis and Disaster Management Authority

KSA



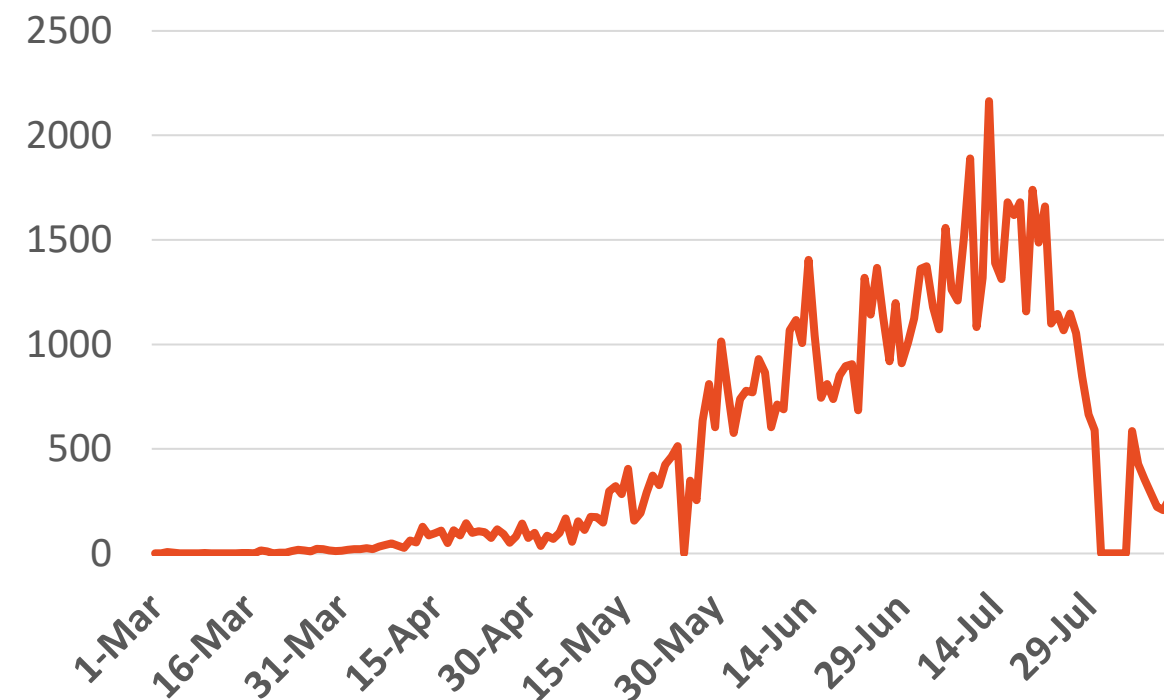
Source : KSA ministry of health

Bahrain



Source :WHO

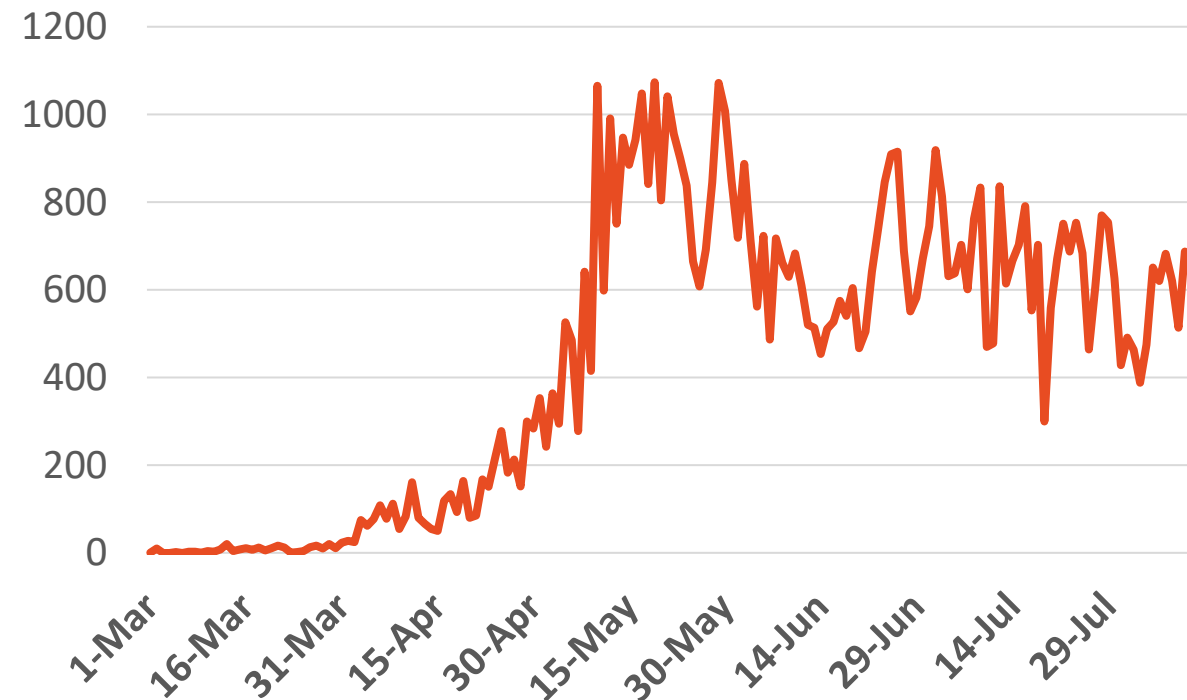
Oman



Source :Oman ministry of health
No announced statistic data from 31 July to 4 August

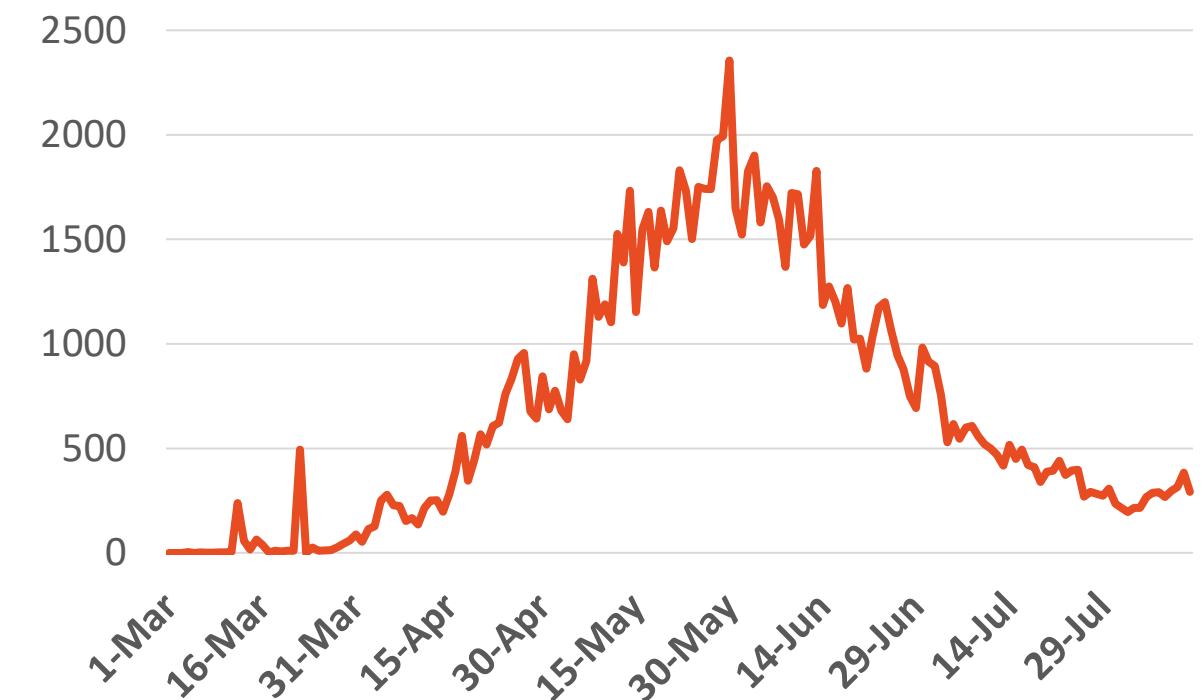
Kuwait

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Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health

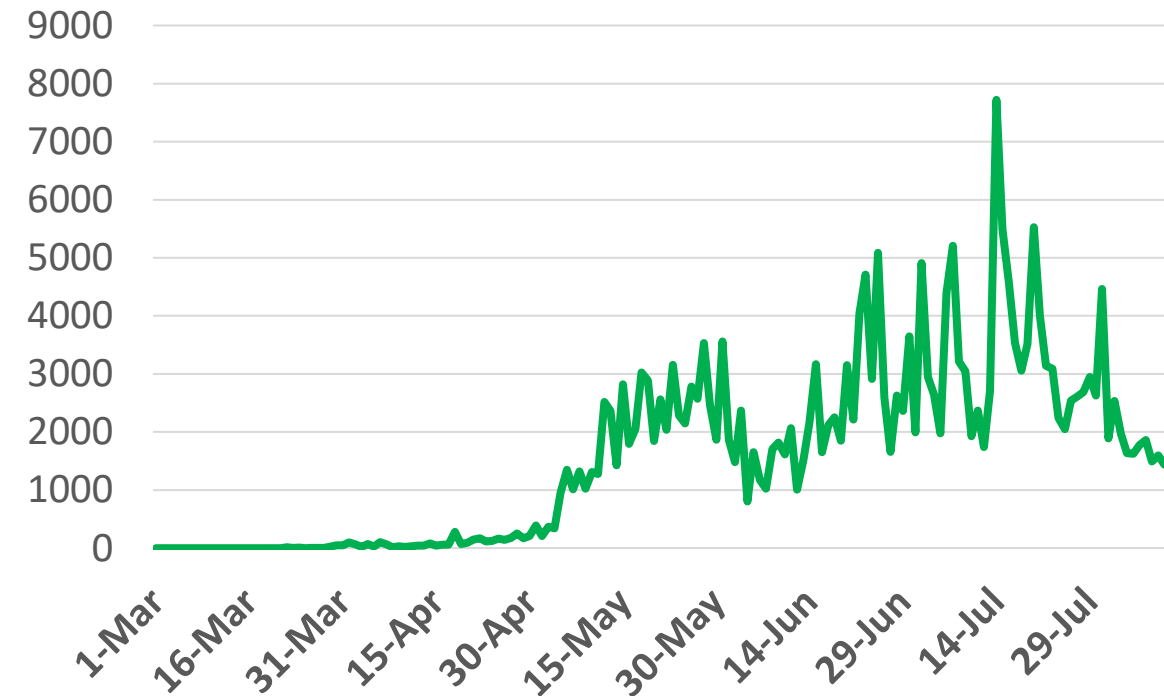
Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries

UAE



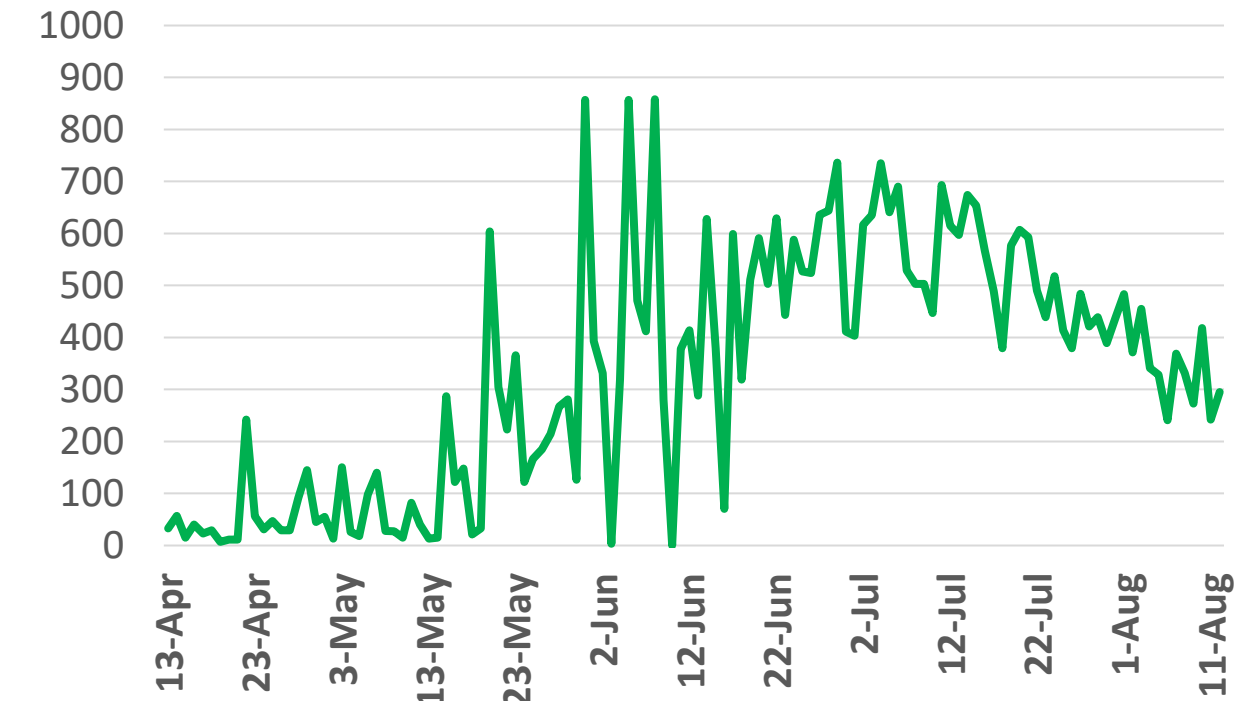
Source : National Emergency Crisis and Disaster Management Authority

KSA



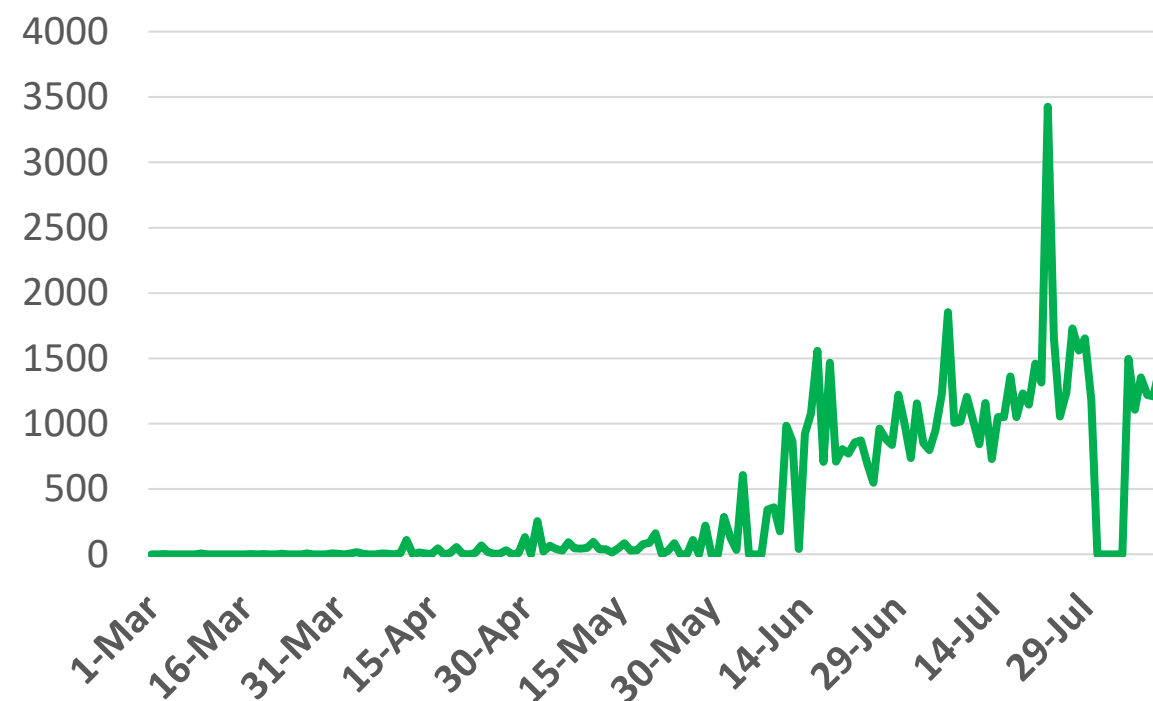
Source : KSA ministry of health

Bahrain



Source : GCCStat

Oman



Source : Oman ministry of health

*No announced statistic data from 31 July to 4 August

Kuwait

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Source : Kuwait ministry of health

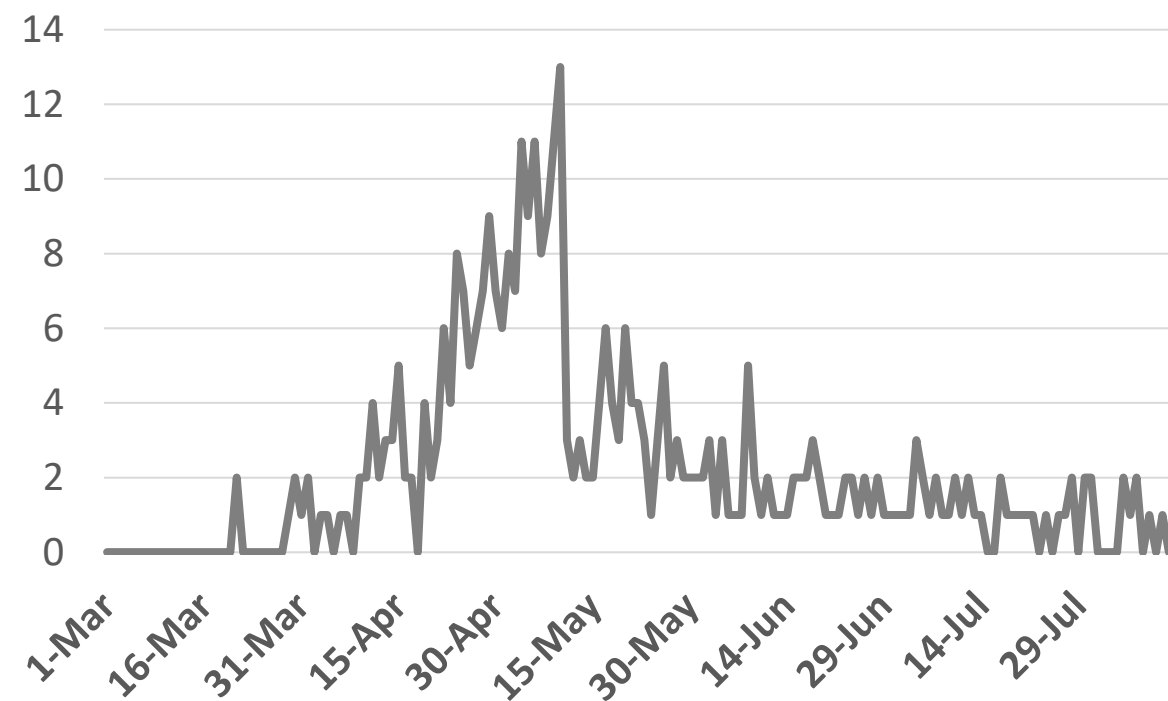
Qatar



Source : Qatar ministry of health

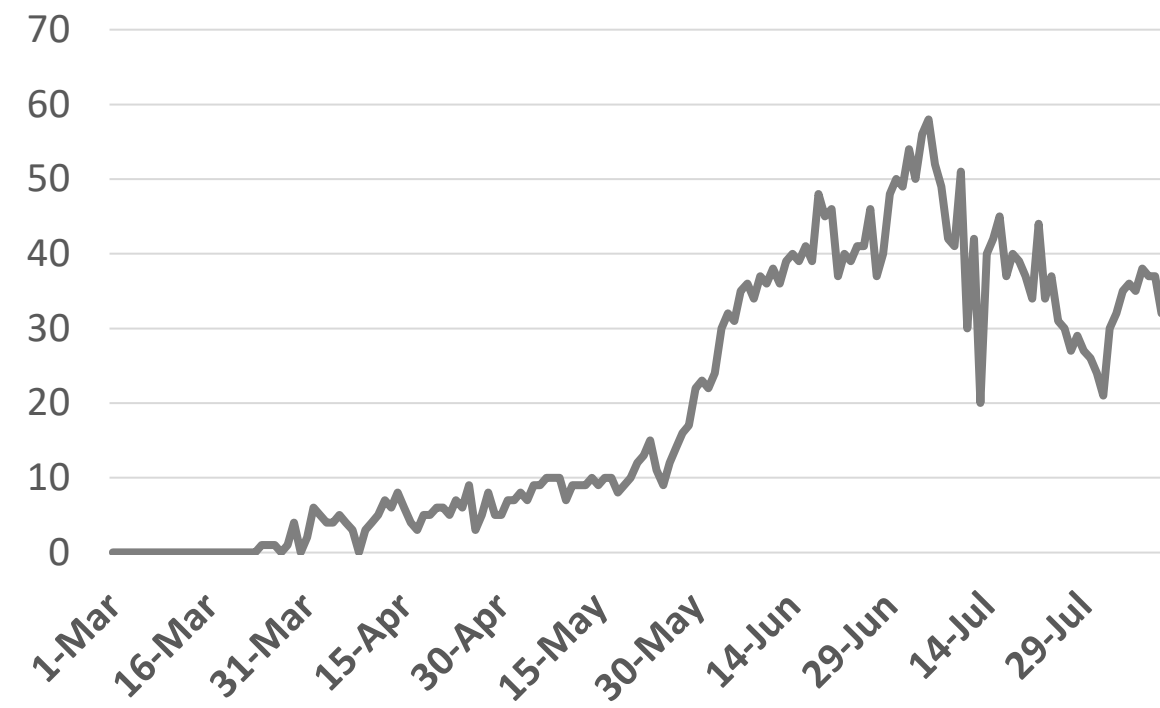
Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

UAE



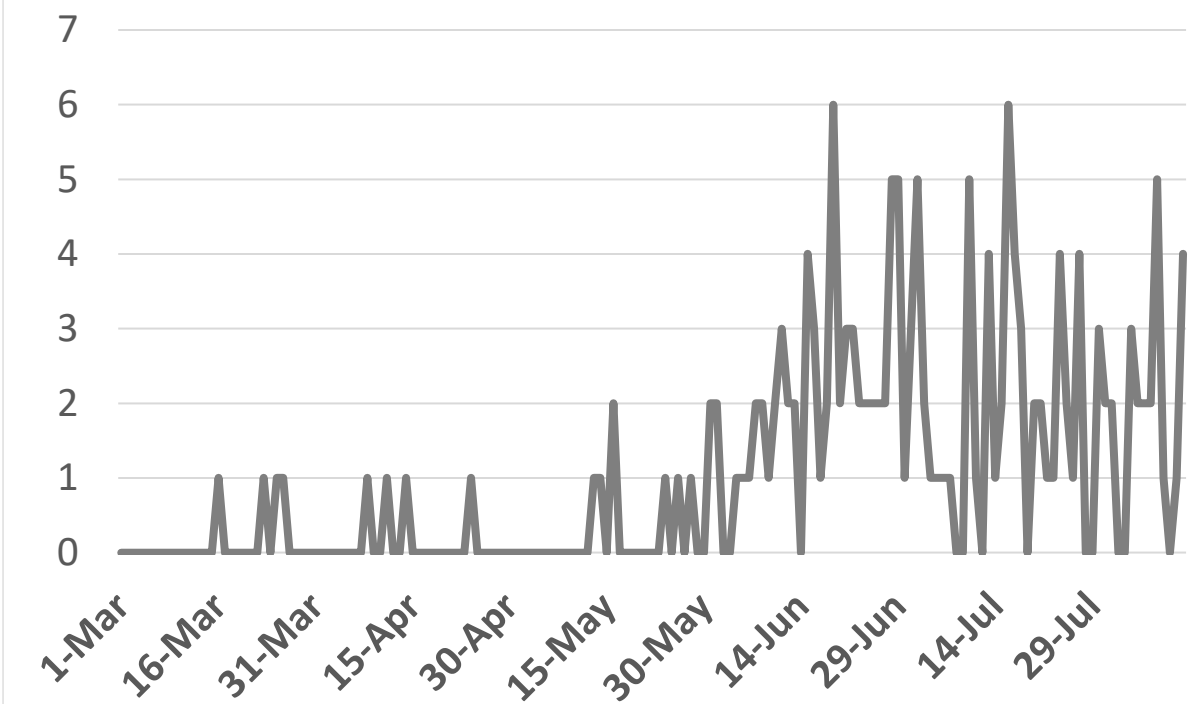
Source : National Emergency Crisis and Disaster Management Authority

KSA



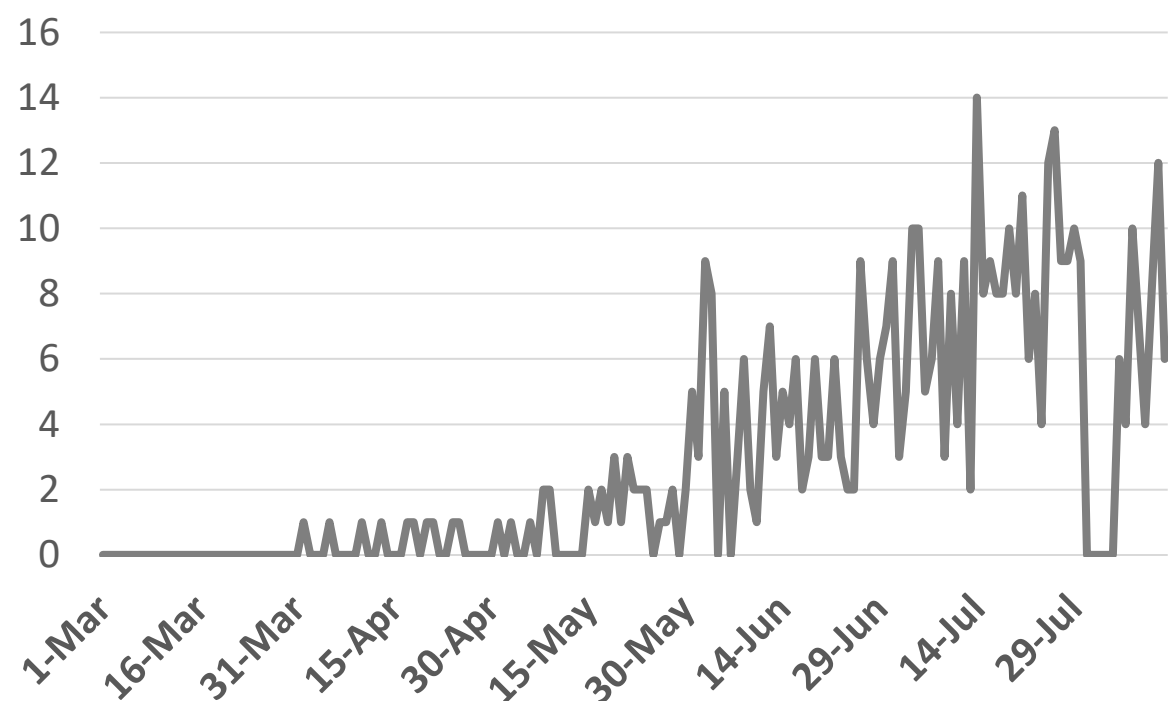
Source : KSA ministry of health

Bahrain



Source :WHO

Oman

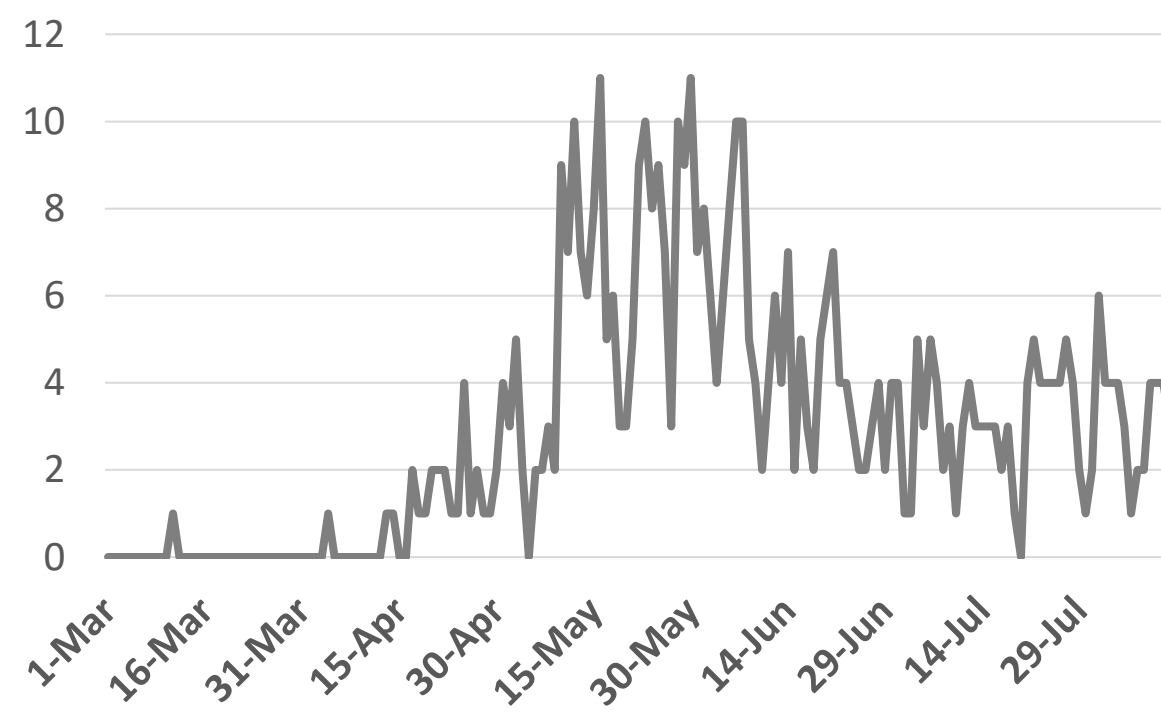


Source :Oman ministry of health

*No announced statistic data from 31 July to 4 August

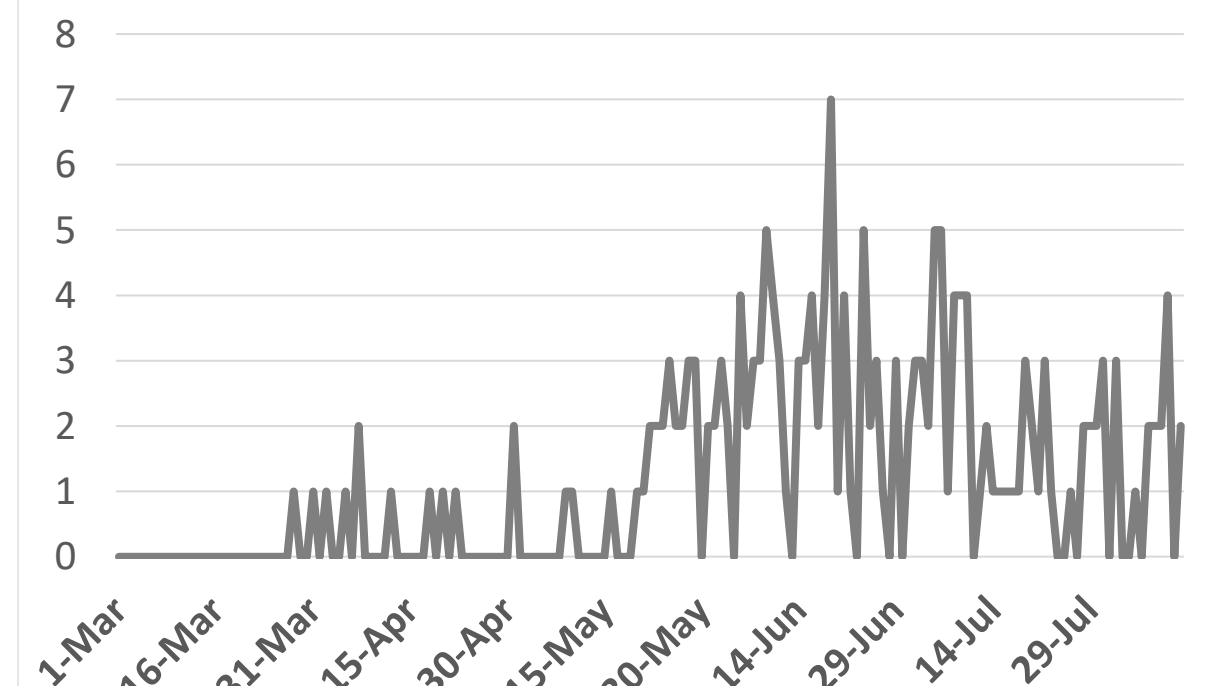
Kuwait

© ADPHC 2020



Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health

Article 1

Published

CDC Revises Guidance on Isolation After Positive COVID-19 Test, Reports Prolonged COVID-19 Illness Among Non-Hospitalized Patients

04 August 2020 [JAMA HEALTH FORUM](#)

This update incorporates recent evidence on the duration of isolation and precautions recommended to prevent transmission of COVID-19 to others while limiting unnecessarily prolonged isolation and use of laboratory testing resources.

Background

- Accumulating evidence supports using a strategy for ending isolation and precautions for persons with COVID-19 based on symptoms. Previously, it was recommended that infected individuals isolate themselves until they had two negative swabs, yet it is not to be feasible because of the shortage of tests.

Updated Guidance

- Symptomatic people with COVID-19 should isolate at home for 10 days after symptoms begin and for 24 hours after their fever has broken (without the use of fever-reducing medications) and other symptoms have improved.
- Mild to moderate COVID-19 patients, a virus capable of replicating has not been found after 10 days following the onset of symptoms.
- Asymptomatic patients also should isolate for 10 days from the date of their first positive test.
- A limited number of persons with severe illness” and those who are immunocompromised may need to isolate for 20 days after symptom onset.

New Findings

- COVID-19 can result in prolonged illness, even among healthy young adults with no underlying chronic medical conditions.
- A study found Among 270 individuals who had a positive outpatient test result for SARS-CoV-2 with available data on when they returned to their usual level of health, 95 (35%) reported they had not done so when interviewed 2 to 3 weeks after testing.
- The proportion who had not fully recovered within 14 to 21 days after a positive result increased across age groups.
- About a quarter of interviewees aged 18 to 34 years, one-third who aged 35 to 49 years, and nearly half of those 50 years of interviewees or older reported not returning to their usual level of health within that period.

Conclusion

- Public health messaging should target populations that might not perceive COVID-19 illness as being severe or prolonged, including young adults and those without chronic medical conditions.



Article 2

Recovery from Severe COVID-19 Leveraging the Lessons of Survival from Sepsis

Published

20 July 2020 [JAMA](#)

- Patients with severe COVID-19 disease, which affects up to 20% of those hospitalized with COVID-19, develop viral sepsis and acute respiratory distress syndrome (ARDS). Approximately 80% of patients hospitalized with COVID-19, and 60% of those admitted to intensive care units (ICUs), survive.
- Long-term outcomes after severe disease caused by other coronaviruses (SARS and MERS) and reported high rates of posttraumatic stress disorder (38%), depression (33%), and anxiety (30%) at 6 months following illness, as well as pulmonary dysfunction, reduced exercise tolerance, and reduced health-related quality of life
- Patients and family should be queried regarding new symptoms of cognitive impairment, physical limitations, and swallowing difficulties, and then referred to supportive services, such as physical therapy, occupational therapy, and sleep-language pathology
- Long-term medications are often held during critical illness due to short-term contraindications (e.g. β -blocker held due to hypotension) while new medications are started for symptom control (e.g. antipsychotics for agitated delirium). Multifaceted interventions focused on medication optimization reduce readmission and emergency department visits after an acute illness, underscoring the benefit of medication optimization.
- Hospital readmission is common among sepsis survivors, most often for recurrent infection, acute kidney failure, and exacerbation of chronic health conditions, such as heart failure and chronic obstructive pulmonary disease.
- Patients should be counseled regarding risk and symptoms of recurrent infection and other common causes of readmission.





Article 3

Published

07 August 2020 [medRxiv](#)

Wrong Person, Place and Time: Viral Load and Contact Network Structure Predict SARS-CoV-2 Transmission and Super-Spreading Events

- Unlike influenza, SARS-CoV-2 is difficult to contain because most transmissions occur during the pre-symptomatic phase of infection.
- The authors of this study designed mathematical models of SARS-CoV-2 and influenza which link observed viral shedding patterns with key epidemiologic features of each virus, including distributions of the number of secondary cases attributed to each infected person (individual R_0) and the duration between symptom onset in the transmitter and secondarily infected person (serial interval)
- The investigators found that people with SARS-CoV-2 or influenza infections are usually contagious for fewer than two days congruent with peak viral load several days after infection and, that transmission is unlikely below a certain viral load.
- SARS-CoV-2 super-spreader events with over 10 secondary infections occur when an infected person is briefly shedding at a very high viral load and has a high concurrent number of exposed contacts.
- A person infected with SARS-CoV-2 exposes more people within equivalent physical contact networks than a person infected with influenza, likely due to aerosolization of virus. The authors concluded supporting the policies that limit crowd size in indoor spaces.

