

SCIENTIFIC RESEARCH MONITORING ON COVID-19

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SCIENTIFIC RESEARCH MONITORING ON COVID-19

(ISSUE 194)

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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Public Health Response

Use of Facemasks During the COVID-19 Pandemic

Transmission

Prevalence of SARS-CoV-2 Antibodies in Health Care Personnel in the New York City Area

Epidemiology

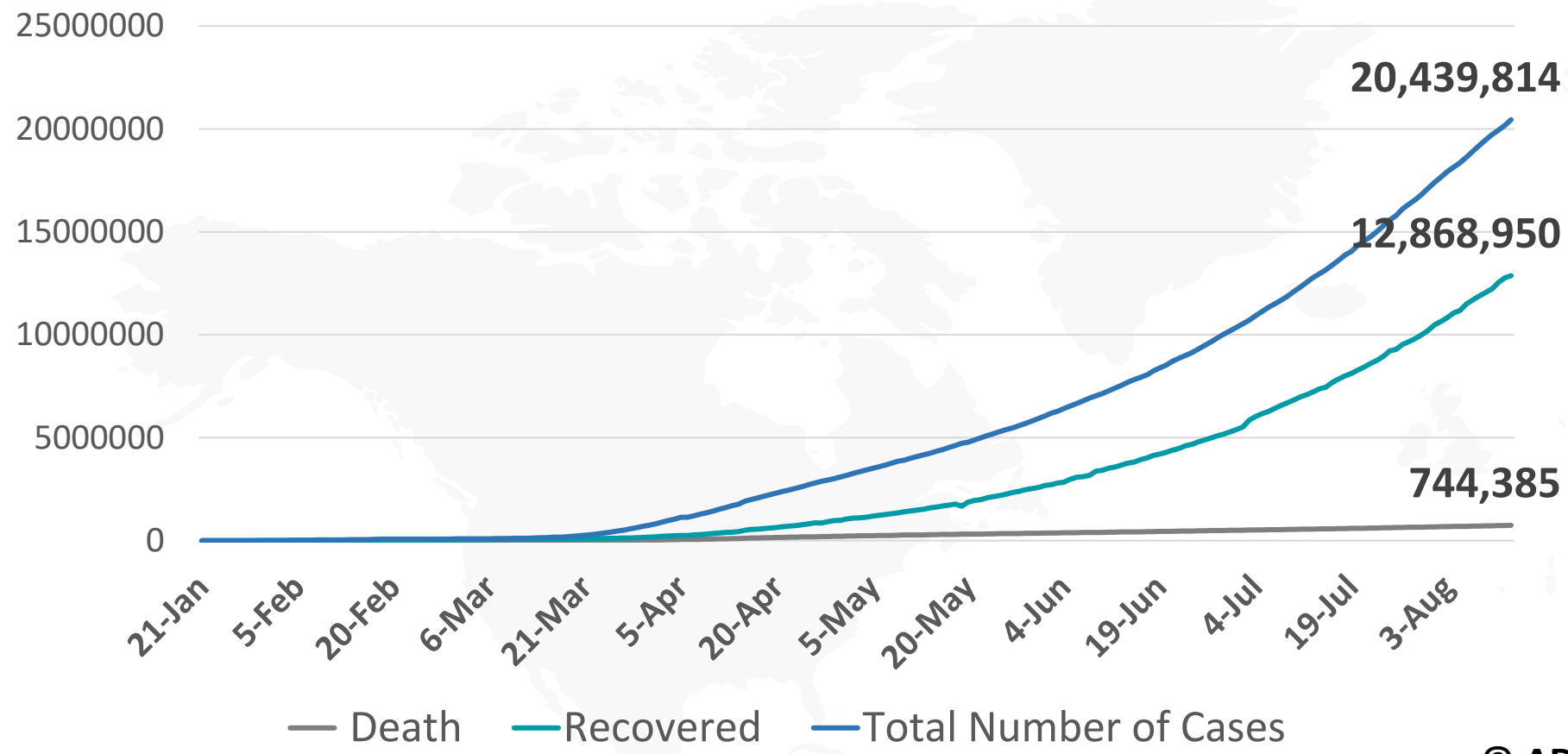
Weighing the Benefits and Risks of Proliferating Observational Treatment Assessments: Observational Cacophony, Randomized Harmony



- There have been notable achievements made by Azerbaijan in their response to the COVID-19 pandemic. To further boost its response to the ongoing pandemic, a team of WHO experts have recommended that the country strengthen contact tracing and testing. Access to basic handwashing facilities is a key condition for schools to be able to operate safely in the midst of the COVID-19 pandemic.
- Yet the latest data from the WHO/UNICEF Joint Monitoring Programme (JMP) found that 43% of schools worldwide lacked access to basic handwashing with soap and water in 2019. More than 2800 community health workers have been trained in Haiti as part of the response to the COVID-19 pandemic, and meetings have been conducted with community leaders to provide them with accurate information about COVID-19.
- All of these efforts provide much-needed support to the Ministry of Health and the country's Multisectoral Pandemic Management Commission of COVID-19.



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)

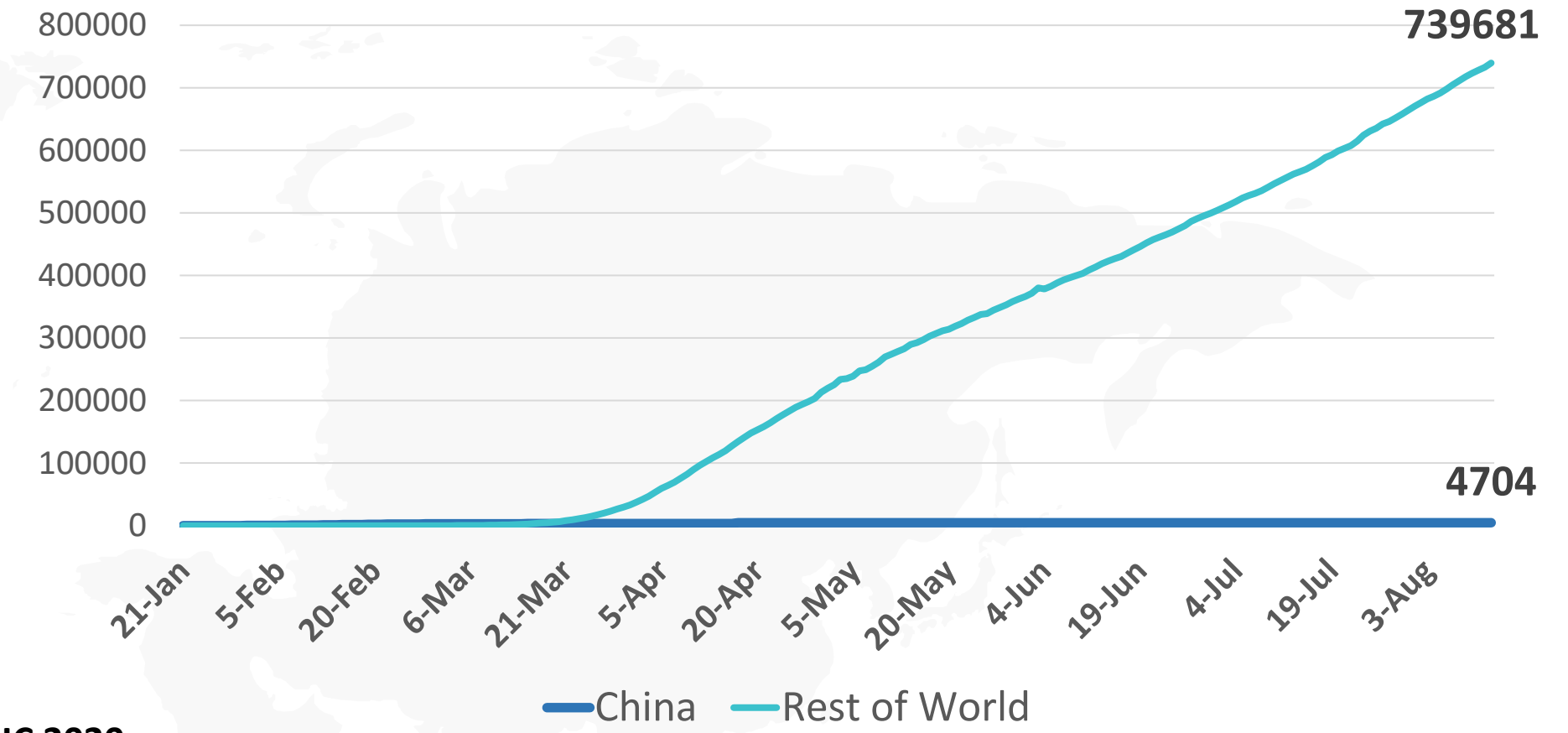


Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)

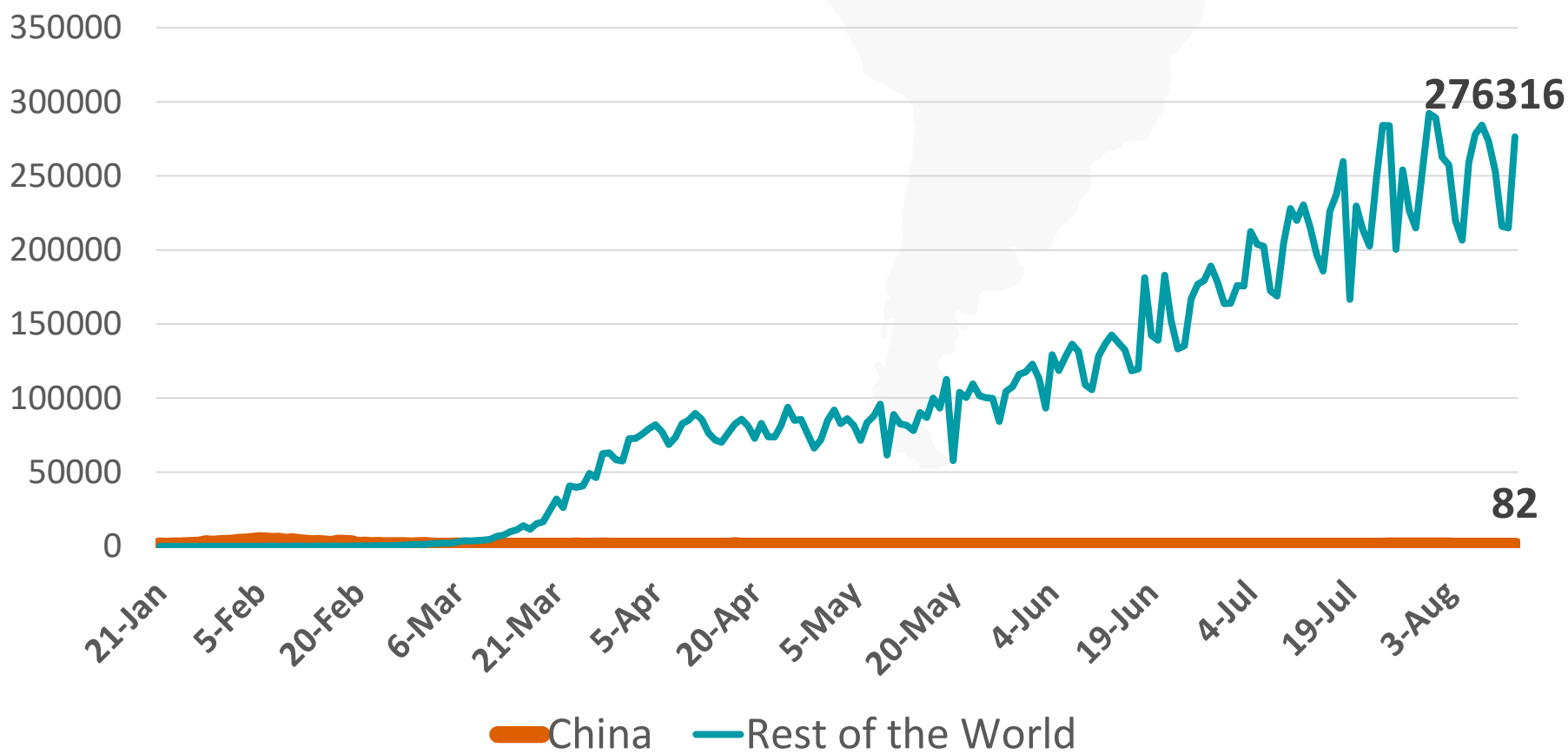


Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)

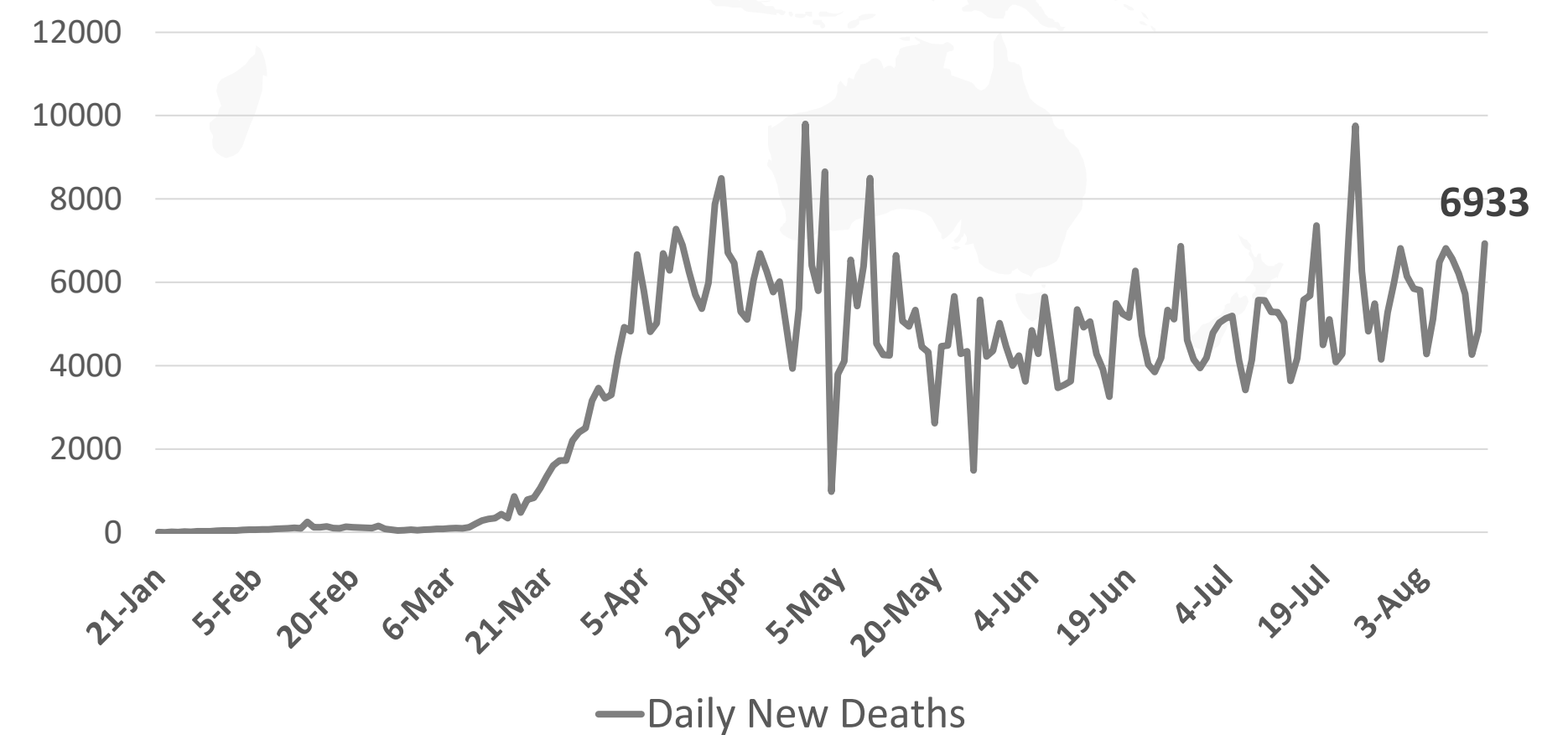
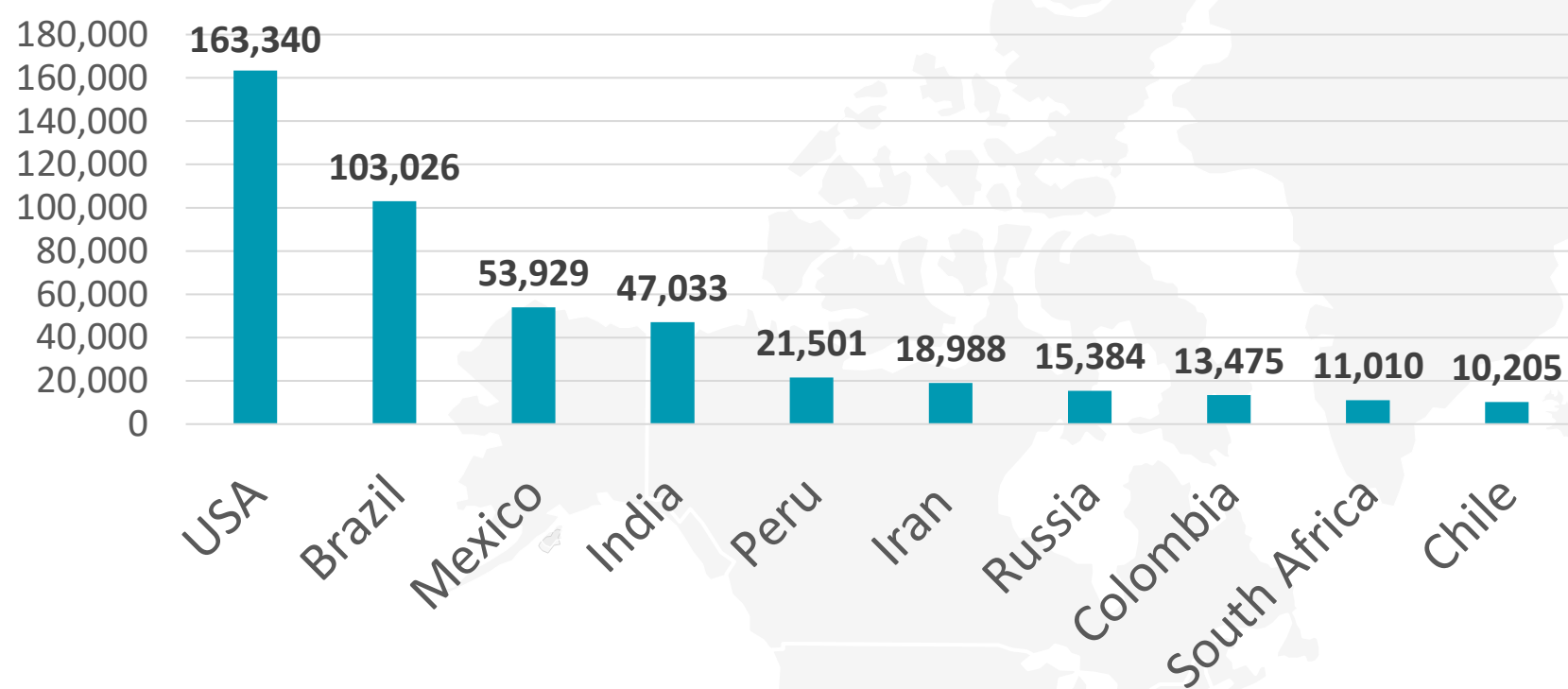
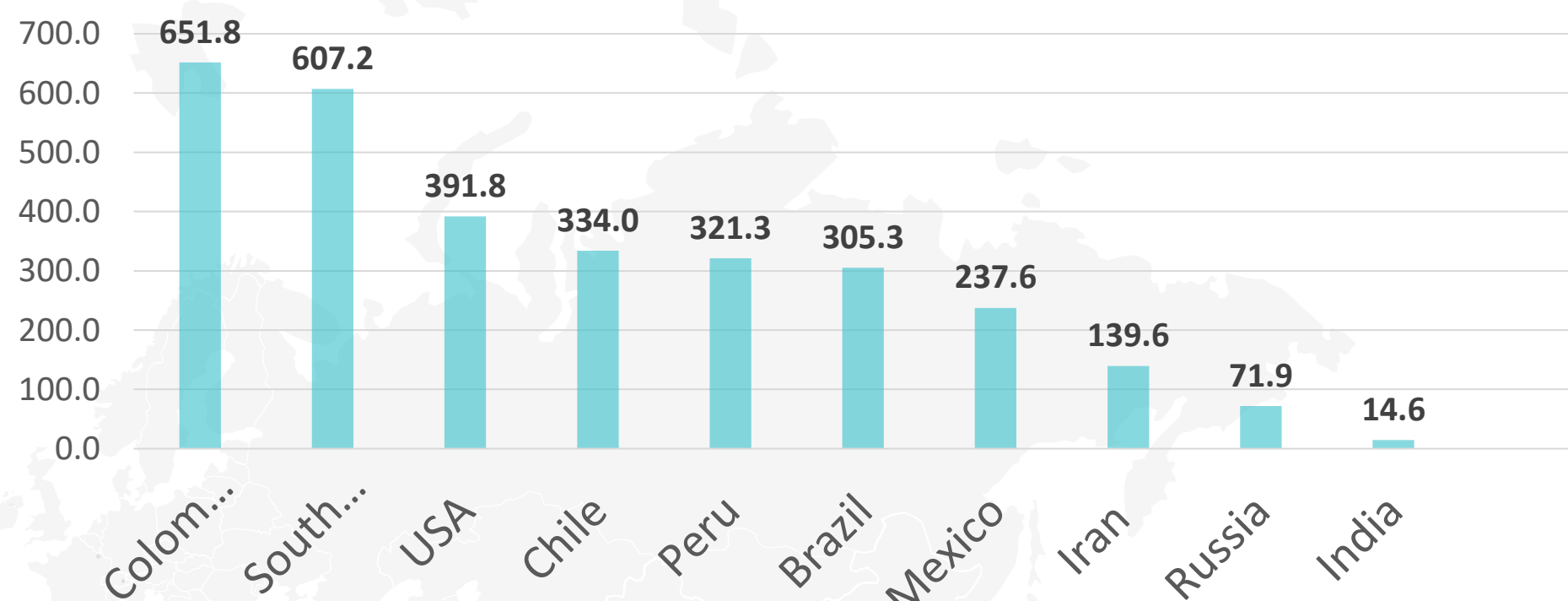


Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19

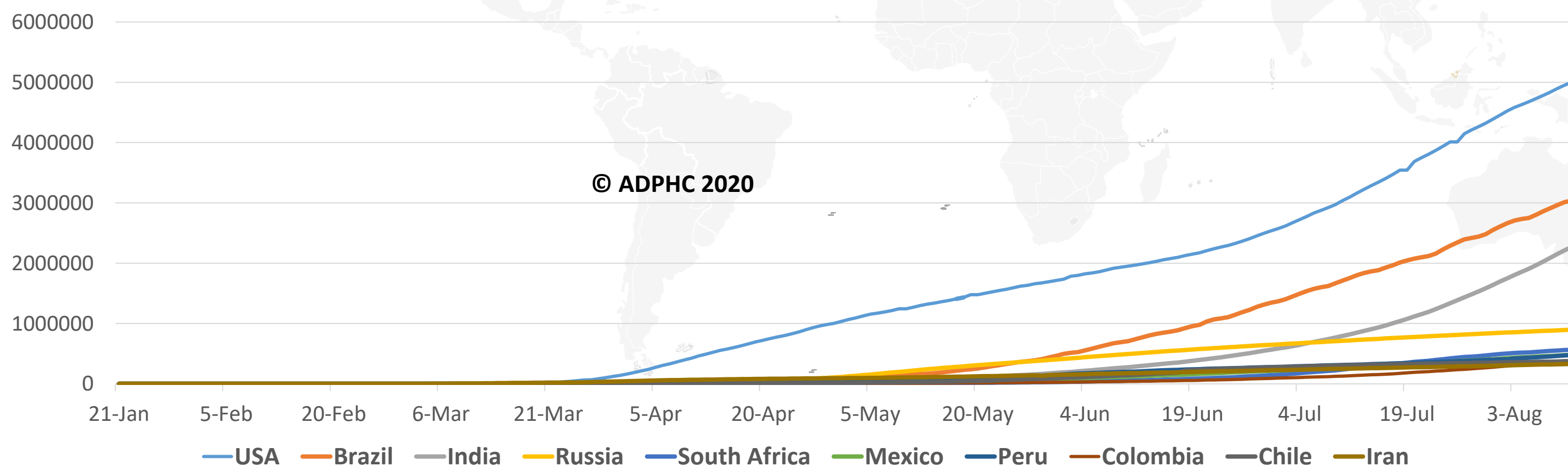
TOTAL DEATHS



DEATHS PER MILLION

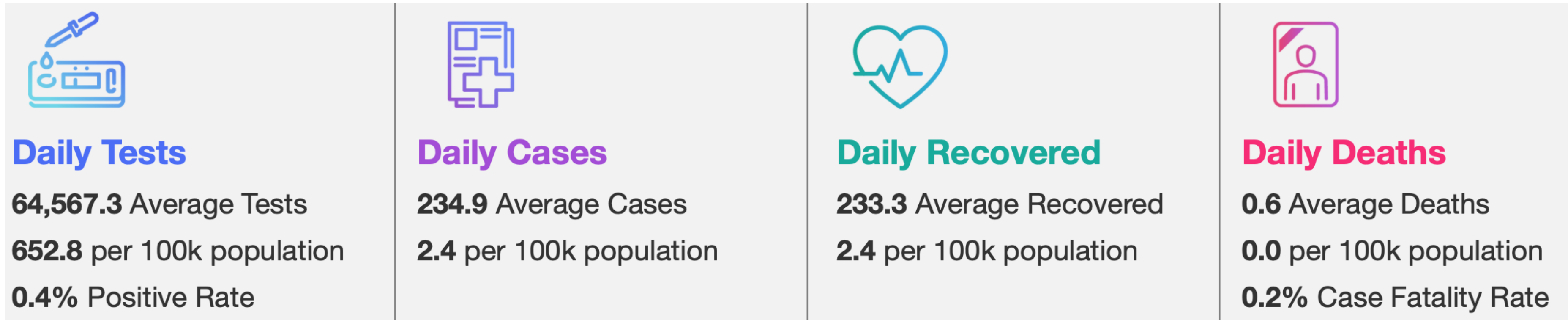


TOTAL INFECTED CASES



USA	5,094,500
Brazil	3,109,630
India	2,396,637
Russia	907,758
South Africa	568,919
Mexico	492,522
Peru	489,680
Colombia	410,453
Chile	378,168
Iran	333,699

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

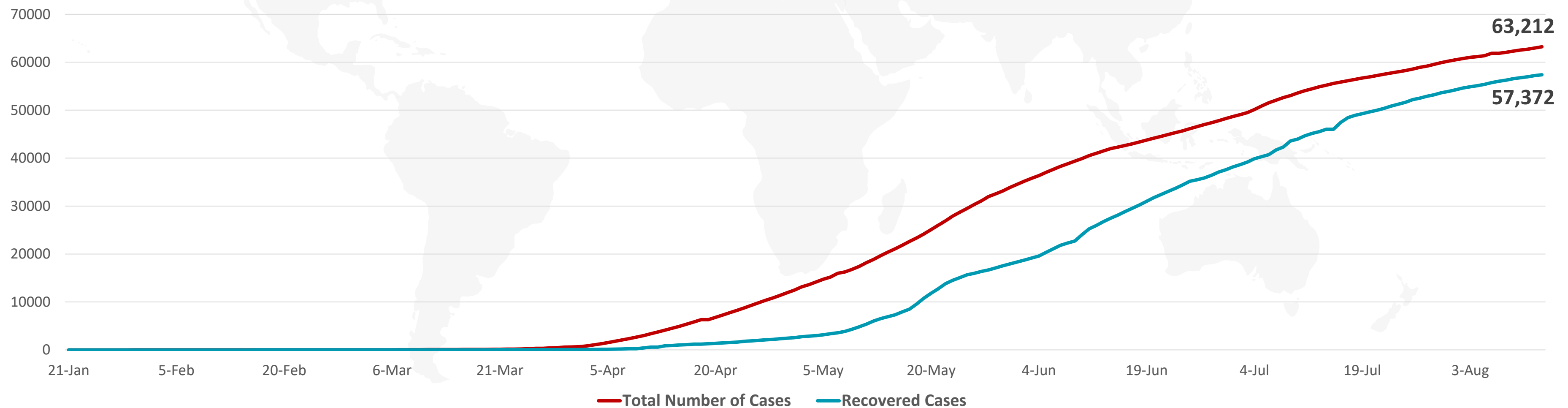
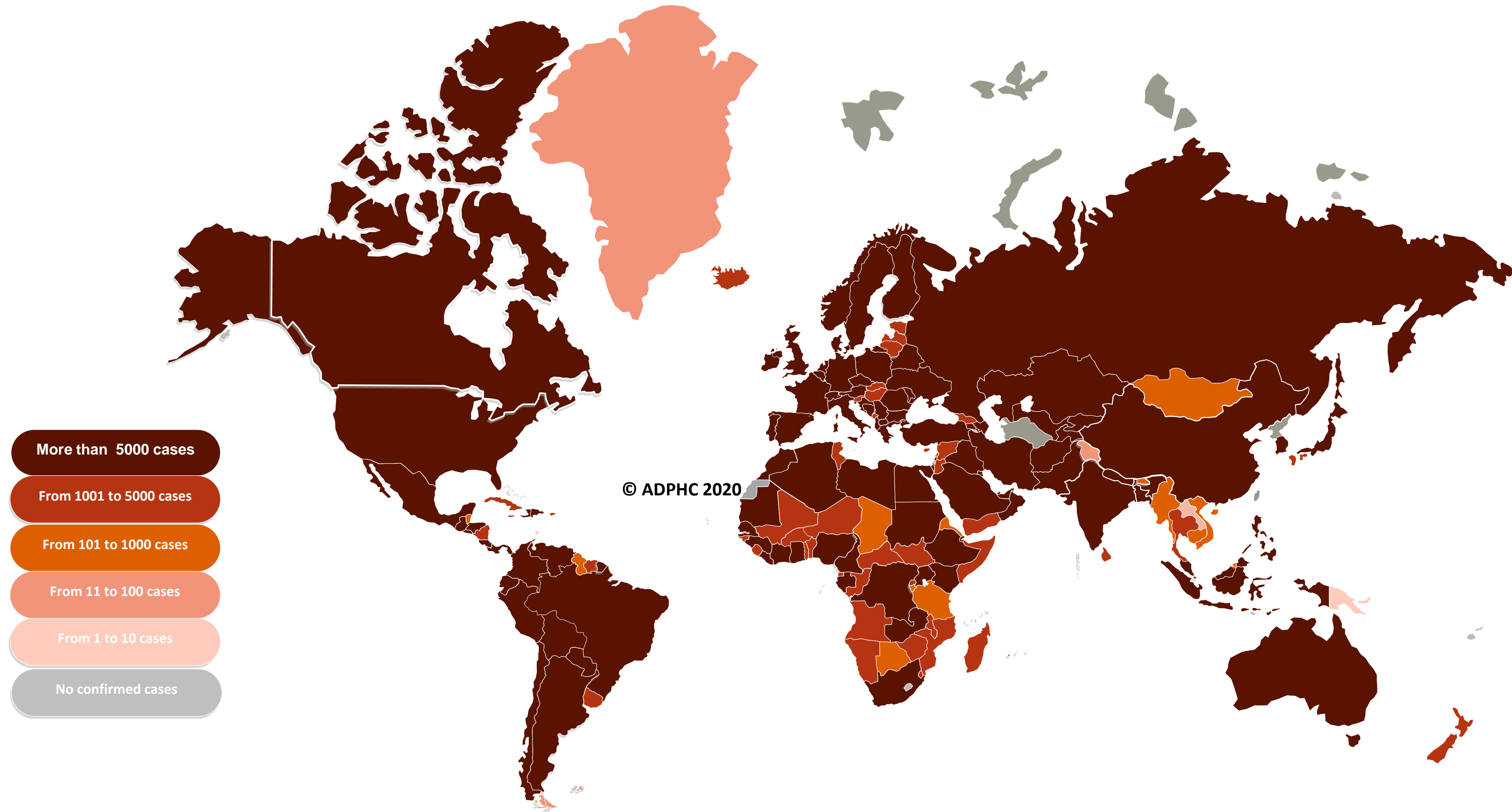


Figure 7A : Global Distribution of COVID-19 Cases



More than 5000 cases

From 1001 to 5000 cases

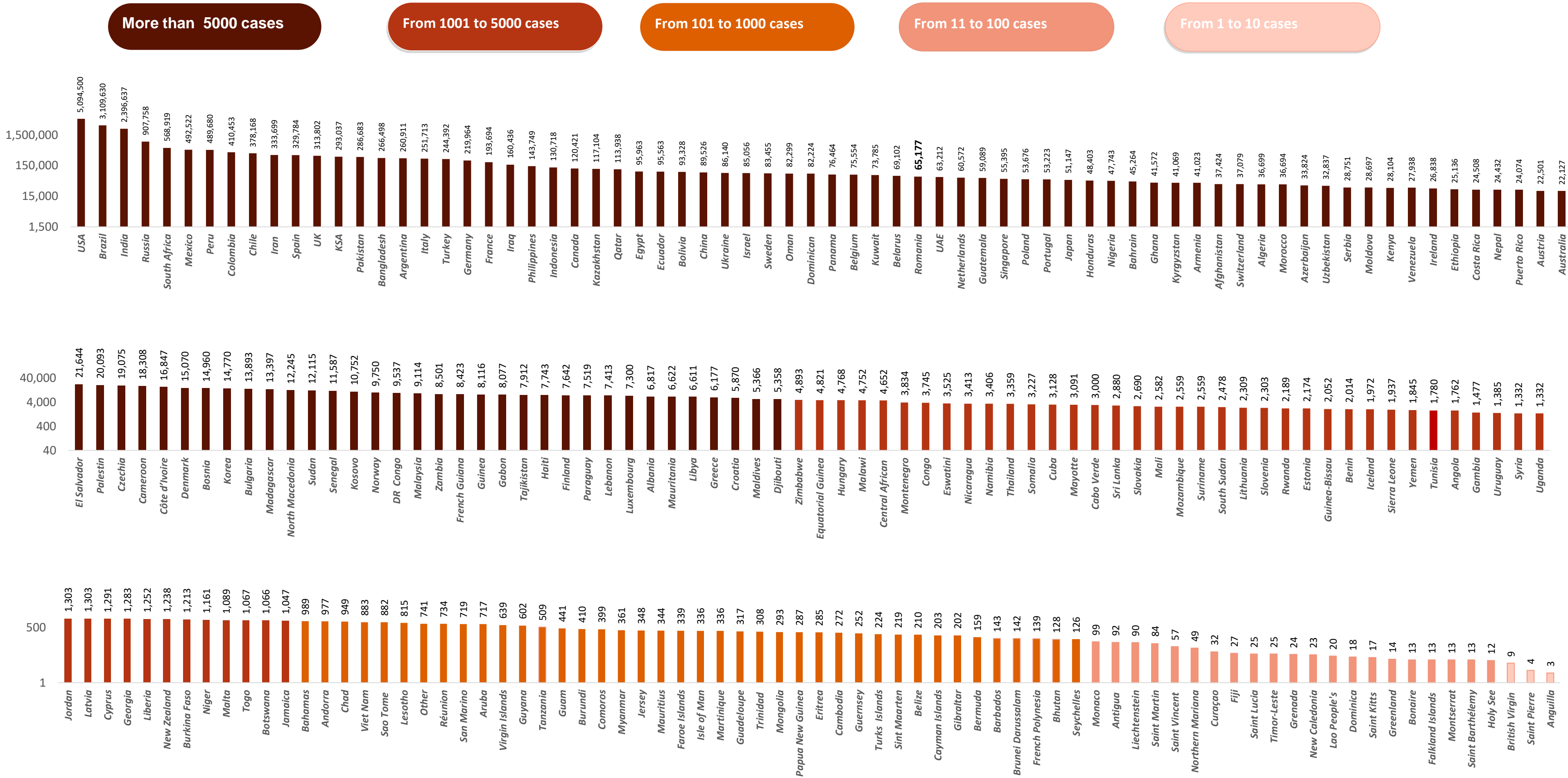
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

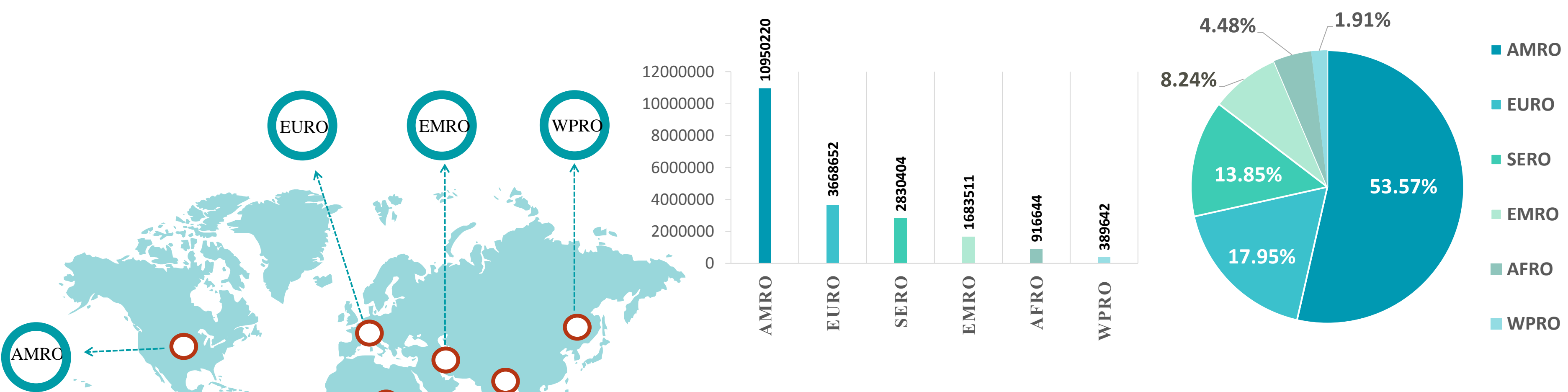
Figure 7B: Bar Chart Illustrates the Global Distribution of COVID19 Cases



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

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

INFECTED



DEATHS

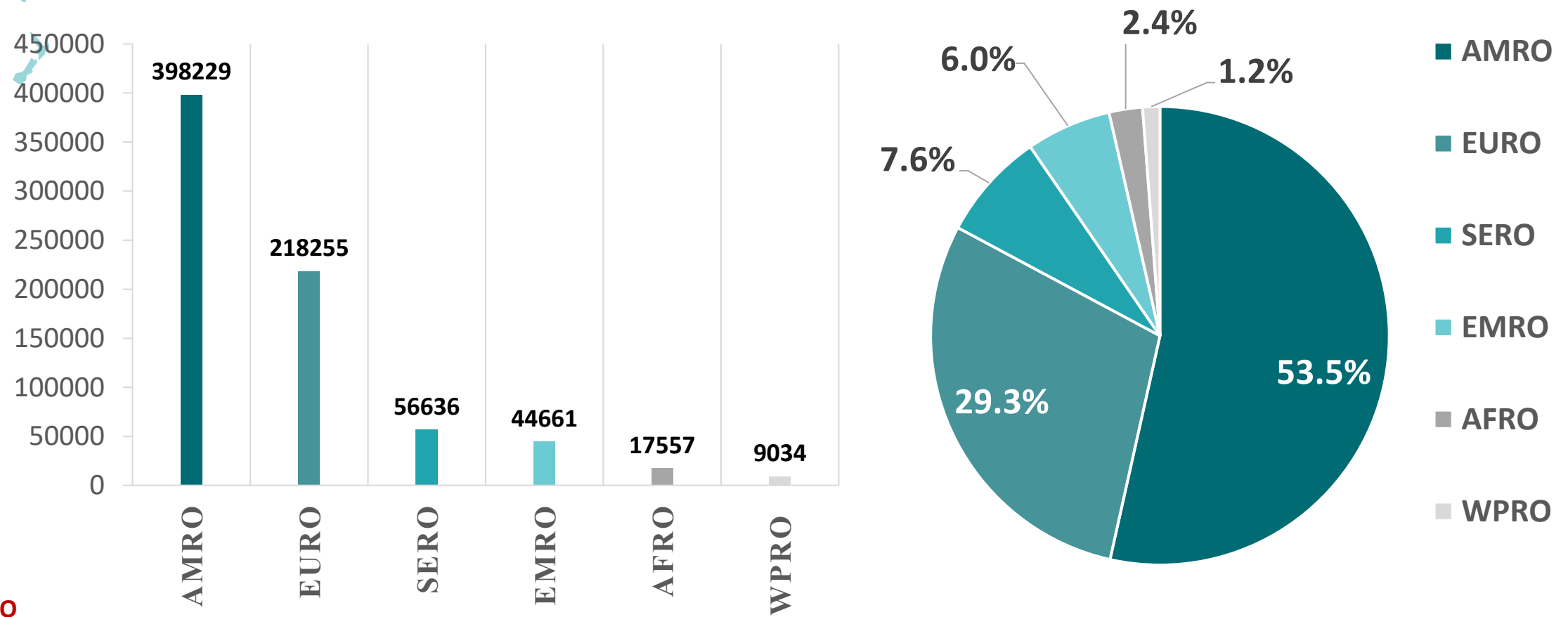
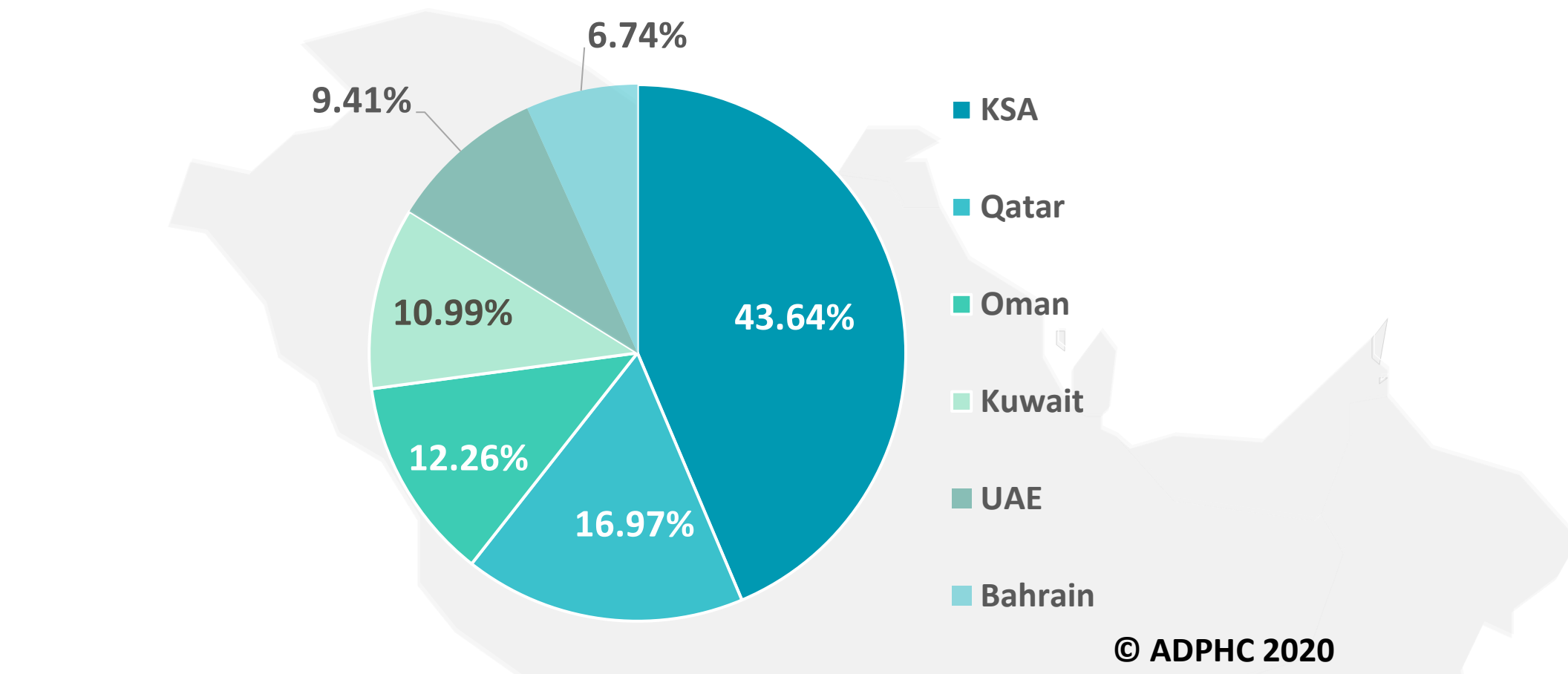
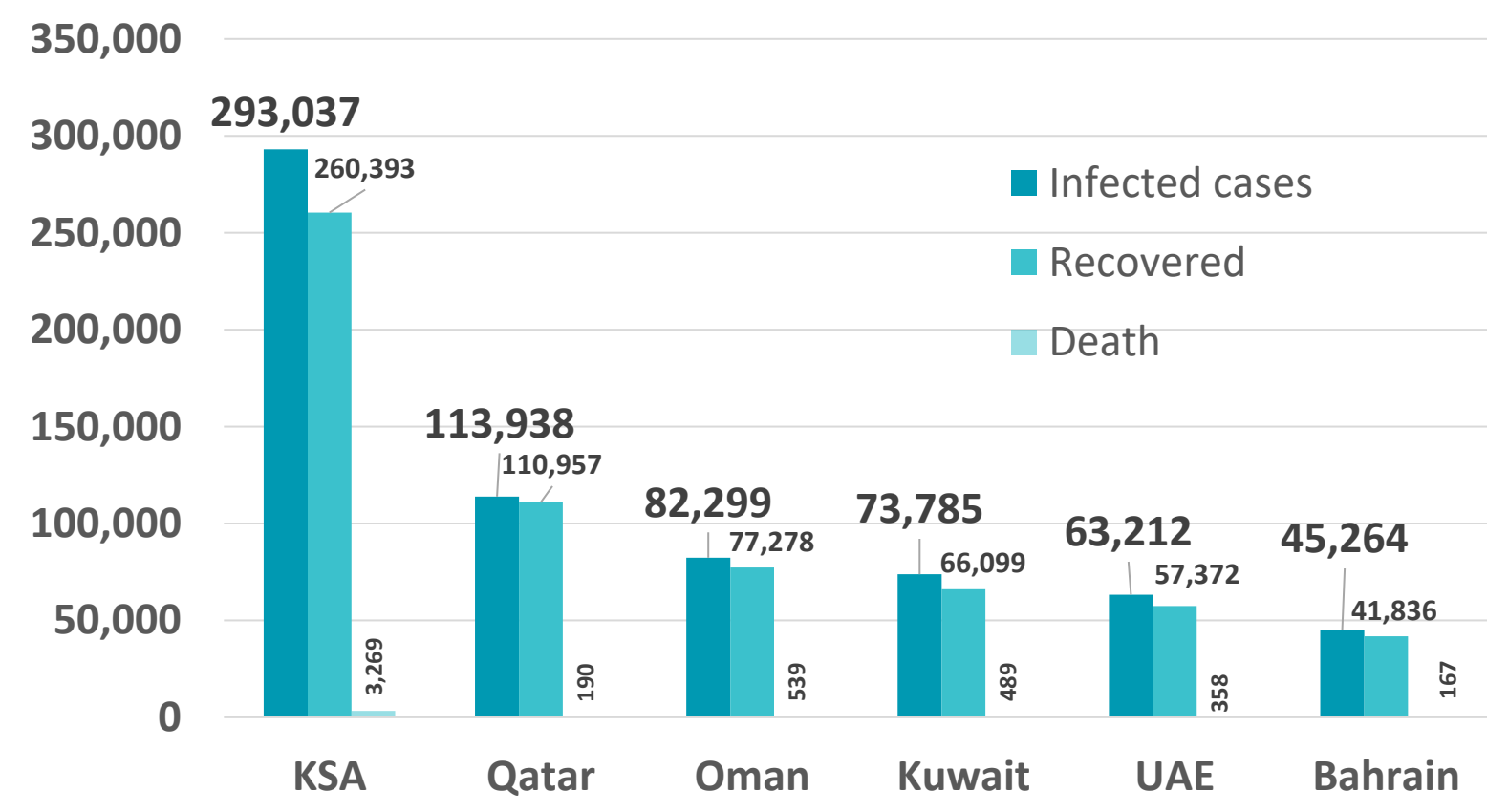


Figure 9: Comparative Analysis of the Distribution of COVID-19 Cases in GCC Countries

TOTAL NUMBER OF INFECTED CASES



TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



DEATHS PER MILLION

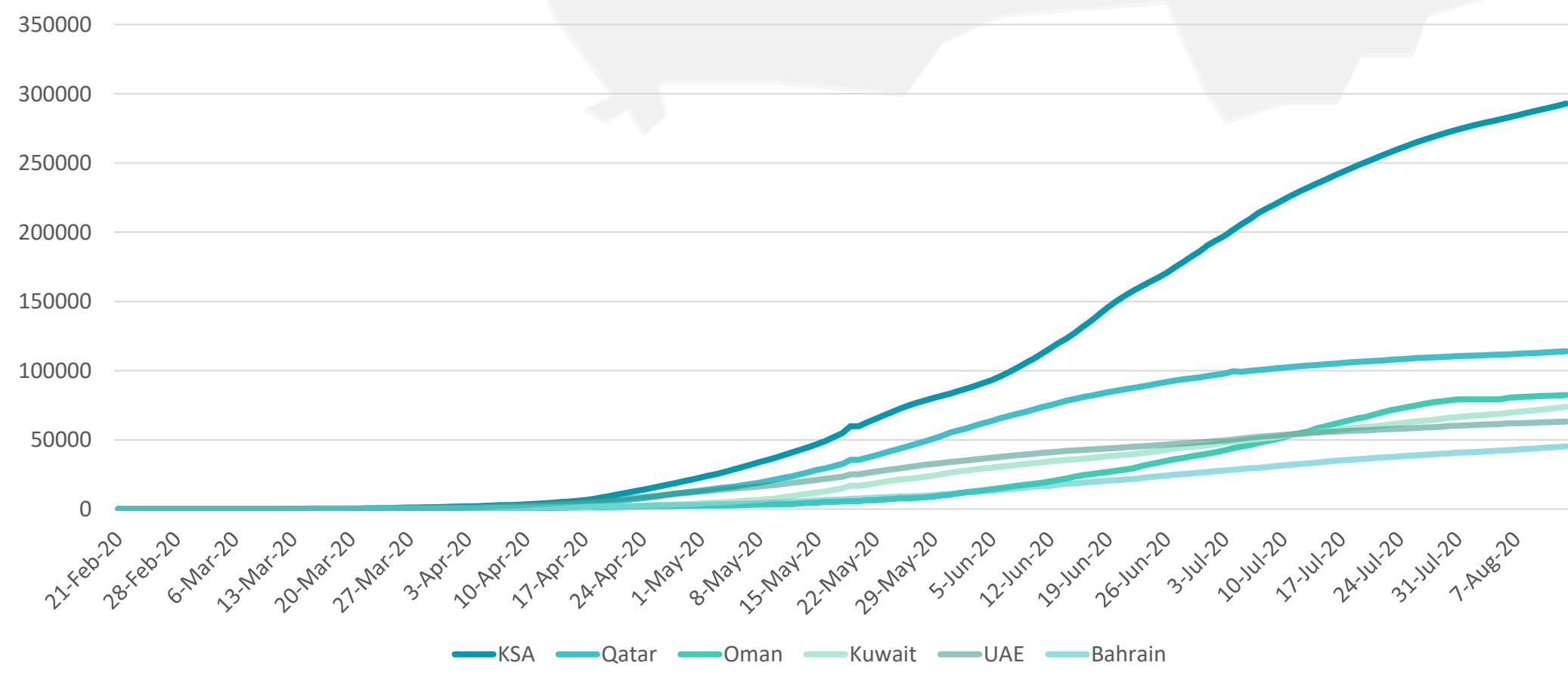
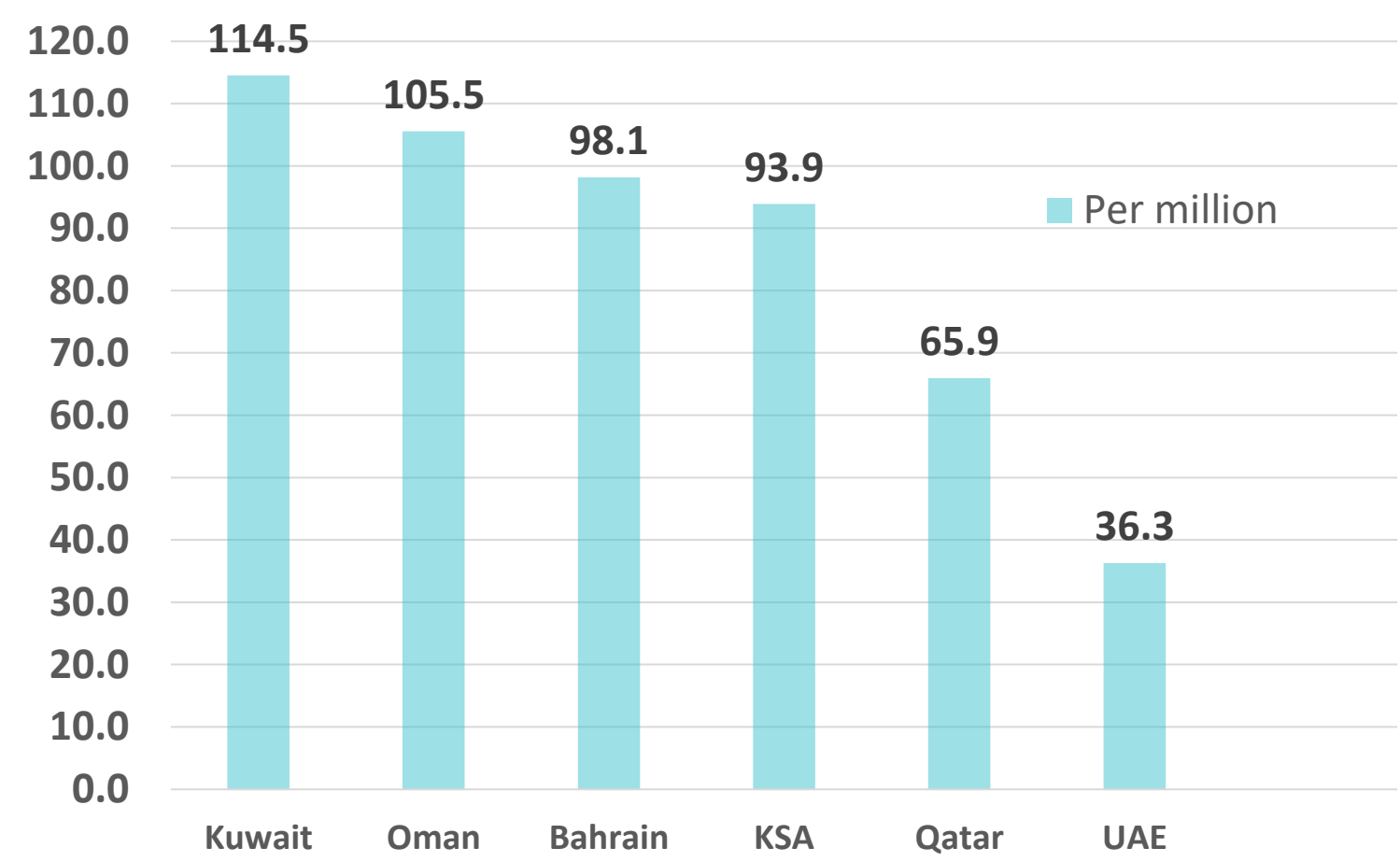


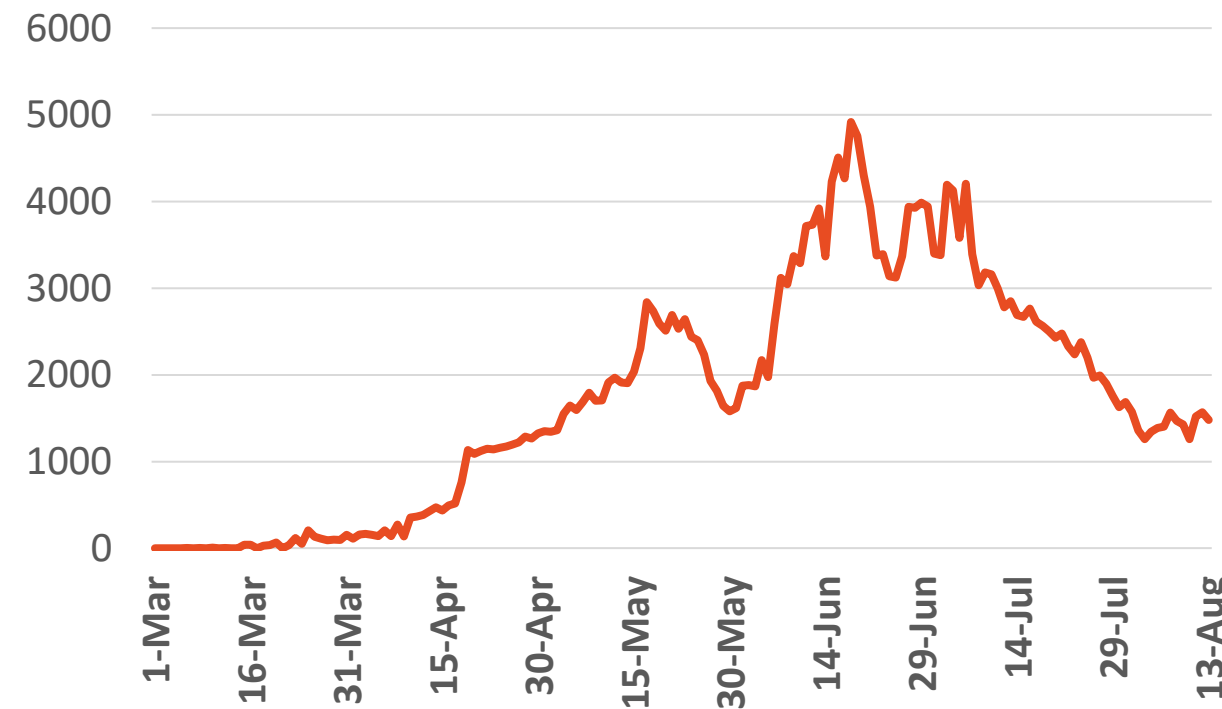
Figure 10: Comparative Analysis of the Distribution of COVID-19 New Cases in GCC Countries

UAE



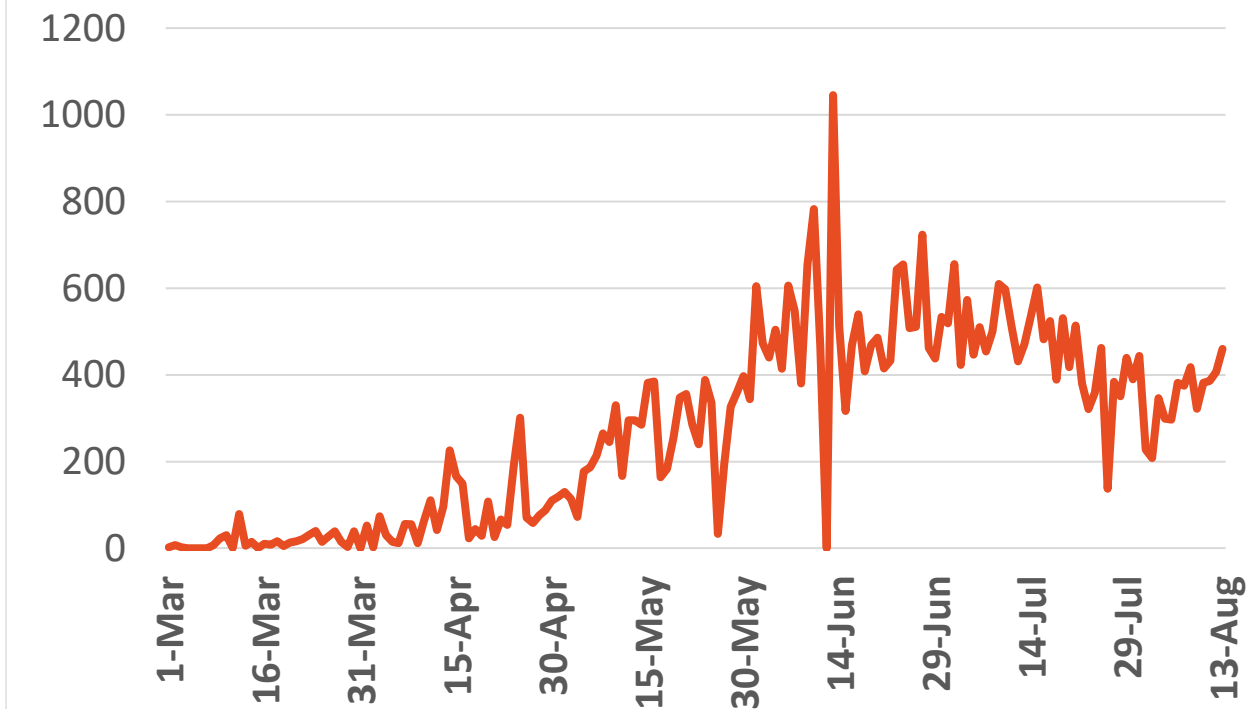
Source : National Emergency Crisis and Disaster Management Authority

KSA



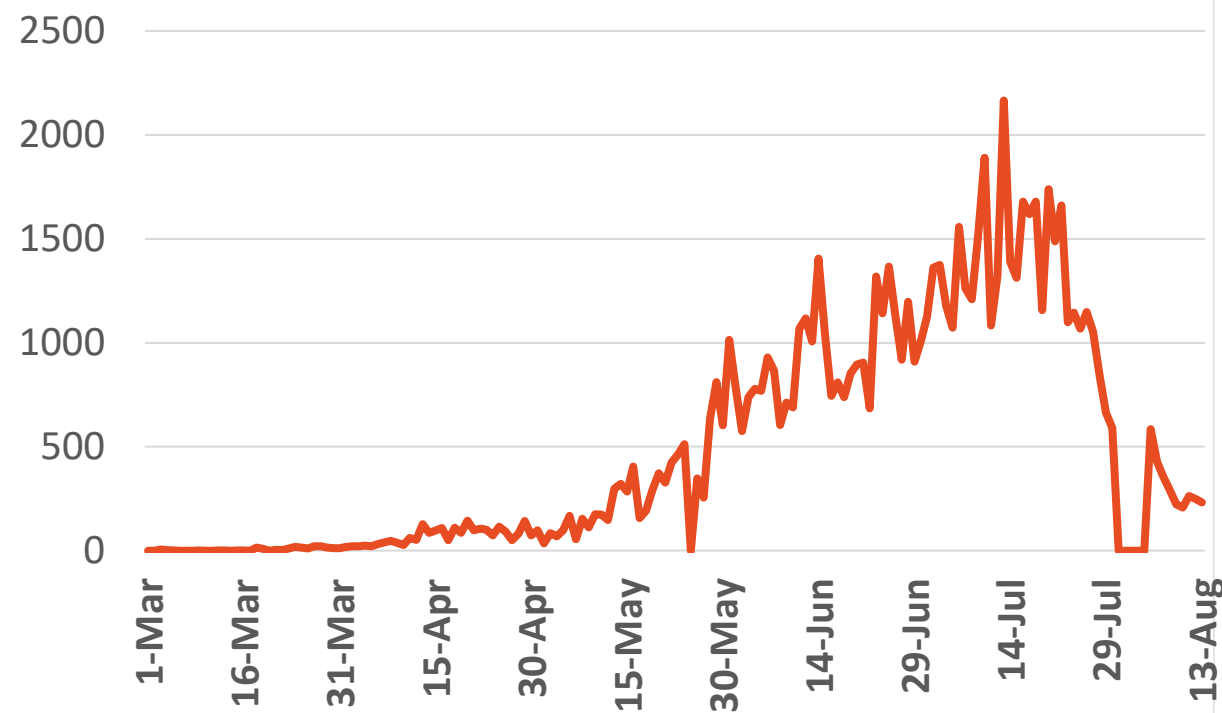
Source : KSA ministry of health

Bahrain



Source :WHO

Oman

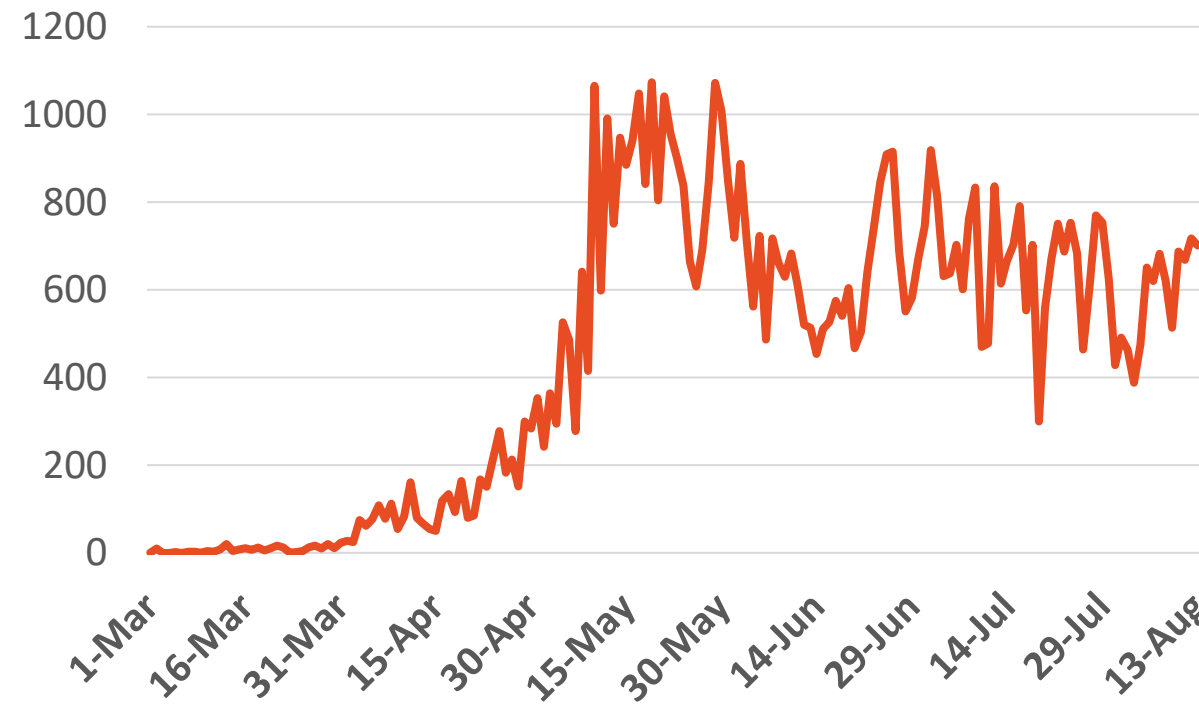


Source :Oman ministry of health

No announced statistic data from 31 July to 4 August

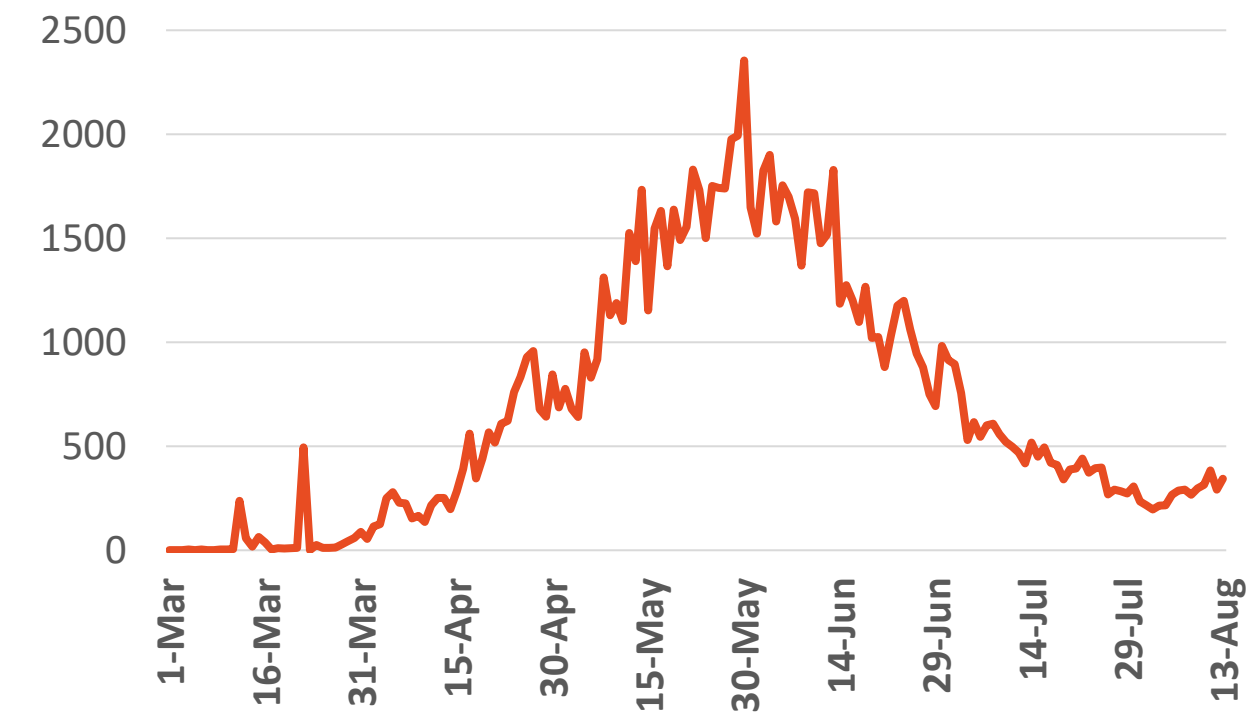
Kuwait

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Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health



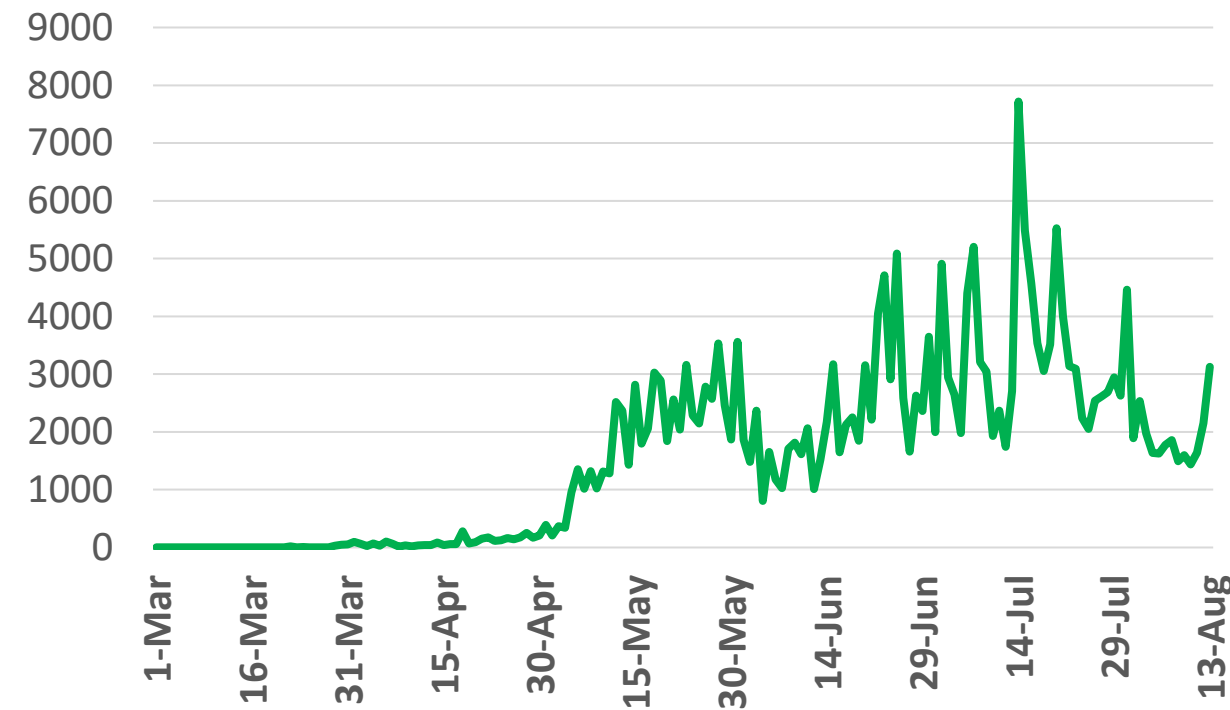
Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries

UAE



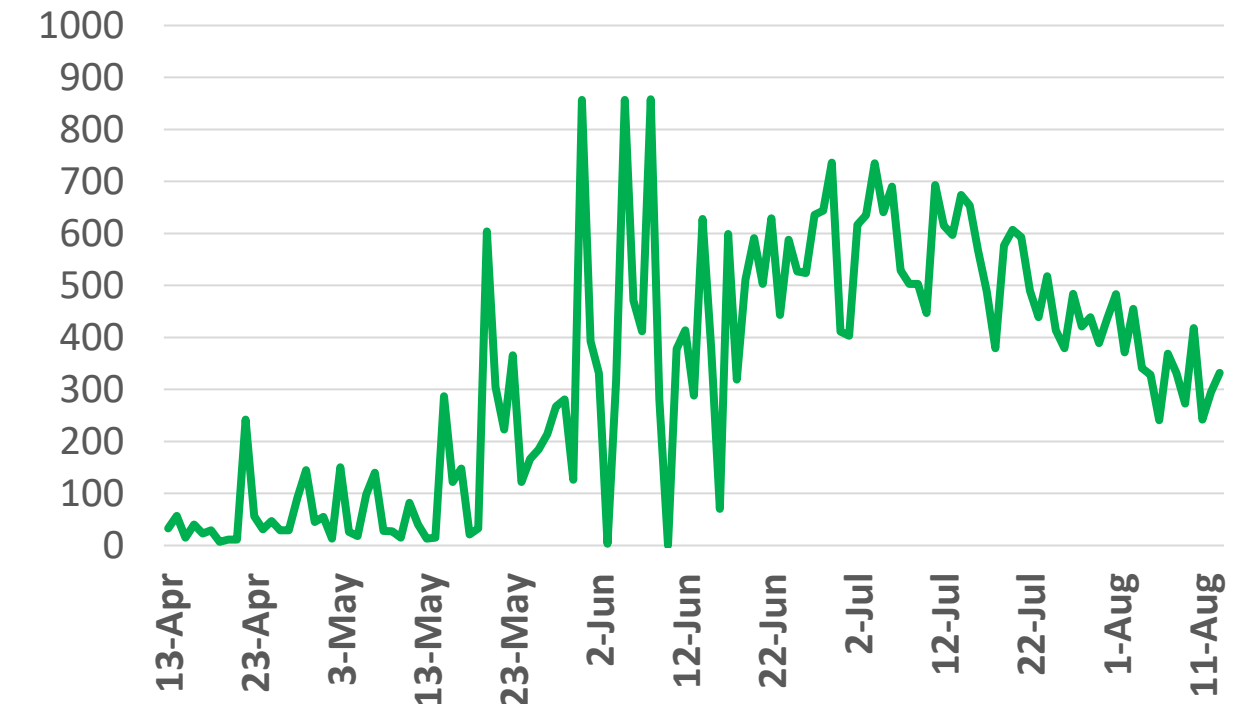
Source : [National Emergency Crisis and Disaster Management Authority](#)

KSA



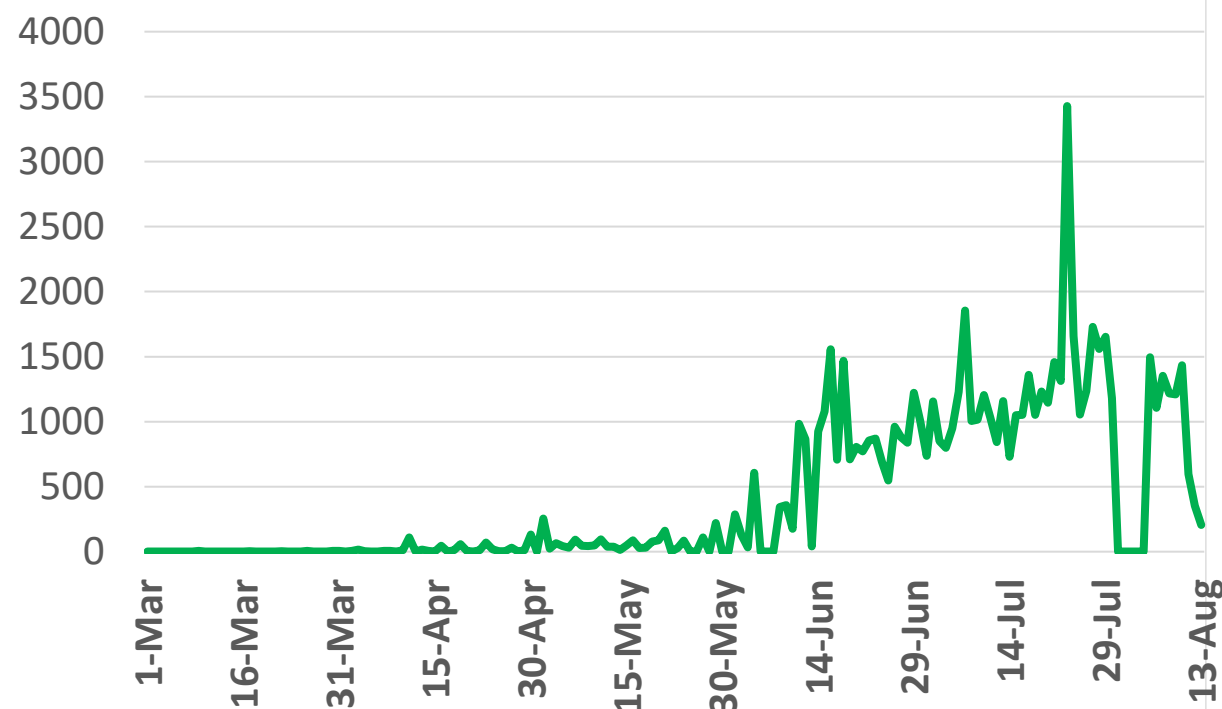
Source : [KSA ministry of health](#)

Bahrain



Source : [GCCStat](#)

Oman



Source : [Oman ministry of health](#)

*No announced statistic data from 31 July to 4 August

Kuwait

© ADPHC 2020



Source : [Kuwait ministry of health](#)

Qatar

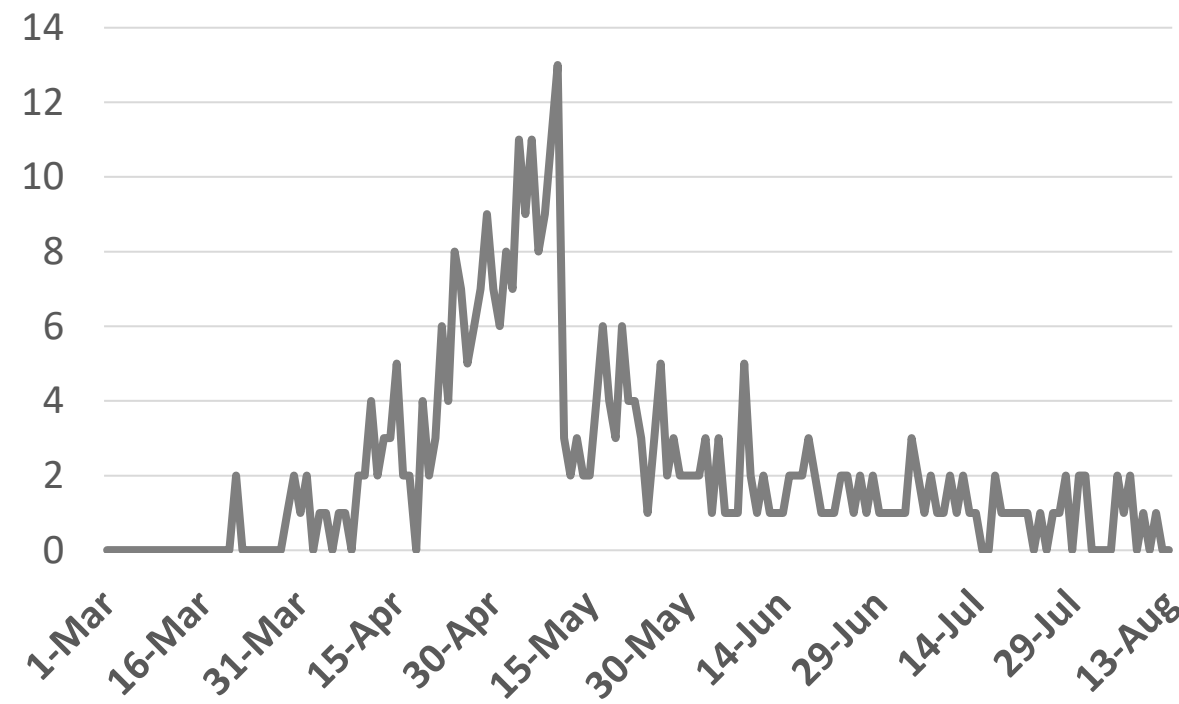


Source : [Qatar ministry of health](#)



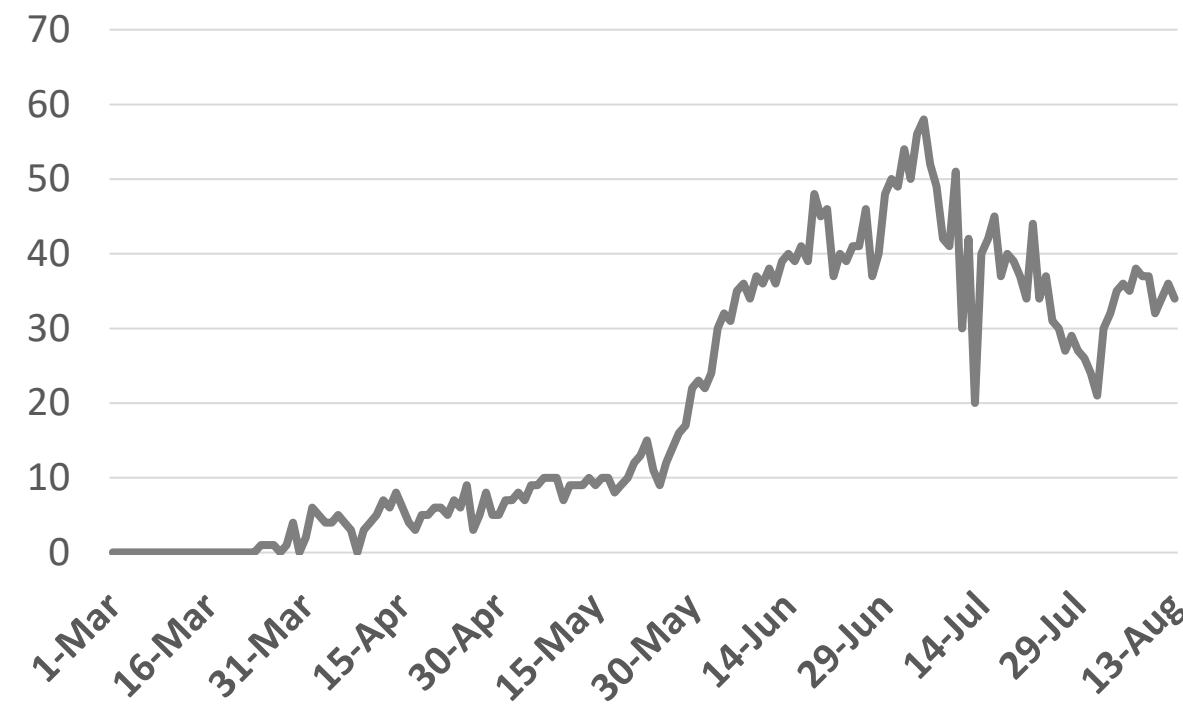
Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

UAE



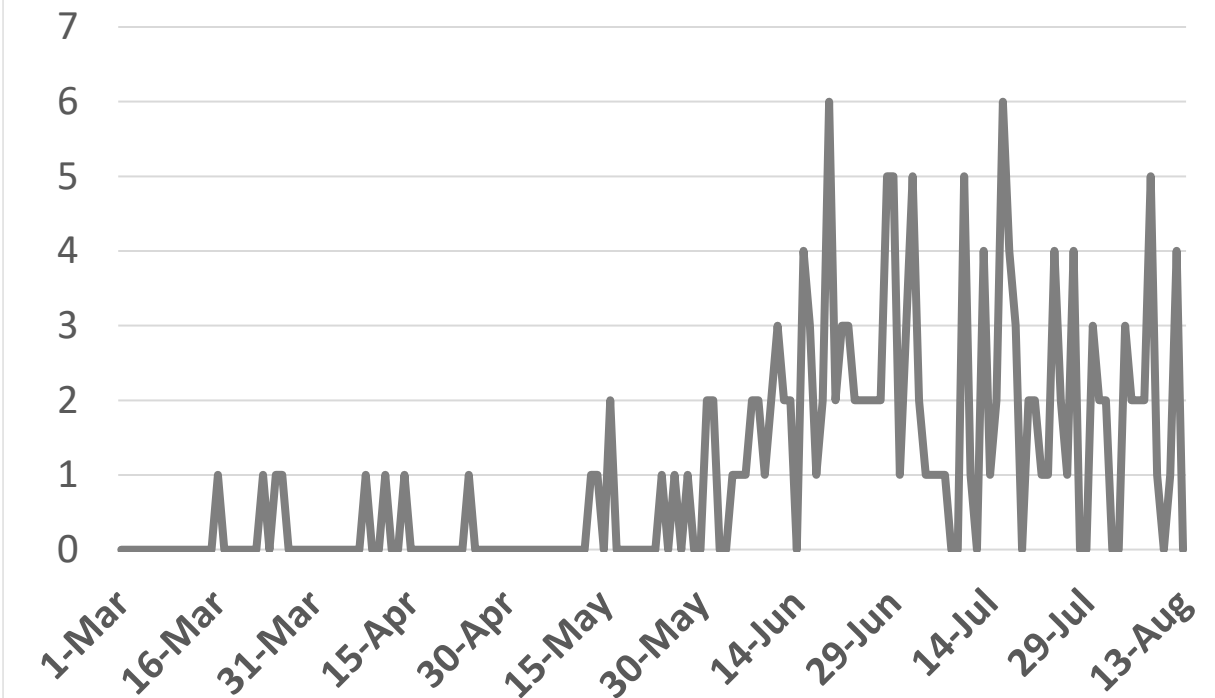
Source : National Emergency Crisis and Disaster Management Authority

KSA



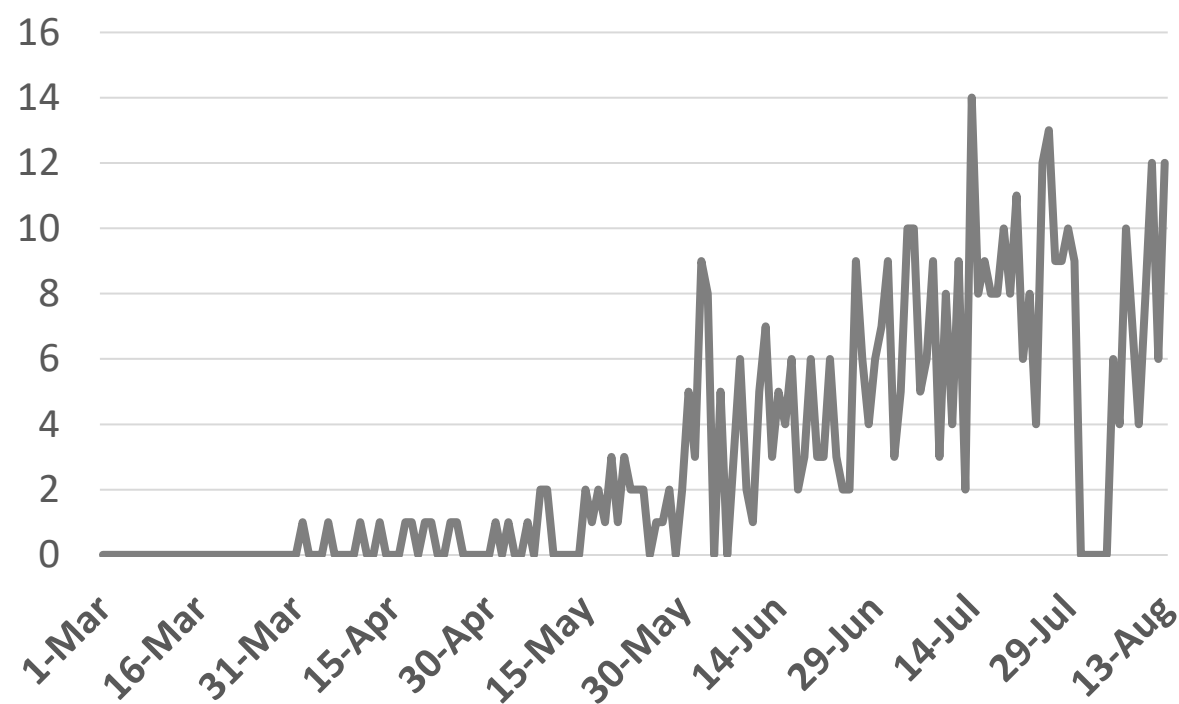
Source : KSA ministry of health

Bahrain



Source :WHO

Oman

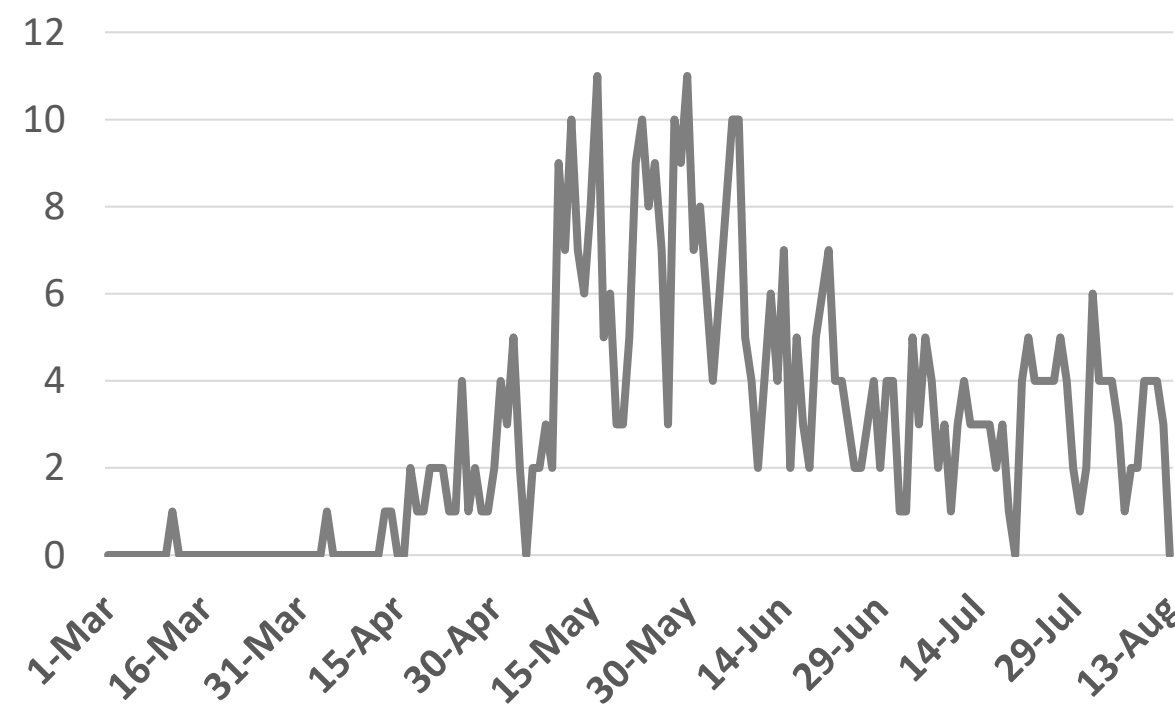


Source :Oman ministry of health

*No announced statistic data from 31 July to 4 August

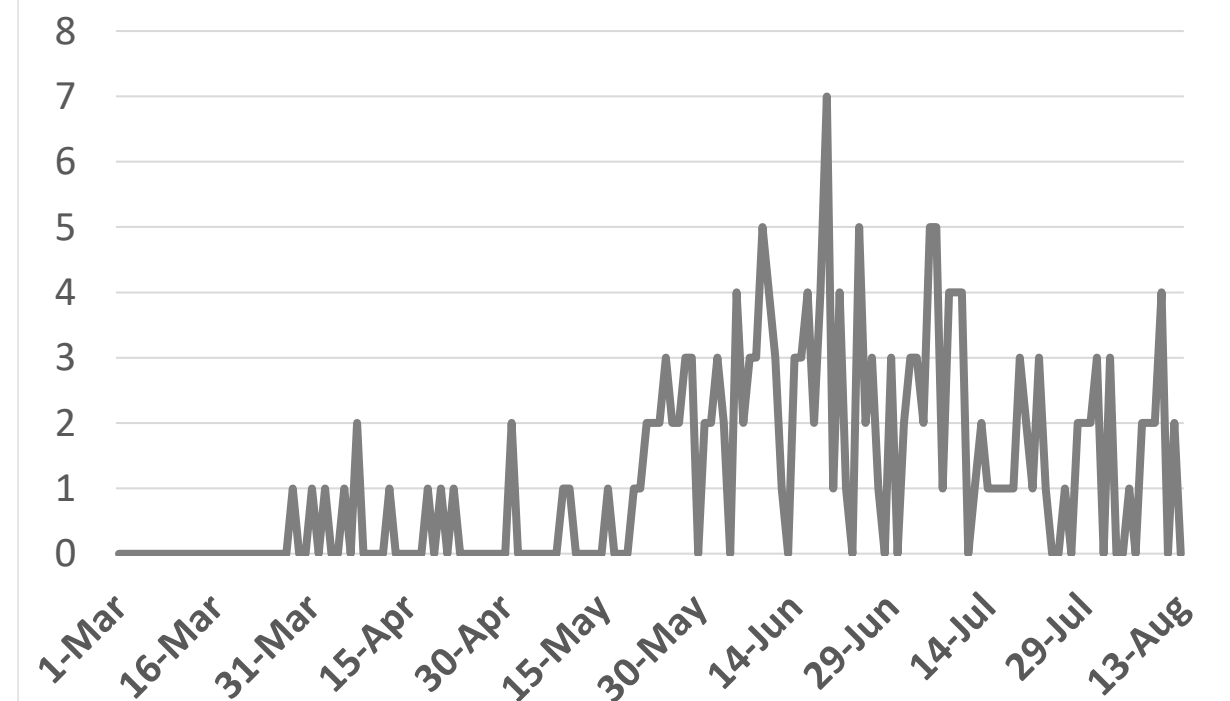
Kuwait

© ADPHC 2020



Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health



Article 1

Use of Facemasks During the COVID-19 Pandemic

Published

03 August 2020 [THE LANCET](#)

This update incorporates recent evidence to inform 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 2 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.

- Systematic reviews showed that wearing face masks decreased relative risk of infection with betacoronavirus (COVID-19) virus by 6-80%. This inconsistency was stated due to different inclusion and exclusion criteria of the studies.
- The authors say that this result is of low certainty since these studies were observational studies with many biases or indirect results from studies on other viruses.
- Medical masks studies have shown positive effects of wearing face masks in addition to cloth masks with a limitation of these results being from observational and droplet studies.
- WHO recommends people with symptoms and the susceptible population.
- The authors emphasized that wearing face masks should not replace the risk mitigation approaches such as social distancing but might be beneficial in reducing infection rates.
- The authors concluded that policies regarding the wear of face masks should be dependent on the pandemic situation in a specific geographical area.



Article 2 Prevalence of SARS-CoV-2 Antibodies in Health Care Personnel in the New York City Area

Published

06 August 2020 [JAMA](#)

This study investigated the prevalence of antibodies against SARS-CoV-2 among health care personnel.

Background

- Health care personnel (HCP) working in New York City, which has a high incidence of Covid-19, have a high exposure risk.
- Therefore, it is important to regularly test the HCP so that infection spread to patients, other HCP, and their families can be minimized.

Methodology

- From April 20, 2020, to June 23, 2020, all HCP from Northwell Health System, the largest in New York State, were offered free, voluntary antibody testing, regardless of symptoms, at 52 sites in the greater NYC area.
- HCP reported demographics, primary work location, job function, direct patient care, work on a COVID or non-COVID unit, and their level of suspicion of virus exposure: “Do you believe you were infected with Covid-19?” (range, 1-9; 1 = no; 9 = yes definitely; 7-9 = high suspicion).
- A total of 40,329 HCP (median age, 42 years) were included in the study.

Conclusion

- Overall, 5523 of 40,329 (13.7%) were seropositive.
- Of 6078, with previous PCR testing, 2186 (34.8%) were PCR positive.
- Of these PCR-positive HCP, 2044 (93.5%) were also seropositive, leaving 142 (6.5%) with negative antibody test results.
- Of the 3892 PCR-negative HCP, 3490 (89.7%) were also seronegative.
- Of 34,251 with no PCR testing, 3077 (9.0%) were seropositive.

Public Health Message

- Providing HCP with data about their SARS-CoV-2 virus exposure is important so they can protect themselves, their patients, their colleagues, and their families.
- High levels of HCP-reported suspicion of virus exposure may be useful as an indication for SARS-CoV-2 testing.



Article 3

Weighing the Benefits and Risks of Proliferating Observational Treatment

Published

Assessments: Observational Cacophony, Randomized Harmony

31 July 2020 [JAMA](#)

This viewpoint discusses the potential benefits and harms of using results of epidemiological/observational studies for clinical decision making.

Question: Are the benefits and risks of potential therapeutics from nonrandomized studies are providing insights that improve clinical knowledge and accelerate the search for needed answers, or whether these reports simply add noise, confusion, and false confidence?

Answer: Yes and No -

Yes: If well done, the benefits of these studies are obvious:

- By sifting potential treatments and measuring outcomes and safety signals, qualified investigators and funding agencies can choose the most promising therapies for testing in rigorous RCTs.
- Sample sizes and expected event rates can be calculated, and communities and health care systems with relevant patient populations identified.

No: The risks, however, are also clear:

- Aggregating information about diagnosis, comorbidities, treatment, and outcomes can lend a patina of technical excellence that obscures the influence of systematic bias (patients who receive a given treatment are not the same as those who do not), leading to erroneous estimates of treatment effects.
- Profit motives in the medical products industry, academic hubris, interests related to increasing the valuation of data platforms, and revenue generated by billing for these products in care delivery.
- The ‘positive or negative claims’ made by investigators which are not fully supported by their own study methods often are taken up by traditional media and further amplified on social media.
- Politicians have been directly involved in discourse about treatments they assert are effective.

