

SCIENTIFIC RESEARCH MONITORING ON COVID-19

9 OCTOBER 2020

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SCIENTIFIC RESEARCH MONITORING ON COVID-19

(ISSUE 250)

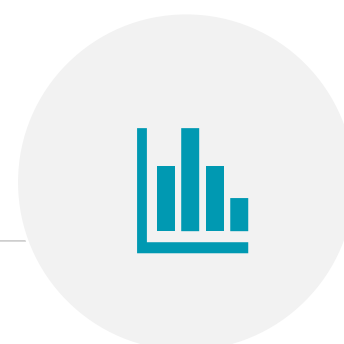


Abu Dhabi Public Health Center (ADPHC) is gathering the latest scientific research updates and trends on coronavirus disease (COVID-19) in a daily report. The report provides summaries on breakthrough or updated research on COVID-19 to allow health care professionals and public health professionals get easy and fast access to information.

Click on icon to view content



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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Diagnosis

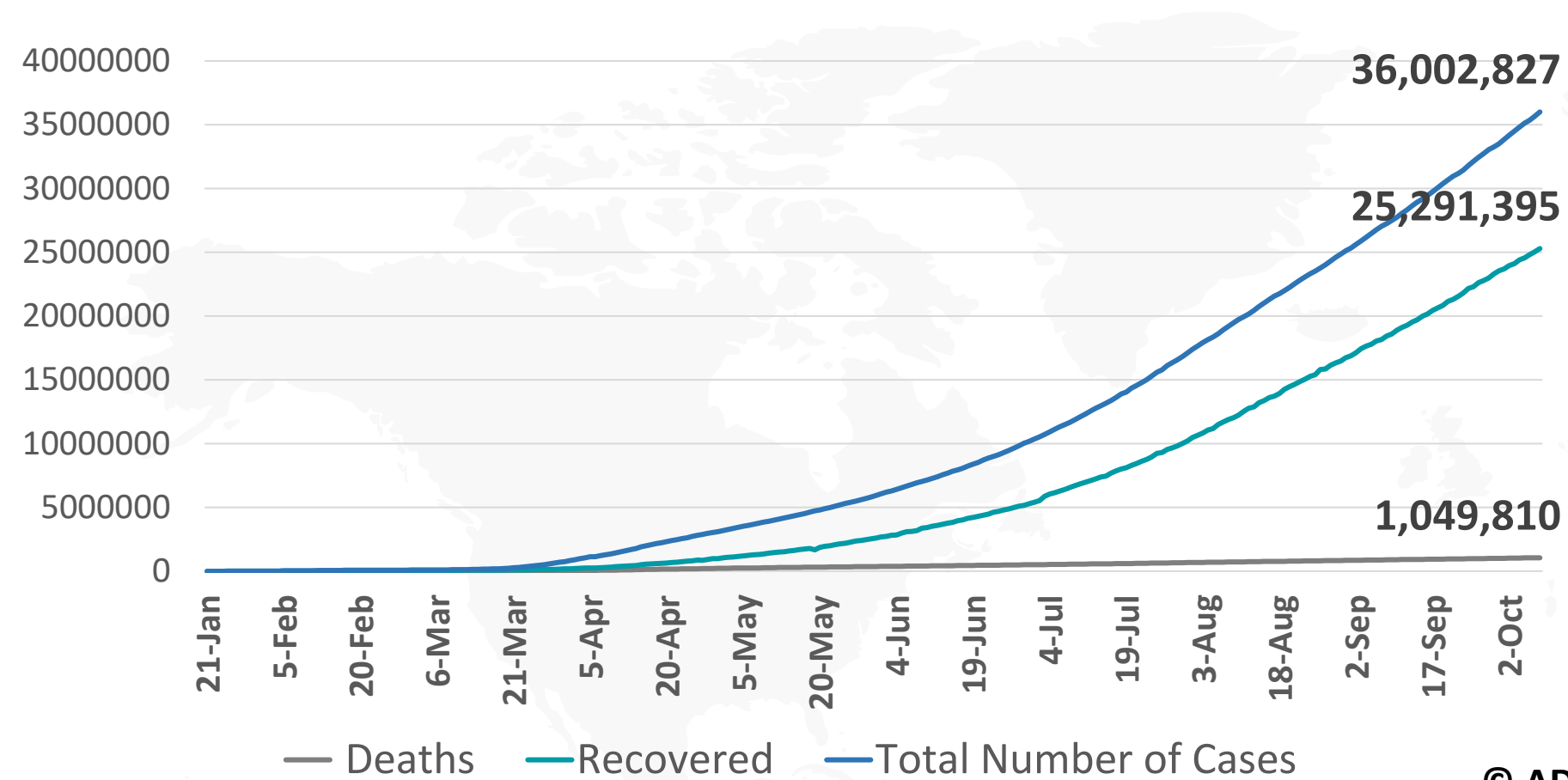
Rethinking Covid-19 Test Sensitivity - A Strategy for Containment

Clinical Feature

US Adults' Preferences for Public Allocation of a Vaccine for Coronavirus Disease 2019



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)

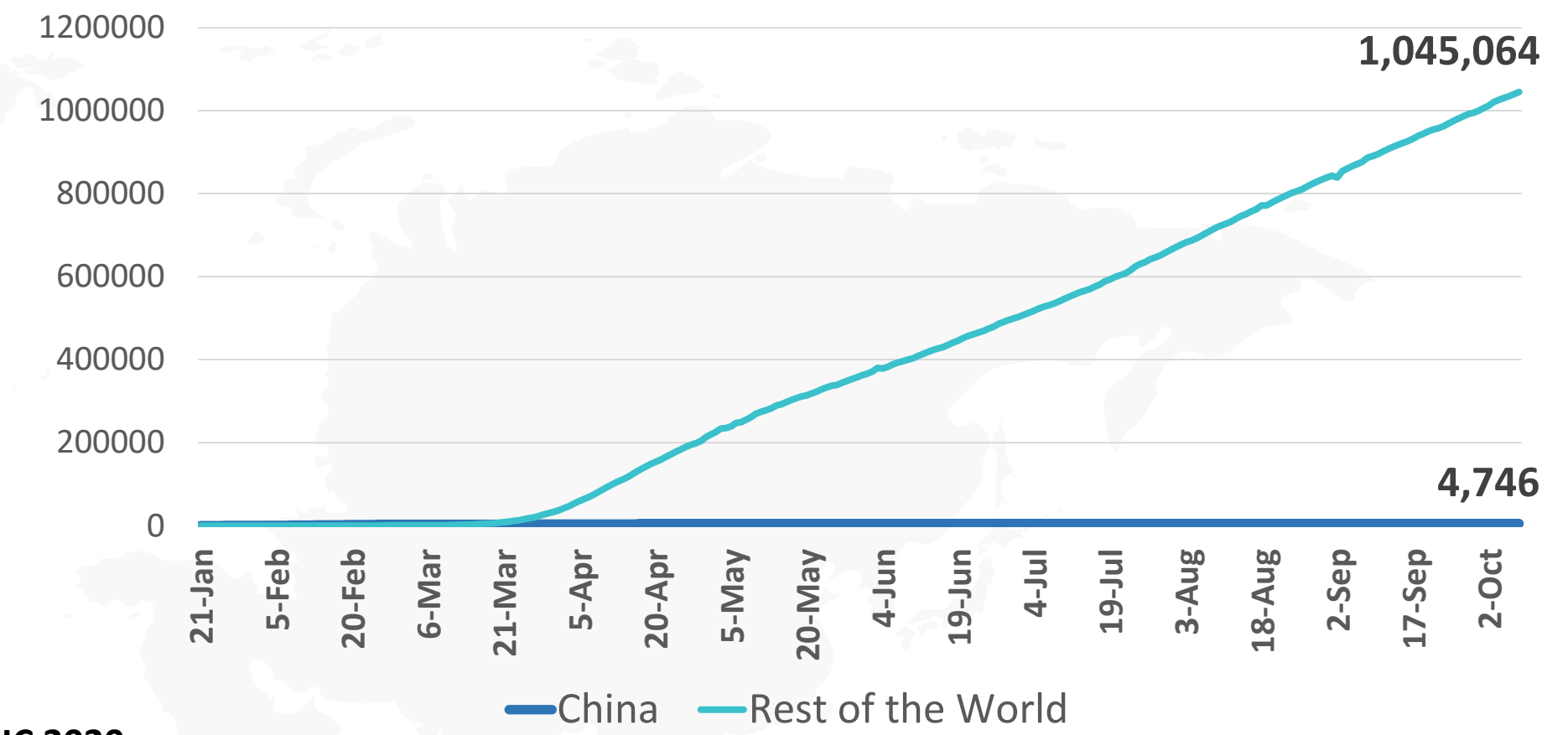


Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)

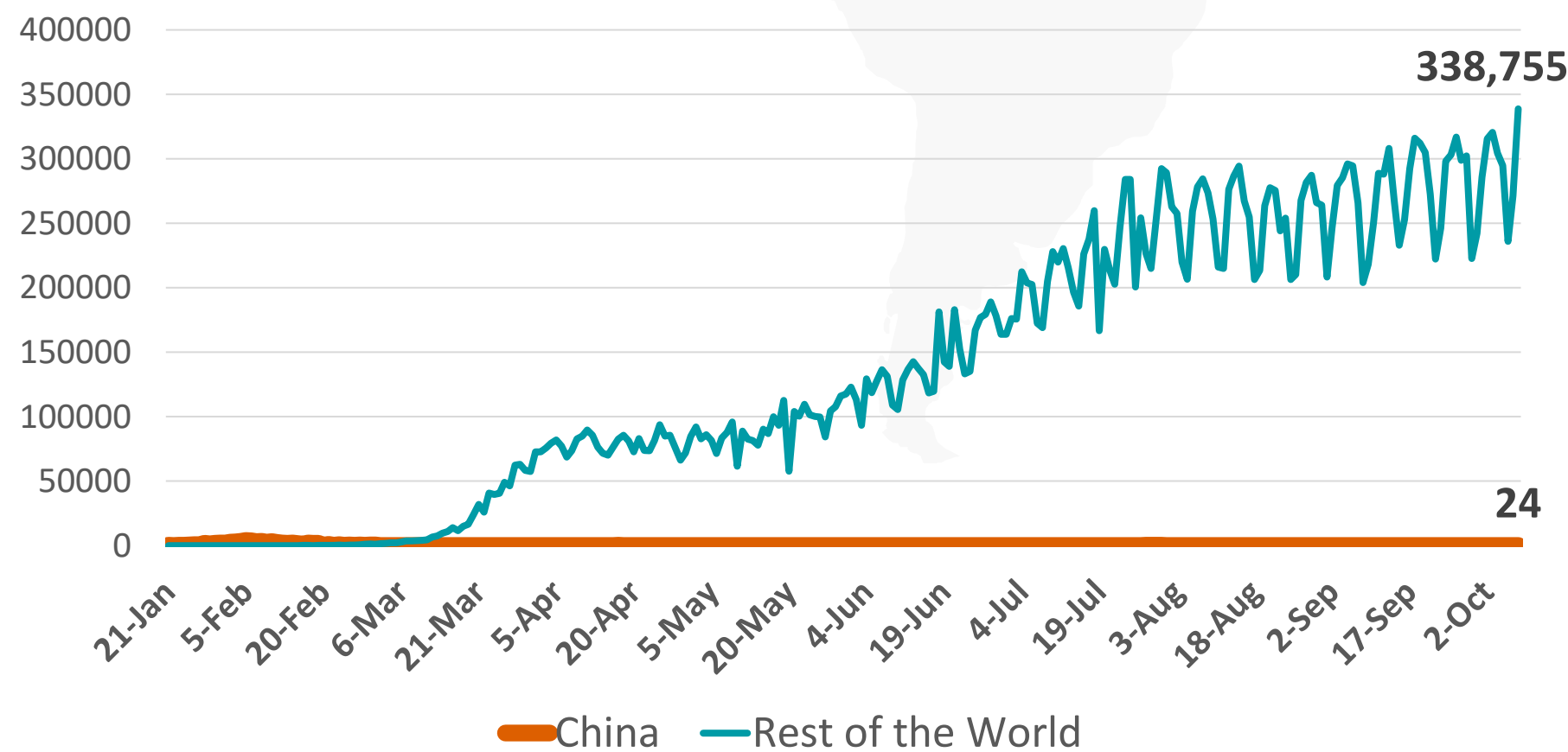


Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)

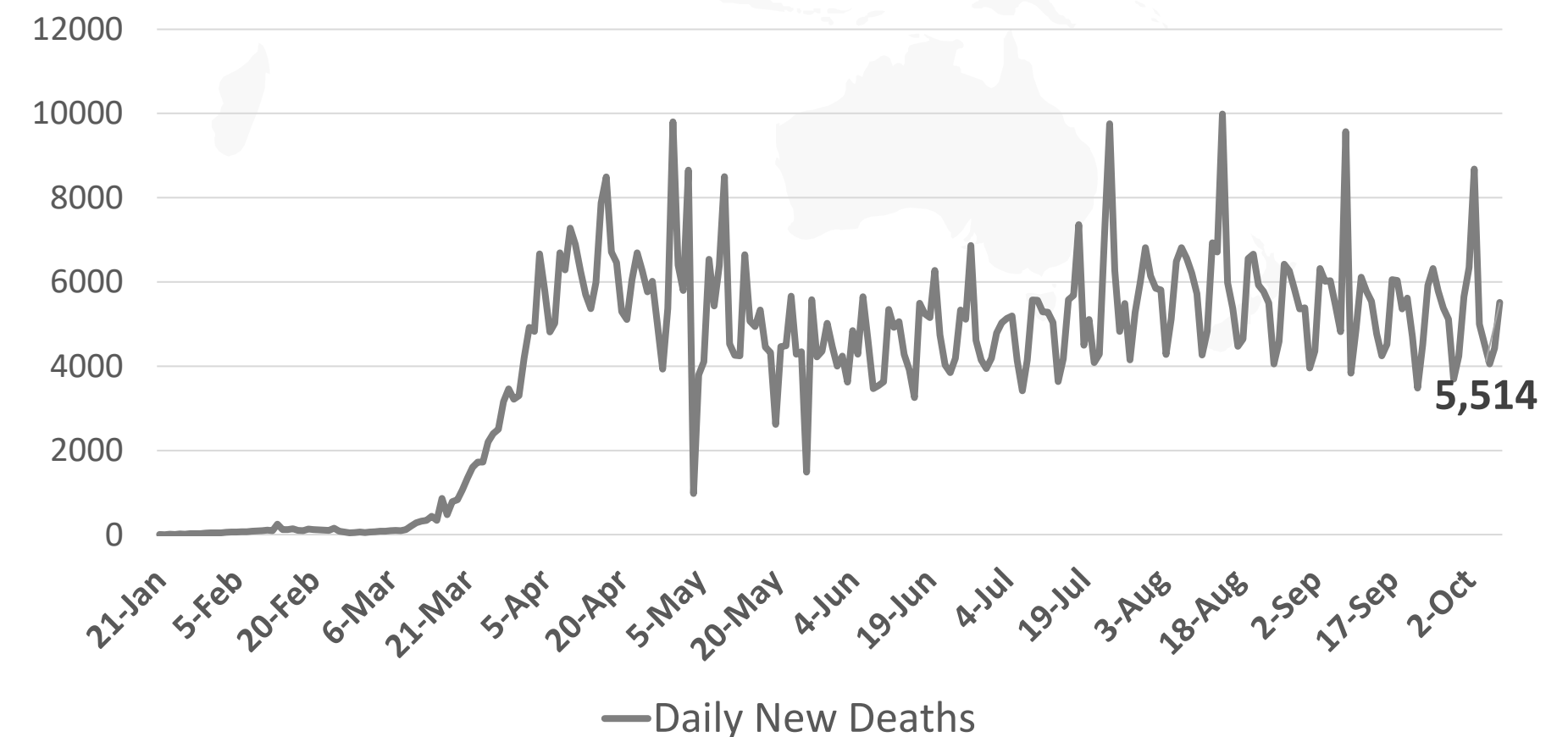
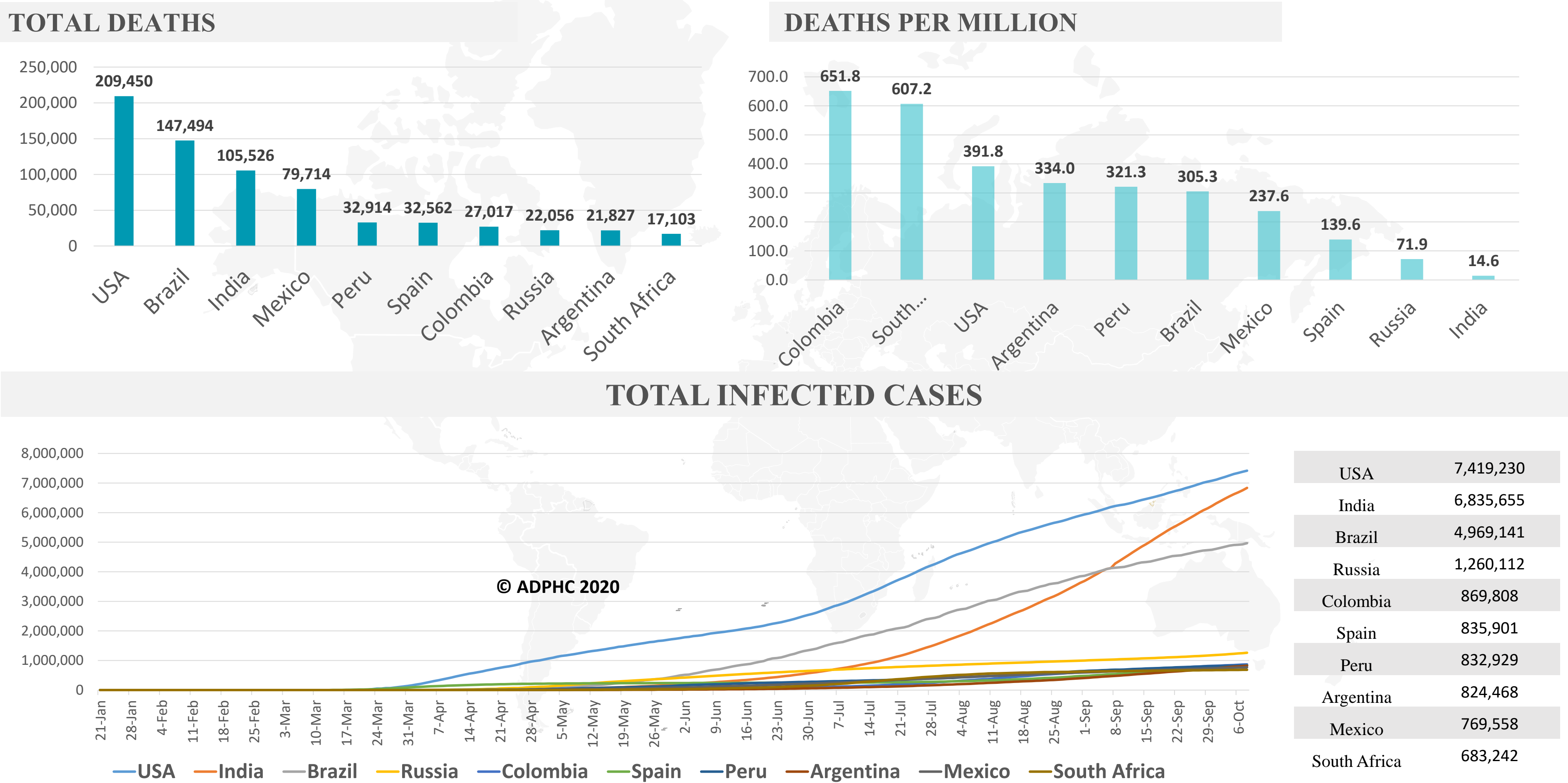


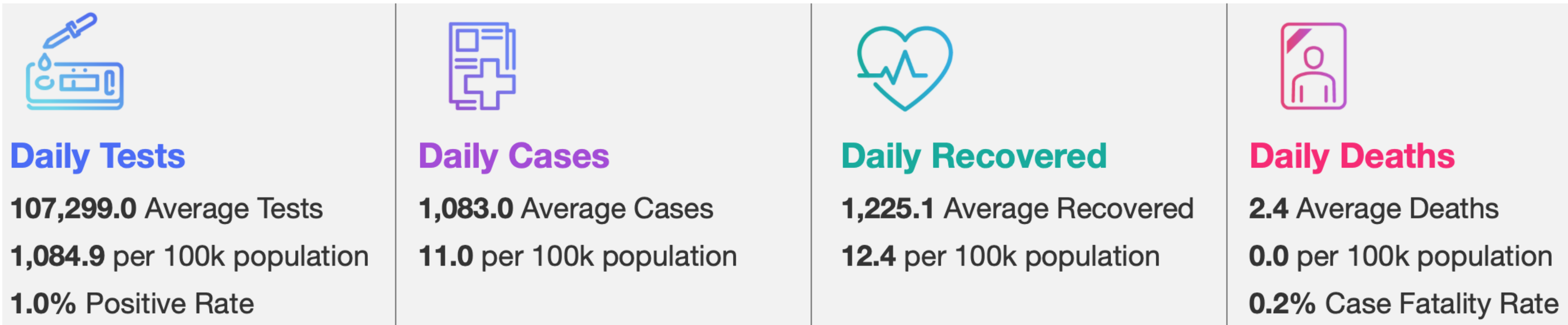
Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19



USA	7,419,230
India	6,835,655
Brazil	4,969,141
Russia	1,260,112
Colombia	869,808
Spain	835,901
Peru	832,929
Argentina	824,468
Mexico	769,558
South Africa	683,242



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

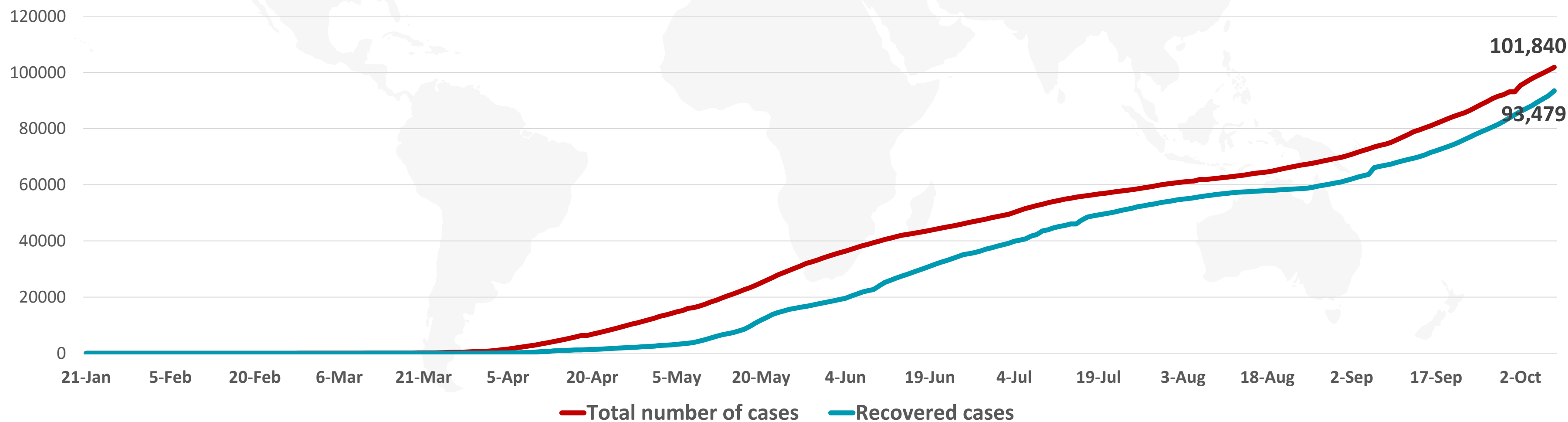
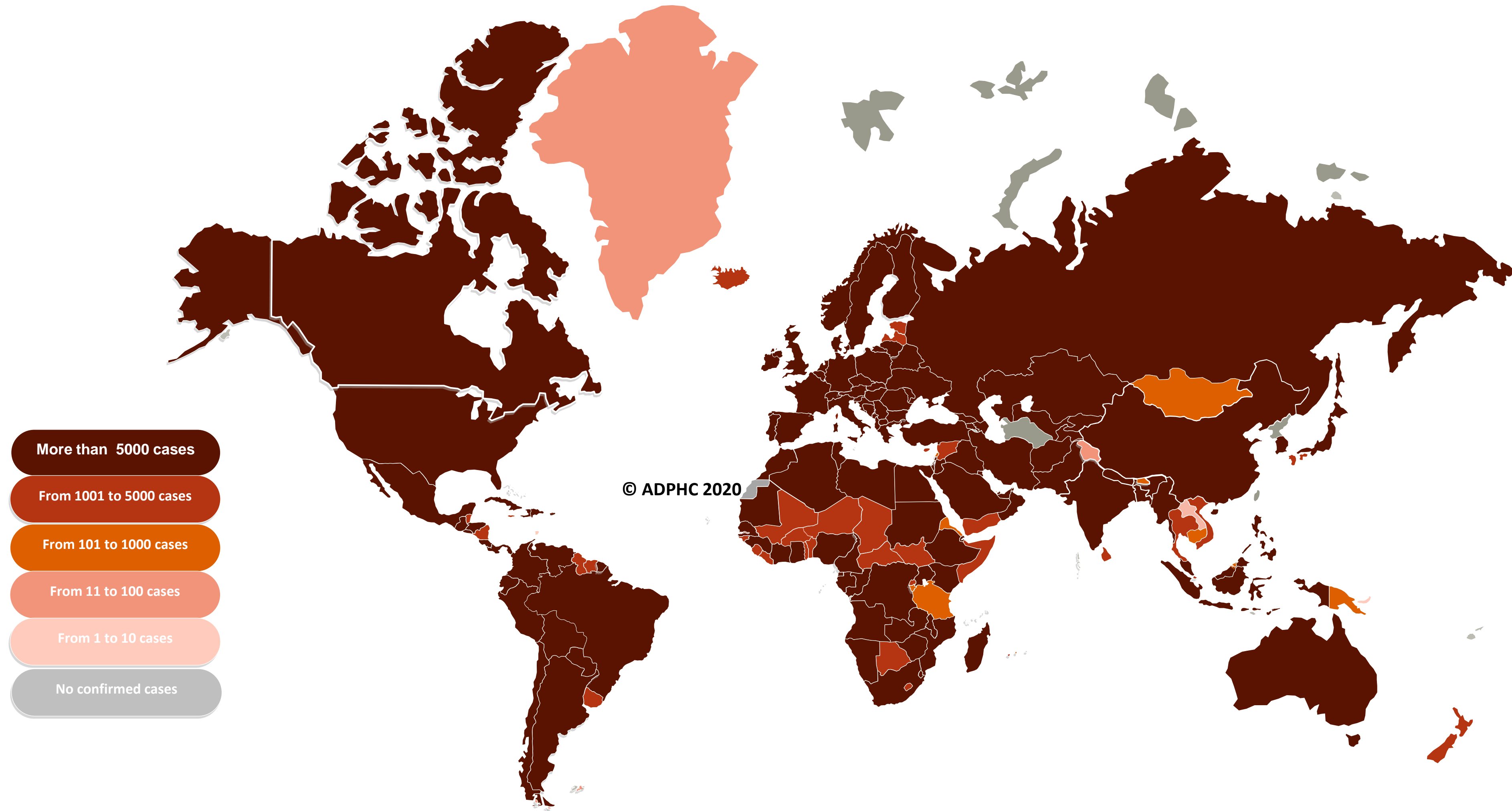


Figure 7A : Global Distribution of COVID-19 Cases



More than 5000 cases

From 1001 to 5000 cases

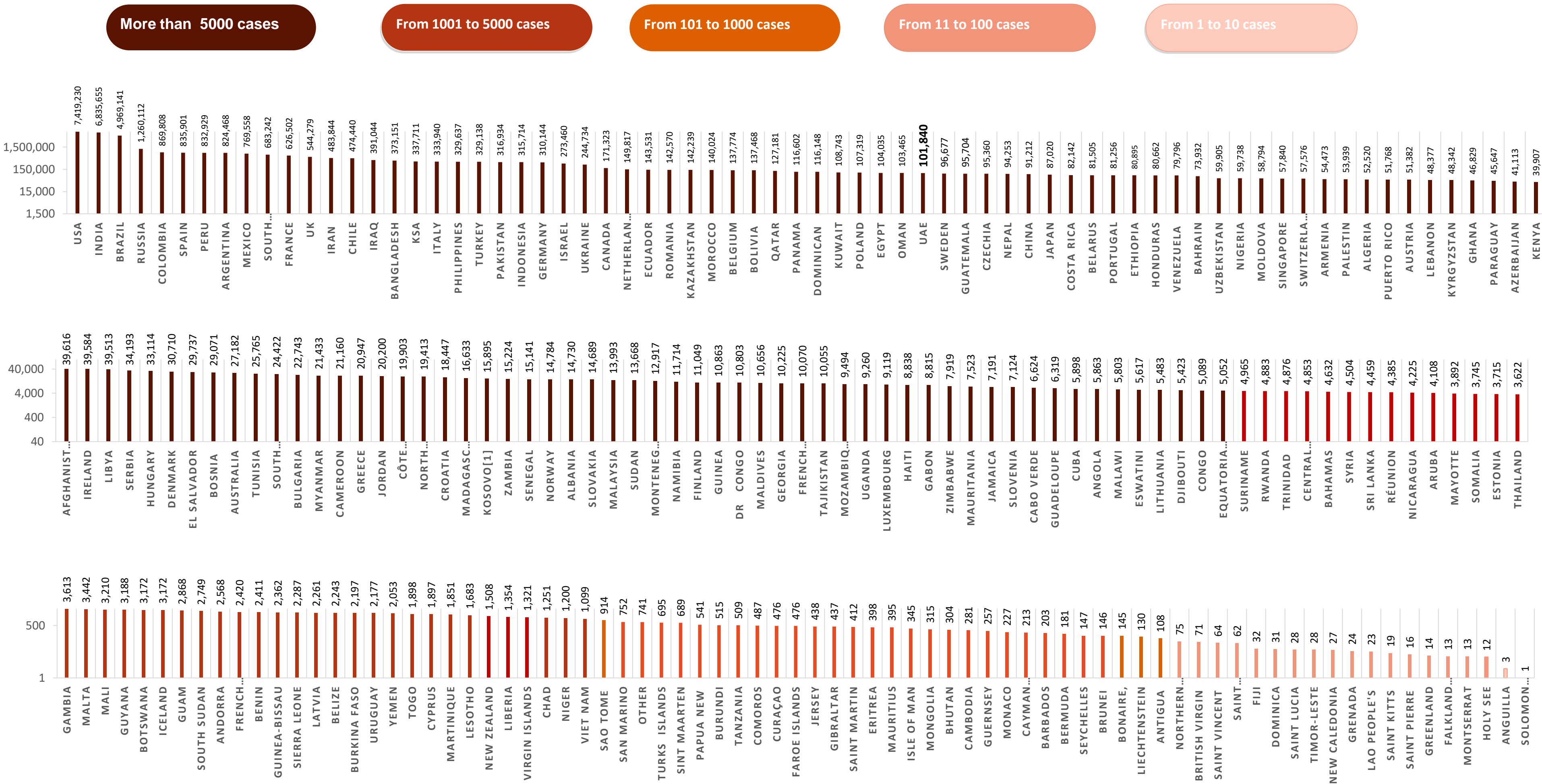
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

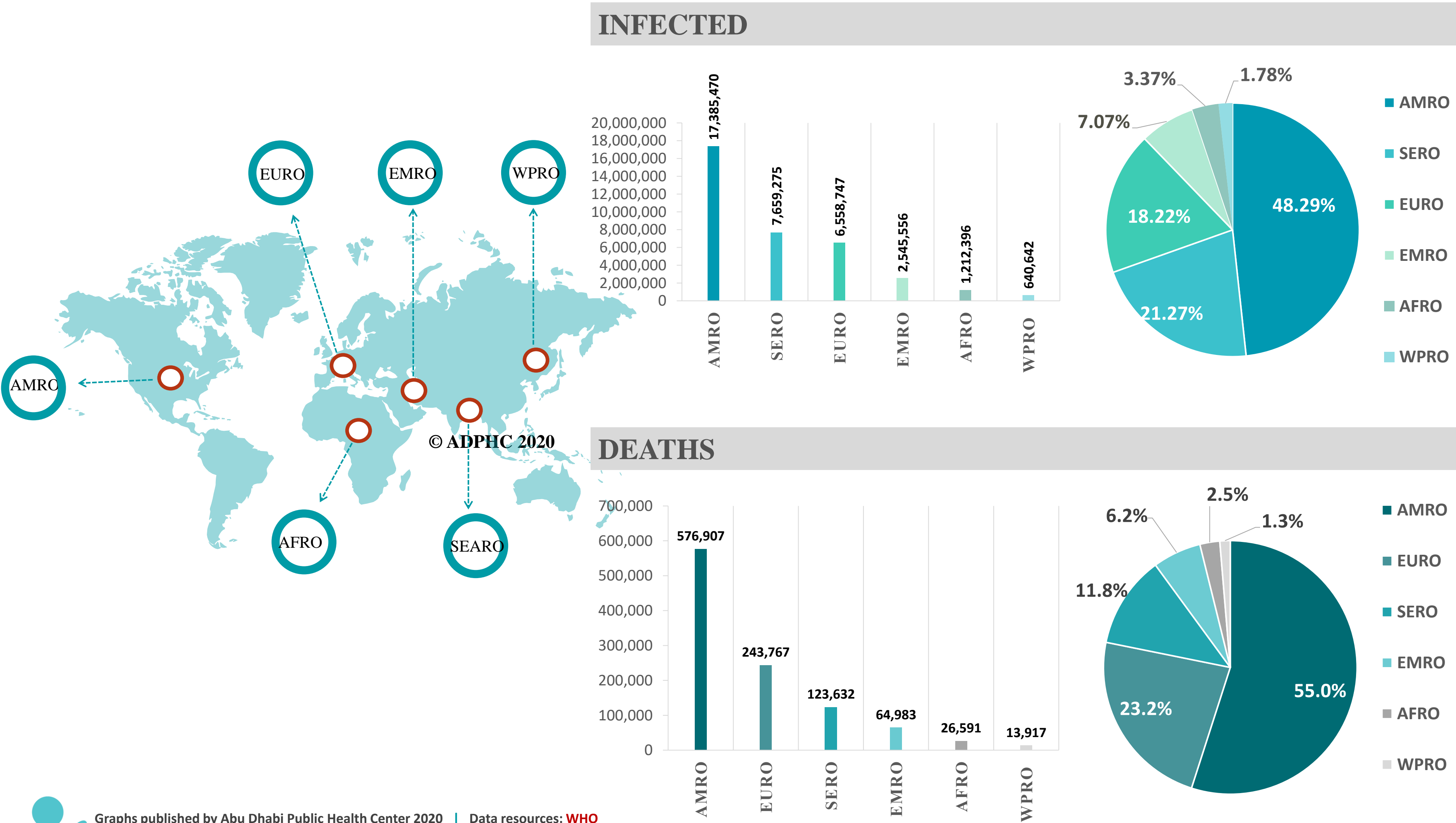
Figure 7B: Bar Chart Illustrates the Global Distribution of COVID19 Cases



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



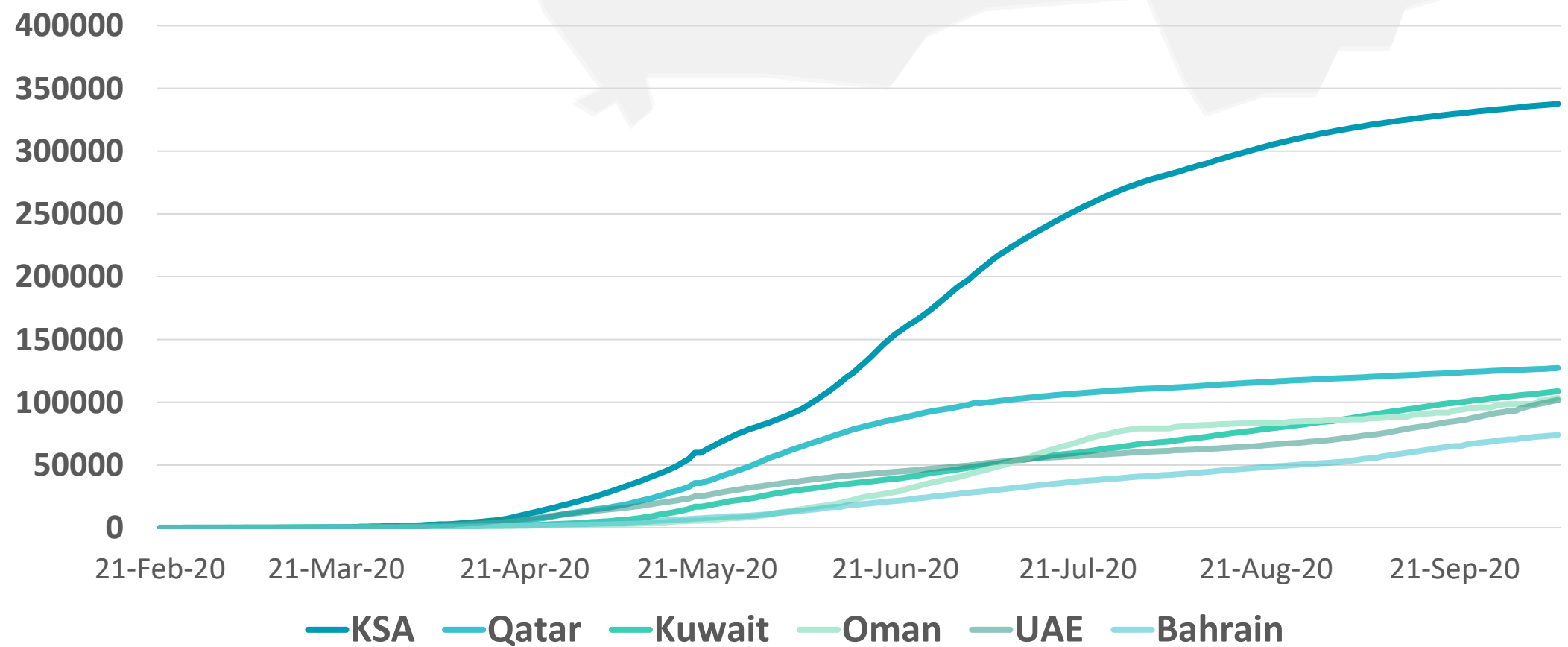
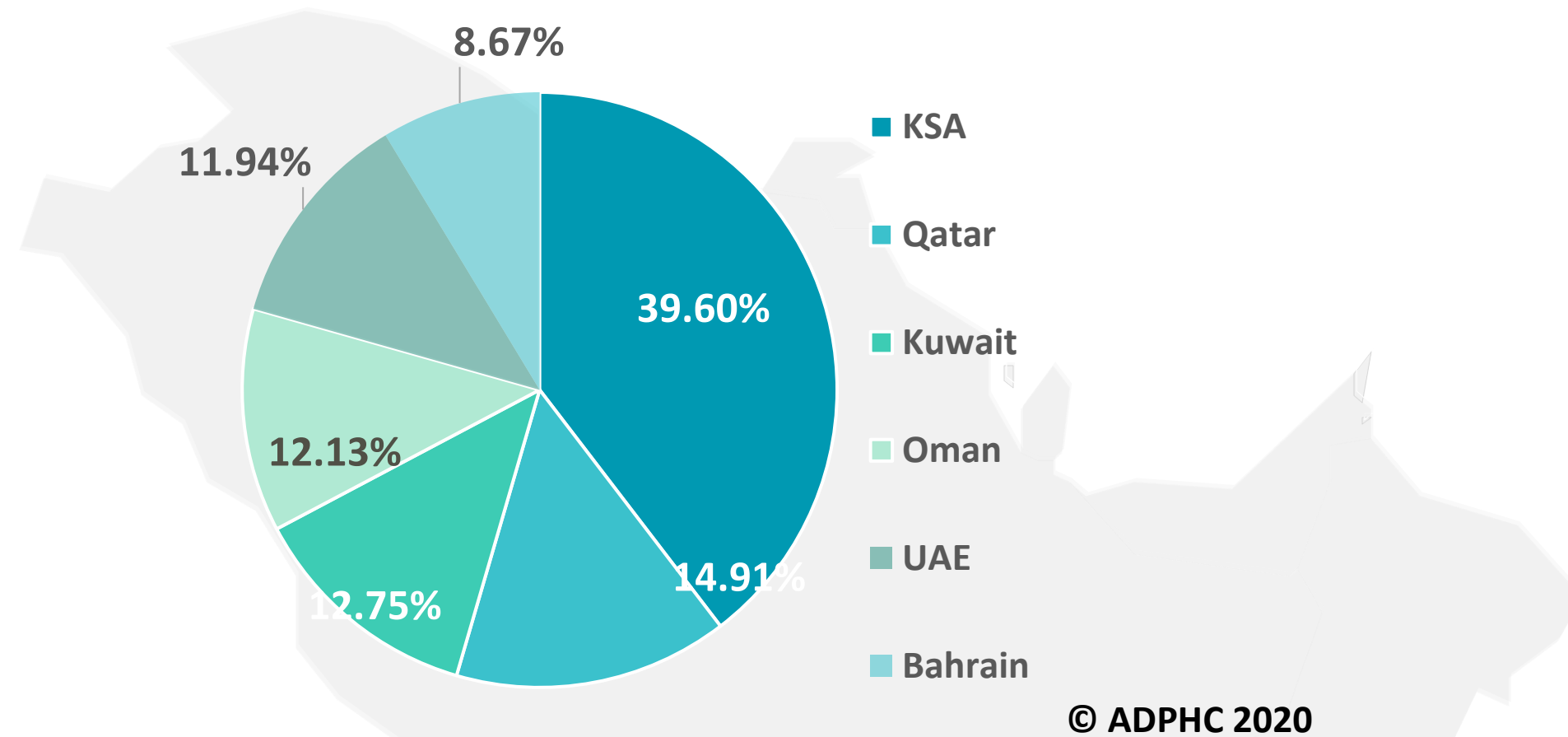
Figure 8: Global Distribution of COVID-19 Cases per Region



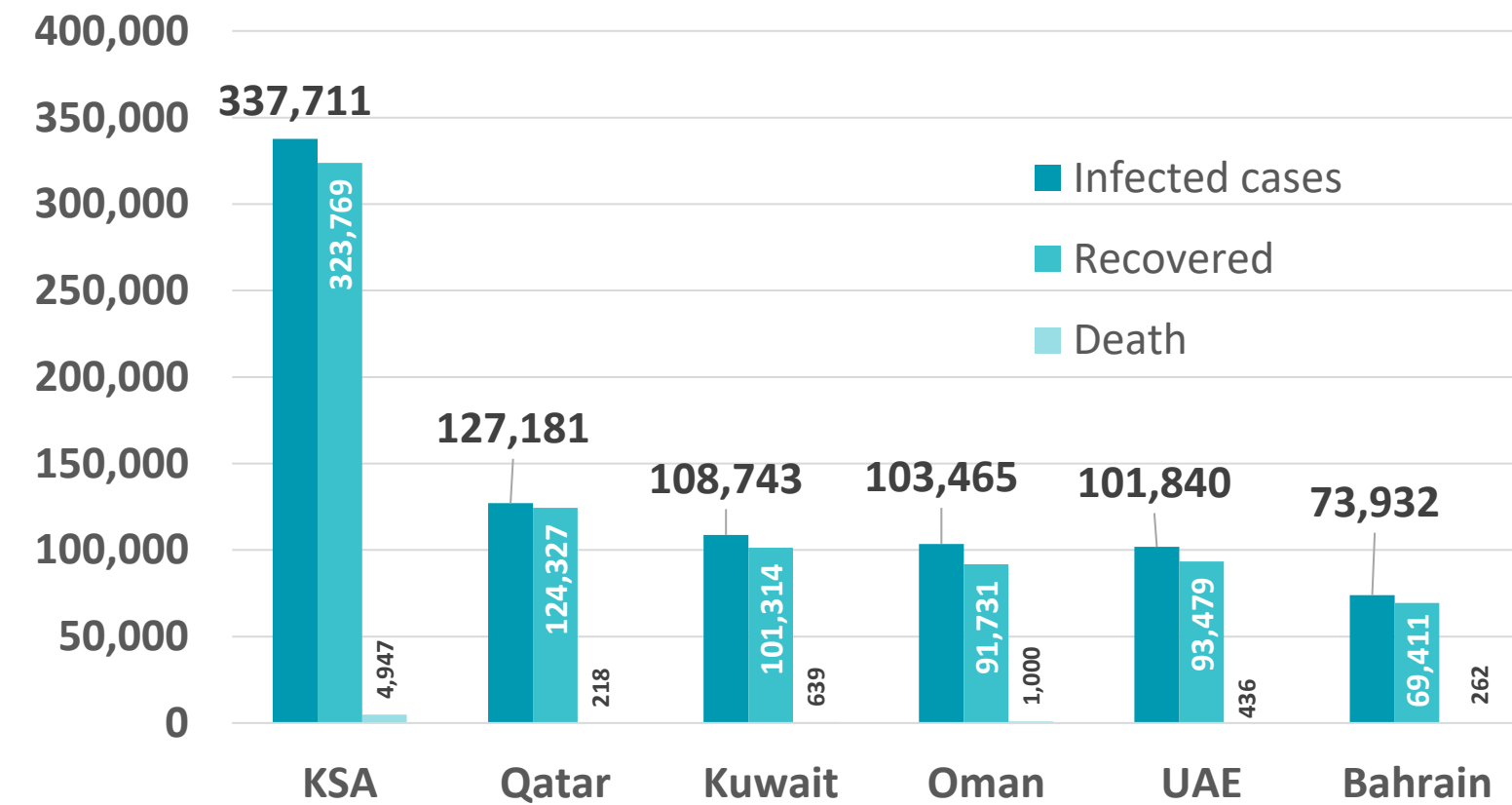
Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: [WHO](#)

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

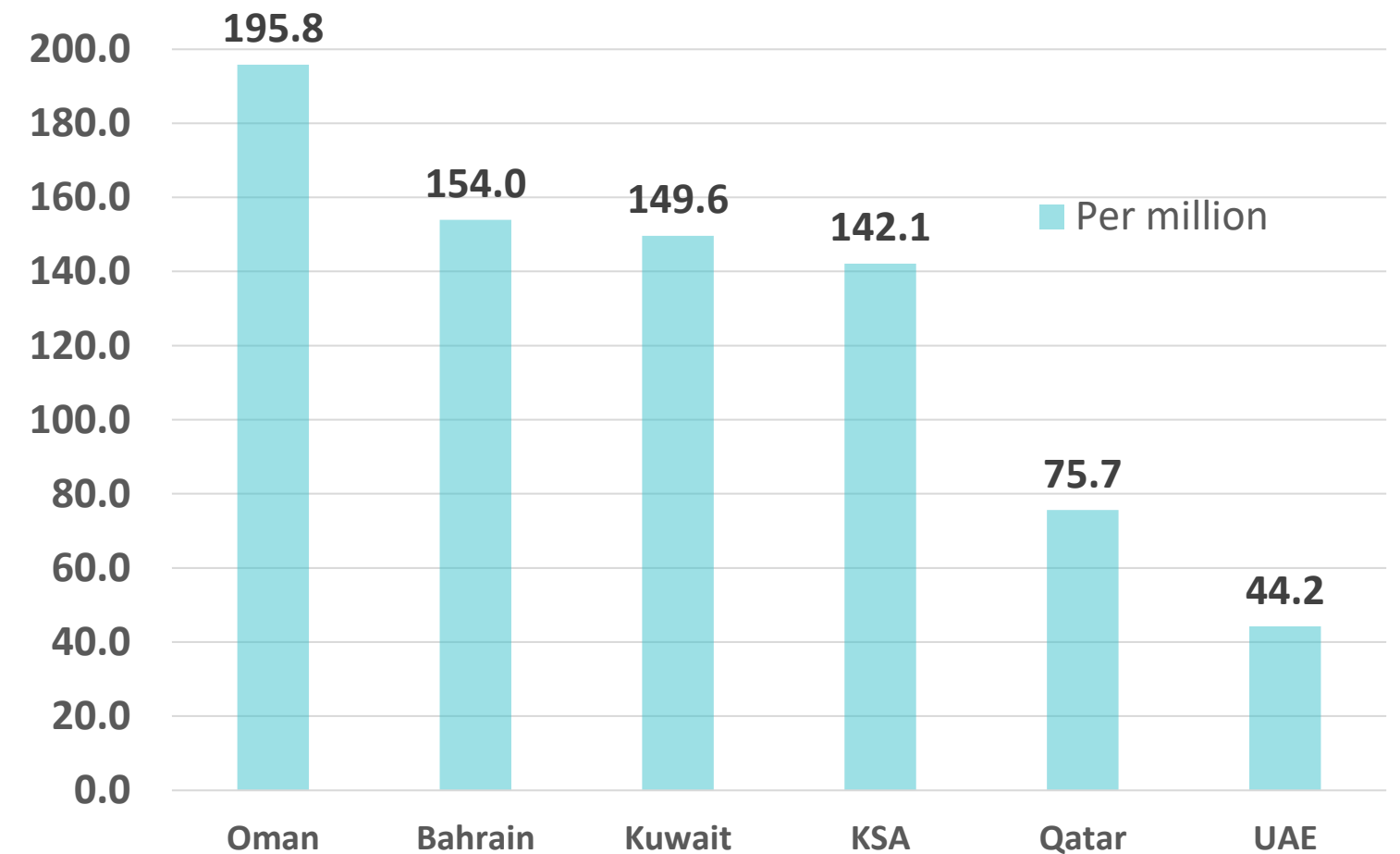
TOTAL NUMBER OF INFECTED CASES



TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



DEATHS PER MILLION



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

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

UAE



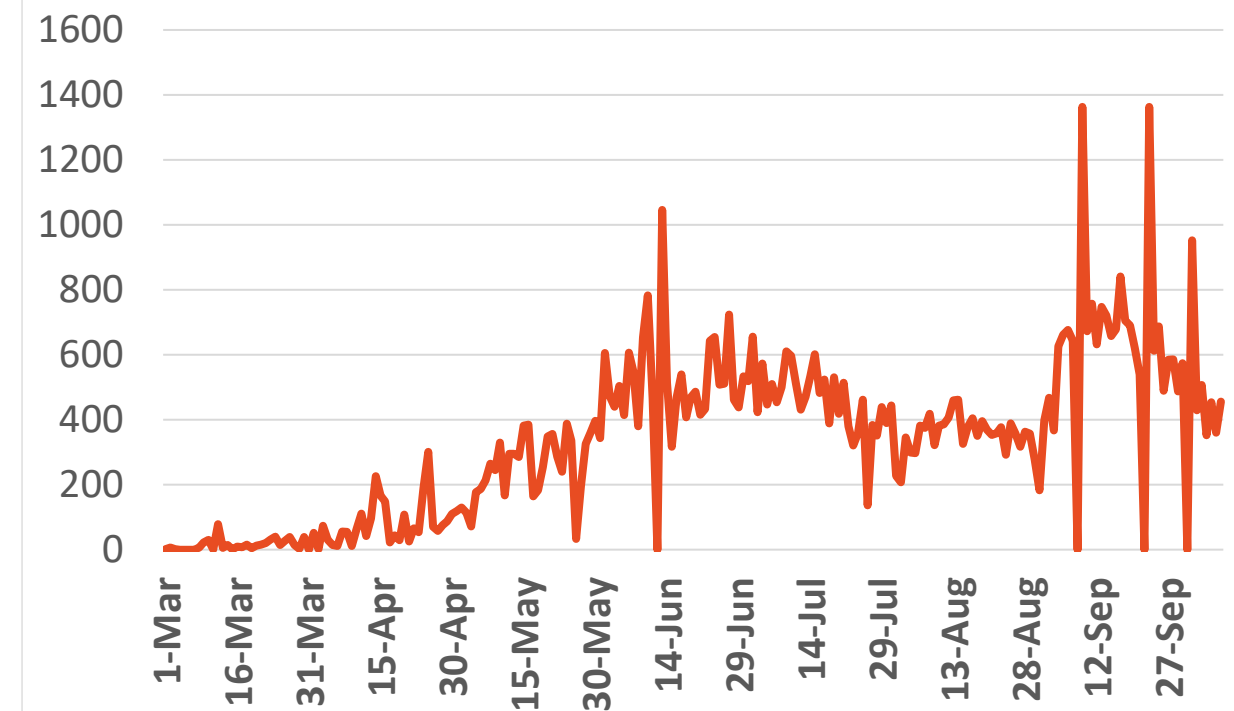
Source : National Emergency Crisis and Disaster Management Authority

KSA



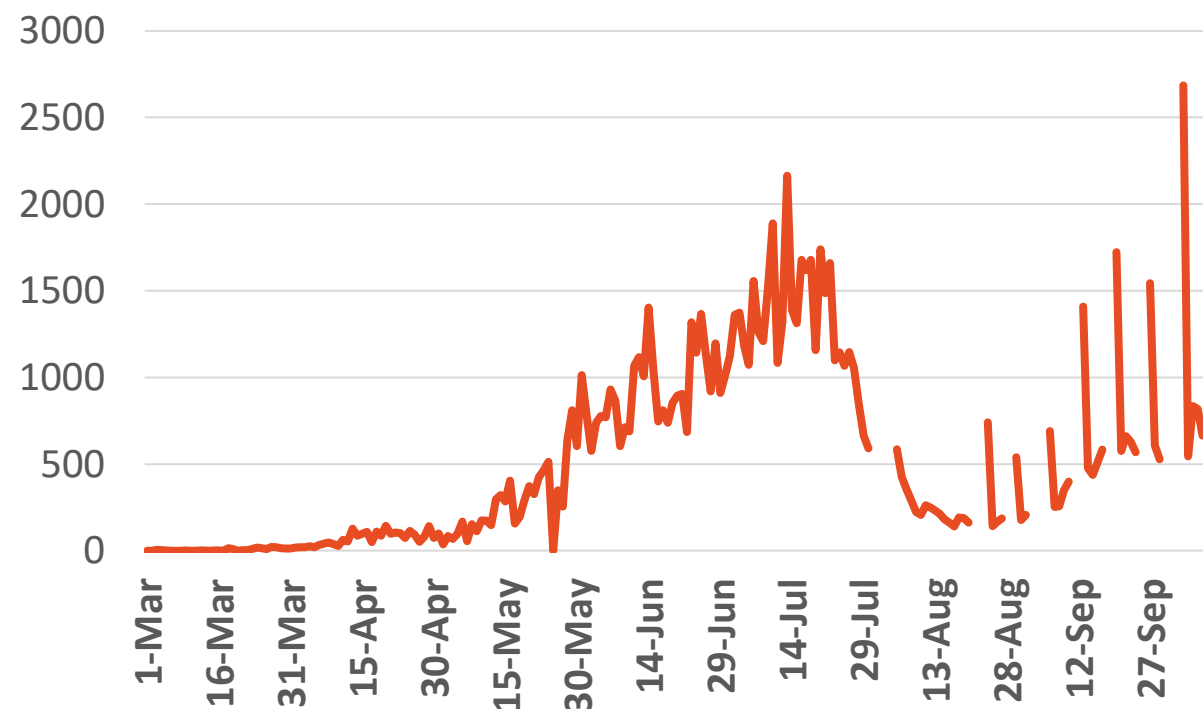
Source : KSA ministry of health

Bahrain



Source :WHO

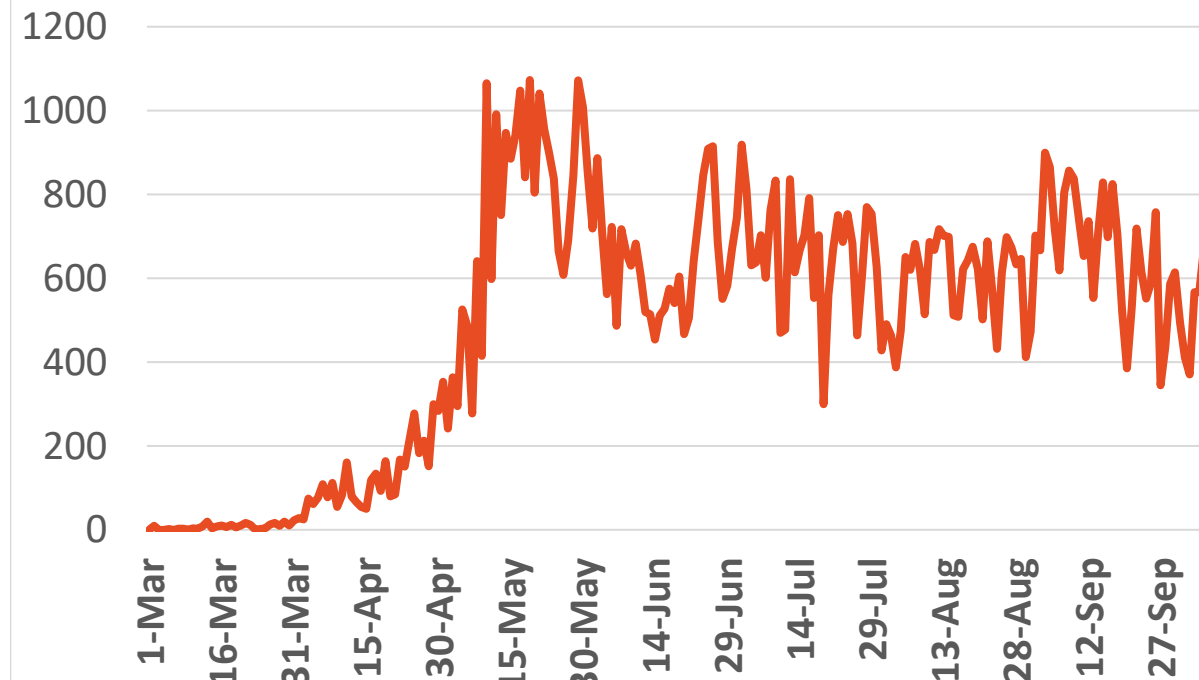
Oman



Source :Oman ministry of health

Kuwait

© ADPHC 2020



Source : Kuwait ministry of health

Qatar



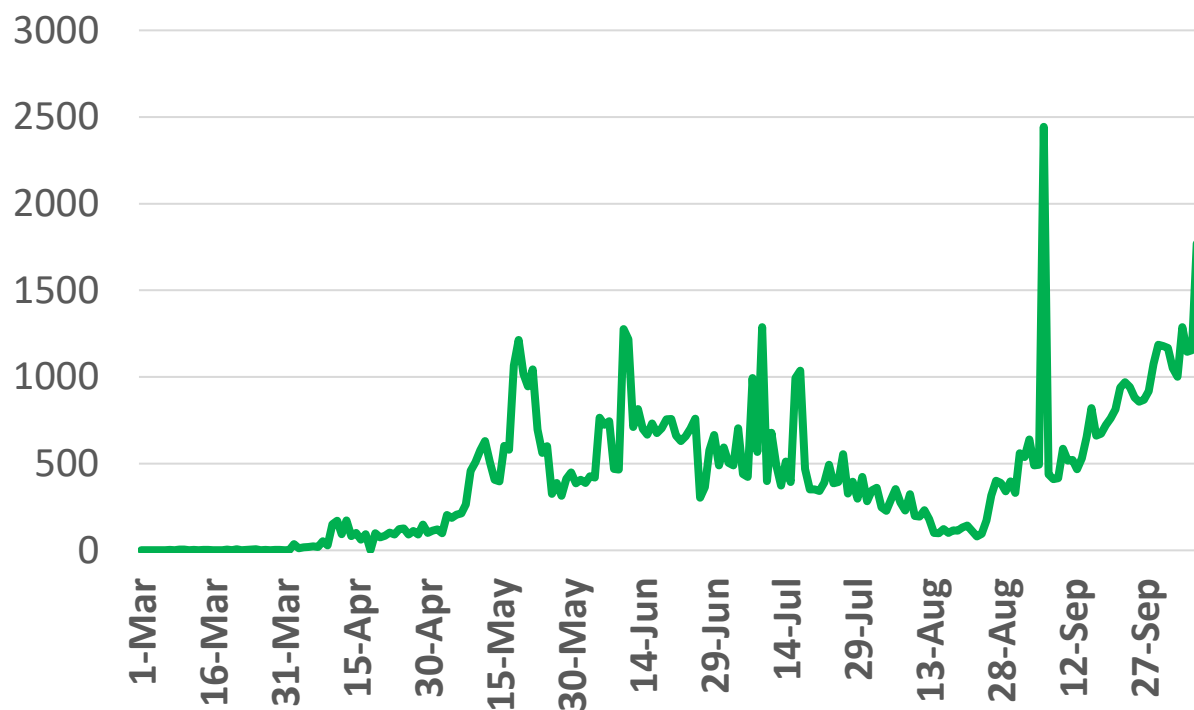
Source : Qatar ministry of health

*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 October
*No announced statistic data on weekends and official holidays.



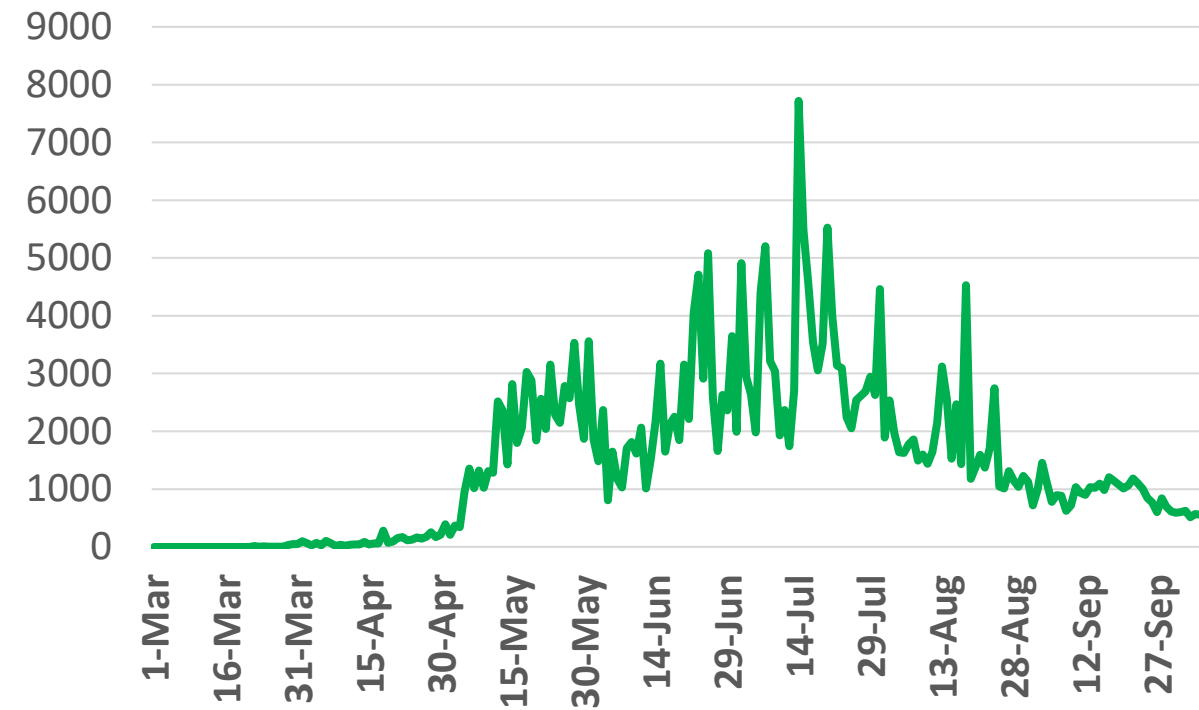
Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries

UAE



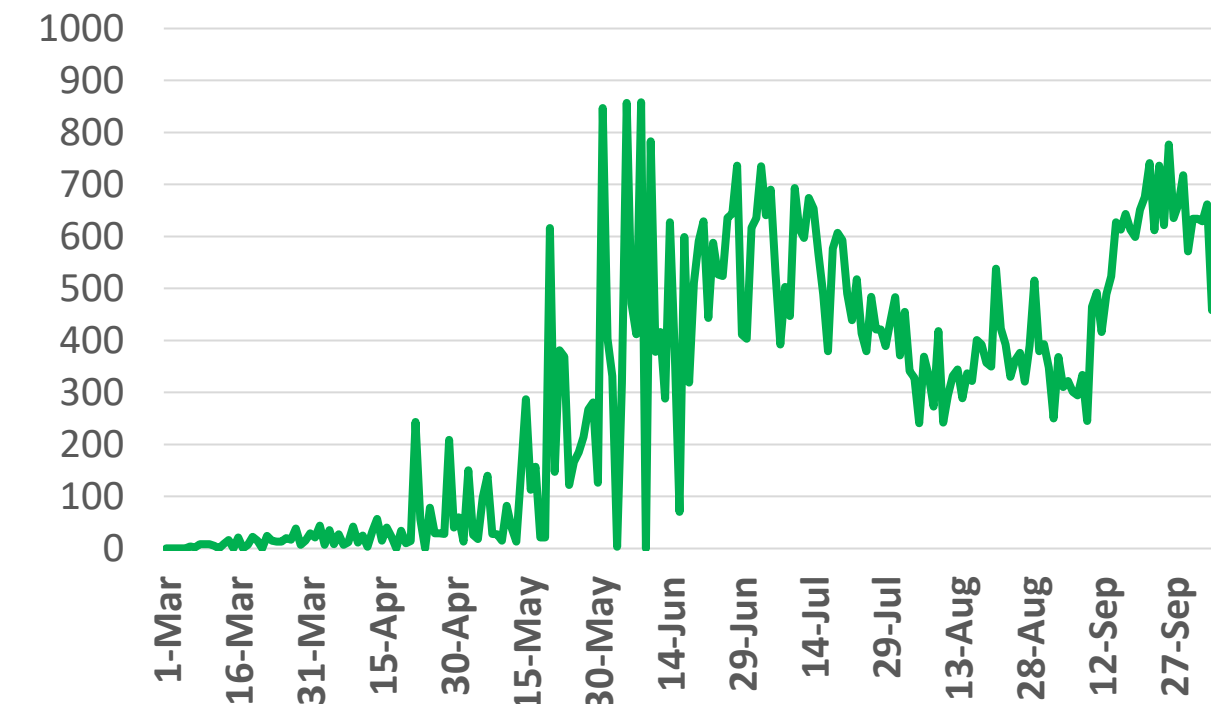
Source : National Emergency Crisis and Disaster Management Authority

KSA



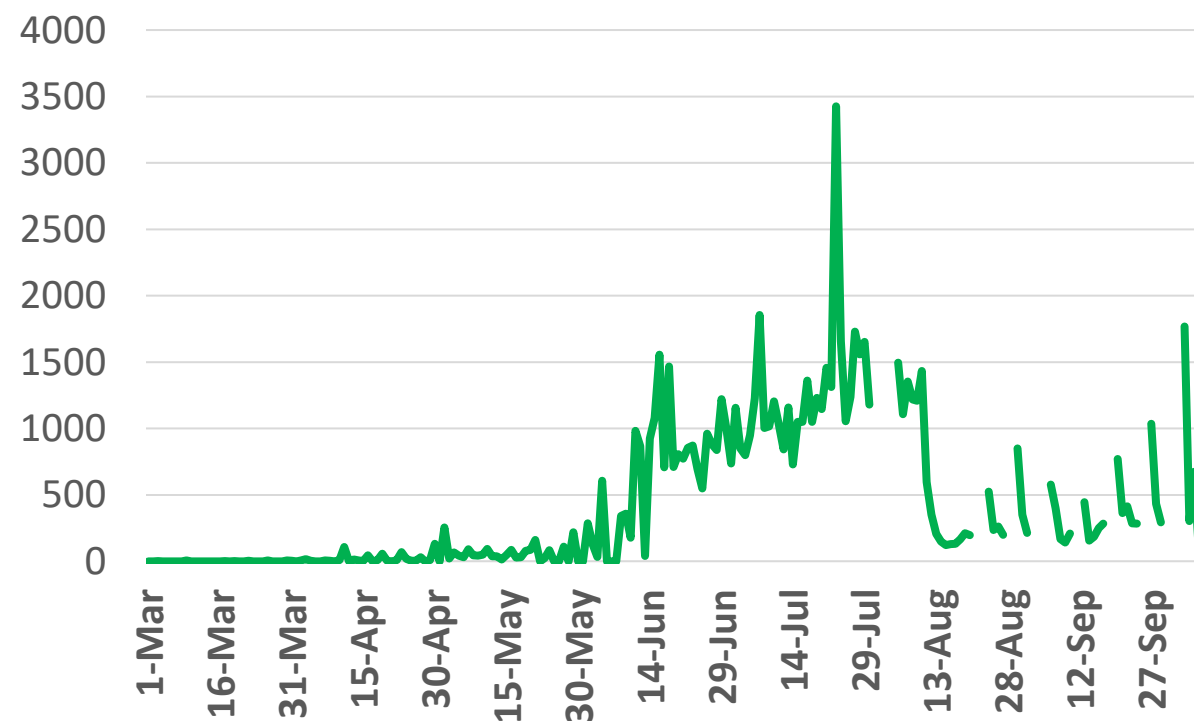
Source : KSA ministry of health

Bahrain



Source : Bahrain ministry of health

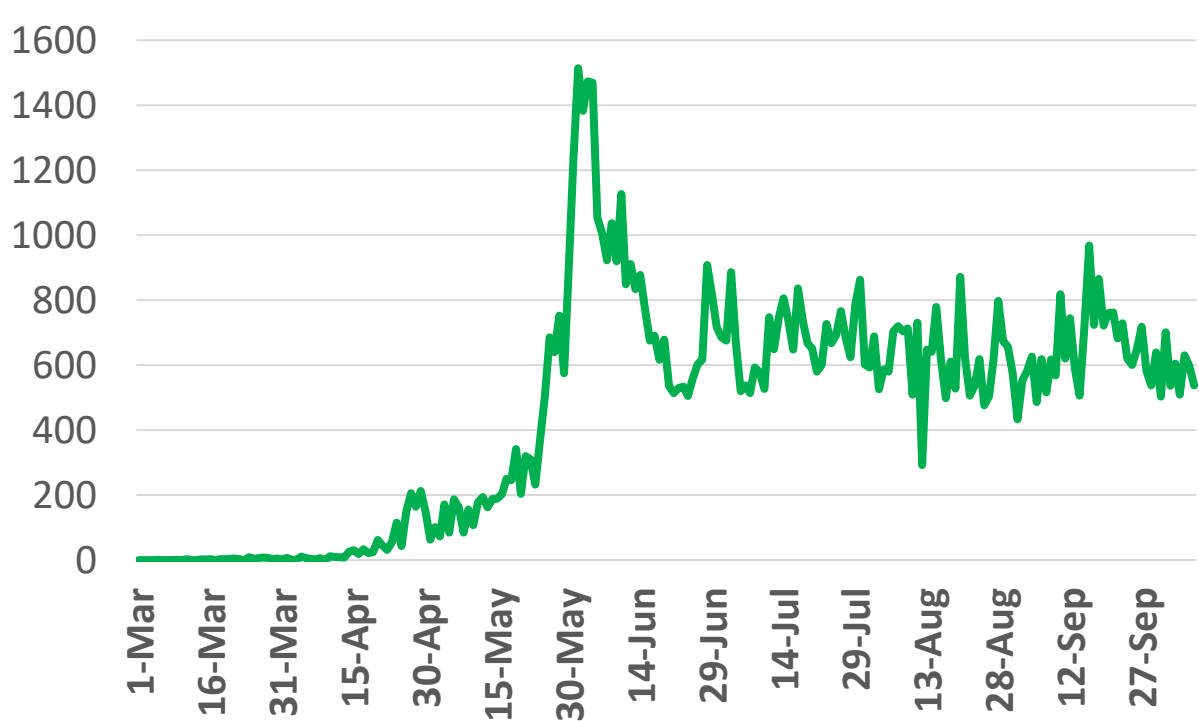
Oman



Source : Oman ministry of health

Kuwait

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Source : Kuwait ministry of health

Qatar



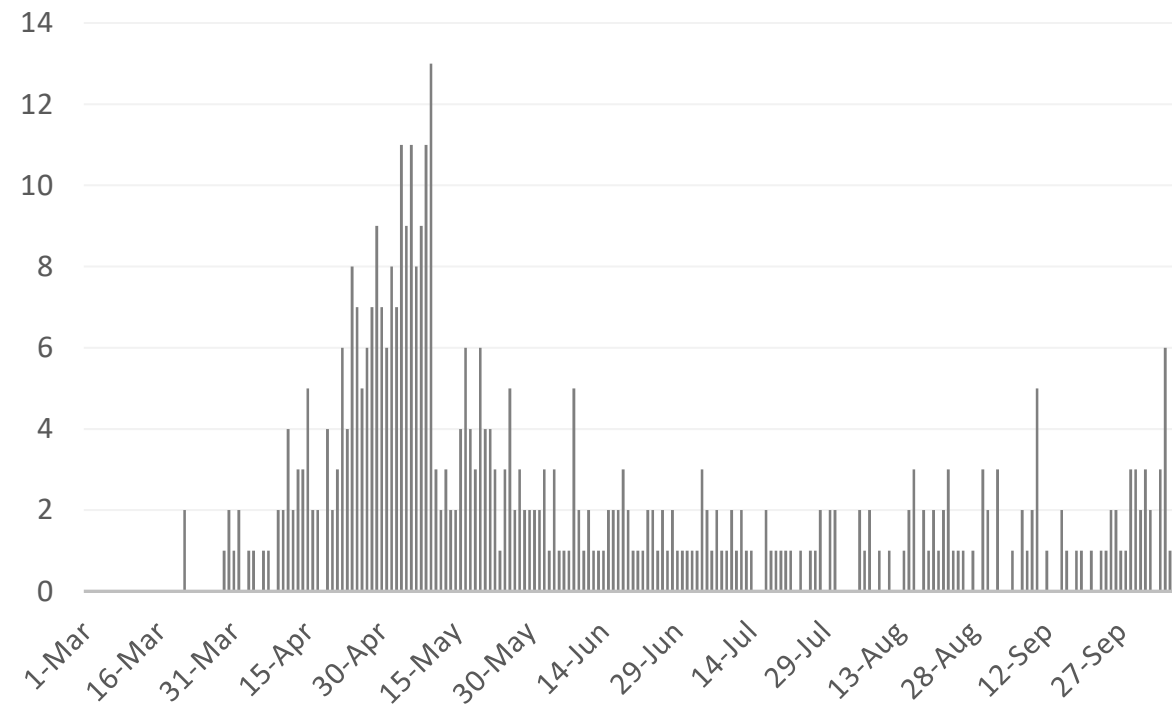
Source : Qatar ministry of health

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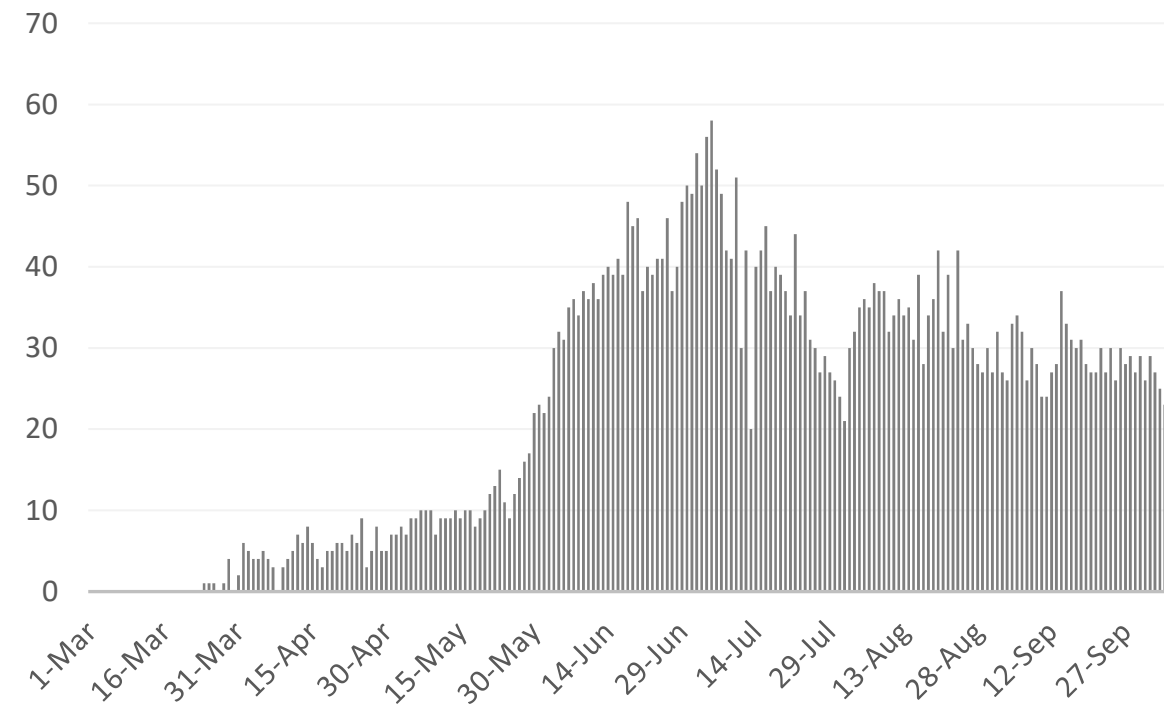
Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

UAE



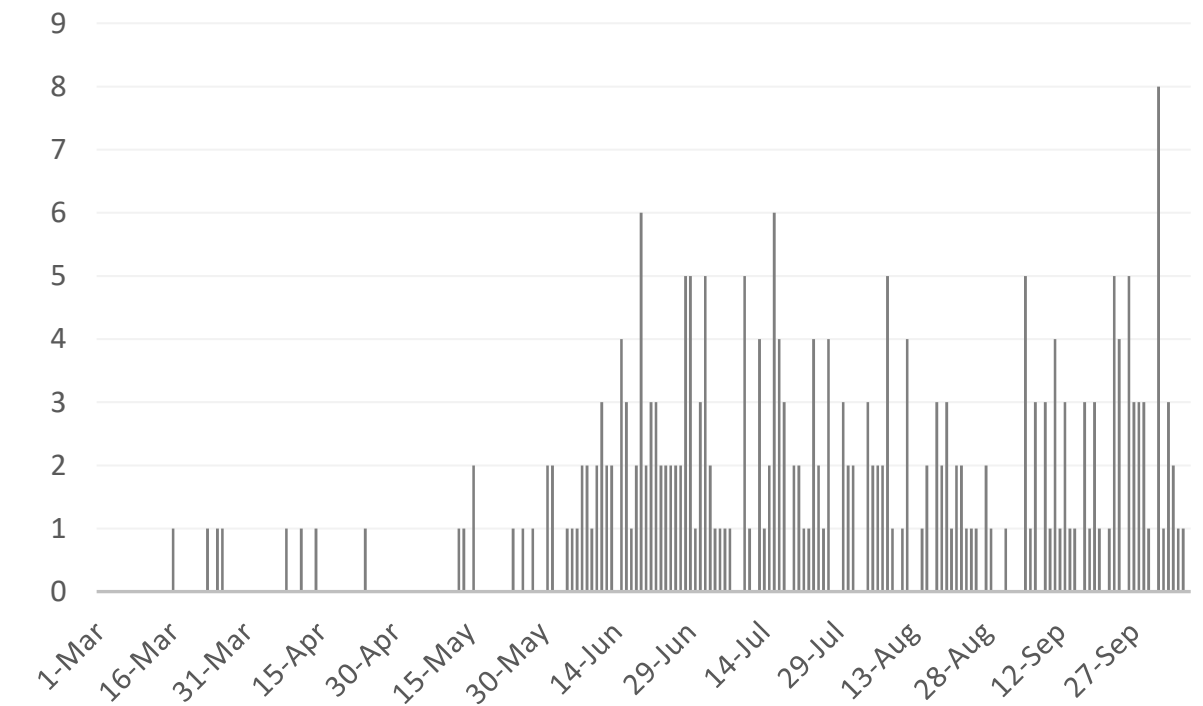
Source : National Emergency Crisis and Disaster Management Authority

KSA



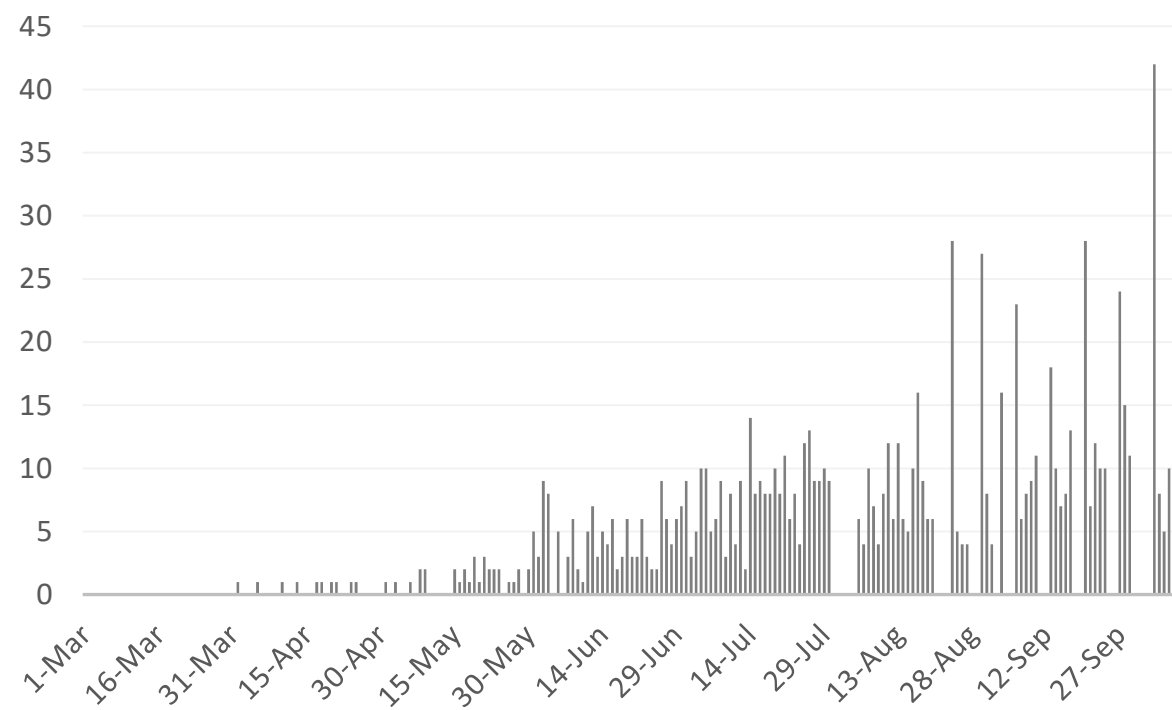
Source : KSA ministry of health

Bahrain



Source :WHO

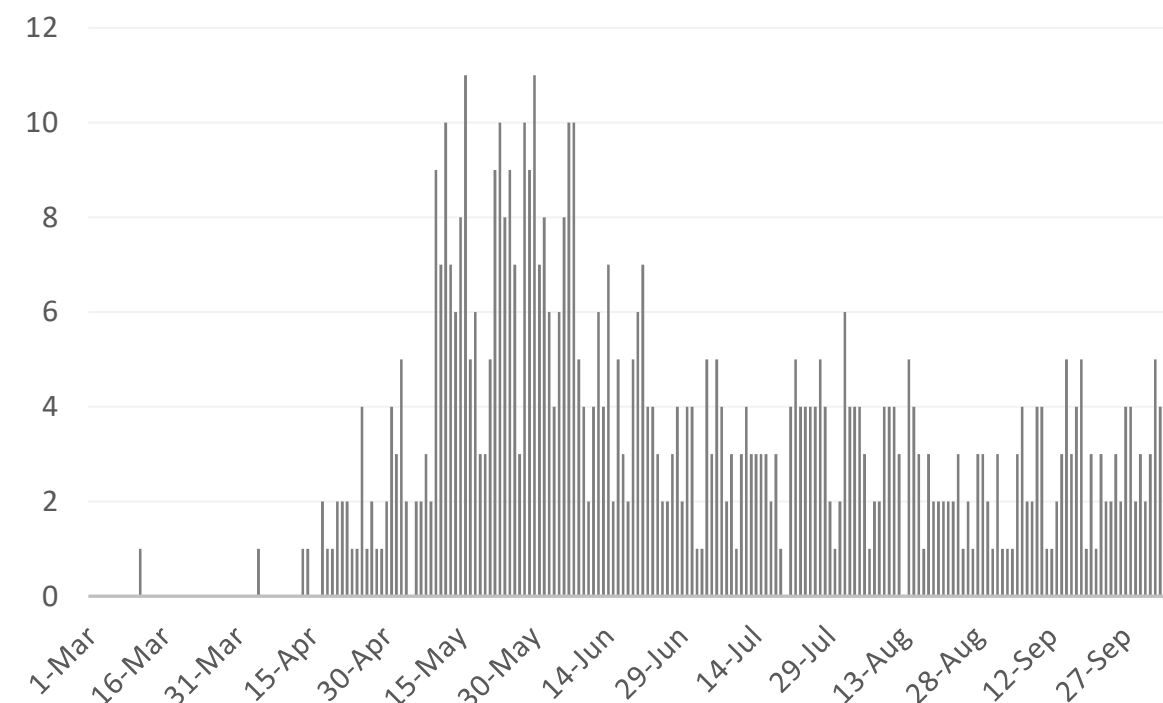
Oman



Source :Oman ministry of health

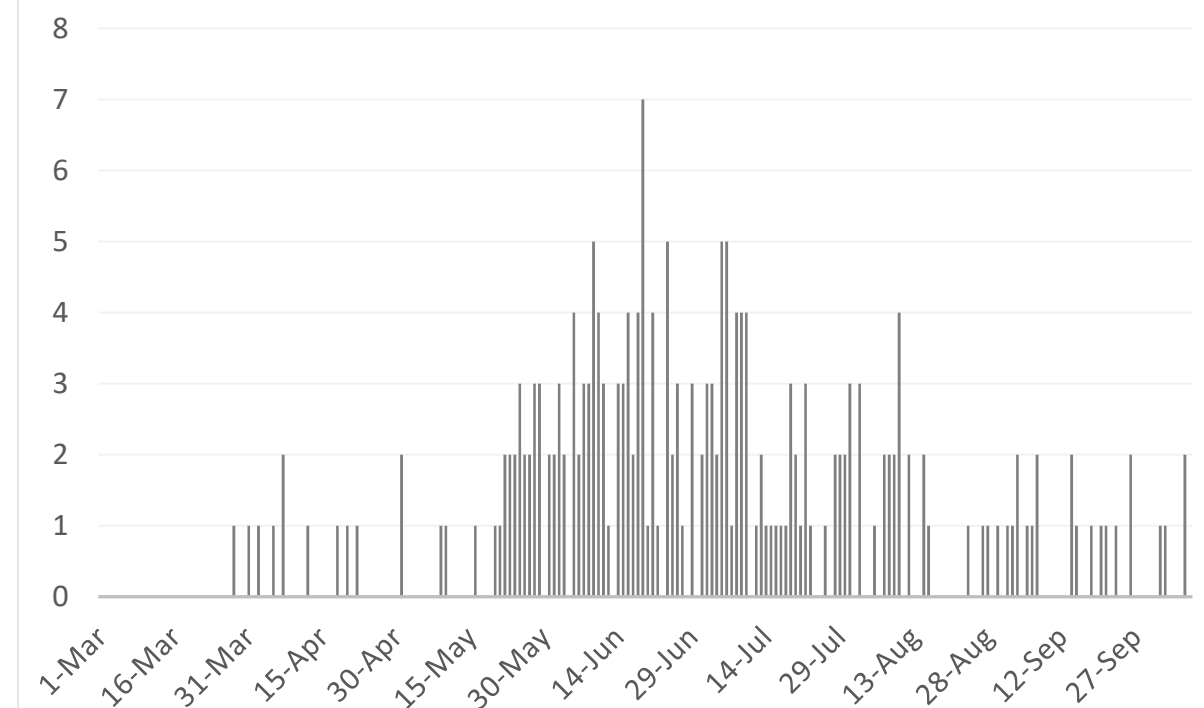
Kuwait

© ADPHC 2020



Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health

*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 October
*No announced statistic data on weekends and official holidays.





DIAGNOSIS

Article 1

Published

September 30, 2020, [JAMA](#)

Rethinking Covid-19 Test Sensitivity - A Strategy for Containment

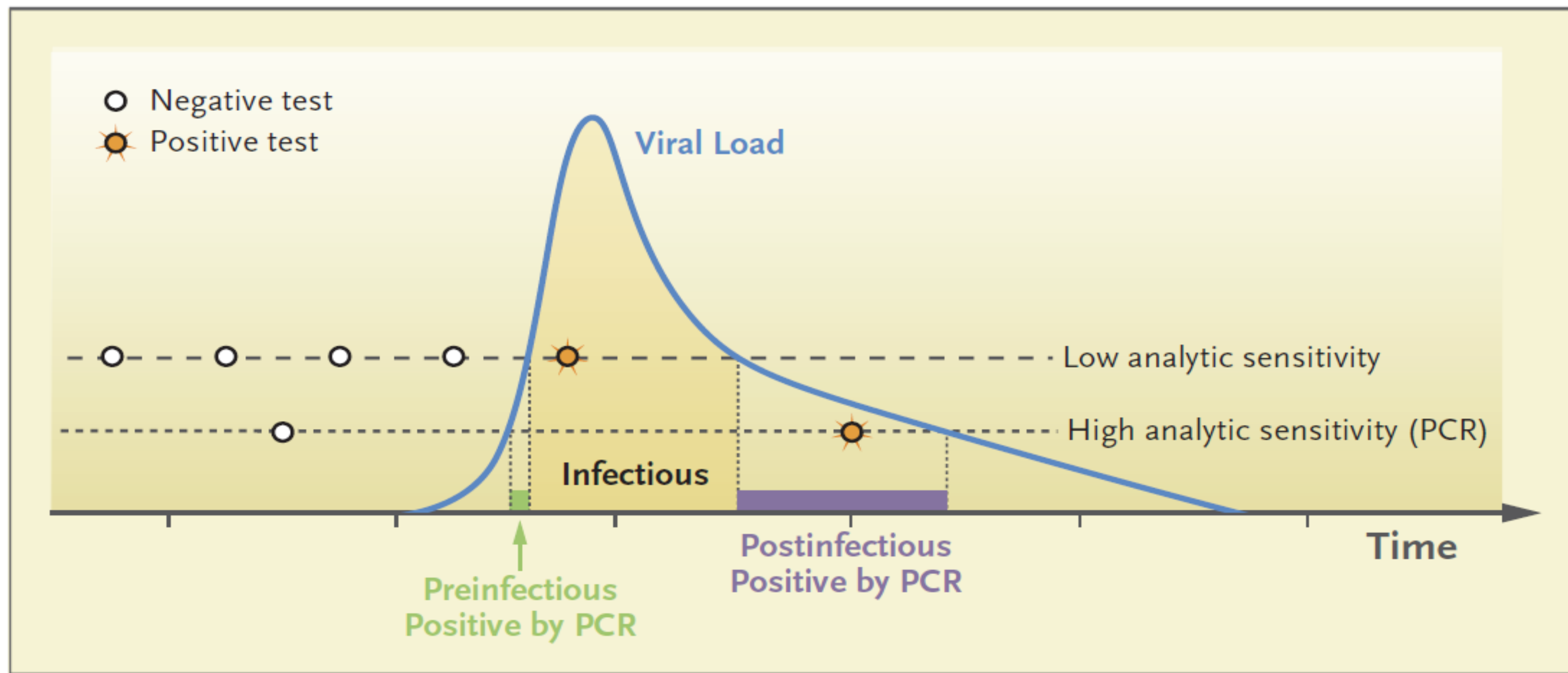
- During this pandemic, as the cases accelerate, there is an urgent need to shift the concentration from a narrow focus on the analytic sensitivity of a test that can detect the molecules to the more relevant measure of a testing regimen's sensitivity to detect infections. Tests used in effective surveillance regimens intended to decrease the prevalence of a respiratory virus need to return results quickly to limit the asymptomatic spread and should be inexpensive and easy to implement to allow frequent testing.
- Tests are needed that can enable regimens that will capture most infections while they are infectious. Currently, these tests exist in the form of rapid lateral flow antigen tests and rapid lateral flow tests based on CRISPR gene-editing technology. These tests are inexpensive, can be produced millions per week, and can be conducted at home, opening the door to effective COVID filter regimens.
- The United States Food and Drug Administration's (FDA's) emergency use authorization (EUA) of Abbott BinaxNOW (rapid antigen test) to receive a EUA is a step in the right direction. The approval process emphasized the high sensitivity of the test to identify people when their infection is most likely to be transmissible.
- The FDA, the Centers for Disease Control and Prevention (CDC), and the National Institutes of Health (NIH) should encourage structured evaluations of tests in the context of planned testing regimens to identify those that will provide the best COVID filters. Frequent use of rapid and inexpensive tests will fulfil the aim even the sensitivities are much inferior to those of benchmark tests.





DIAGNOSIS

Continued



High-Frequency Testing with Low Analytic Sensitivity versus Low-Frequency Testing with High Analytic Sensitivity.





Article 2

US Adults' Preferences for Public Allocation of a Vaccine for Coronavirus Disease 2019

Published

September 29, 2020 [JAMA](#)

- In this study (n=1,007), data was collected through a module included on the AmeriSpeak Omnibus Survey. The survey question asked “It is anticipated that in the next 12-18 months, a vaccine for coronavirus will be available. However, at least at first, there may not be enough to go around. Public health authorities must set guidelines about who gets the vaccine first. Please indicate the level of priority that should be given for each of the listed groups.” Participants reported which of eight groups should receive high, medium, or low priority.
- Participants' showed a high willingness to allocate vaccine preferentially to front line medical workers (high priority - 91.6%), high-risk children (81.0%), high-risk older adults (80.6%), high-risk middle-aged peoples (75.2%), and non-medical essential workers (72.0%). Fewer participants (64.0%) indicated a high priority for pregnant people.
- Participants' age was associated with differences in high priority rating for children with serious illness [age 18-29 years (72.7%), 30-59 years (79.3%), and ≥ 60 years (88.6%); $p = .006$], people ≥ 65 years [age 18-29 years (70.9%), 30-59 years (82.0%), and ≥ 60 years (84.0%); $p = .03$], non-medical essential workers [age 18-29 years (62.4%), 30-59 years (69.6%), and ≥ 60 years (81.8%); $p = .003$], and pregnant women [age 18-29 years (58.2%), 30-59 years (61.4%), and ≥ 60 years (71.9%); $p = .04$].
- Participants' race/ethnicity was associated with differences in high priority rating for children with moderate risk [White (33.6%), Black (50.1%), Other (36.1%), and Hispanic (54.2%); $p = .001$] and adults with moderate risk [White (21.9%), Black (44.1%), Other (26.2%), and Hispanic (46.4%); $p < .001$]. Participants' self-reported health status was associated with differences in high priority rating for non-medical essential workers [fair/poor (81.2%), good (65.5%), and very good/excellent (73.4%); $p = .007$].
- These findings indicated that participants' preferences were consistent with experts' emergent recommendations for priority populations for vaccination. Since people's doubt towards vaccines is a concern, evidence-based communication on the importance of vaccination is needed.



THANK YOU

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