

# SCIENTIFIC RESEARCH MONITORING ON COVID-19

**28 JULY 2020**

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# SCIENTIFIC RESEARCH MONITORING ON COVID-19

## (ISSUE 177)

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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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

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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

Offline: Preparing for a Vaccine Against COVID-19

## Treatment

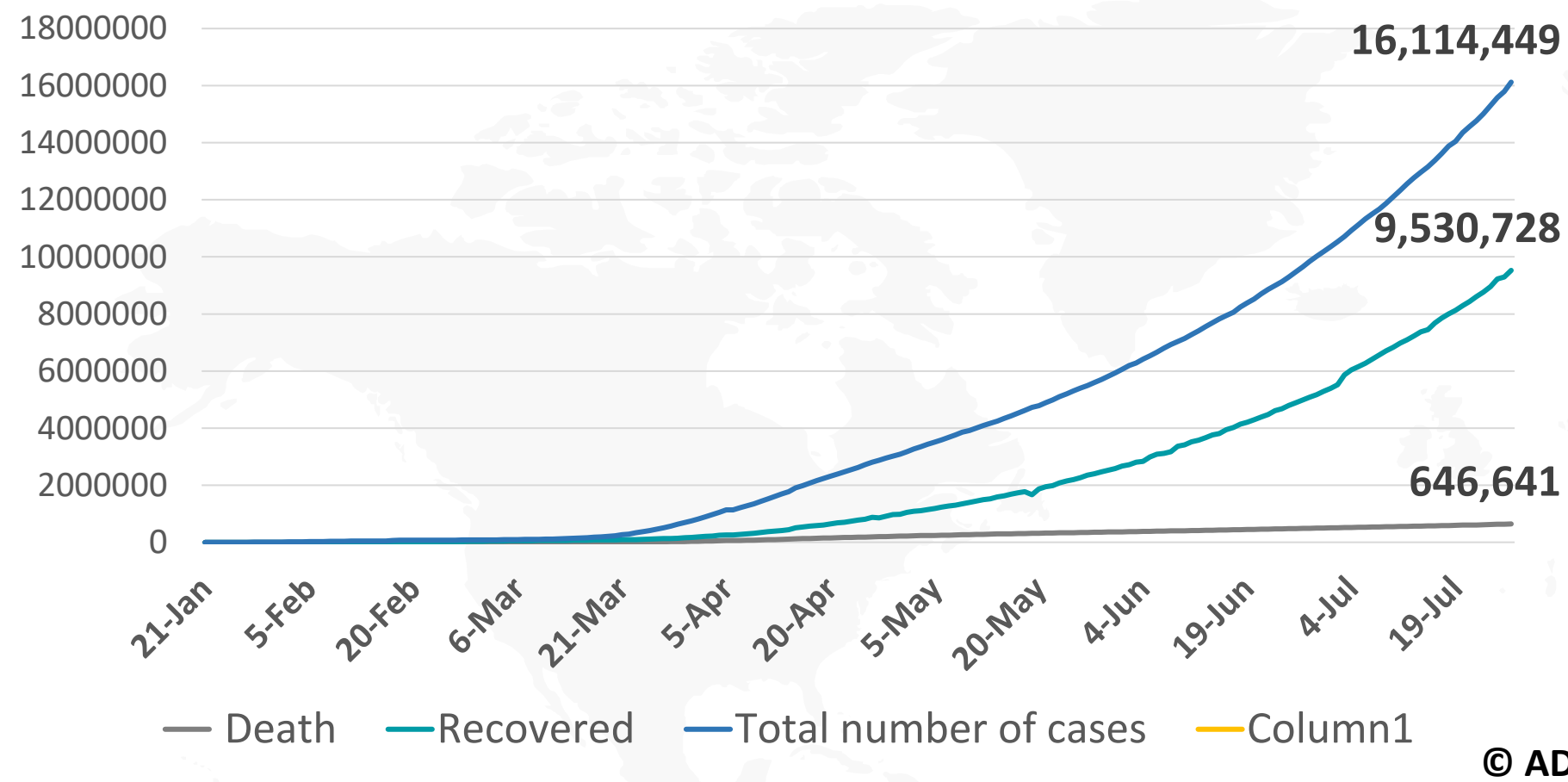
Hydroxychloroquine With or Without Azithromycin in Mild-to-Moderate Covid-19



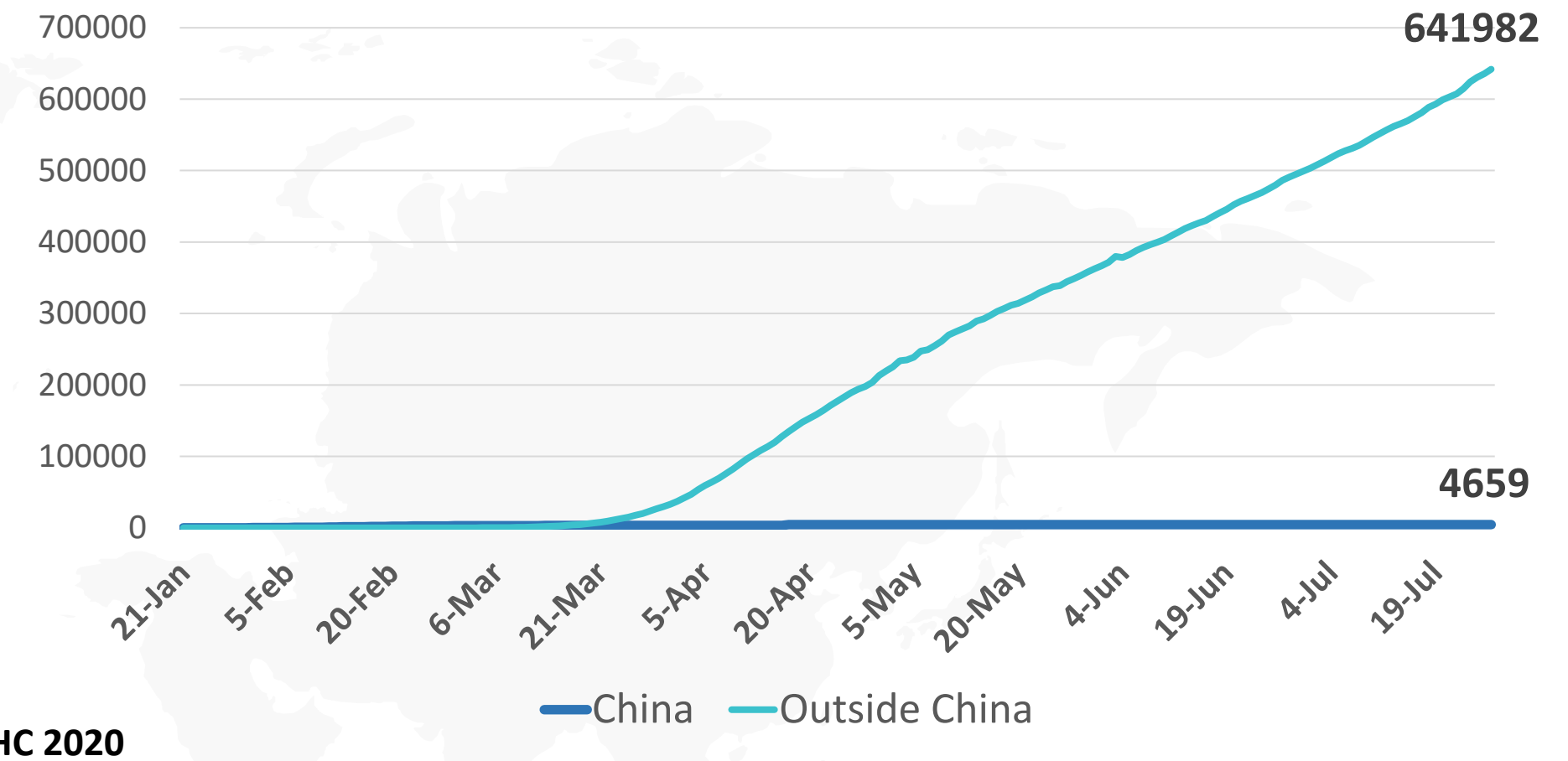
- This Thursday it will be six months since WHO declared COVID-19 a Public Health Emergency of International Concern. At the press briefing WHO Director-General Dr Tedros reiterated the basic measures that are needed to suppress transmission and save lives -- to find, isolate, test and care for cases; and trace and quarantine their contacts. “Where these measures are followed, cases go down. Where they’re not, cases go up”.
- The Second Global Research and Innovation Forum was hosted virtually by WHO on 1 and 2 July 2020, this followed on from the first forum held in February 2020. Approximately 1200 participants from nearly 100 countries convened to review the science, to establish what we know now that we didn’t know at the start of the pandemic, and to set priorities for the COVID-19 research agenda.
- An important element of this second Forum was to sustain the momentum generated during the February meeting within the global scientific community and to ensure regional, and country office counterparts have the opportunity to engage and be updated on research progress for COVID-19. Forum presentations are available for the next two weeks on:  
[https://www.dropbox.com/sh/wllc2fv9sxx11mr/AABs8t137XCnZ\\_i2Z7BA3FE-a?dl=0](https://www.dropbox.com/sh/wllc2fv9sxx11mr/AABs8t137XCnZ_i2Z7BA3FE-a?dl=0)



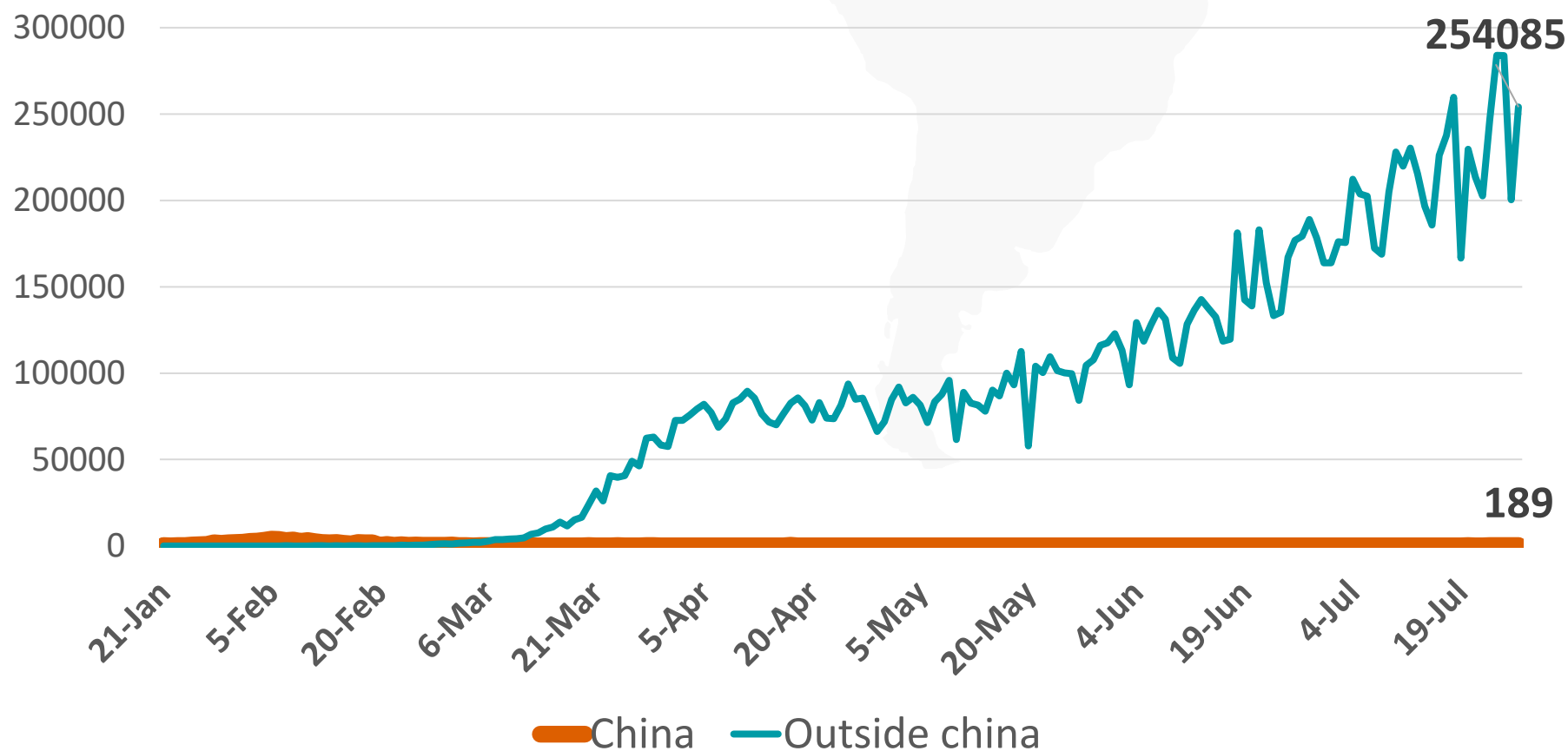
**Figure 1: Total Number of Infected, Recovered, and Death Cases**



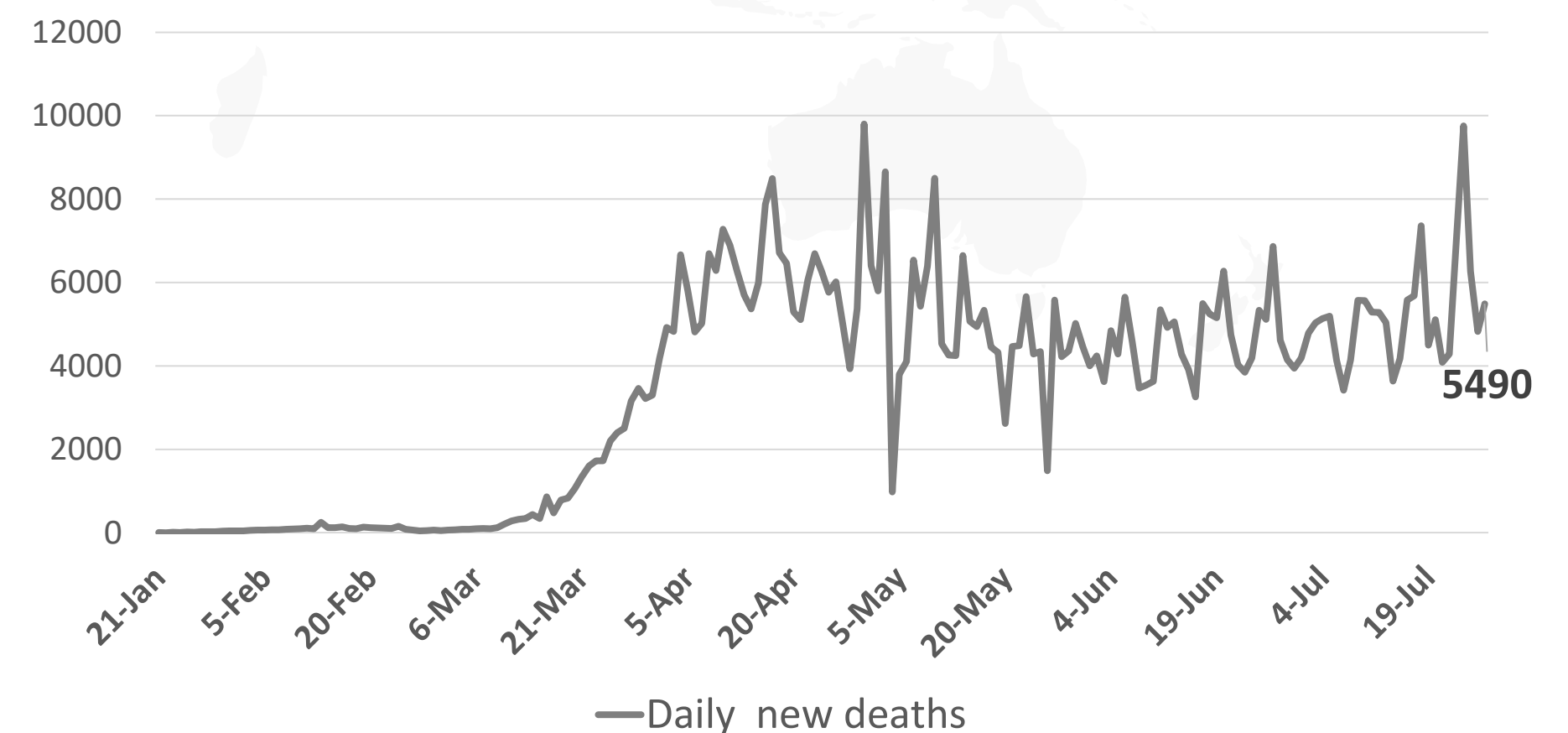
**Figure 3: Total Number of Death Due to COVID-19 (china and result of the world)**



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

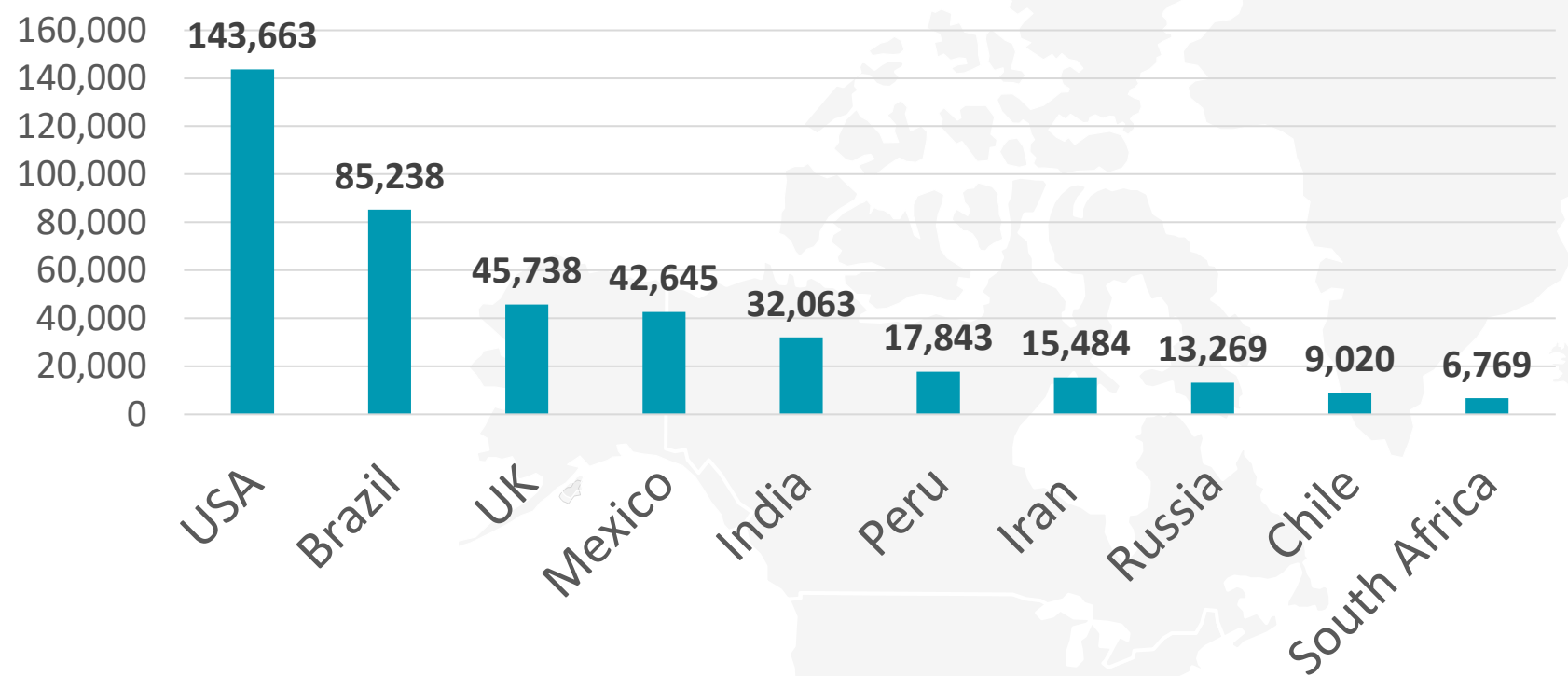


**Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)**

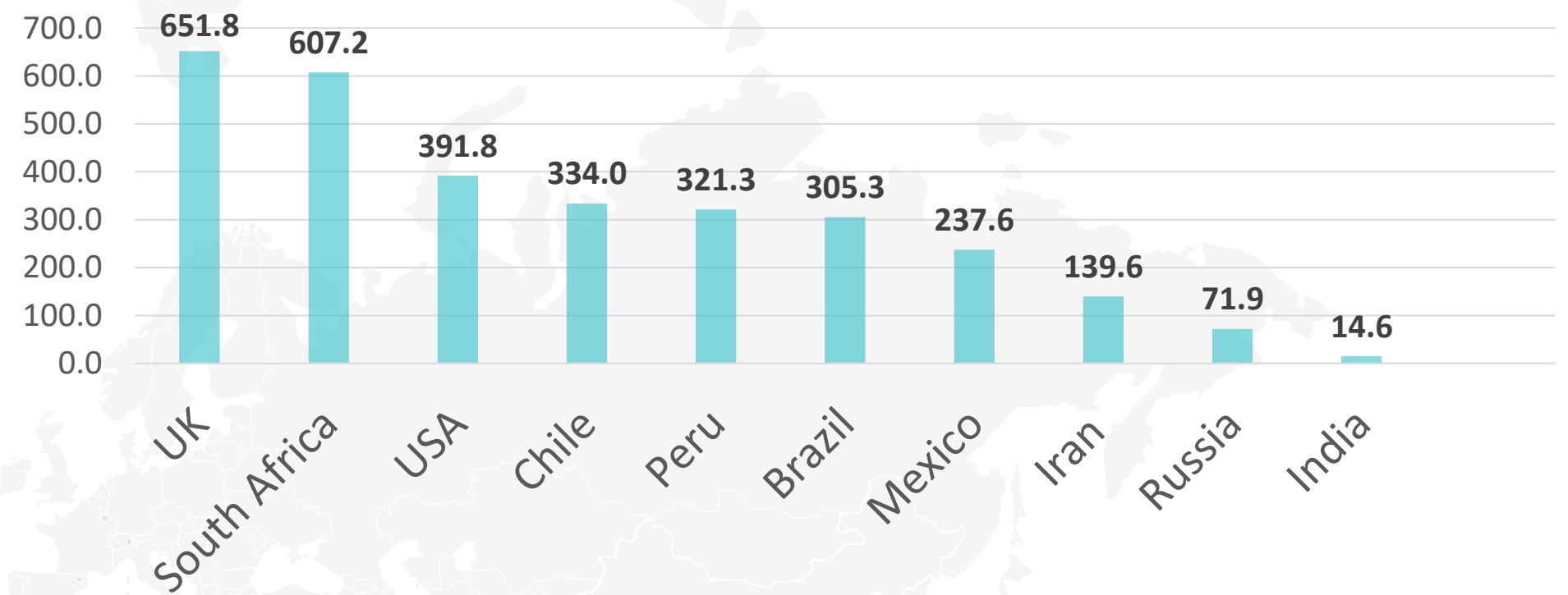


## Figure 3: Top 10 Countries in the Total Number of Cases Due to COVID-19

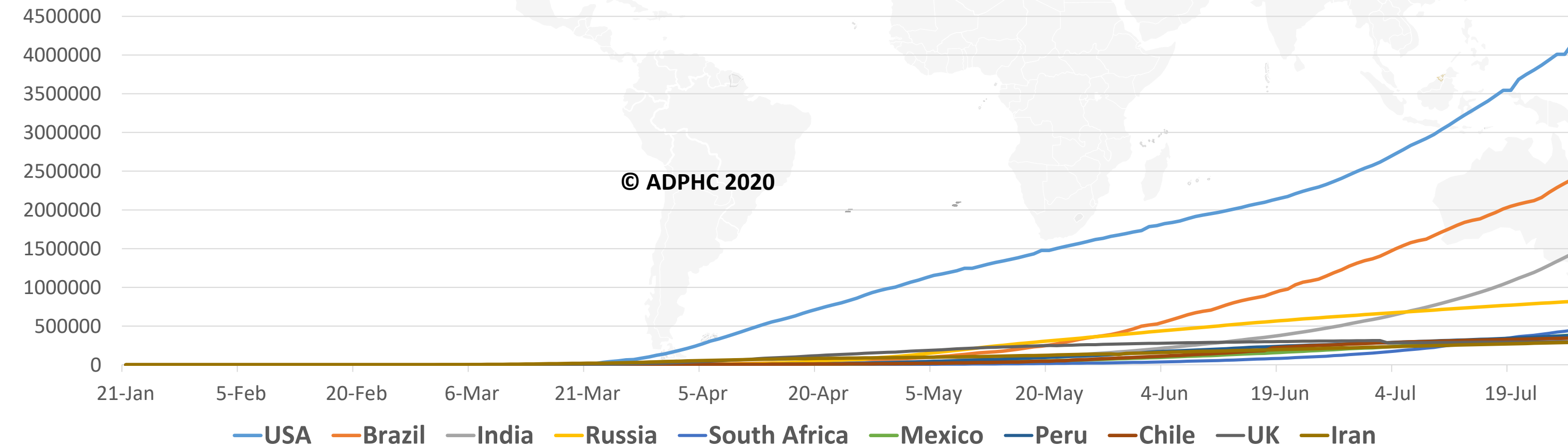
### TOTAL DEATHS



### DEATHS PER MILLION

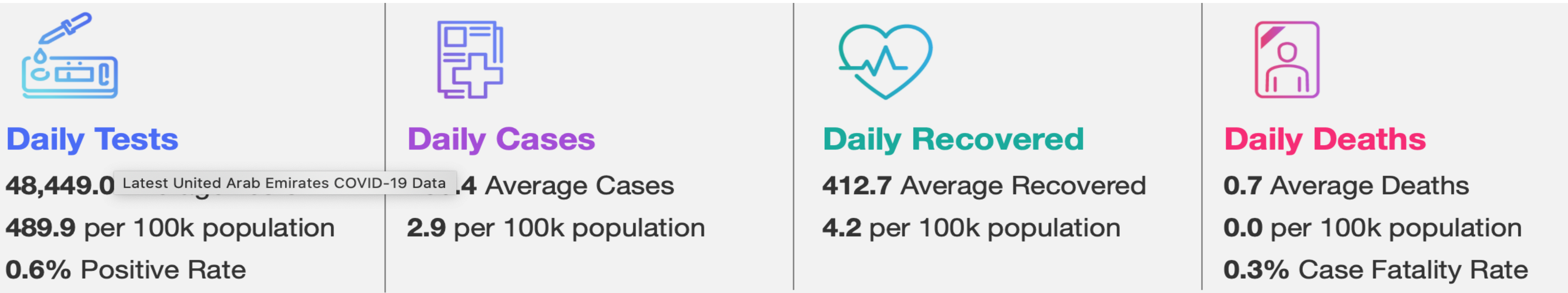


### TOTAL INFECTED CASES

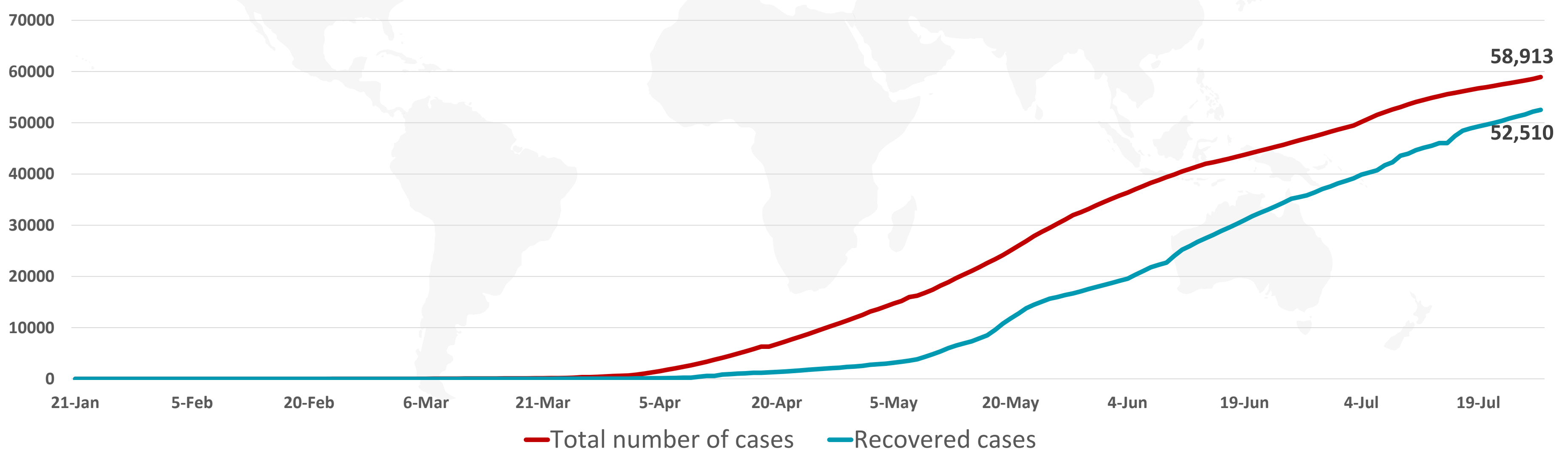


USA	4,148,011
Brazil	2,394,513
India	1,435,453
Russia	818,120
South Africa	445,433
Peru	385,036
Mexico	379,884
Chile	345,790
UK	299,430
Iran	291,172

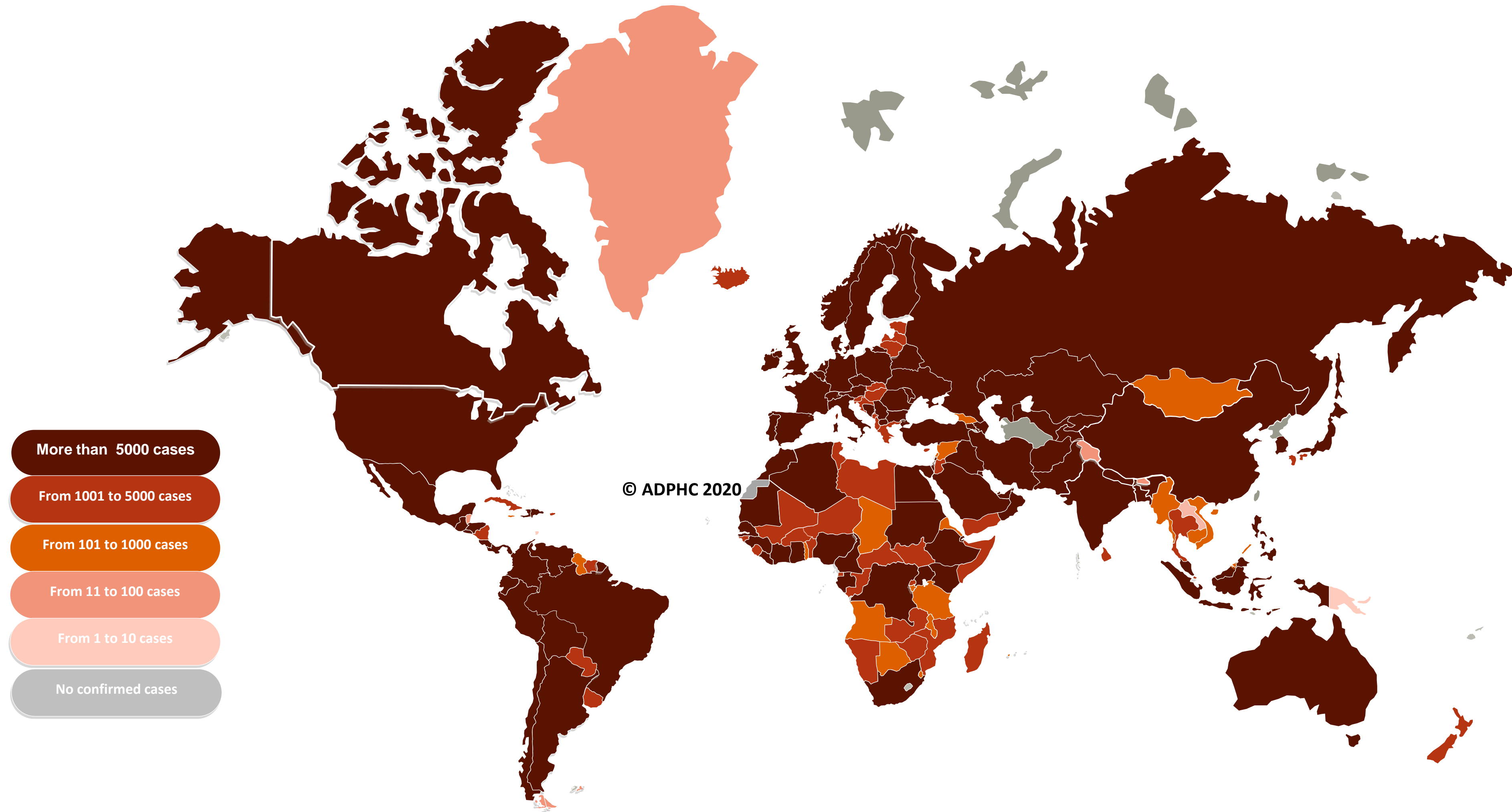
**Figure 5: COVID-19 Status in the UAE** (Federal Competitiveness and Statistics Authority Dashboard)



## 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

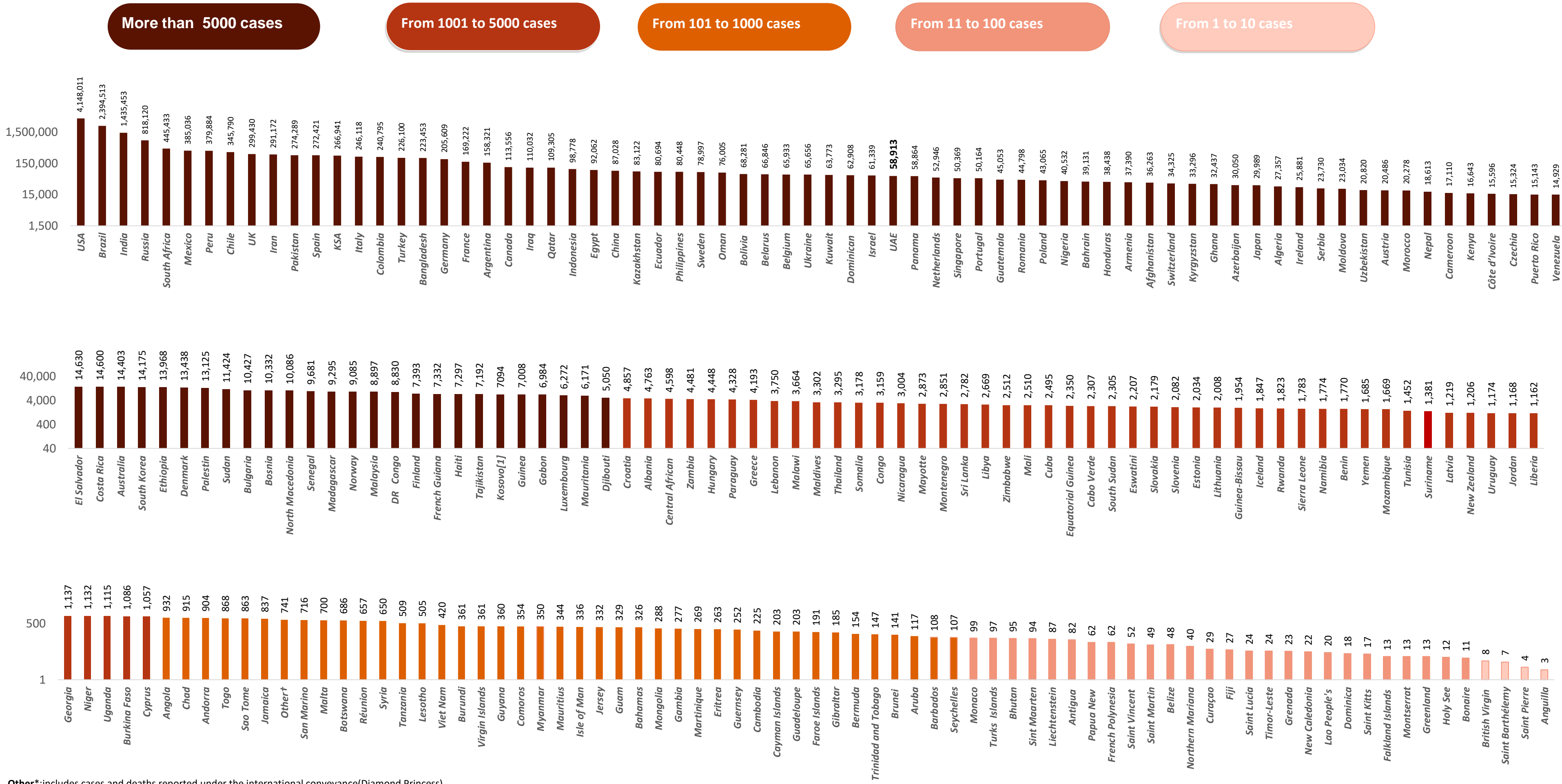
From 11 to 100 cases

From 1 to 10 cases

No confirmed cases



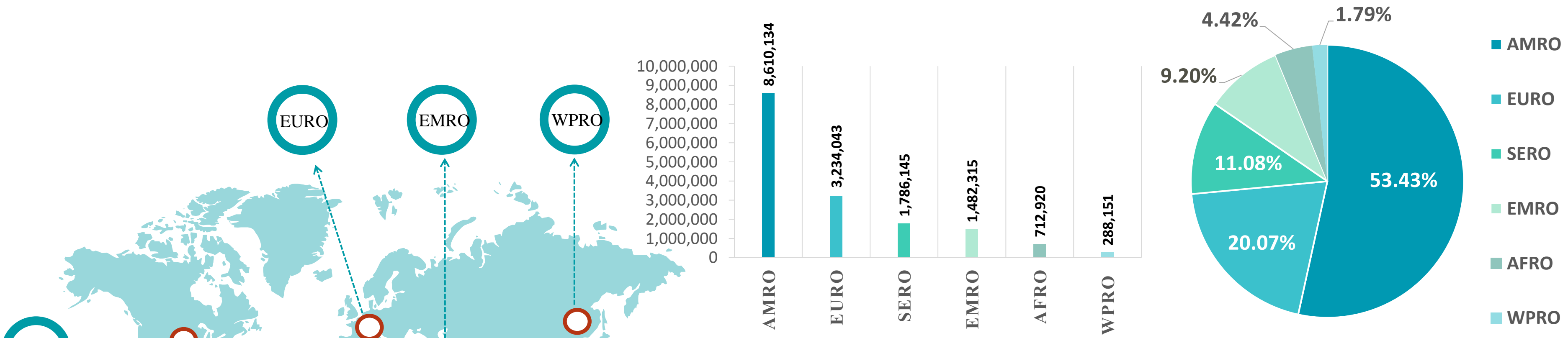
## Figure 7B: Bar Chart Illustrates the Global Distribution of COVID19 Cases



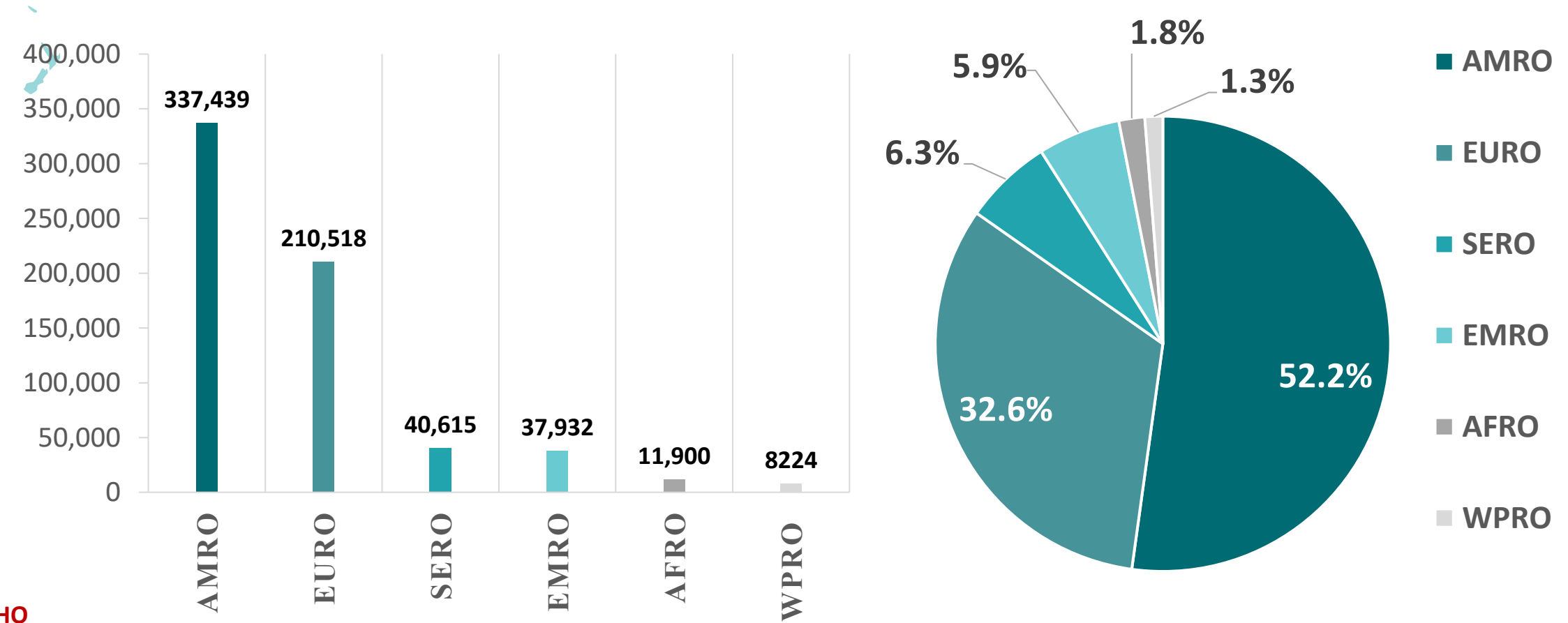
Other\*: includes cases and deaths reported under the international conveyance(Diamond Princess)

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

## INFECTED

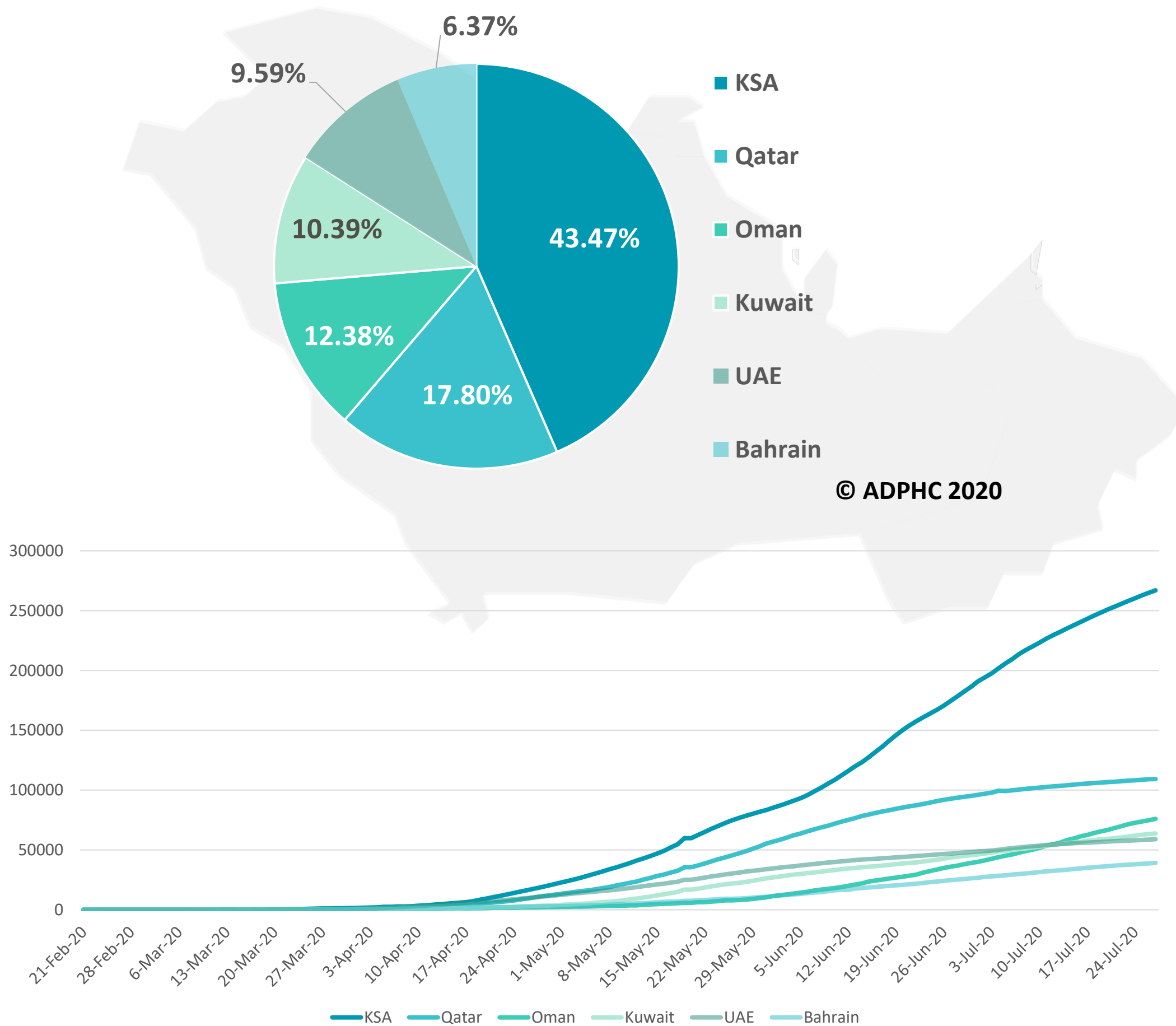


## DEATH

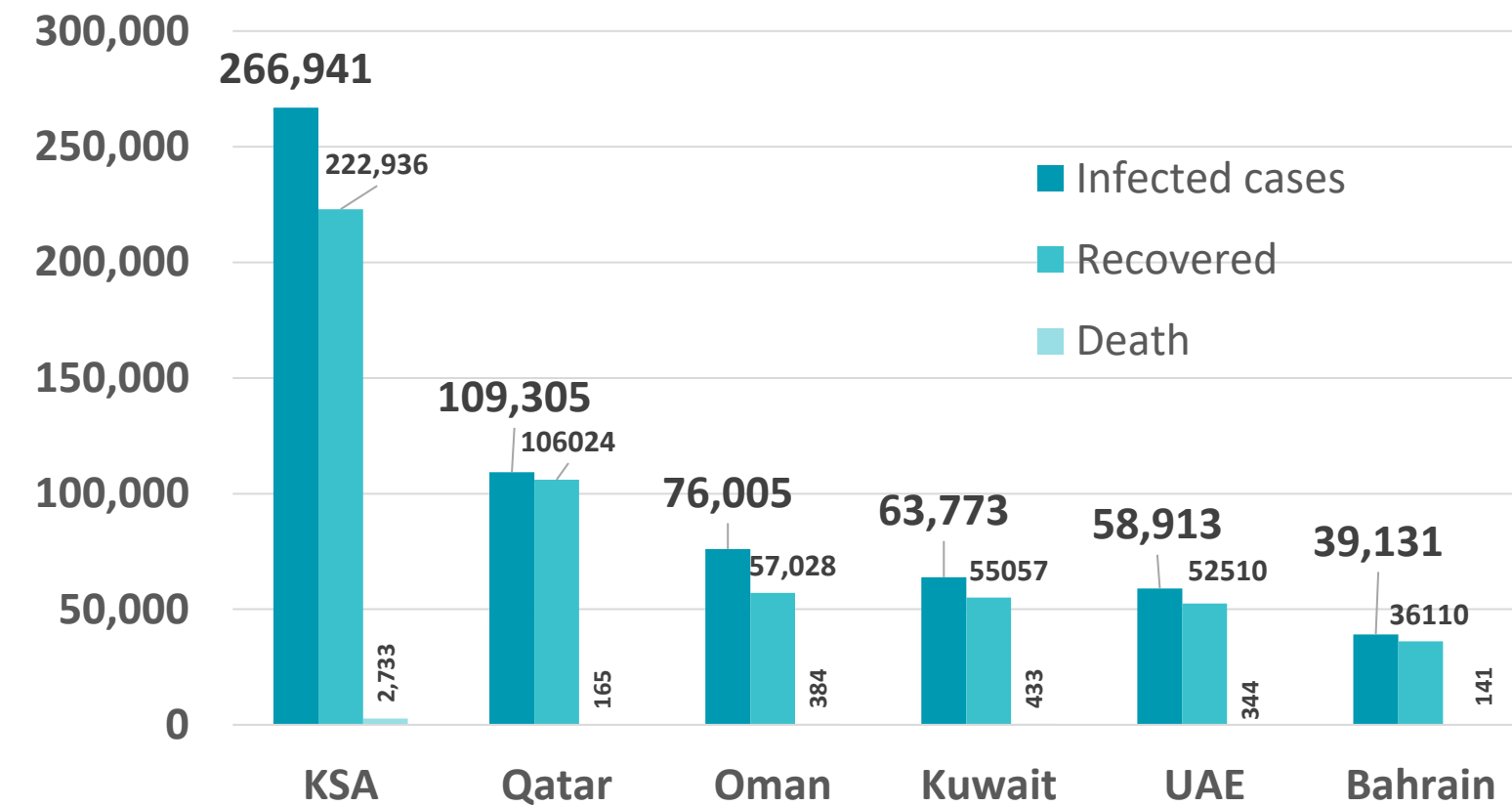


## Figure 9: Comparative Analysis of the Distribution of COVID-19 Cases in GCC Countries

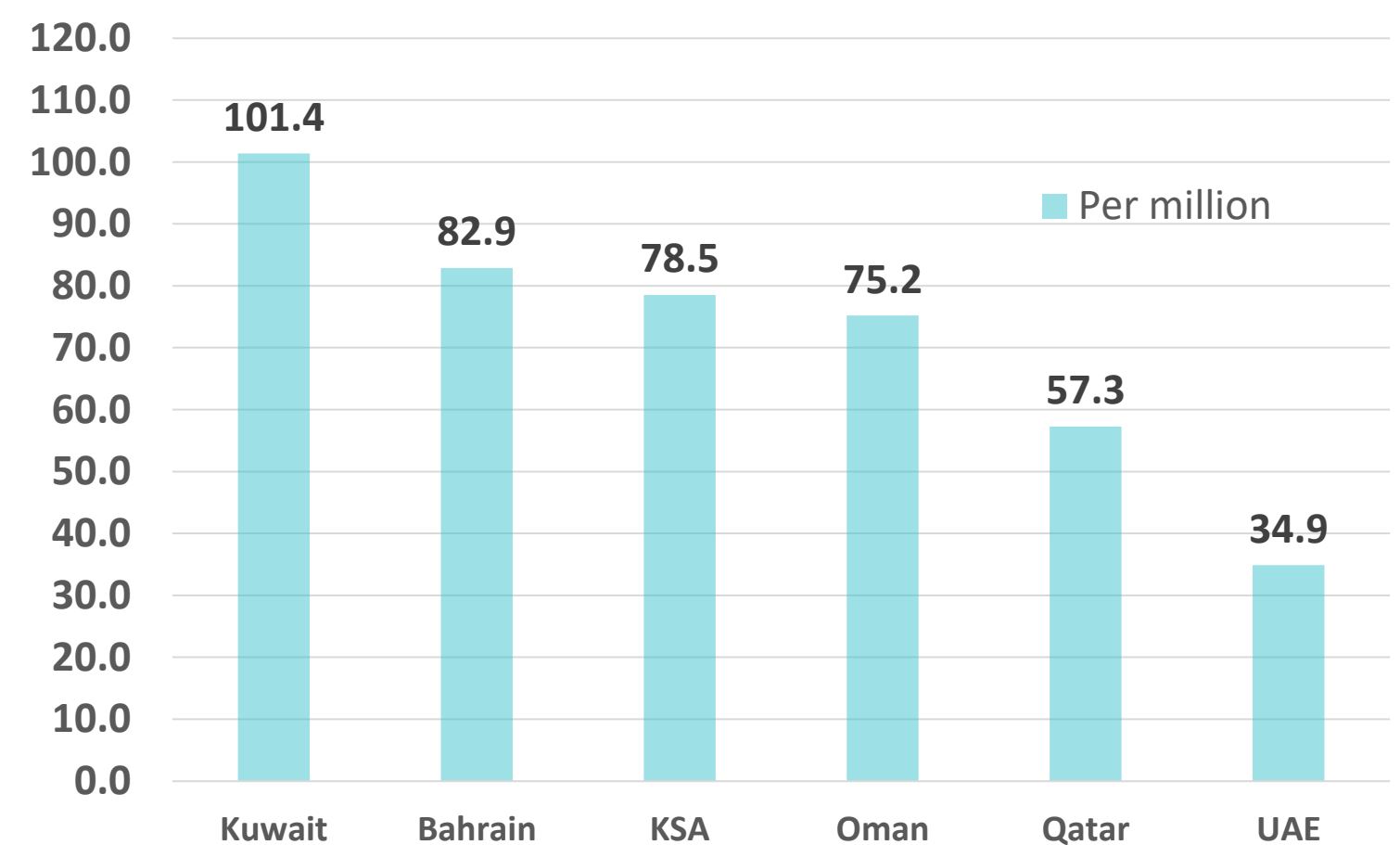
### TOTAL NUMBER OF INFECTED CASES



### TOTAL NUMBER OF INFECTED, RECOVERED AND DEATH CASES



### DEATH PER MILLION



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

### UAE



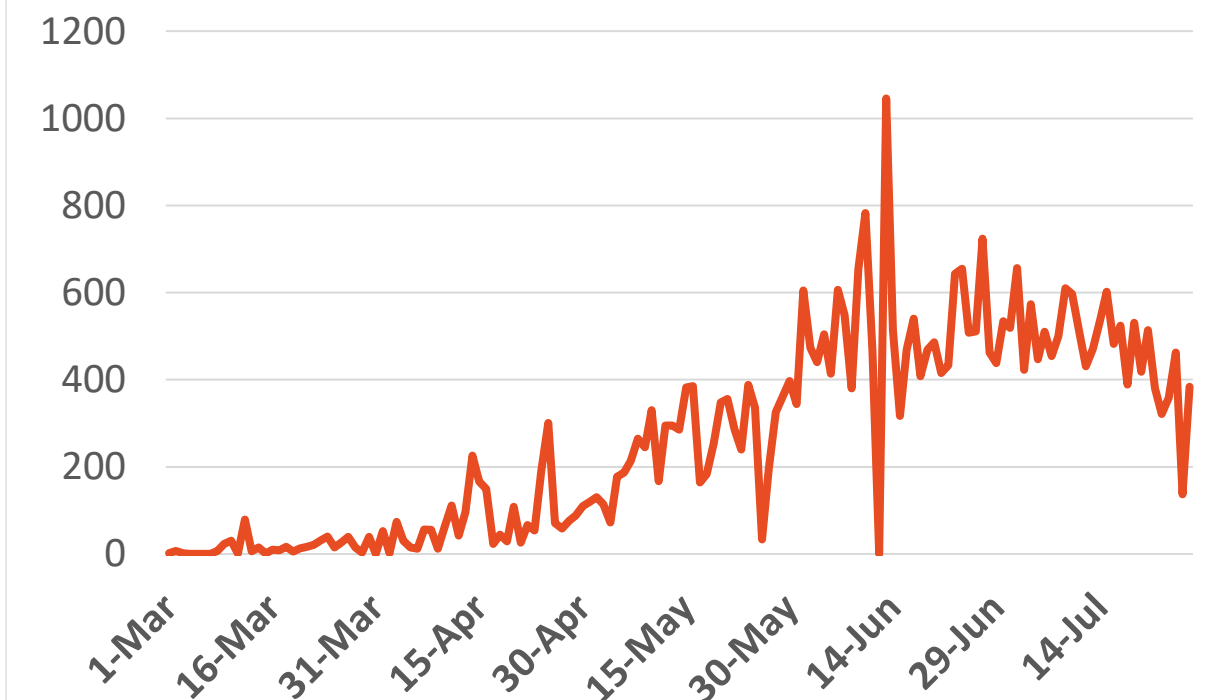
Source : National Emergency Crisis and Disaster Management Authority

### KSA



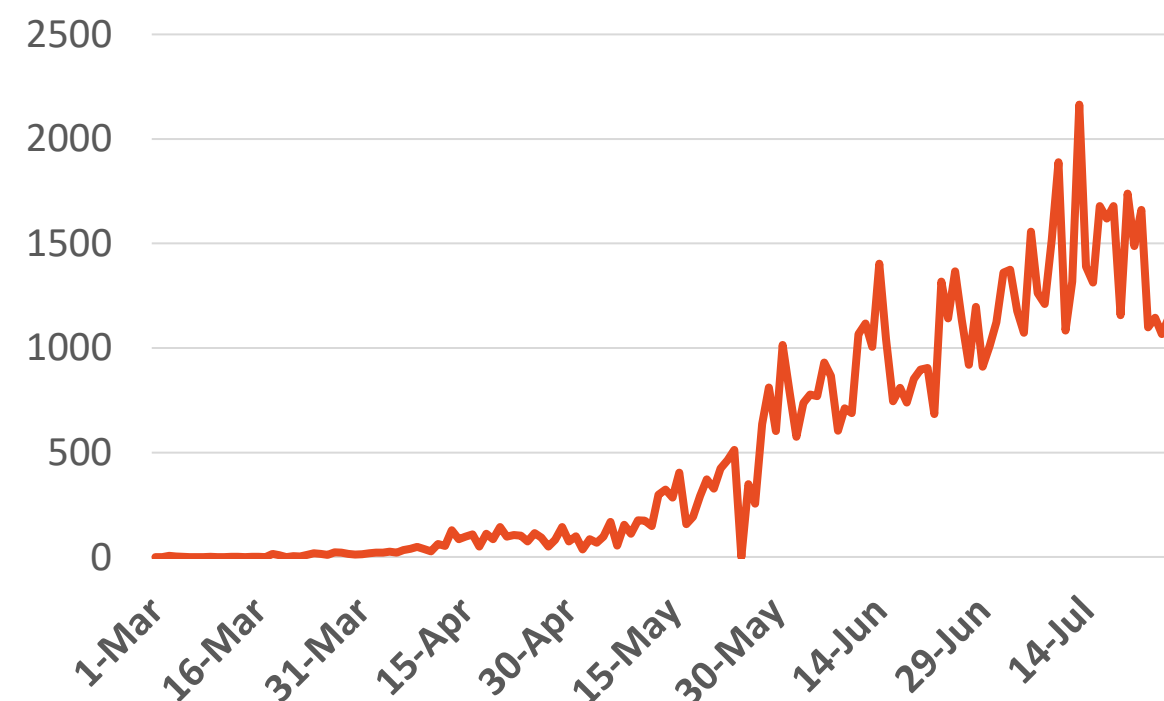
Source : KSA ministry of health

### Bahrain



Source :WHO

### Oman



Source :Oman ministry of health

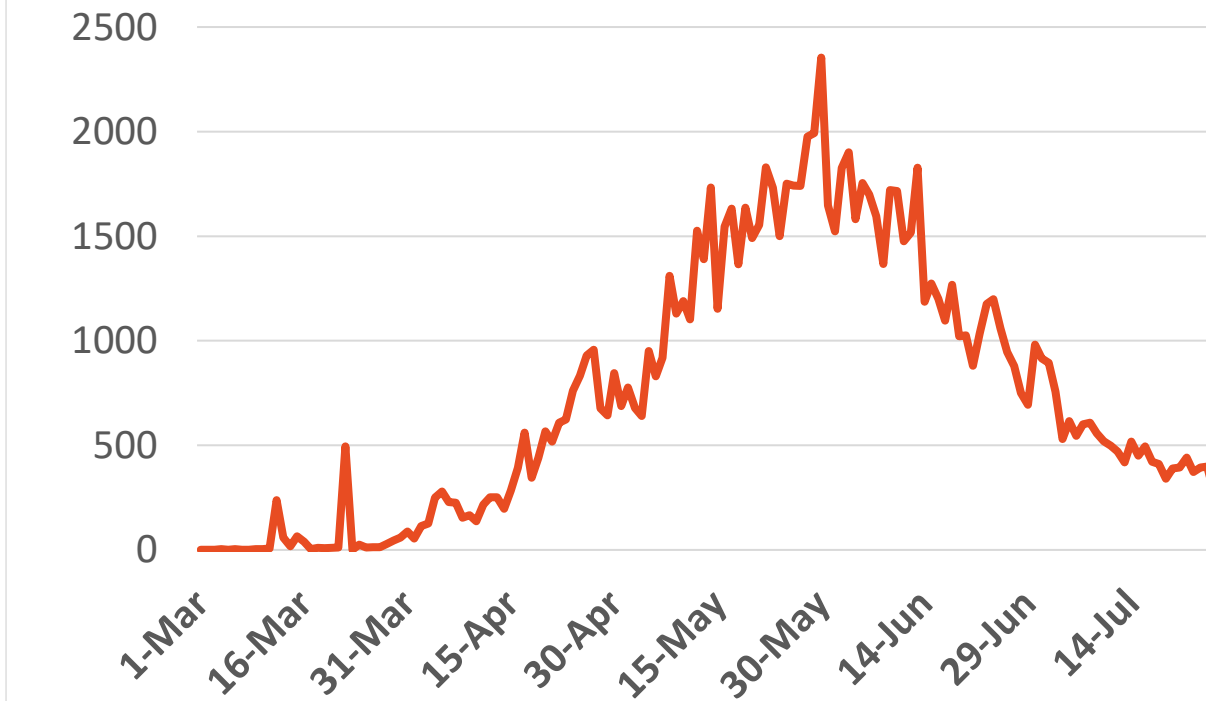
### Kuwait

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Source : Kuwait ministry of health

### Qatar



Source : Qatar ministry of health

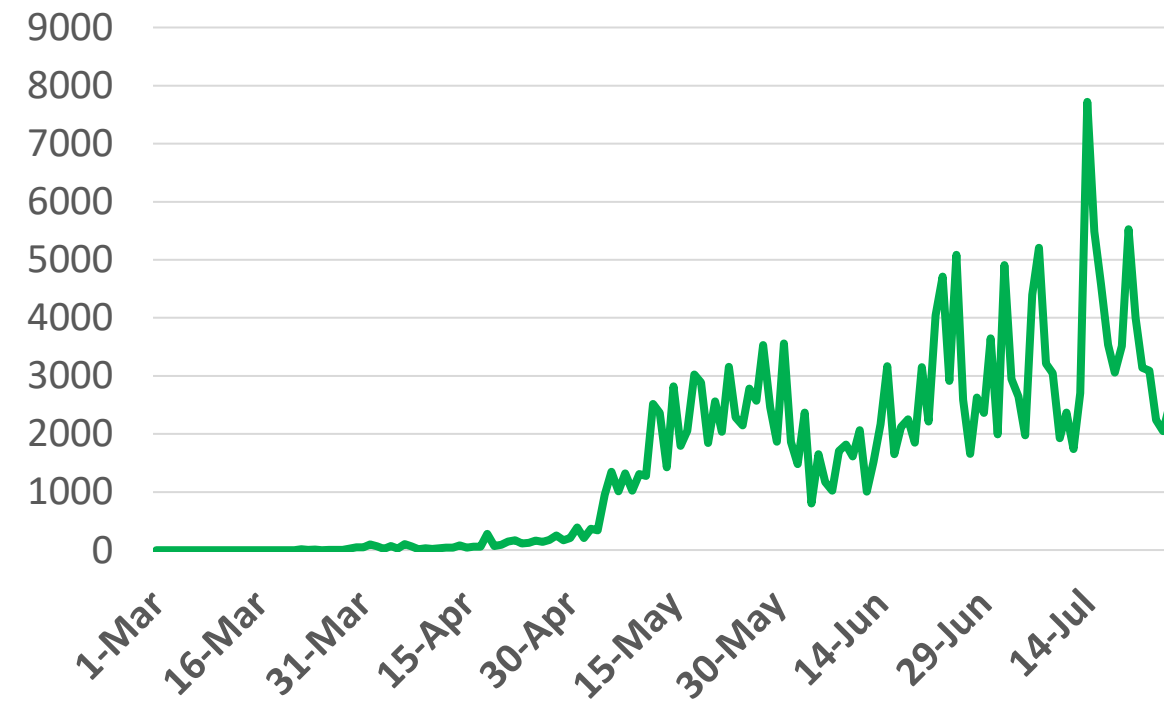
## Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries

### UAE



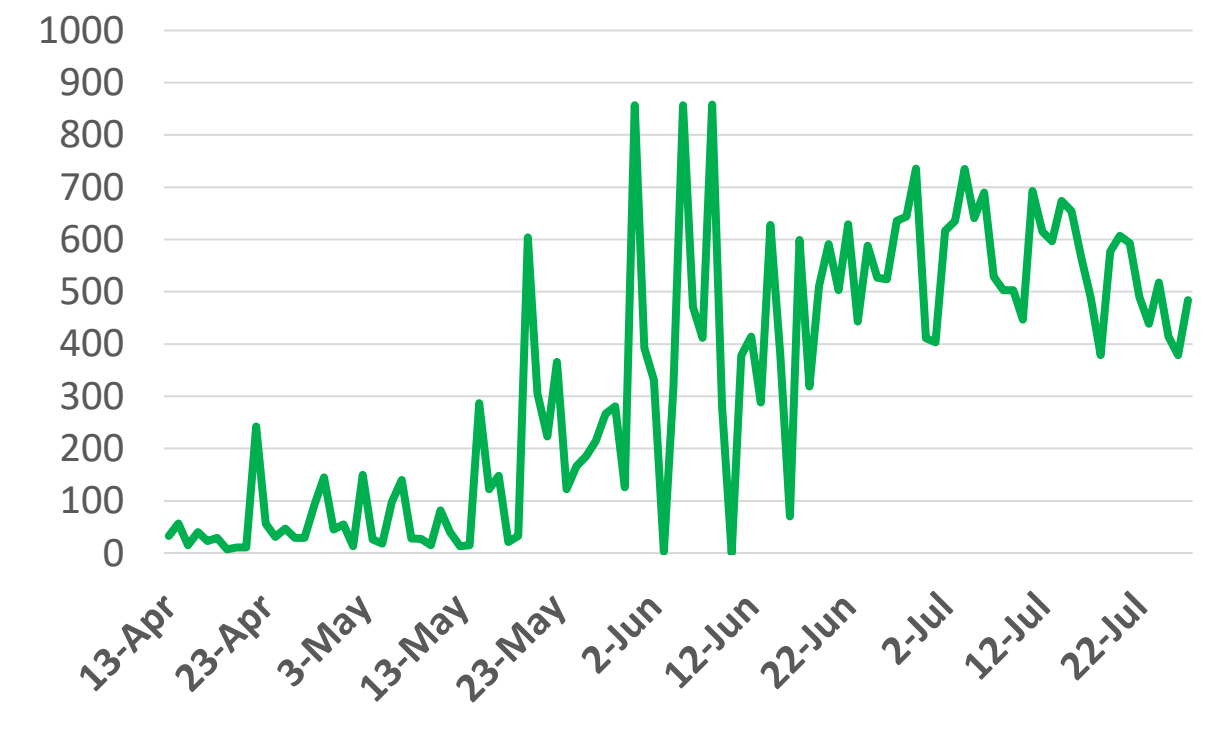
Source : National Emergency Crisis and Disaster Management Authority

### KSA



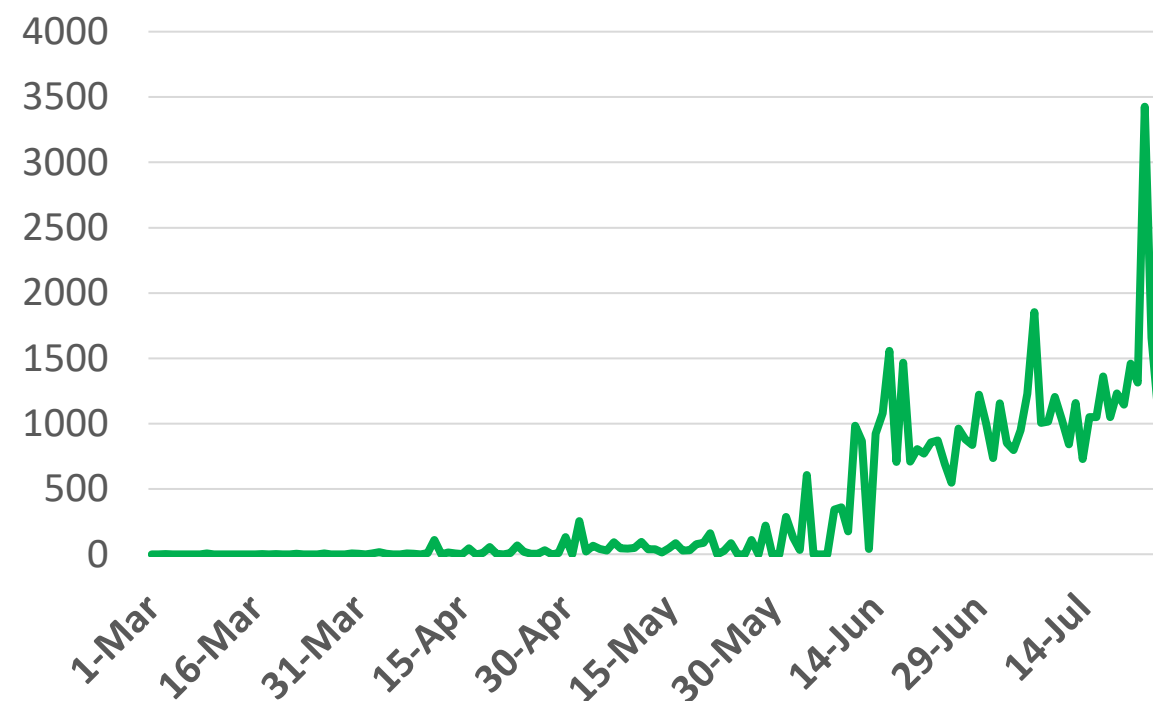
Source : KSA ministry of health

### Bahrain



Source : GCCStat

### Oman



Source : Oman ministry of health

### Kuwait

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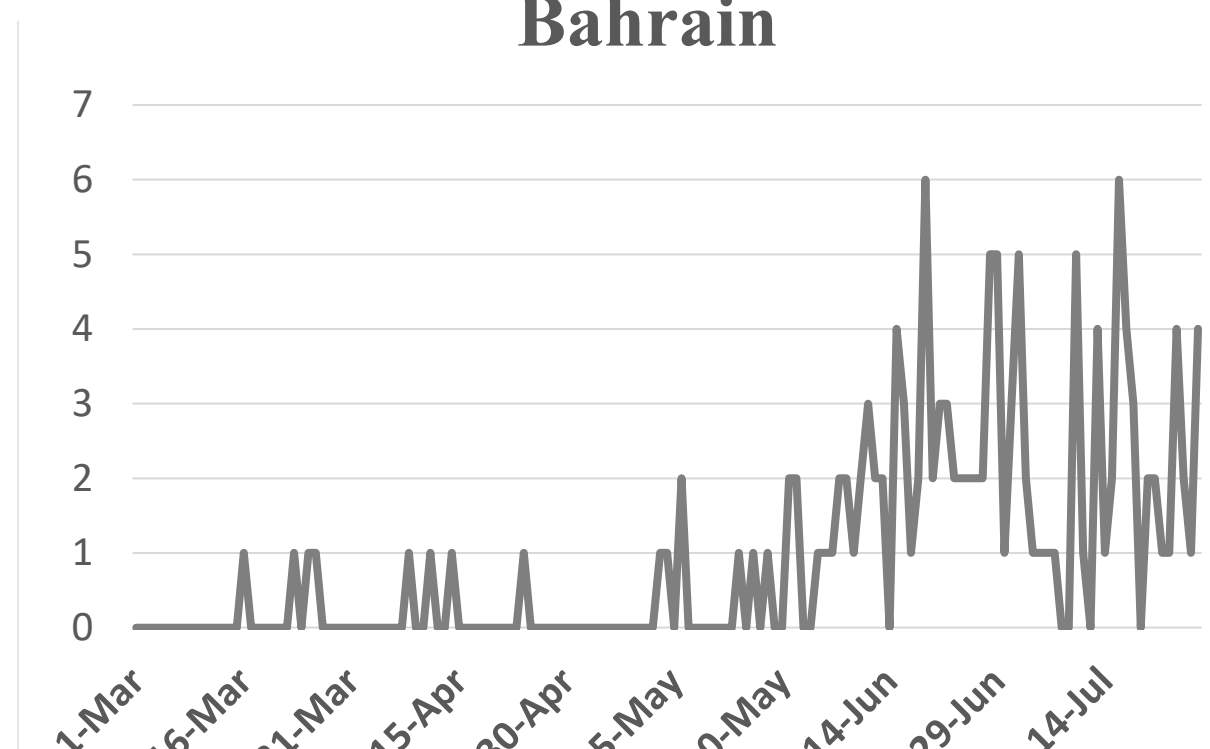
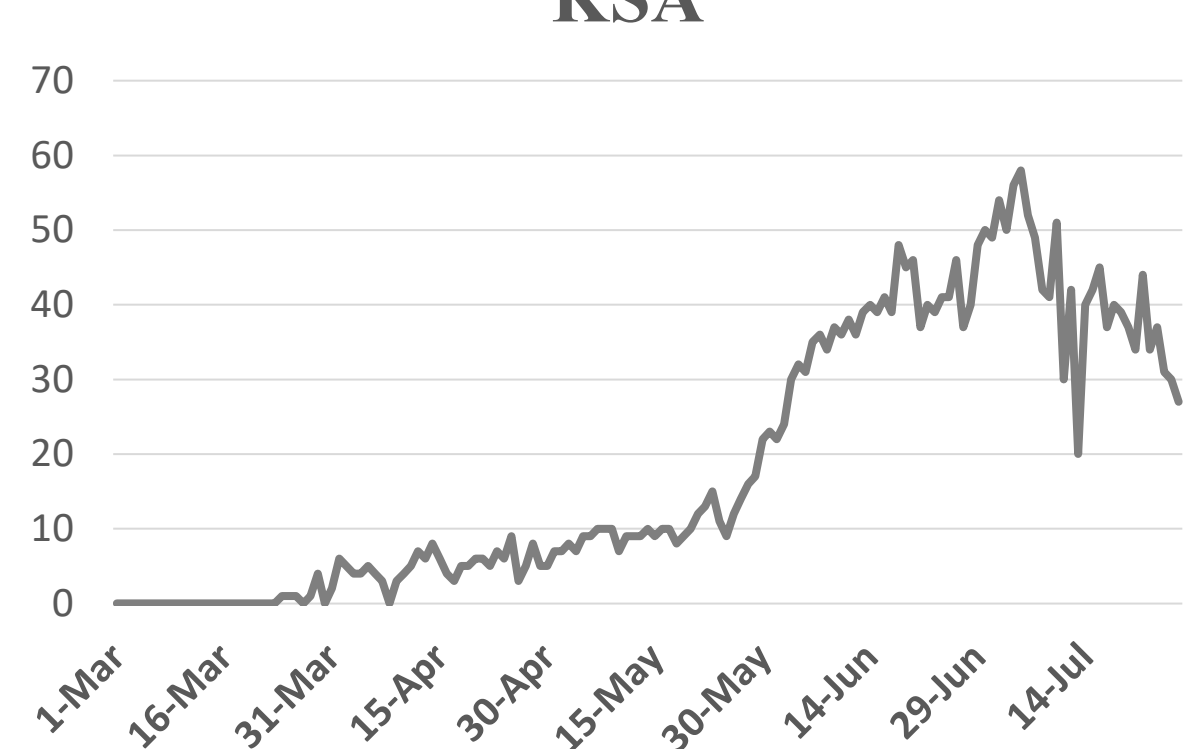
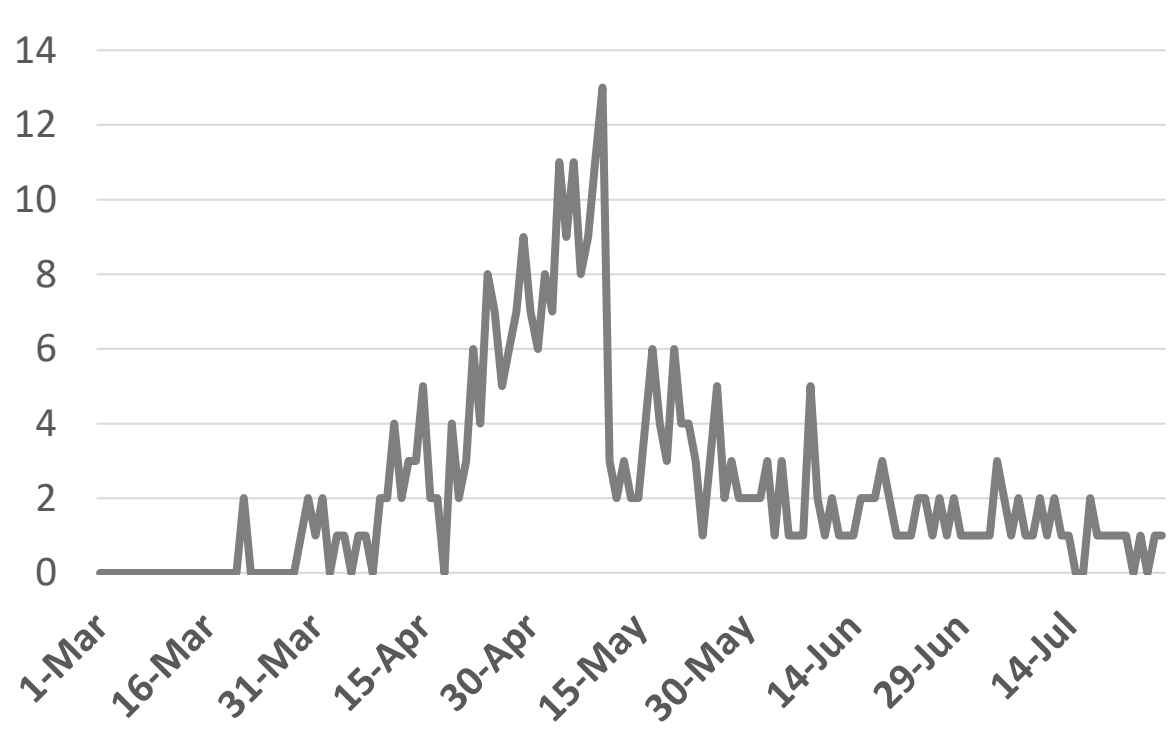
Source : Kuwait ministry of health

### Qatar



Source : Qatar ministry of health

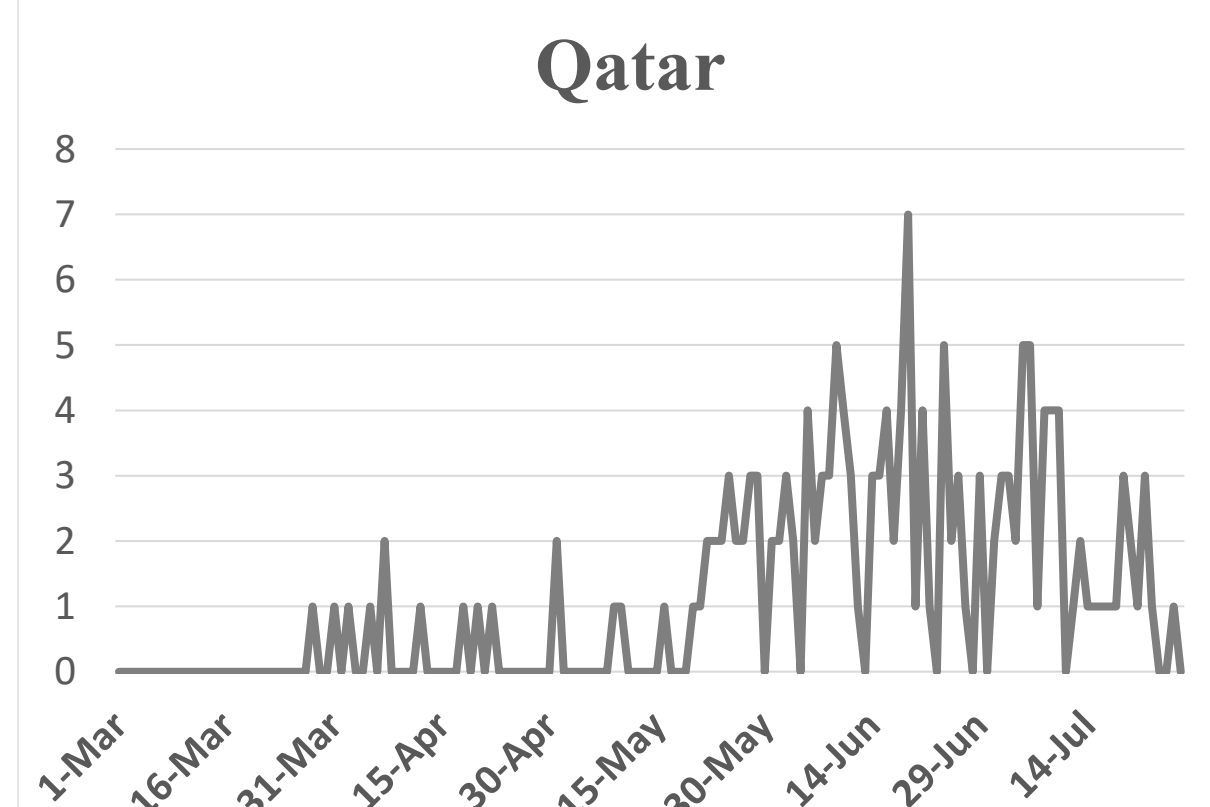
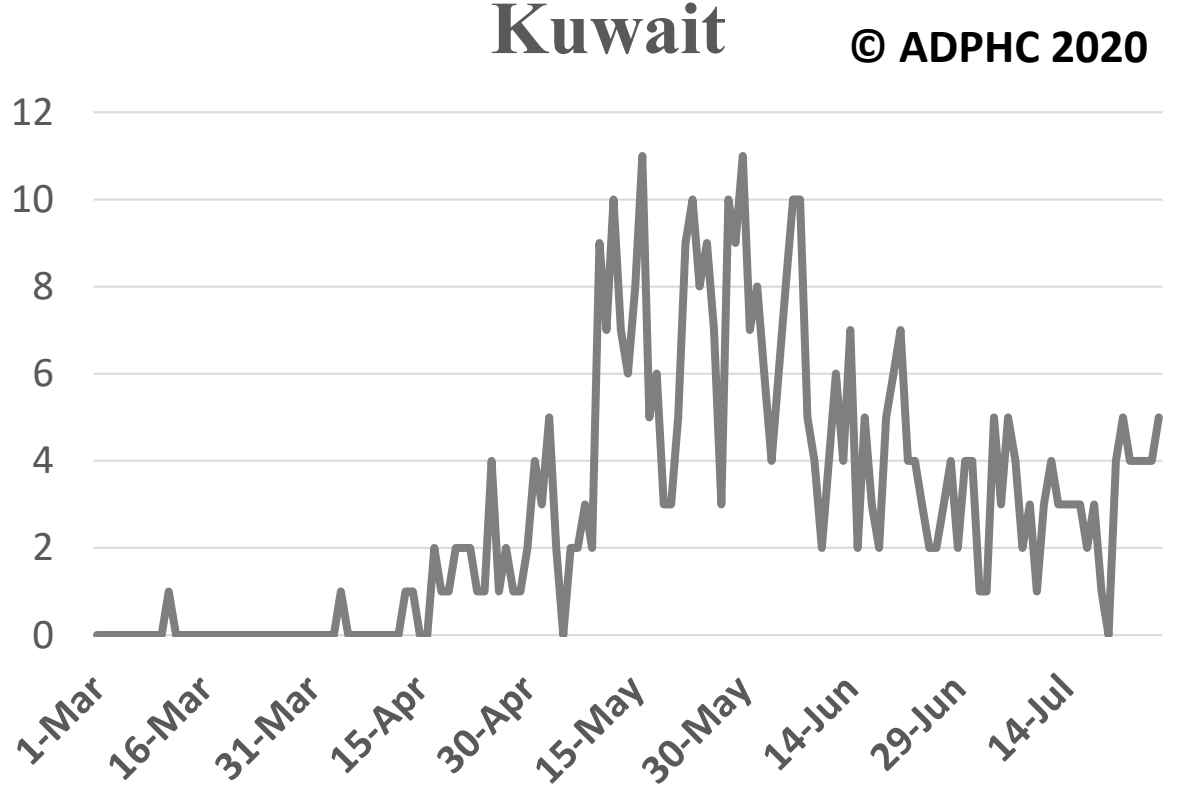
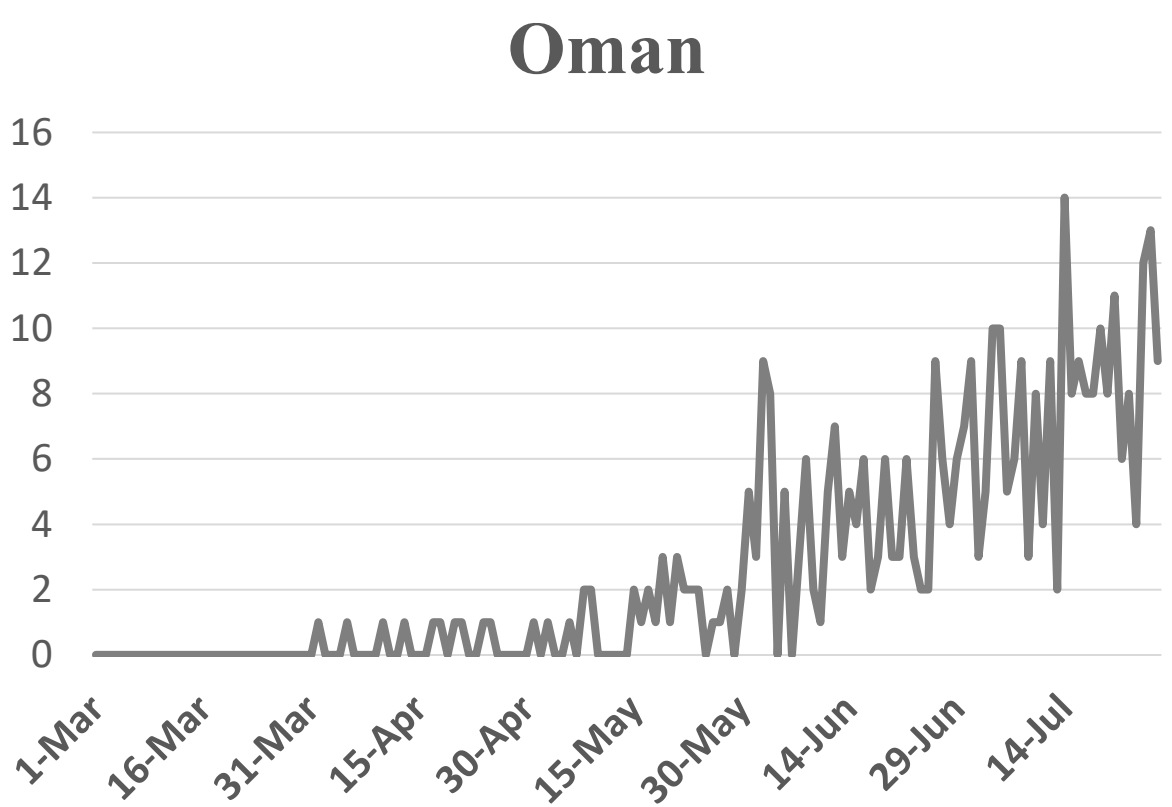
**Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries**



Source : National Emergency Crisis and Disaster Management Authority

Source : KSA ministry of health

Source :WHO



Source :Oman ministry of health

Source : Kuwait ministry of health

Source : Qatar ministry of health



## Article 1: Offline: Preparing for a Vaccine Against COVID-19

Published

25 July 2020 [THE LANCET](#)

- This commentary article discusses how despite good vaccine results being published there are challenges to be accepted, especially among anti-vaccine campaigns.
- Two vaccine trials reported this week in The Lancet encourage the view that a vaccine against severe acute respiratory syndrome coronavirus 2, can be produced within the next 18 months, however with no guarantees. The ChAdOx1 nCoV-19 vaccine, tested in five trial sites in the UK, was safe and well-tolerated and led to striking findings of both humoral and cellular immune responses. This candidate vaccine is now undergoing phase 3 trials in Brazil, South Africa, and the UK.
- Another vaccine in China completed a single-centre phase 2 randomized trial, using a recombinant adenovirus type-5-vectored COVID-19 vaccine. Results showed it is safe, but it produced a weaker immune response in older recipients. As the vaccine enters phase 3 trials, a second dose will be considered for this group to boost their immunity.
- Anti-vaccine campaigners are mobilizing to challenge the introduction of a vaccine to protect the public against COVID-19. Opinion polls suggest that in some countries, such as the USA, as little as half the eligible population would be willing to receive a vaccine against SARS-CoV-2. They claim that pharmaceutical industry is trying to profit from the pandemic to the notion that the virus poses little danger to human health. The context of urgency is also strengthening the anti-vaccination movement. Some anti-vaccination campaigners are claiming that safety tests have not been properly conducted.
- The author suggests that advocacy for a COVID-19 vaccine; should ideally be led by local communities and local community champions. The availability of a vaccine should be transparently prioritized for those at greatest risk. Access to a vaccine should be through familiar settings (pharmacies, supermarkets and healthcare centres) and public information campaigns; should be considered.
- A COVID-19 vaccination strategy demands a whole-of-society response, incorporating businesses, trade unions, faith communities, charities, media, entertainment, and sports. A vaccine to protect the public against SARS-CoV-2 is the most important, and immediate technical challenge humanity has ever faced.

## Article 2:

# Hydroxychloroquine With or Without Azithromycin in Mild-to-Moderate Covid-19

Published

23 July 2020 [NEJM](#)

Summarized by subject matter experts

- Hydroxychloroquine has antiviral effects in vitro, and, in association with azithromycin, was suggested to decrease SARS-CoV-2 viral load in a small, nonrandomized study. However, evidence on the safety and efficacy of these therapies is limited.
- In this study, the investigators conducted a multicenter, randomized, open-label, three-group, controlled trial on hospitalized patients with suspected or confirmed COVID-19 with low requirements of supplemental oxygen.
- Patients were randomly assigned to receive one of the following treatment plans over 7-days:
  - Standard care
  - Standard care plus hydroxychloroquine (400 mg) twice daily.
  - Standard care plus hydroxychloroquine (400 mg) twice daily with azithromycin (500 mg) once daily.
- Out of 667 randomized patients, 504 patients had confirmed Covid-19 and were included in the modified intention-to-treat analysis. As compared with standard care, the proportional odds of having a higher score on the seven-point ordinal scale at 15 days was not affected, by either hydroxychloroquine alone (odds ratio, 1.21; 95% confidence interval [CI], 0.69 to 2.11;  $P = 1.00$ ) or hydroxychloroquine plus azithromycin (odds ratio, 0.99; 95% CI, 0.57 to 1.73;  $P = 1.00$ ). Prolongation of the corrected QT interval and elevation of liver-enzyme levels were more frequent in patients receiving hydroxychloroquine, alone or with azithromycin, than in those who were not receiving either agent.
- The authors concluded that in hospitalized patients with mild-to-moderate Covid-19, the use of hydroxychloroquine, alone or with azithromycin, did not improve clinical status at 15 days as compared with standard care.





# THANK YOU

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