

SCIENTIFIC RESEARCH MONITORING ON COVID-19

1 JULY 2020

For accessing the full series of published scientific reports please visit the following link:
<https://www.doh.gov.ae/ar/covid-19/Healthcare-Professionals/Scientific-Publication>



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Scientific Research

Ministry of Health and Prevention Contribution:

- **Mental Health:** Mental Health and Substance Use; Frontline Workers and COVID-19: Coping with Stress (page 17)
- **Clinical Feature:** Clinical Characteristics and Outcomes in Patients with Coronavirus Disease 2019 and Multiple Sclerosis (page 18)
- **Clinical Feature:** Biological Sex Impacts COVID-19 Outcomes (page 19)



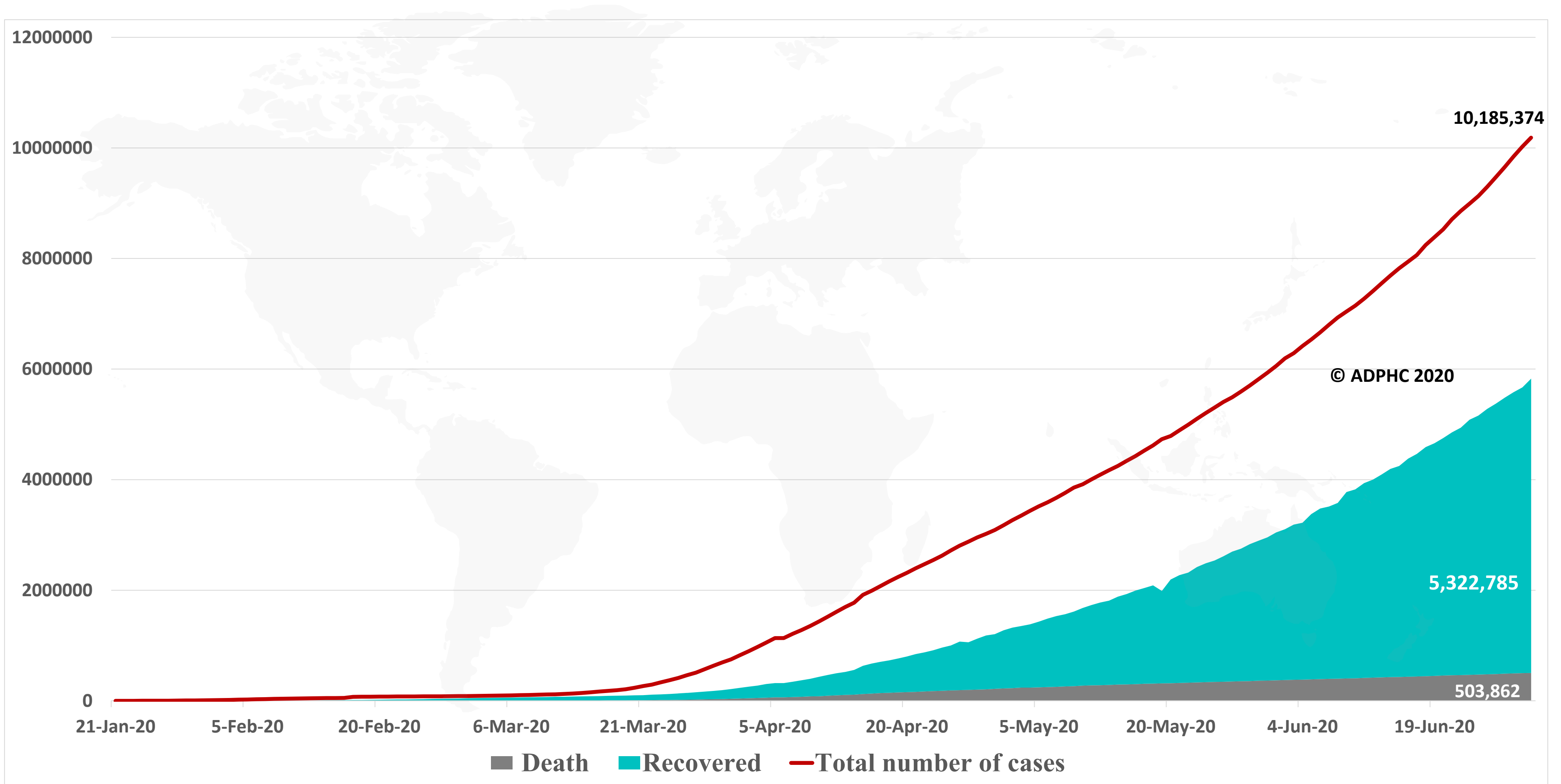


- WHO and the King Salman Humanitarian Aid and Relief Centre have joined forces to ensure access to healthcare for the vulnerable in remote areas in Yemen through the provision of a minimum service package.
- In Syria there has been about a 5% reduction in vaccination coverage in the first half of 2020, mainly as a result of challenges caused by the COVID-19 pandemic. During the 5-day immunization campaign, implemented by the Syrian Ministry of Health, health workers checked the vaccination status of more than 900000 children and vaccinated more than 210100 children.
- To promote community empowerment and trust, a ‘Global Risk Communication and Community Engagement Collective Service’ has been launched by WHO, UNICEF and IFRC with support from the Global Outbreak and Response Network and the Bill and Melinda Gates Foundation.





Figure 1: Total number of infected, recovered, and death cases (January 21st to Jun 30, 2020)



Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](#)

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Figure 2: Daily new infected COVID-19 cases reported between (January 21 to Jun 30, 2020).



Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](#)

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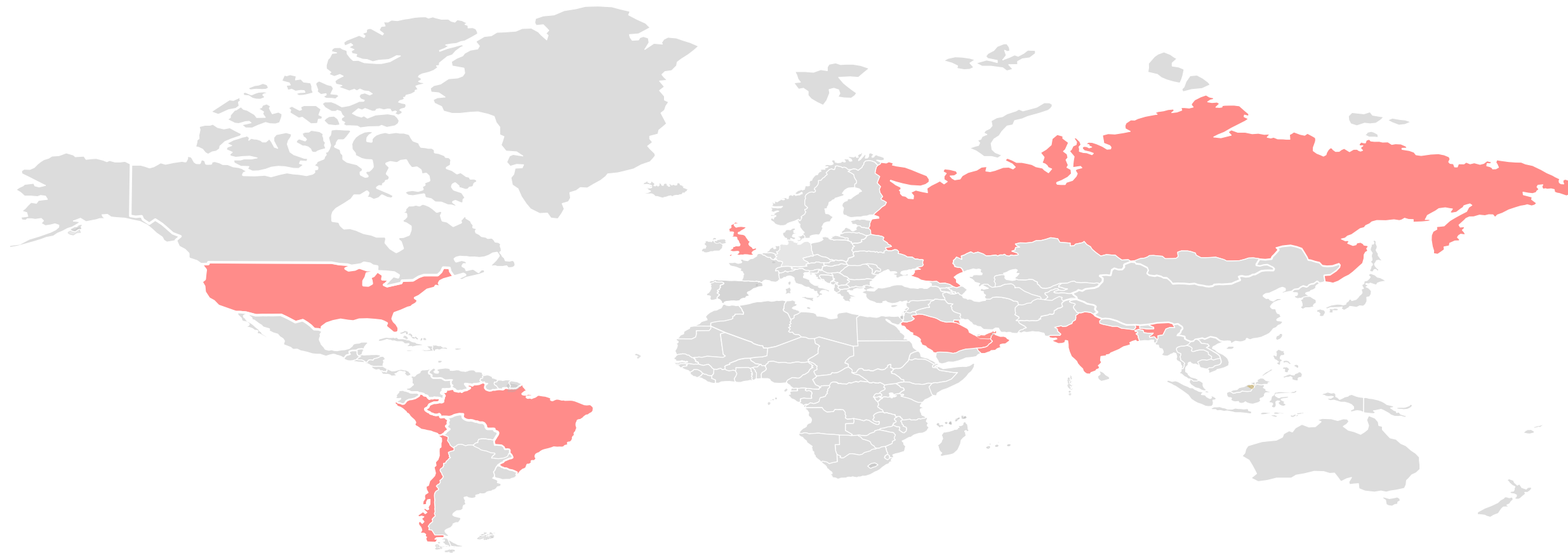
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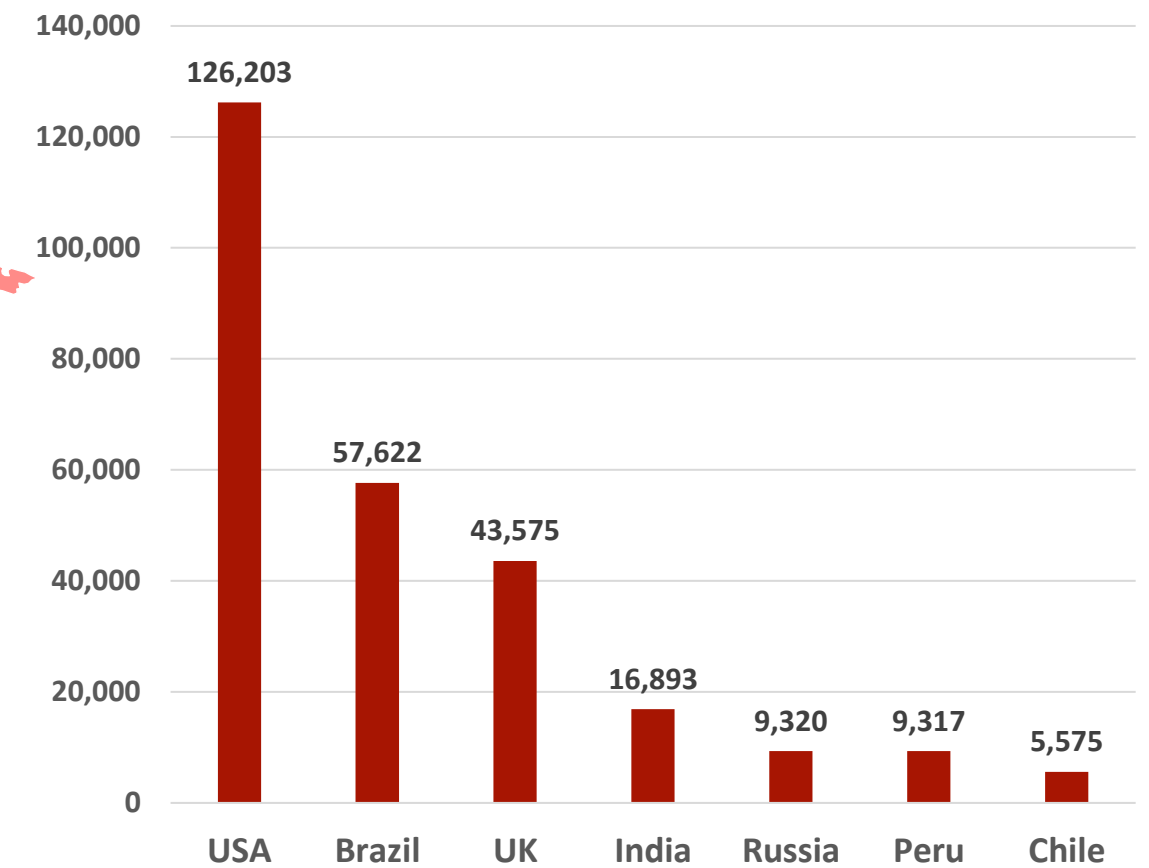




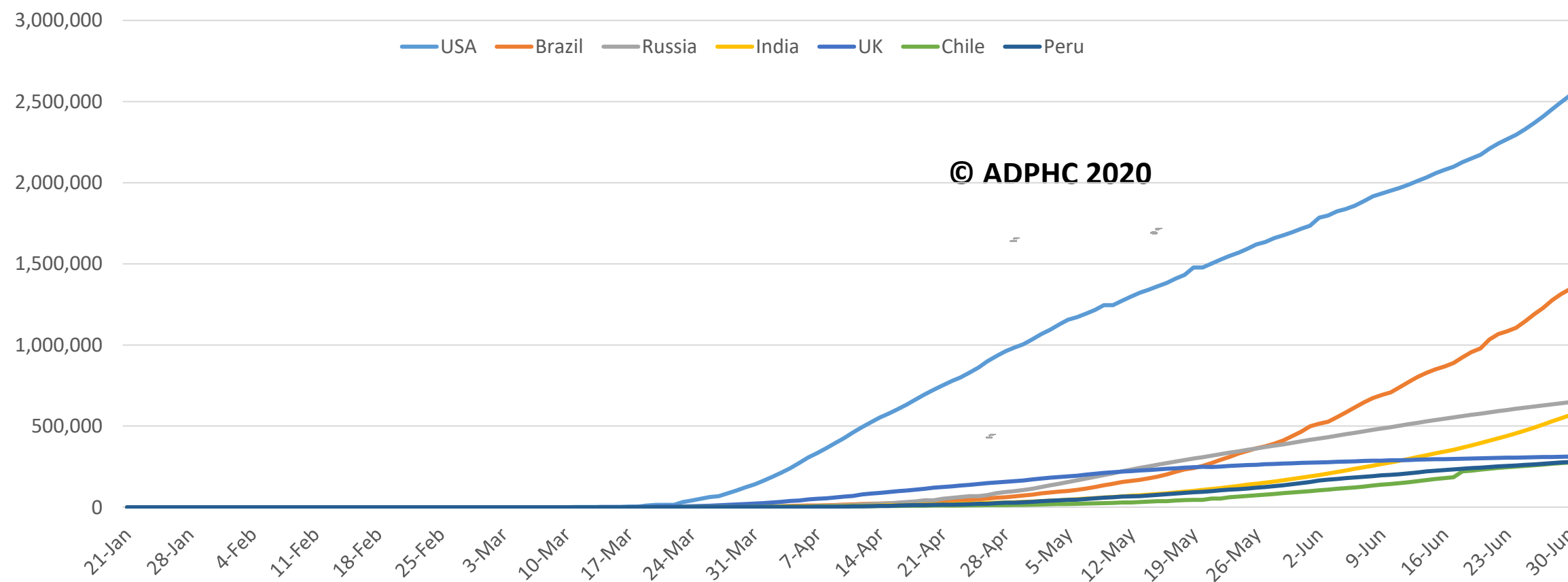
Figure 3 : Top 7 countries in the total number of cases due to COVID-19 (January 21 to Jun 30, 2020).



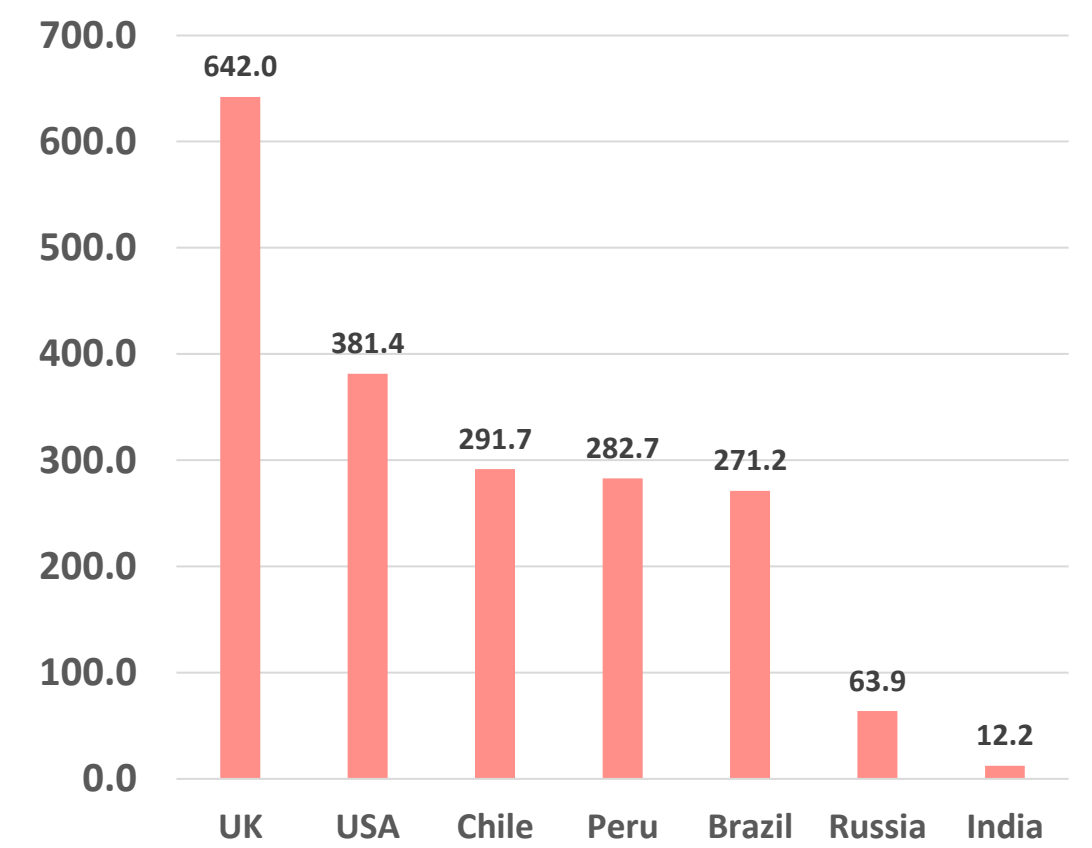
TOTAL DEATHS



Top Seven Countries in the number of infected cases



DEATHS PER MILLION



Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](https://www.who.int)

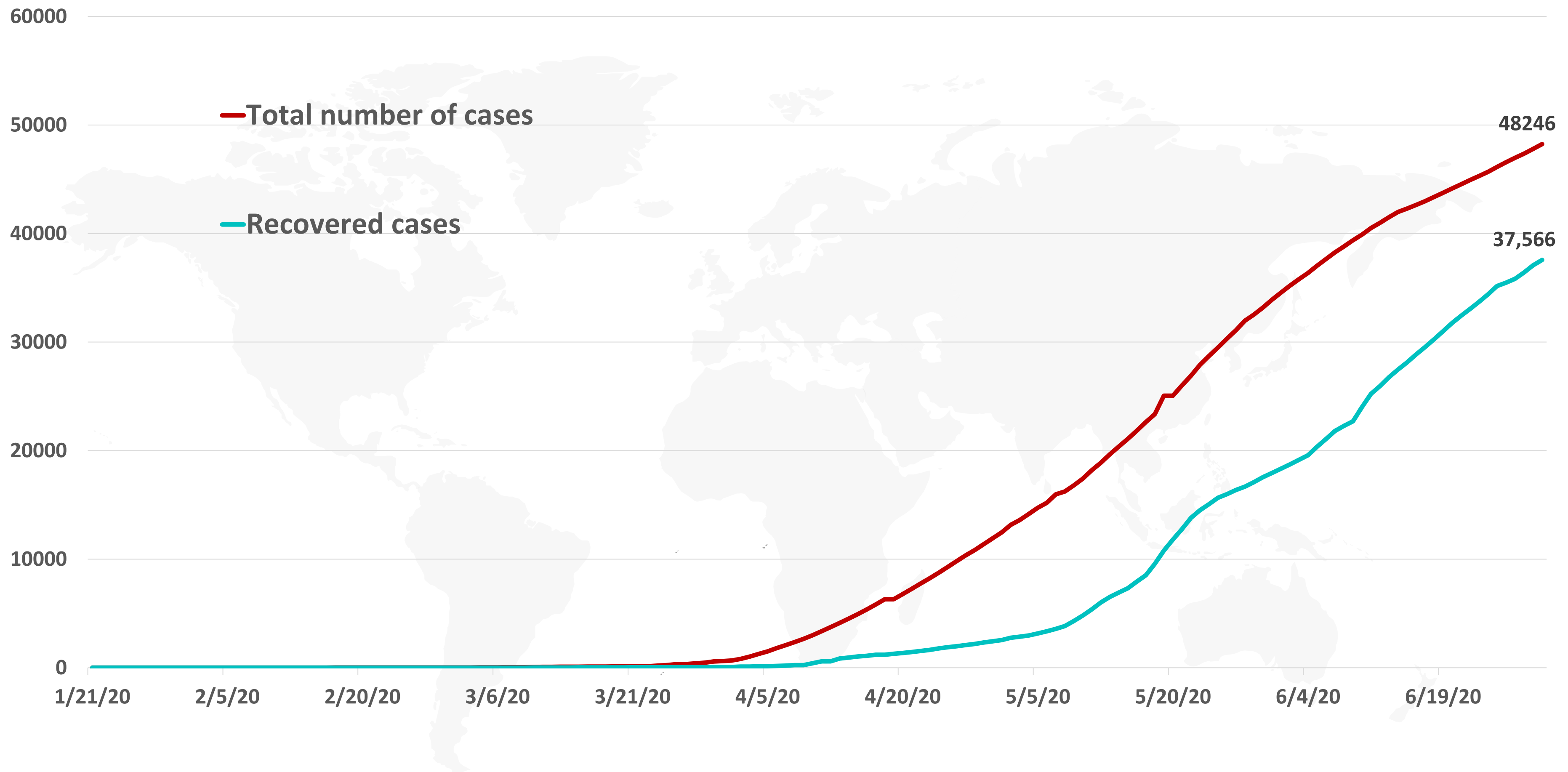
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Figure 4: Total number of COVID-19 infected and recovered cases in UAE over time



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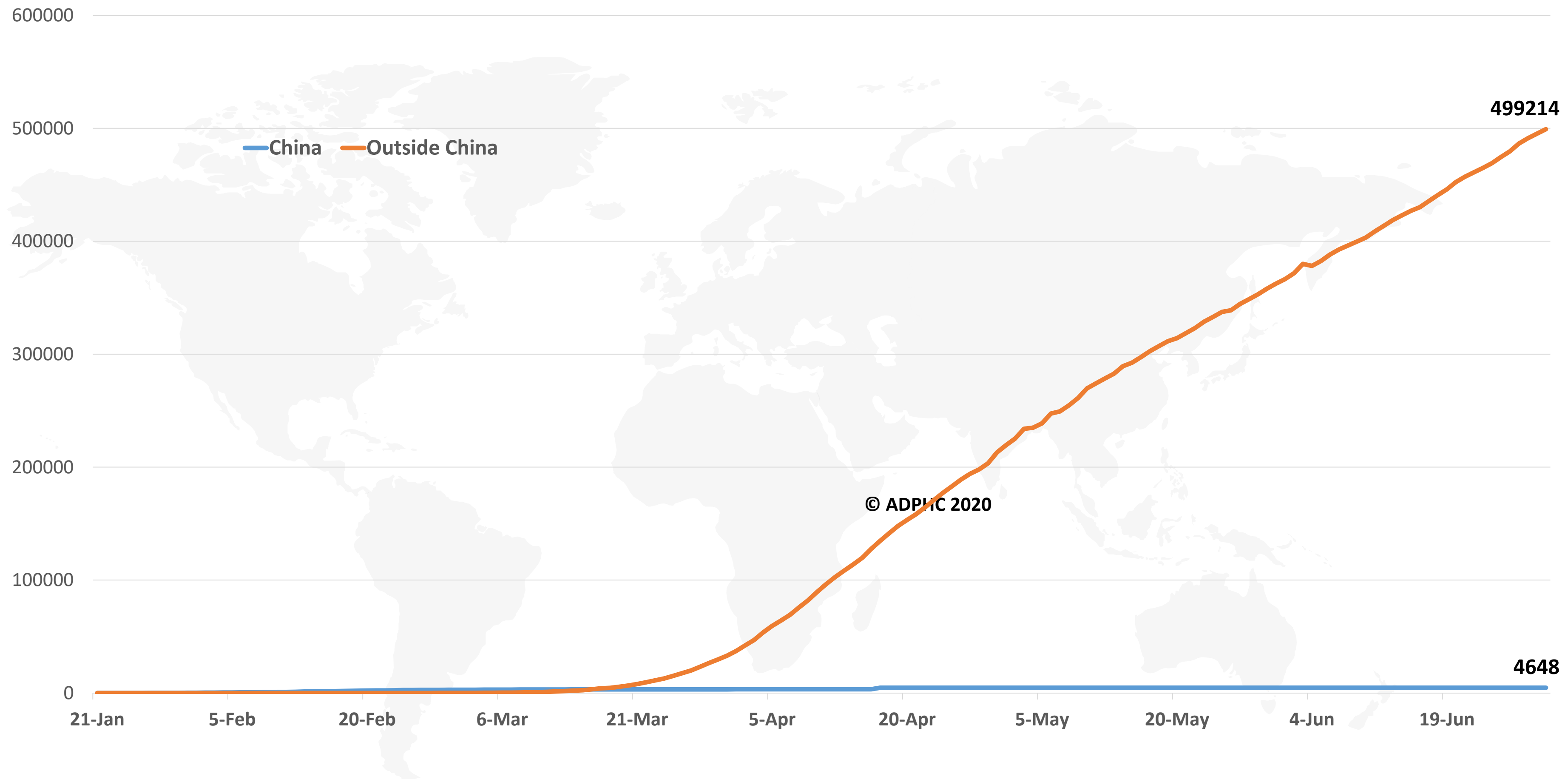
Data resources: [WHO](#)

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Figure 5: Total number of death due to COVID-19 reported by China and the rest of the world (January 22 to Jun 30, 2020).



Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](#)

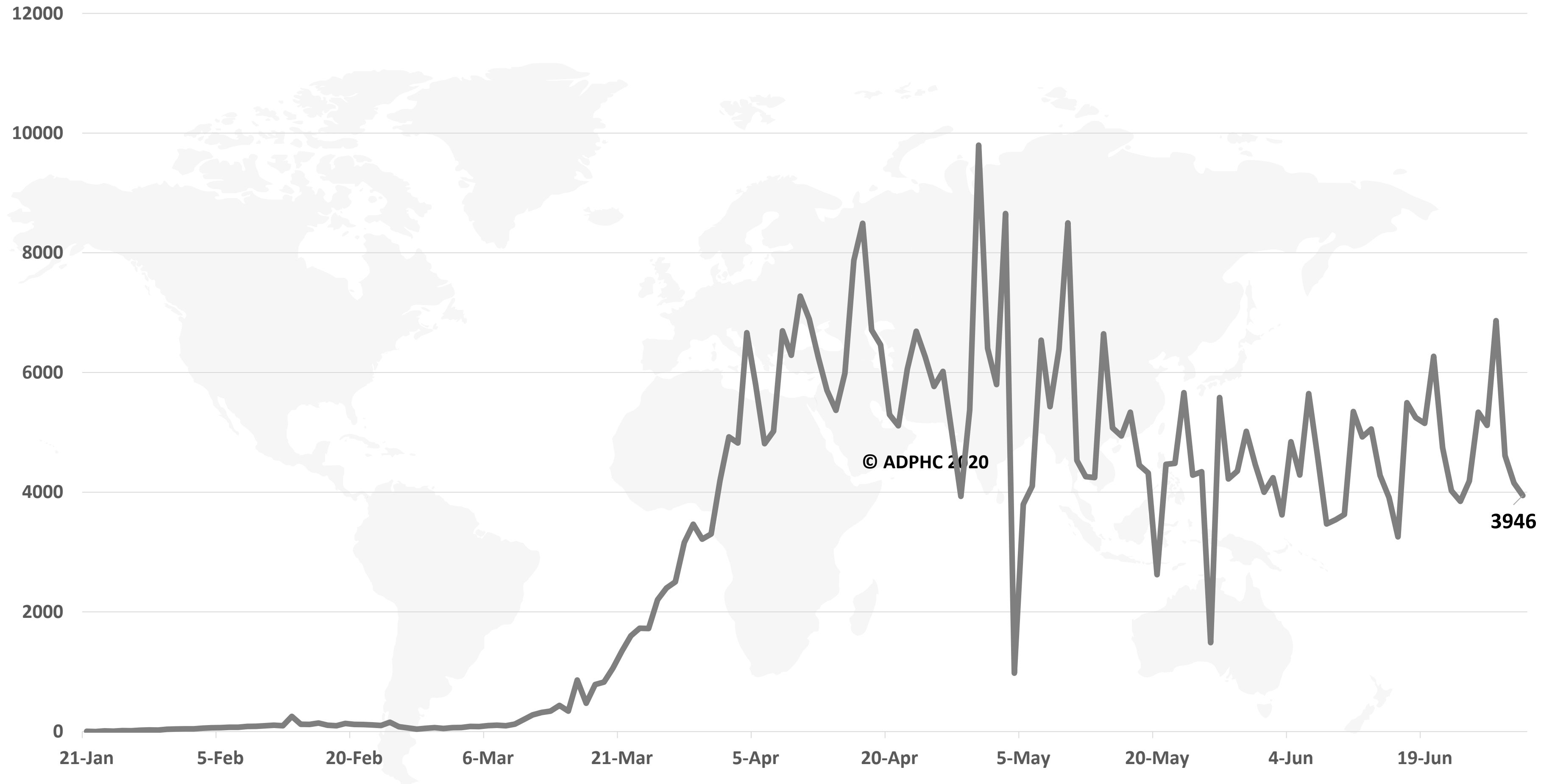
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Figure 6: Global daily new deaths due to COVID-19 (January 22 to Jun 30, 2020).



Line graph published by Abu Dhabi Public Health Center 2020.

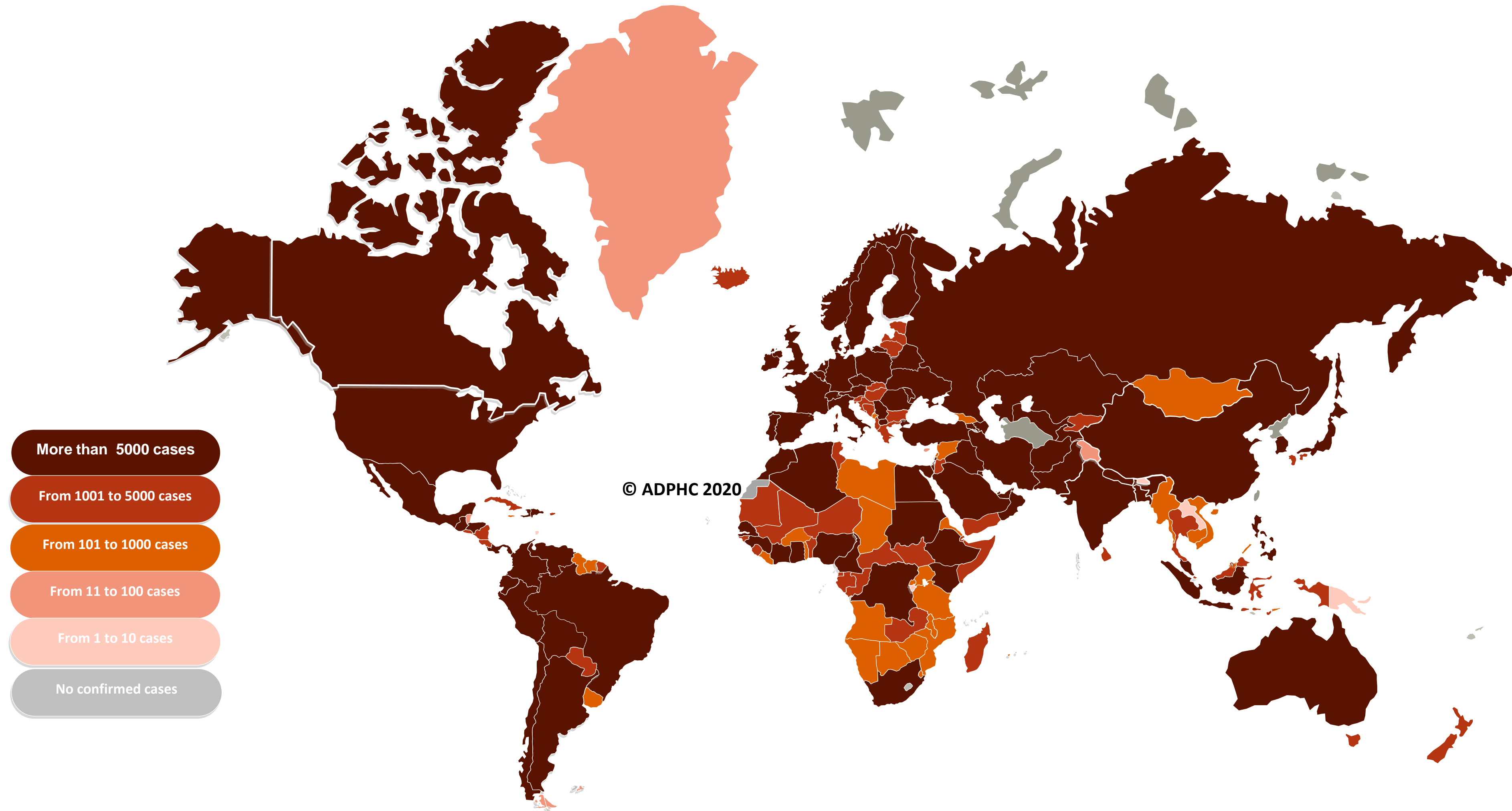
Data resources: [WHO](https://www.who.int/)

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Figure 7a : Global distribution of COVID-19 cases (Jun 30, 2020).



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Data resources: [WHO](#)

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Figure 7B: Bar chart illustrate the global distribution of COVID19 cases Jun 30, 2020)



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



Bar chart published by Abu Dhabi Public Health Center 2020.

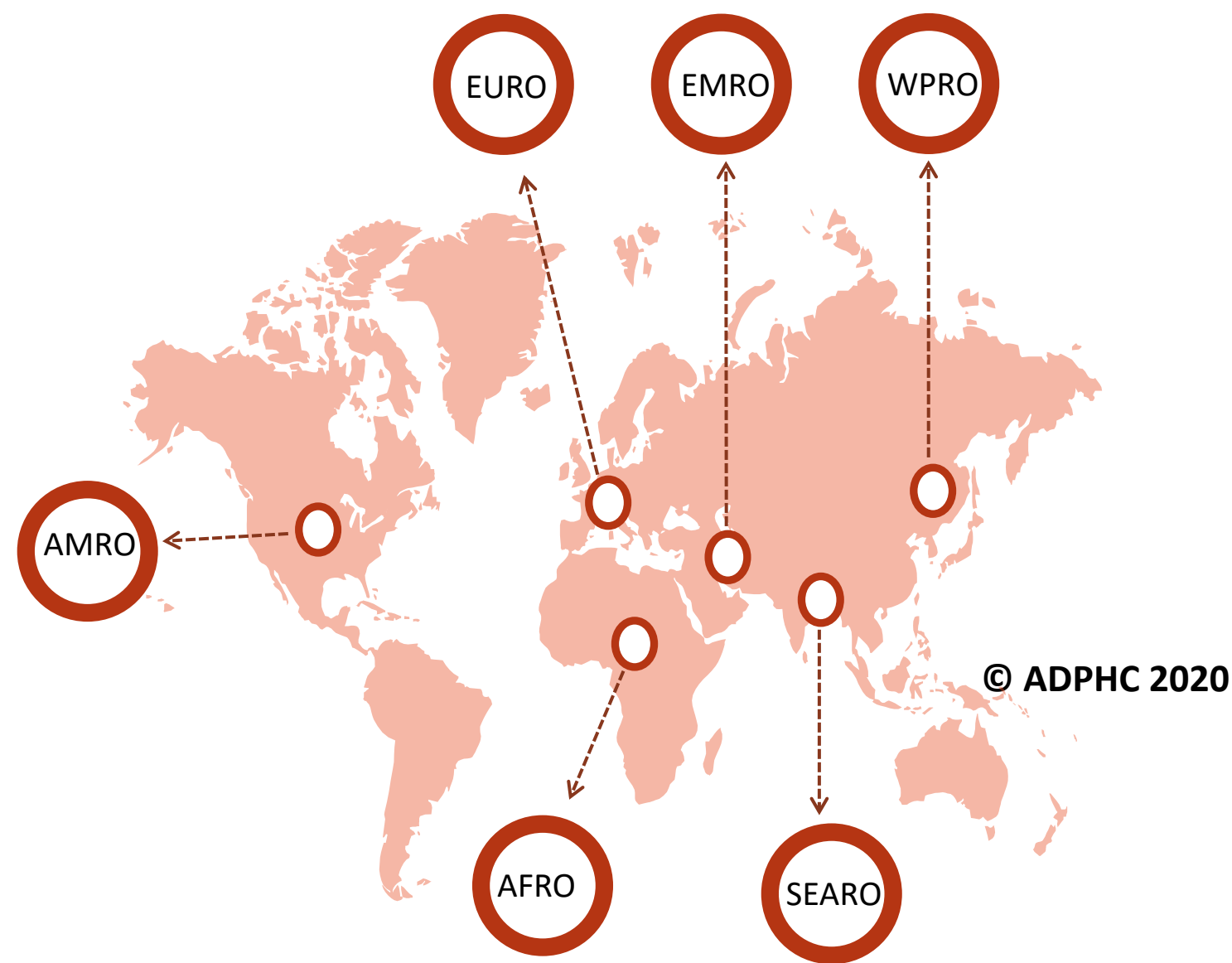
Data resources: [WHO](https://www.who.int)

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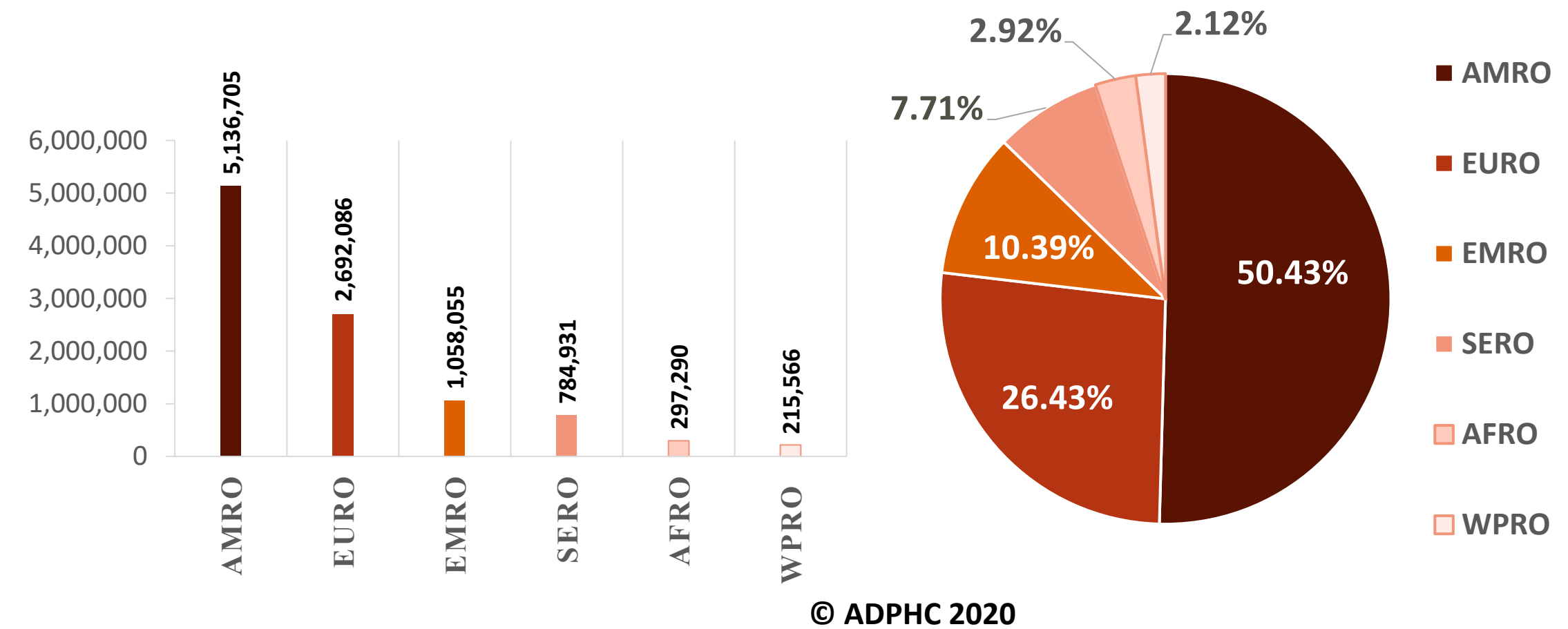
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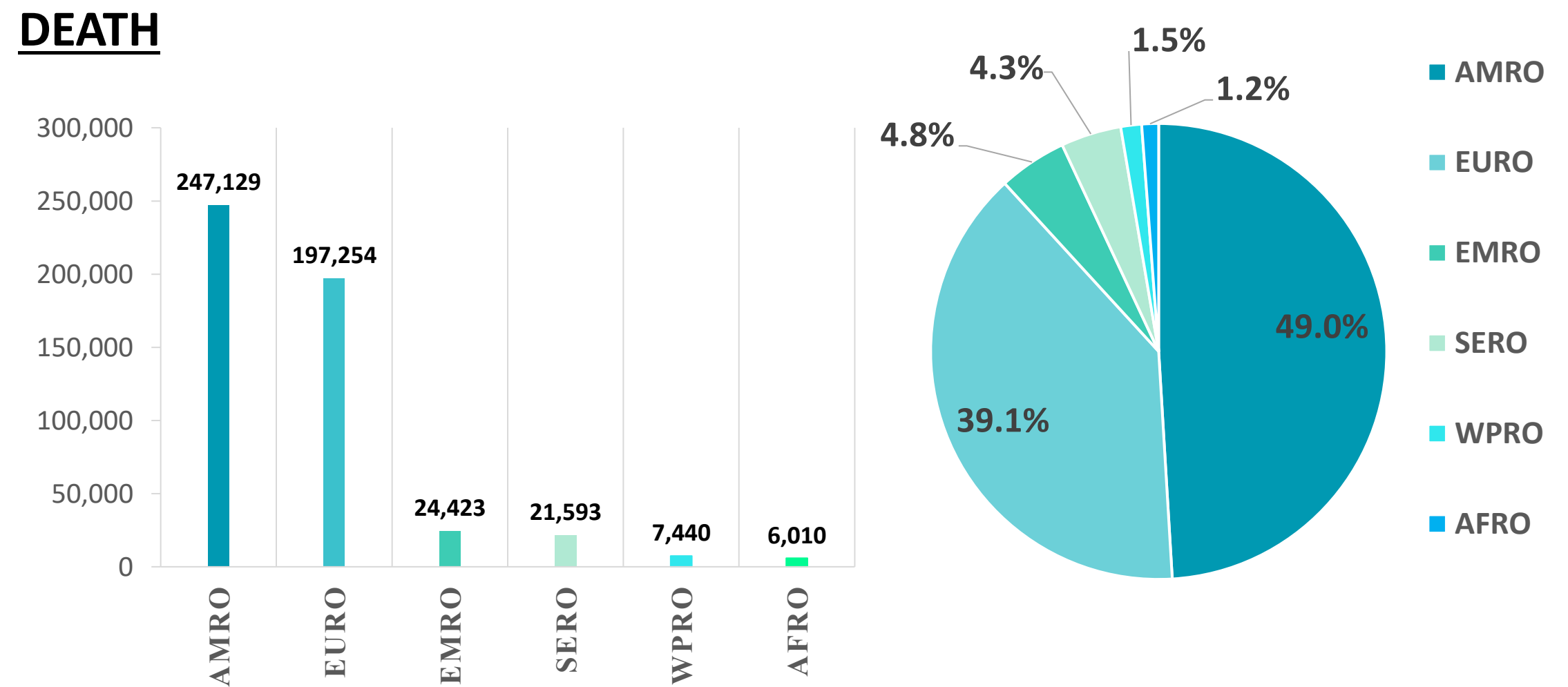
Figure 8: illustrate the Global distribution of COVID19 cases per region (Jun 30, 2020)



INFECTED



DEATH



Graphs published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](https://www.who.int)

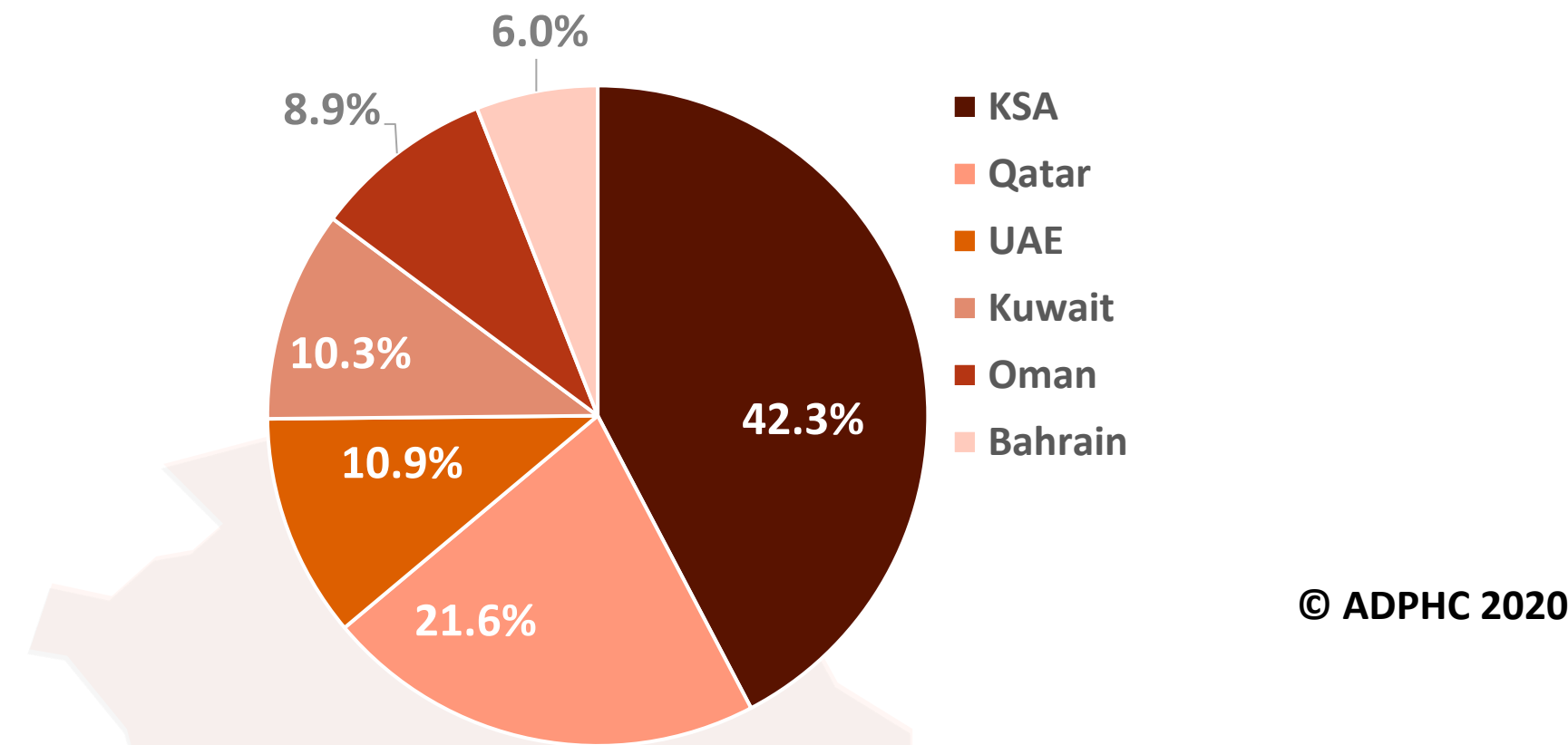
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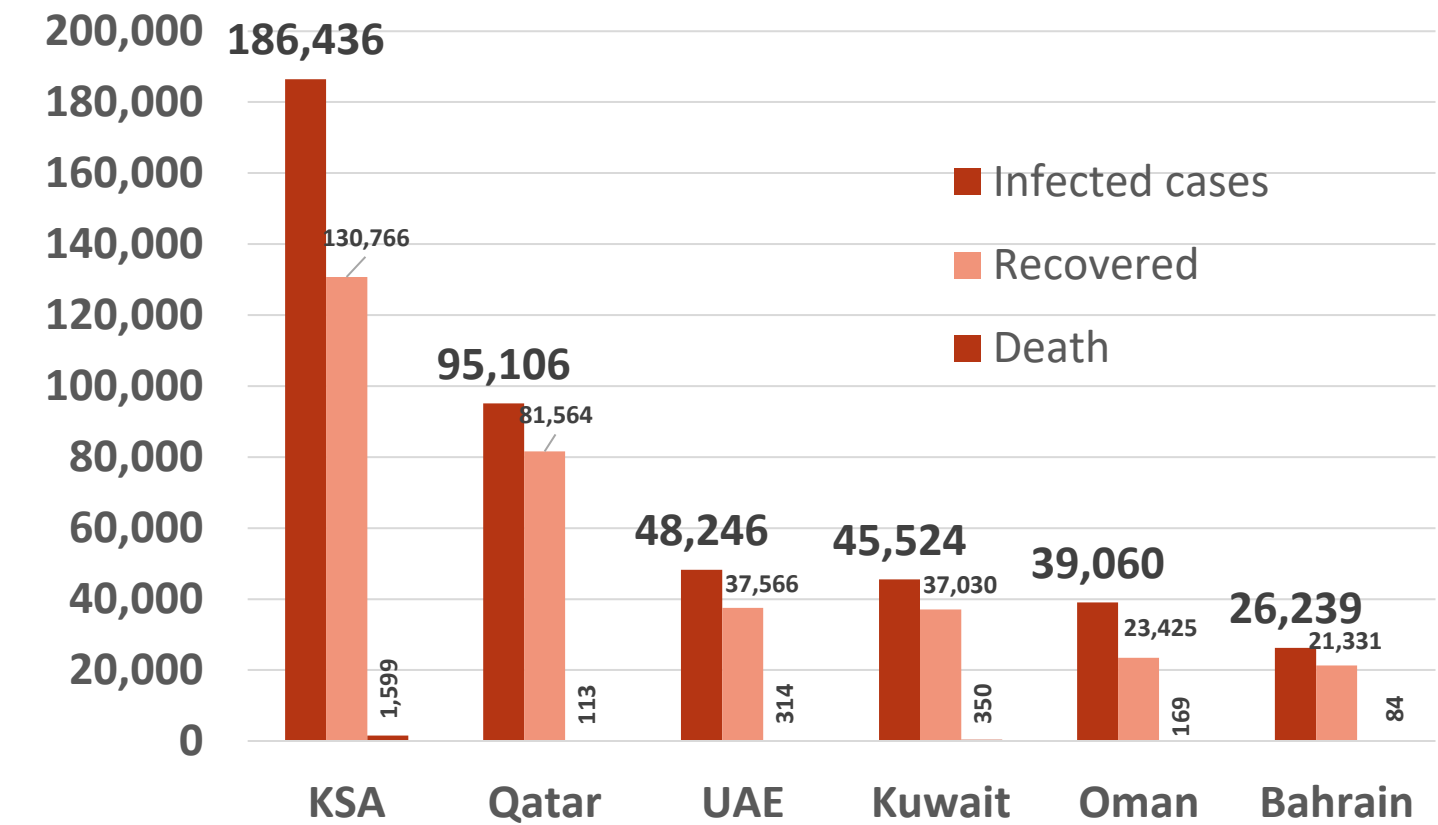
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Figure 9: Comparative analysis of the distribution of COVID19 cases in GCC countries (Jun 30, 2020)

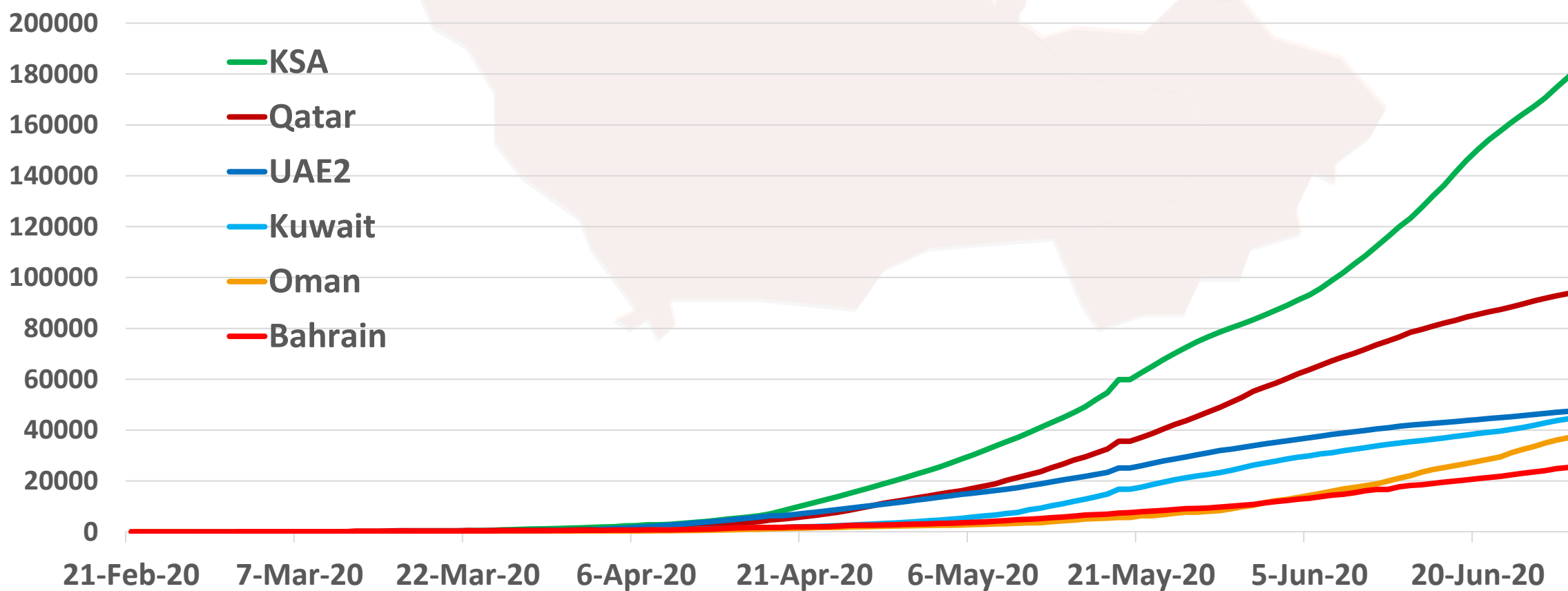
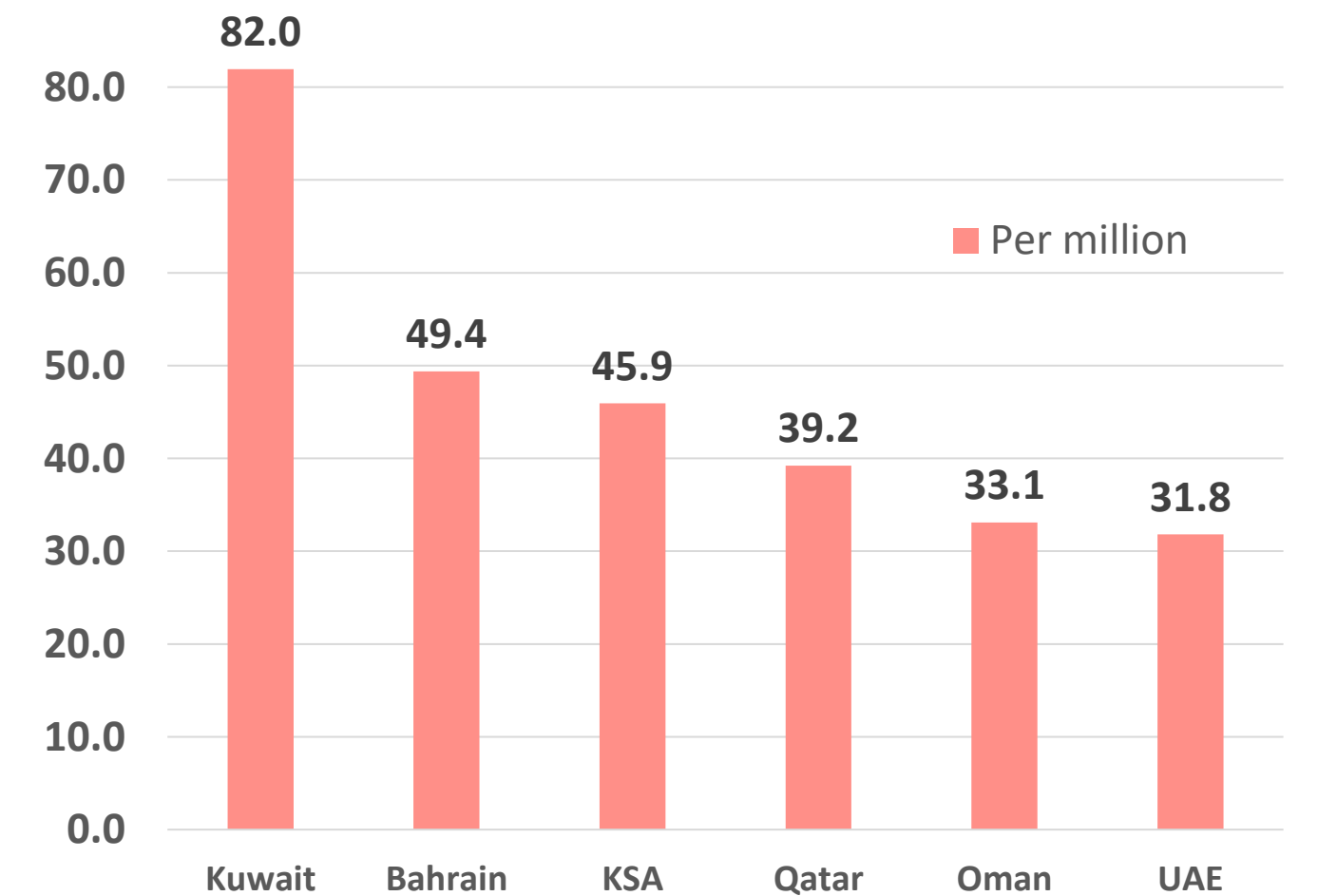
TOTAL NUMBER OF INFECTED CASES



Total number of infected, recovered and Deaths



Death per million



Graphs published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](https://www.who.int/)

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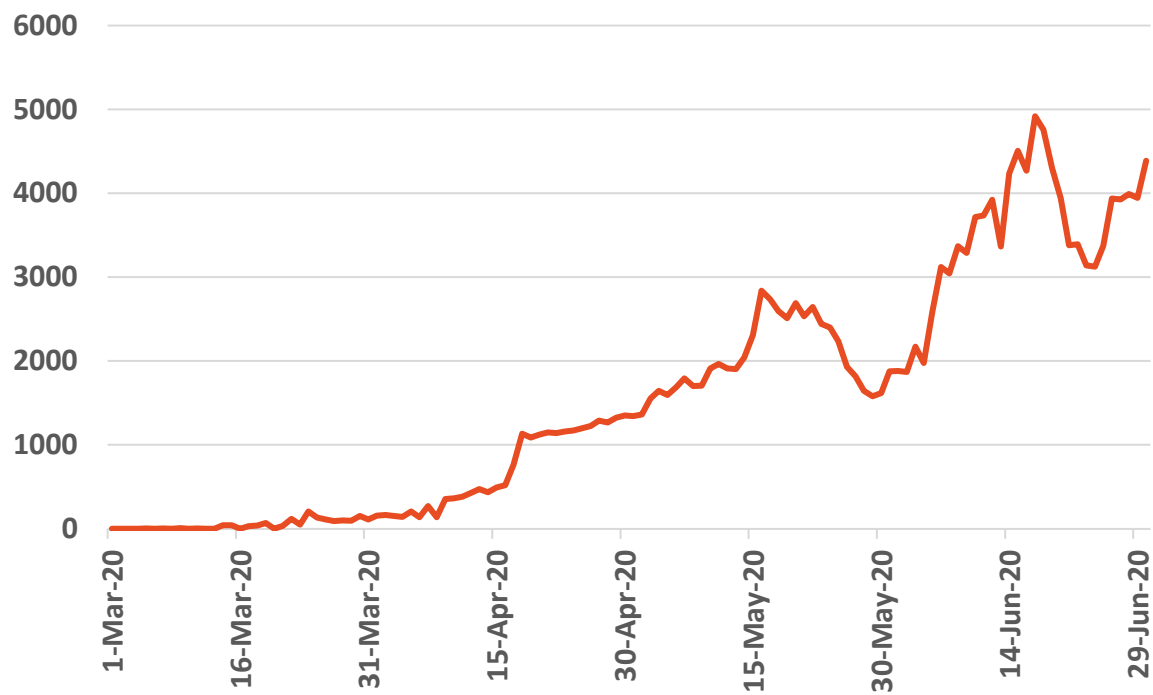
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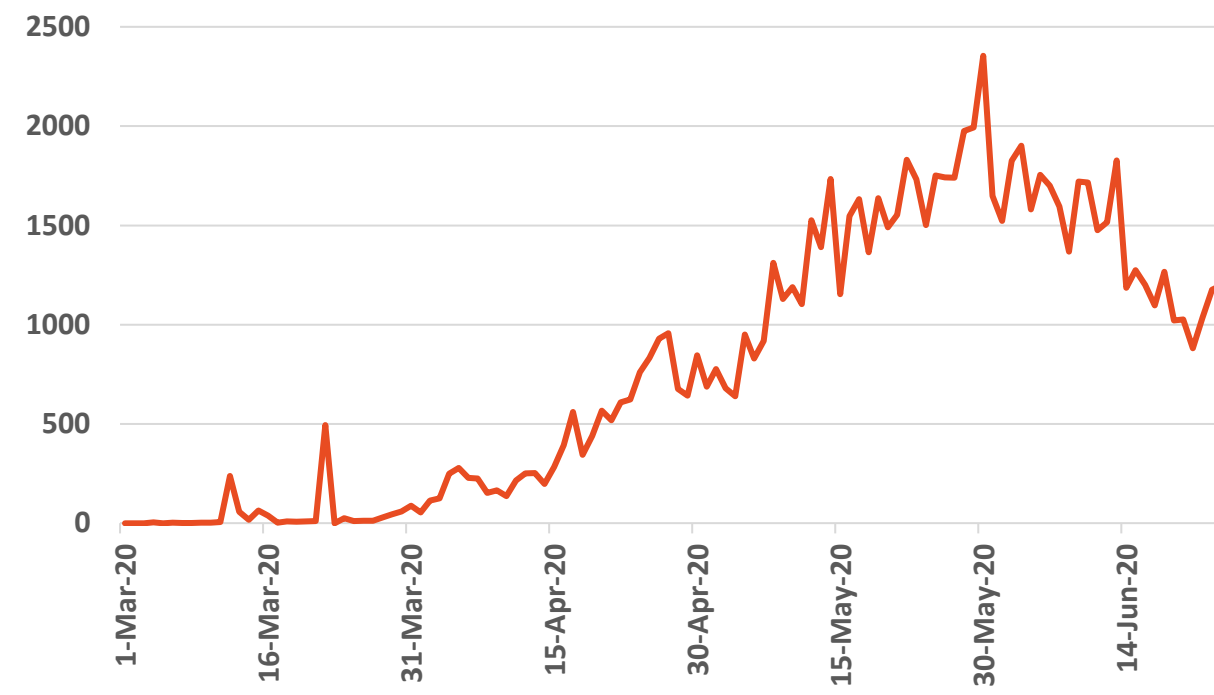
Figure 10: Comparative analysis of the distribution of COVID19 new cases in GCC countries Jun 30, 2020)

KSA



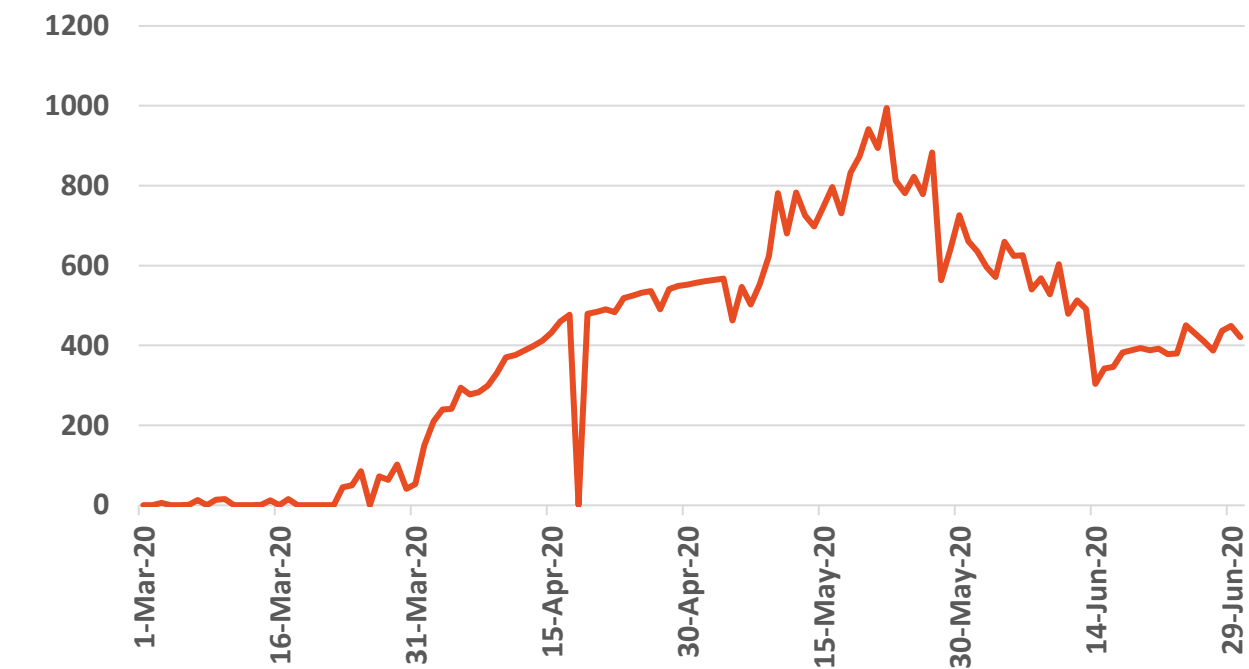
Source : KSA ministry of health

Qatar



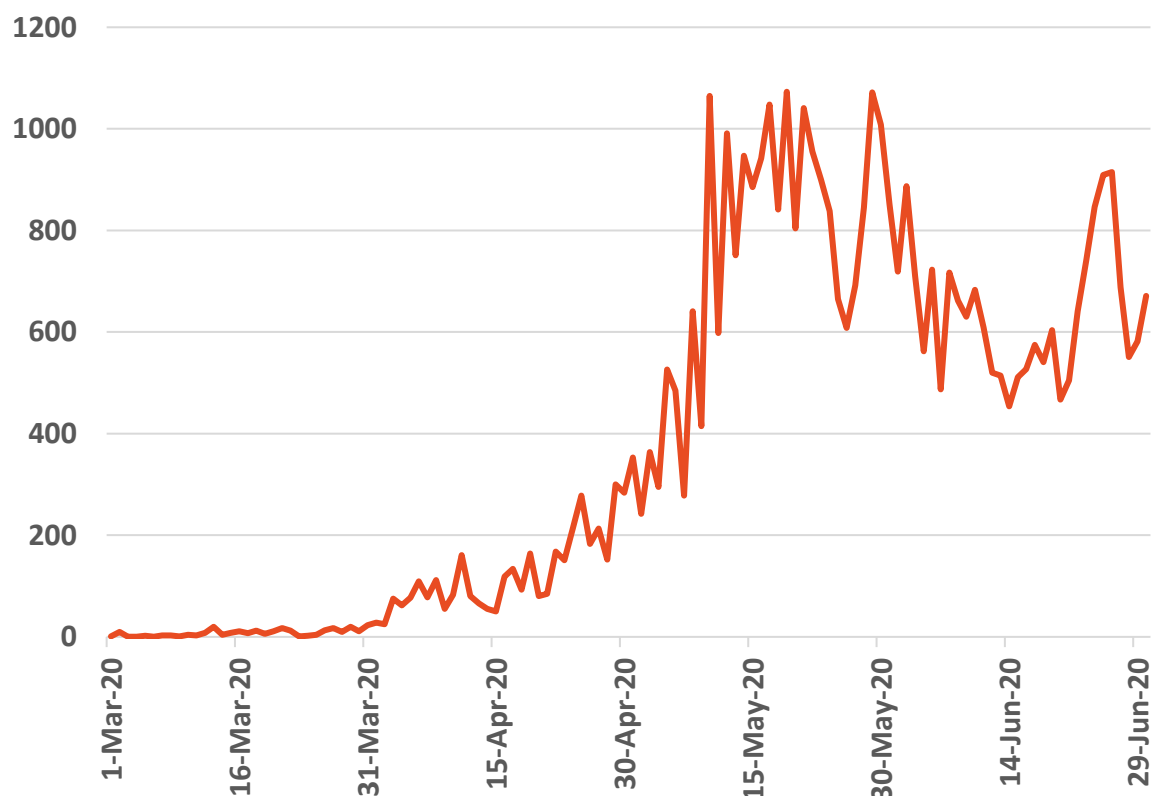
Source : Qatar ministry of health

UAE



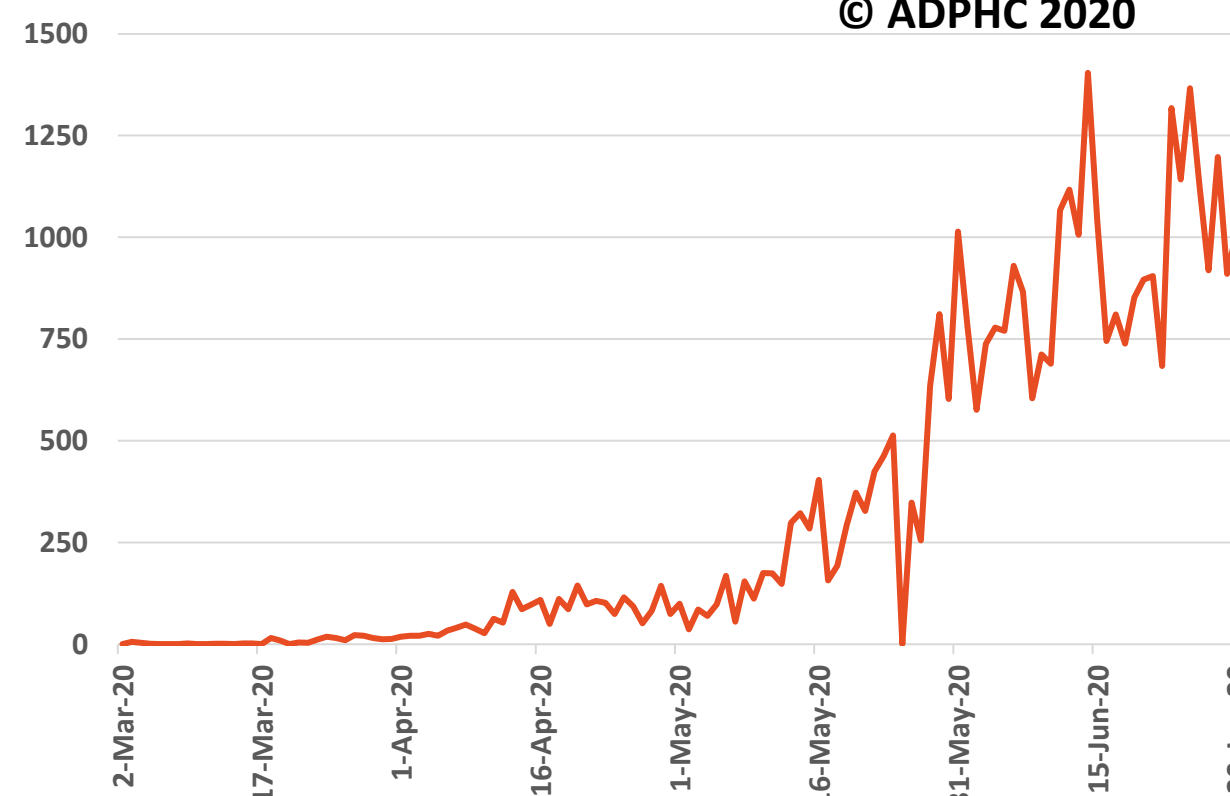
Source : National Emergency Crisis and Disaster Management Authority

Kuwait



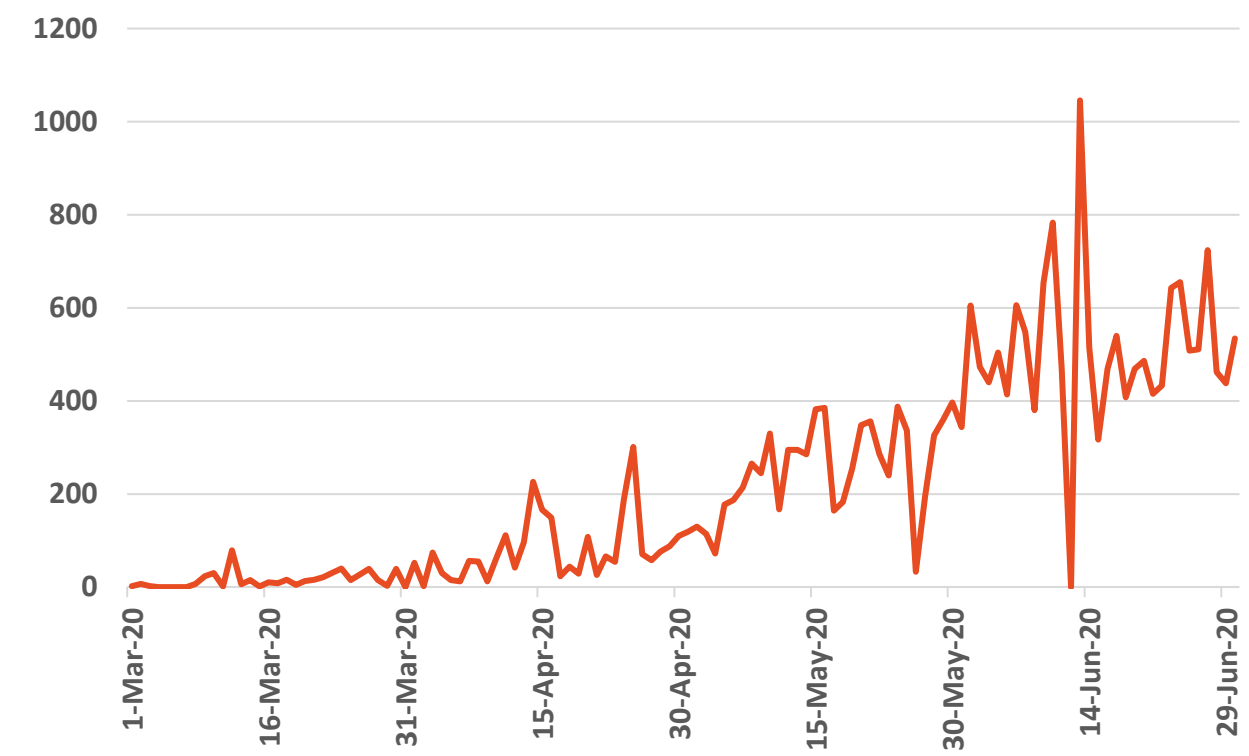
Source : Kuwait ministry of health

Oman



Source :Oman ministry of health

Bahrain



Source :WHO

Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](#)

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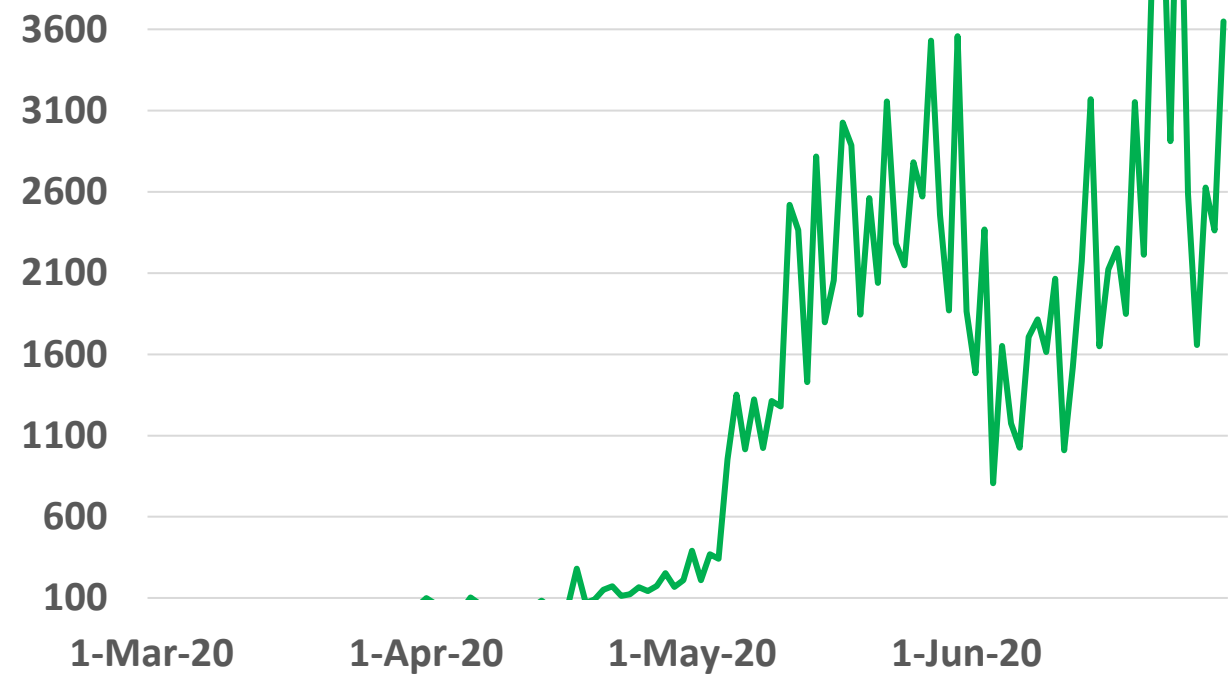
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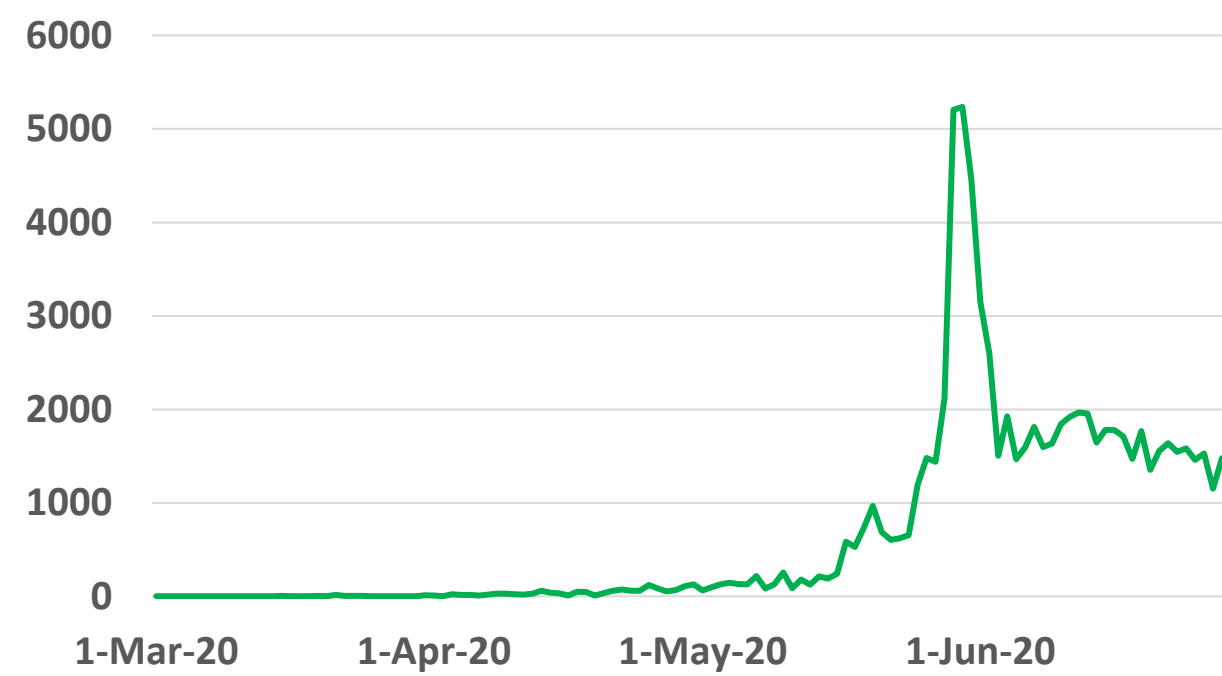
Figure 11 : Comparative analysis of the distribution of COVID19 newly recovered cases in GCC countries (Jun 30, 2020)

KSA



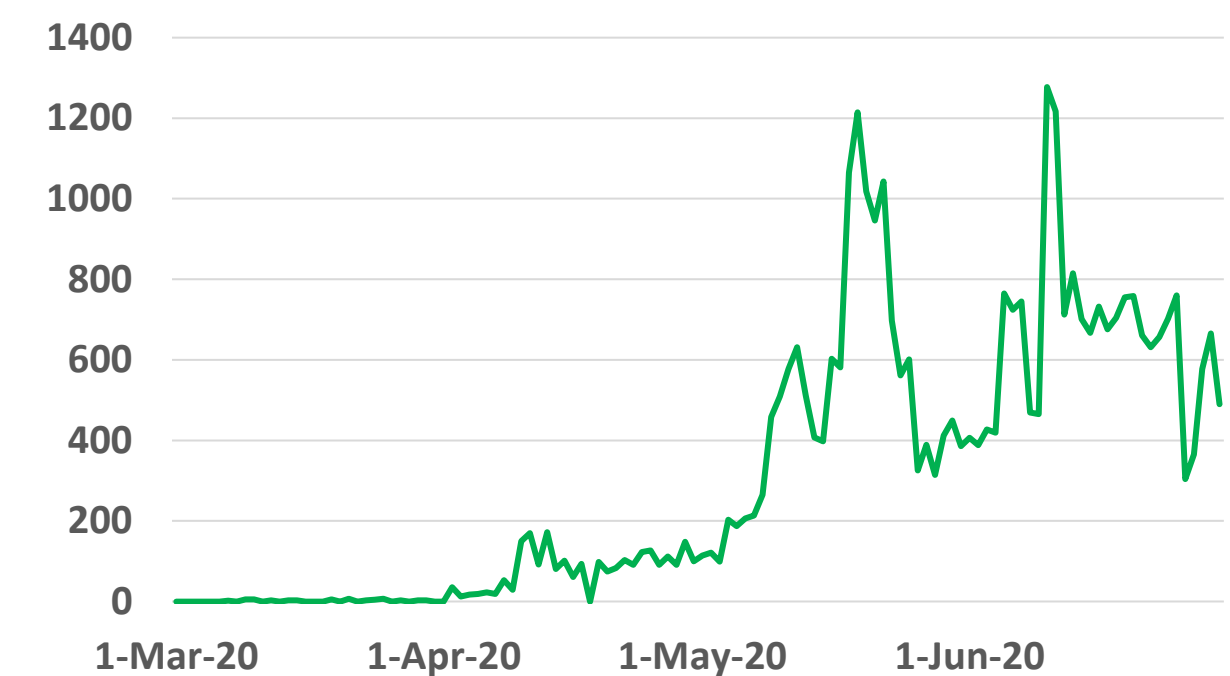
Source : KSA ministry of health

Qatar



Source : Qatar ministry of health

UAE



Source : National Emergency Crisis and Disaster Management Authority

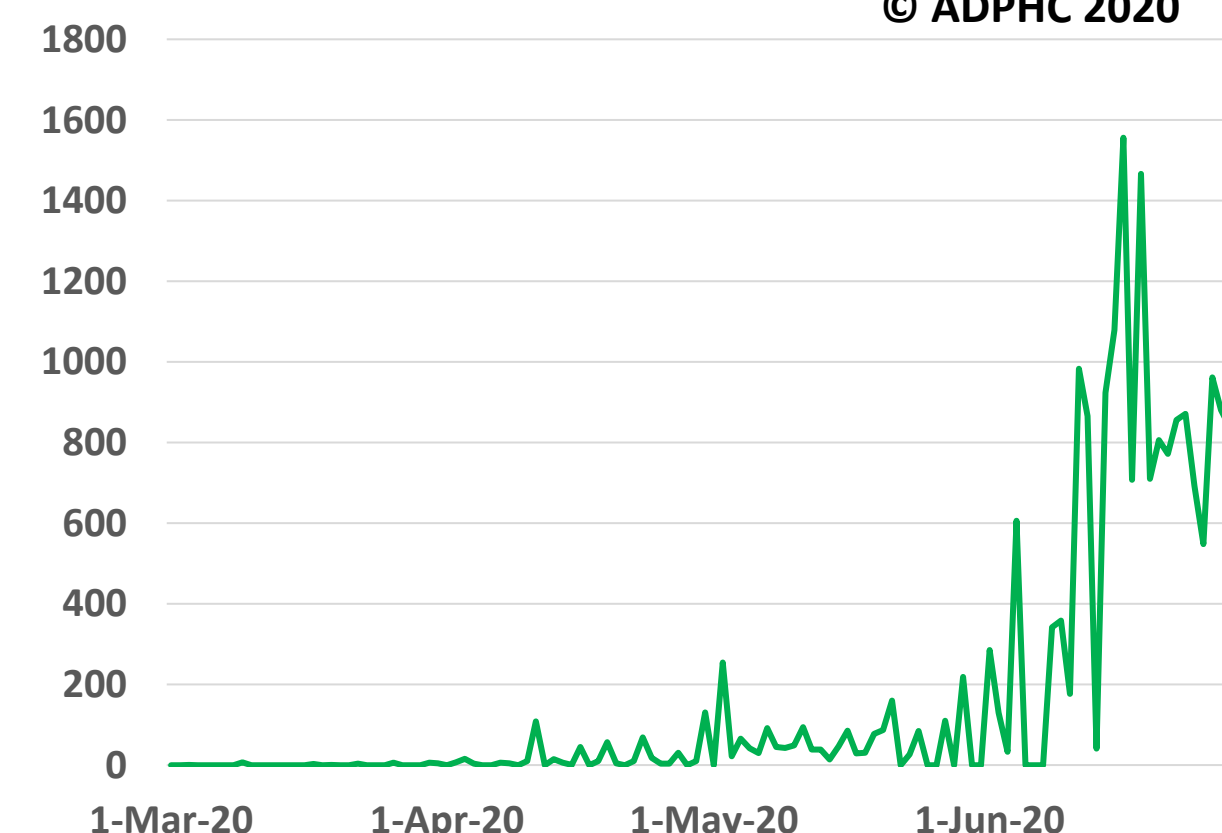
Kuwait



Source : Kuwait ministry of health

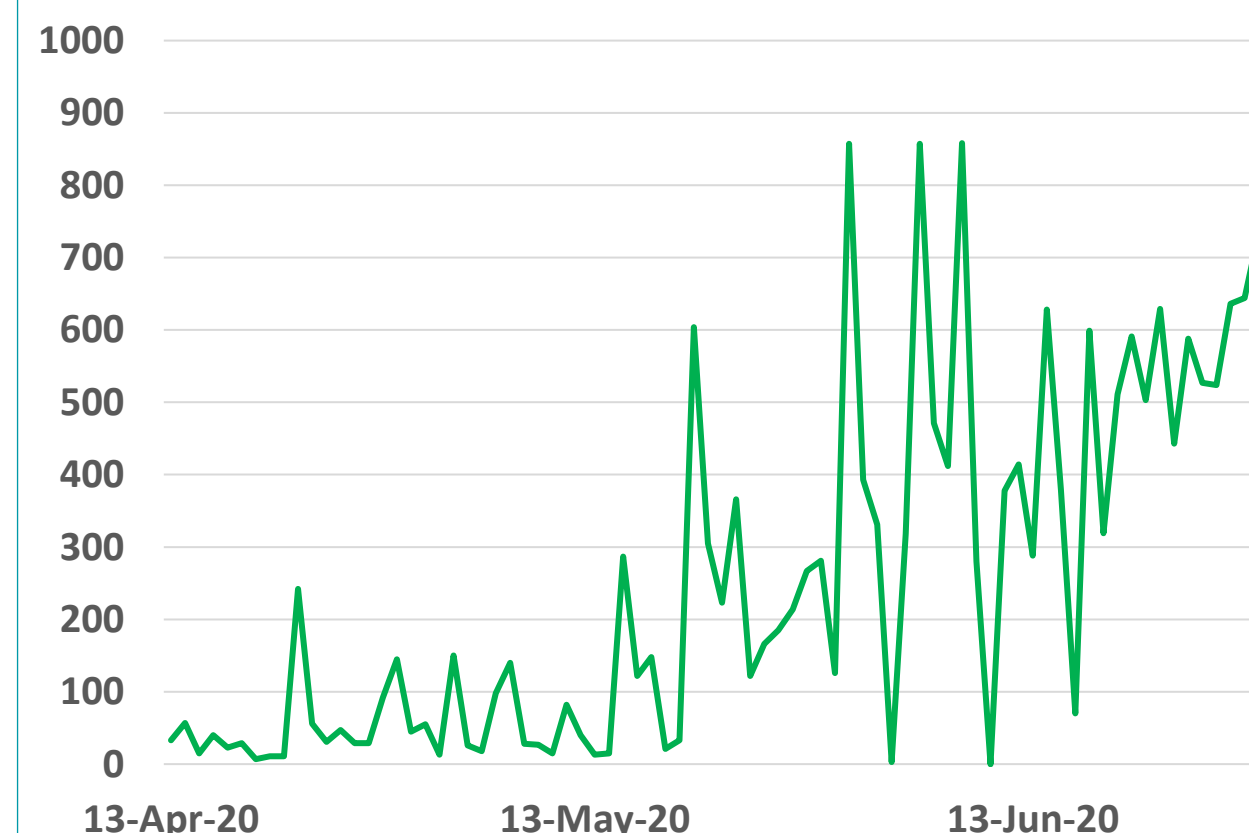
Oman

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Source : Oman ministry of health

Bahrain



Source : GCCStat

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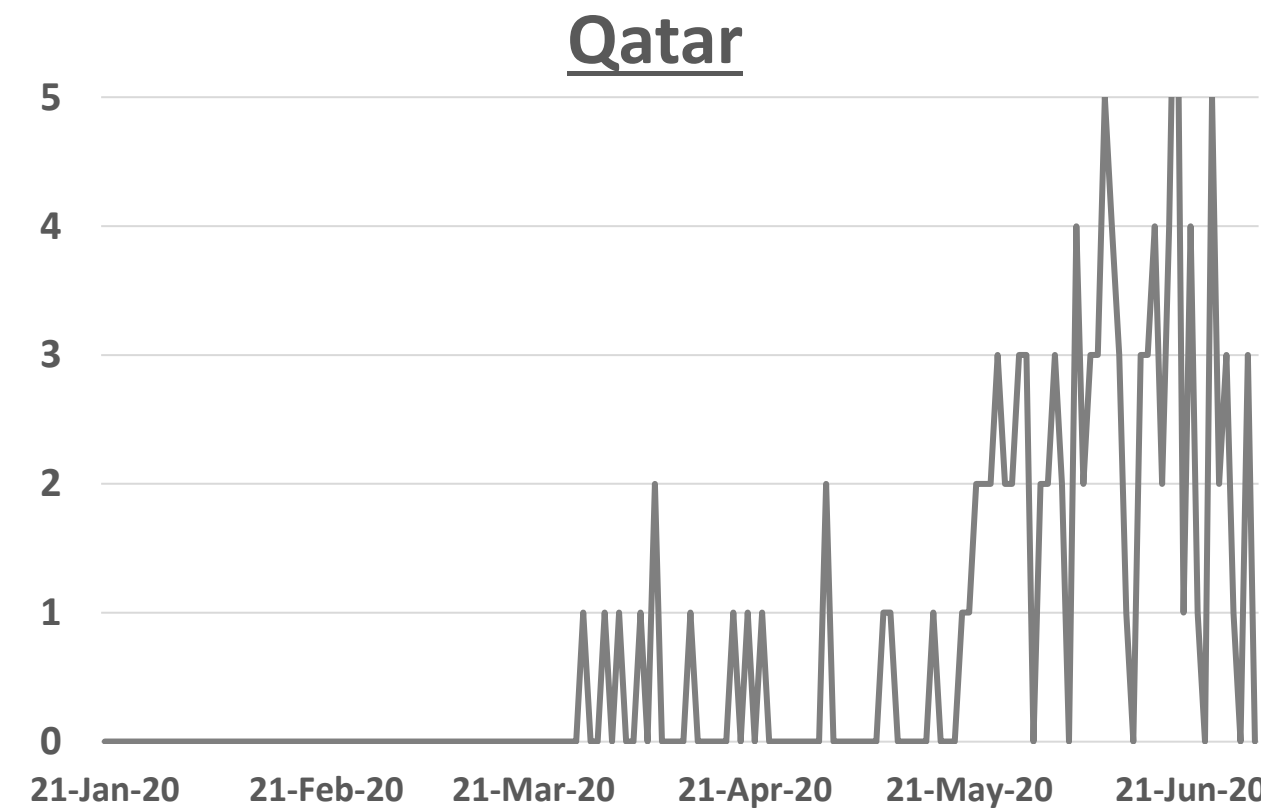
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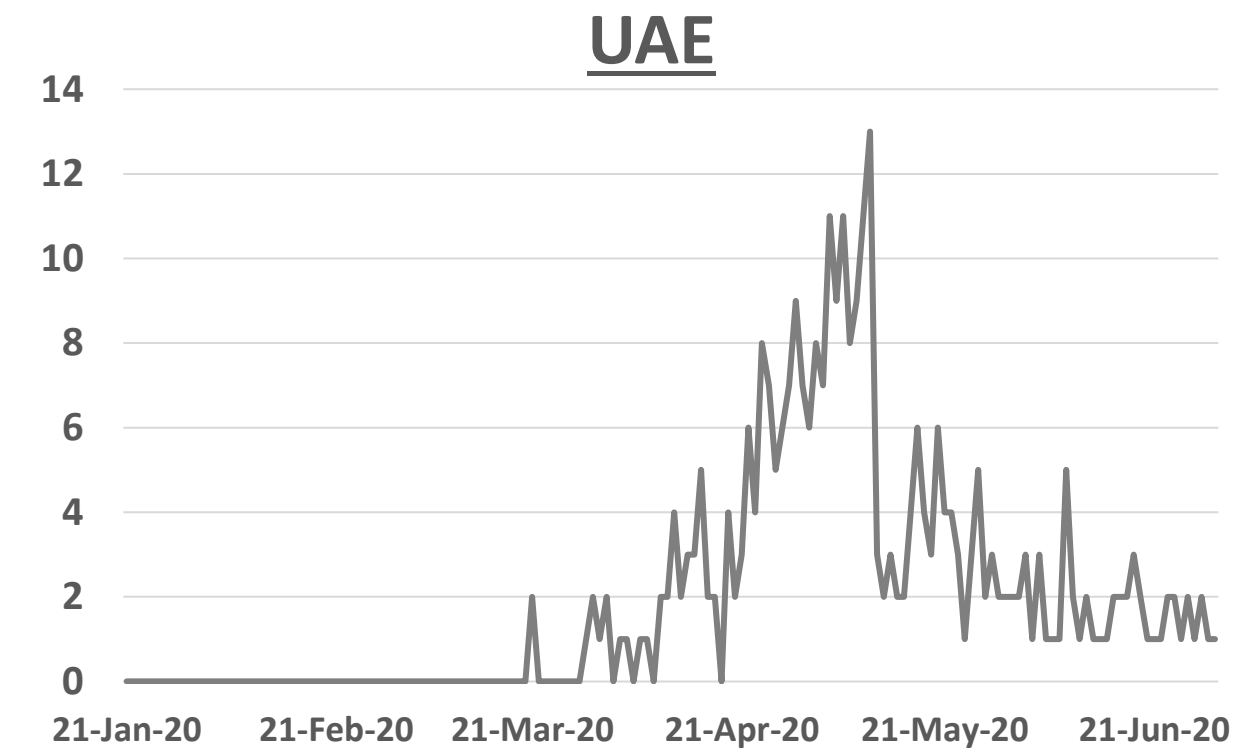
Figure 12: Comparative analysis of the distribution of COVID19 newly death cases in GCC countries (Jun 30, 2020)



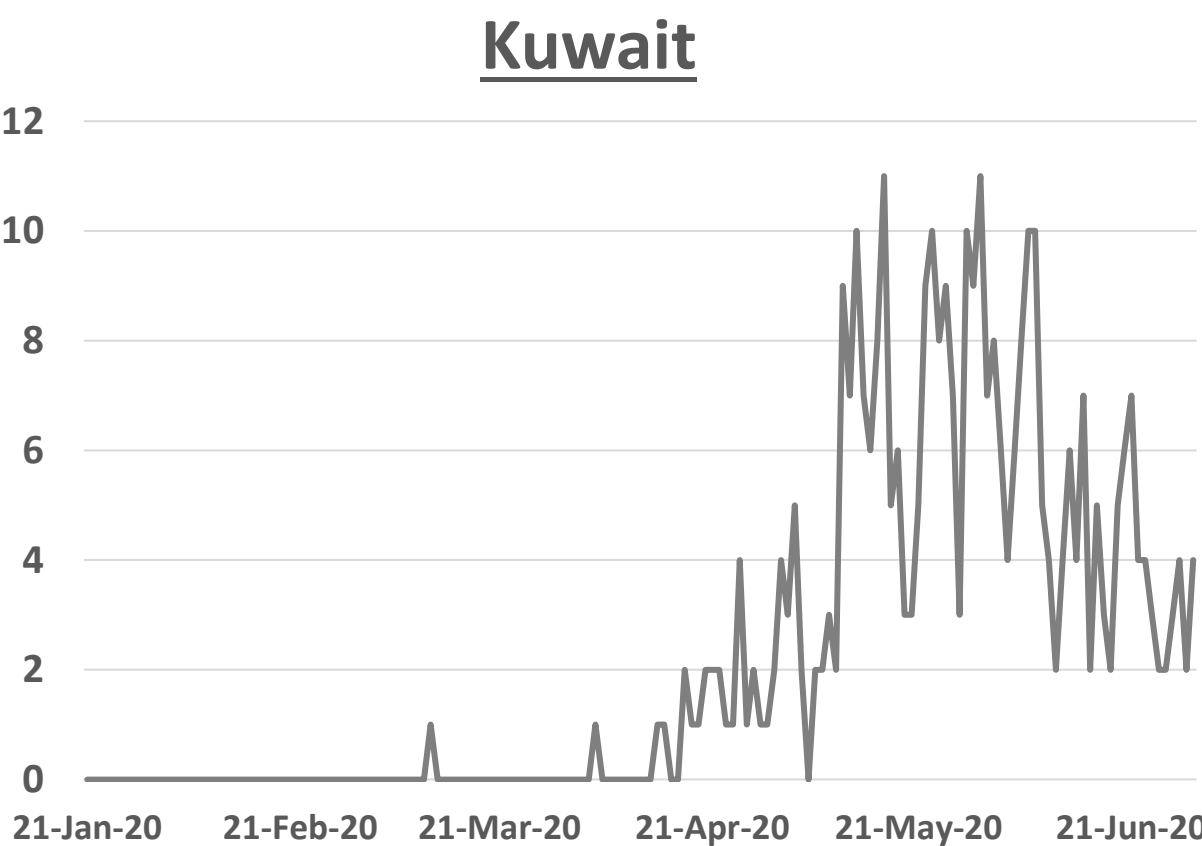
Source : KSA ministry of health



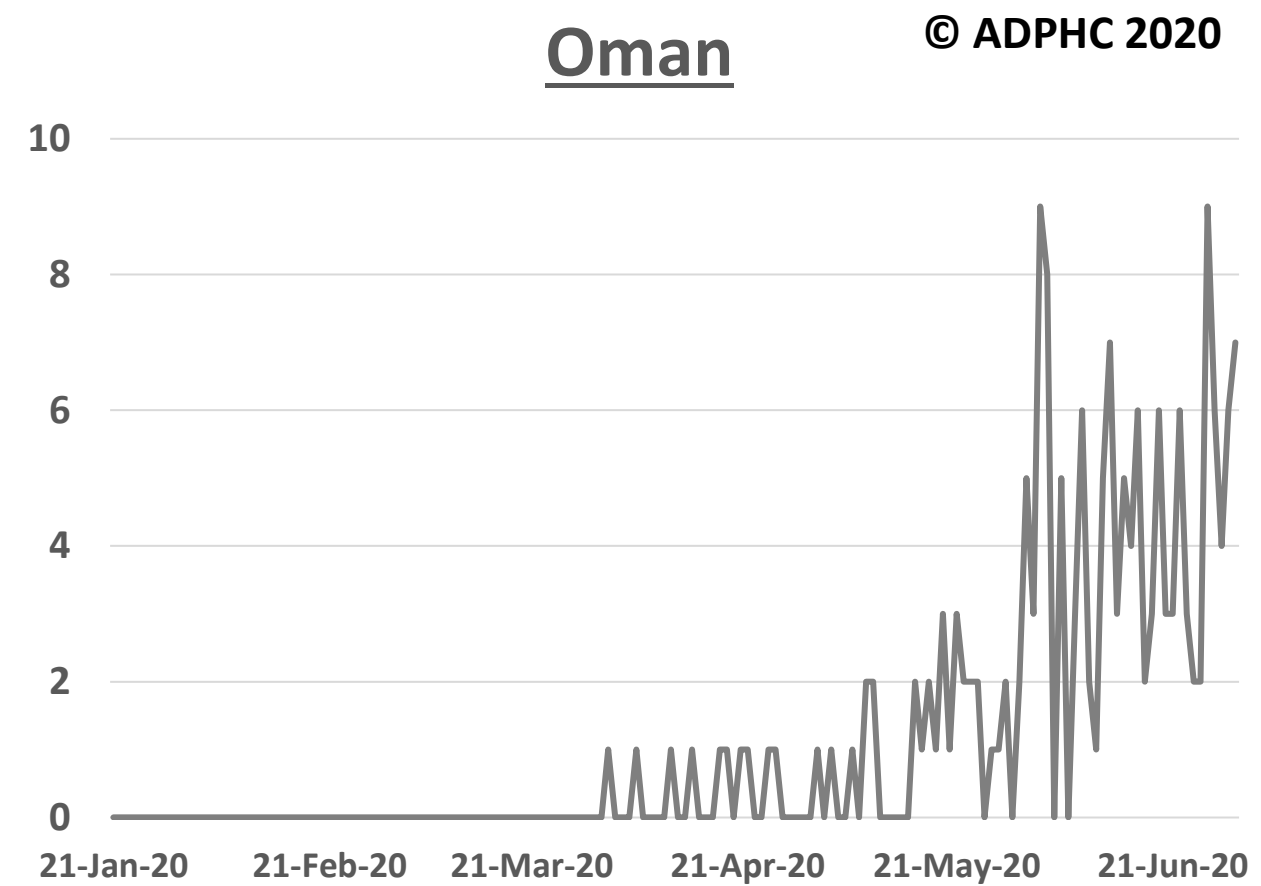
Source : Qatar ministry of health



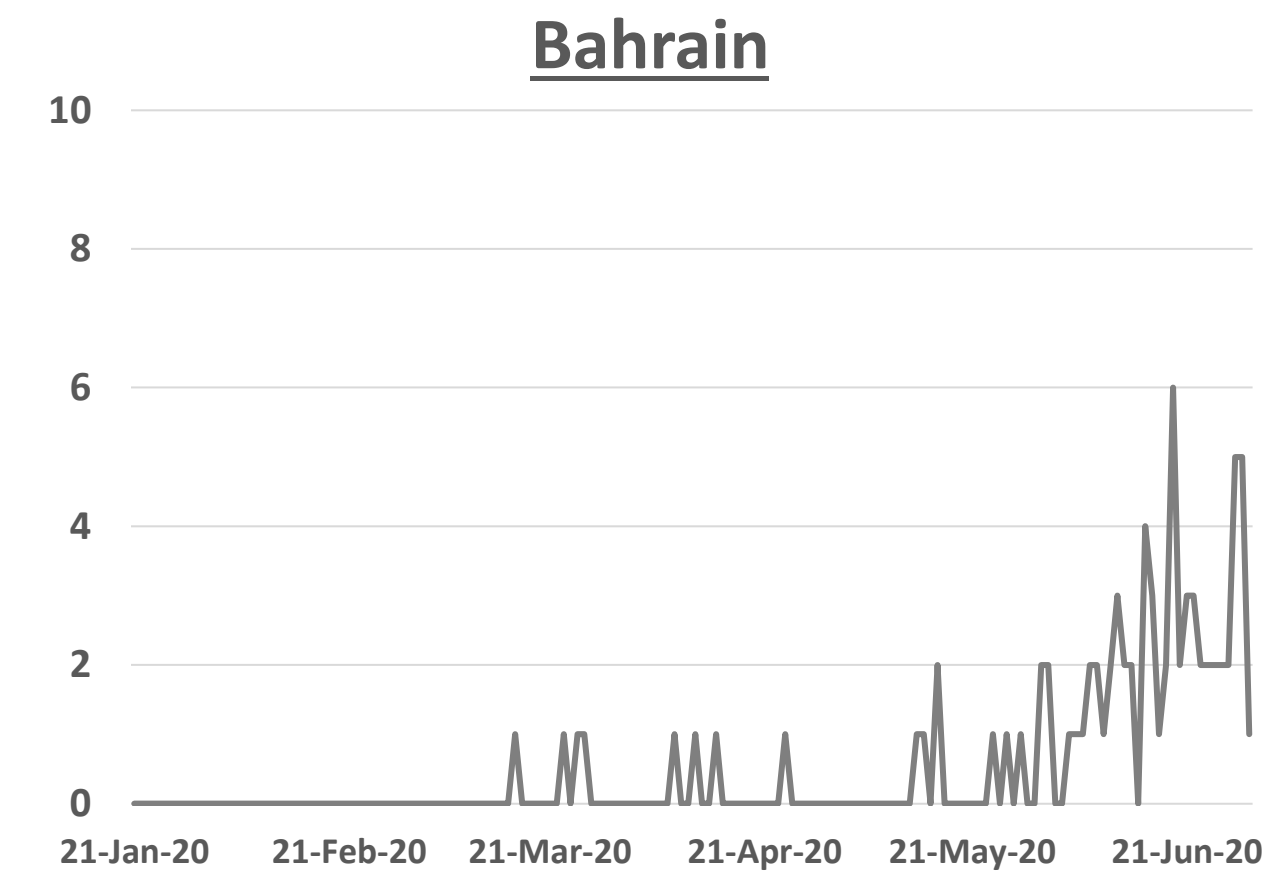
Source : National Emergency Crisis and Disaster Management Authority



Source : Kuwait ministry of health



Source :Oman ministry of health



Source :WHO





Article 1 : Mental Health and Substance Use; Frontline Workers and COVID-19: Coping with Stress

Published: [WHO News Room](#)

Summary:

- Exposure to excessive stress, for prolonged periods can have many harmful consequences on the emotional and mental wellbeing of frontline workers.
- Excessive stress leads to burnout, mental disorders (depression and anxiety or Post-Traumatic Stress Disorder (PTSD)), unhealthy behaviors such as using tobacco, alcohol or other substances.
- Ultimately this can result in frequent absence from work, reduced productivity at work, increased risk of suicide among frontline workers, particularly healthcare workers.
- Actions to cope with stress during COVID-19:
 - Reaching out to friends and family via text or video chat
 - Join friends and family for meals or social activities virtually
 - Exchange support with trusted colleagues at work
 - Stay informed
 - Maintain a healthy lifestyle
 - Take better care of yourself
 - Advocate for yourself and seek help from a health professional if the feelings of distress still persist.





Article 2: Clinical Characteristics and Outcomes in Patients with Coronavirus Disease 2019 and Multiple Sclerosis

Published: 26 June 2020 in [JAMA](#)

Summary:

- This multicenter, retrospective, observational cohort study aimed to examine the characteristics of COVID-19 in patients with Multiple Sclerosis (MS) to identify the risk factors for developing a severe form of this infection.
- Approximately 347 patients with MS were included in the study who presented with a confirmed or highly suspected diagnosis of COVID-19 between March 1, 2020, and May 21, 2020.
- Around 73 patients (21.0%) had a COVID-19 severity score of 3 or more, and 12 patients (3.5%) died of COVID-19, median EDSS was 2.0 (range, 0-9.5), and 284 patients (81.8%) were receiving DMT.
- No association found between disease-modifying therapies exposure and COVID-19 severity. Multivariate logistic regression models determined that age, Expanded Disability Severity Scale score, and obesity were independent risk factors for COVID-19 severity score of 3 or more (hospitalization or higher severity). Risk factors identification can provide rationale for individual strategy of clinical management in patients with MS during COVID-19 pandemic.





Article 3: Biological Sex Impacts COVID-19 Outcomes

Published: 26 June 2020 [PLOS Pathogens](#)

Summary:

This opinion article aims at raising awareness on the male-biased severe outcomes from COVID-19, highlighting mechanistic differences comprising of expression and activity of angiotensin-converting enzyme 2 (ACE2) and in antiviral immunity. Gender differences in comorbidities related to both age and race, impacts male-biased outcomes from COVID-19. This calls for clinicians and epidemiologists to report data pertaining to comorbidities associated with COVID-19 disaggregated by age, gender, and race. Furthermore, the importance of considering the biological variable of gender was emphasized while conducting basic science studies related to COVID-19.

Findings

ACE receptor which is a major receptor in COVID19 pathogenicity found to be expressed more in the kidney of male mice compare to female, further studies are needed to assess gender related expression of ACE receptor in the lung.

Females generally mount greater inflammatory, antiviral, and humoral immune responses than males during viral infections which contributes to better clearance of viruses, including SARS-CoV2.



THANK YOU

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