

SCIENTIFIC RESEARCH MONITORING ON COVID-19

14 JULY 2020

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SCIENTIFIC RESEARCH MONITORING ON COVID-19

(ISSUE 163)

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



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.

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).

Pathogenesis

**Incidence of Stress
Cardiomyopathy During
the Coronavirus Disease
2019 Pandemic**

Treatment

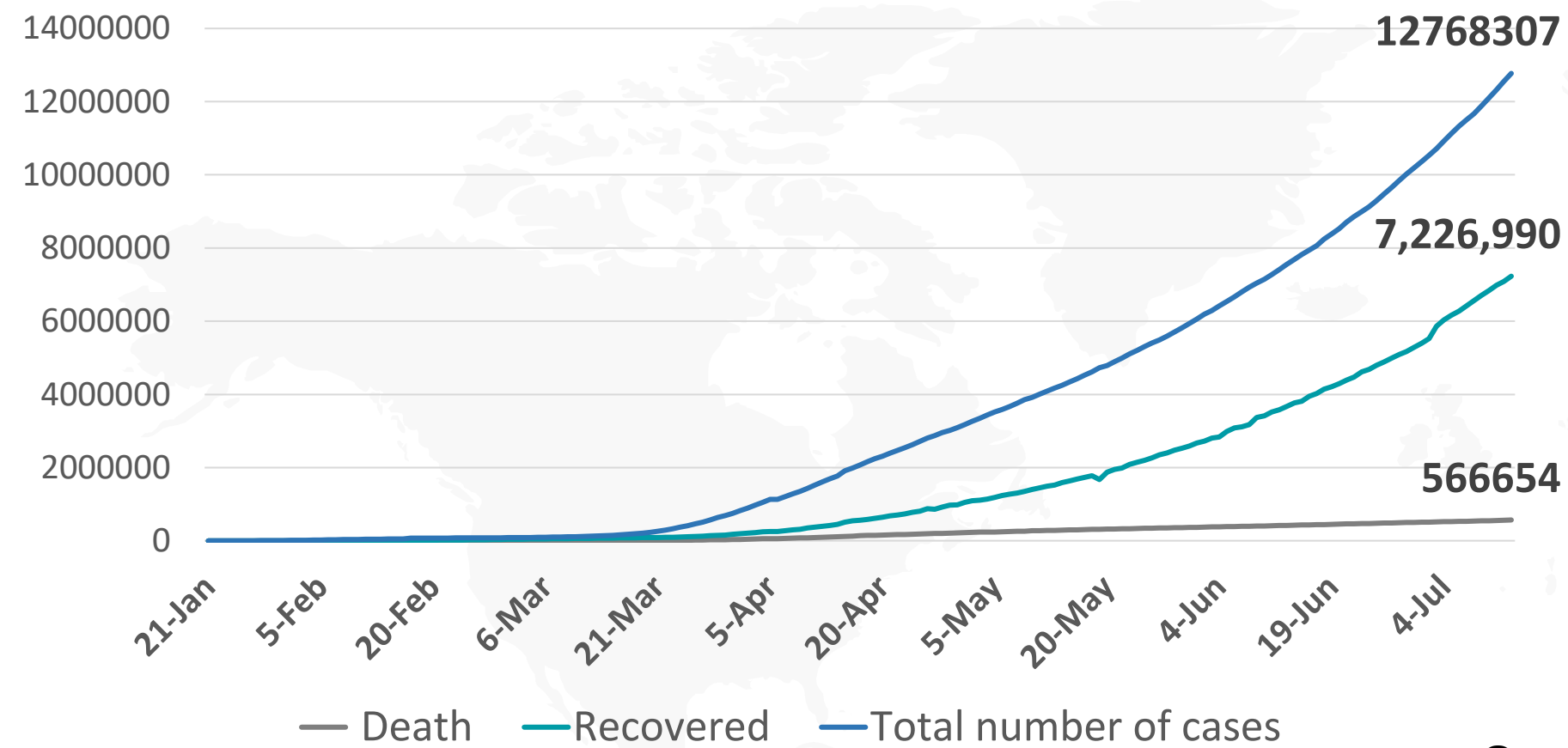
**Inhaled Corticosteroids:
A Rapid Review of the
Evidence for Treatment or
Prevention of COVID-19**



- WHO has updated the [Risk Assessment Tool for Mass Gatherings and Religious Gatherings](#) and [Mass Gatherings During Sports Events](#) to guide authorities and planning and event organizers during the current COVID-19 pandemic.
- WHO Regional Director for Europe Dr Hans Kluge thanked frontline workers in Turkey and across Europe for their work in the response to the COVID-19 pandemic. Speaking at a joint press conference with the Turkish Minister of Health, Dr. Fahrettin Koca, to mark 60 years of WHO-Turkey collaboration. Dr Kluge emphasized that WHO is committed to improving the health of the people of Turkey.
- WHO updated its [Q&A](#) page to include information on schools and COVID-19.

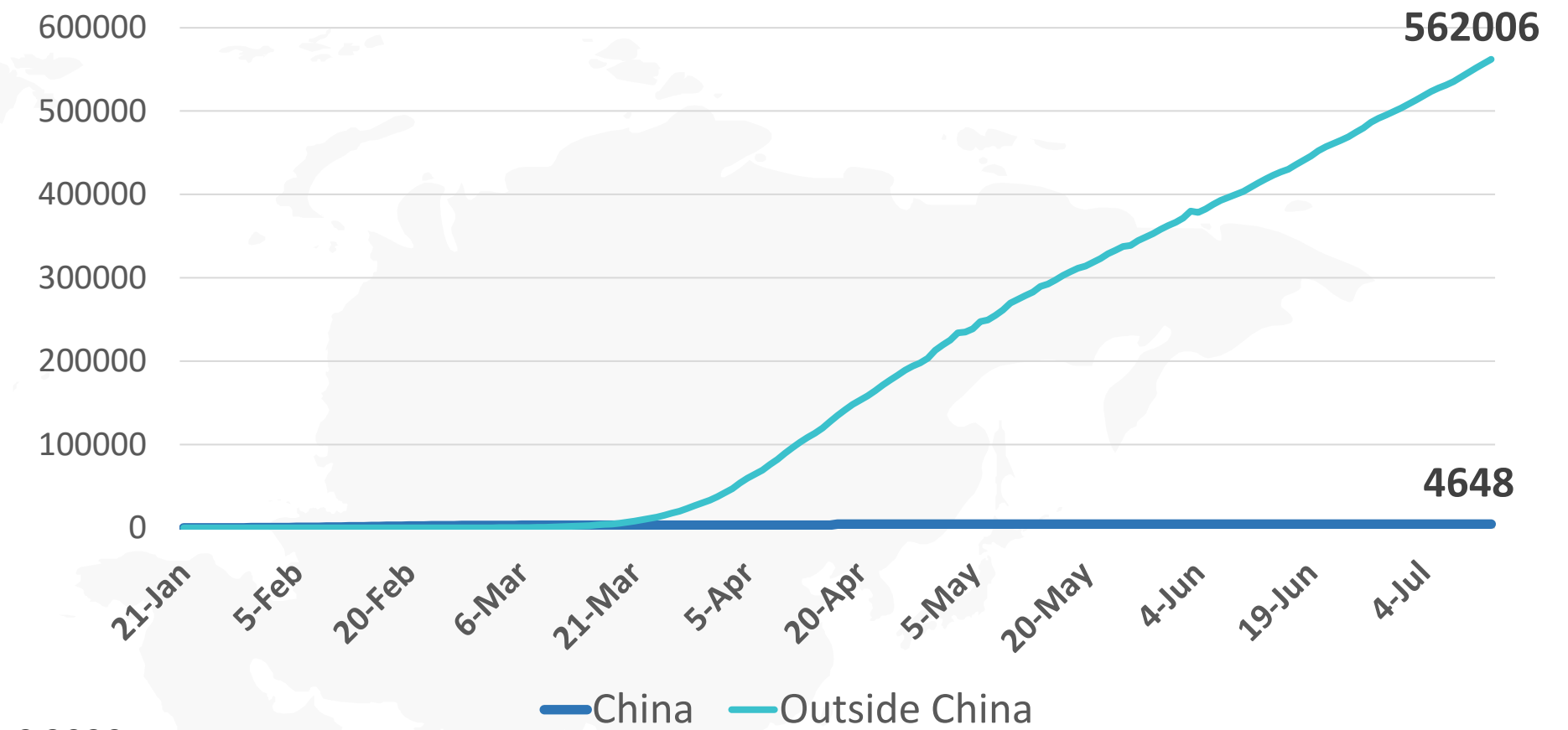


Figure 1: Total number of infected, recovered, and death cases



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Figure 3: Total number of death due to COVID-19 (china and the result of the world)



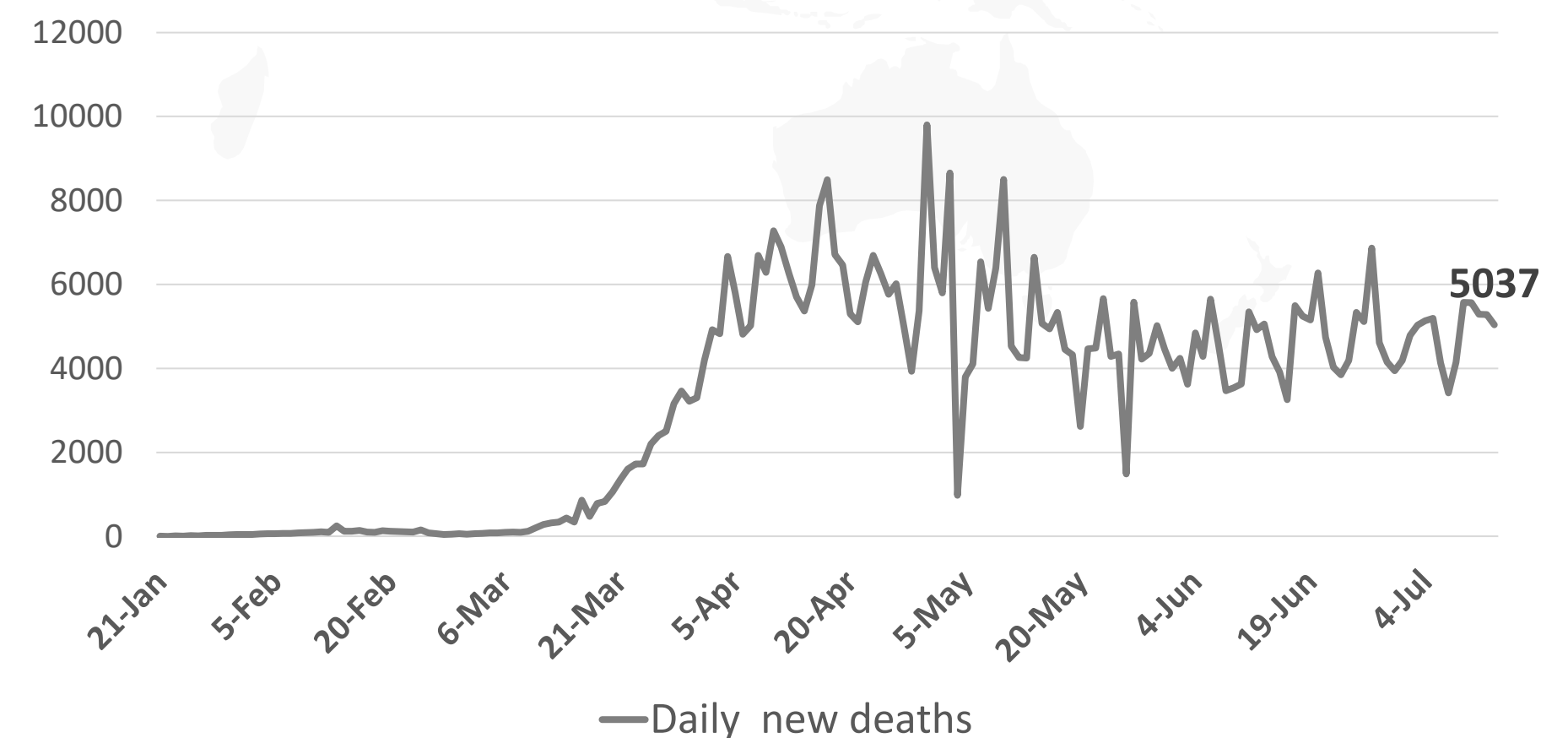
China Outside China

Figure 2: Daily new infected COVID-19 cases (china and the rest of the world)



China Outside china

Figure 4: Global daily new deaths due to COVID-19 (china and rest world)



Daily new deaths

Figure 3: Top 10 countries in the total number of cases due to COVID-19

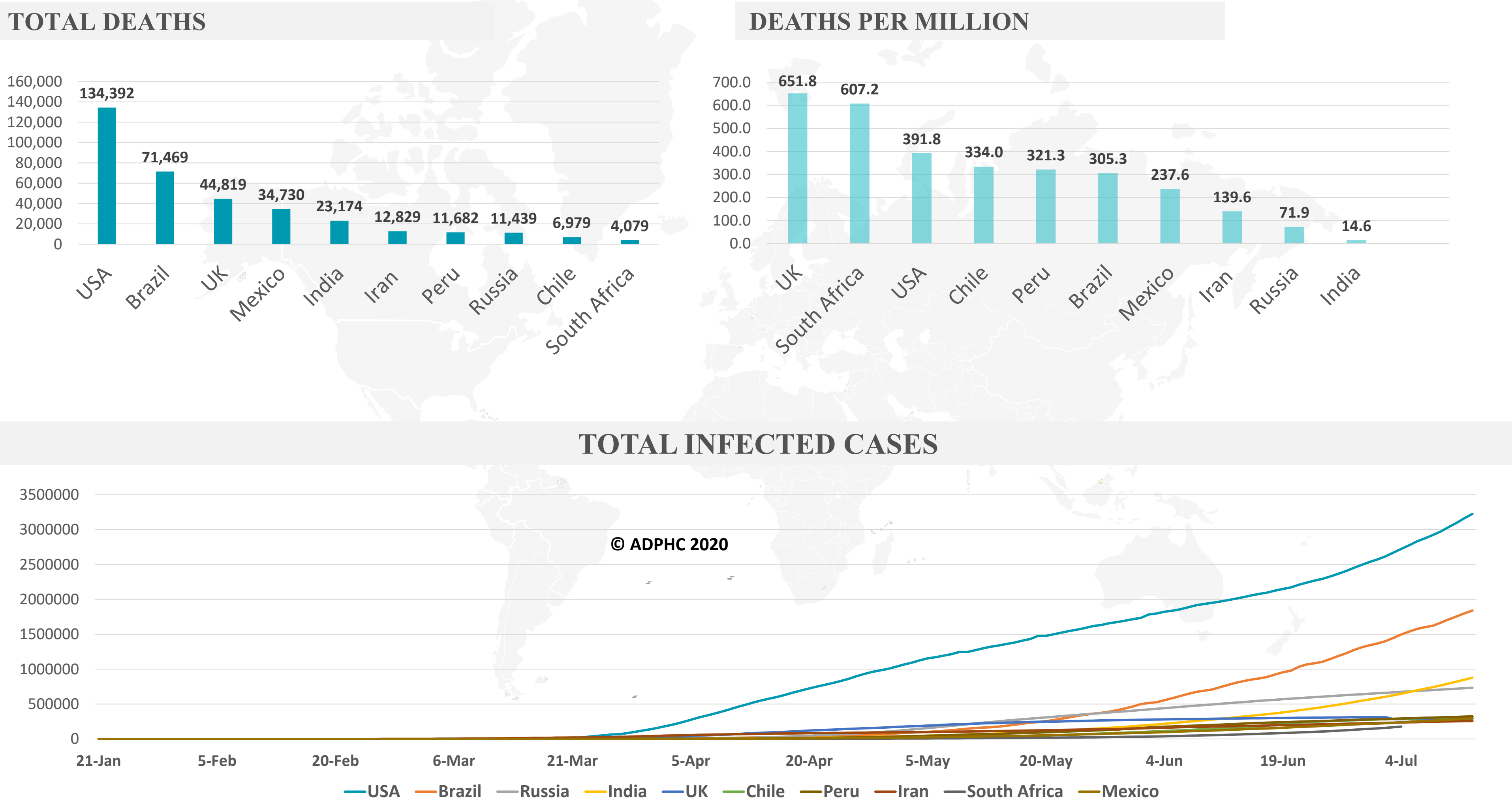


Figure 5: Total number of infected and recovered cases due to COVID-19 reported by the UAE

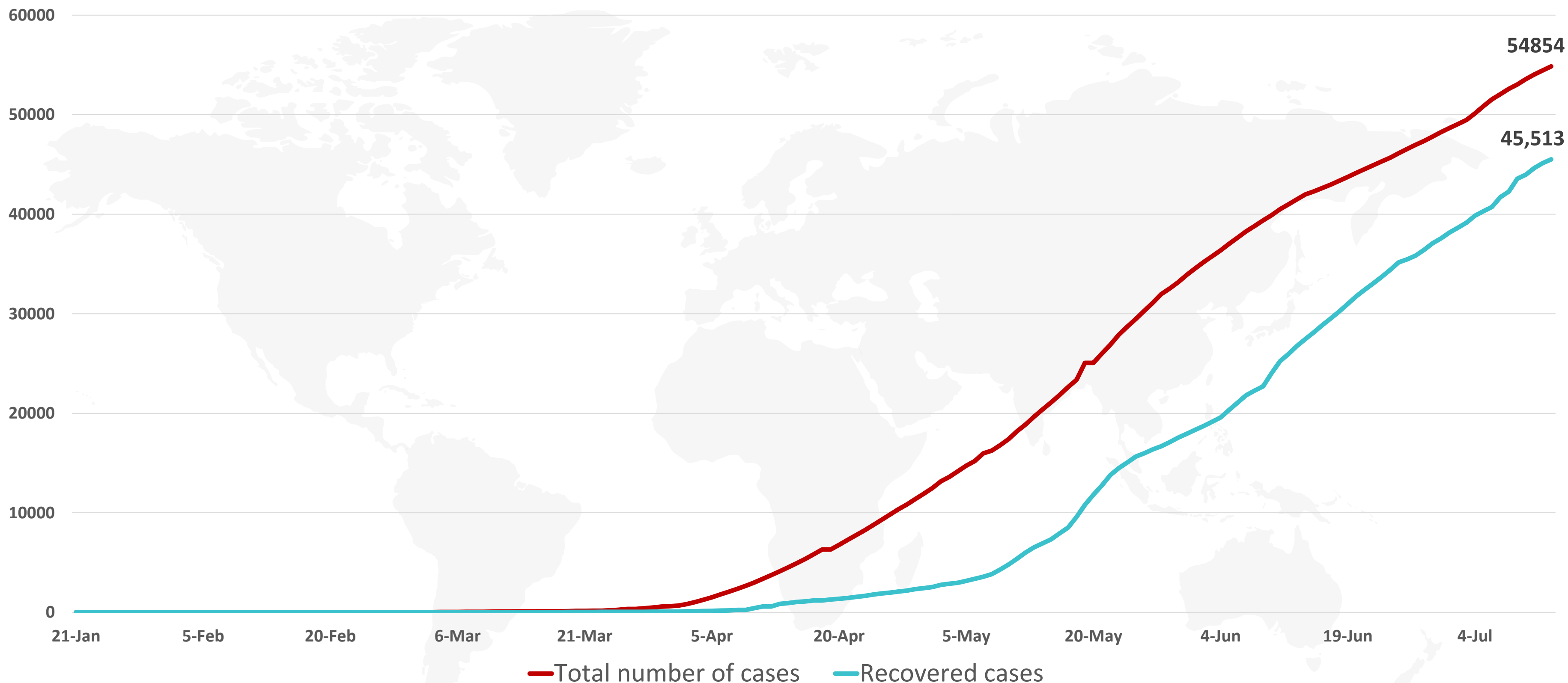
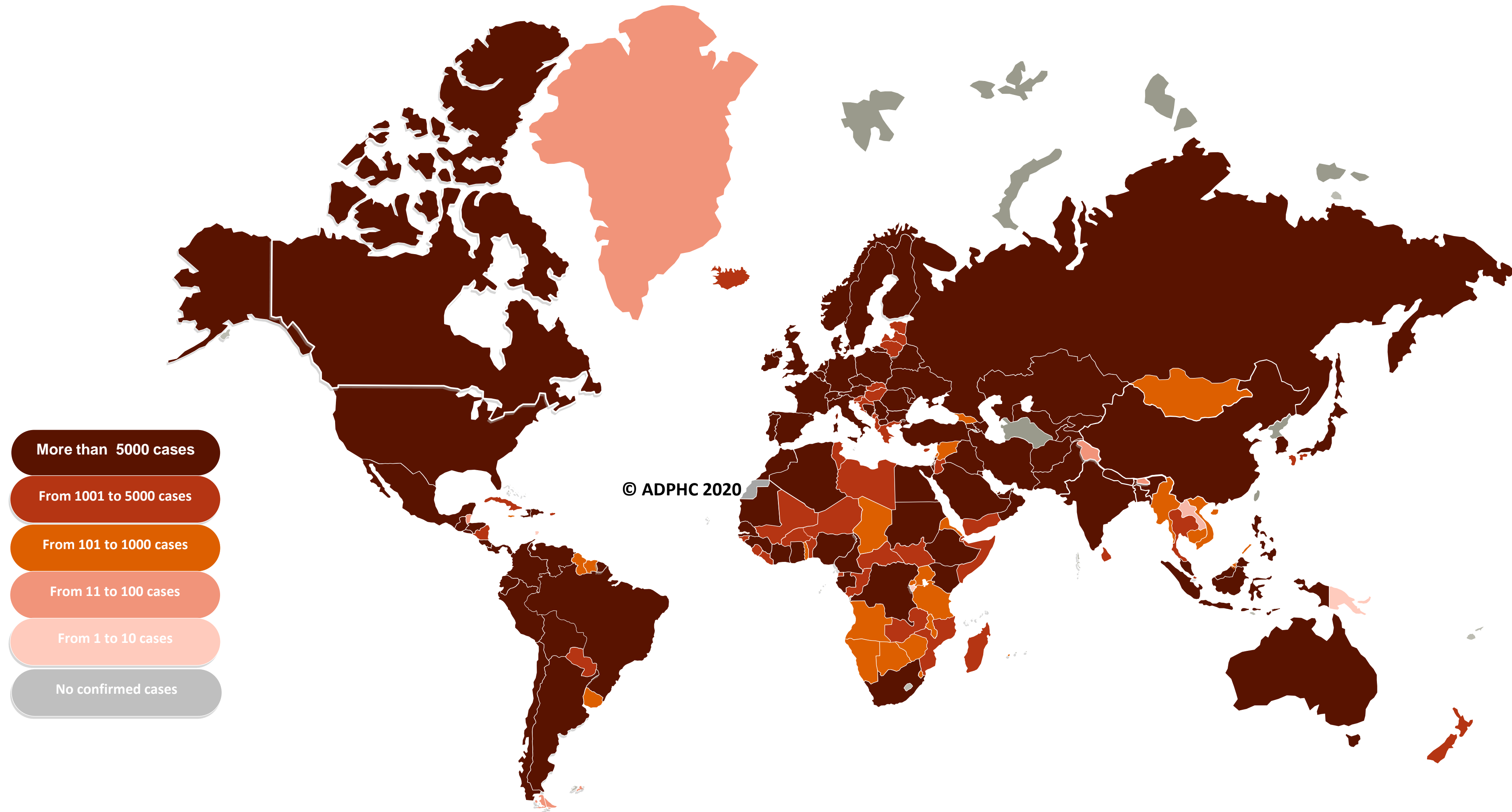


Figure 7A : Global distribution of COVID-19 cases



More than 5000 cases

From 1001 to 5000 cases

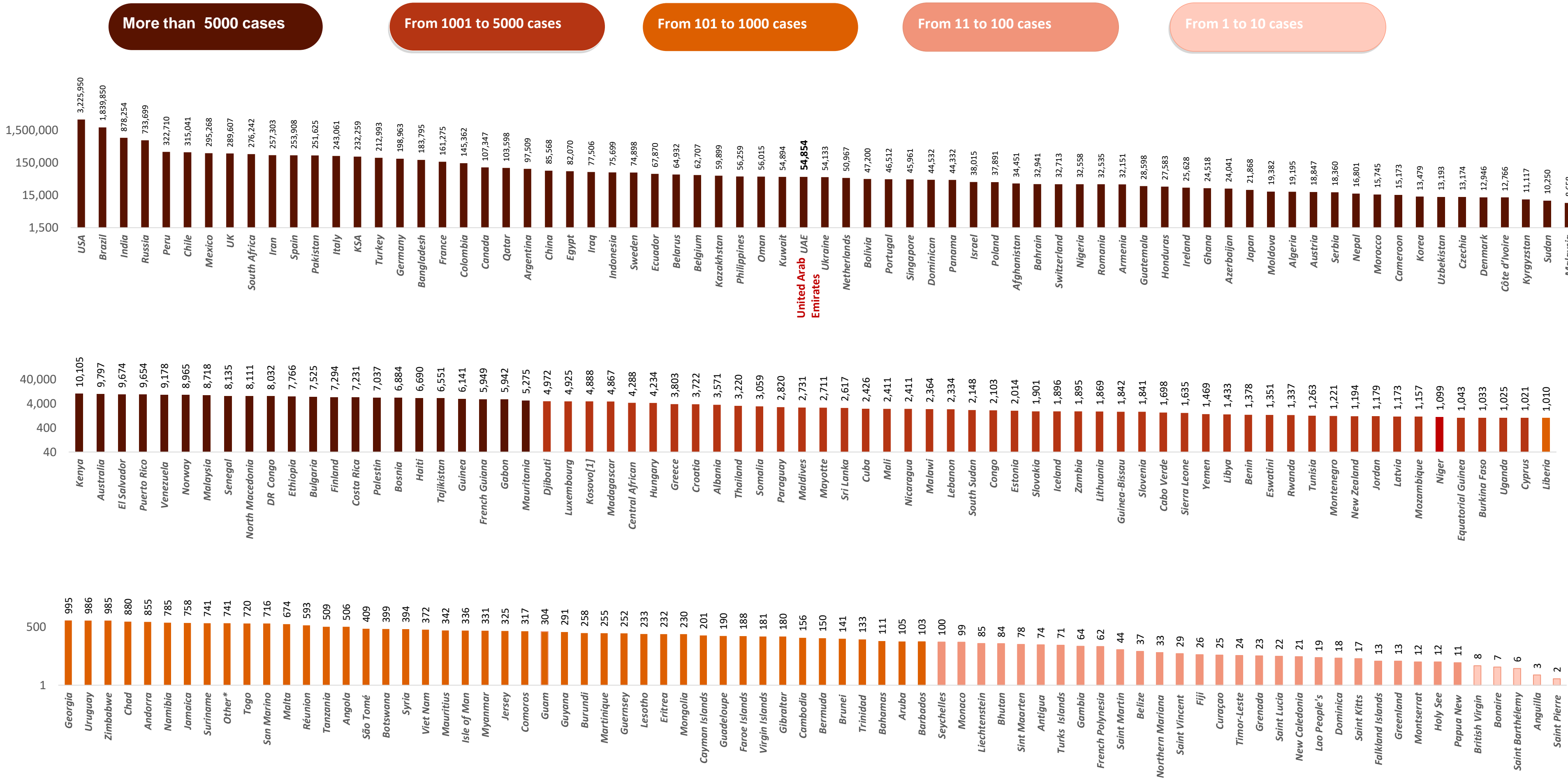
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

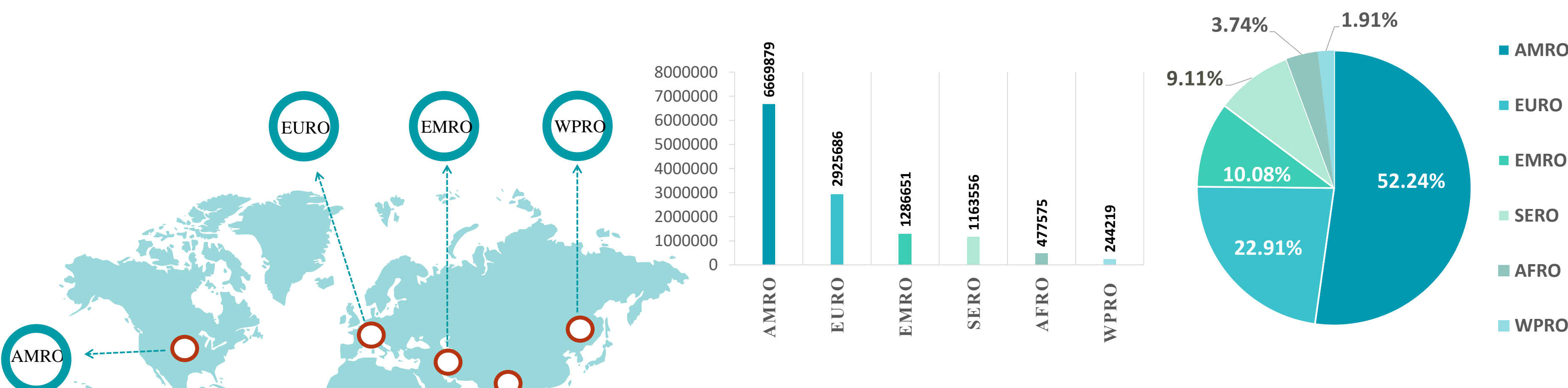
Figure 7B: Bar chart illustrate the global distribution of COVID19 cases



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

Figure 8: illustrate the Global distribution of COVID19 cases per region

INFECTED



DEATH

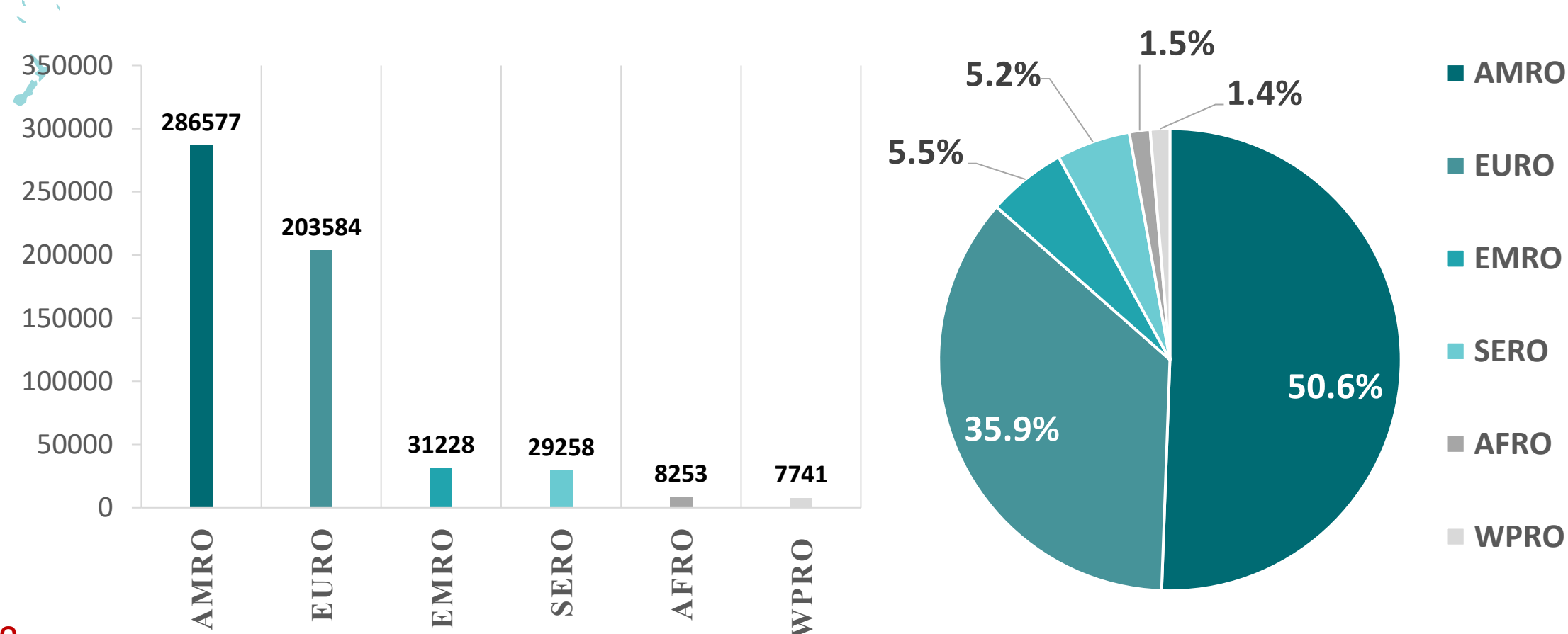
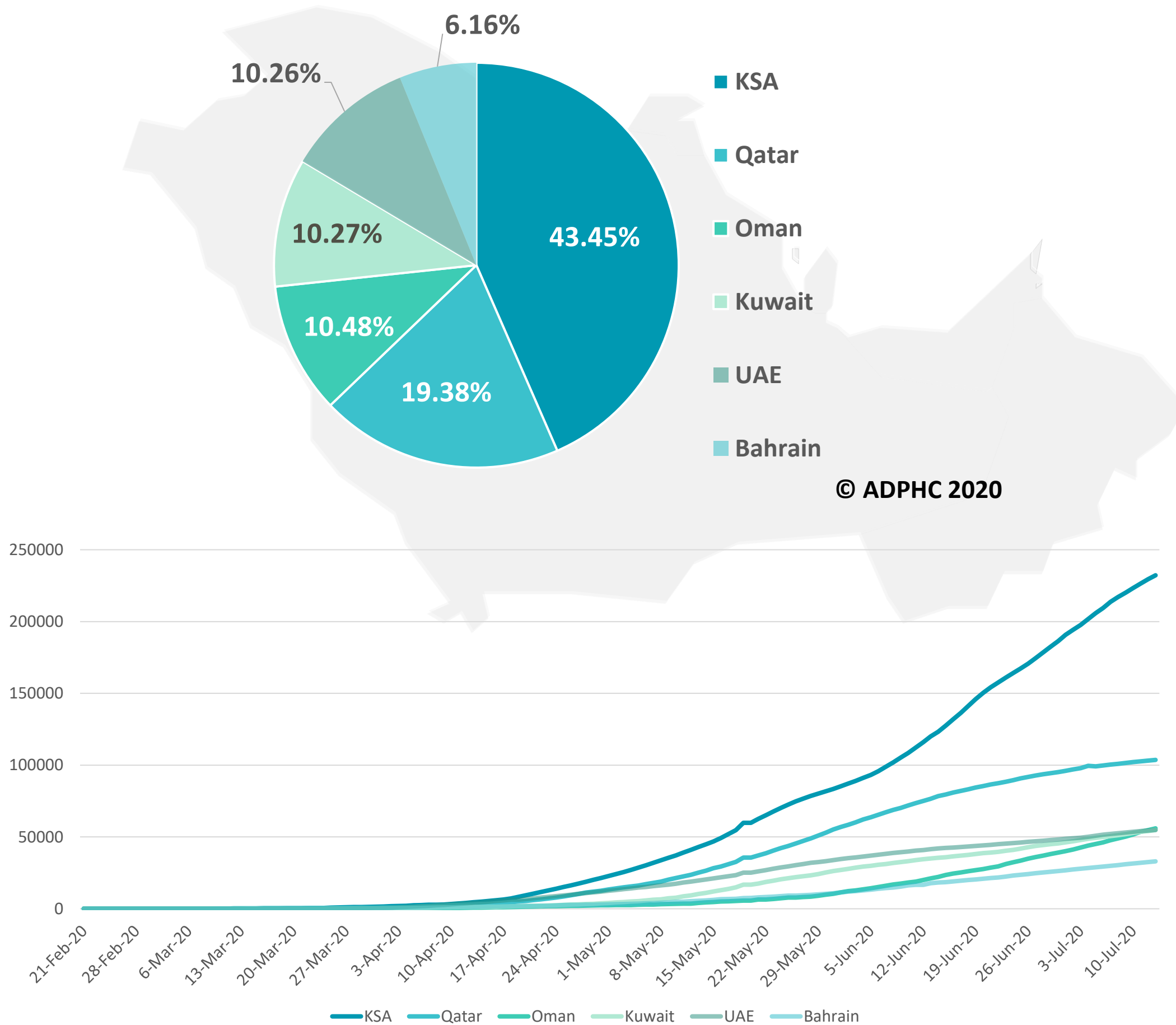
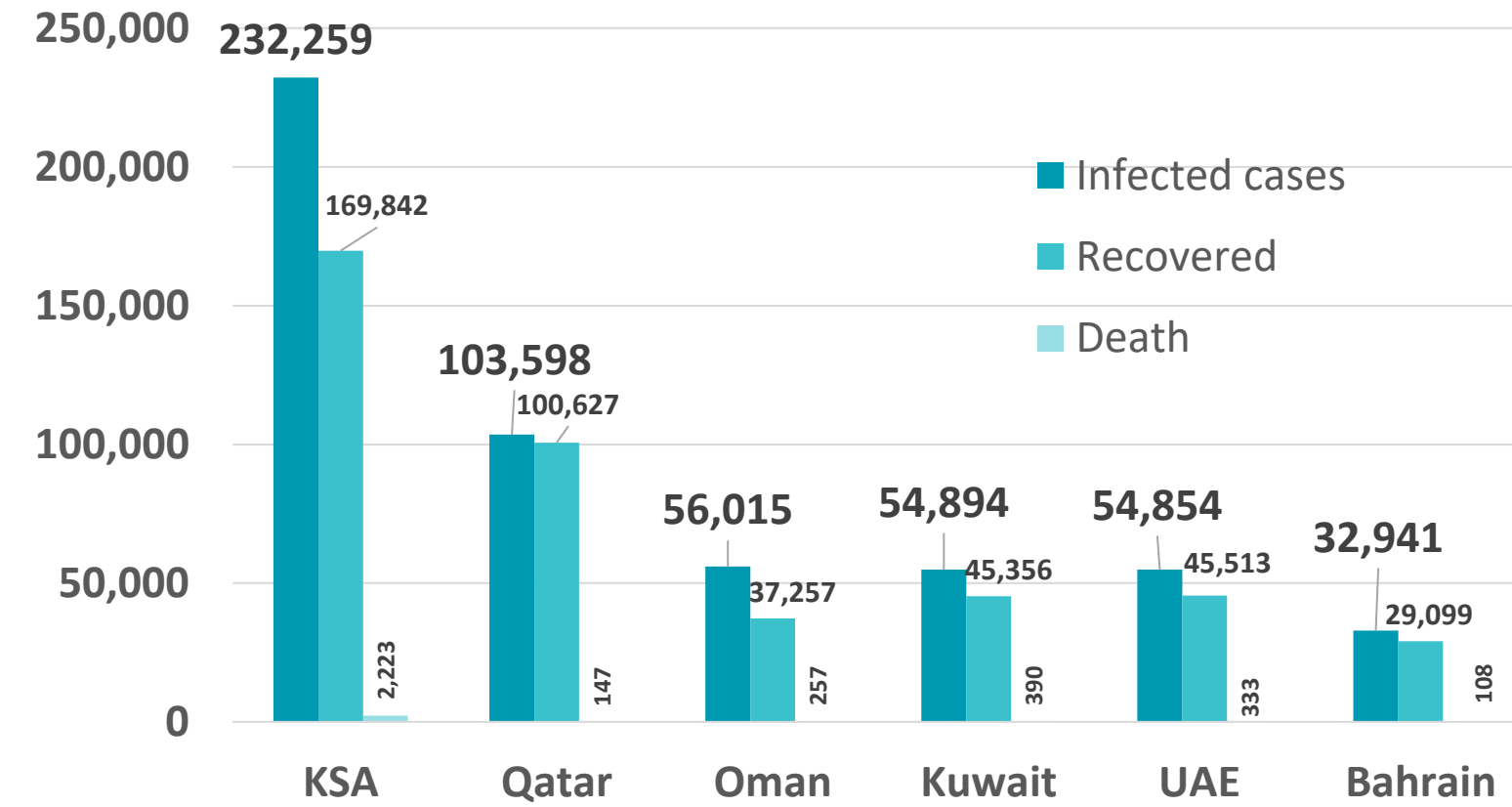


Figure 9: Comparative analysis of the distribution of COVID19 cases in GCC countries

TOTAL NUMBER OF INFECTED CASES



TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



DEATH PER MILLION

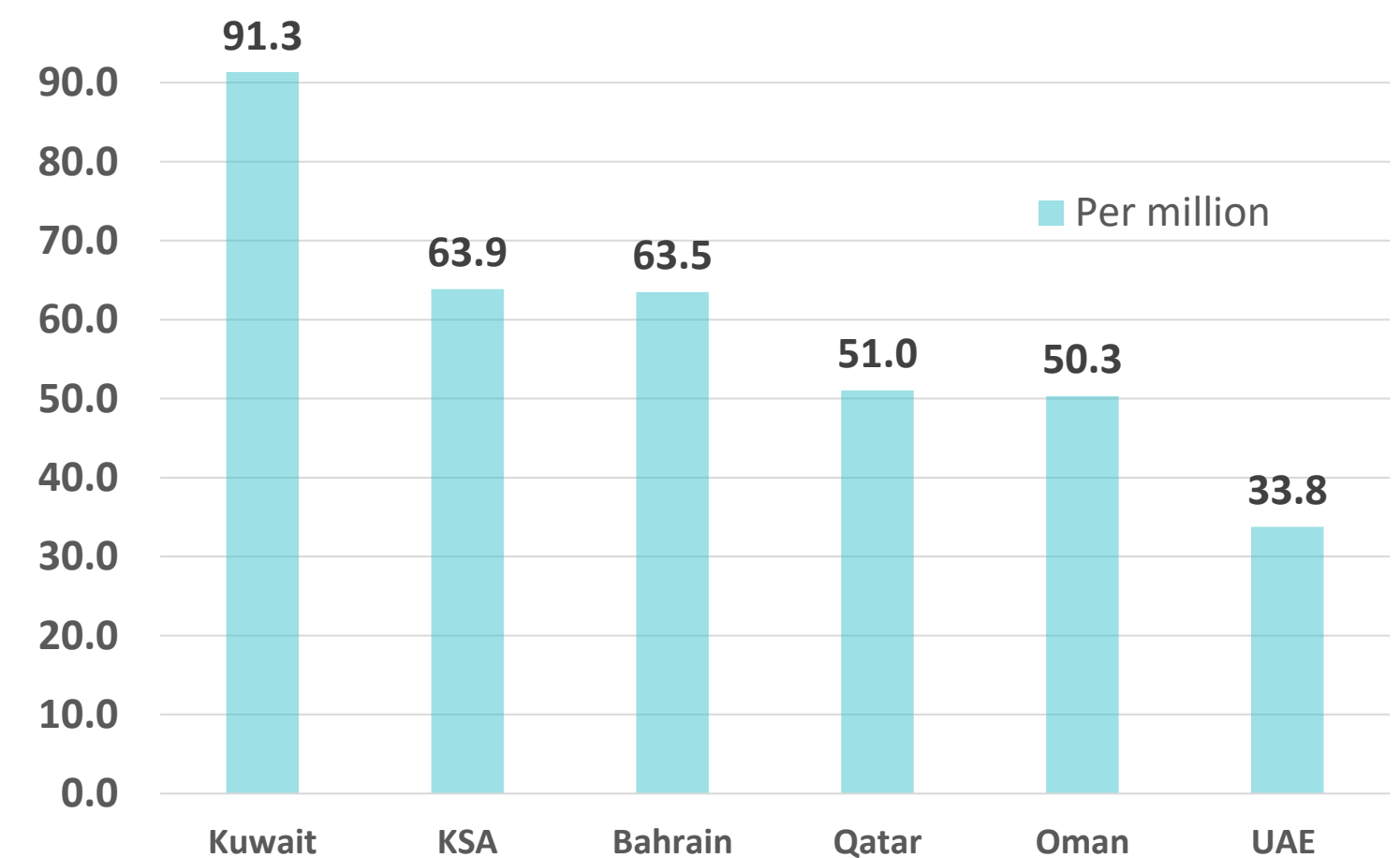
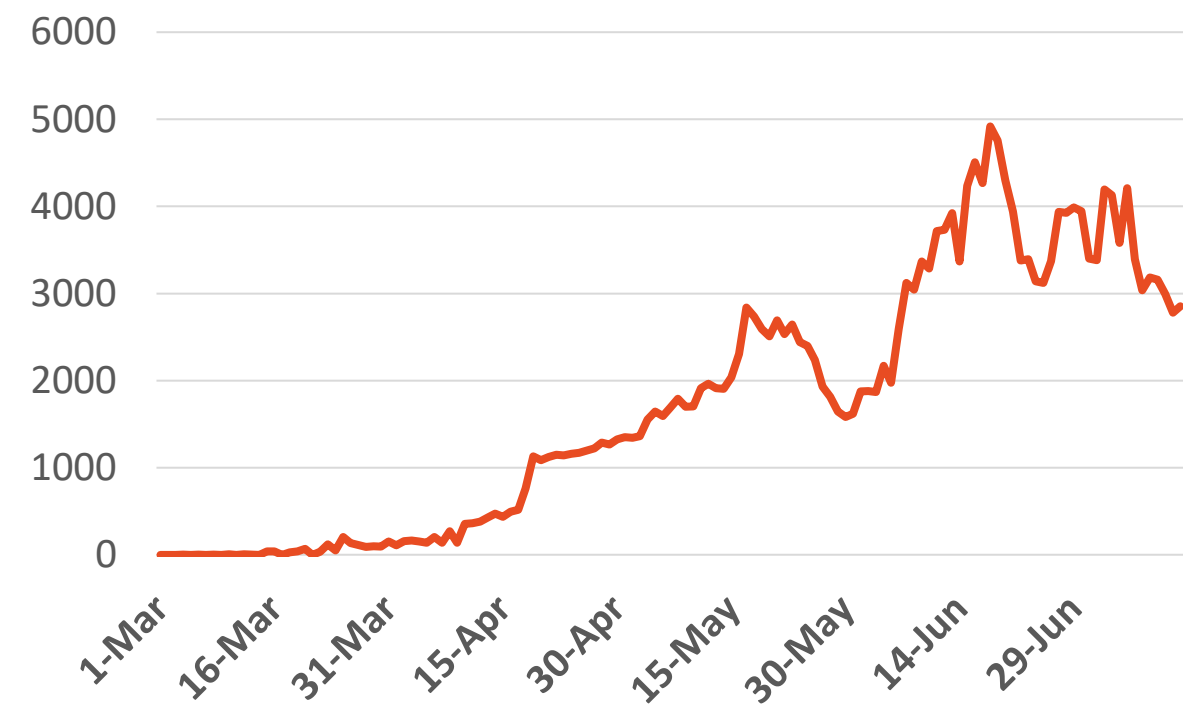


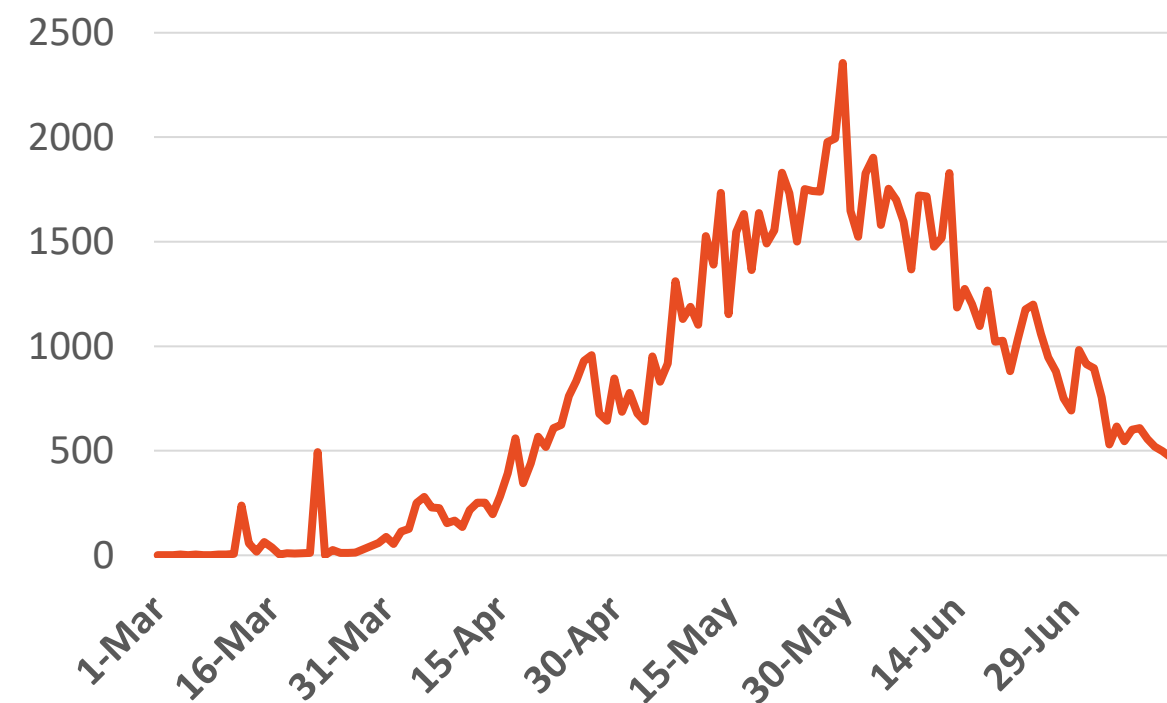
Figure 10: Comparative analysis of the distribution of COVID19 new cases in GCC countries

KSA



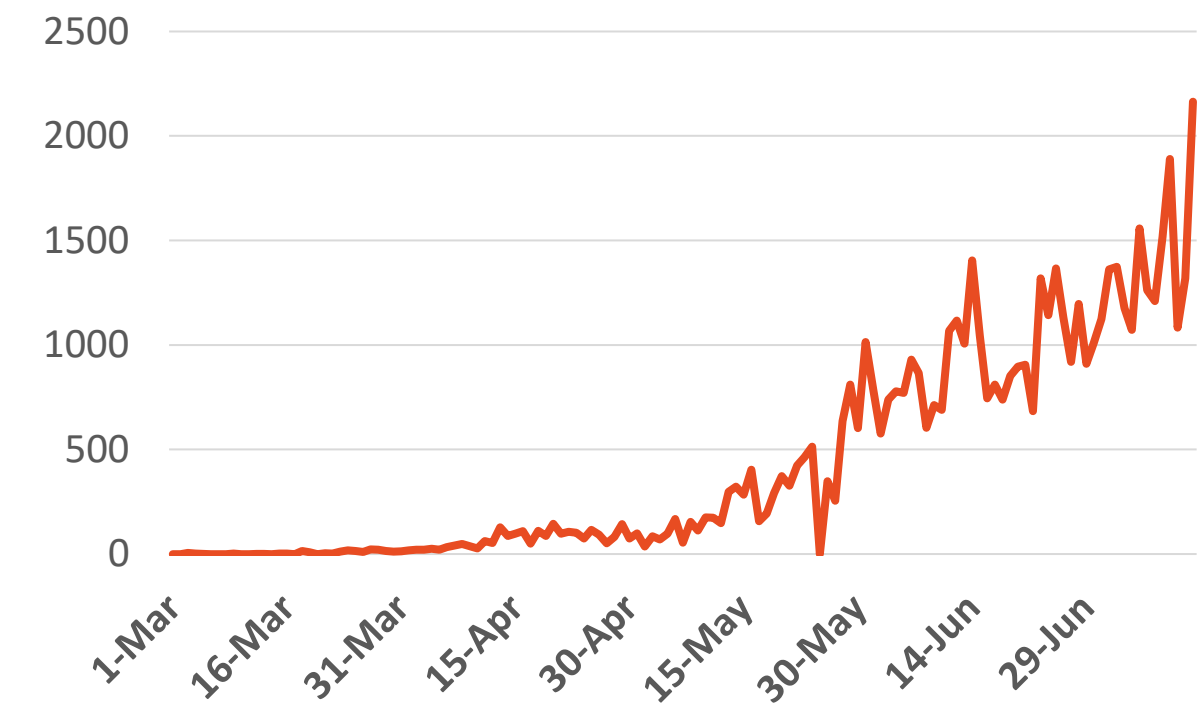
Source : KSA ministry of health

Qatar



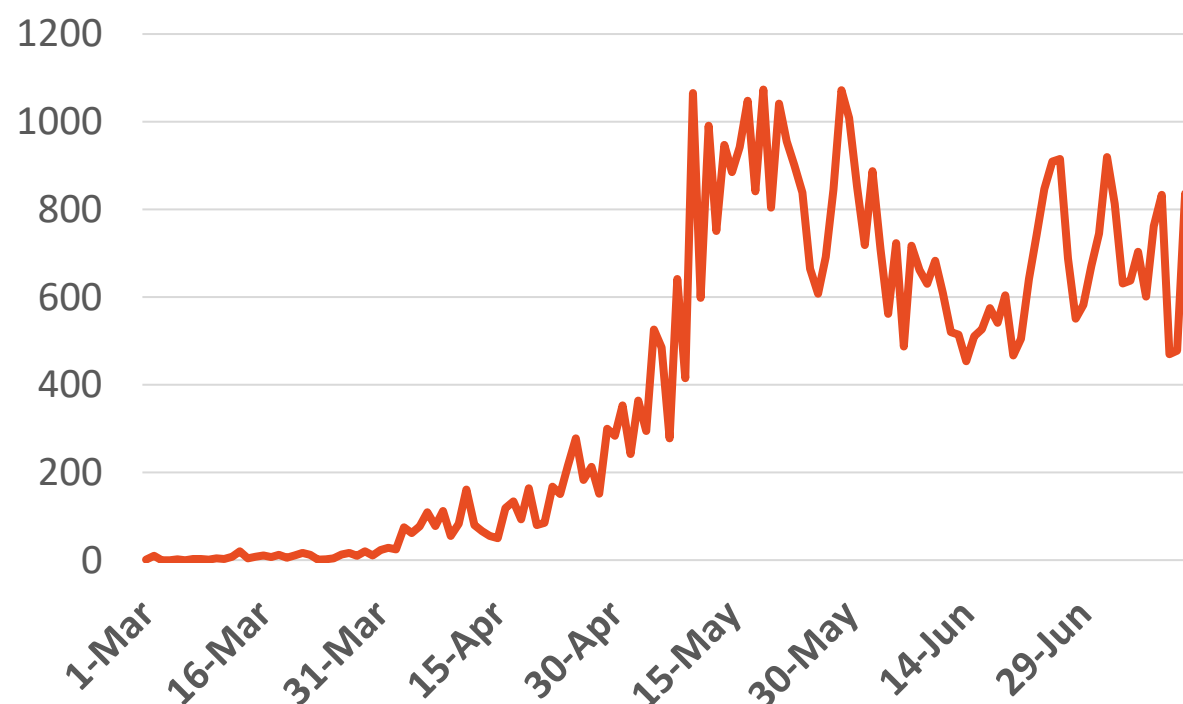
Source : Qatar ministry of health

Oman



Source :Oman ministry of health

Kuwait



Source : Kuwait ministry of health

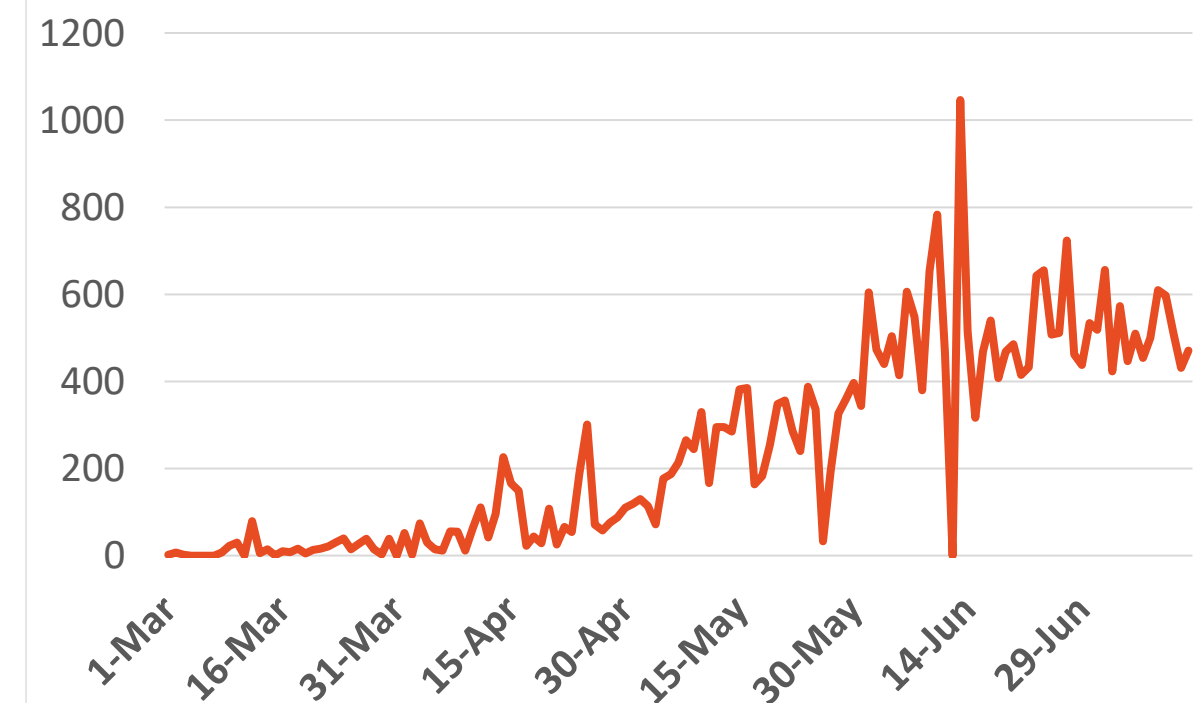
UAE

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Source : National Emergency Crisis and Disaster Management Authority

Bahrain

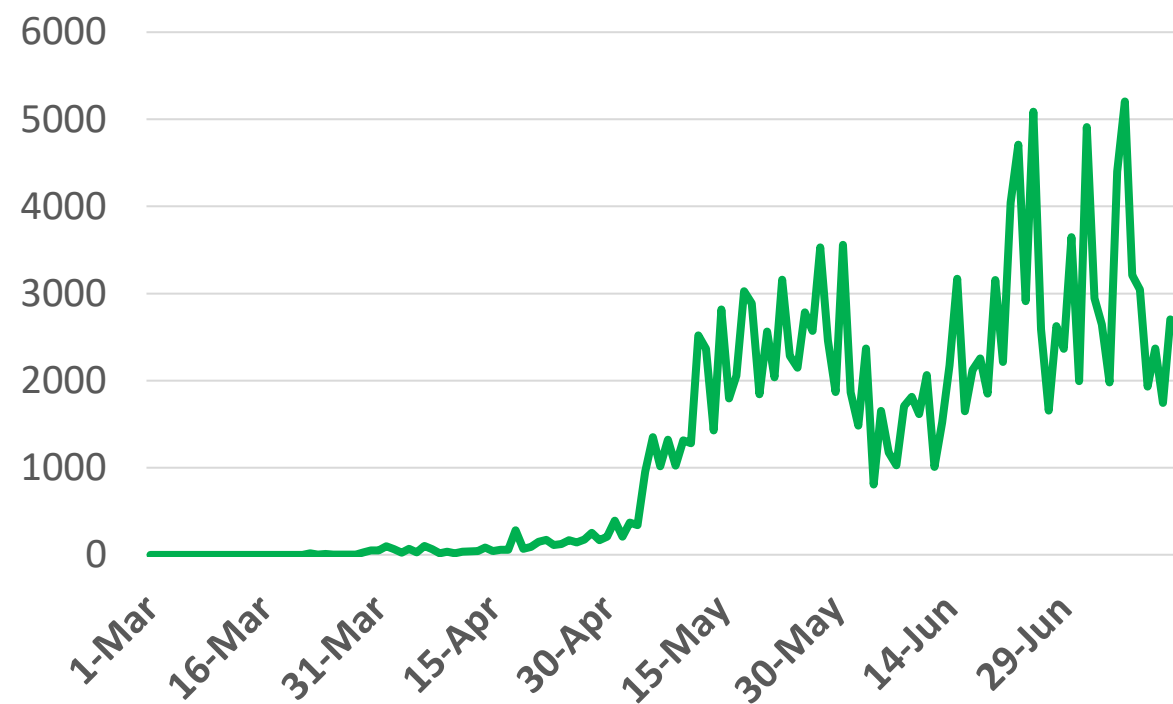


Source :WHO



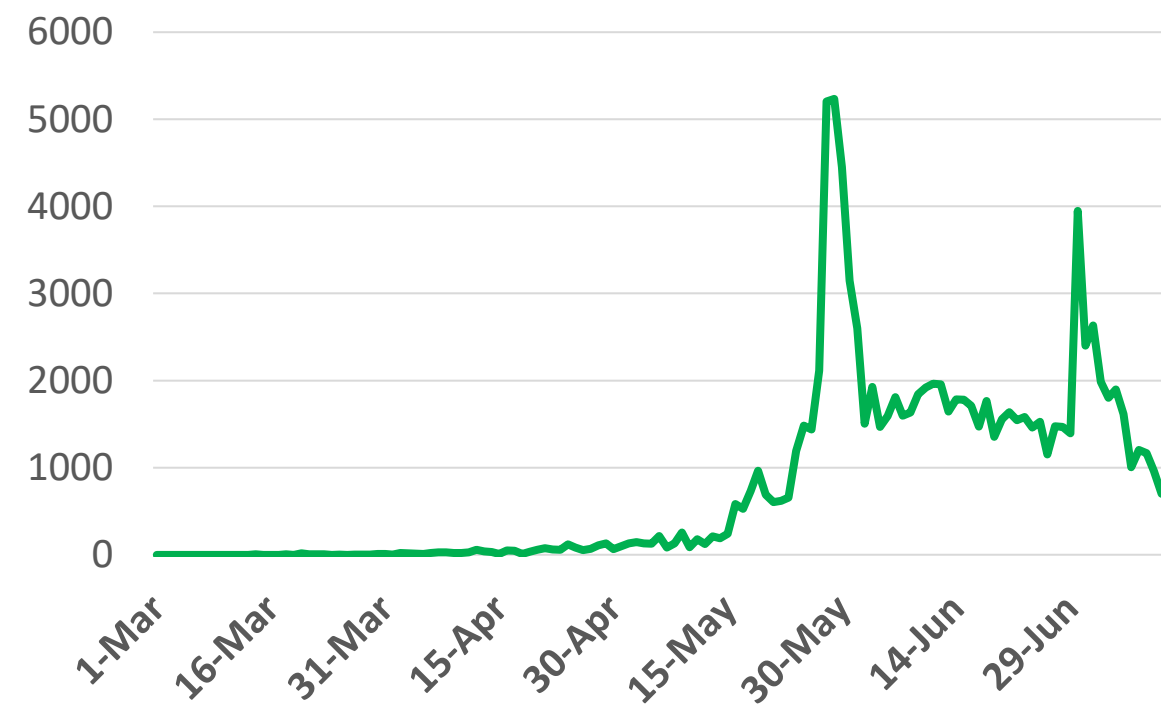
Figure 11: Comparative analysis of the distribution of COVID19 newly recovered cases in GCC Countries

KSA



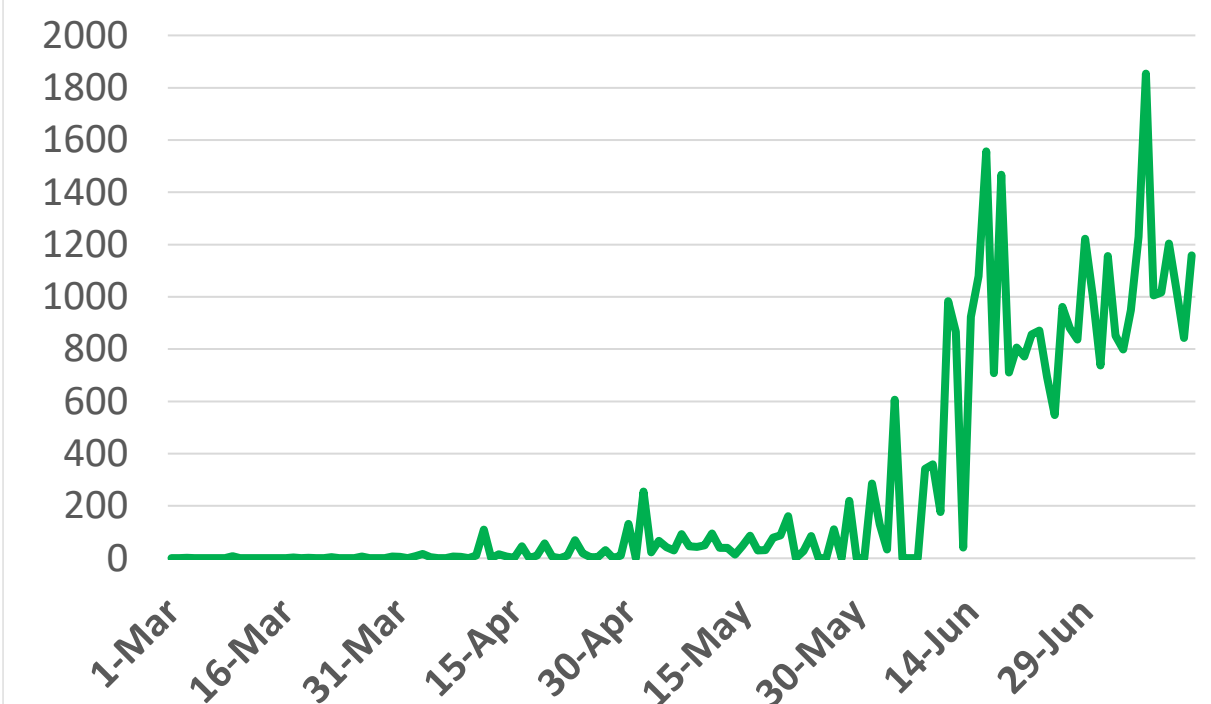
Source : [KSA ministry of health](#)

Qatar



Source : [Qatar ministry of health](#)

Oman



Source : [Oman ministry of health](#)

Kuwait



Source : [Kuwait ministry of health](#)

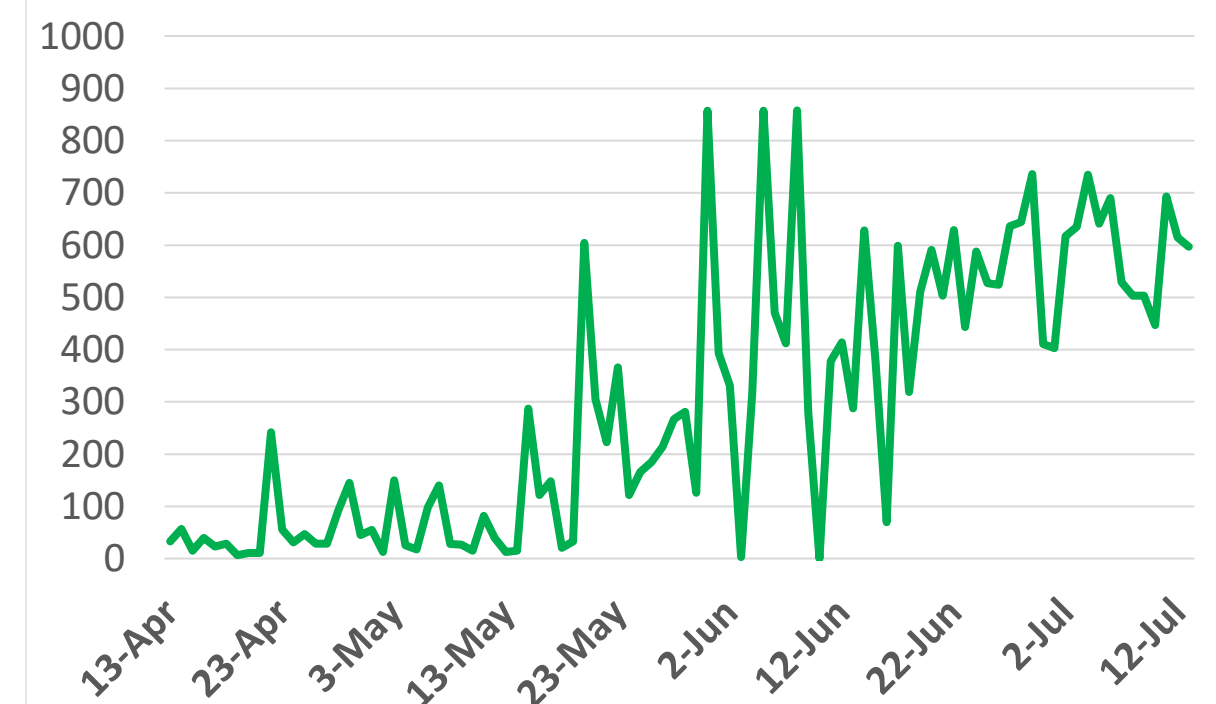
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Source : [National Emergency Crisis and Disaster Management Authority](#)

Bahrain

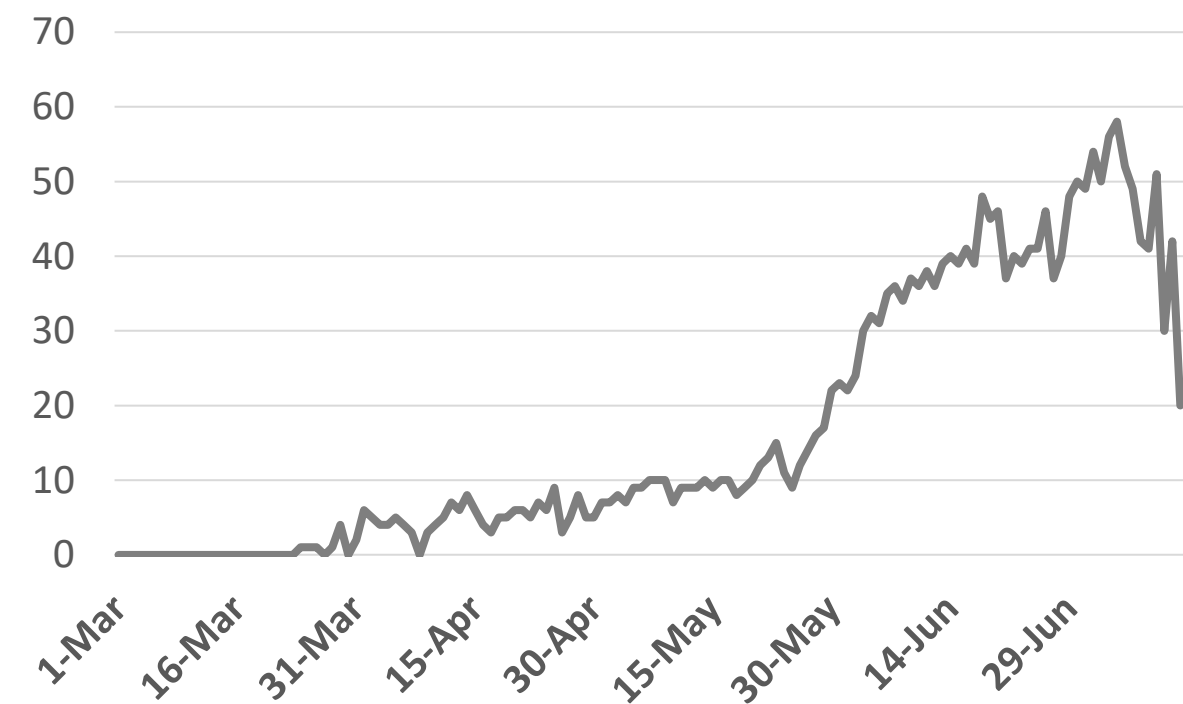


Source : [GCCStat](#)



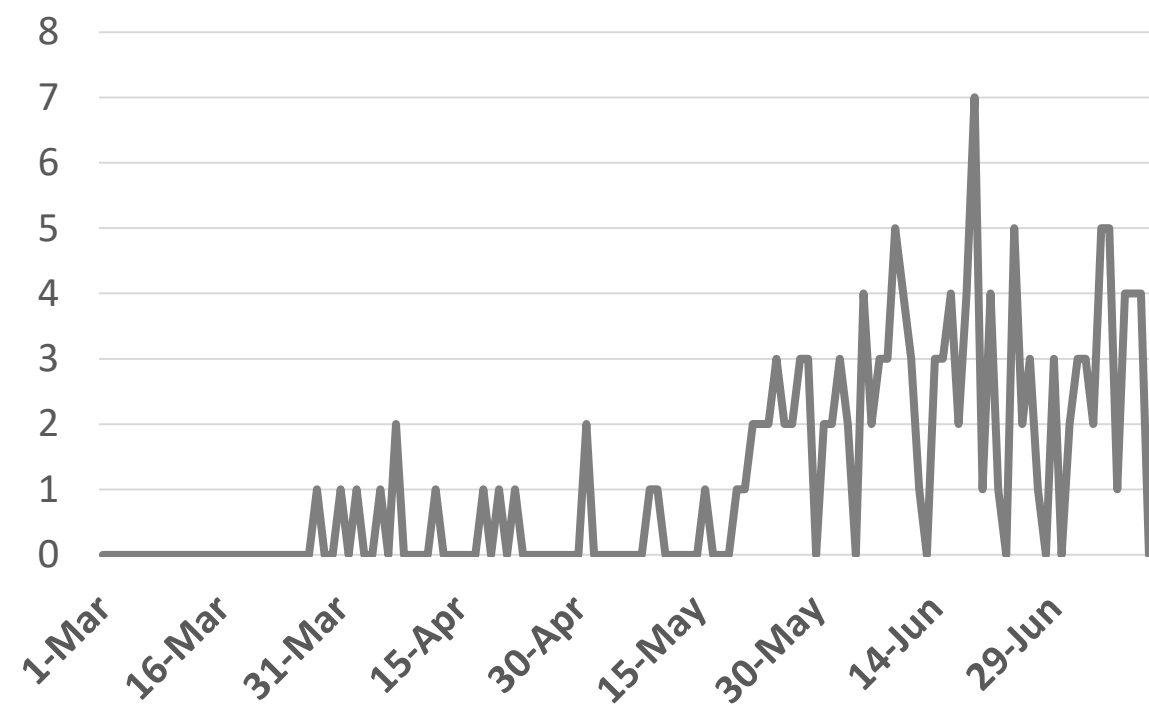
Figure 12: Comparative analysis of the distribution of COVID19 newly death cases in GCC countries

KSA



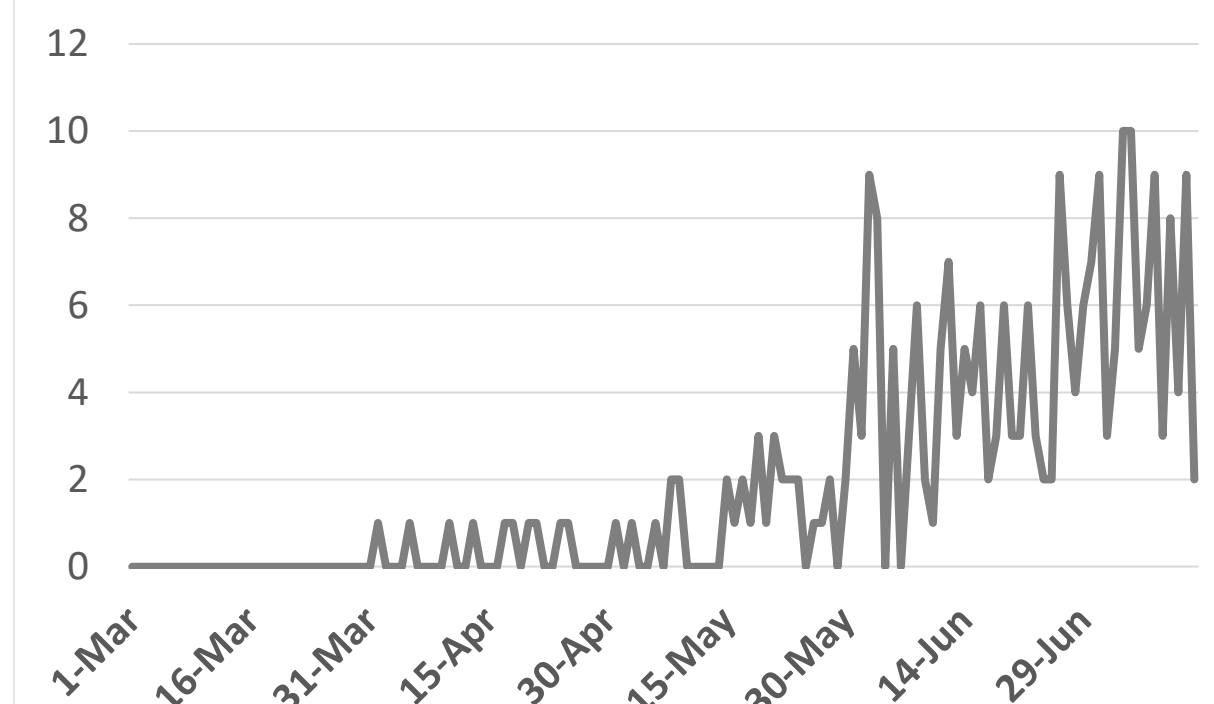
Source : KSA ministry of health

Qatar



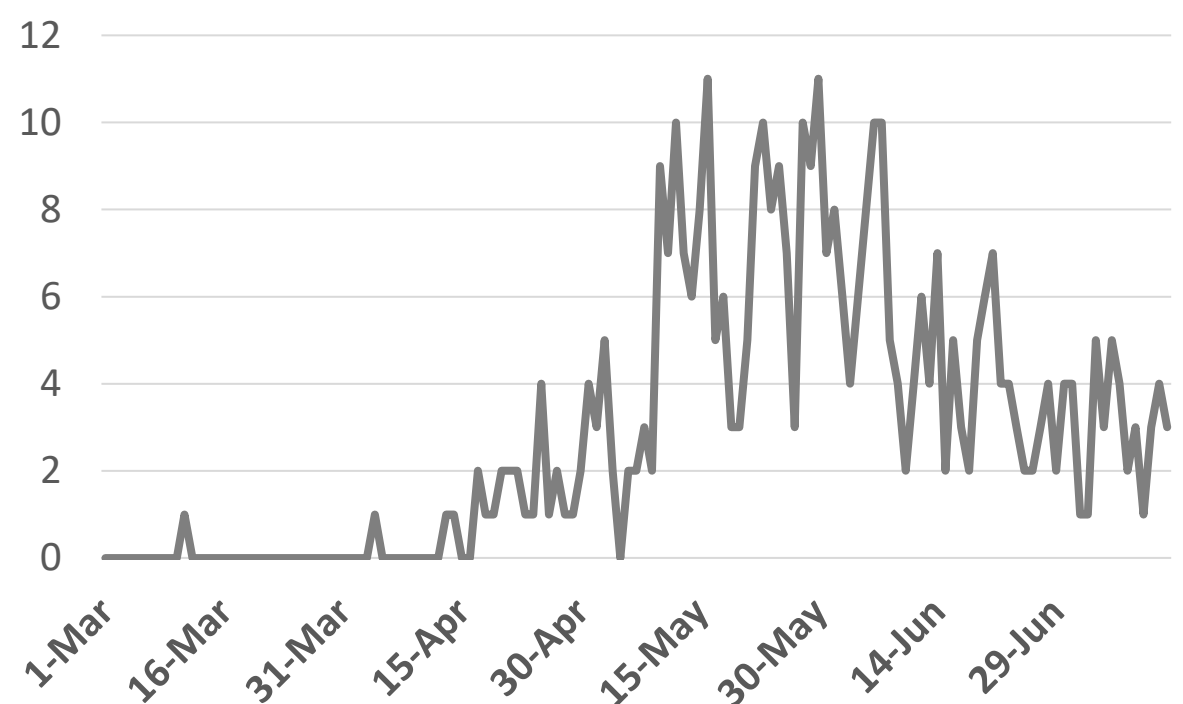
Source : Qatar ministry of health

Oman



Source :Oman ministry of health

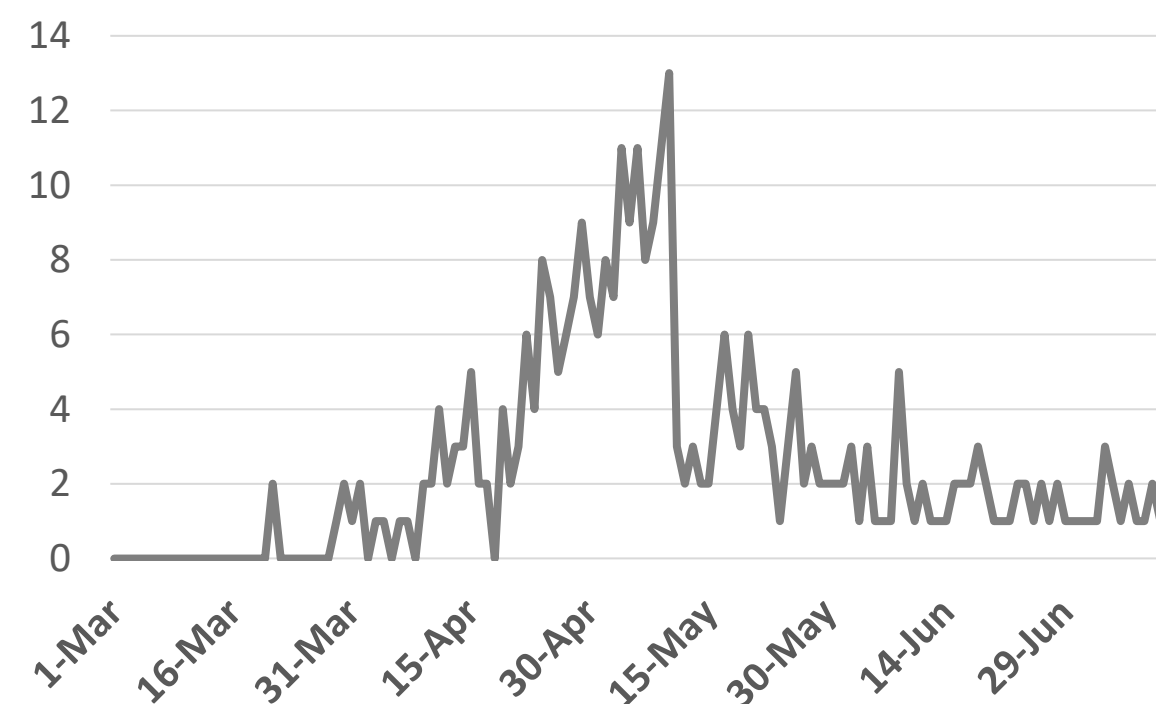
Kuwait



Source : Kuwait ministry of health

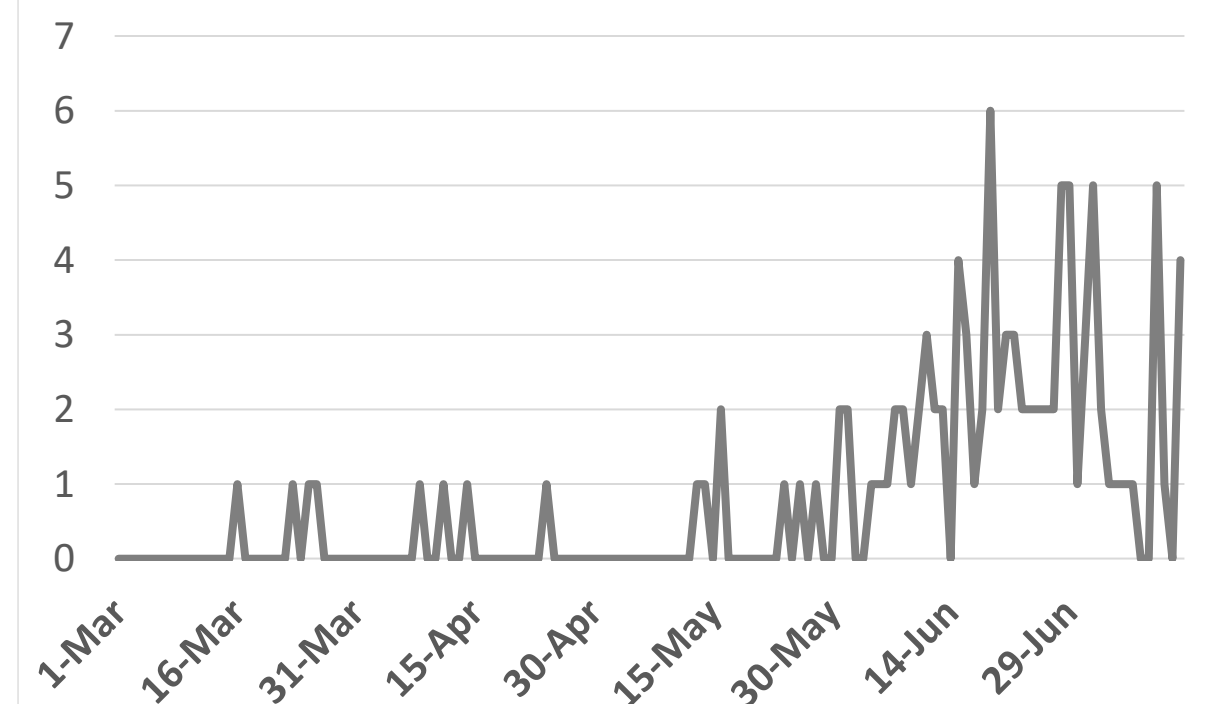
UAE

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Source : National Emergency Crisis and Disaster Management Authority

Bahrain



Source :WHO



Article 1: Incidence of Stress Cardiomyopathy During the Coronavirus Disease 2019 Pandemic

Published

9 July 2020 [JAMA Network](#)

- It is unclear if the stress of the pandemic is associated with an increase in the incidence of stress cardiomyopathy. This study aimed to determine the incidence and outcomes of stress cardiomyopathy during the COVID-19 pandemic through a retrospective cohort study at cardiac catheterization laboratories in 2 hospitals in the Cleveland Clinic health system in Ohio between March 1 and April 30, 2020.
- The study examined the incidence of stress cardiomyopathy and findings were compared with 4 control groups of patients with acute coronary syndrome presenting before the pandemic (March-April 2018), (January-February 2019), (March-April 2019), and (January-February 2020).
- Investigators identified 1914 patient presented with acute coronary syndrome with median age of 67 years. 1094 [66.1%], presented in the pre-COVID-19 periods and 258 patients presented during the COVID-19 pandemic. There was a significant increase in the incidence of stress cardiomyopathy during the COVID-19 period, with a total of 20 patients with stress cardiomyopathy 4.58 (95%CI, 4.11-5.11; $P < .001$). All patients during the COVID-19 pandemic tested negative to SARS-CoV-2 infection by PCR. Patients with stress cardiomyopathy during the COVID-19 pandemic had a longer hospital stay ($P = 0.006$). There were no significant differences in mortality.
- The authors concluded that these findings highlighted the increase in the incidence of stress cardiomyopathy during the COVID-19 pandemic.



Article 2:

Inhaled Corticosteroids: A Rapid Review of the Evidence for Treatment or Prevention of COVID-19

Published

22 June 2020 [CEBM](#)

- Inhaled ciclesonide has been shown to suppress SARS-CoV-2 replication in cultured cells and it is suggested that it exhibits direct-acting antiviral activity in addition to its intrinsic anti-inflammatory function and has therefore been proposed as a candidate drug for treatment of patients suffering from COVID-19. This review examines the current literature on the role of inhaled corticosteroids in managing COVID-19.
- Systemic steroid administration has dominated scientific literature with systemic dexamethasone recently having been shown to reduce the risk of COVID-19 mortality. The pathogenesis of SARS involves the release of pro-inflammatory cytokines in the lung alveoli, steroids inhibit the adhesion and action of cytokines, and it has been hypothesized that through such moderation of the immune response, inhaled corticosteroids could prevent the development of acute respiratory distress syndrome.
- In this review, one study investigated the antiviral potential of ciclesonide against the SARS-CoV-2 virus in vitro, one against the MERS-CoV, HCoV-229E and SARS-CoV virus in vitro. One was a case series of three patients admitted to hospital with COVID-19 and treated with inhaled ciclesonide. The findings indicated that ciclesonide has antiviral properties against these respiratory viruses and the clinical study showed favorable outcomes.
- Inhaled ciclesonide is expected to reduce viral replication and pulmonary inflammation, whilst having lower immunosuppressive effects when compared to systematic corticosteroids.
- One in vitro study investigated the antiviral potential of budesonide observed no reduction in viral replication in cells treated with budesonide and no reduction in inflammatory cytokine release.
- Additional data is required to help consider whether inhaled corticosteroids may be used for COVID-19 pneumonia.

THANK YOU

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