

SCIENTIFIC RESEARCH MONITORING ON COVID-19

21 SEPTEMBER 2020

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SCIENTIFIC RESEARCH MONITORING ON COVID-19

(ISSUE 232)

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



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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Vaccine

Scientists Relieved as
Coronavirus Vaccine Trial
Restarts - but Question Lack
of Transparency

Public health response

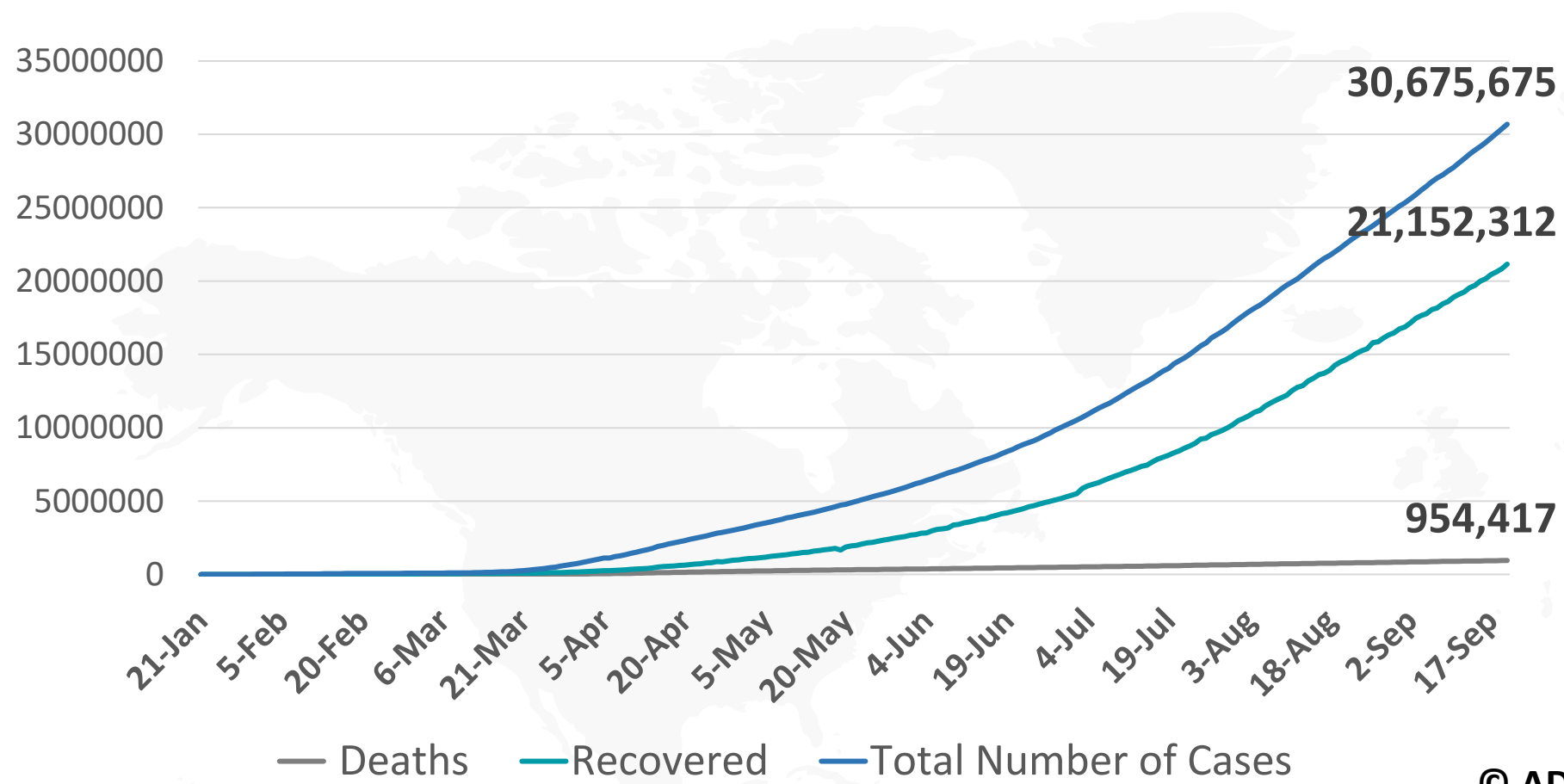
The Opioid Epidemic During
the COVID-19 Pandemic

Clinical Feature

Investigating Whether Blood
Type is Linked to COVID-19
Risk



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)

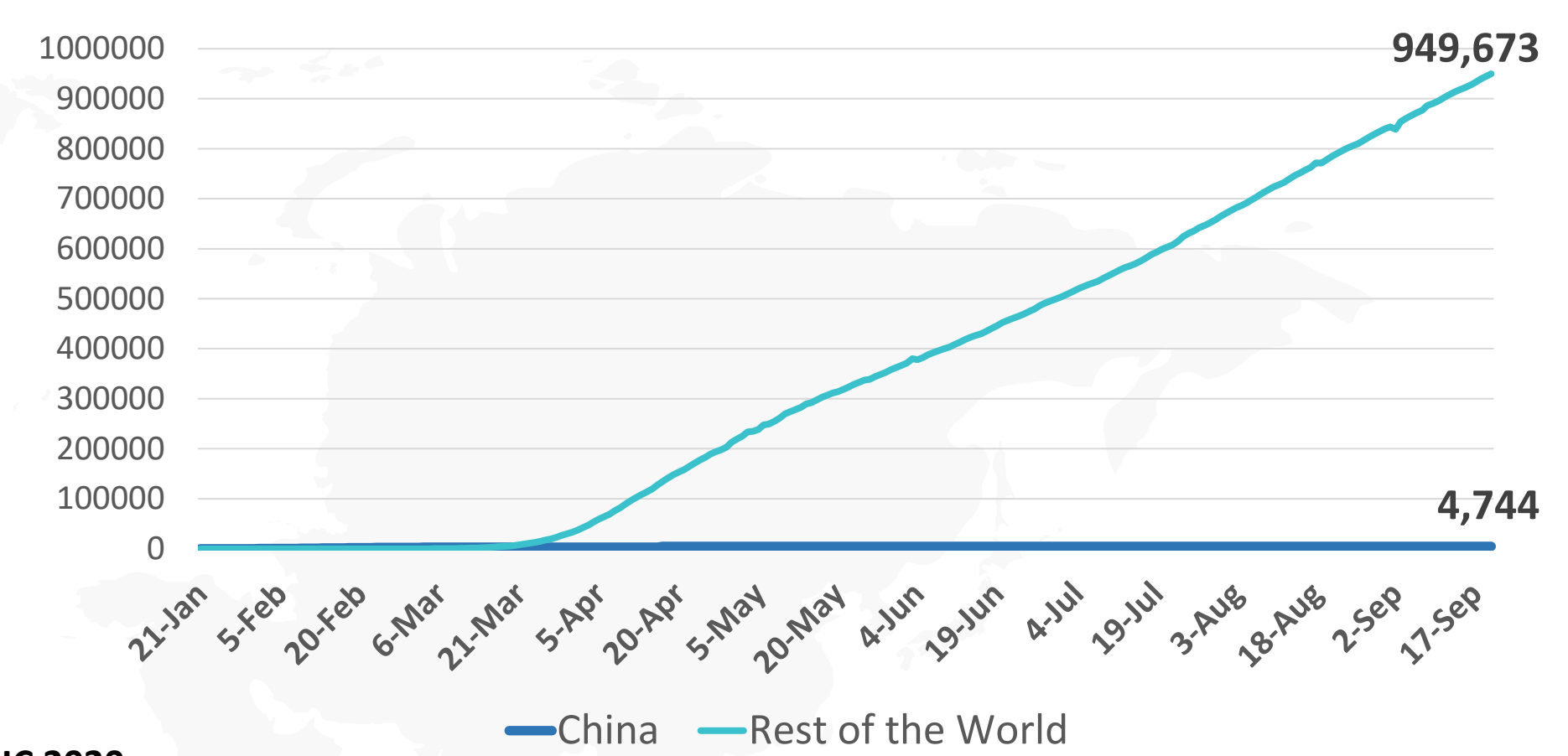


Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)

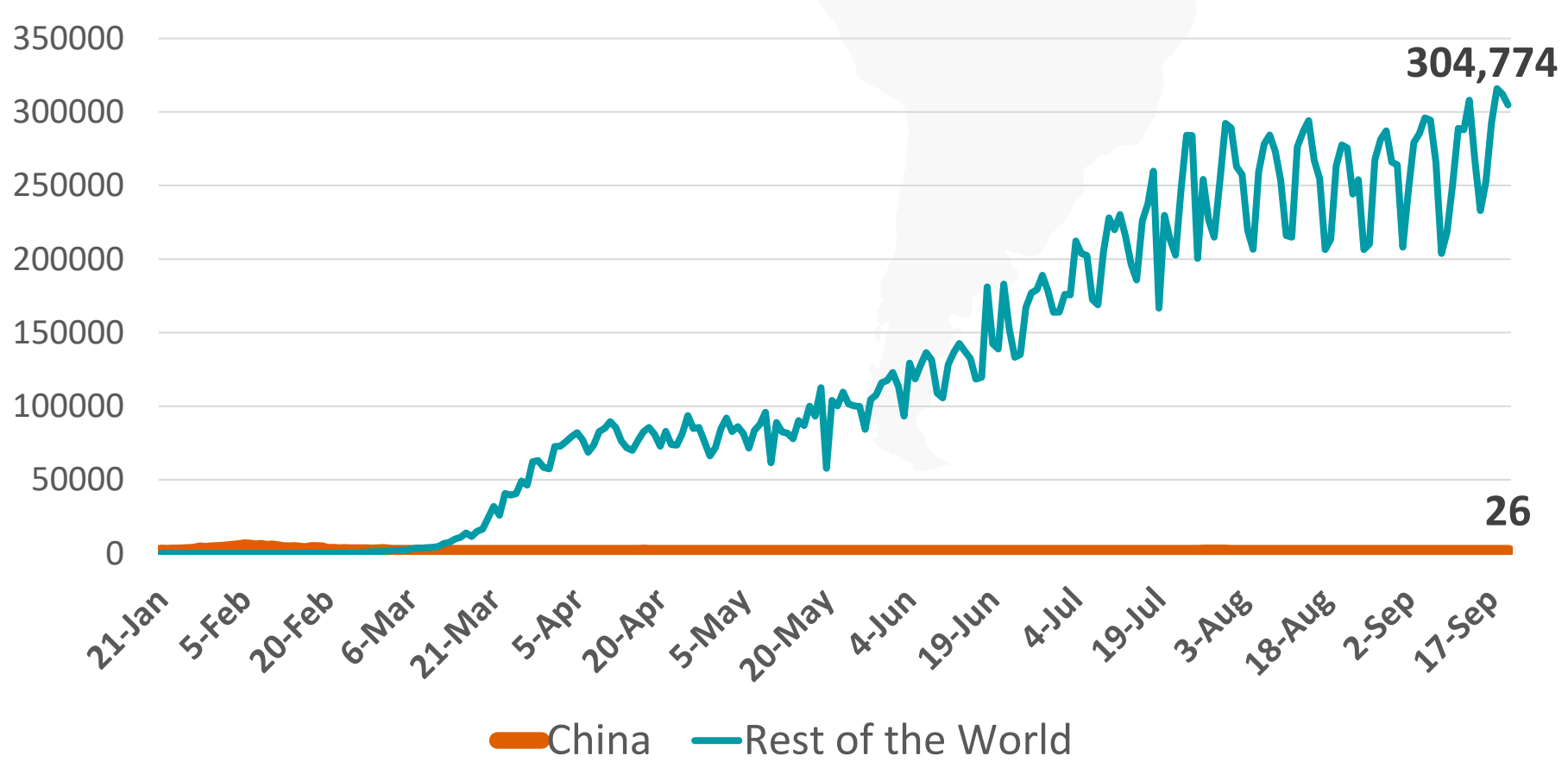


Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)

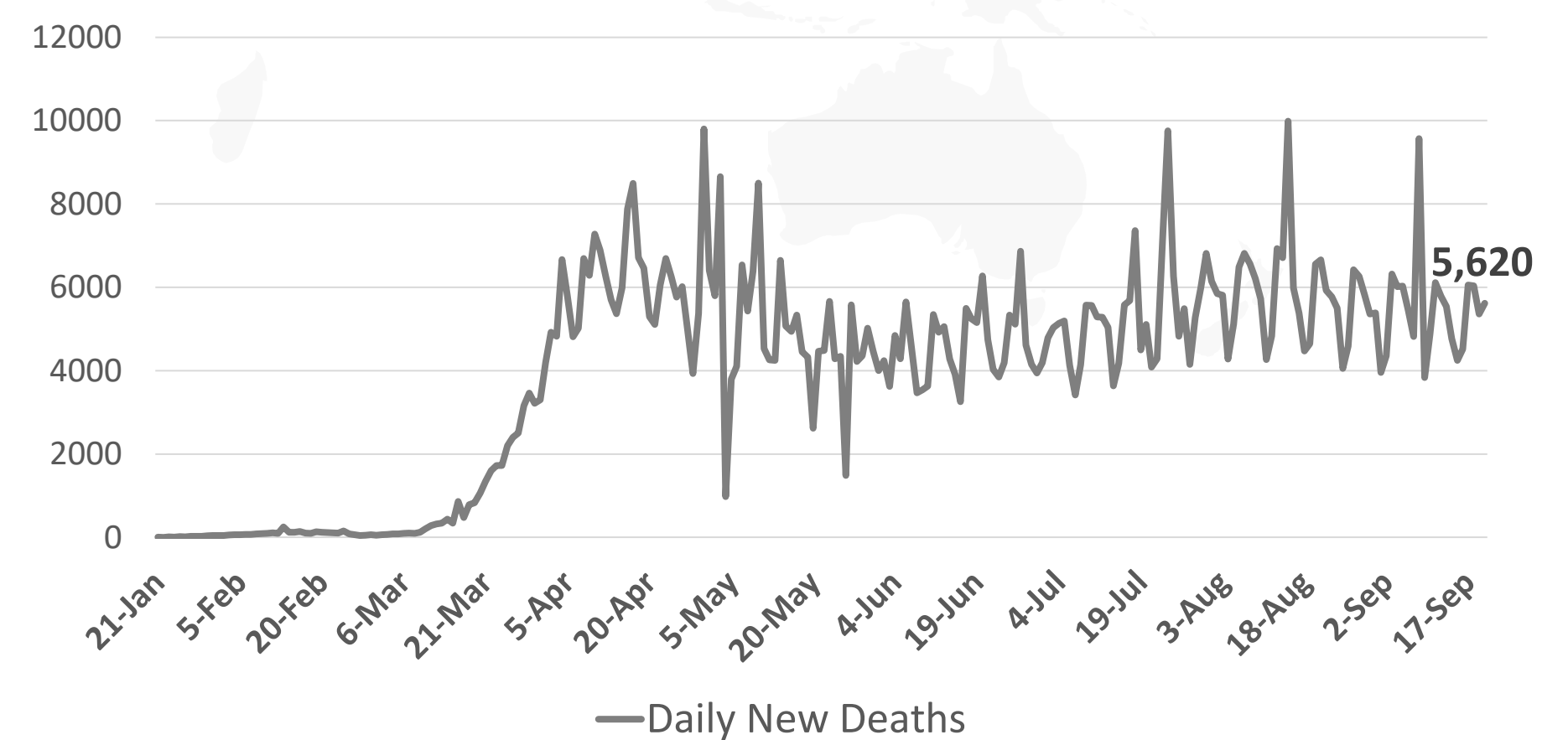
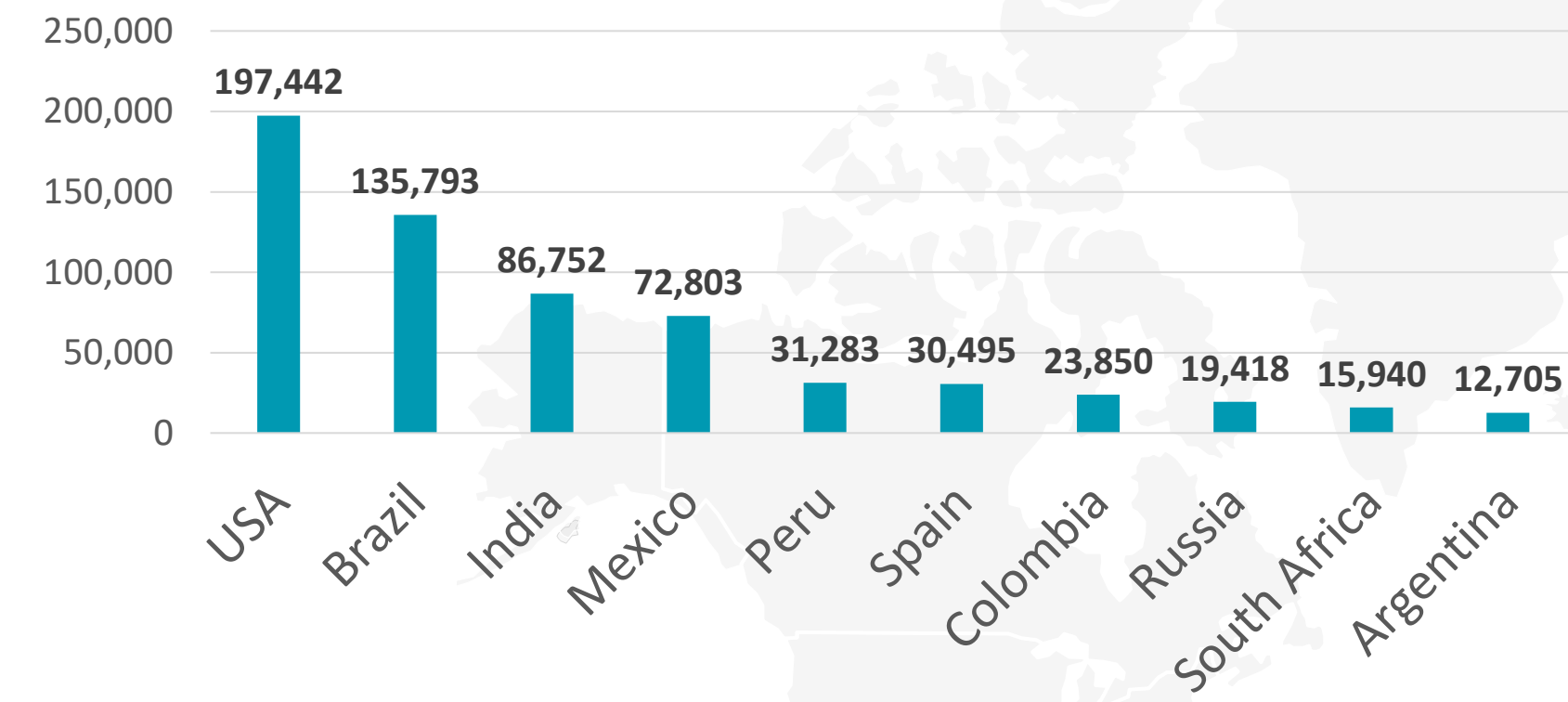
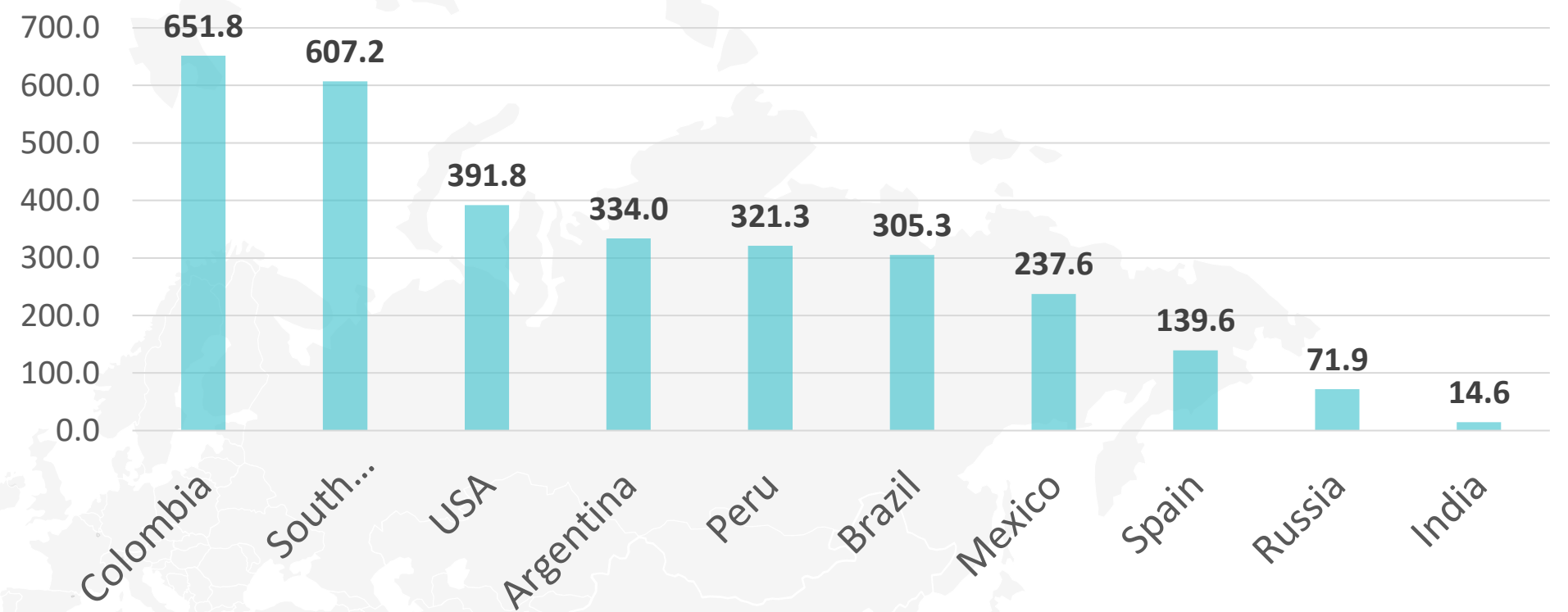


Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19

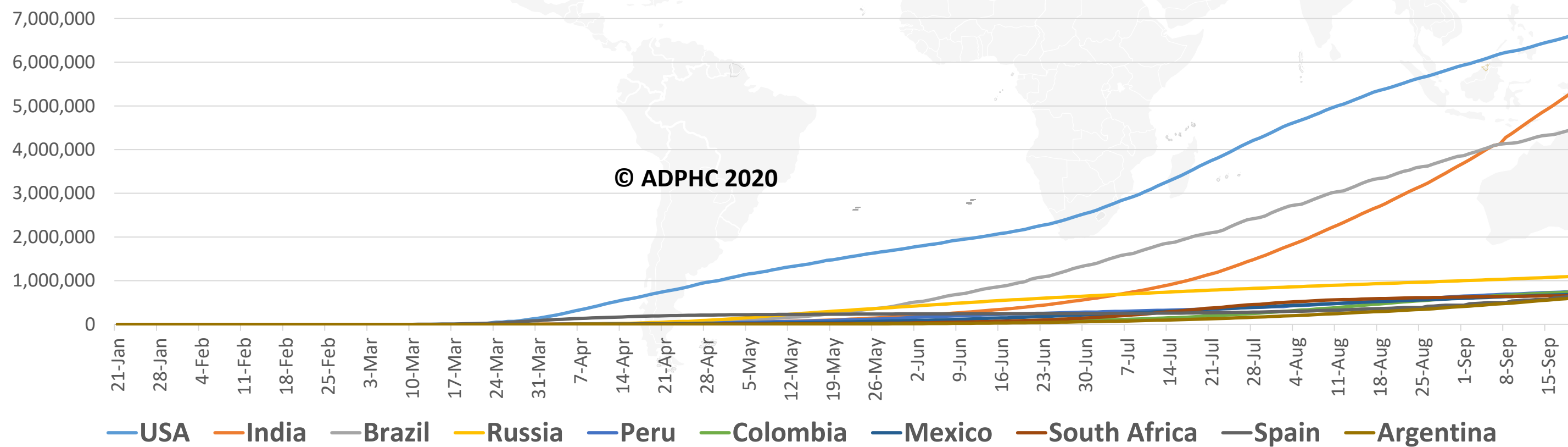
TOTAL DEATHS



DEATHS PER MILLION

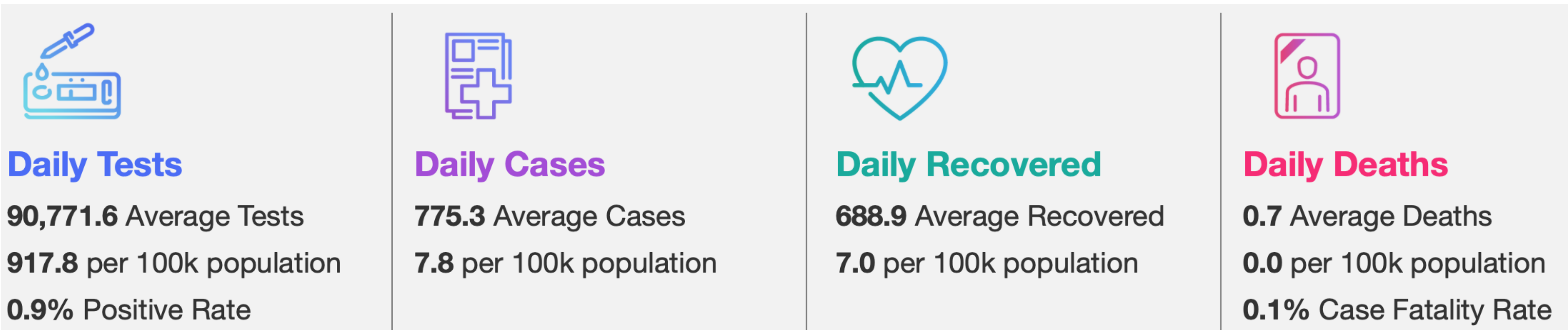


TOTAL INFECTED CASES



USA	6,662,003
Brazil	5,400,619
India	4,495,183
Russia	1,103,399
Peru	756,412
Colombia	750,471
Mexico	688,954
South Africa	659,656
Spain	640,040
Argentina	613,658

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

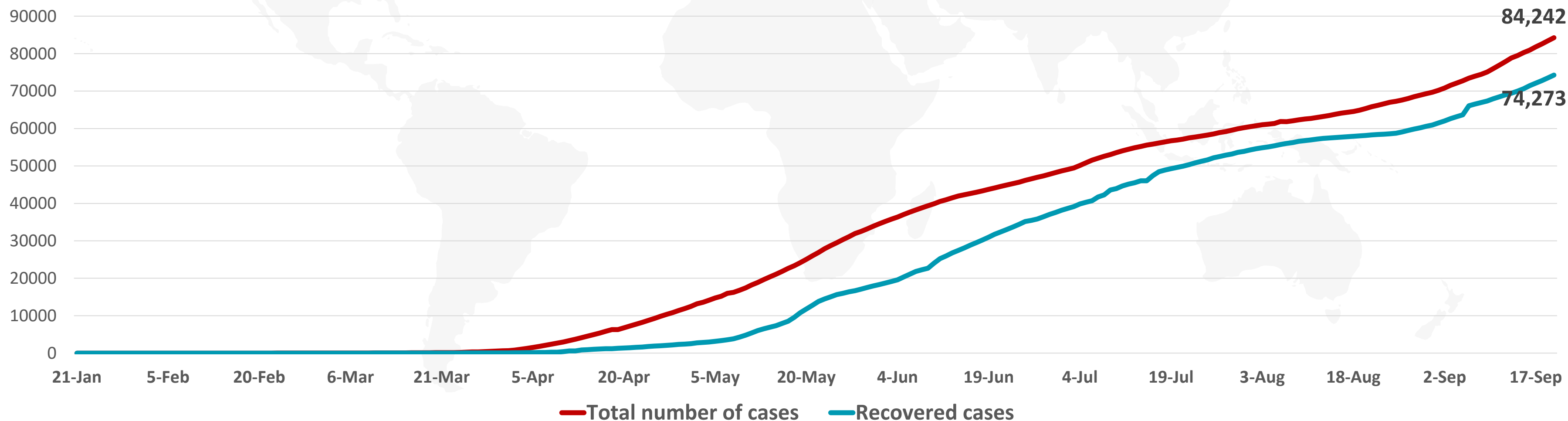
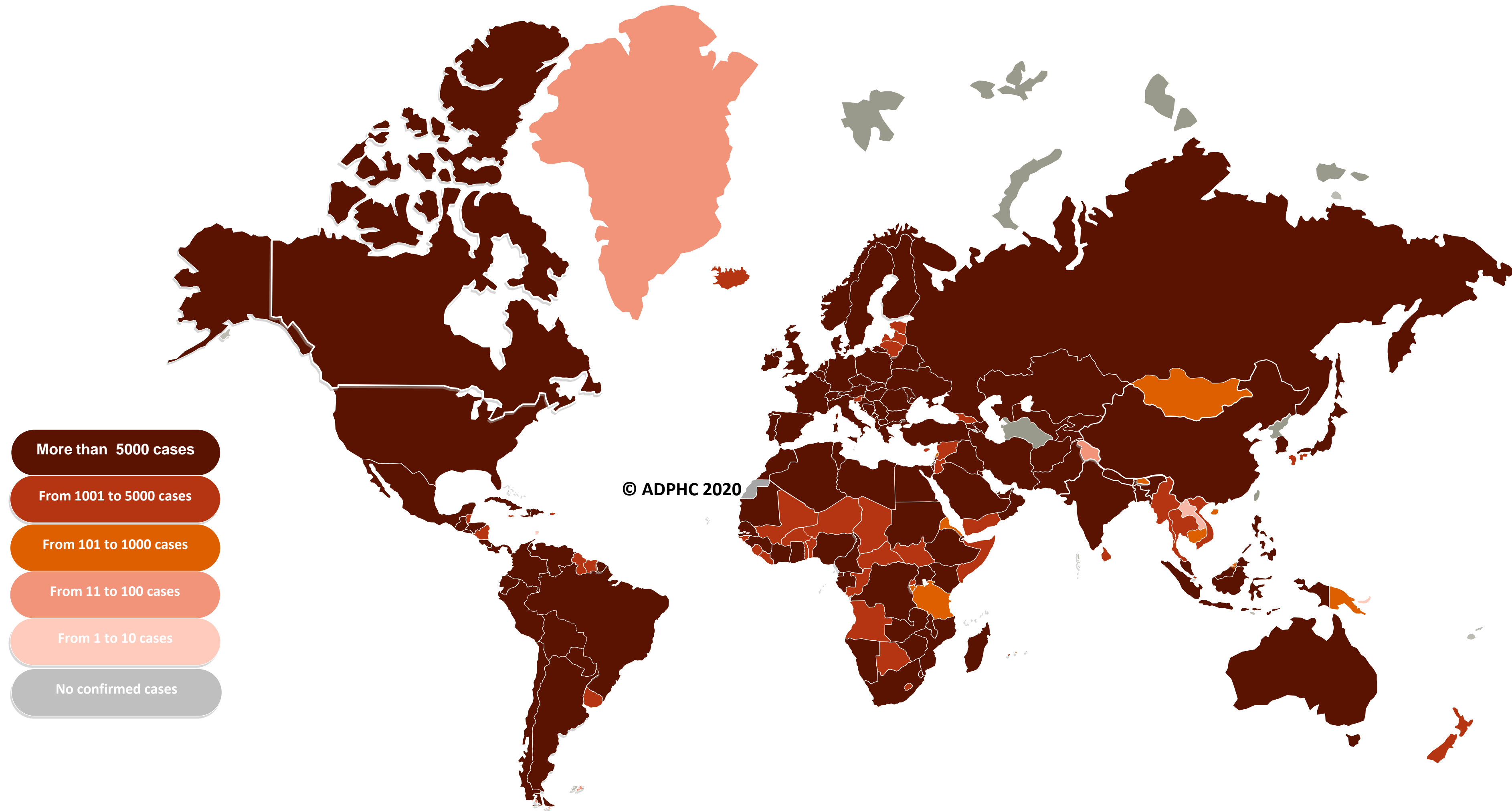


Figure 7A : Global Distribution of COVID-19 Cases



More than 5000 cases

From 1001 to 5000 cases

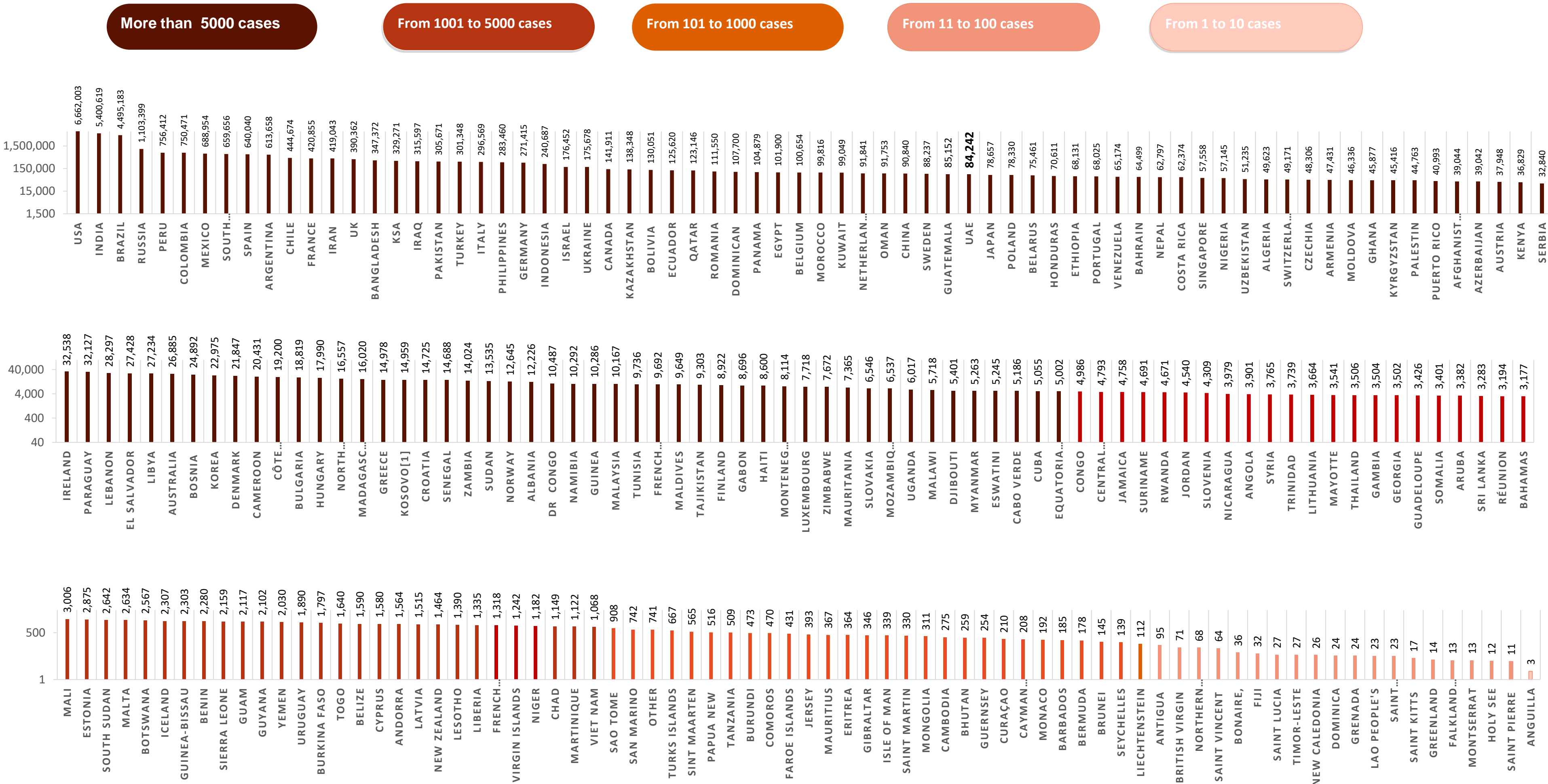
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

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

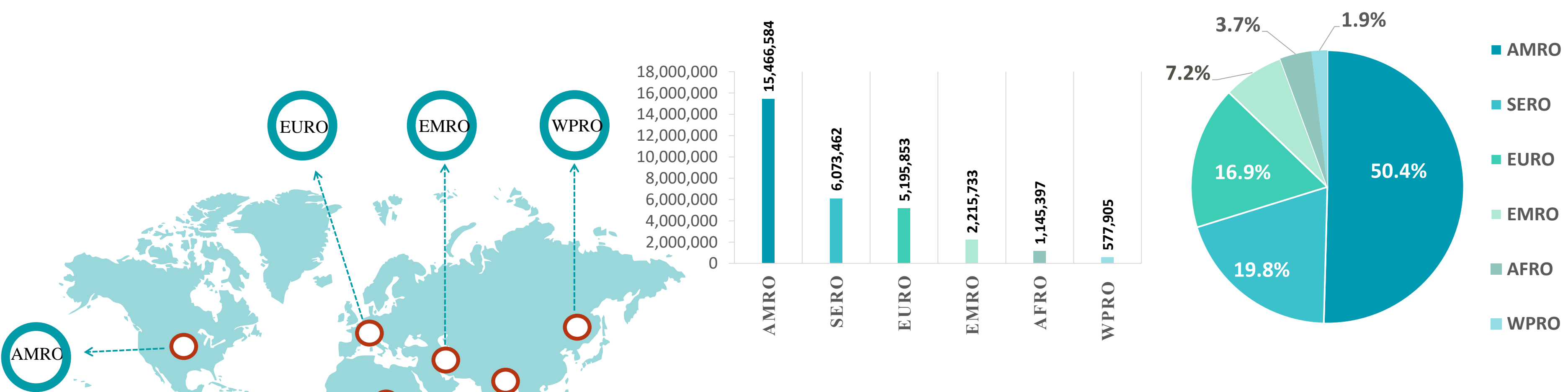


Other*: includes cases and deaths reported under the international conveyance(Diamond Princess)



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

INFECTED



DEATHS

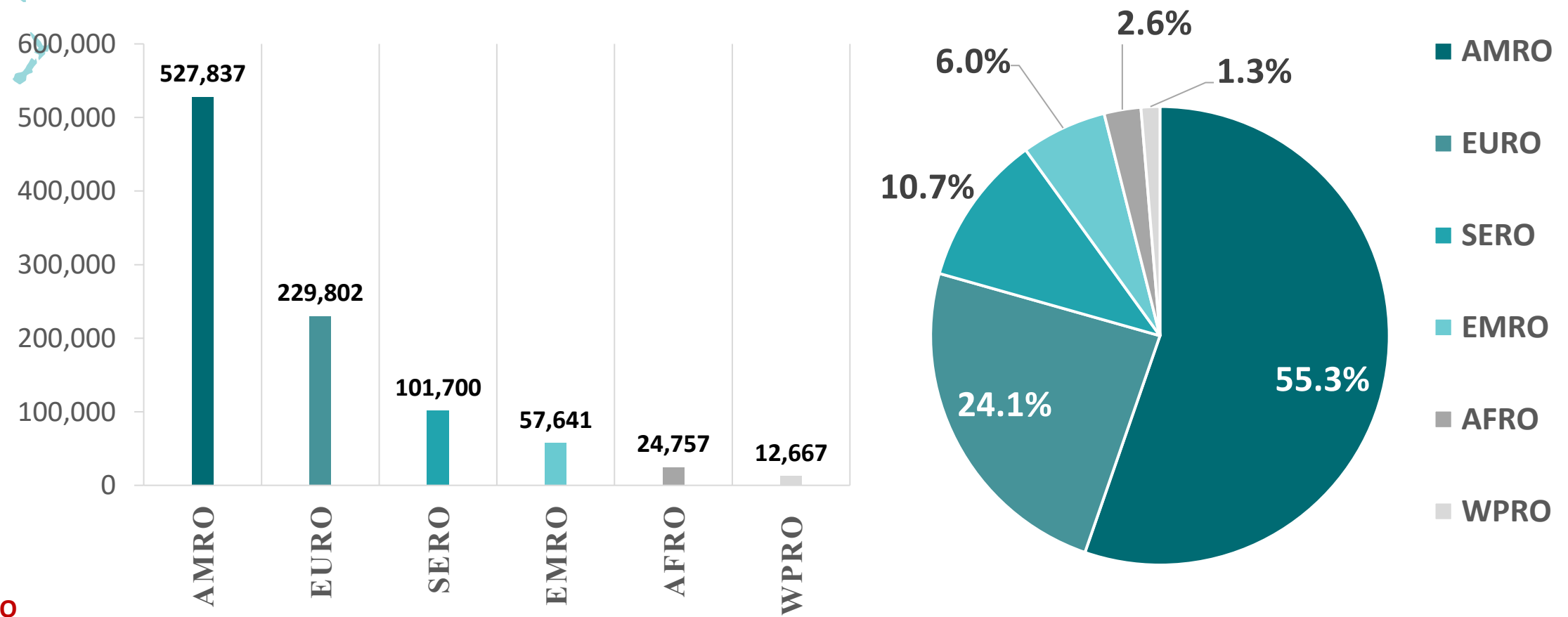
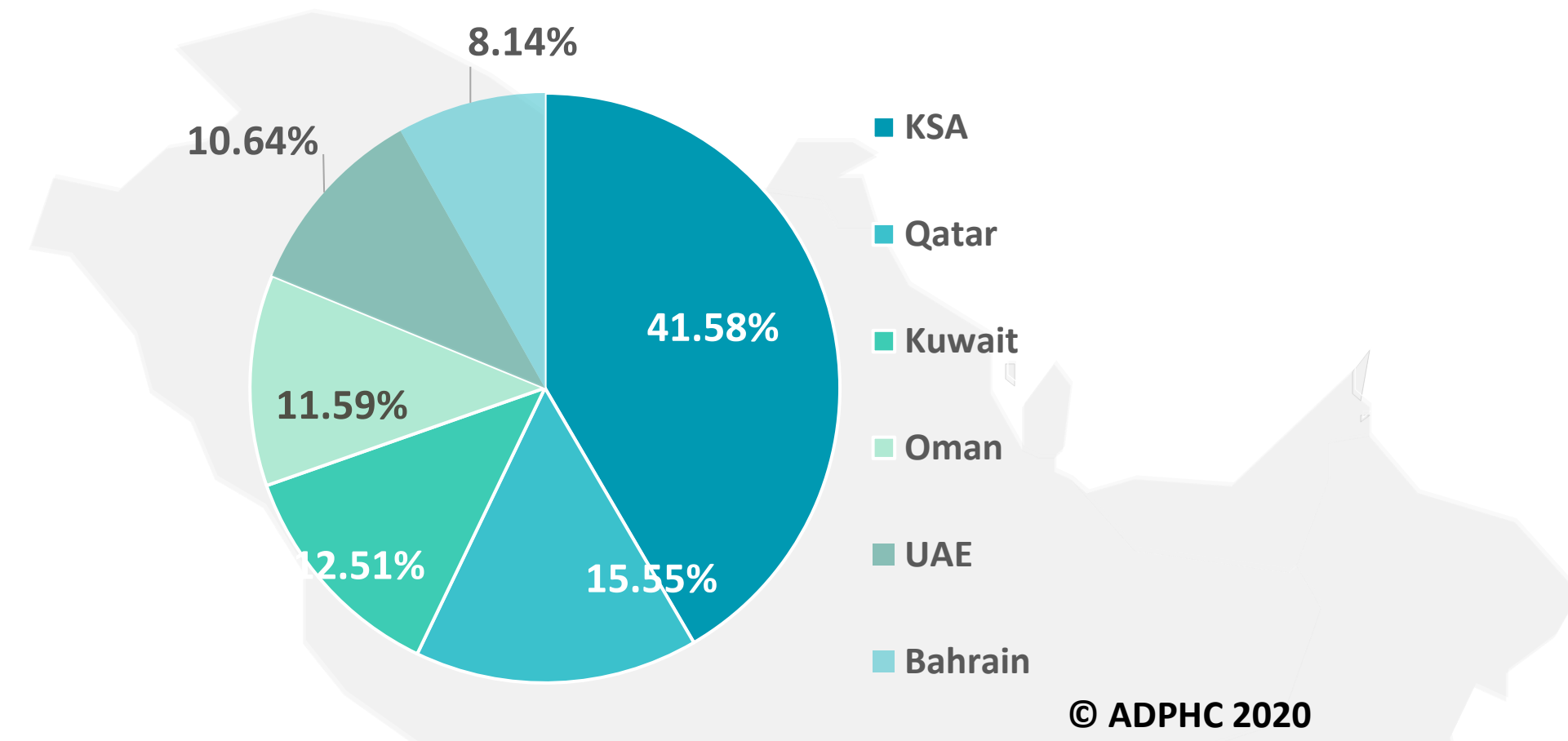
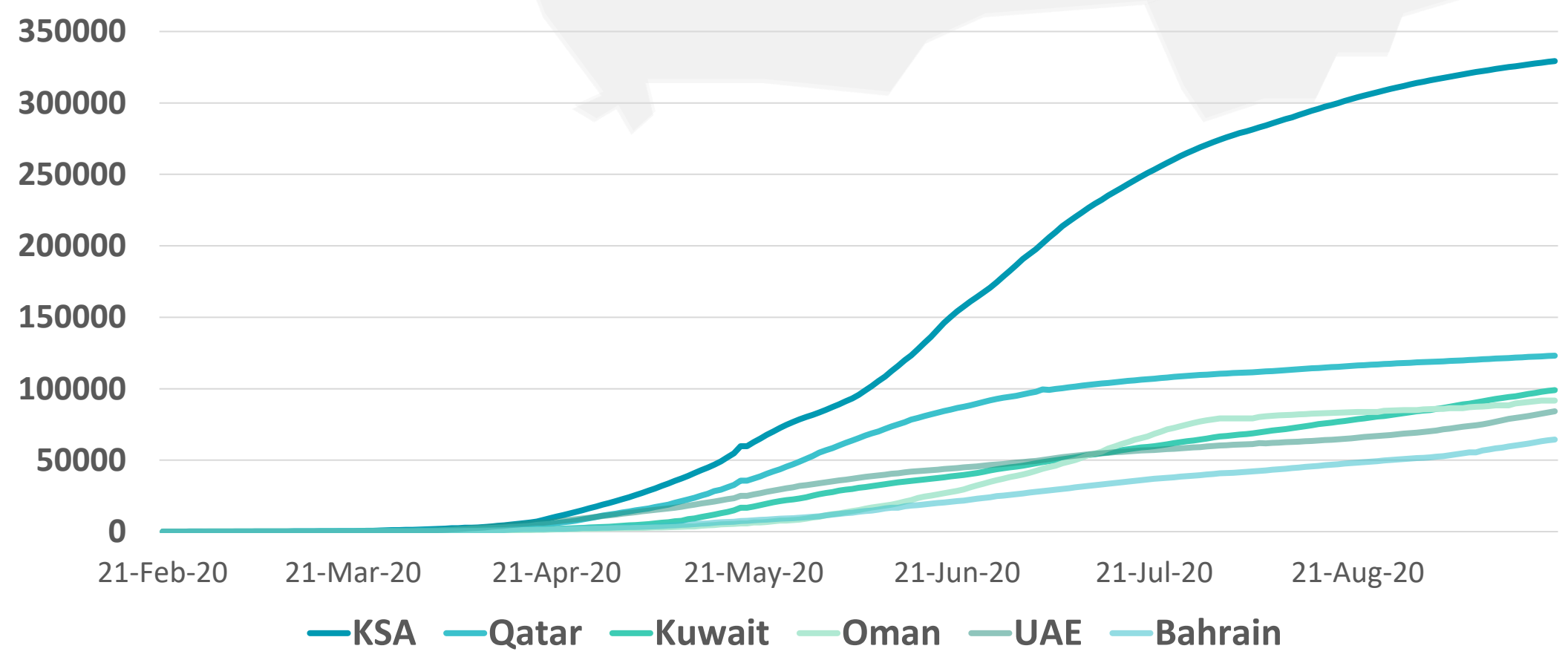
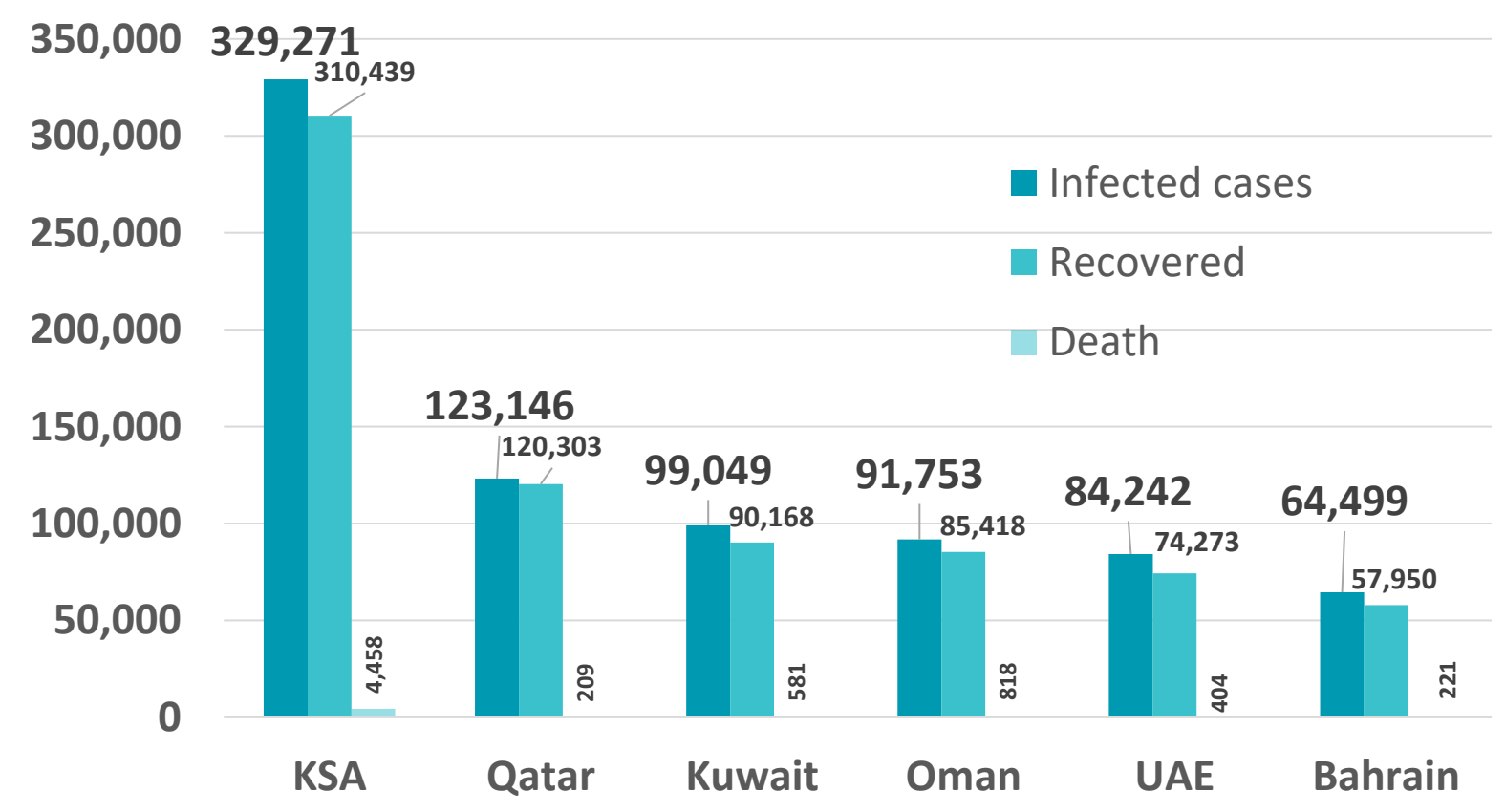


Figure 9: Comparative Analysis of the Distribution of COVID-19 Cases in GCC Countries

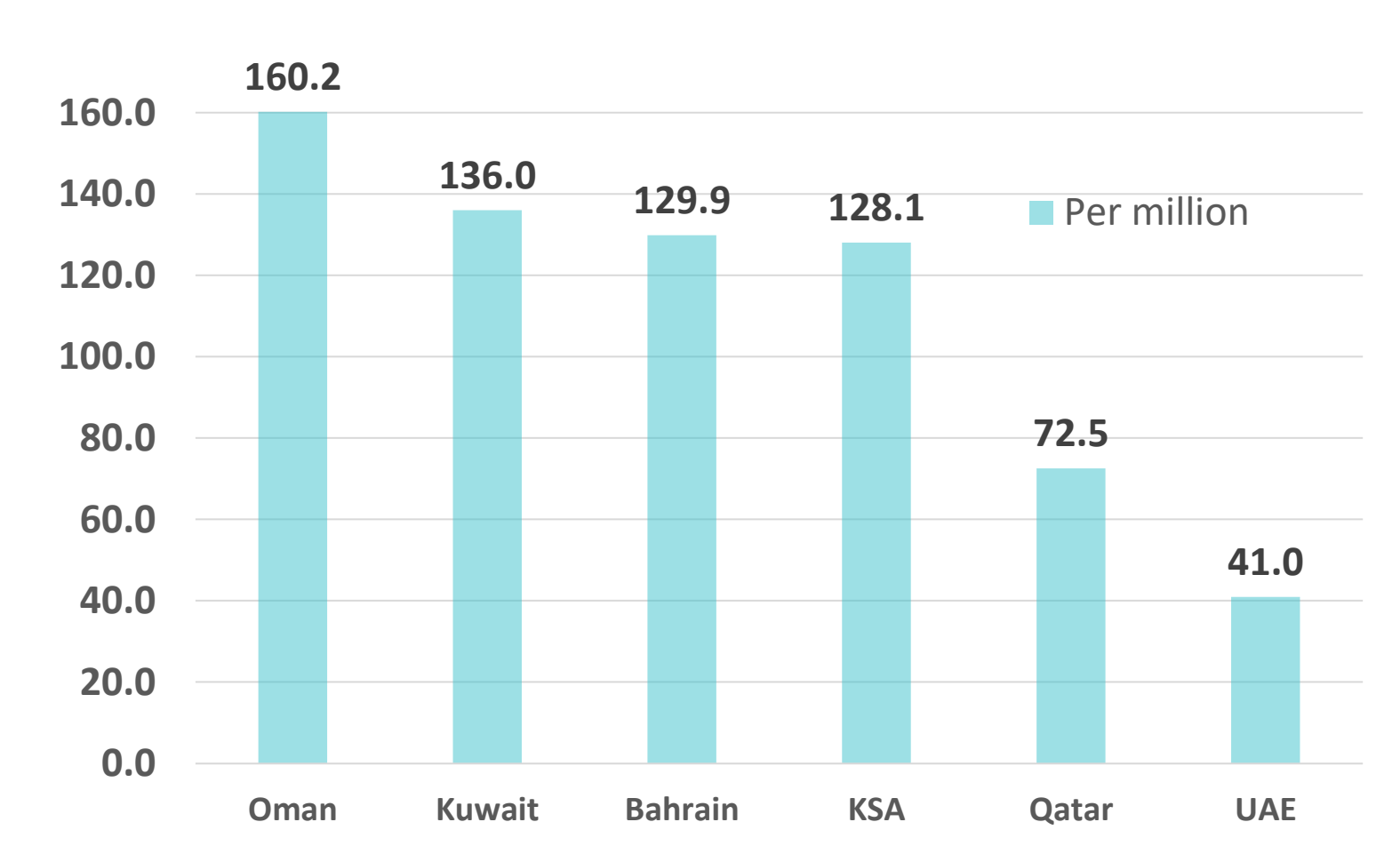
TOTAL NUMBER OF INFECTED CASES



TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



DEATHS PER MILLION



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

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

UAE



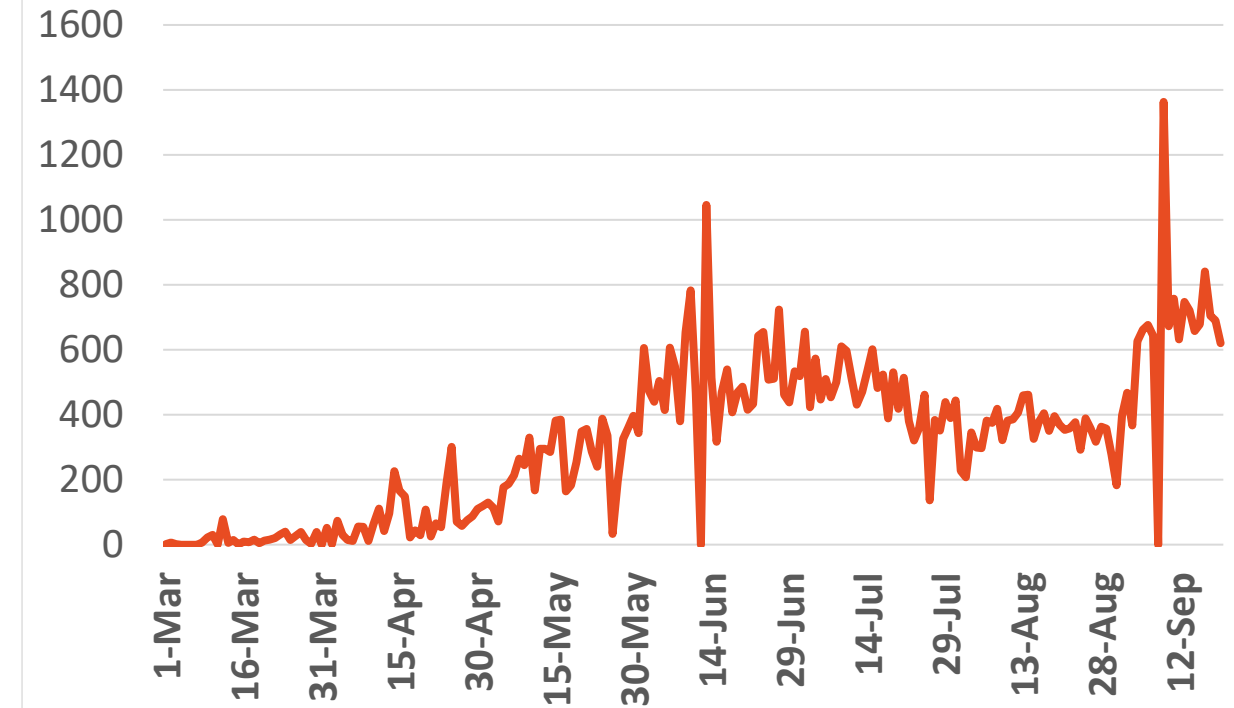
Source : National Emergency Crisis and Disaster Management Authority

KSA



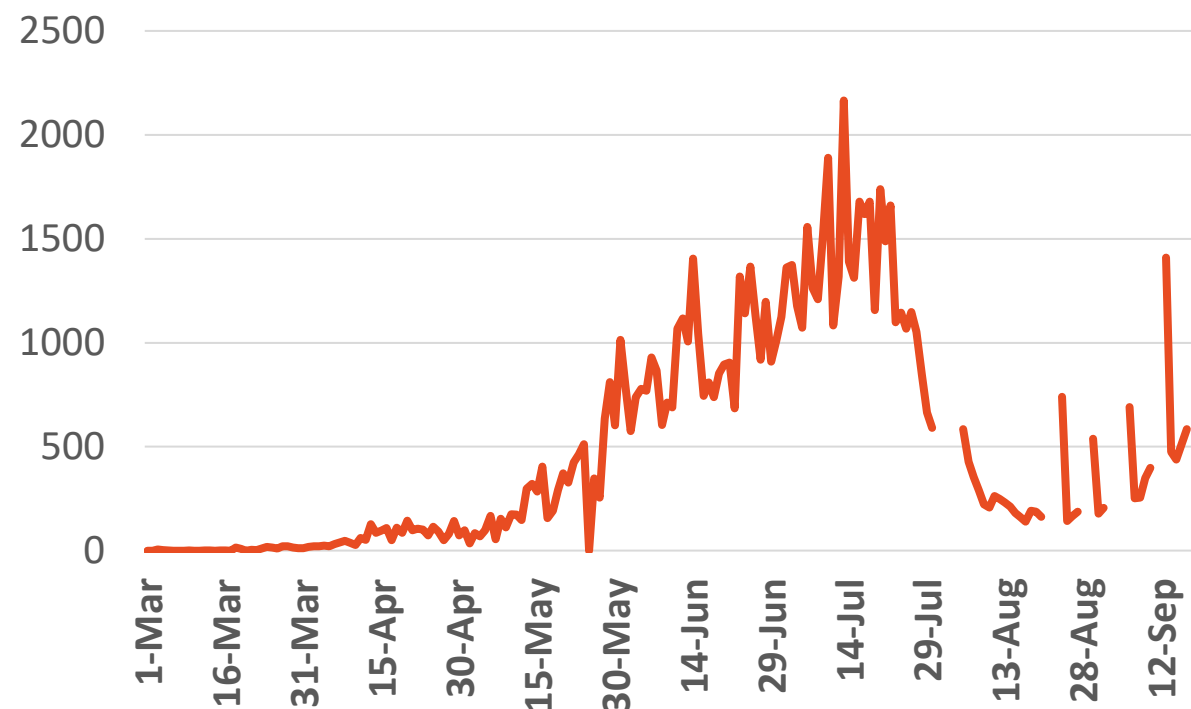
Source : KSA ministry of health

Bahrain



Source :WHO

Oman

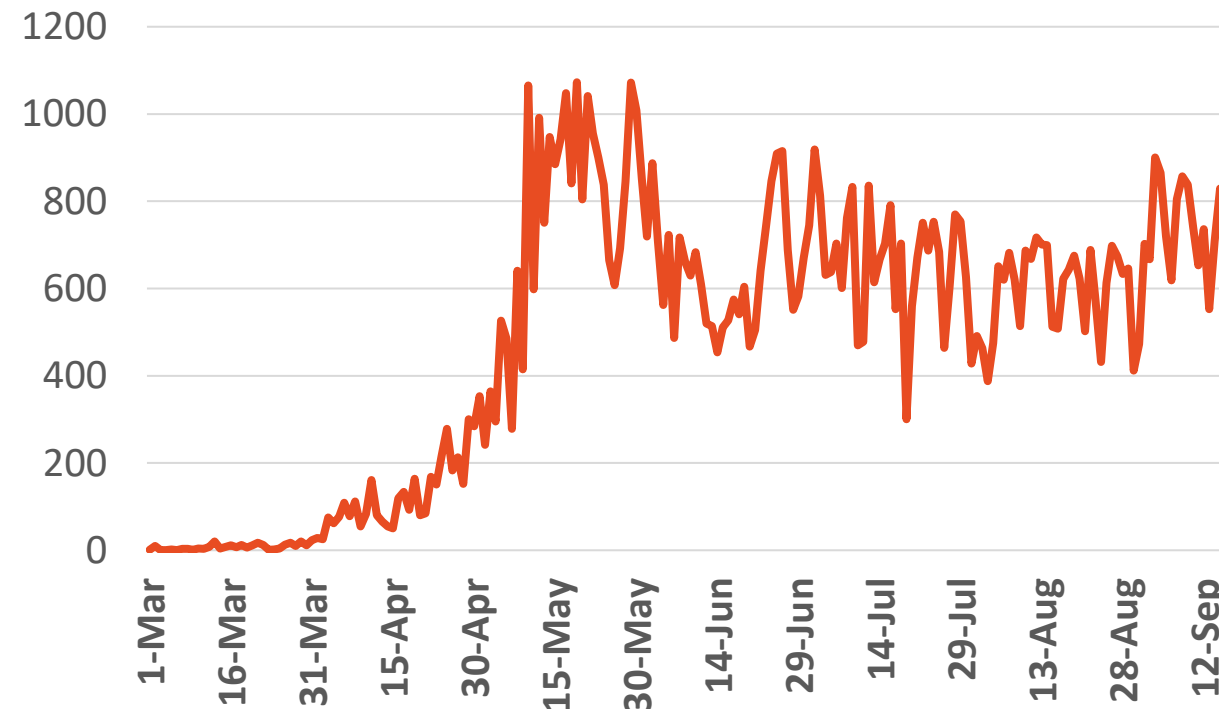


Source :Oman ministry of health

*No announced statistic data from 31 July to 4 August, 21,23,28,30 August, 2, 4, 5,11,12,18 & 19 September
*No announced statistic data on weekends and official holidays.

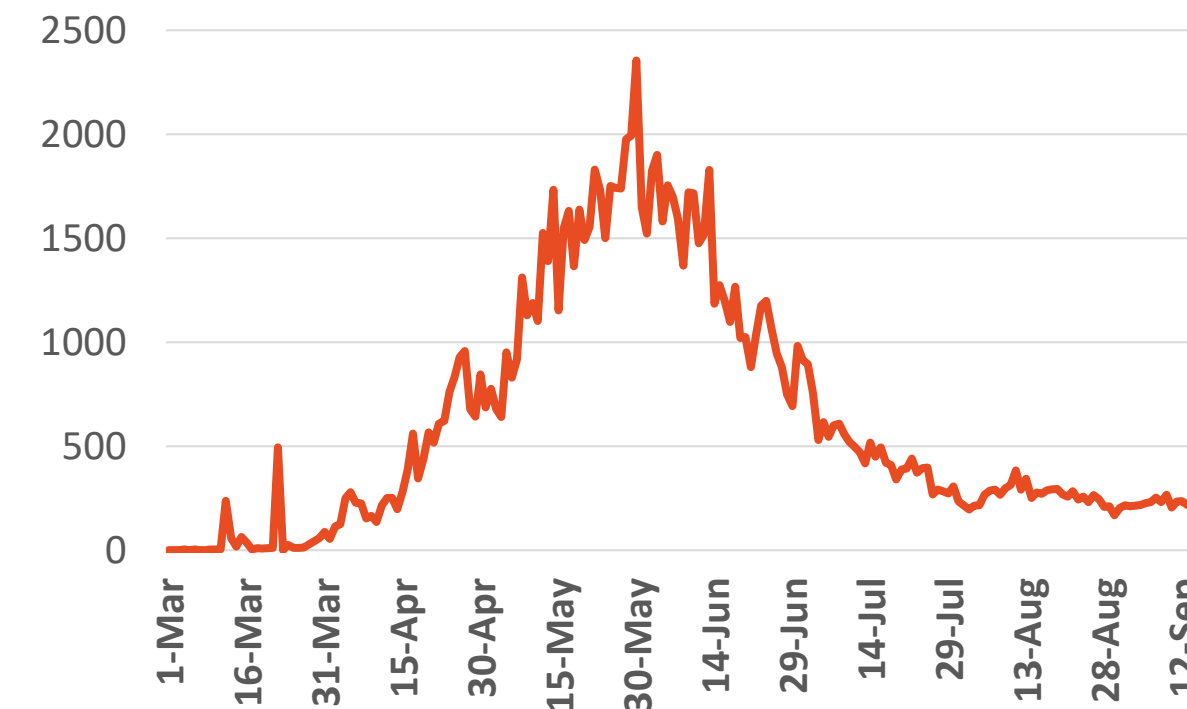
Kuwait

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Source : Kuwait ministry of health

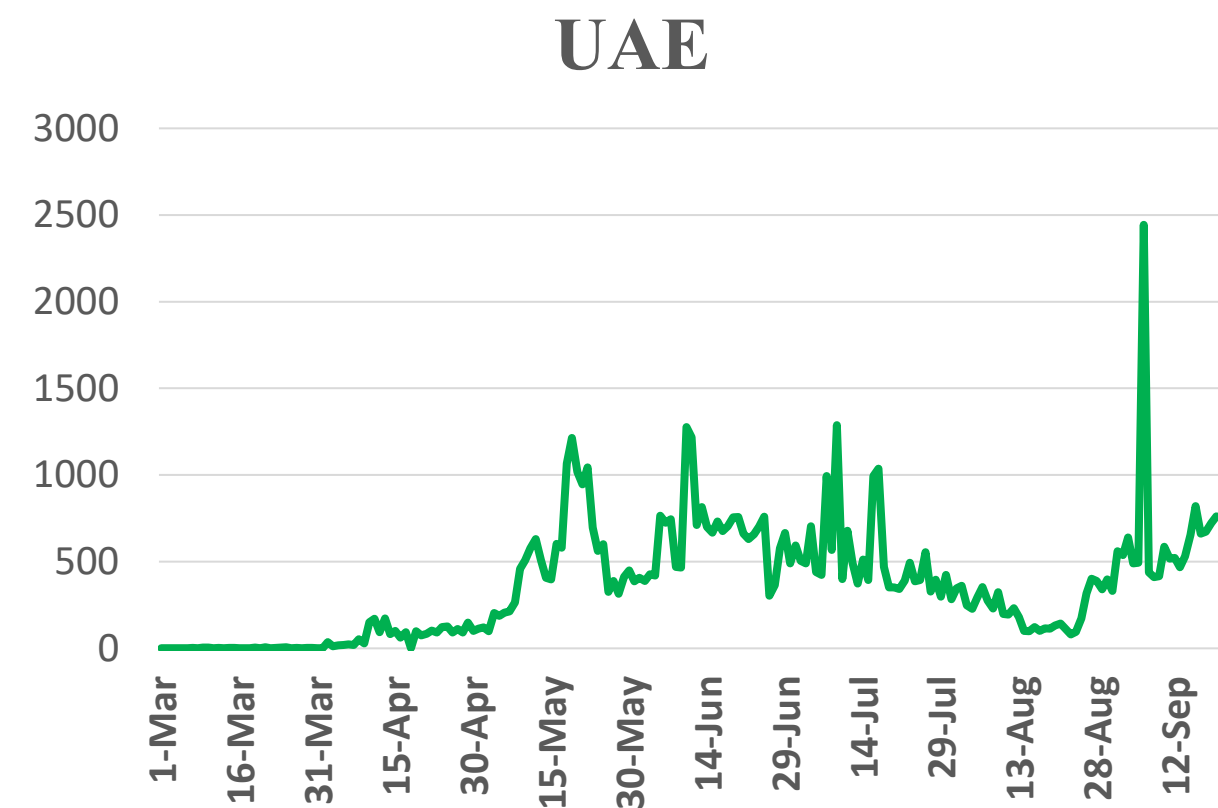
Qatar



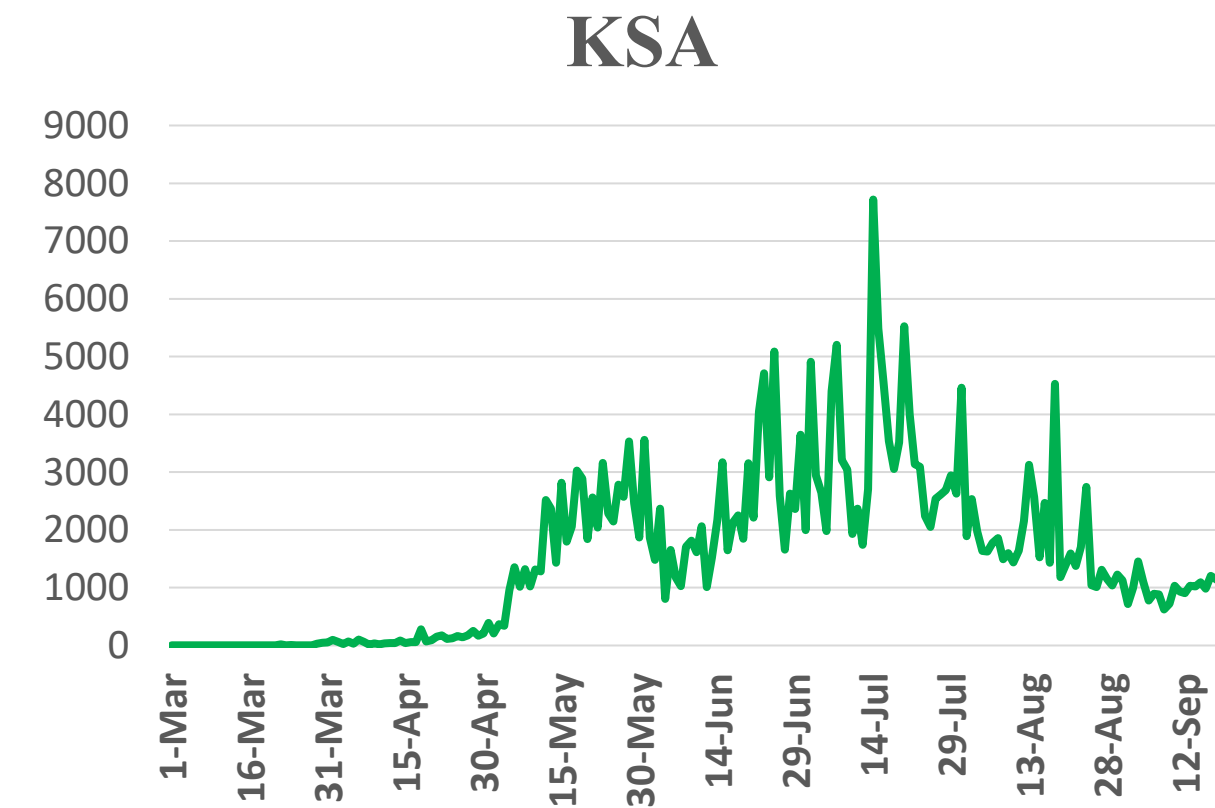
Source : Qatar ministry of health



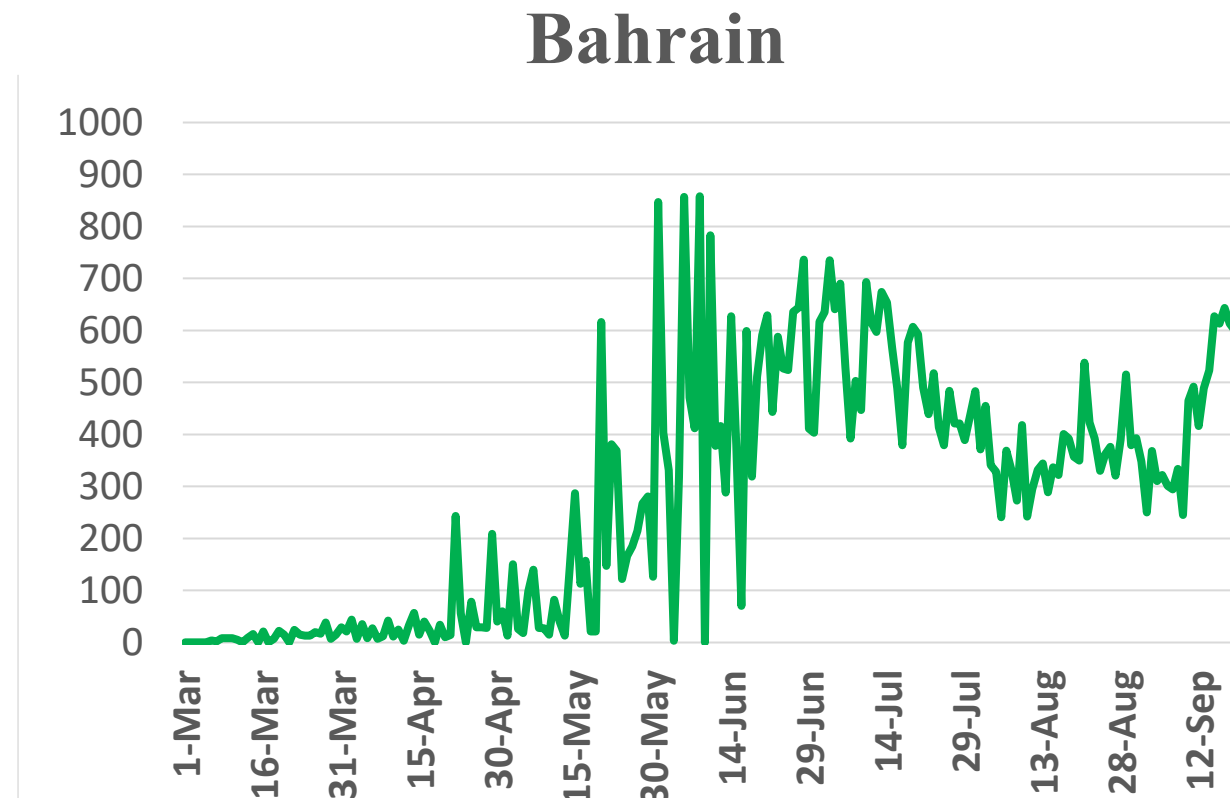
Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries



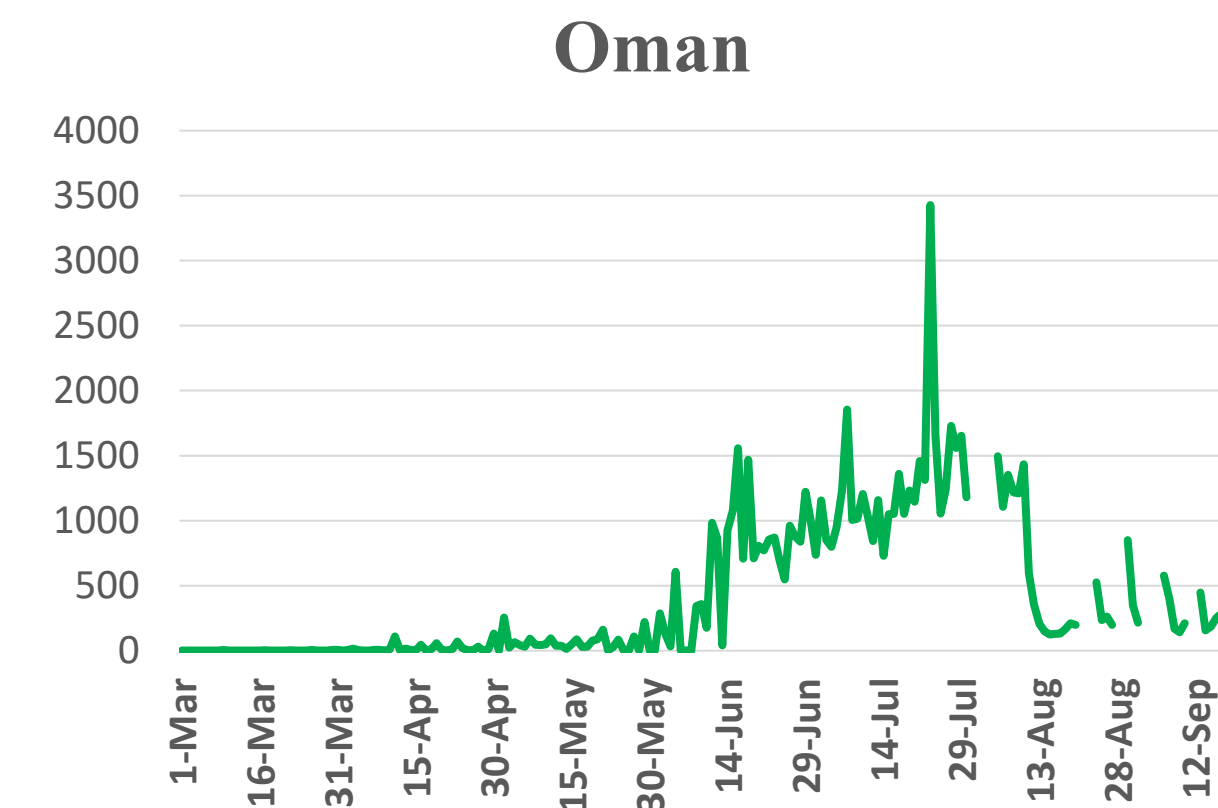
Source : National Emergency Crisis and Disaster Management Authority



Source : KSA ministry of health

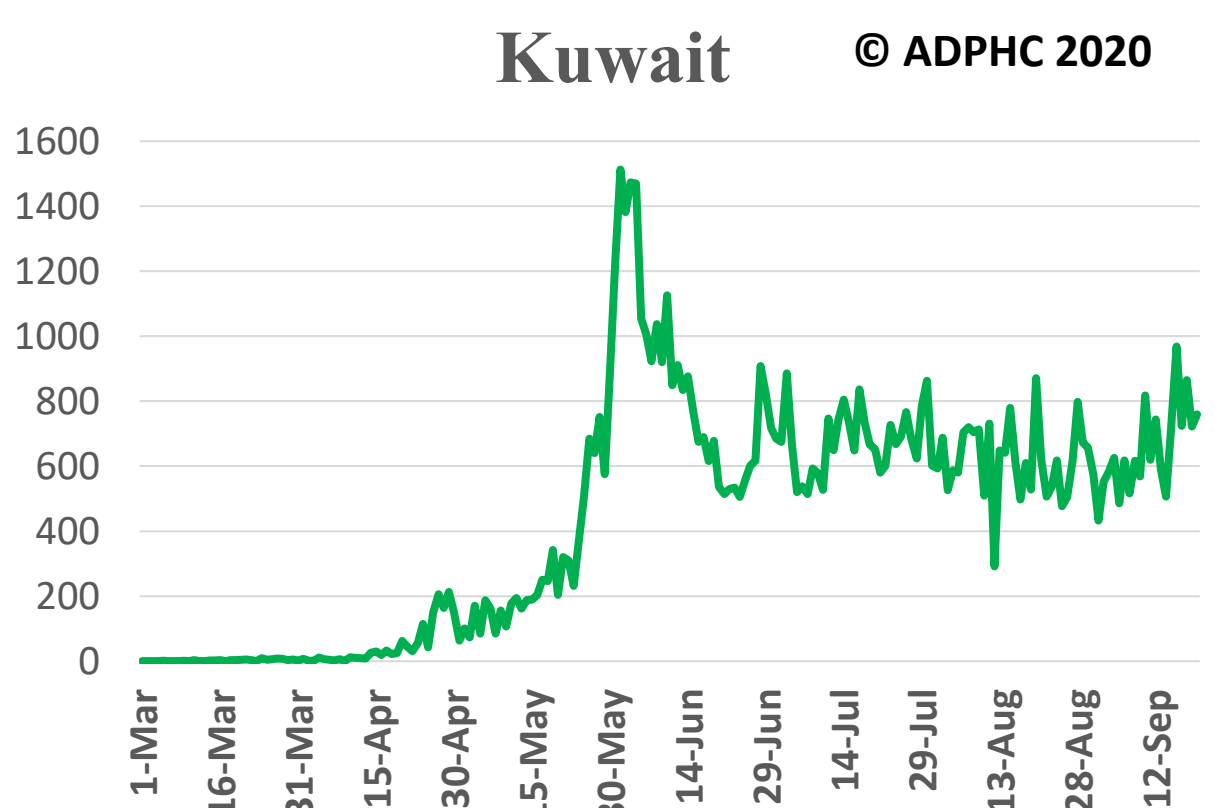


Source : Bahrain ministry of health

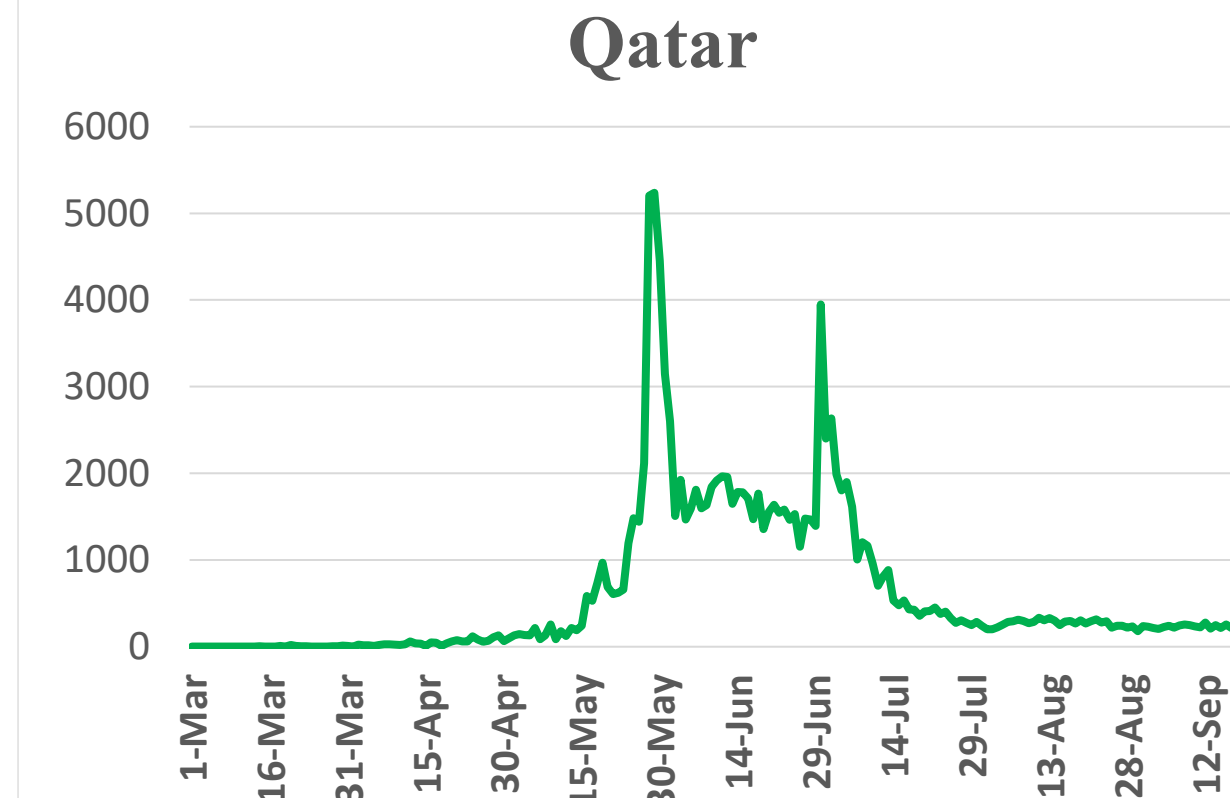


Source : Oman ministry of health

*No announced statistic data from 31 July to 4 August, 21,23,28,30 August, 2, 4, 5,11,12,18 & 19 September



Source : Kuwait ministry of health



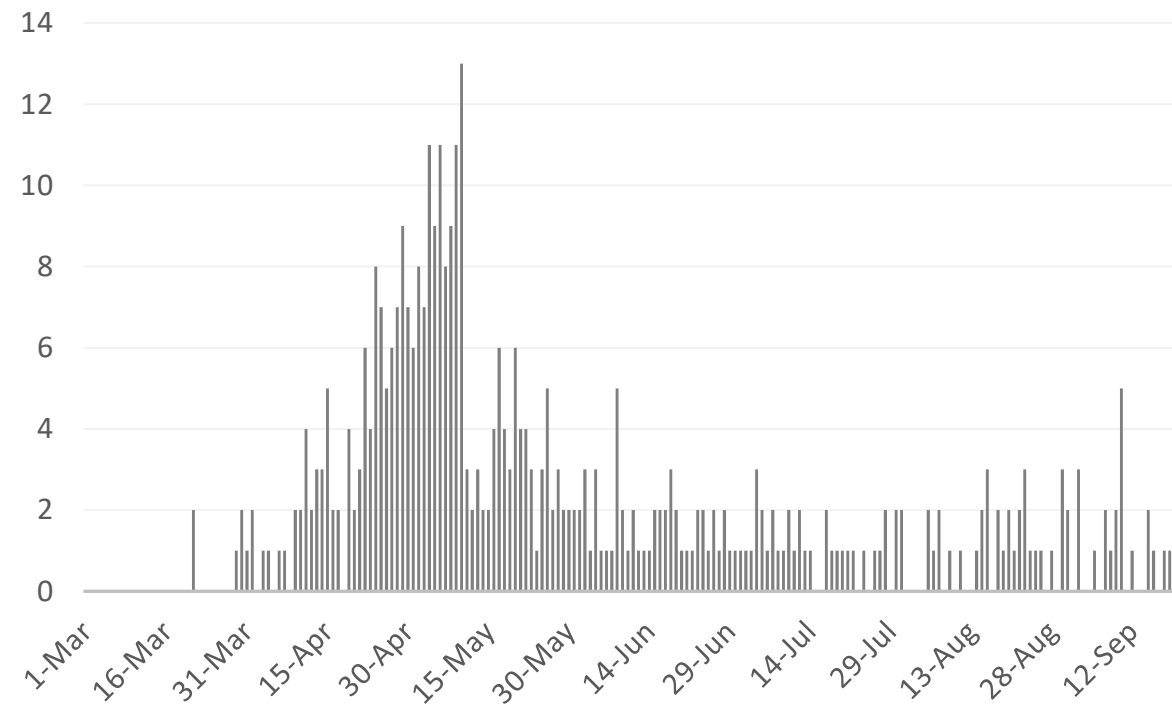
Source : Qatar ministry of health

*No announced statistic data on weekends and official holidays.



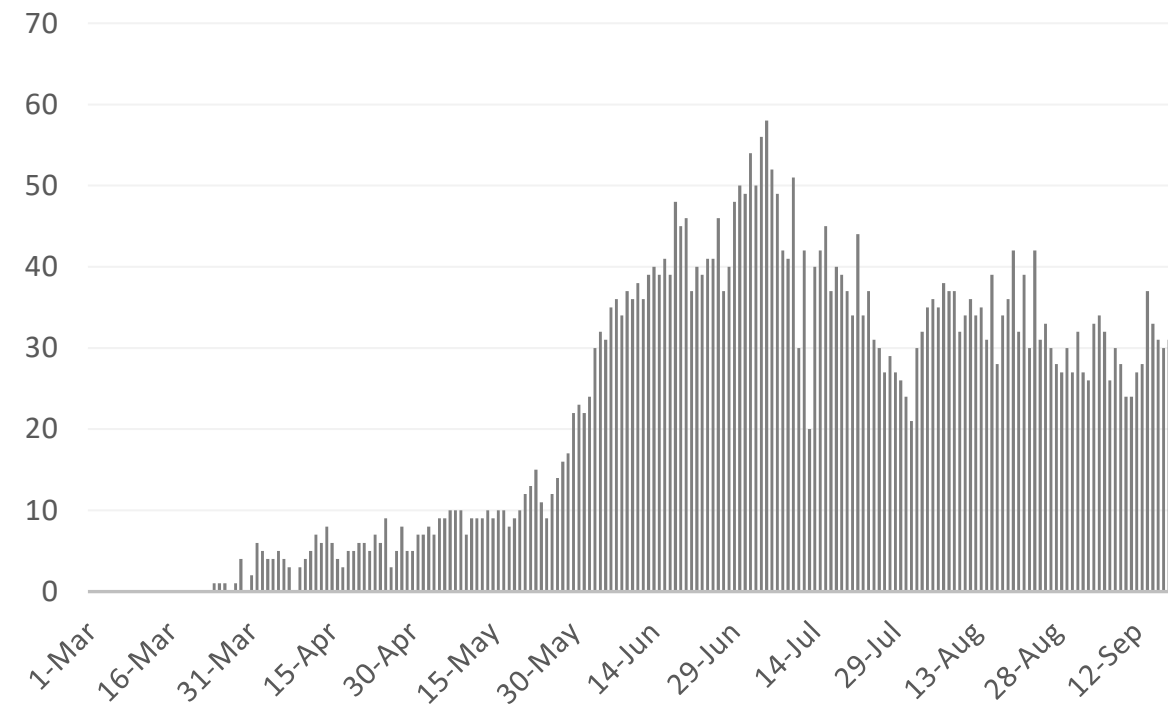
Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

UAE



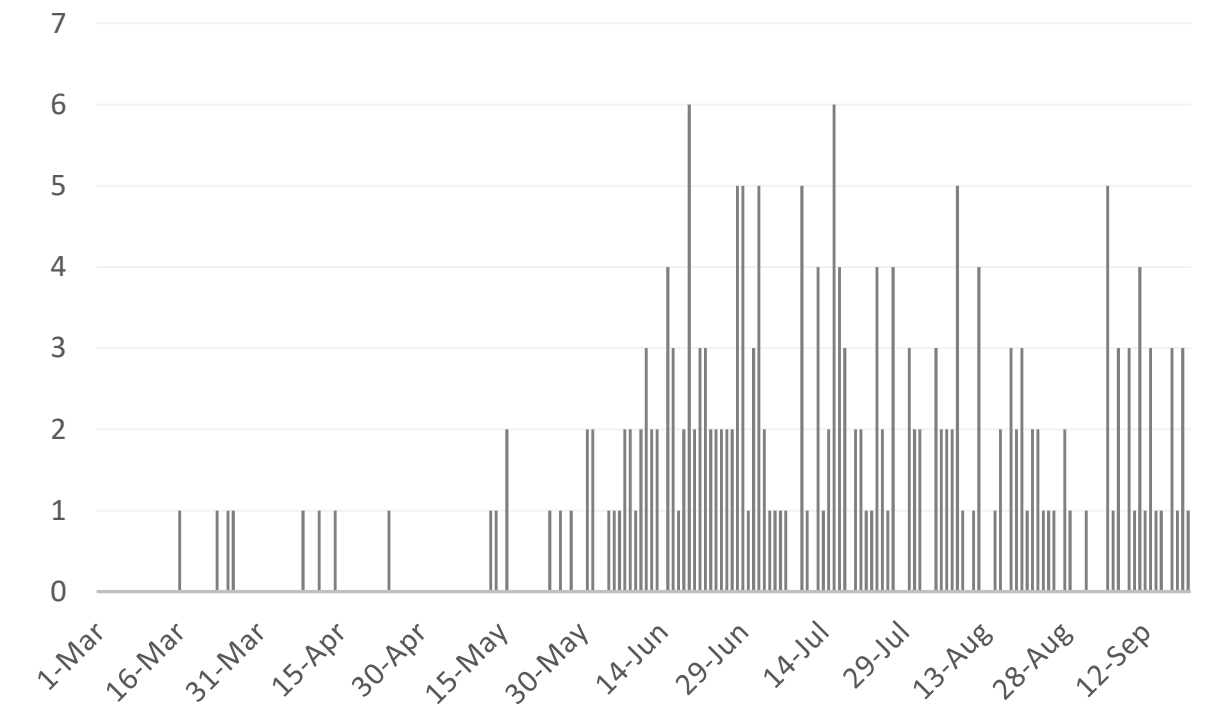
Source : National Emergency Crisis and Disaster Management Authority

KSA



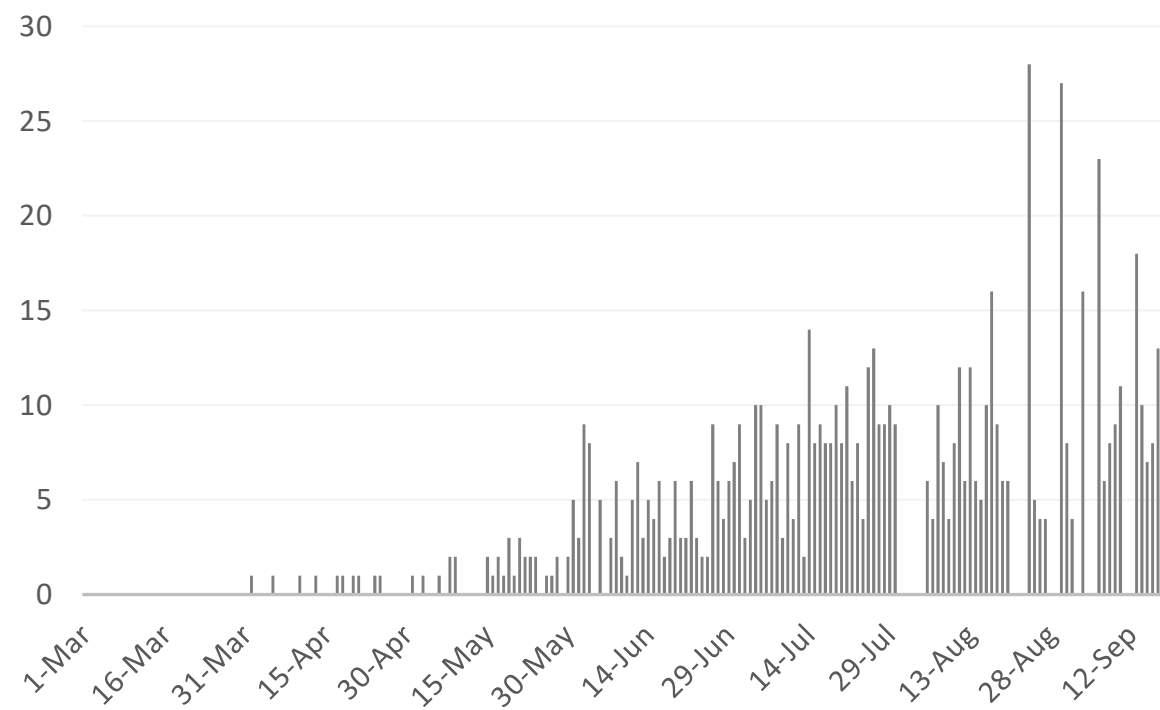
Source : KSA ministry of health

Bahrain



Source :WHO

Oman



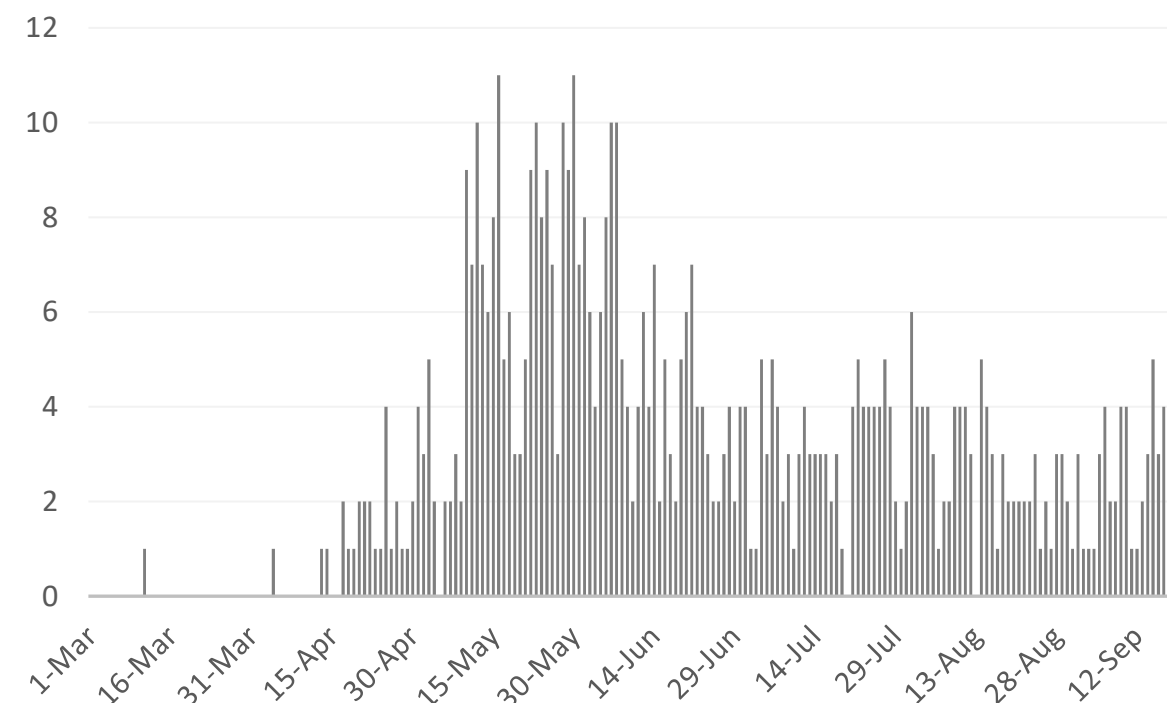
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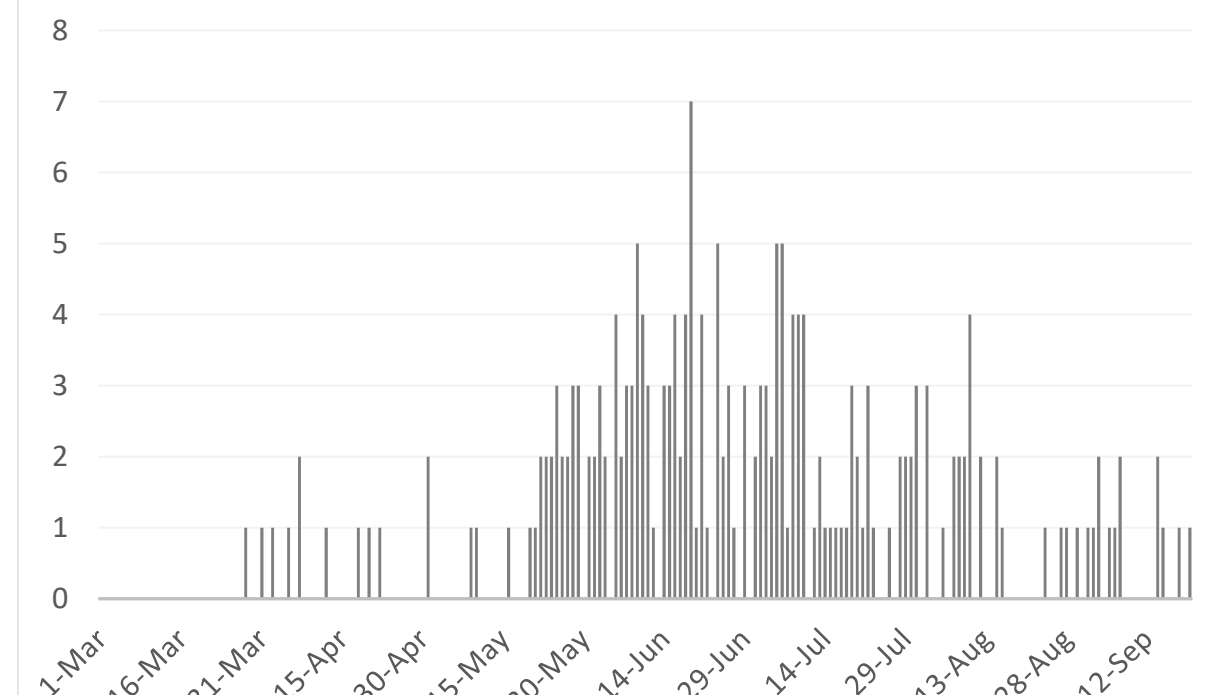
Kuwait

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Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health





VACCINE

Article 1

Scientists Relieved as Coronavirus Vaccine Trial Restarts - but Question Lack of Transparency

Published

September 14, 2020 [NATURE](#)

- The UK Oxford and AstraZeneca COVID-19 vaccine trials, AZD1222, were withheld on 6 September 2020 due to safety concerns and then restarted on 12 September.
- In large trials, a pause is common:
 - To ensure adverse events are investigated, and volunteers are protected.
 - To allow a review of safety data by an independent safety review committee, and national regulators (MHRA1).
- Due to confidentiality and to ensure valid interpretation of the trial results, no details were released about participant's illness, the adverse reaction that led to the pause, and how the resumption decision was made.
- The lack of details was criticized, as per the possibility of releasing data without identifying individuals by just providing a summary of the clinical issues that arose and the conclusions reached by the committee.
- Although this made concerns, still releasing information about trials prematurely could present a bias to clinicians involved.
- Even though there no information was disclosed to the public on the cause of the trial hold, AstraZeneca's chief executive told investors that a person in the UK trials had developed symptoms of transverse myelitis².
- Some 18,000 people globally have received the Oxford AstraZeneca vaccine so far. (Table below).

AZD1222 trials	Trial started	Participants (aim)	Trial Status
Phase III in UK	June	10,000	Restarted on 12 September
Phase III in Brazil	-	5,000	-
US trial	August	30,000	Paused
Phase I/II in South Africa	-	2,000	Paused





PUBLIC HEALTH RESPONSE

Article 2

The Opioid Epidemic During the COVID-19

Pandemic

Published

September 18, 2020 [JAMA](#)

- The article discussed 2 studies report on indicators that reflect the opioid epidemic before and after the widespread emergence of COVID-19 in the US in March 2020: urine drug test results and emergency department visits for nonfatal opioid overdose.
- Frist study reported an increase in the detection of 4 tested substances in random samples : (150, 000 total) of urine drug tests ordered by health professionals nationwide 4 months before (November 14, 2019, to March 12, 2020) and after (March 13, 2020, to July 10, 2020) the national emergency declaration.
- The most noteworthy increases in prevalence were for :
 - Fentanyl (3.80% to 7.32%; adjusted odds ratio, 1.67 [95% CI, 1.55-1.81])
 - Methamphetamine (5.89% to 8.16%; adjusted odds ratio, 1.23 [95% CI, 1.14-1.32]);
 - Increases in cocaine and heroin were also noted
- Second study found that the **number of cases of a nonfatal opioid-related overdose** in one emergency department in Virginia **increased from 102 cases in March-June 2019 to 227 cases in March-June 2020**, whereas the total number of emergency department visits.
- Patients diagnosed with opioid-related overdose in 2020, compared with 2019, were more likely to be Black (63% vs 80%).

Conclusion

- The association with greater COVID-19 economic effect (e.g., job loss) are known to shape disparities in substance use, access to health care, and health more broadly. It is likely that left unaddressed, the synergistic effects of COVID-19 and the opioid epidemic will further widen racial/ethnic and socioeconomic disparities in the health of the US population.





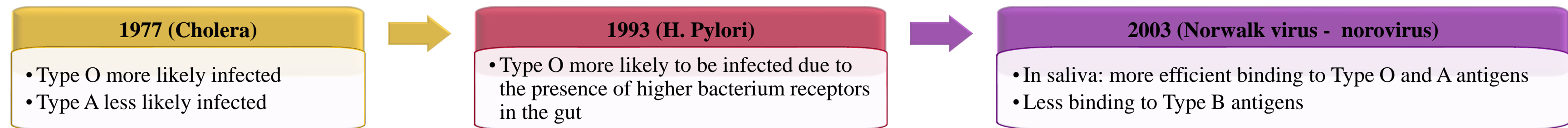
Article 3

Investigating Whether Blood Type is Linked to COVID-19 Risk

Published

September 18, 2020 [JAMA](#)

This editorial discusses the relationship between blood type and COVID-19. The history of linking blood type to infectious diseases is shown below.



- In 2005, studies on the association of SARS-CoV with blood type showed that individuals with type O blood were less likely to get infected.
- In 2020, similar findings were reported in a non-peer-reviewed study on 2173 patients with COVID-19 in China. The study found less infection risk in O blood type patients and a higher risk of infection in type A blood patients. China has called for more investigations globally.
- An Australian and European study conducted in June, compared the genome data of 1610 patients with severe COVID-19 with 2205 healthy blood donors from Italy and Spain, the study found:
 - Higher COVID-19 severity and greater risk of dying from the disease with gene variants in genome regions that determine blood type.
 - 45% higher risk of developing severe COVID-19 was reported with patients with type A blood.
 - Type O blood patients had a 35% lower risk of developing COVID-19.
- A Study in China conducted in July on 1289 patients found:
 - No significant connection between blood type and COVID19–related hospitalization, intubation, or death.
 - Rh positive people were more likely to test positive than Rh negative people.
 - Type B/AB blood patients were more likely to test positive than type O blood people.
- The basic science on this topic is still weak and needs to be furtherly investigated. So for now, blood type should not be used to identify susceptibility to develop severe COVID-19.



THANK YOU

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