

SCIENTIFIC RESEARCH MONITORING ON COVID-19

7 AUGUST 2020

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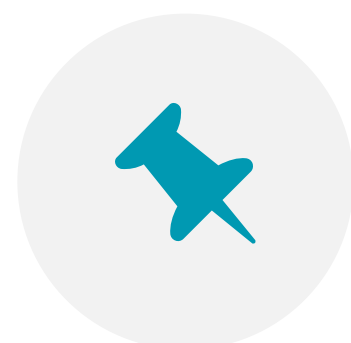
SCIENTIFIC RESEARCH MONITORING ON COVID-19

(ISSUE187)



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



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).

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Public Health Response

COVID-19 and Preschool Wheeze Care: Lessons Learned

Public Health Response

Experts Discuss COVID-19 - Remdesivir, Vaccines, and More

Public Health Response

Impact of COVID-19 on Maternal and Child Health

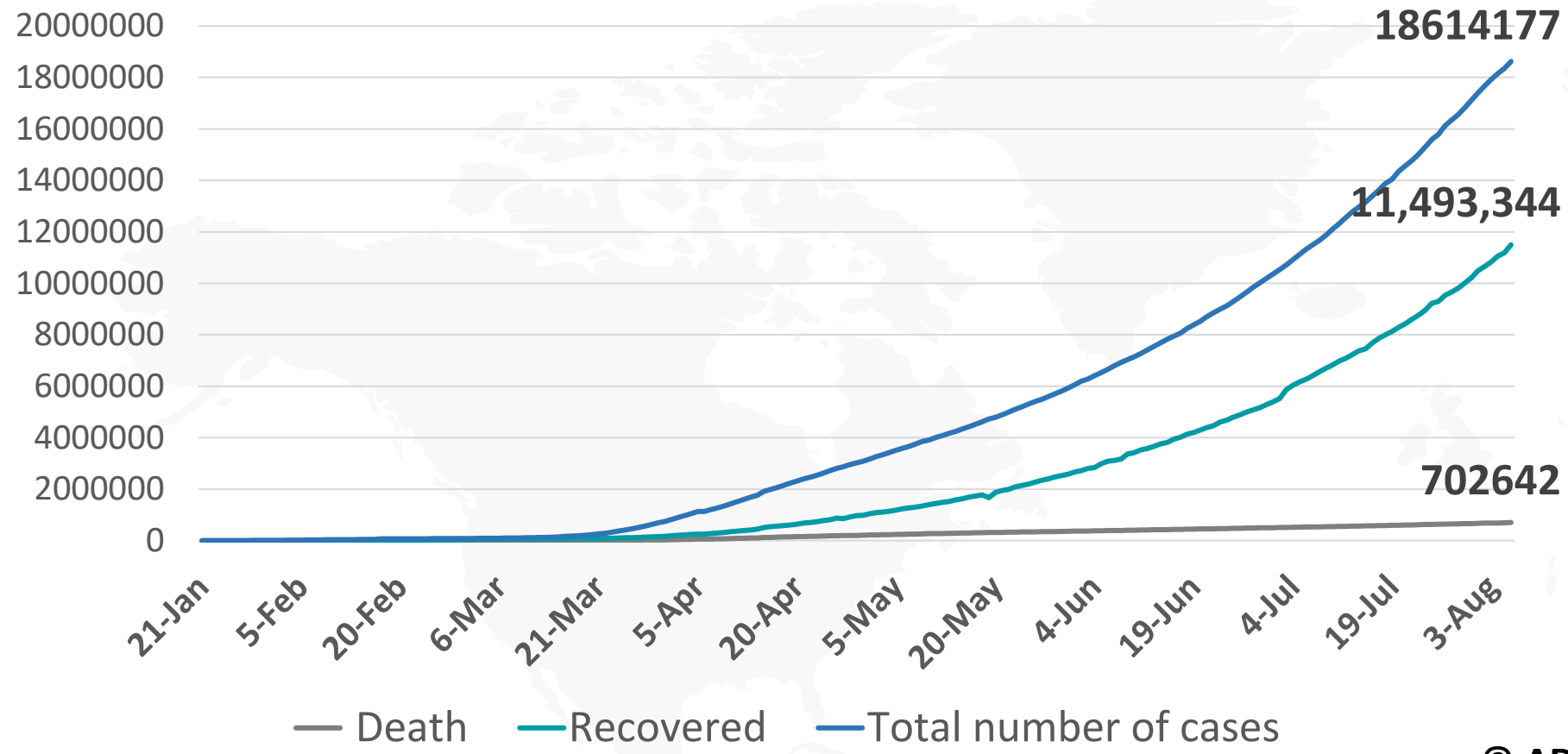




- The WHO Regional Office for the Americas has issued a warning against the use of chlorine products as treatment for COVID-19. WHO recommends that people avoid consuming products containing chlorine dioxide or related substances (sodium hypochlorite, bleach, etc.) and that all marketing of such products for therapeutic purposes be reported to the authorities.
- The WHO Regional Office for South-East Asia has urged countries in the region to maintain essential healthcare and **accelerate the resumption of services** that have been disrupted, by the pandemic, as an integral part of the COVID-19 response. Since the outbreak of COVID-19, repurposing of health workers, cancellation of elective care, closure of outpatient services, insufficient personal protective equipment, and changes in treatment policy have significantly impacted the delivery of essential services.
- WHO have organized a Global Multidisciplinary Discussion on SARS-CoV-2 Modes of Transmission. The meeting this week brought together researchers to present the latest scientific evidence and identify knowledge gaps and best methods to undertake the high-quality comprehensive research studies to better understand how, when and where transmission of the virus occurs. The discussion included perspectives from experts in the fields of public health, infectious respiratory diseases, virology, engineering and physical sciences, epidemiology, phylogenetics, clinical management, social sciences, and infection prevention and control.
- Current WHO Modes of Transmission research published 9 July 2020 is available online at:
<https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions>
- WHO standardized study protocols for COVID-19 are available at:
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/early-investigations>



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)

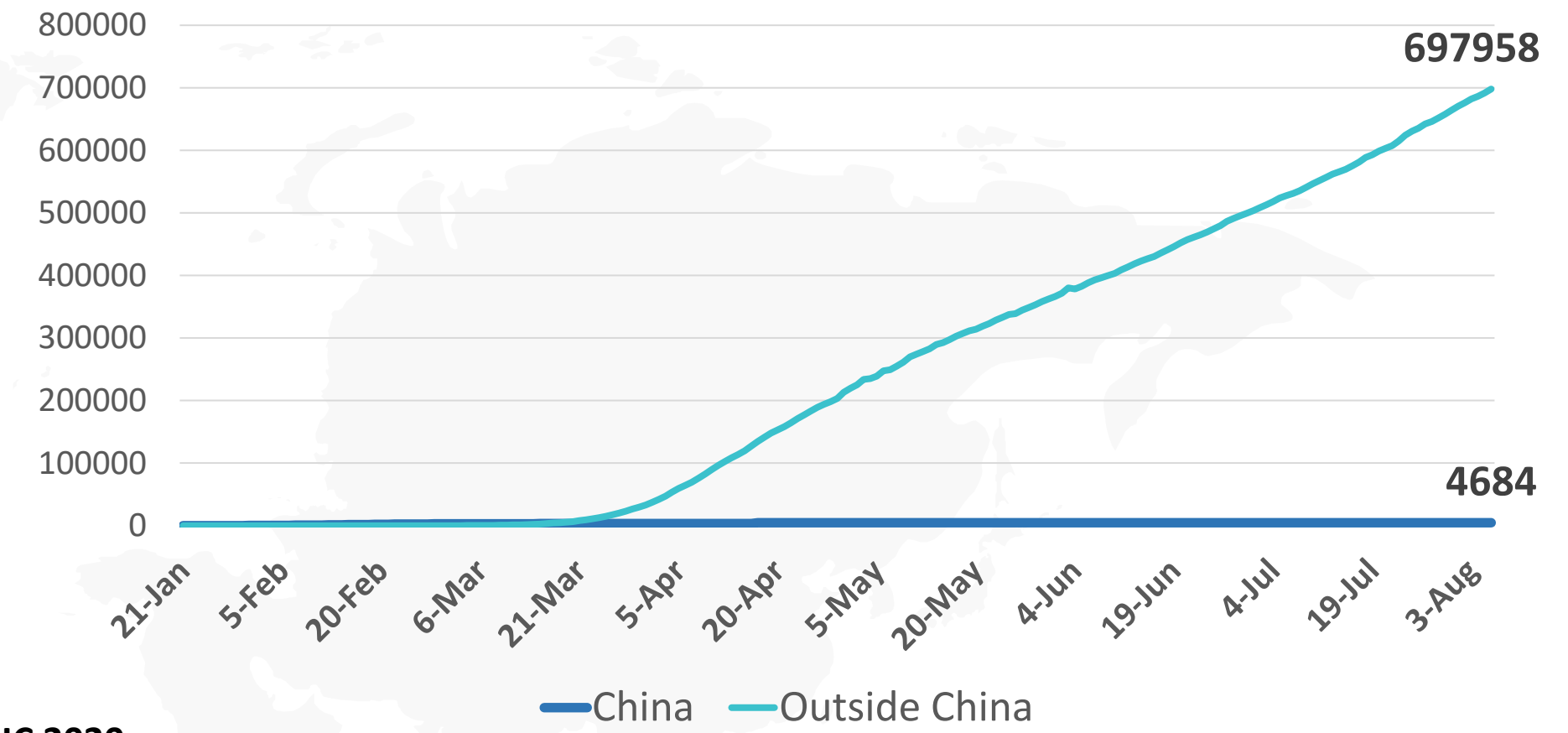


Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)

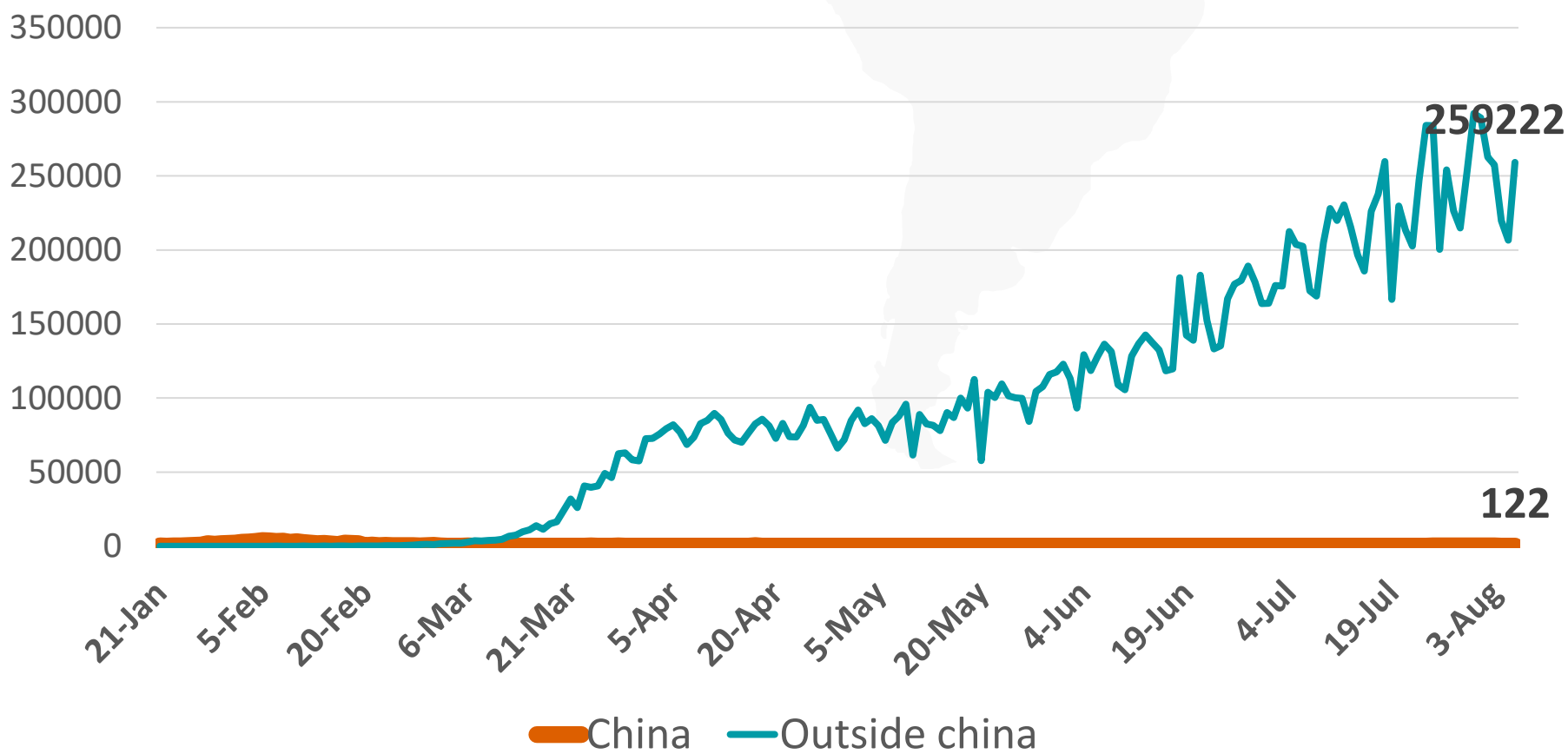


Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)

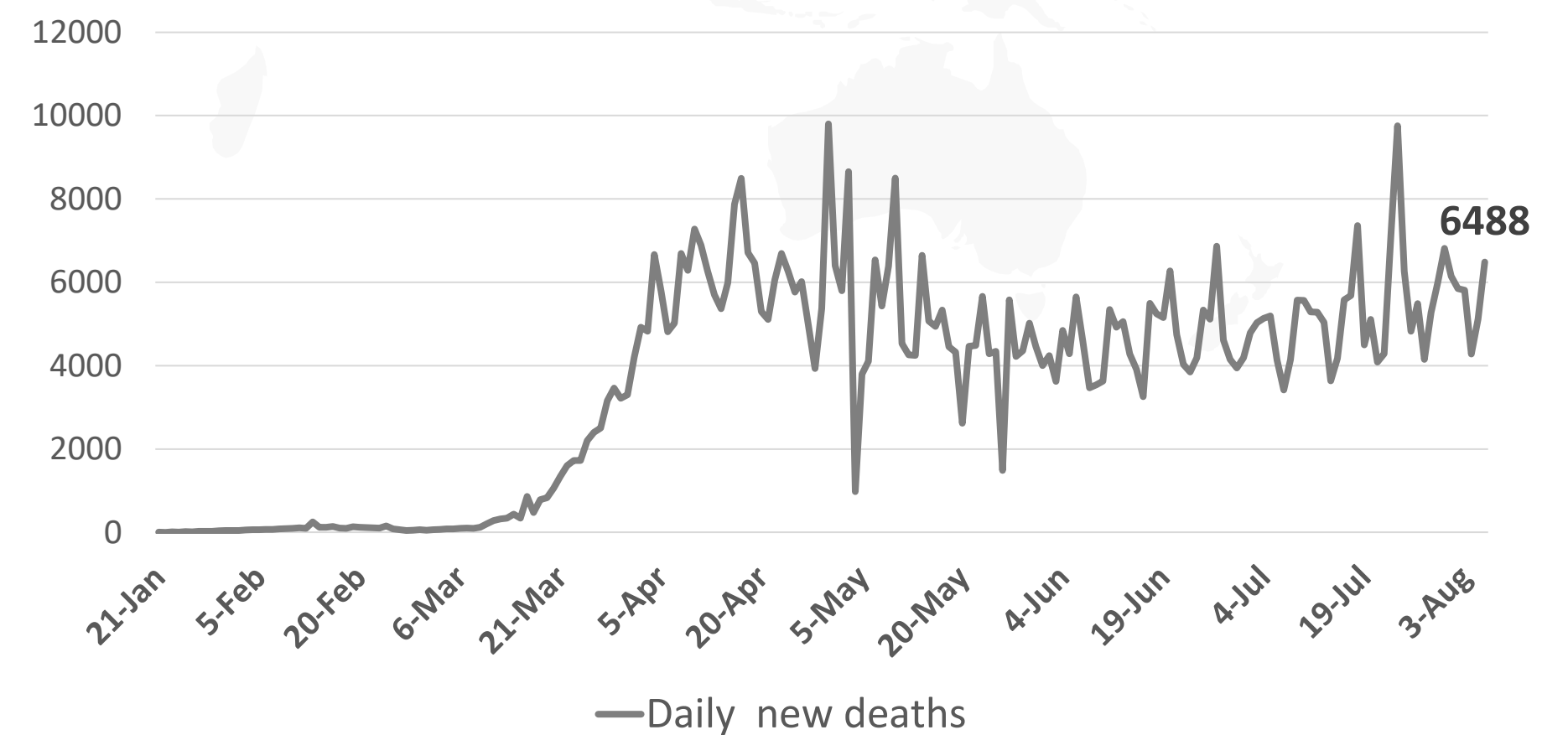
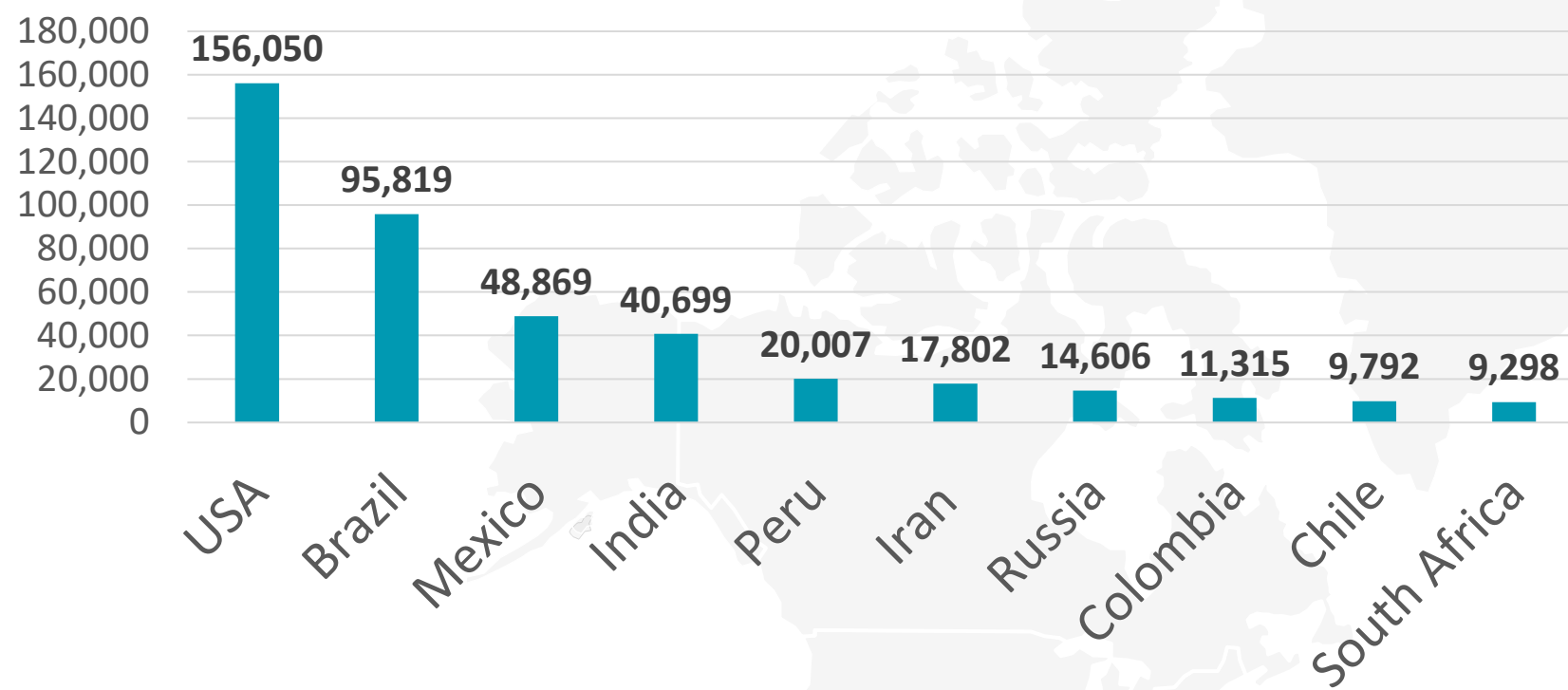
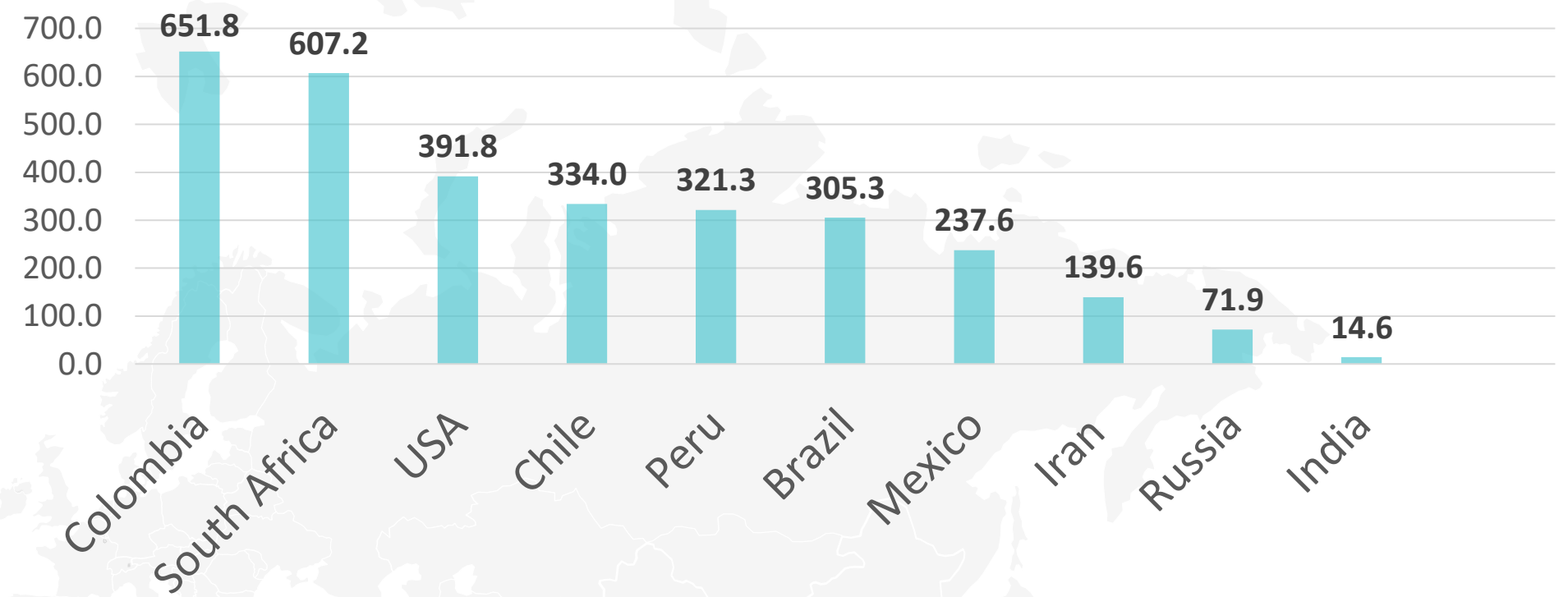


Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19

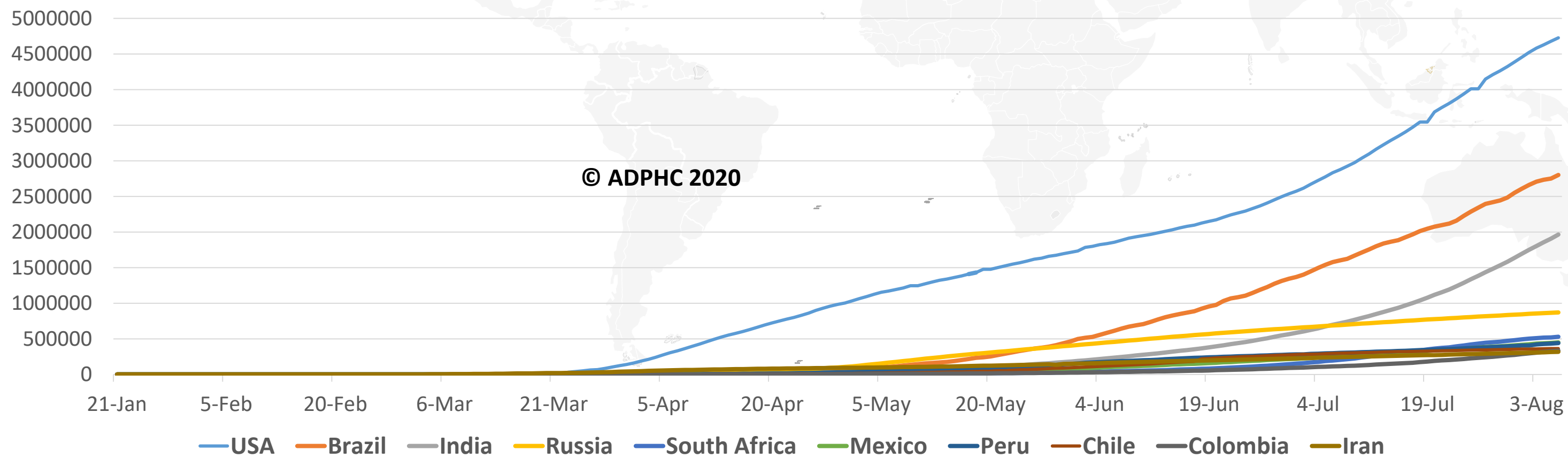
TOTAL DEATHS



DEATHS PER MILLION

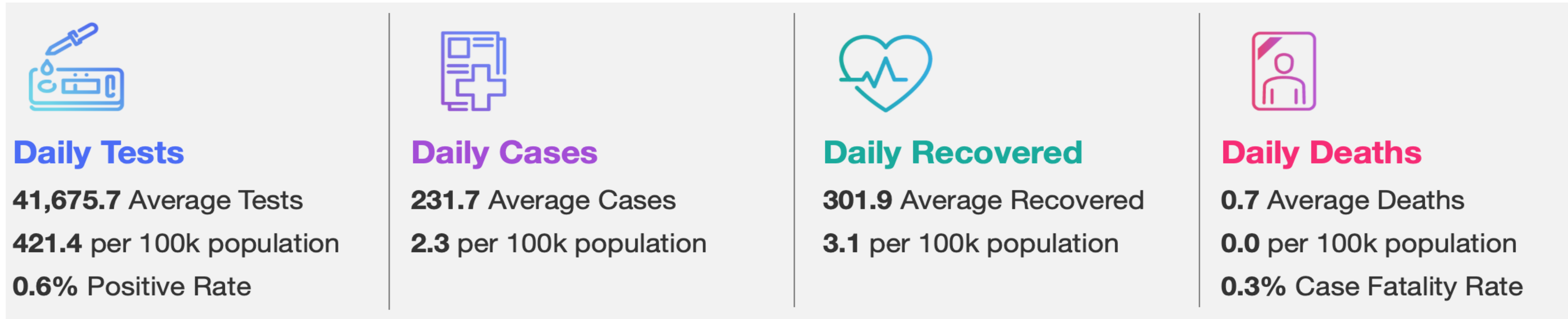


TOTAL INFECTED CASES



USA	4,728,239
Brazil	2,801,921
India	1,964,536
Russia	871,894
South Africa	529,877
Mexico	449,961
Peru	439,890
Chile	364,723
Colombia	334,979
Iran	317,483

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

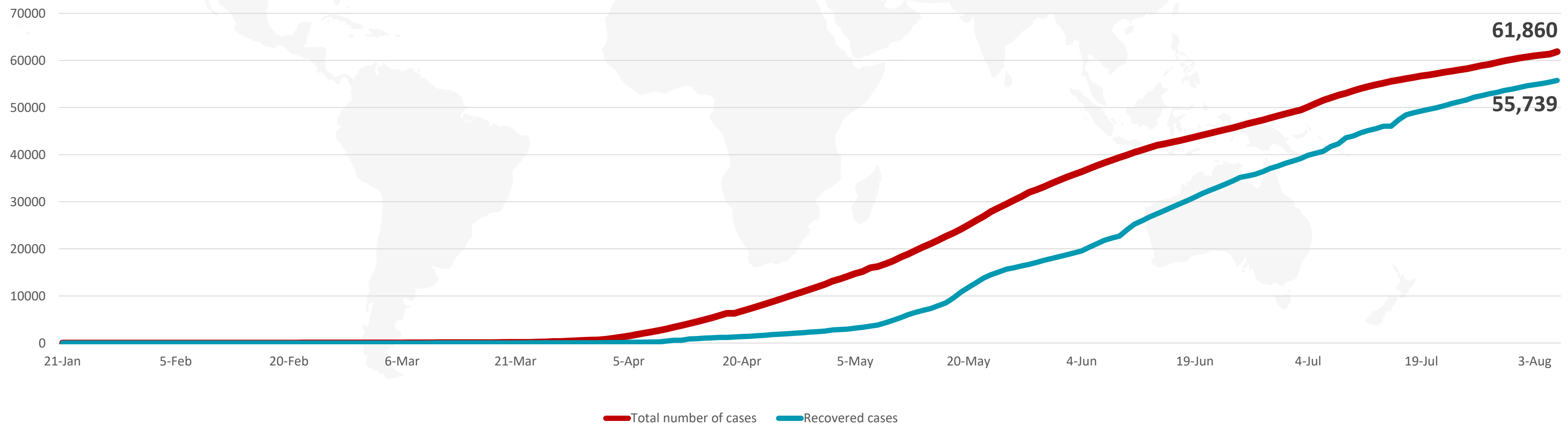


Figure 7A : Global Distribution of COVID-19 Cases

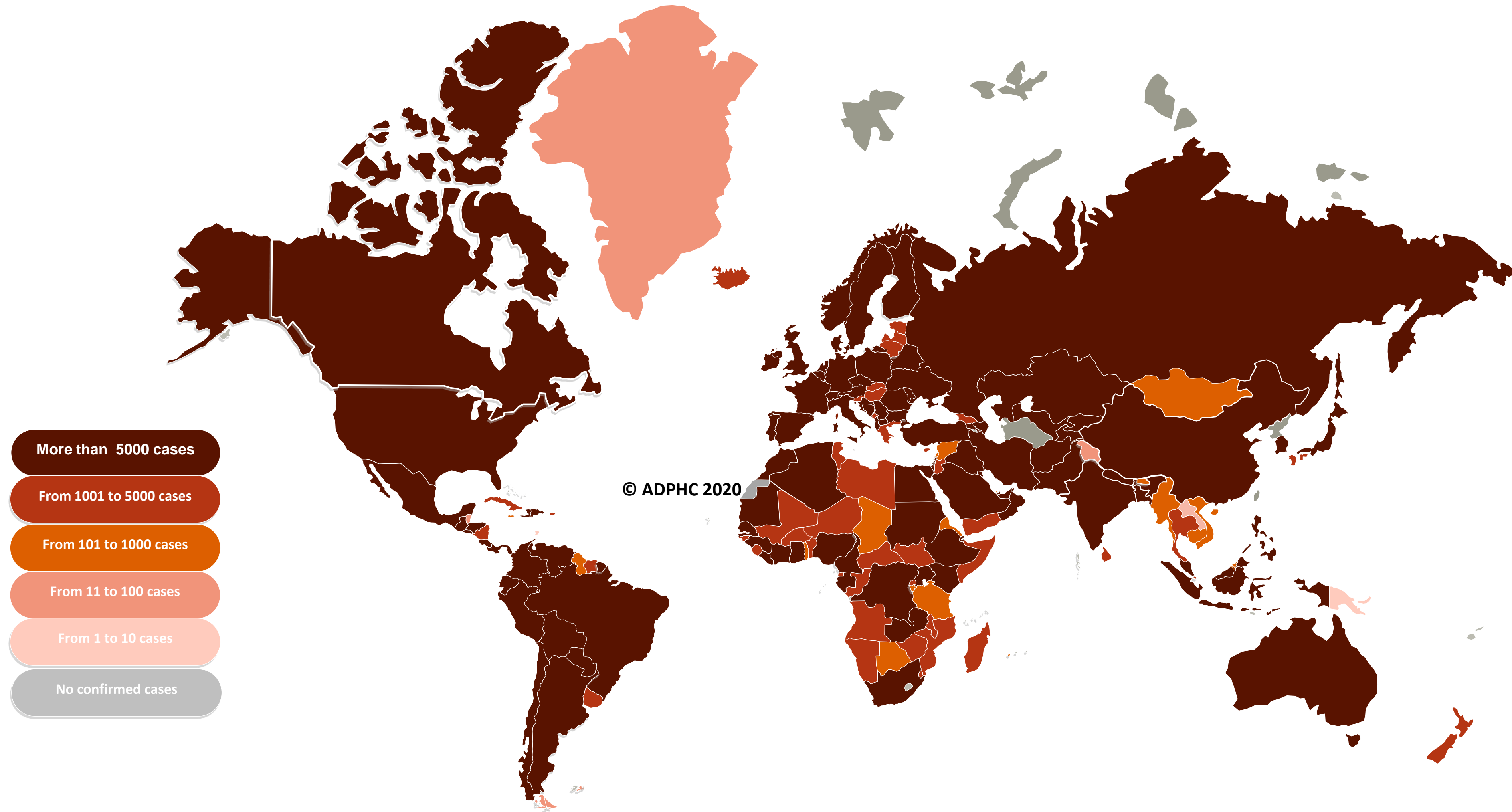
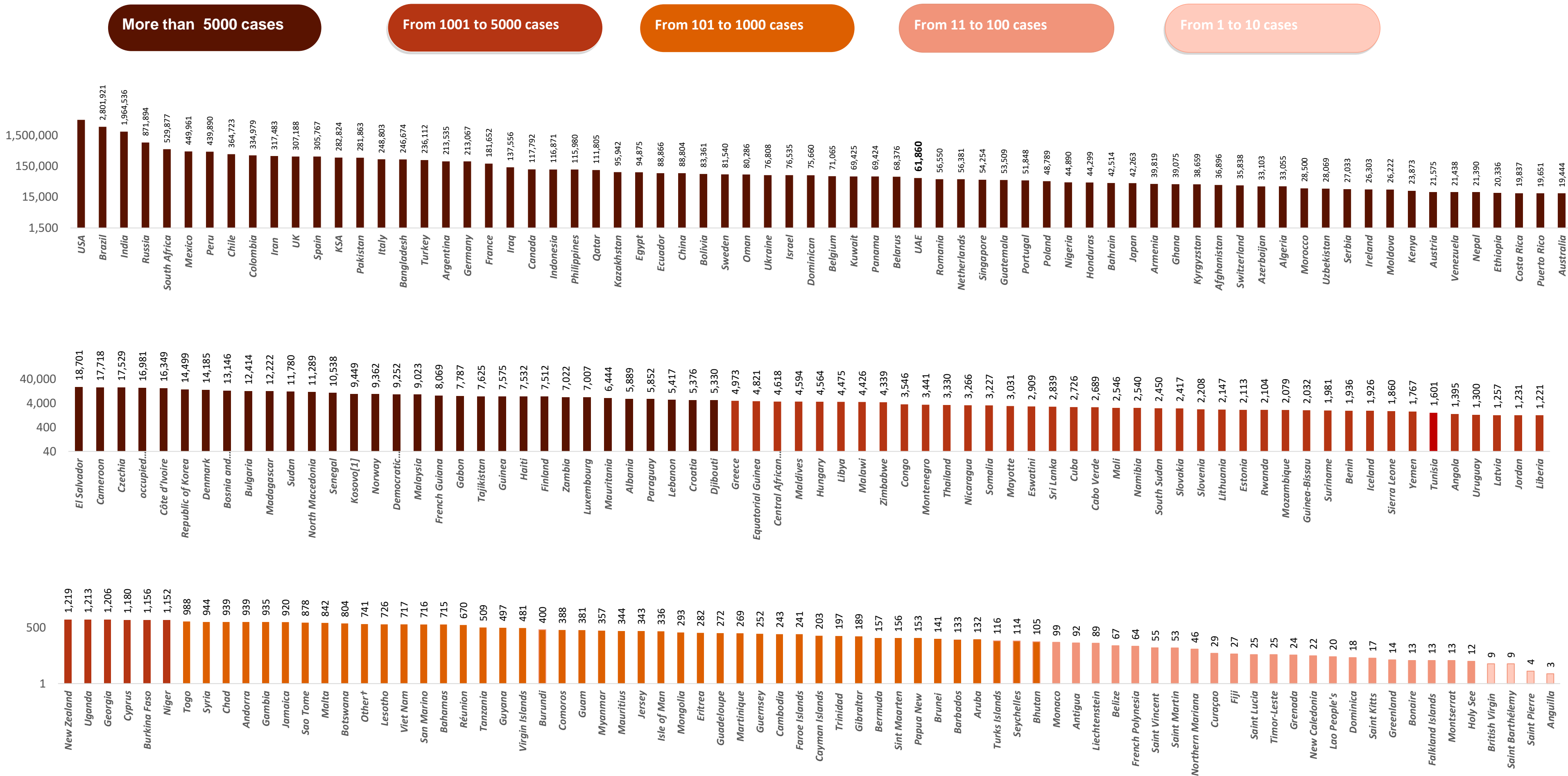


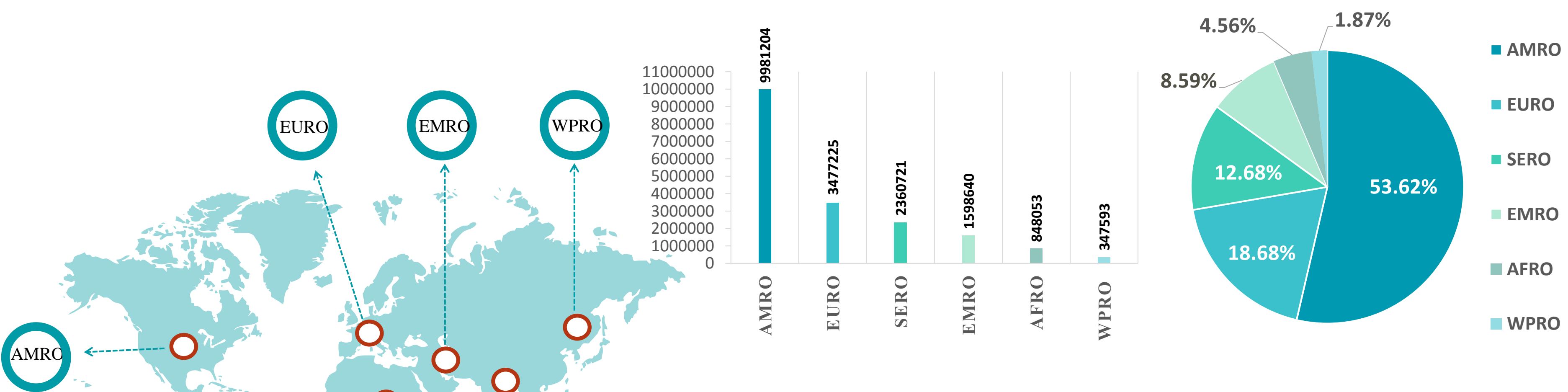
Figure 7B: Bar Chart Illustrates the Global Distribution of COVID19 Cases



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

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

INFECTED



DEATHS

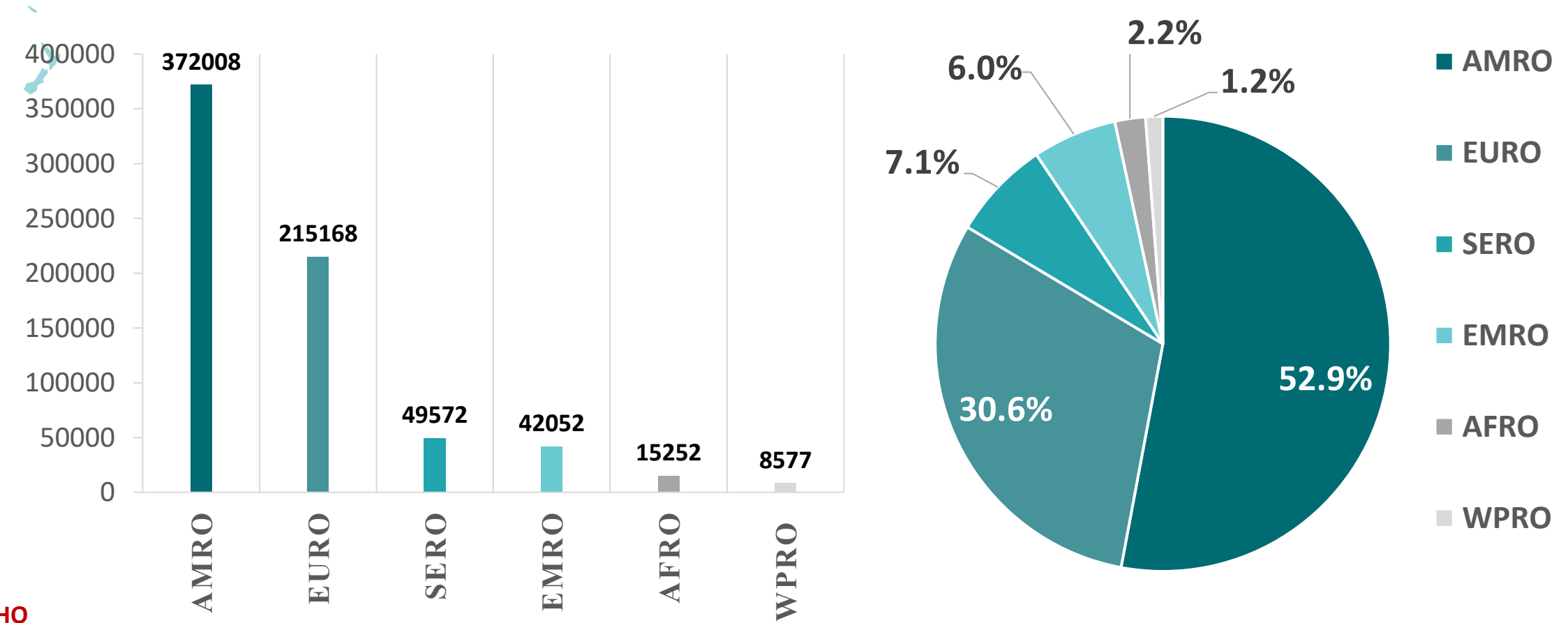
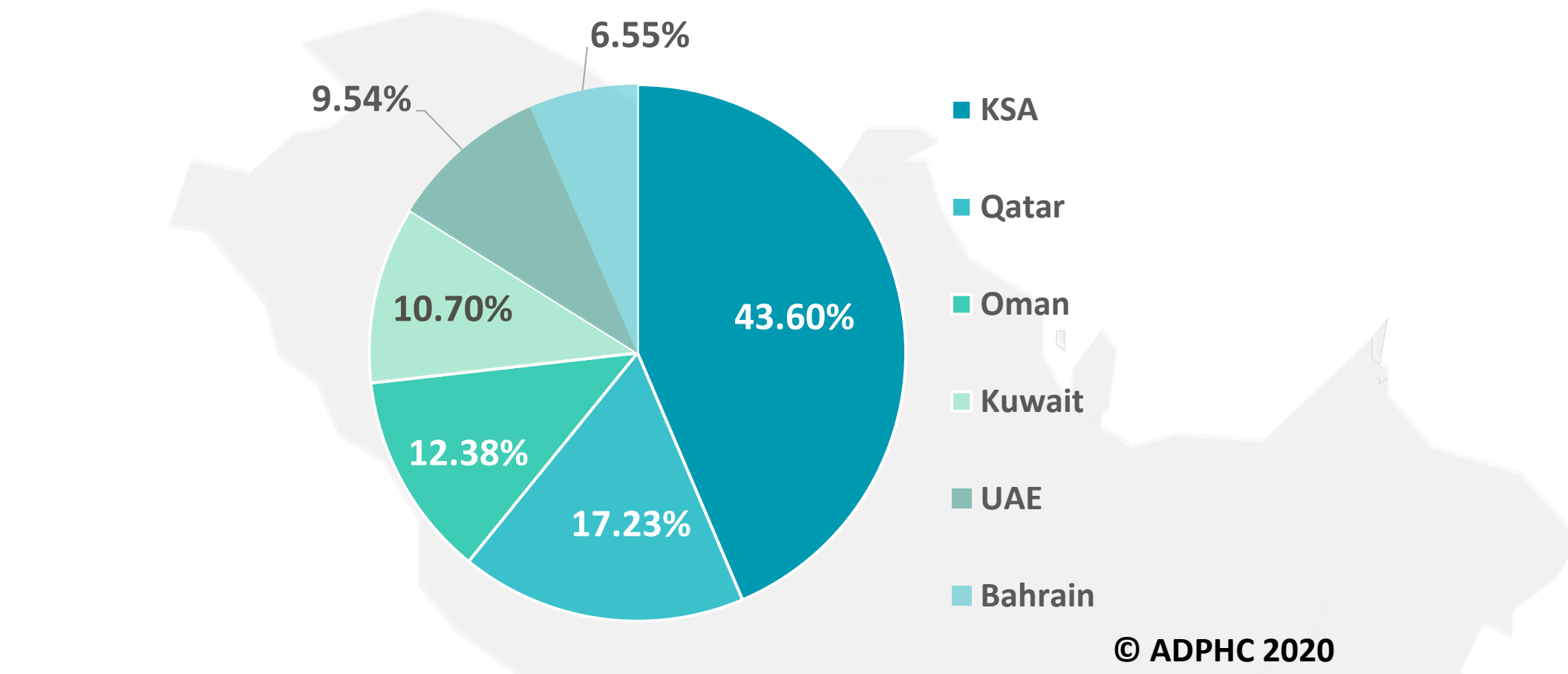
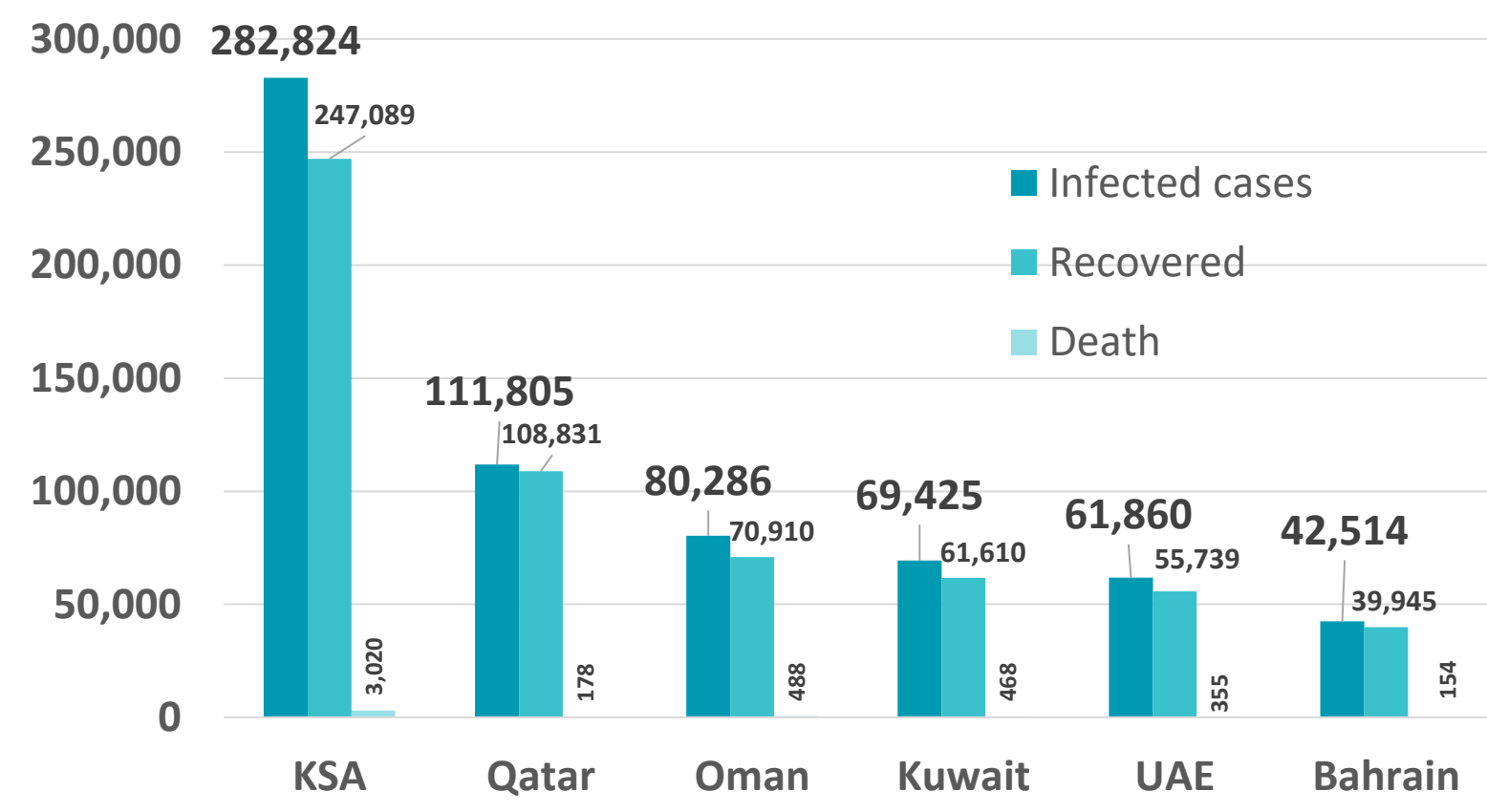


Figure 9: Comparative Analysis of the Distribution of COVID-19 Cases in GCC Countries

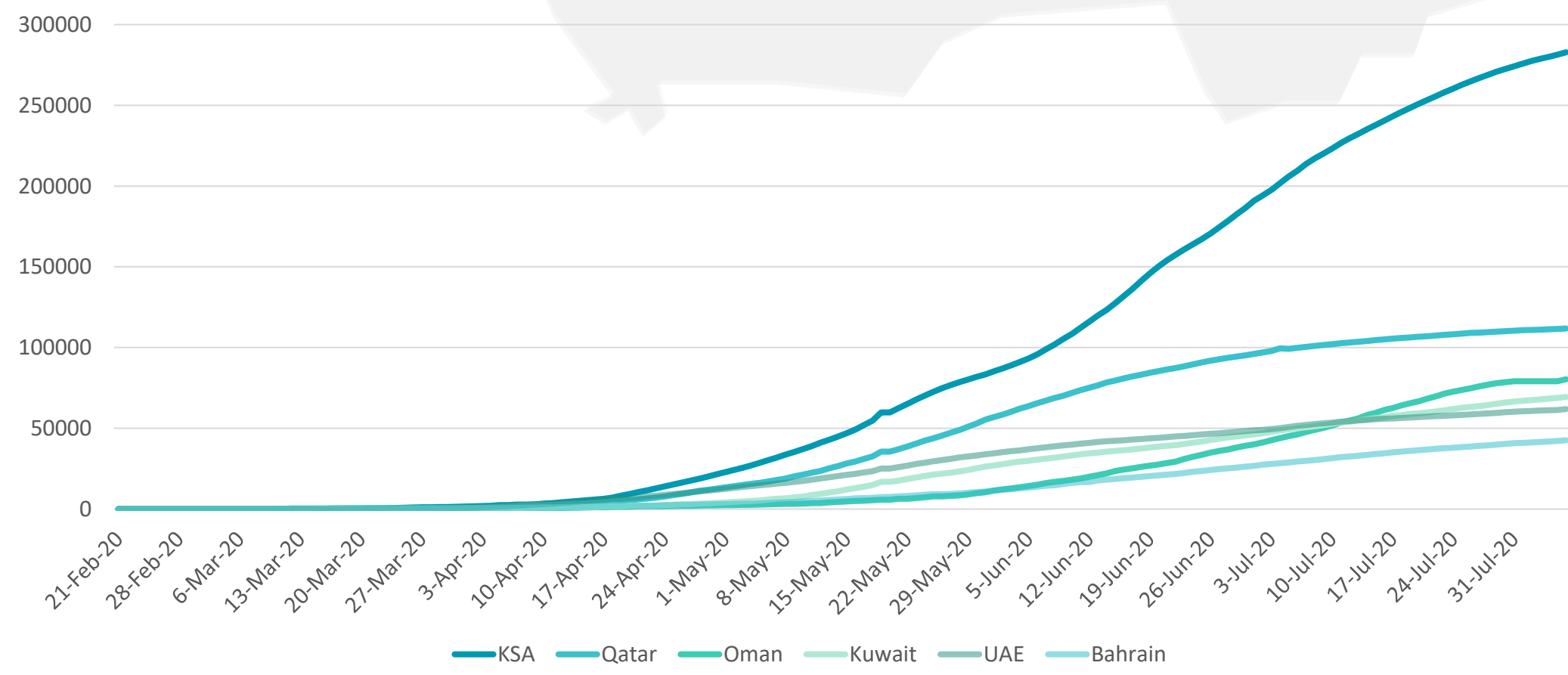
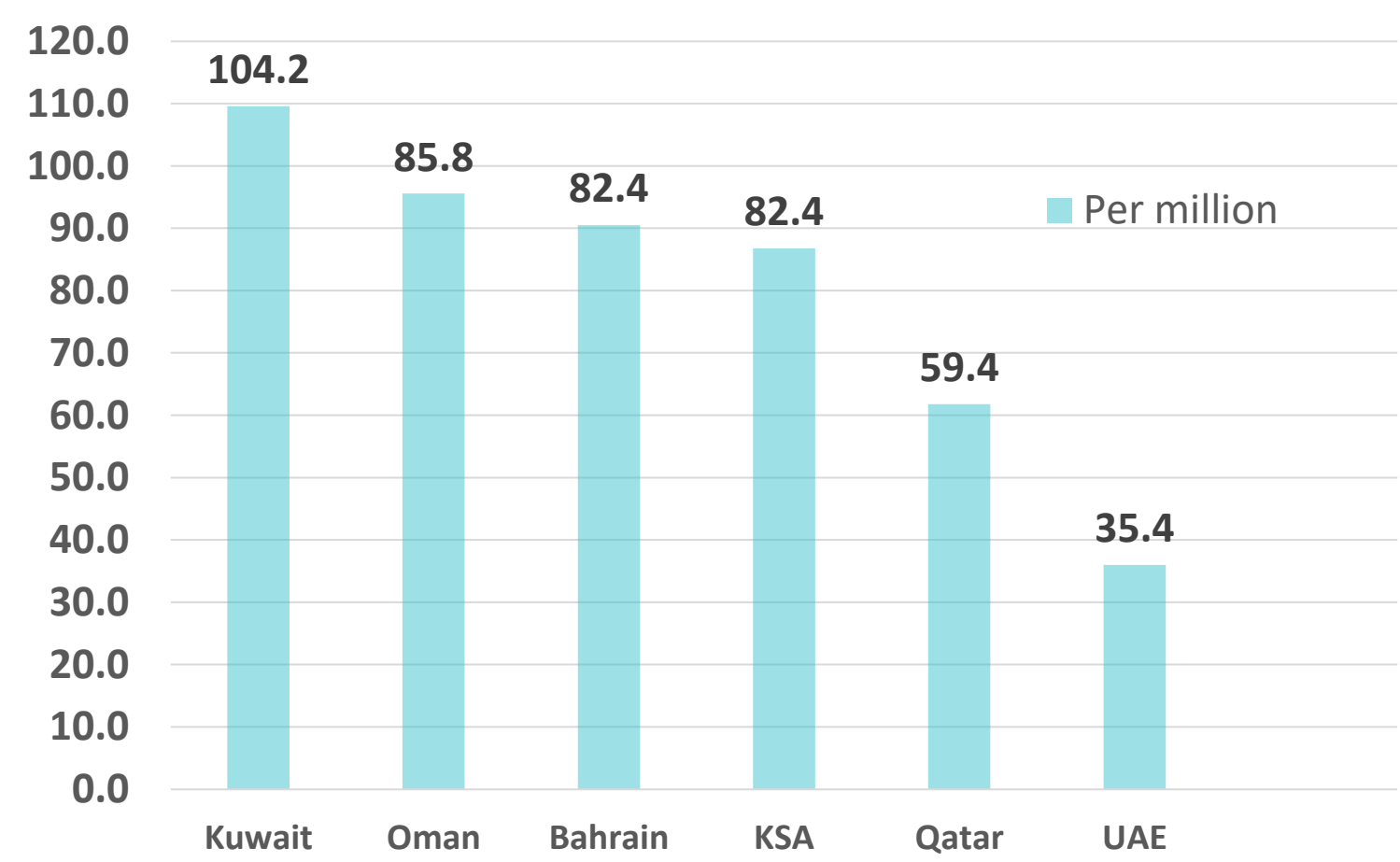
TOTAL NUMBER OF INFECTED CASES



TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



DEATH PER MILLION



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

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

UAE



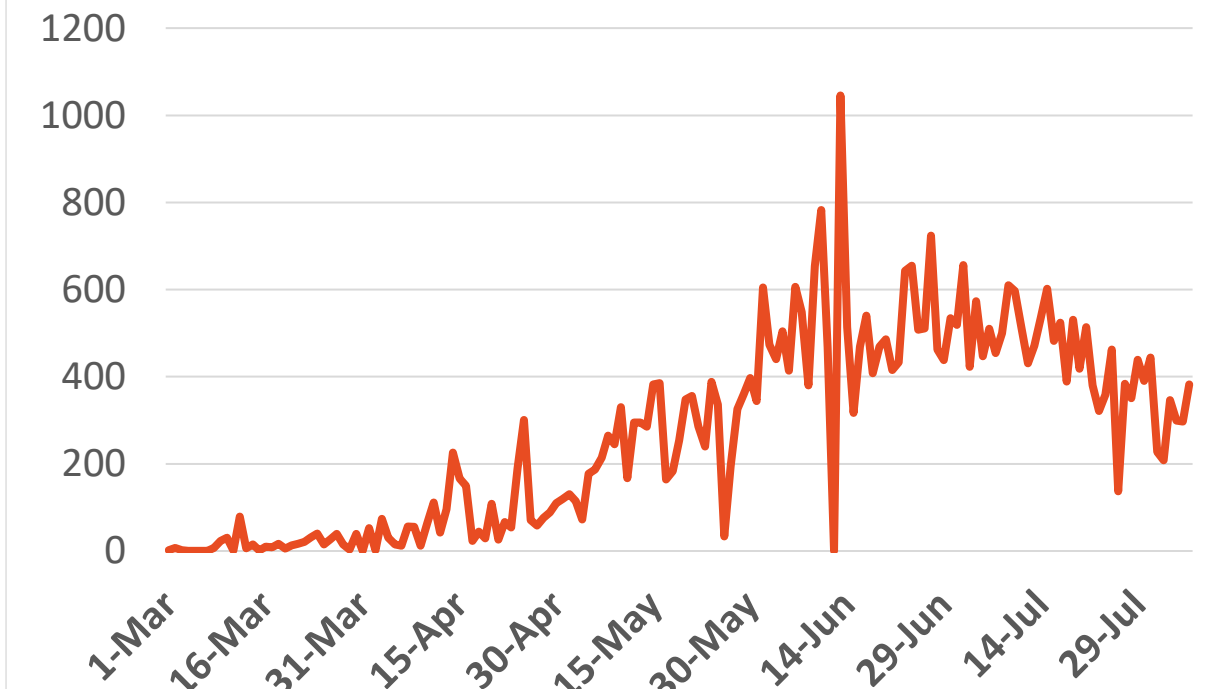
Source : National Emergency Crisis and Disaster Management Authority

KSA



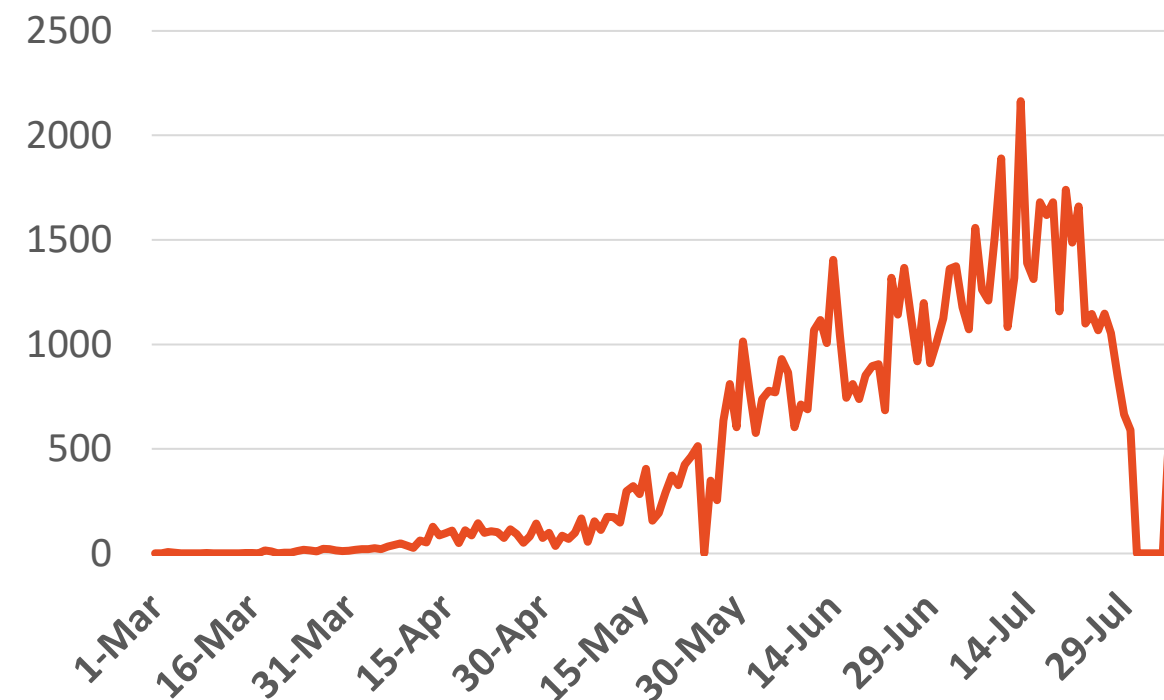
Source : KSA ministry of health

Bahrain



Source :WHO

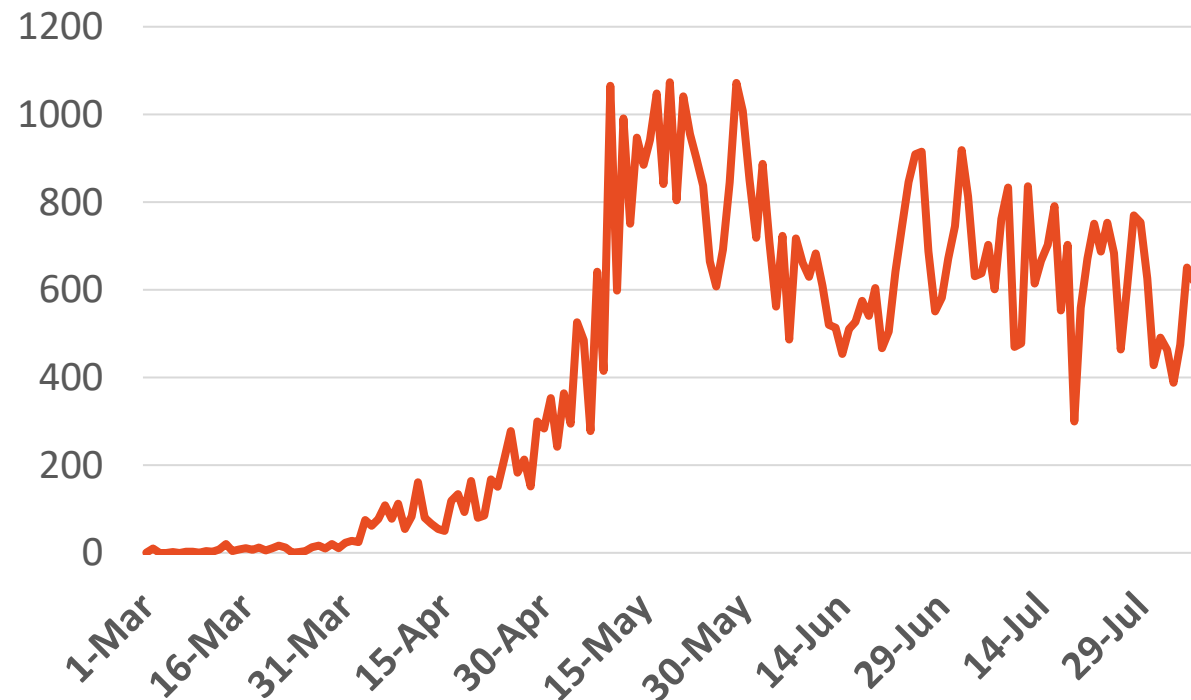
Oman



Source :Oman ministry of health
No announced statistic data from 31 July to 4 August

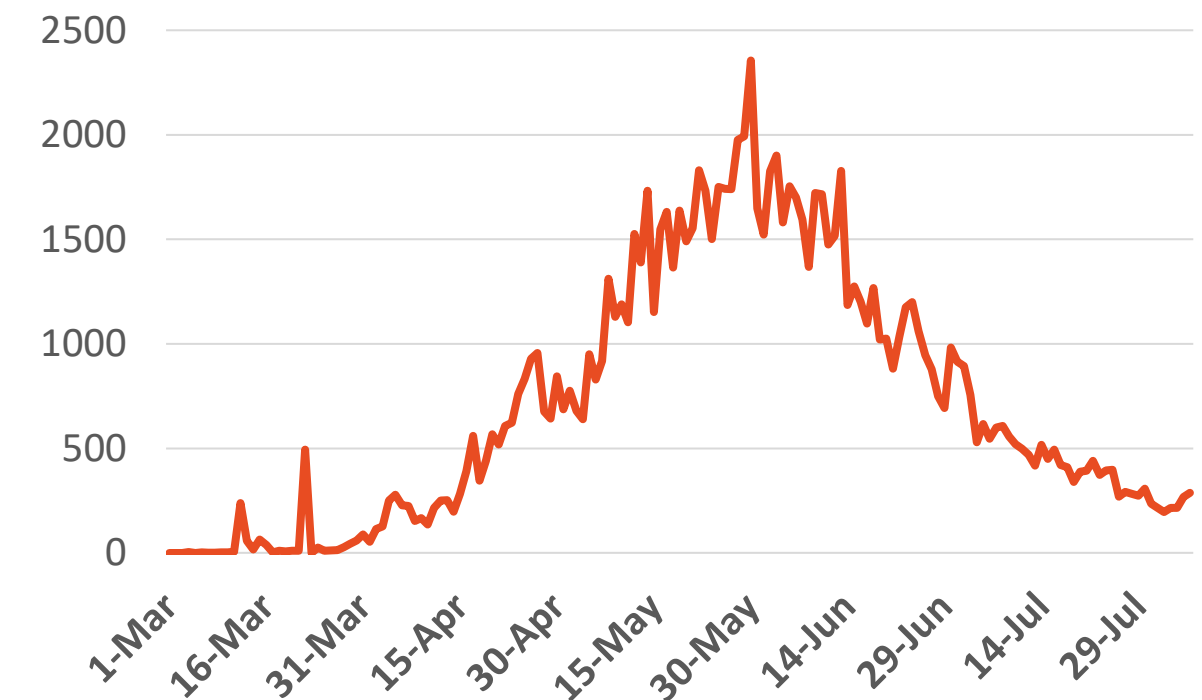
Kuwait

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Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health

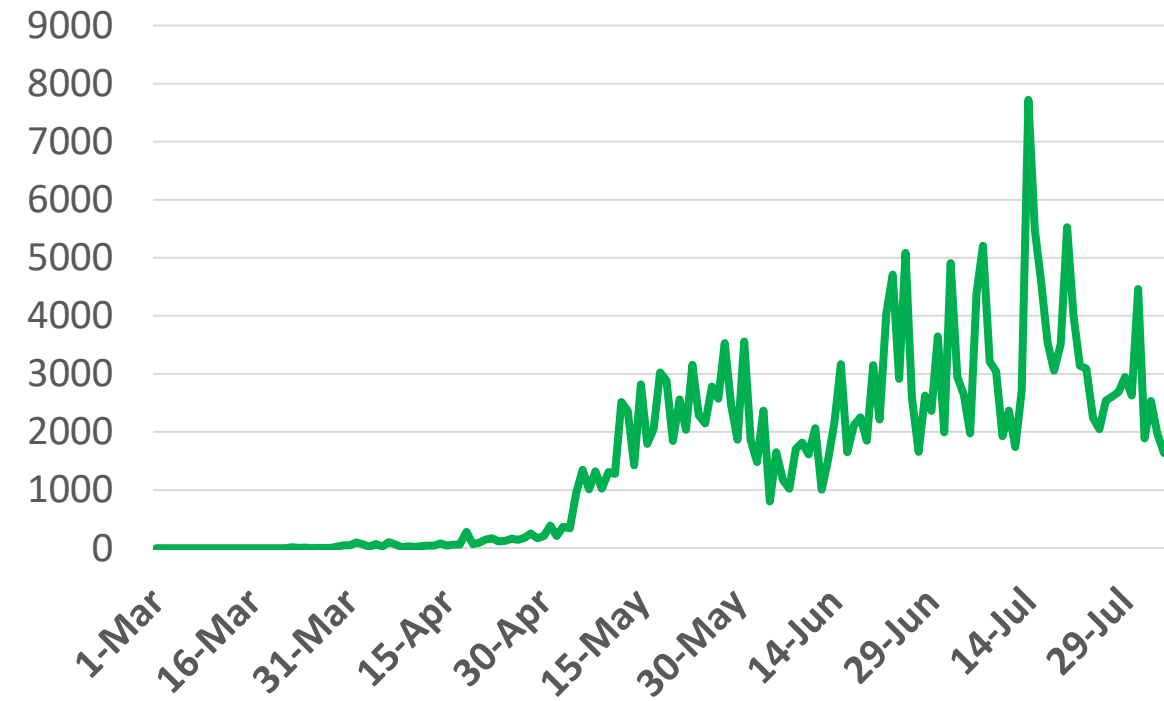
Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries

UAE



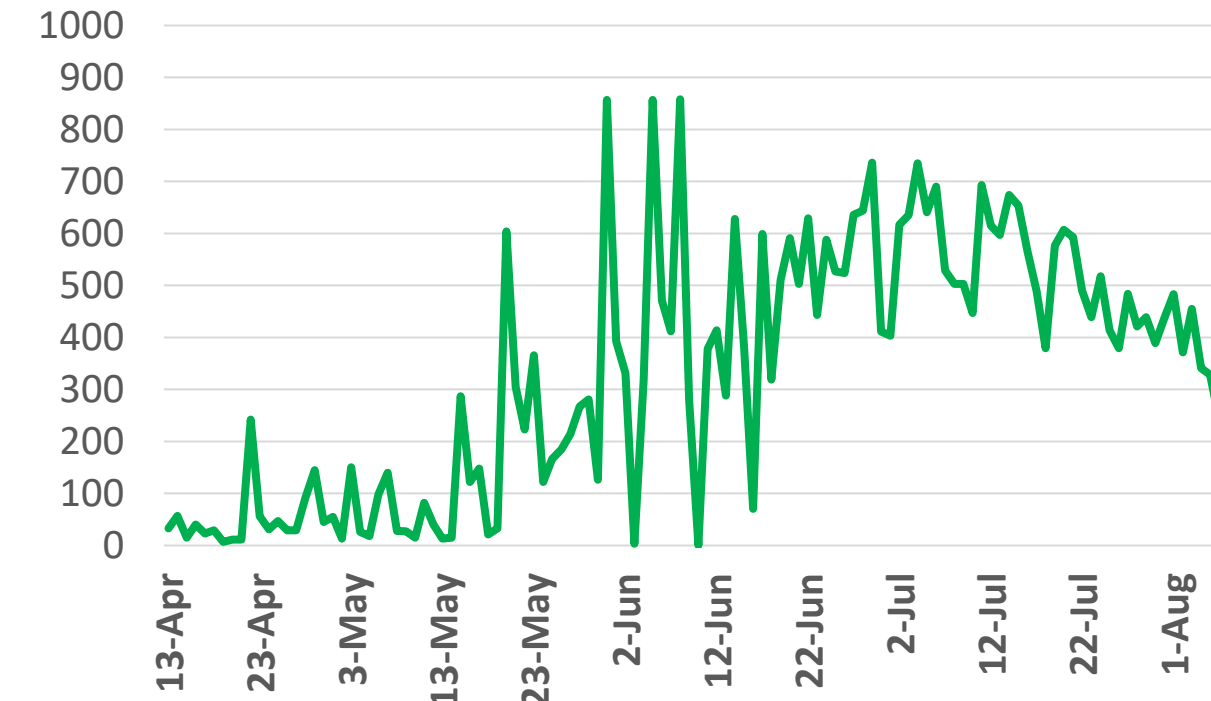
Source : National Emergency Crisis and Disaster Management Authority

KSA



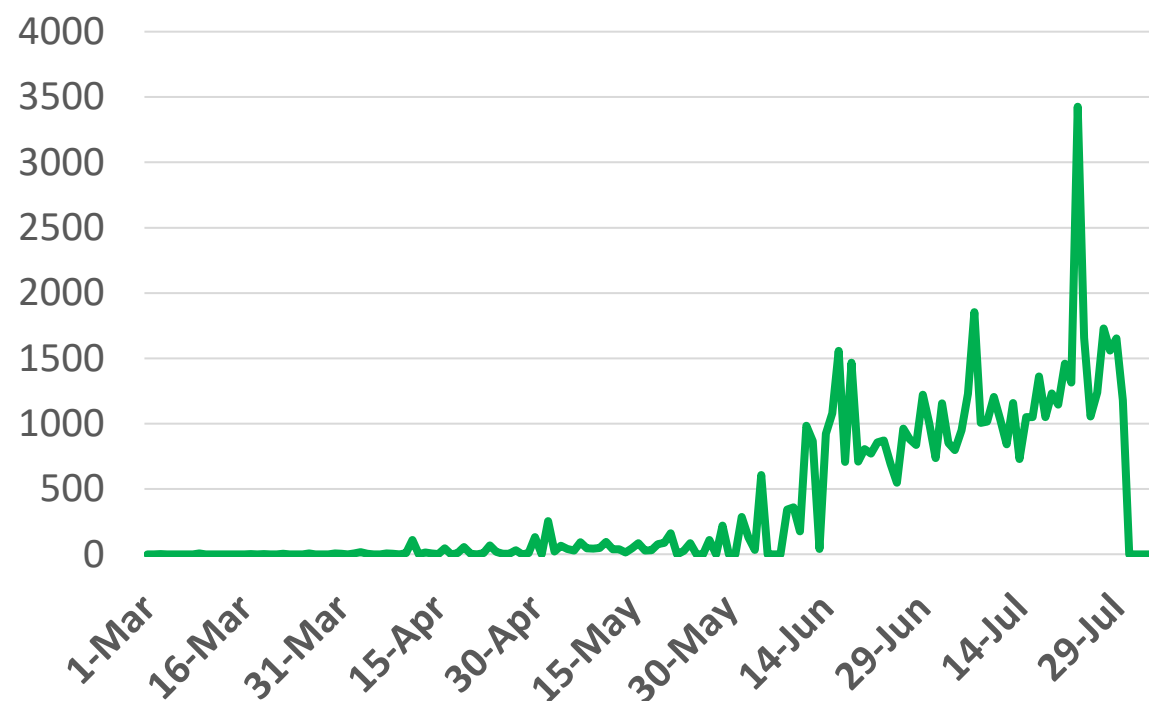
Source : KSA ministry of health

Bahrain



Source : GCCStat

Oman



Source : Oman ministry of health

*No announced statistic data from 31 July to 4 August

Kuwait

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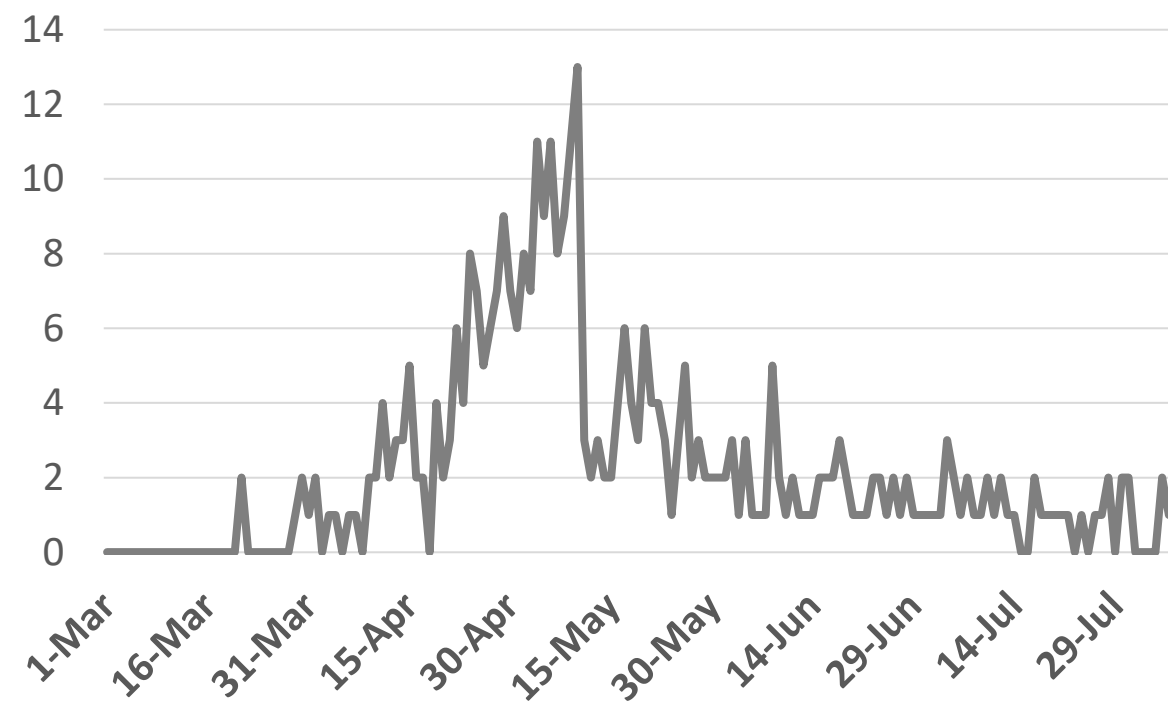
Source : Kuwait ministry of health

Qatar



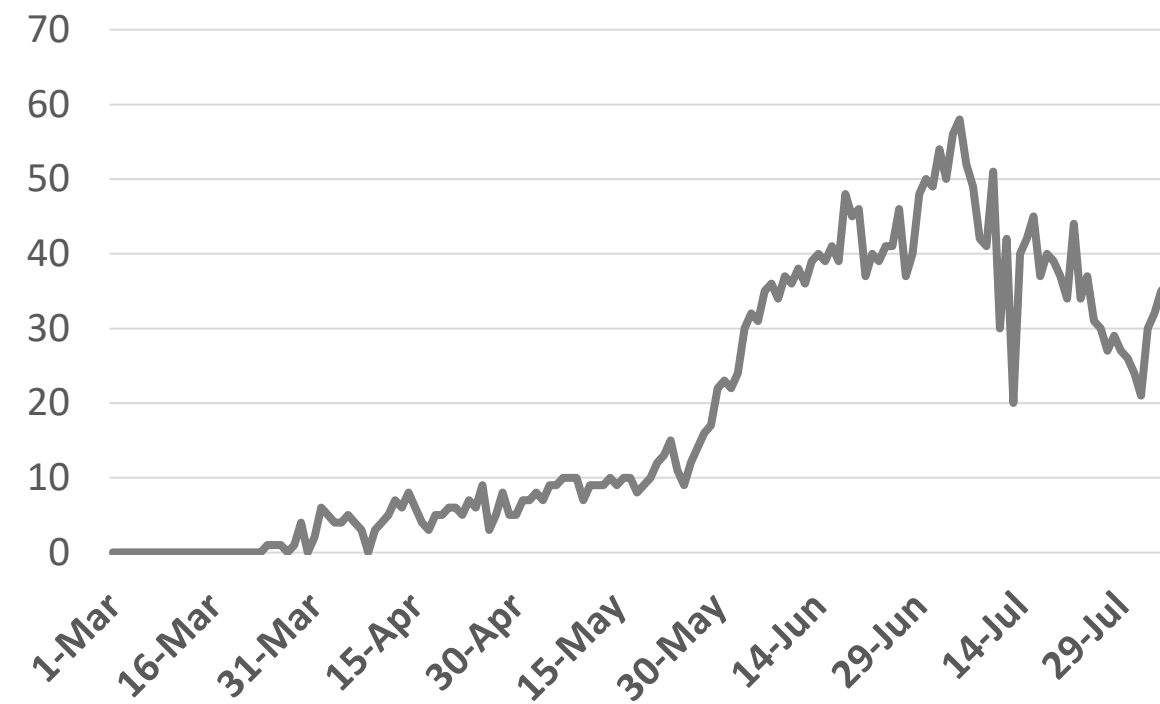
Source : Qatar ministry of health

UAE



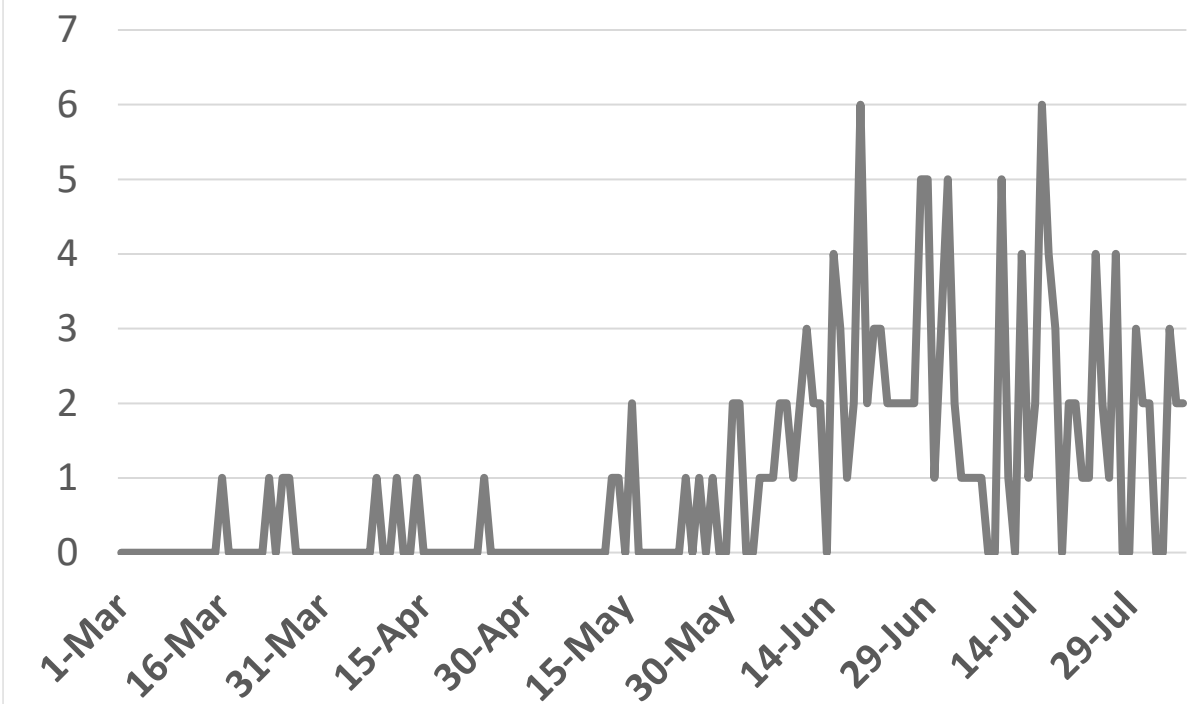
Source : National Emergency Crisis and Disaster Management Authority

KSA



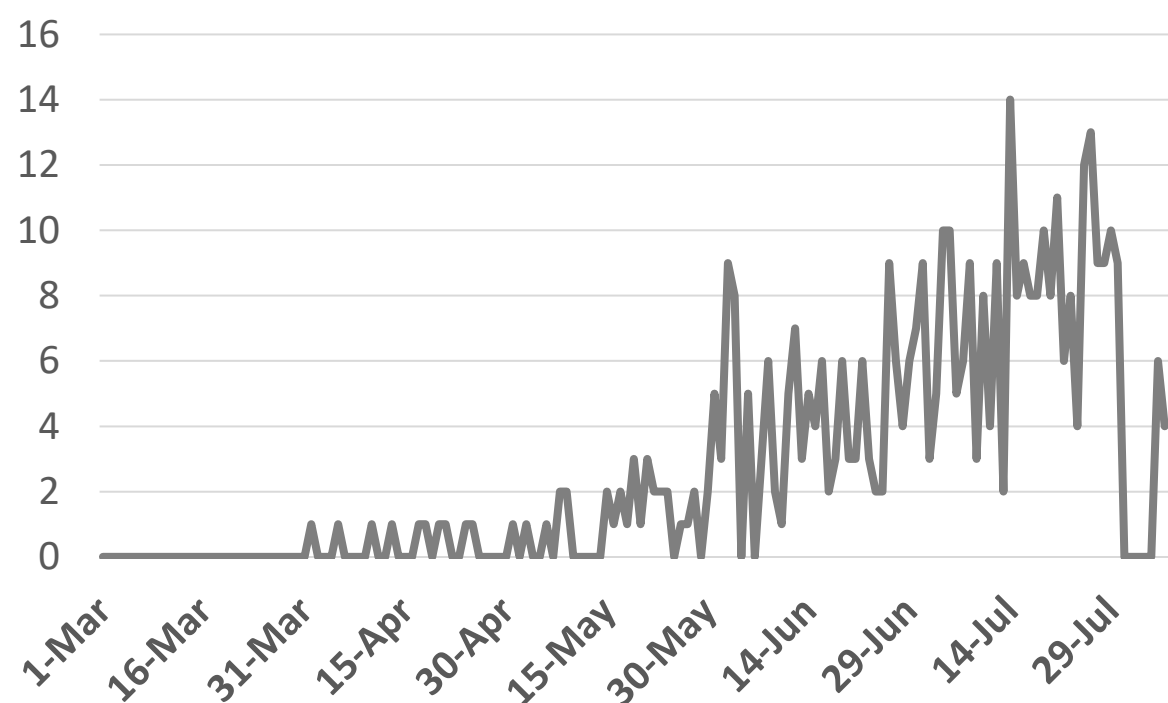
Source : KSA ministry of health

Bahrain



Source :WHO

Oman

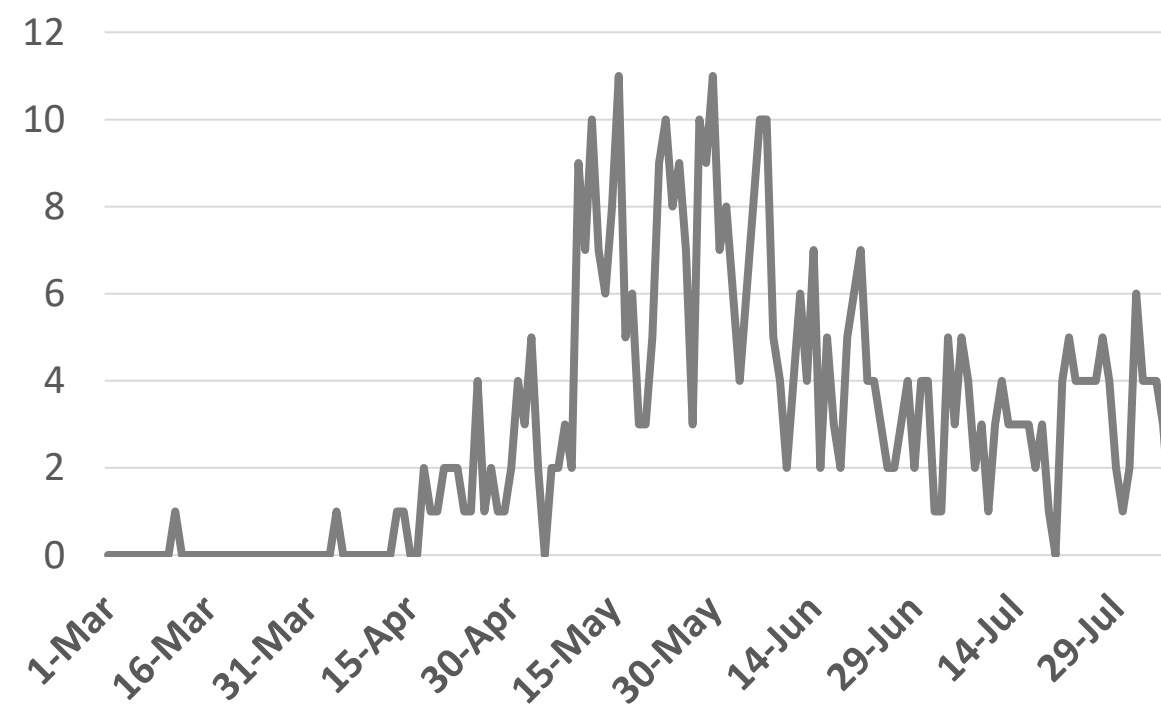


Source :Oman ministry of health

*No announced statistic data from 31 July to 4 August

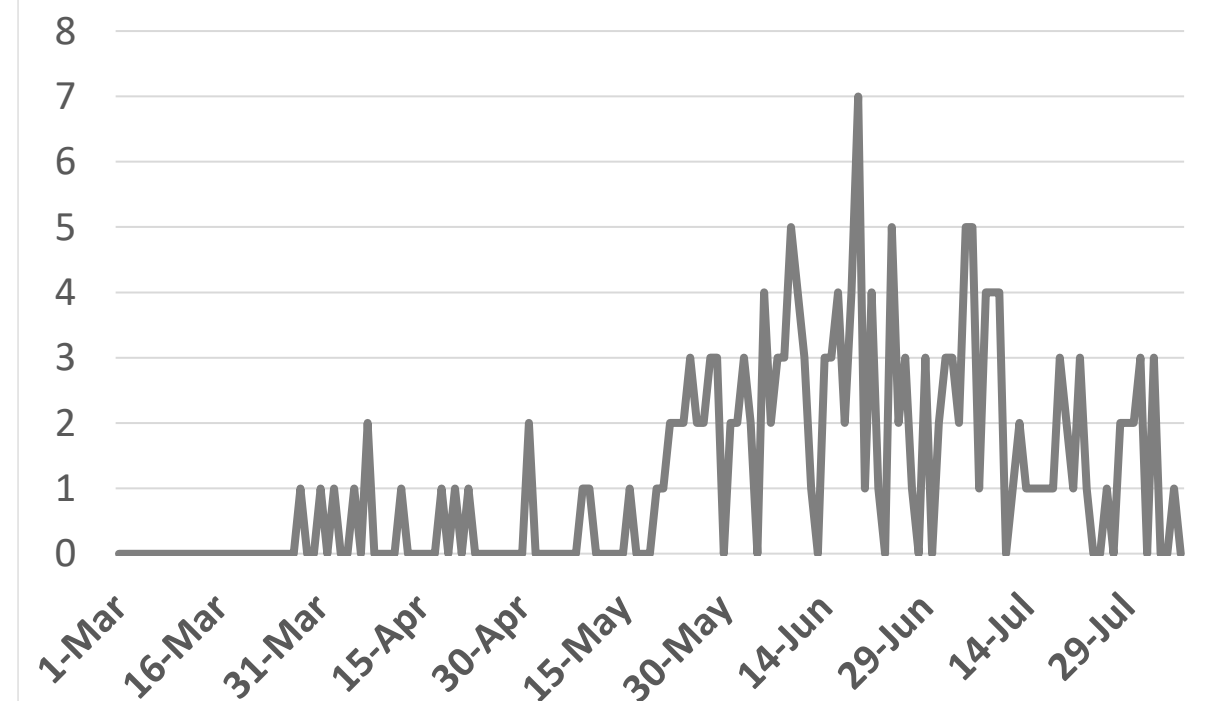
Kuwait

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Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health

Article 1

COVID-19 and Preschool Wheeze Care: Lessons Learned

Published

4 August 2020 [THE LANCET](#)

This article highlights how the COVID-19 pandemic has contributed to a change in asthma exacerbations of children younger than 5-years with preschool wheeze and other respiratory conditions and what lesson can be learnt.

- 80–90% of preschool wheeze attacks are triggered by respiratory viruses. As described in the Urban Environment and Childhood Asthma cohort, the reduced number of wheeze attacks triggered by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) could be partially explained by low expression of ACE2 receptor in atopic asthmatic children who represent a small group of preschool children with wheeze.
- There are other factors that led to this decrease; a suspected decrease in smoking as it is considered as causative factors for childhood asthma and the effect of lockdown measures on reduction of environmental pollution.
- Telemedicine has been an effective tool for health-care delivery during the pandemic, offering caregivers the chance to receive care for their children in the comfort of their own home. Parental education and partnership working between caregivers and physicians are needed to make telemedicine a safe and accessible future for health-care. One tool that can enhance such partnerships is a patient-reported outcome measure (PROM). This tool when available in digital form, can assess response to preventive treatment, identify further interventions, encourage an integrated approach to care by supporting earlier identification in primary care of children, help ensure gaps in communication during virtual clinic appointments are mitigated and can identify barriers to optimal use of preventive medication by caregivers.
- A prospective study showed that caregivers' adherence to prescribed inhaled steroids as a regular medication is low as caregivers are spending more time at home supporting their children and maintaining strict adherence to medication during the lockdown. Alongside PROMS, patient-reported experience measures (PREMS) can assess and improve quality of care.
- The COVID-19 pandemic experience highlights that large reductions in hospital activity for preschool wheeze are possible. PROMS and PREMS have a key part in building partnerships with parents, grounded in a greater focus on their needs, which could transform outcomes as well as safety, efficiency, and experience of services in the future.



Article 2

Experts Discuss COVID-19 - Remdesivir, Vaccines, and More

Published

5 August 2020 [THE JAMA](#)

- **Aerosol vs Droplet:** Droplets being 5 to 10 microns; aerosols being anything less than 5 microns. The expert believes that SARSCOV2 is droplet but there is enough evidence that aerosol transmission is happening. The implication of this is similar to using N95 versus surgical mask. However, this does not mean walking around with N95s. Even the WHO recommendation on airborne transmission (aerosol transmission) recommends ventilation, air filtration, and decreased crowding.
- **The Antiviral Drug Remdesivir:** Remdesivir is costly and offered at the early stage of the disease, while dexamethasone, is given for severe cases. Unlike dexamethasone, remdesivir has not yet been studied for mortality.
- **Masking:** Data clearly confirms that masking works - whether it's a face covering, a simple surgical mask, or a mask used in the clinical setting.



Article 3

Impact of COVID-19 on Maternal and Child Health

Published

3 August 2020 [THE LANCET](#)

A correspondence to a previously published modelling study trying to assess the indirect effects of COVID-19 on maternal and child mortality in low-income and middle-income countries (LMICs) and highlighting the potential consequences of disruptions to routine health care and decreased access to food.

Background

- The COVID-19 pandemic is already indirectly threatening breastfeeding practices. Universal breastfeeding could prevent 823000 child deaths per year, yet additional examination as part of COVID-19 impact modelling is needed.

Findings

- During the COVID-19 pandemic, reductions in breastfeeding prevalence will possibly occur due to reluctance by women to use the health care system and limitations in the availability of skilled health workers.
- Anecdotal evidence suggests that some health facilities are separating newborn babies from mothers and discouraging breastfeeding due to the fears of transmission of COVID-19 through breastmilk.

- The study used the Alive & Thrive cost of not breastfeeding tool, that a hypothetical effect of small (5%), moderate (10%), medium (25%), or severe (50%) relative reductions in the prevalence of breastfeeding due to COVID-19 disruptions would result in 16 469 (small reduction), 32 139 (moderate reduction), 75 455 (medium reduction), and up to 138 398 (severe reduction) child deaths across 129 (LMICs) over 1 year, plus additional morbidity.

Conclusion

- This analysis highlights the need for continued support from governments to promote and protect breastfeeding during COVID-19
- Authors publishing on the estimated indirect impacts of COVID-19 pandemic are encouraged to consider the substantial morbidity and mortality repercussions from pandemic-related disruptions to breastfeeding.

