

SCIENTIFIC RESEARCH MONITORING ON COVID-19

3 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

- **Public Health Response:** Digital Tools Against COVID-19: Taxonomy, Ethical Challenges, and Navigation Aid (page 17)
- **Special Update:** COVID-19 Global Research and Innovation Forum (page 18-19)



WHO Situation Report (2nd July 2020)

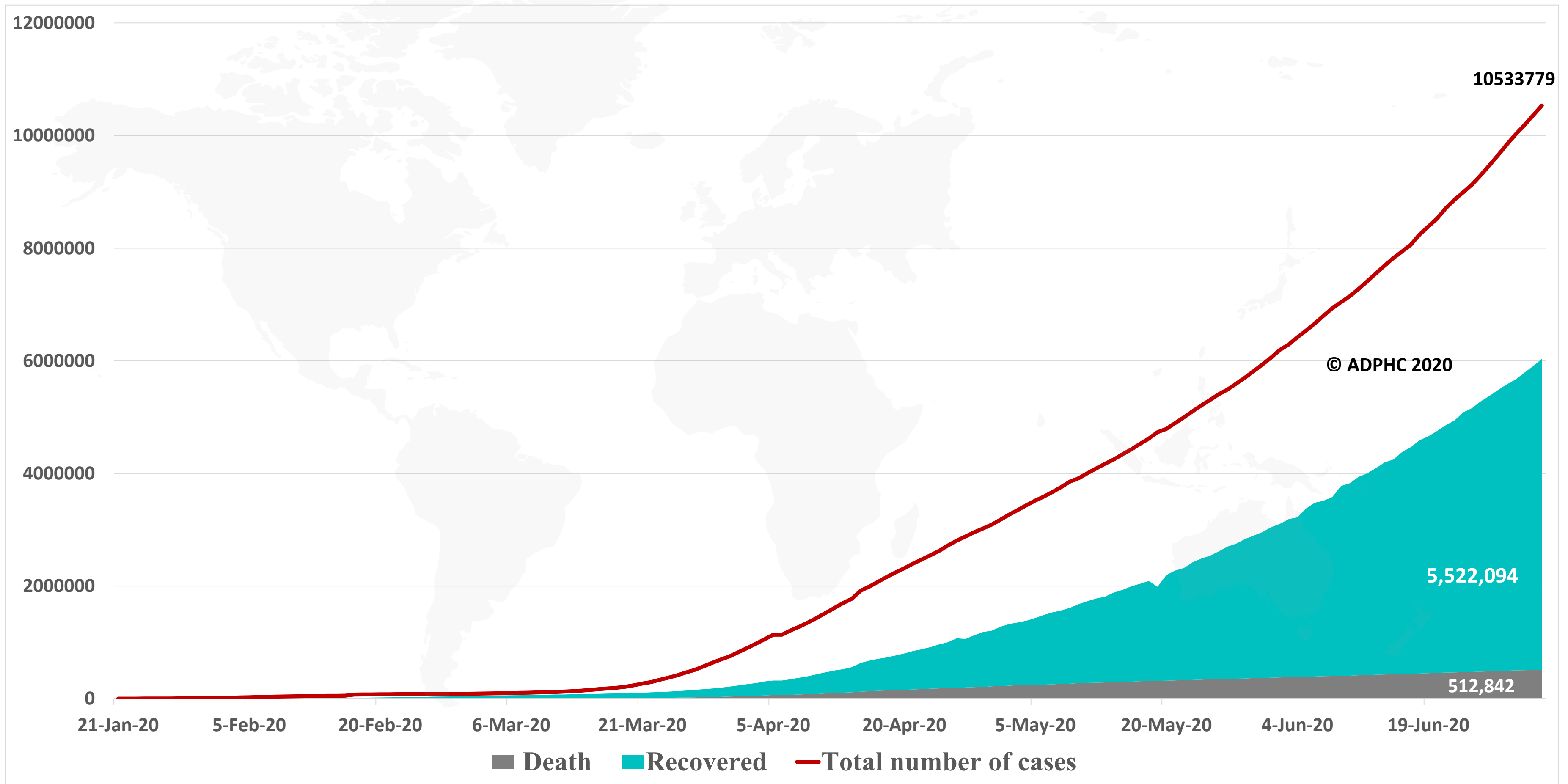


- WHO Director-General Dr Tedros emphasized the importance of taking a comprehensive approach to responding to the pandemic -- “Not testing alone. Not physical distancing alone. Not contact tracing alone. Not masks alone. Do it all”, he said during yesterday’s regular media briefing.
- In Turkey, a WHO-backed helpline has been created to provide psychosocial health support to persons affected by mental health issues in the wake of COVID-19. The helpline reaches all of Turkey’s 81 provinces and has provided over 80000 consultations since March 2020.
- While countries have had to de-prioritize non-urgent care to make way for COVID-19 patients, maternal and child health is one area that cannot be put on hold. In the WHO European region, examples from Italy, Germany and Israel show that swift recalibration of healthcare has helped maintain essential services, thereby protecting the well-being of pregnant women and their babies.
- WHO Regional Director for the Americas, Dr Carissa F. Etienne, said countries planning to relax public health measures must take a phased approach based on local conditions and be prepared to impose preventive measures again if the epidemiological situation changes.
- WHO representative, Dr Akjemal Magtymova, shared her professional and personal experience of taking up her new duty station in Syria amid the restrictions brought about by COVID-19, as well as challenges in responding to the pandemic in a conflict area.
- WHO published new guidance on infection prevention and control during healthcare when COVID-19 is suspected or confirmed.





Figure 1: Total number of infected, recovered, and death cases (January 21st to July 2, 2020)



Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](#)

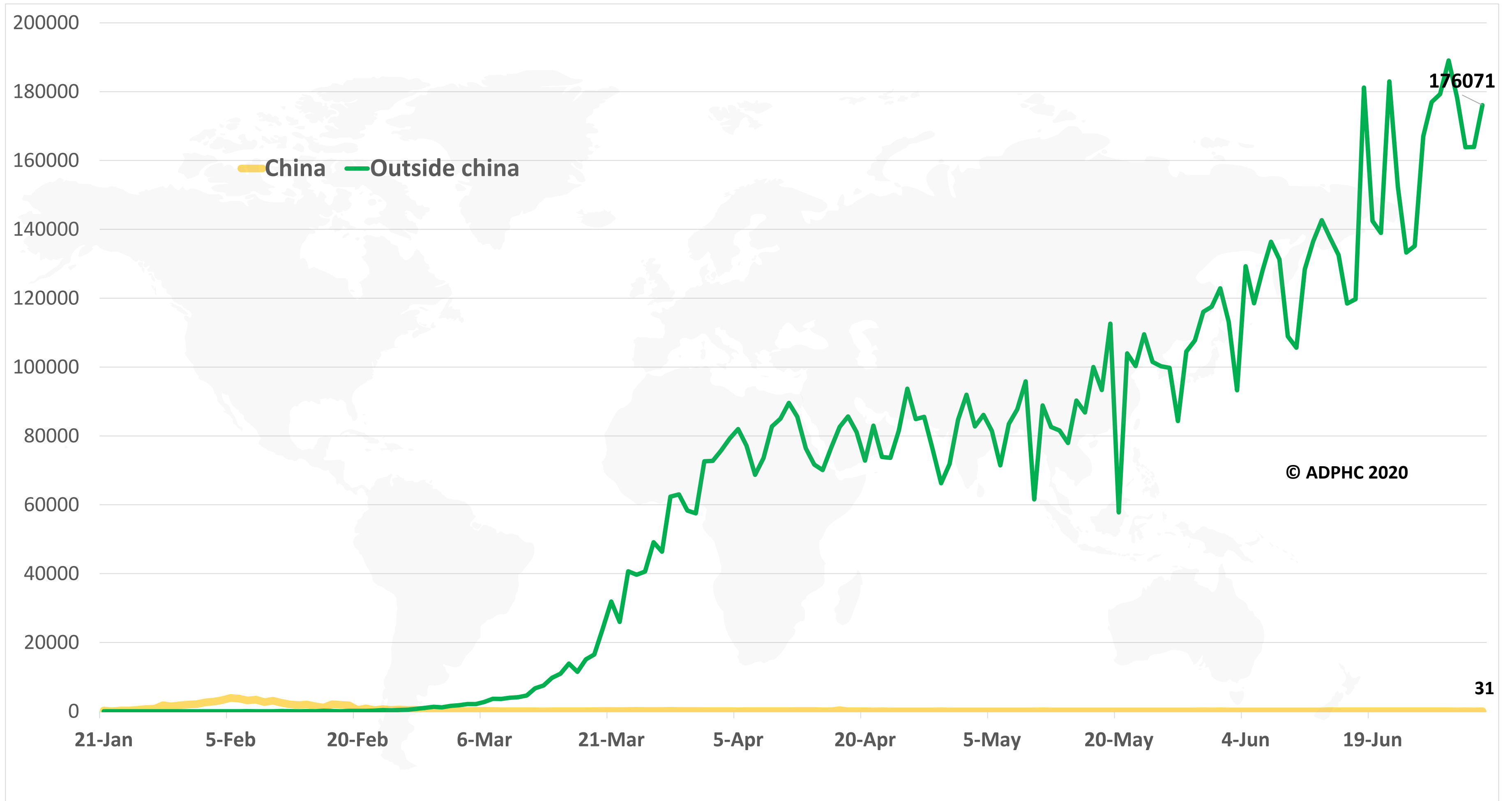
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Figure 2: Daily new infected COVID-19 cases reported between (January 21 to July 2, 2020).



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Line graph published by Abu Dhabi Public Health Center 2020.

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

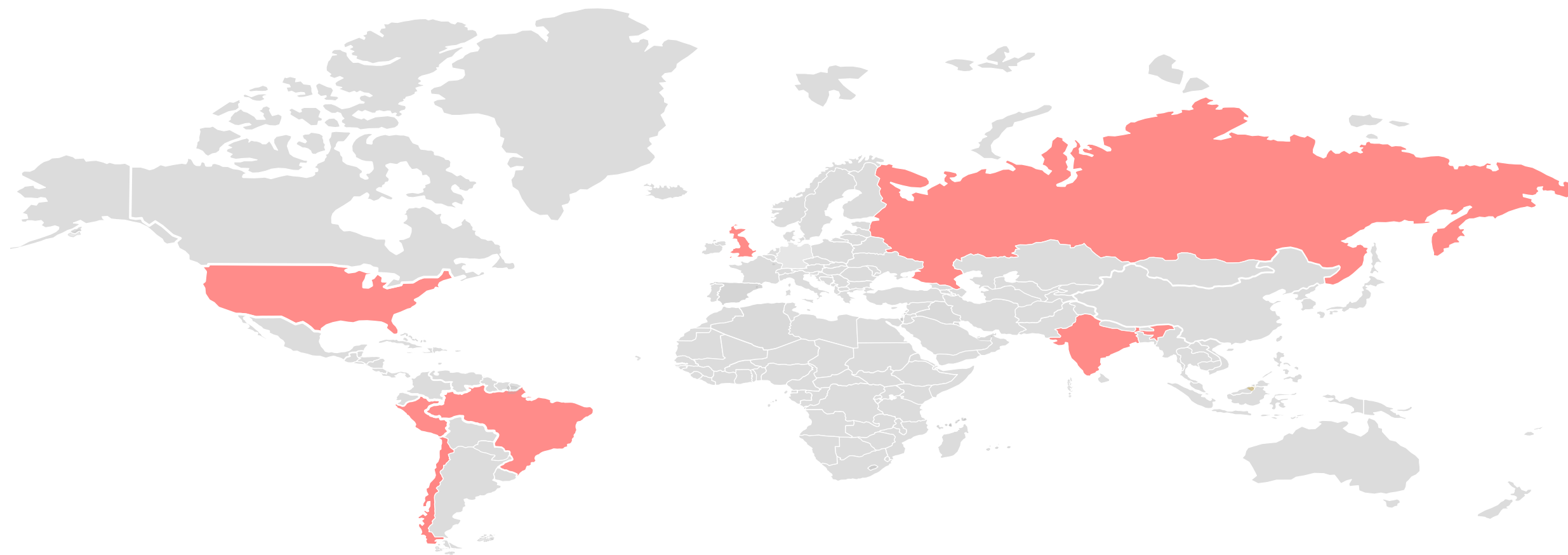
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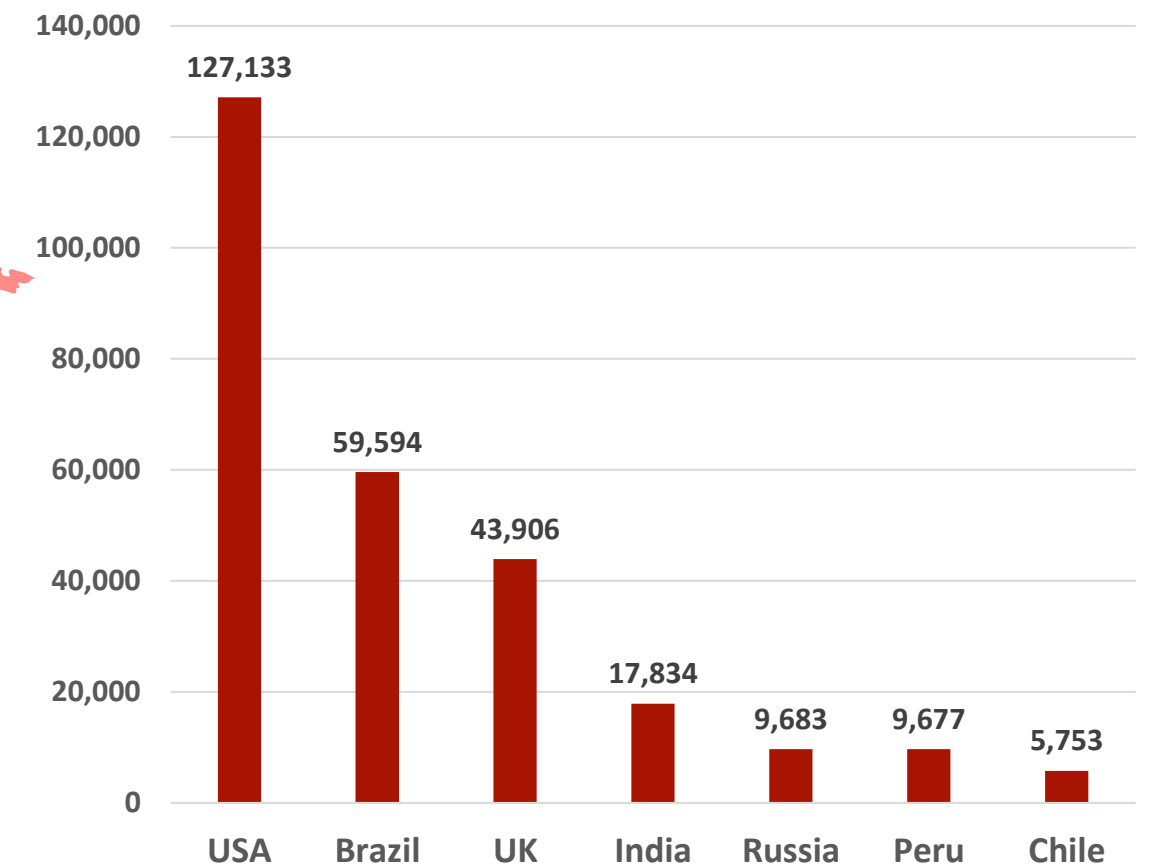
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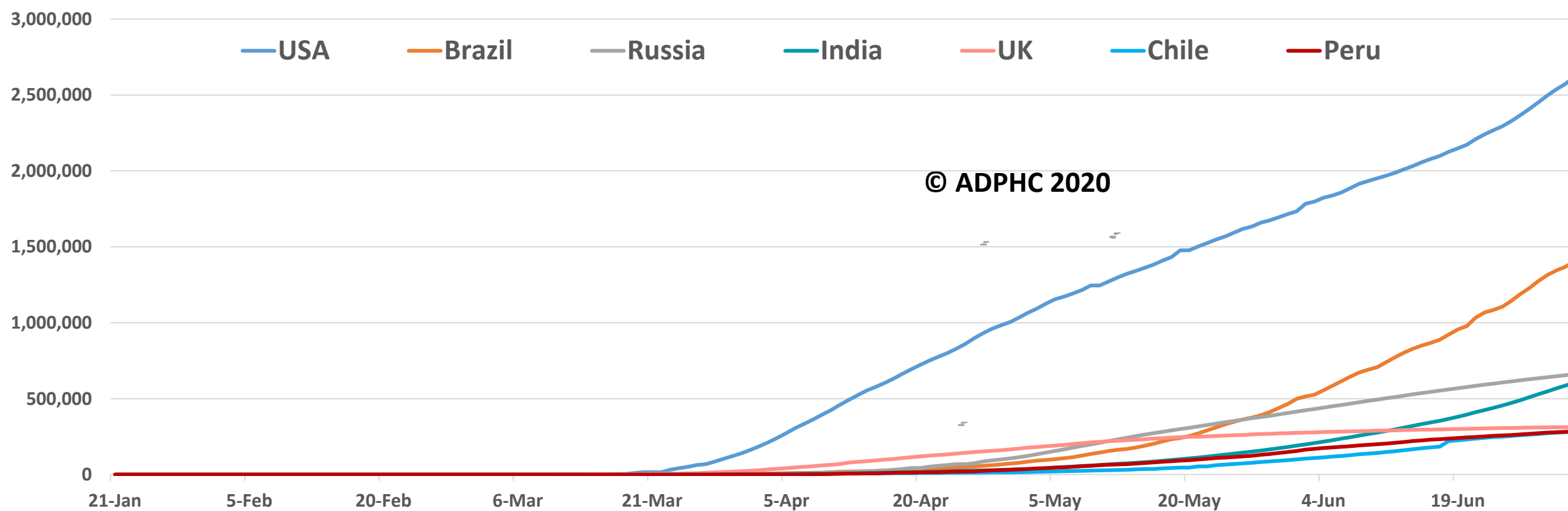
Figure 3 : Top 7 countries in the total number of cases due to COVID-19 (January 21 to July 4, 2020).



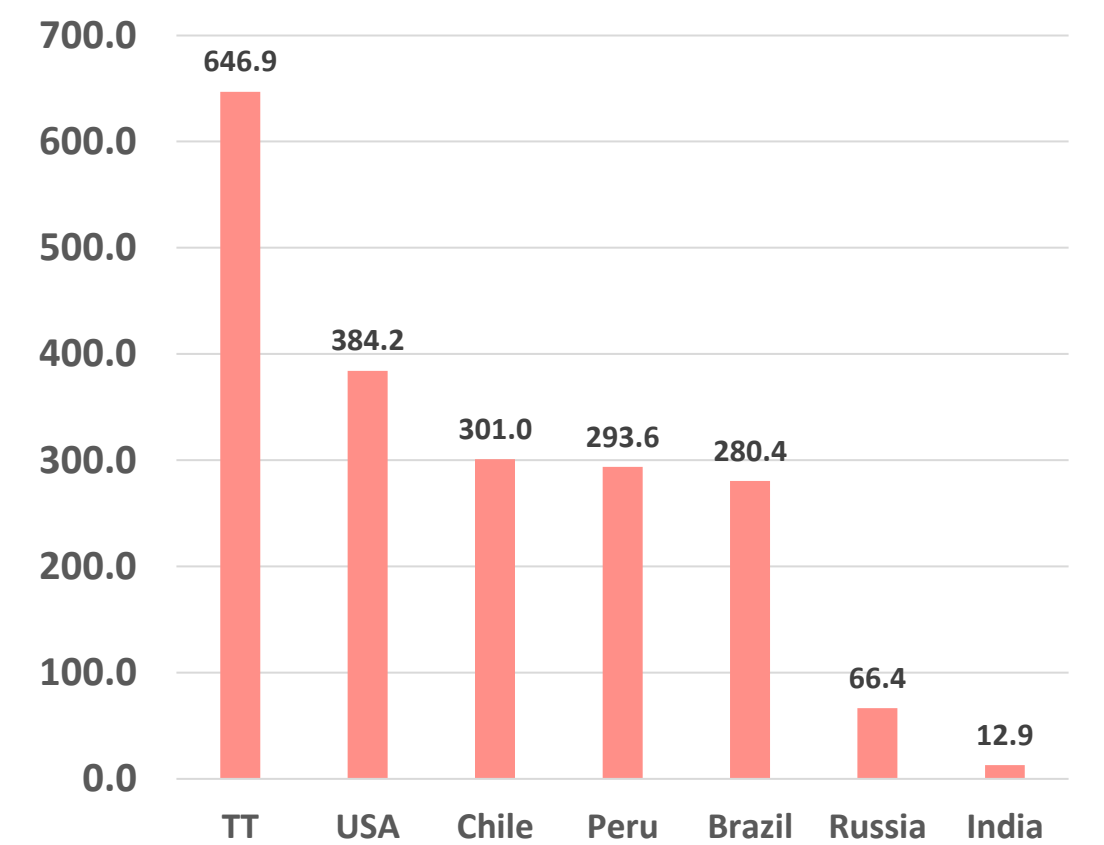
TOTAL DEATHS



TOTAL INFECTED CASES



DEATHS PER MILLION



Line graph published by Abu Dhabi Public Health Center 2020.

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

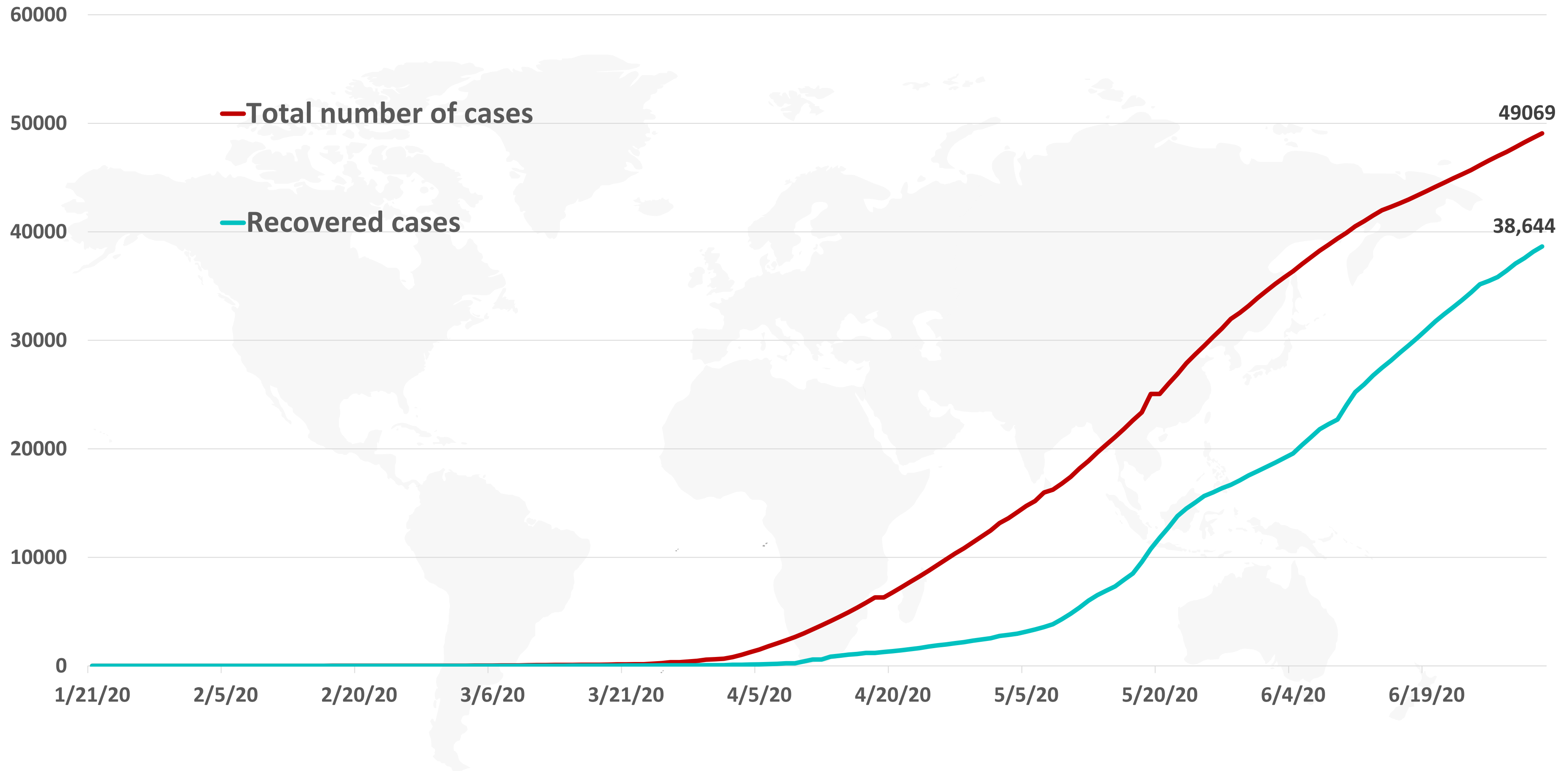
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Figure 4: Total number of COVID-19 infected and recovered cases in UAE over time



Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](#)

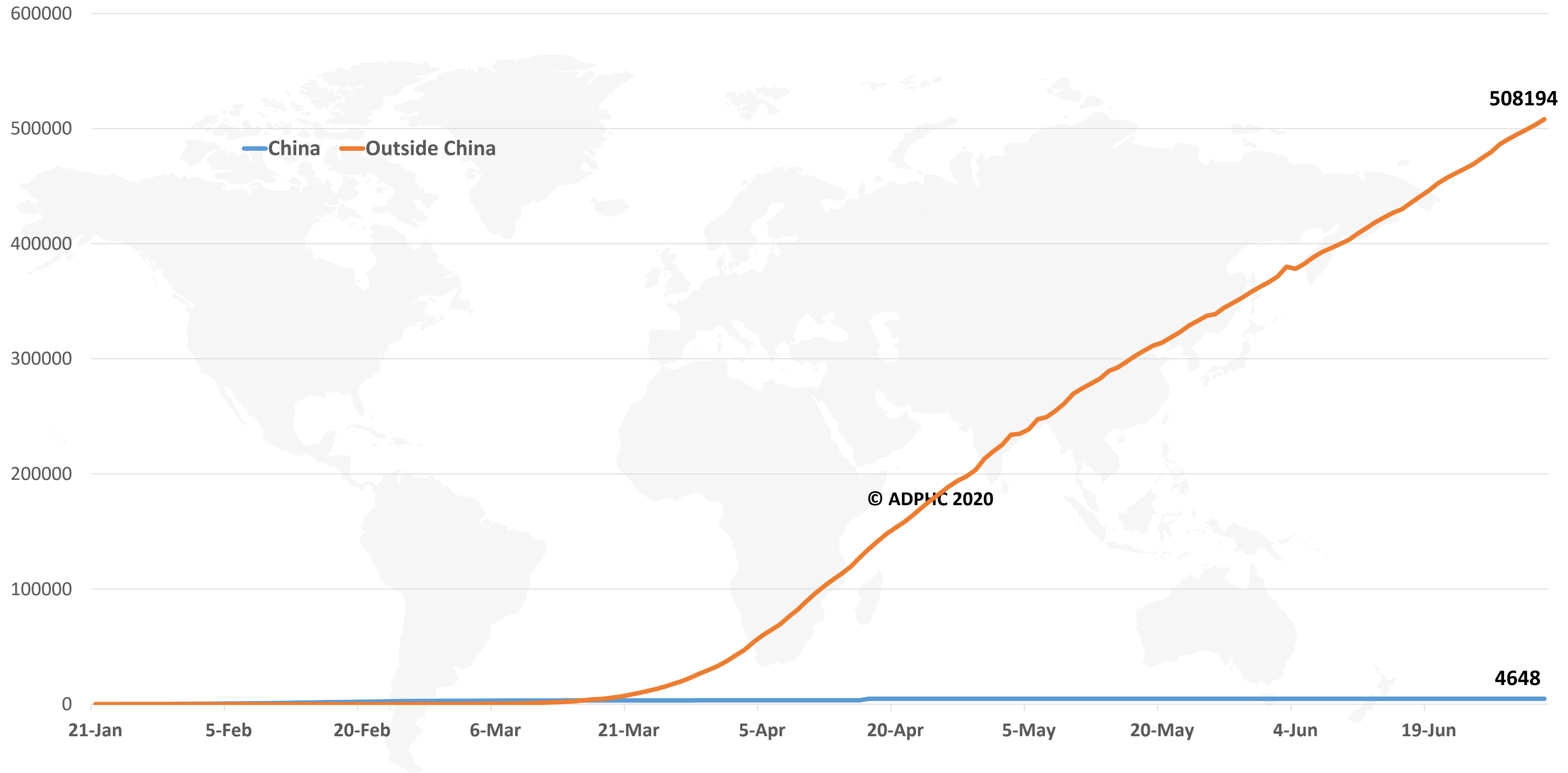
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Figure 5: Total number of death due to COVID-19 reported by China and the rest of the world (January 22 to July 2, 2020).



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Data resources: [WHO](#)

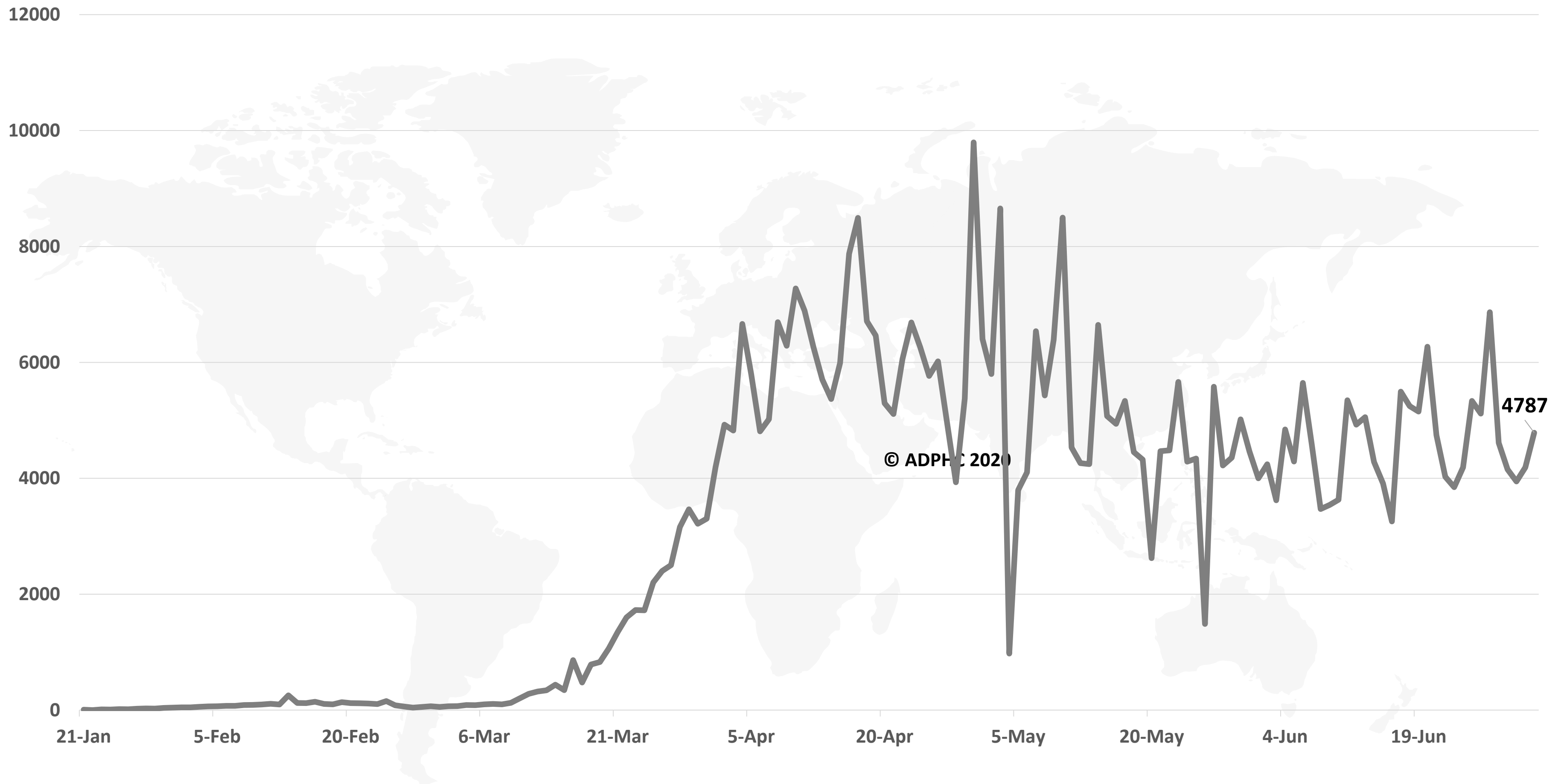
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Figure 6: Global daily new deaths due to COVID-19 (January 22 to July 2, 2020).



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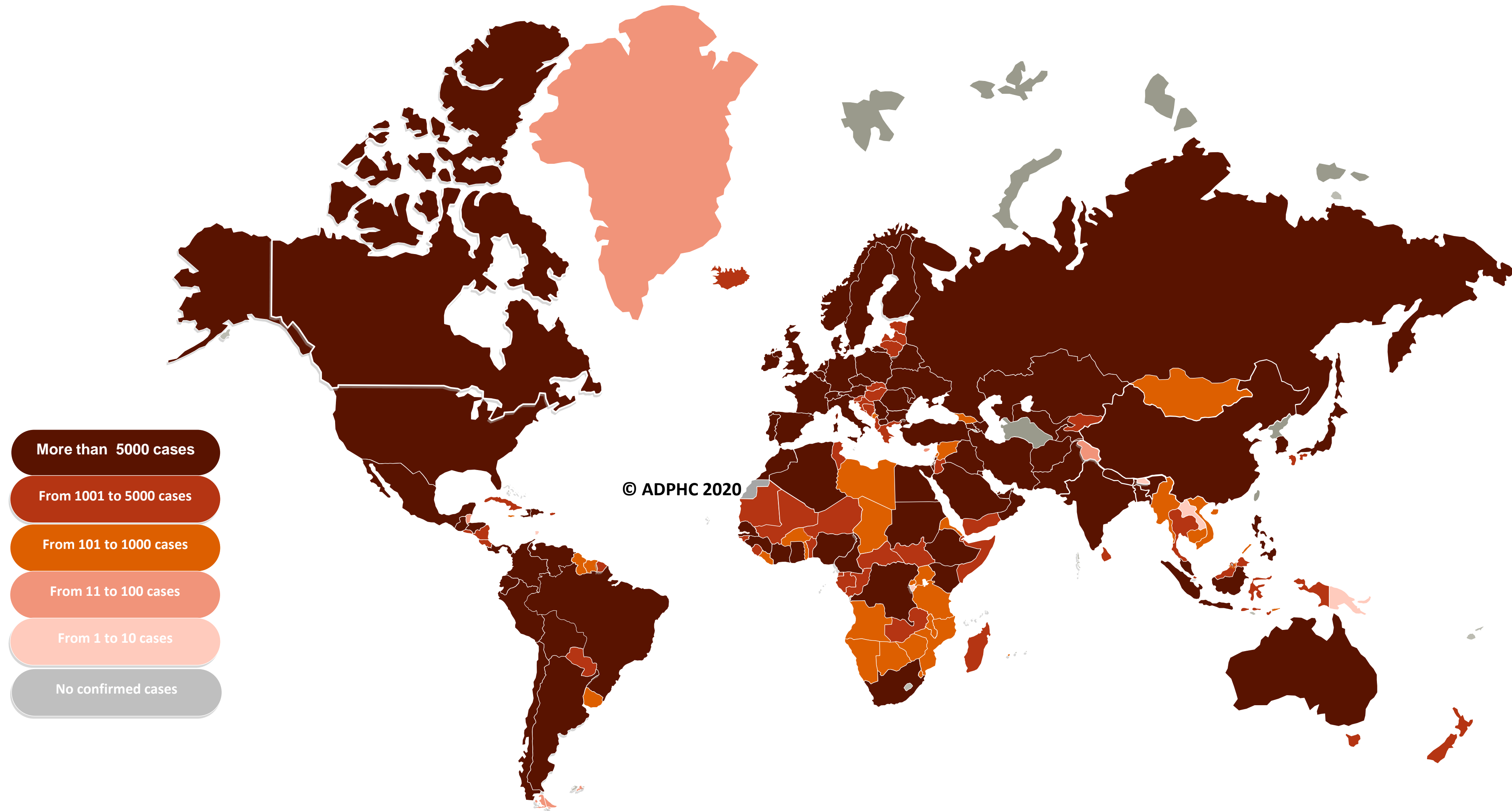
Data resources: [WHO](https://www.who.int/)

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Figure 7a : Global distribution of COVID-19 cases (July 2, 2020).



Line graph published by Abu Dhabi Public Health Center 2020.

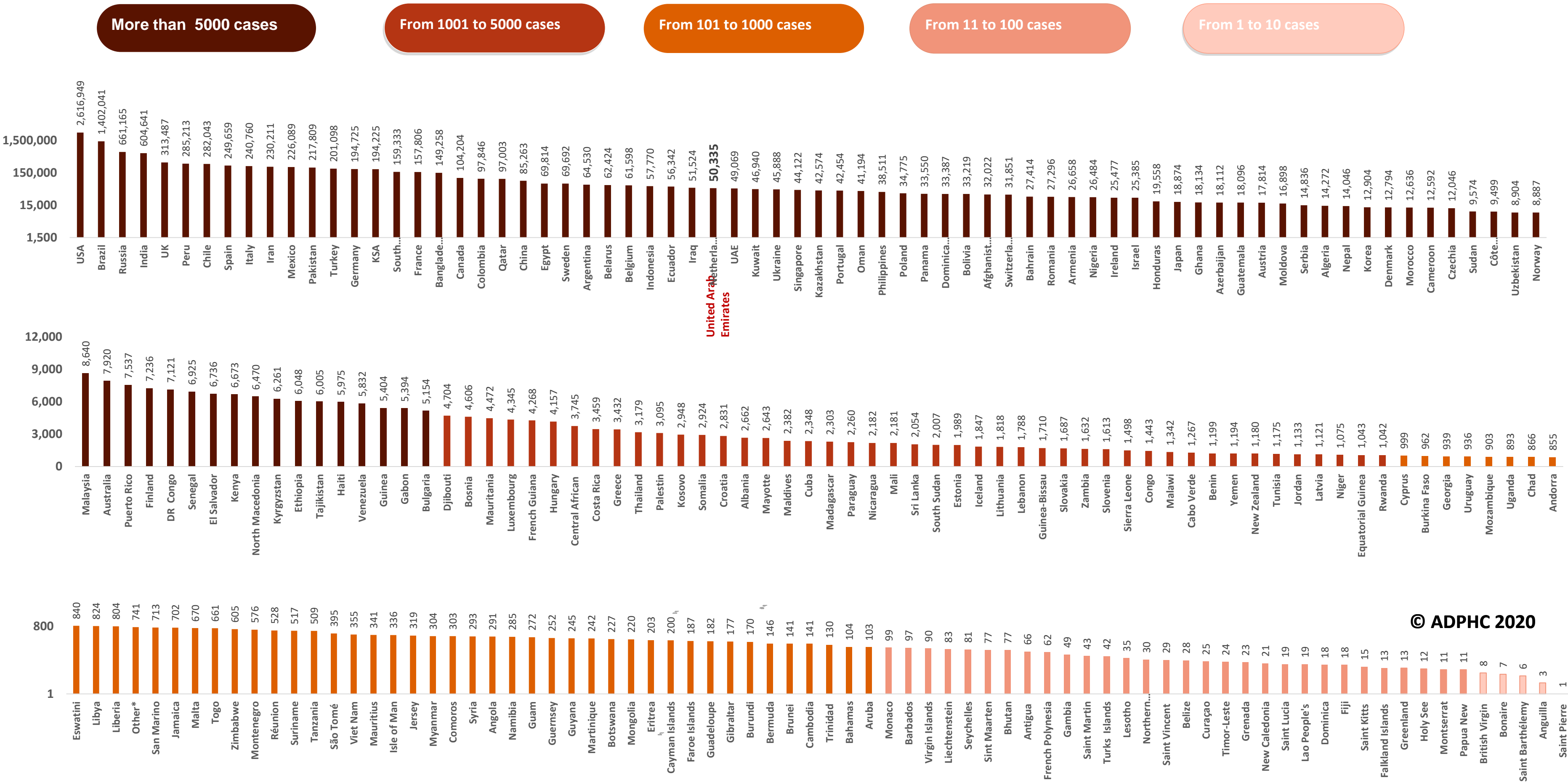
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Figure 7B: Bar chart illustrate the global distribution of COVID19 cases July 2, 2020)



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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.

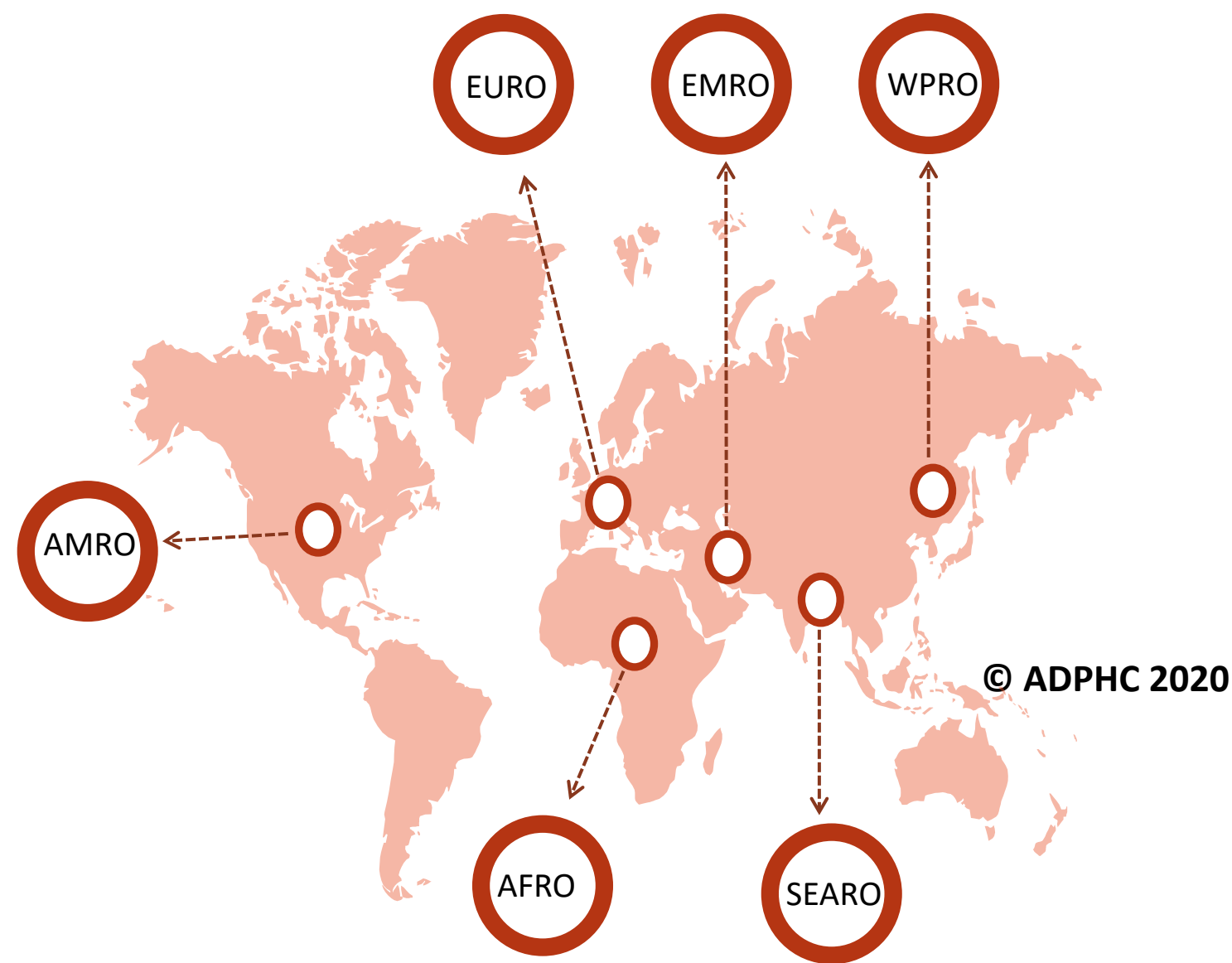
Data resources: [WHO](https://www.who.int/)

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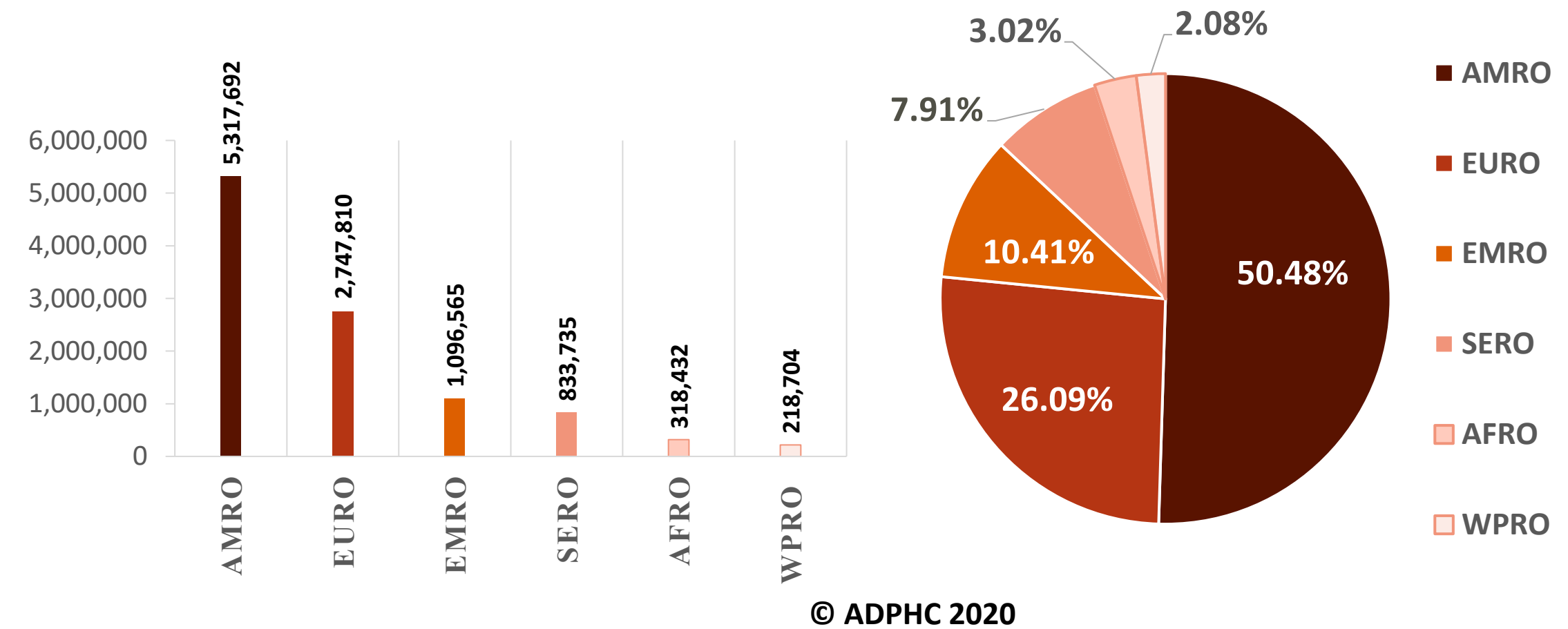
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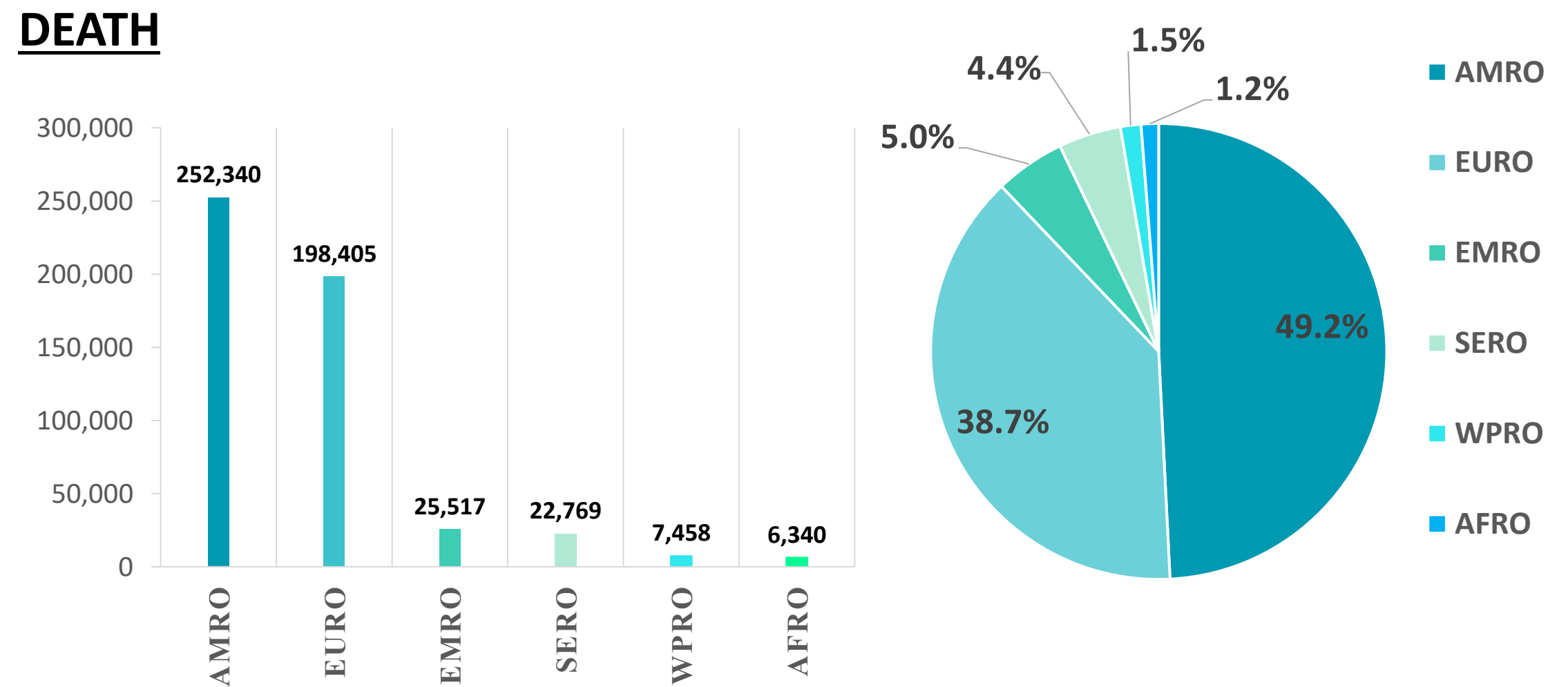
Figure 8: illustrate the Global distribution of COVID19 cases per region (July 2, 2020)



INFECTED



DEATH



Graphs published by Abu Dhabi Public Health Center 2020.

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

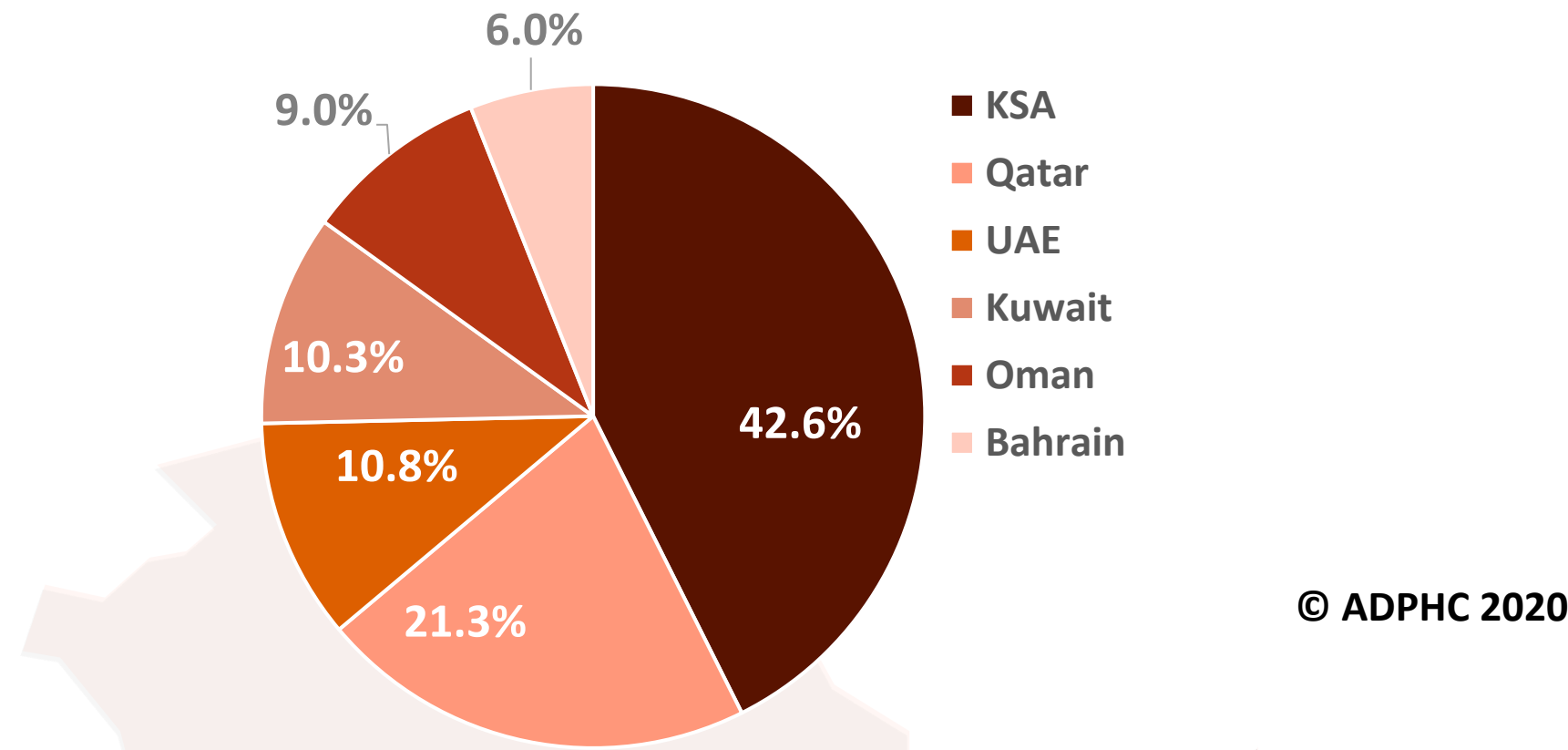
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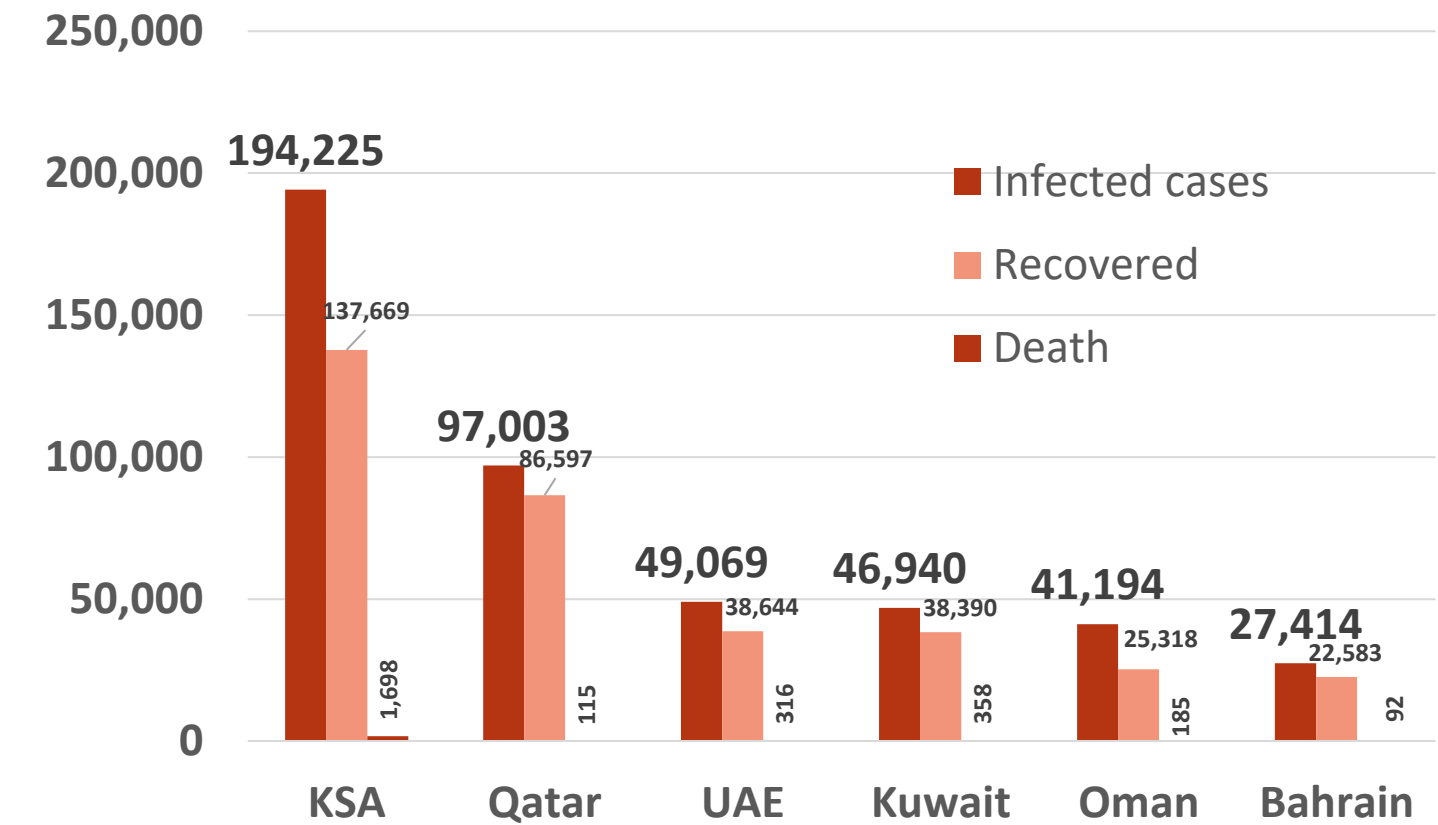
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Figure 9: Comparative analysis of the distribution of COVID19 cases in GCC countries (July 2, 2020)

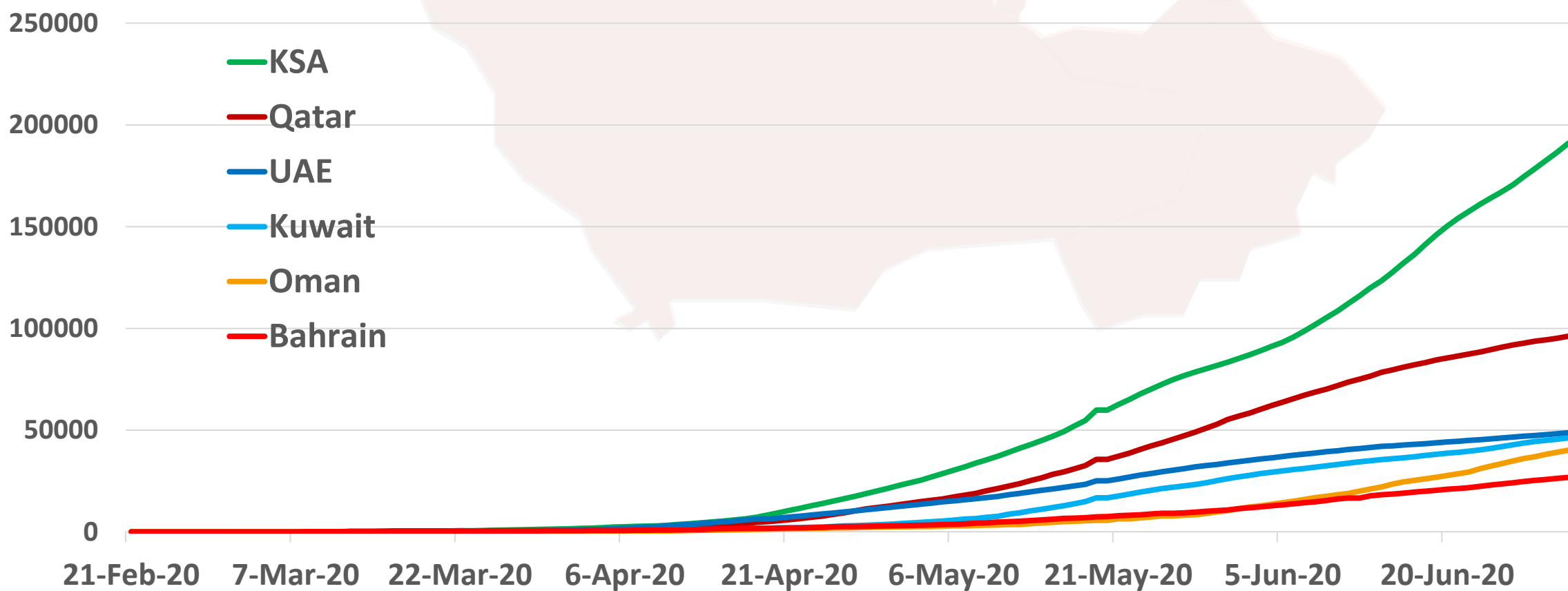
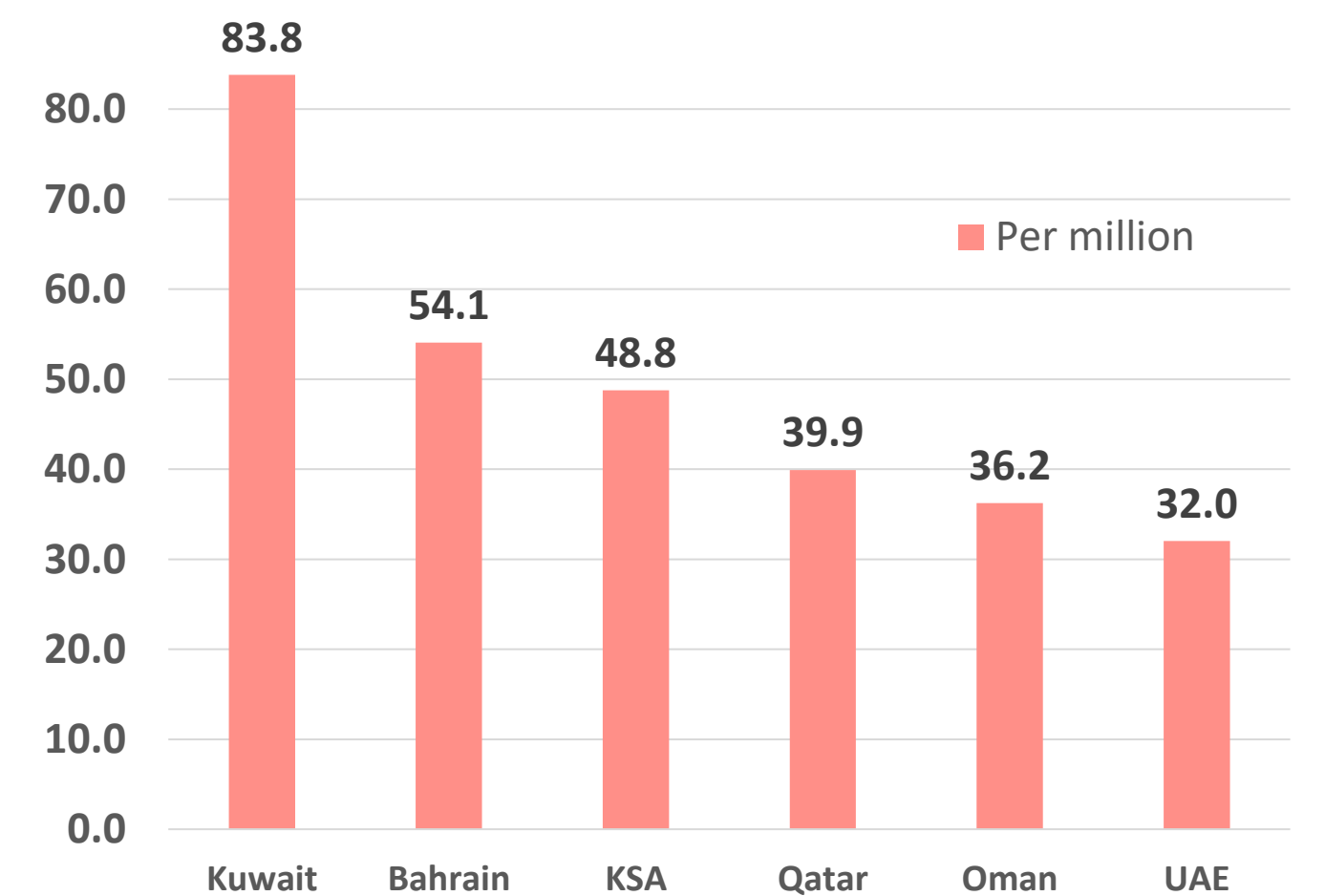
TOTAL NUMBER OF INFECTED CASES



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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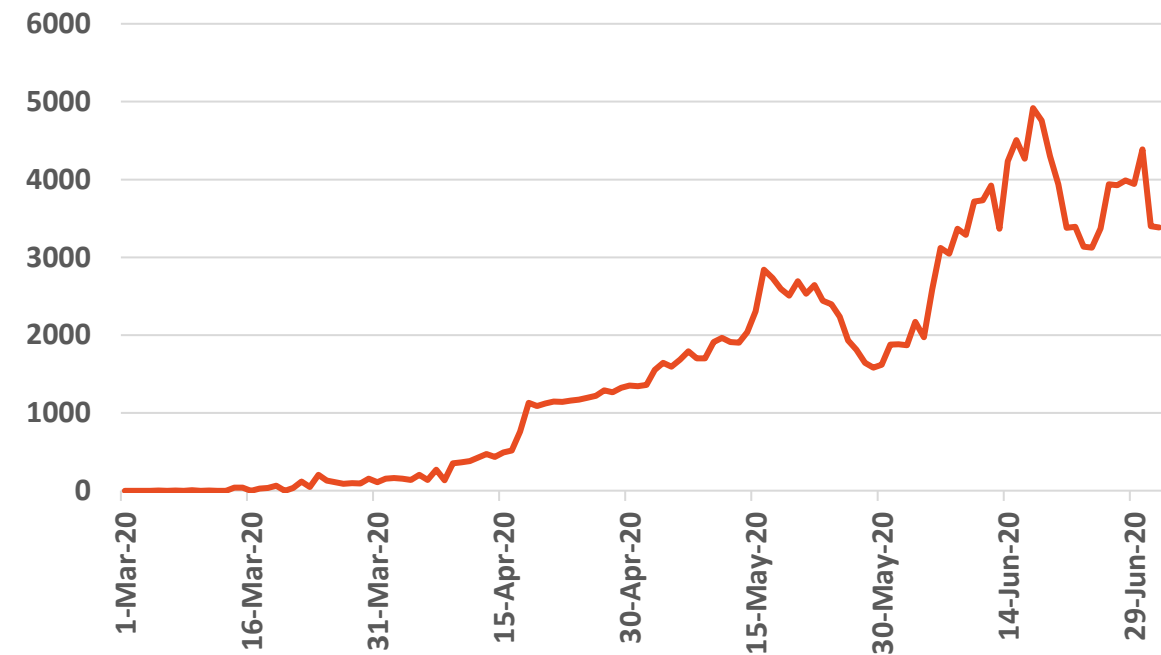
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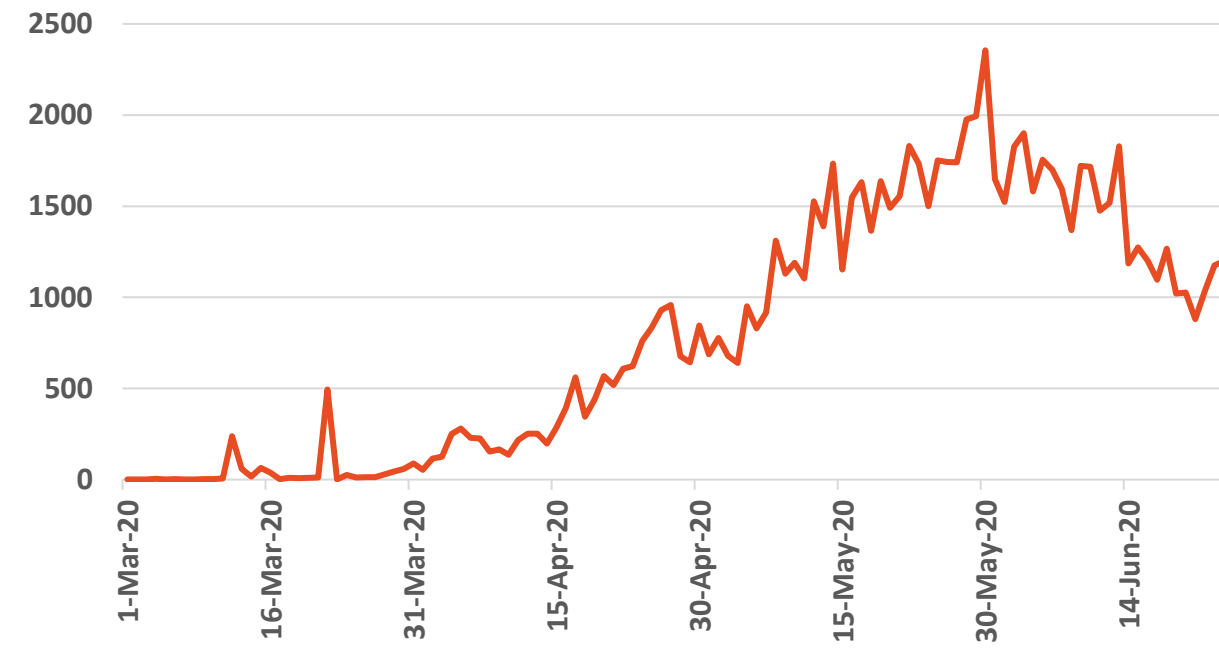
Figure 10: Comparative analysis of the distribution of COVID19 new cases in GCC countries July 2, 2020)

KSA



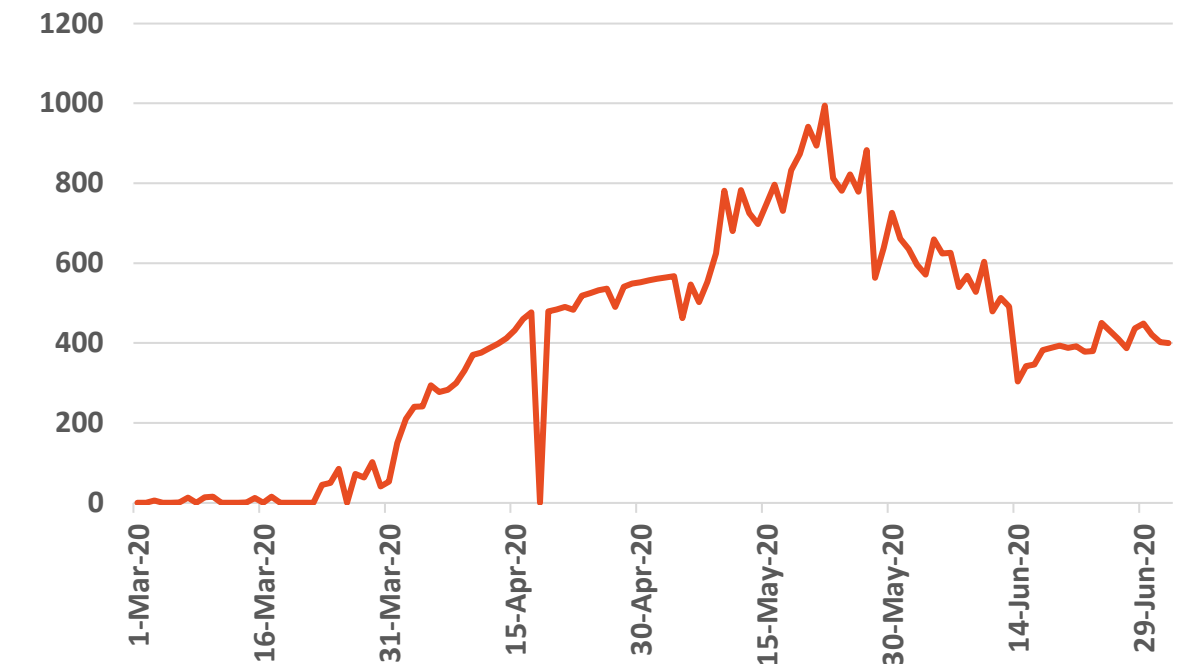
Source : KSA ministry of health

Qatar



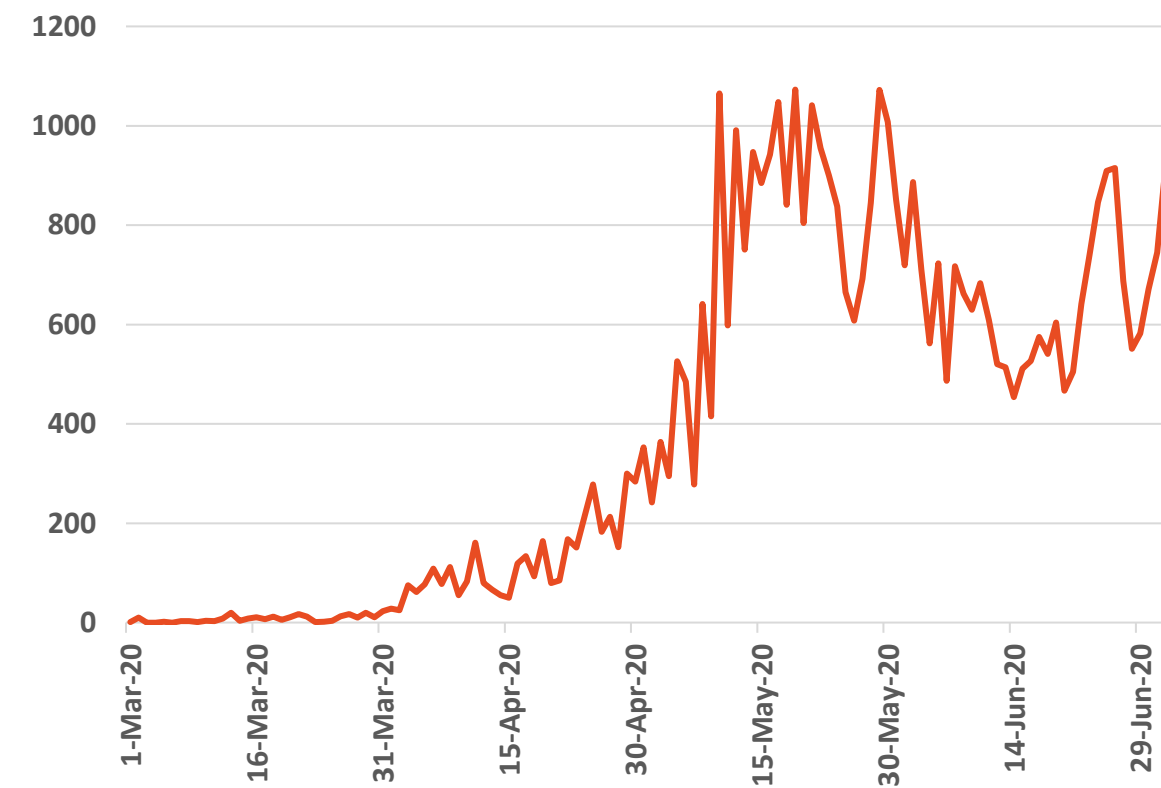
Source : Qatar ministry of health

UAE



Source : National Emergency Crisis and Disaster Management Authority

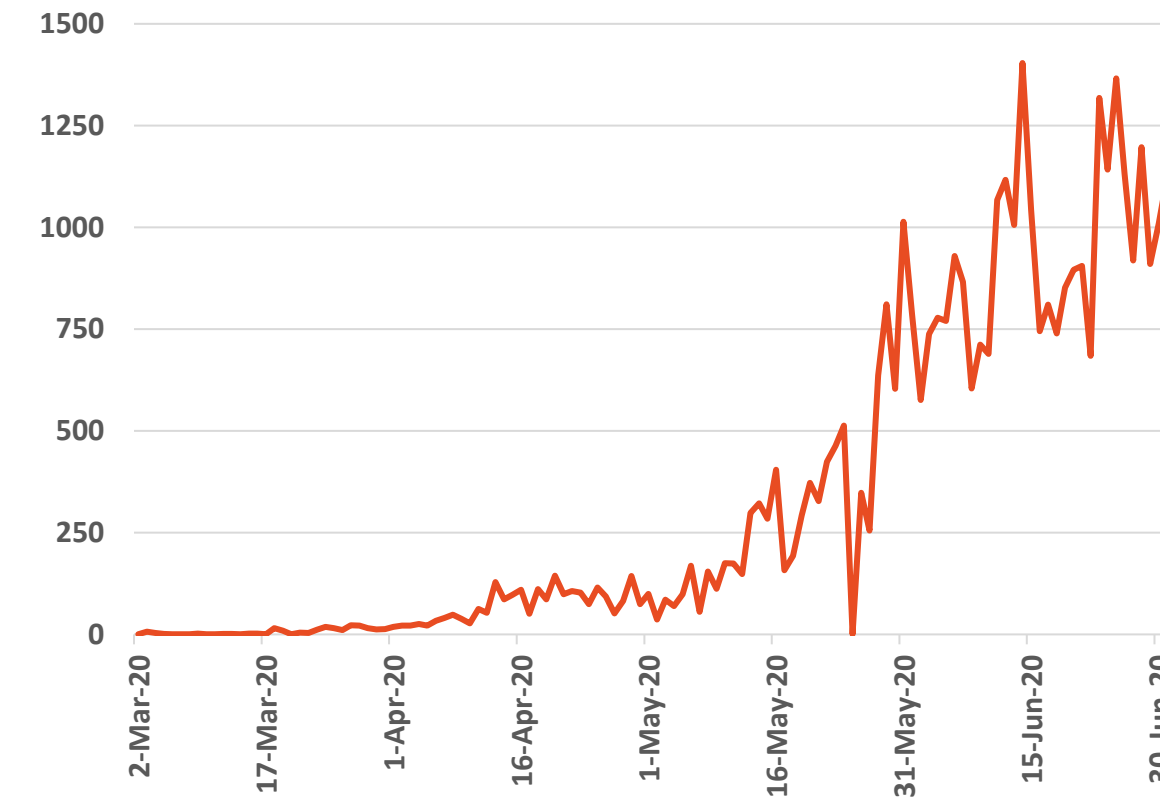
Kuwait



Source : Kuwait ministry of health

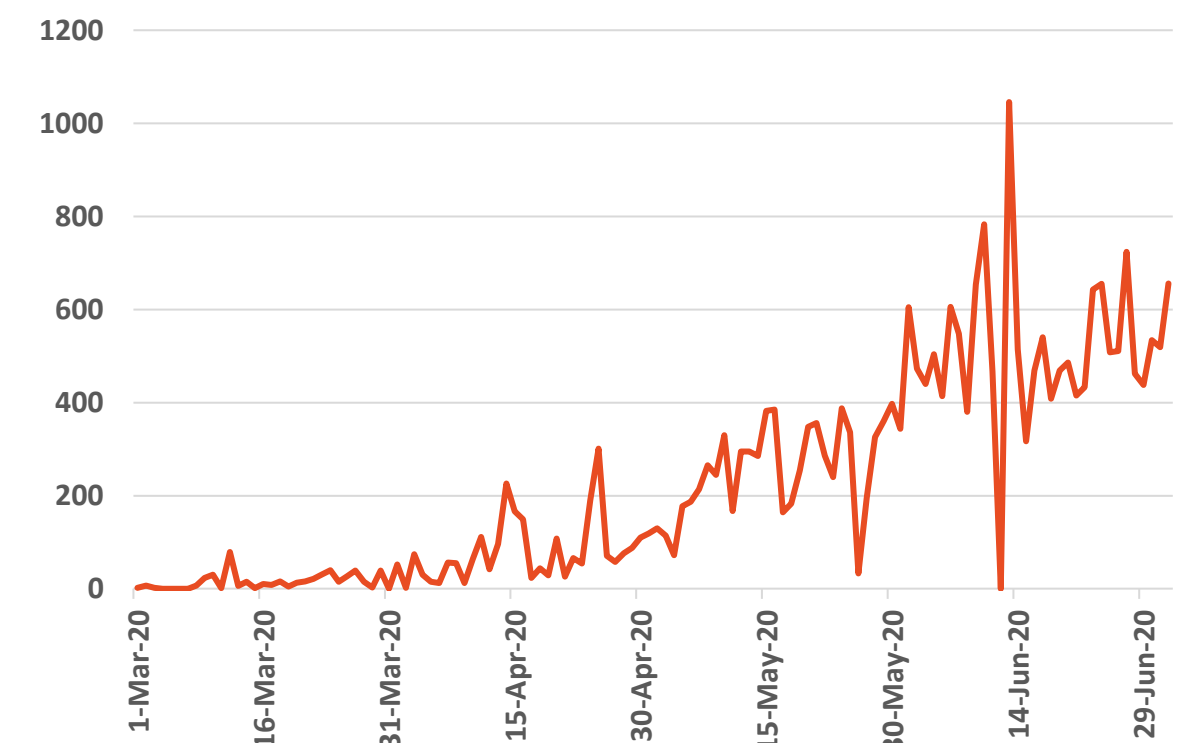
Oman

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Source : Oman ministry of health

Bahrain



Source : WHO

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Data resources: [WHO](#)

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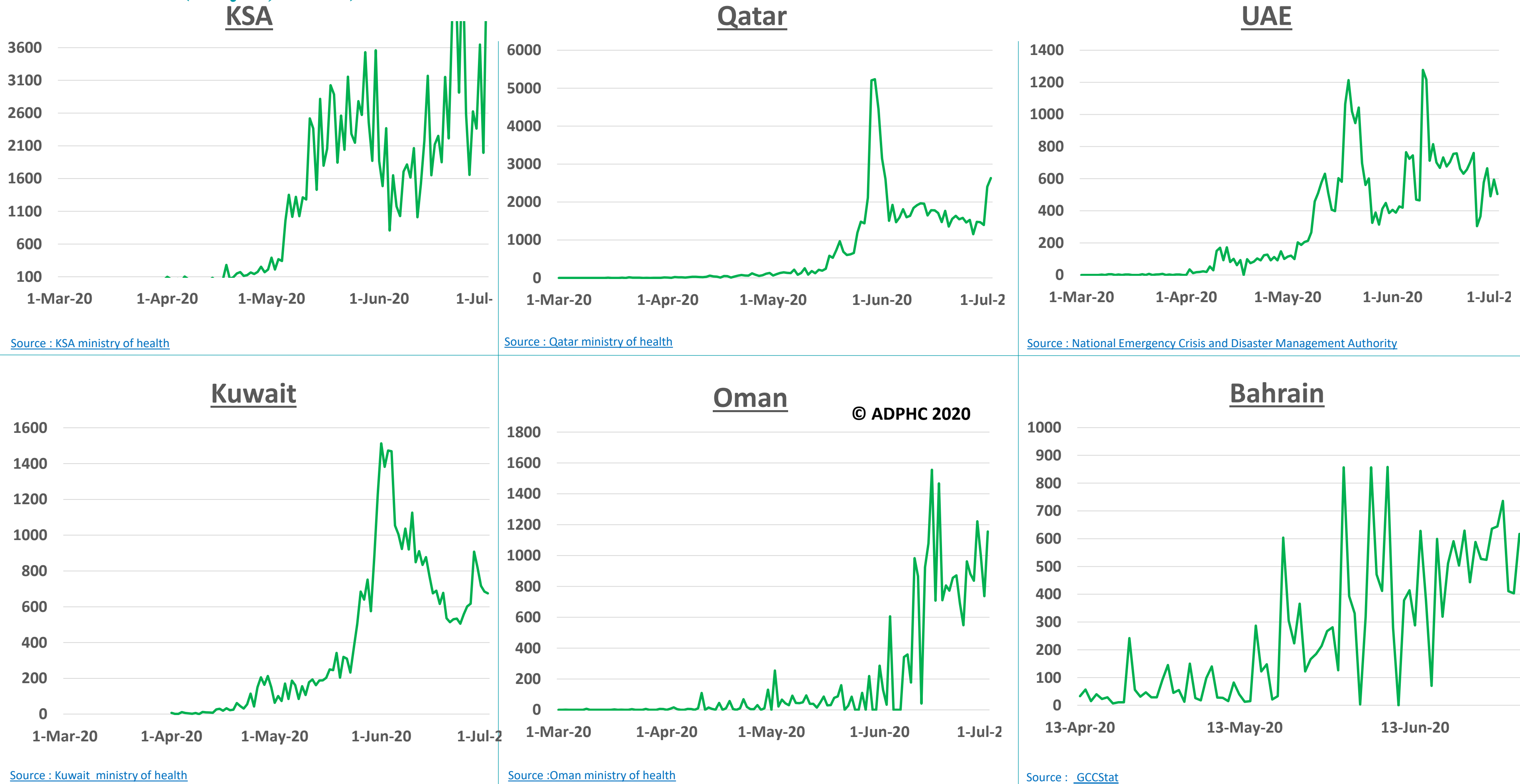
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Figure 11 : Comparative analysis of the distribution of COVID19 newly recovered cases in GCC countries (July 2, 2020)



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Data resources: [WHO](#)

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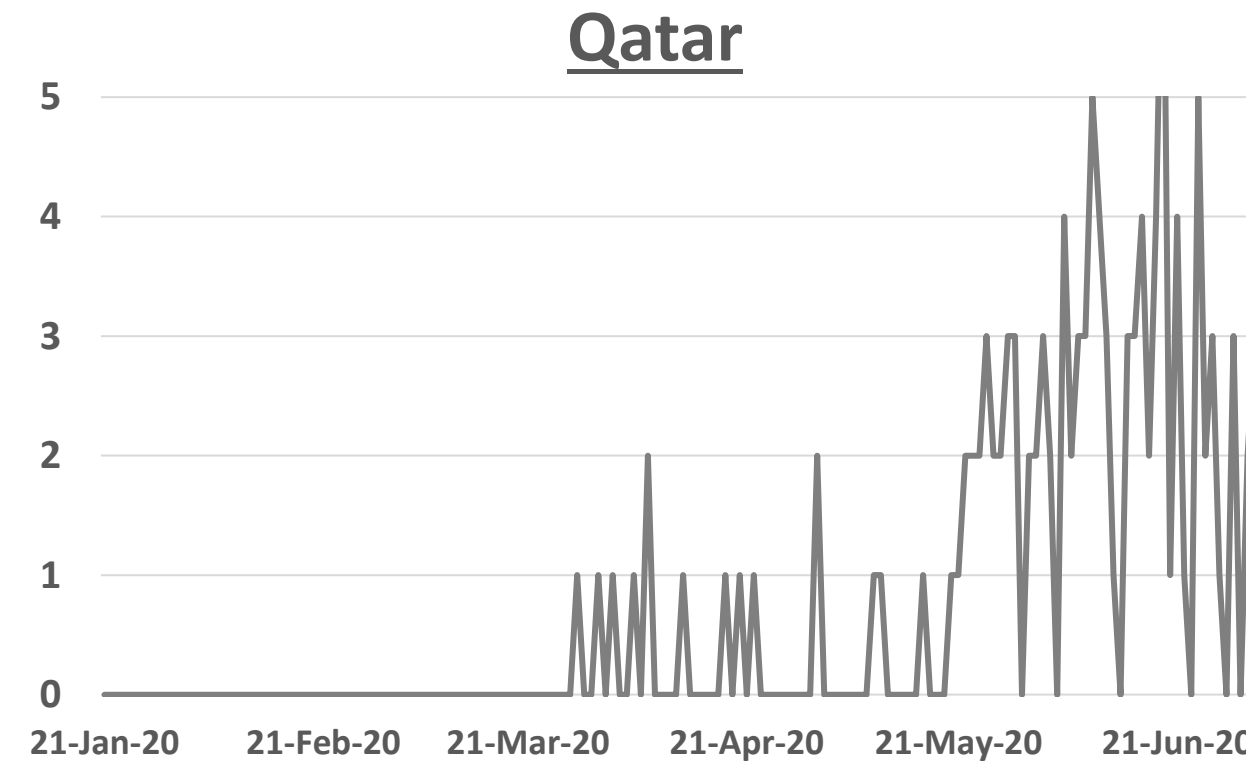
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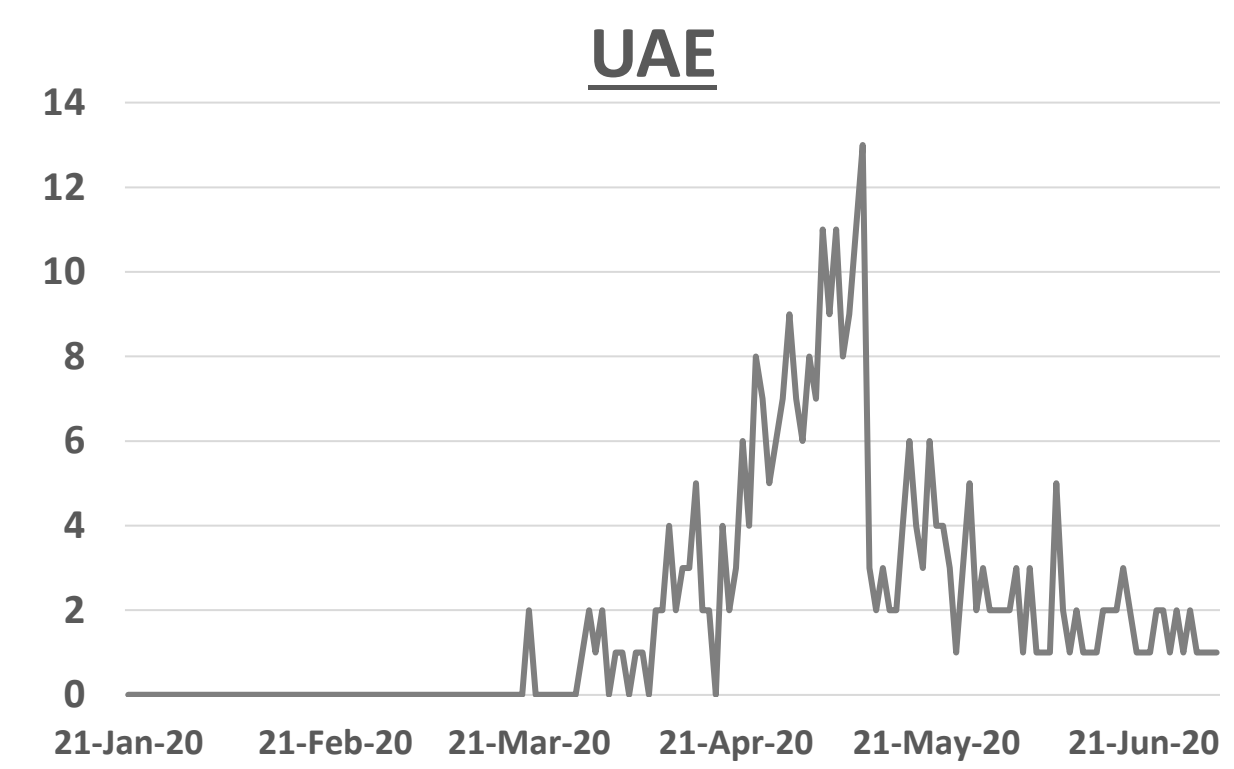
Figure 12: Comparative analysis of the distribution of COVID19 newly death cases in GCC countries (July 2, 2020)



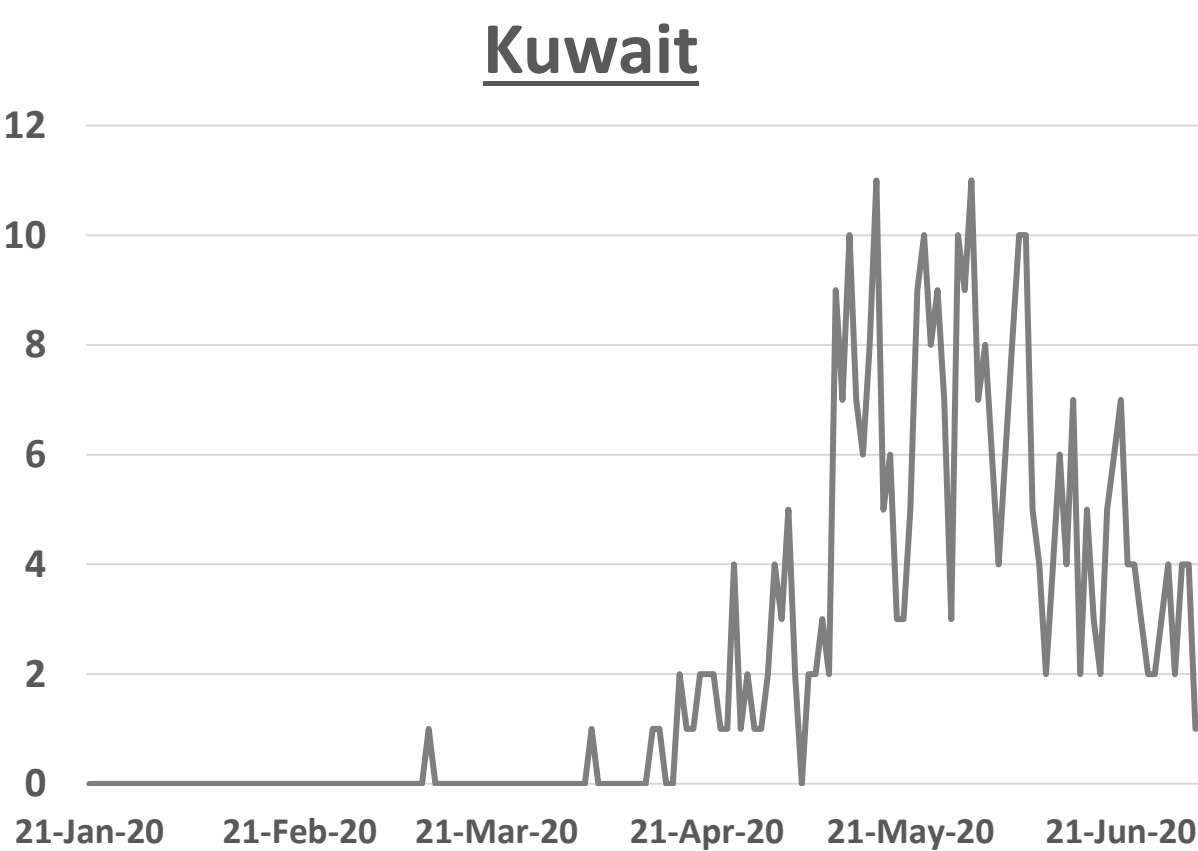
Source : KSA ministry of health



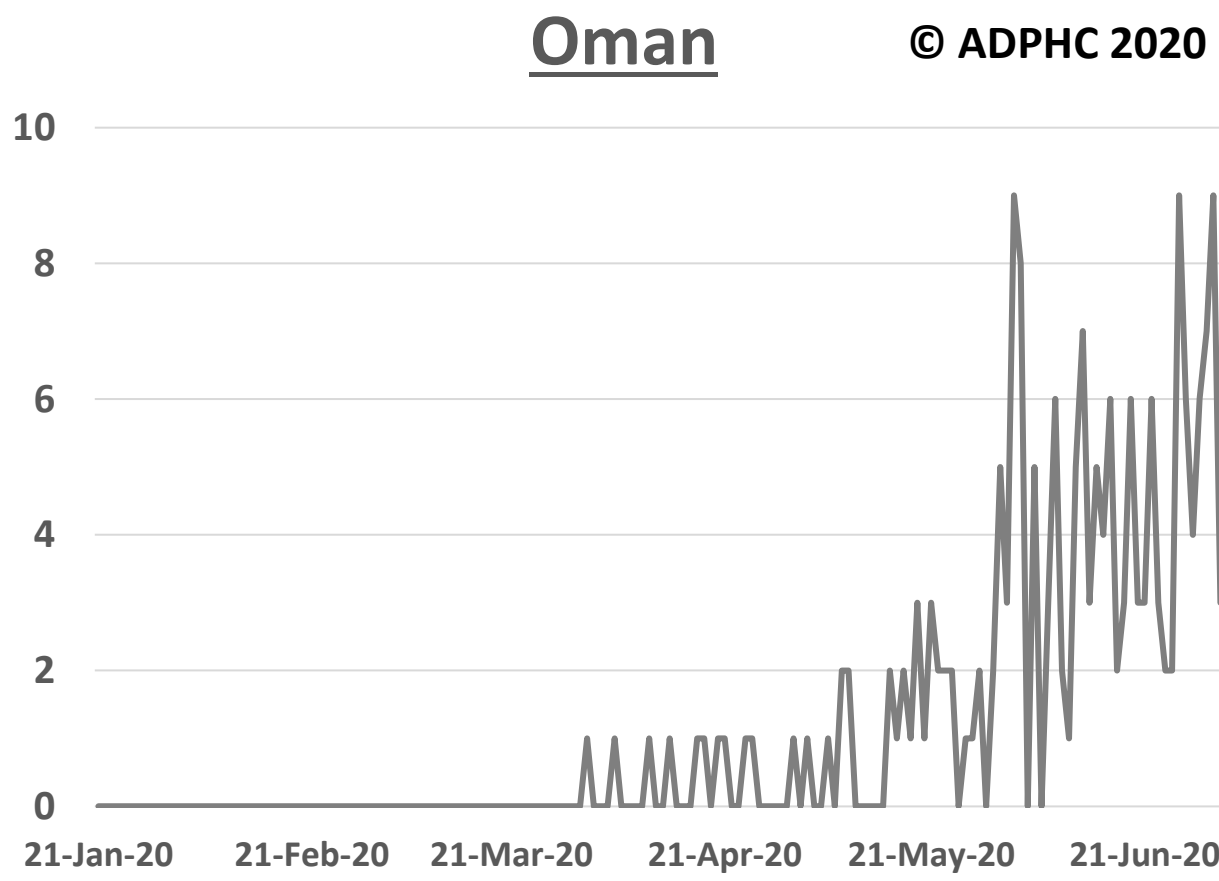
Source : Qatar ministry of health



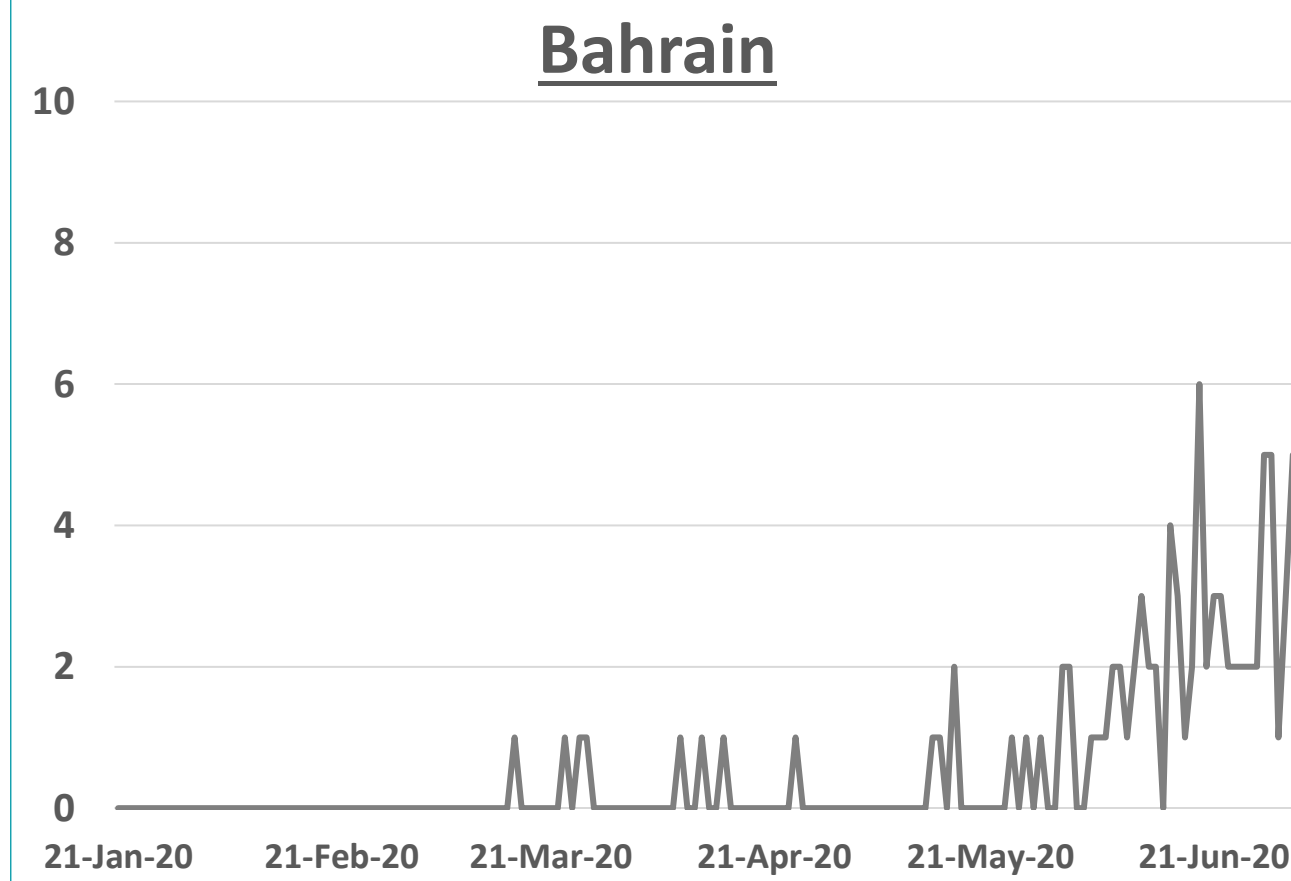
Source : National Emergency Crisis and Disaster Management Authority



Source : Kuwait ministry of health



Source :Oman ministry of health



Source :WHO



Article 1: Digital Tools Against COVID-19: Taxonomy, Ethical Challenges, and Navigation Aid

Published: 29 April 2020 [The Lancet](#)

Summary:

This health policy paper discuss the promises and risks of digital public health applications in response to Covid-19.

Background

- During Covid-19 pandemic, collection and use of data a key strategic remedy by governments and private sectors
- Data is collected from telephone towers, mobile phone apps, Bluetooth connections, surveillance video, social media feeds, smart thermometers, credit card records, wearables, and several other devices
- Technical limitations, ethical and legal risks because of increased digital surveillance are also present

Types of Digital Public Health Tools

- Proximity and contact tracing can identify when users are exposed to an individual that is positive SARS-CoV-2
- Symptom monitoring are tools of syndromic surveillance that collect, analyze, interpret, and disseminate health-related data
- Quarantine compliance tools involve the real-time monitoring of whether individuals who are symptomatic or non-symptomatic are complying with quarantine restrictions
- Flow modelling tools, known as mobility reports, quantify and track people's movements in specified geographical regions

Mapping Ethical and Legal Challenges

- Digital public health technologies raise ethical–legal considerations (principles of autonomy, justice, non-maleficence, privacy, and solidarity)
- Authors identified the following ethical and legal challenges for researchers and policy makers:
 - Ethical principle of beneficence or public benefit
 - Scientific validity and accuracy
 - Privacy protection
 - Autonomy preservation
 - Avoiding discrimination
 - Repurposing
 - Setting an expiration
 - Preventing digital inequality
- A limitation that authors noted is how to manage the competing ethical goals and suggested that this should be done in the context of specific technologies, health-care systems, and jurisdictions.



Updates: COVID-19 Global Research and Innovation Forum

Hosted: WHO from 1st – 2nd July 2020.

Summary of 2nd Day:

- WHO hosted its second research forum on COVID-19 pandemic inviting researchers and scientists from around the world
- Several topics were discussed during the second day with emphasis on vaccine development and other promising research areas
- Dr. Farida Alhosani represented the UAE (the only physician from the Arab world who had the privilege to present at this esteemed forum), conferred the priorities and research needs in epidemiological studies
- Dr. Farida Alhosani addressed issues surrounding the need for more research to understand transmission on the asymptomatic spread of COVID-19, development of biomarkers and indicators to identify the severity of disease and the need to have modelling studies which can help identify most effective non-pharmacological interventions

- Other presenters addressed the research needs on animal and environmental studies and diagnostic research.

One of the most prominent topics for discussion was on vaccines:

- WHO presented information on SOLIDARITY Trial for vaccines (Table 1)
- Ability to identify vaccine safety is dependent on the following:
 - Number of participants
 - Number of COVID19 infection
 - Length of follow up of study
- Presenters estimated that likelihood and timing of success of true vaccine efficacy needs minimum 4 to 5 months

Special Updates



Updates: COVID-19 Global Research and Innovation Forum

Hosted: WHO from 1st – 2nd July 2020.

Summary of 2nd Day:

Table 1 : information on WHO SOLIDARITY Trial on Vaccines

Trial design	iRCT (15)
Target population	General at-risk population(15) Healthy Adults (15), elderly (8), children (3), HIV+(1), pregnant women(1), HCW(1)
Primary endpoint	Lab-confirmed COVID-19 disease(13), SARS-CoV2 infection (1), Immune markers(1)
Secondary endpoints	Immune markers (e.g. nAbs, IgG) Safety markers (e.g. Disease Enhancement) Asymptomatic infections
Length of follow up	24 months (3) 12 months (12)
Sample size	>30,000 (2) 10,000-30,000(9) <10,000 (4)
Enrollment strategies	Sites with moderate disease attack rate No compelling social distancing and isolation measures Back up study sites
Safety evaluation	Solicited and unsolicited AE, SAE, AESI, MAAE



Currently more than 40 countries involved on the trial



THANK YOU

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