

# SCIENTIFIC RESEARCH MONITORING ON COVID-19

16 OCTOBER 2020

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# SCIENTIFIC RESEARCH MONITORING ON COVID-19

## (ISSUE 257)

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**  
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**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](mailto:PHP@adphc.gov.ae)

# RESEARCH UPDATES

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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

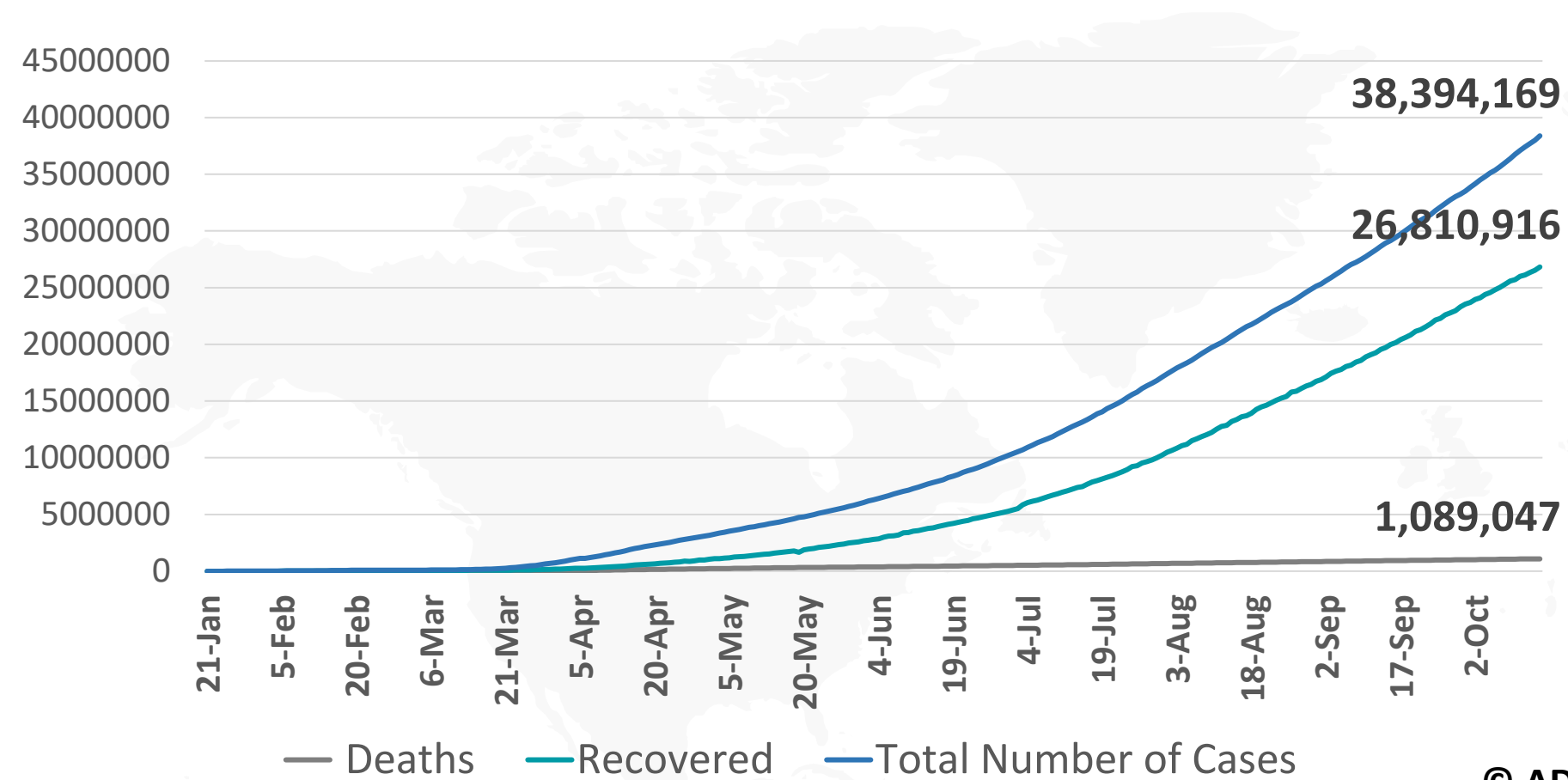
**Science Is Needed to Rescue the Nation From COVID-19, but Not Just Traditional Biomedical Science**

## Public Health Response

**The COVID-19 “Return-to-Learning” Natural Experiment**

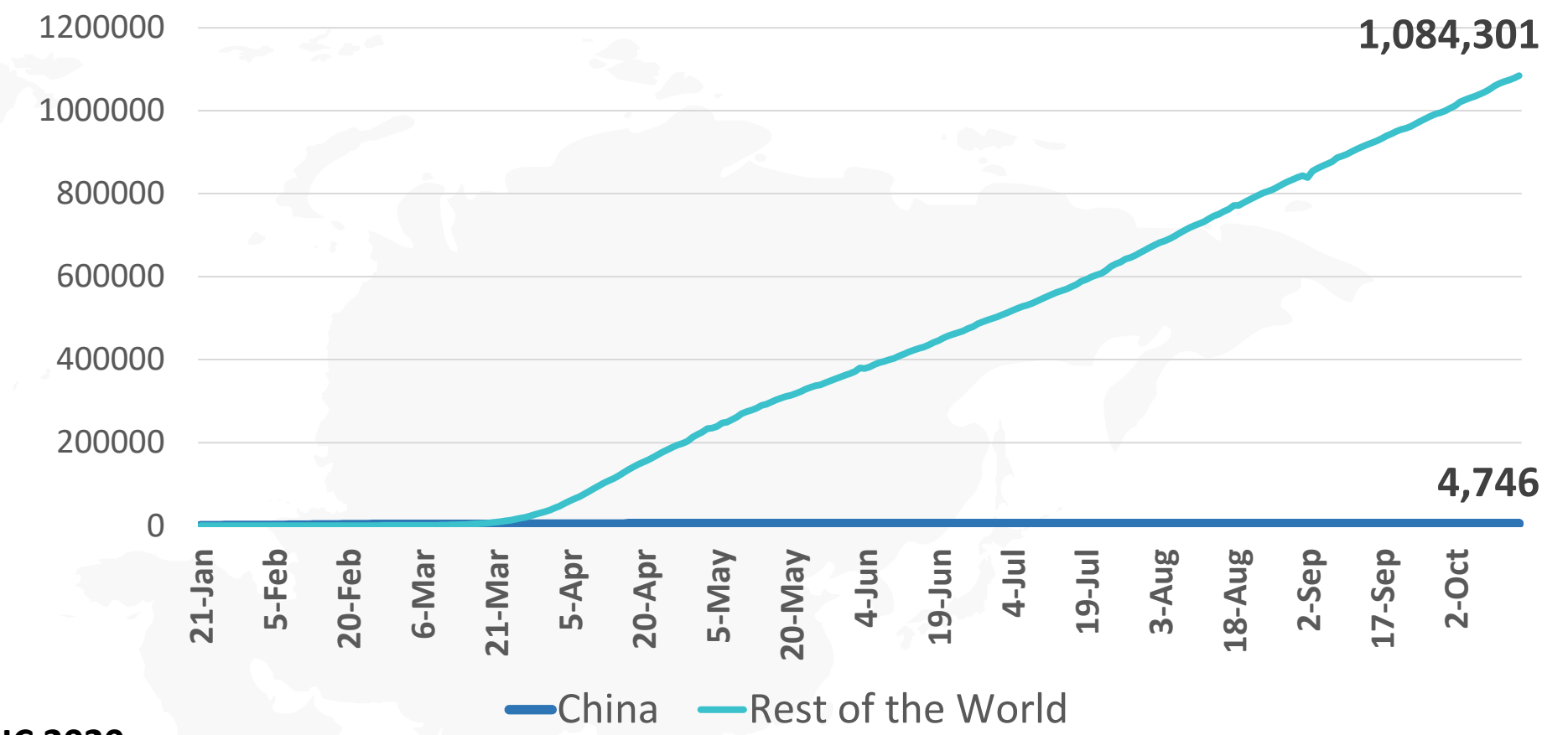


**Figure 1: Total Number of Infected, Recovered, and Death Cases**

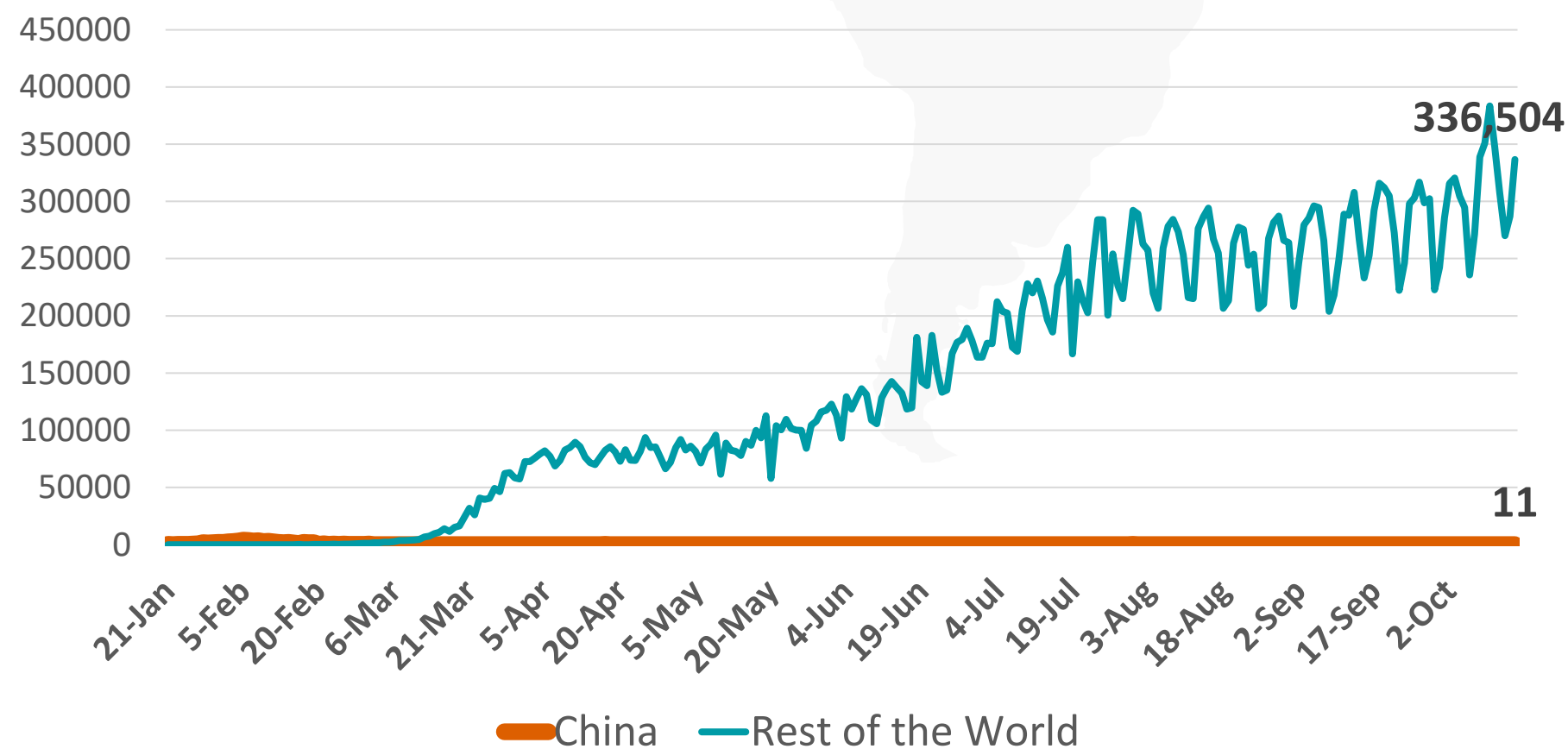


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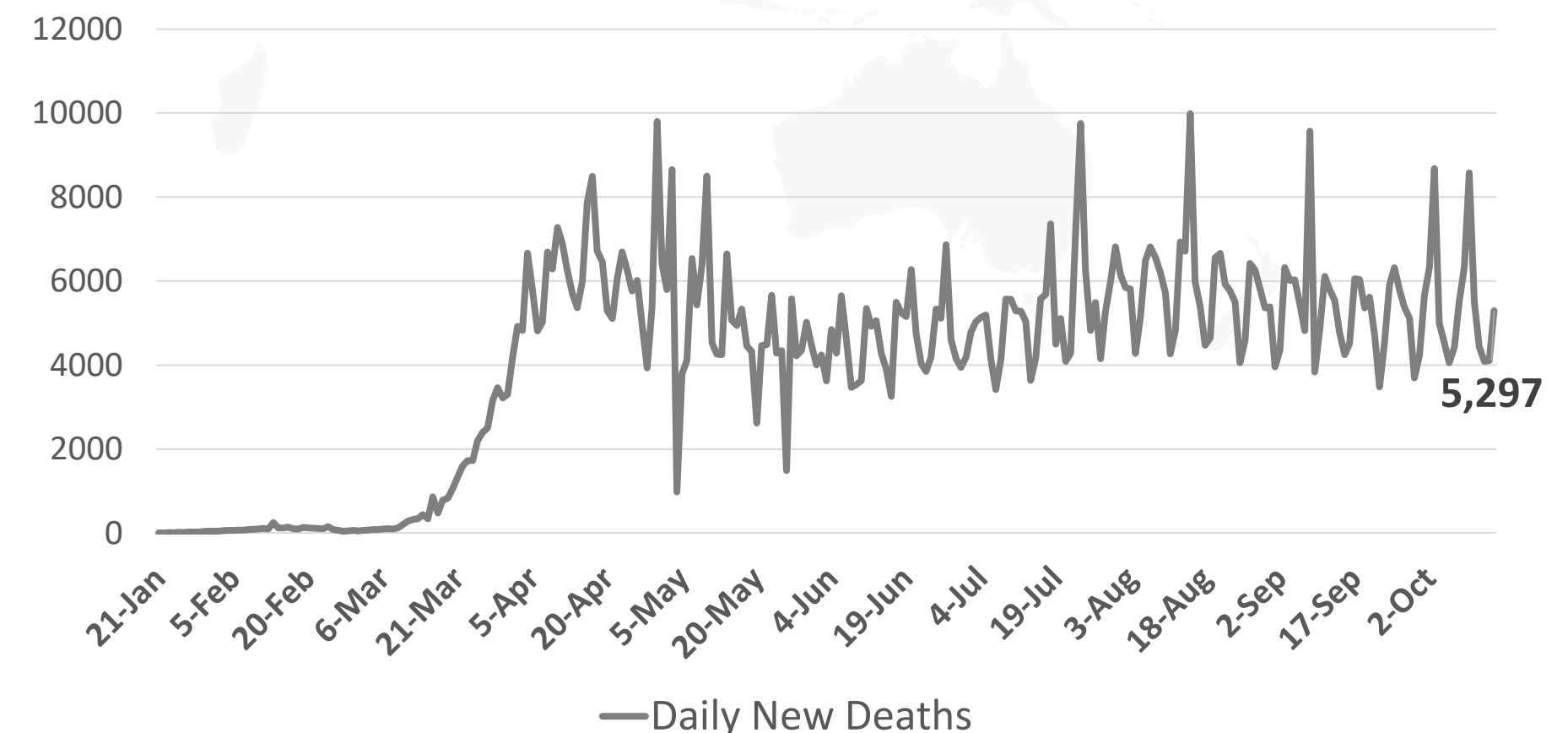
**Figure 3: Total Number of Death Due to COVID-19 (china and result of the world)**



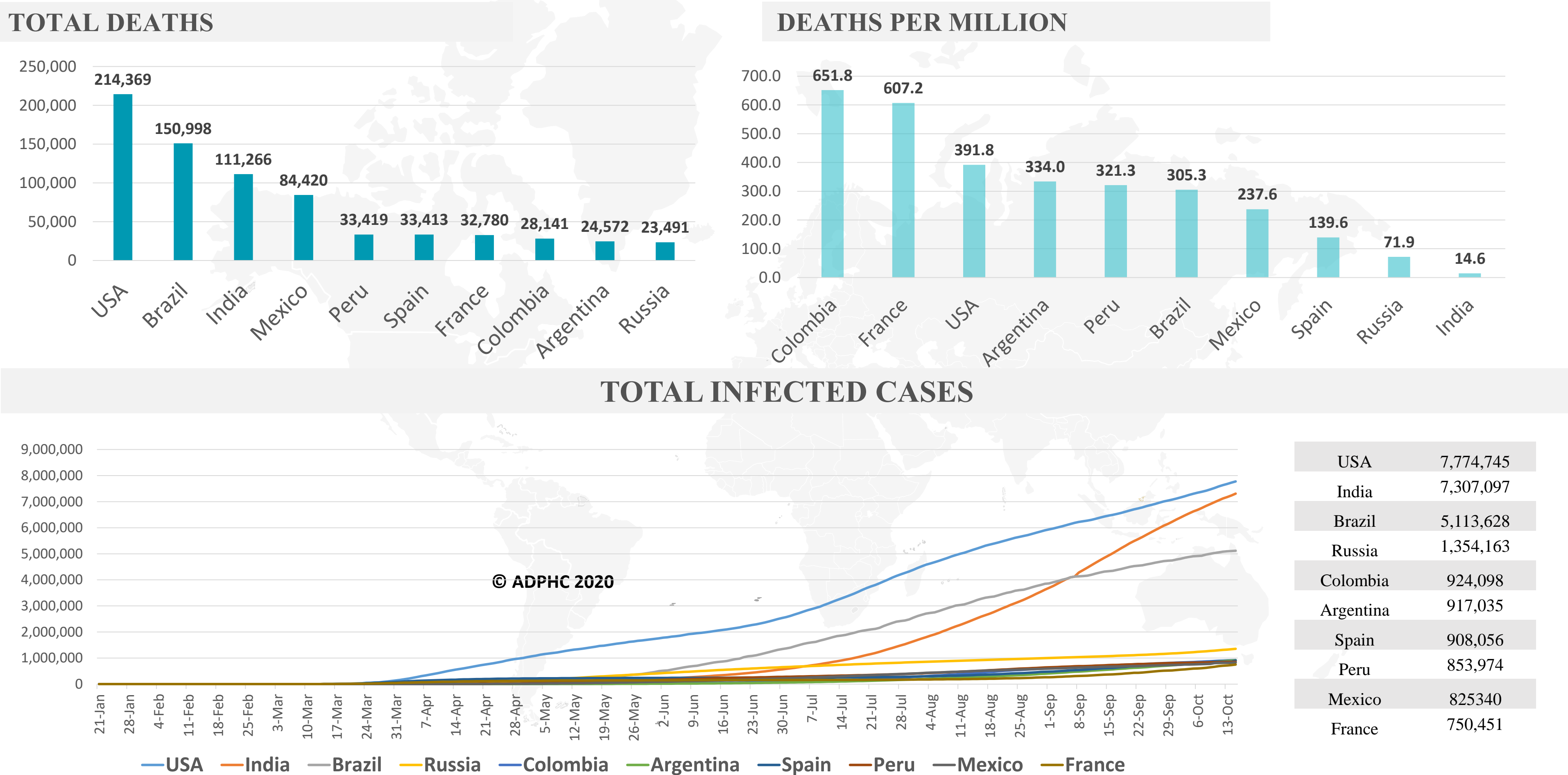
**Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)**



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

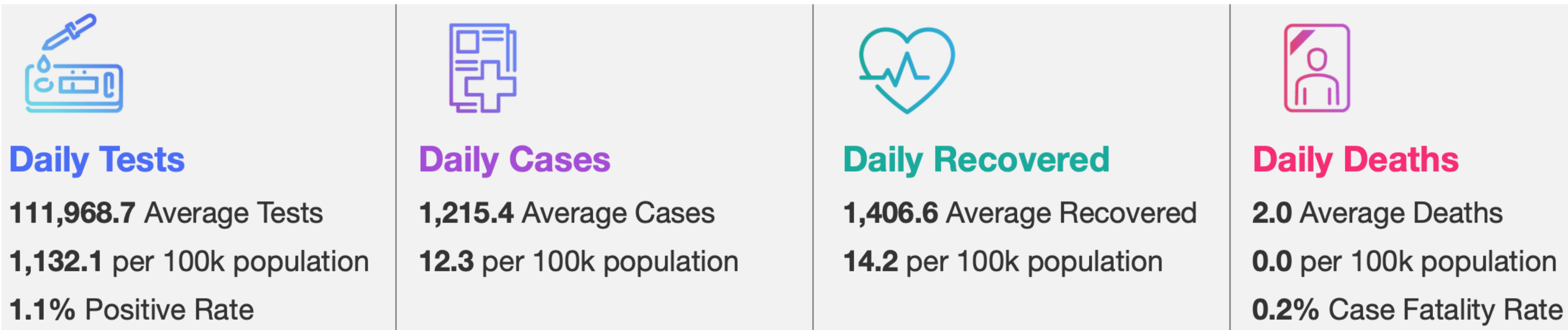


## Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19

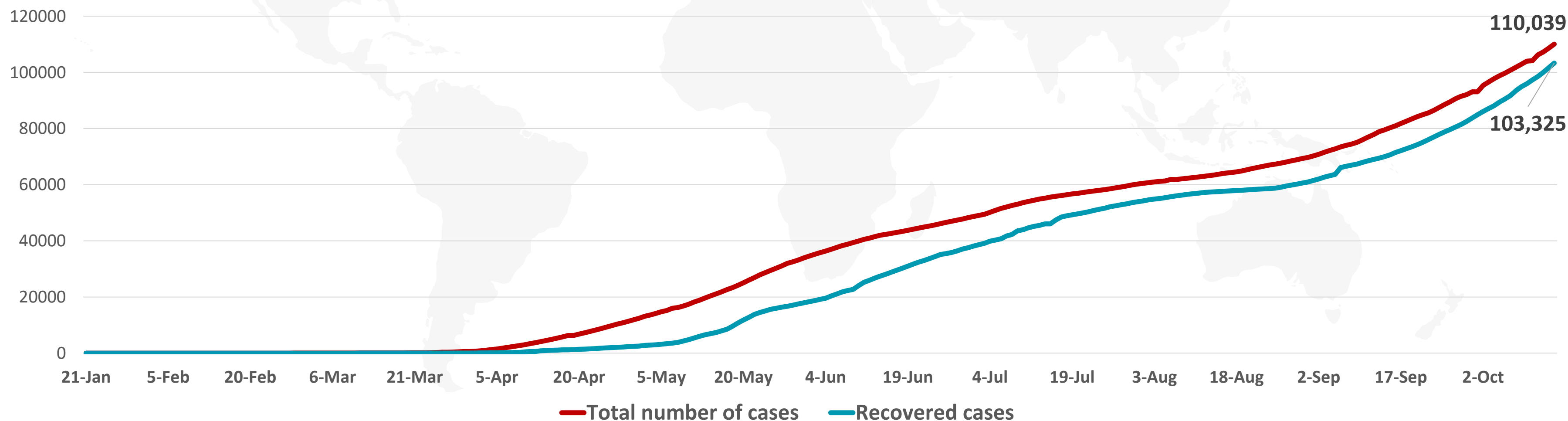


USA	7,774,745
India	7,307,097
Brazil	5,113,628
Russia	1,354,163
Colombia	924,098
Argentina	917,035
Spain	908,056
Peru	853,974
Mexico	825,340
France	750,451

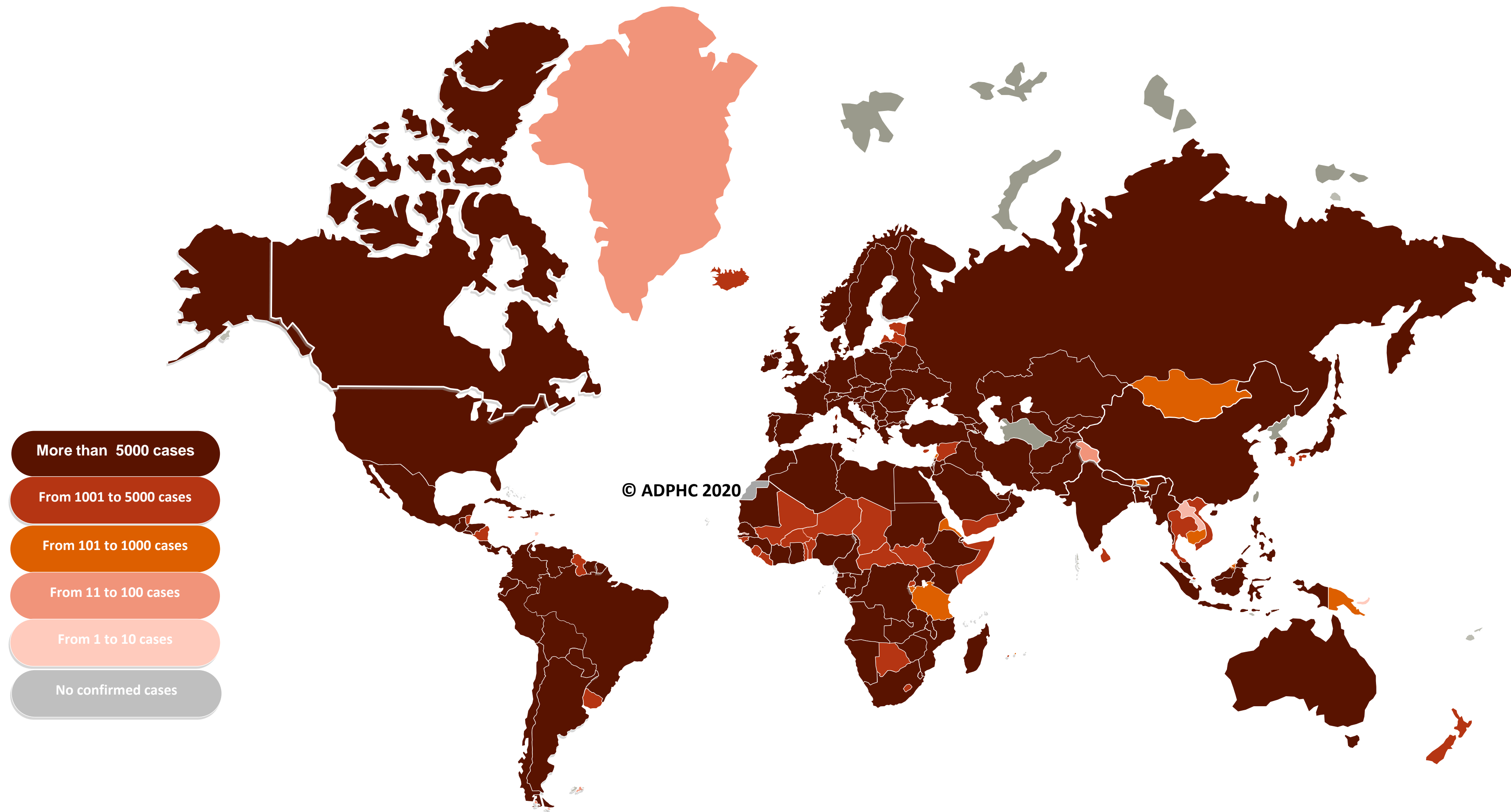
**Figure 6: COVID-19 Status in the UAE** (Federal Competitiveness and Statistics Authority Dashboard)



## 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

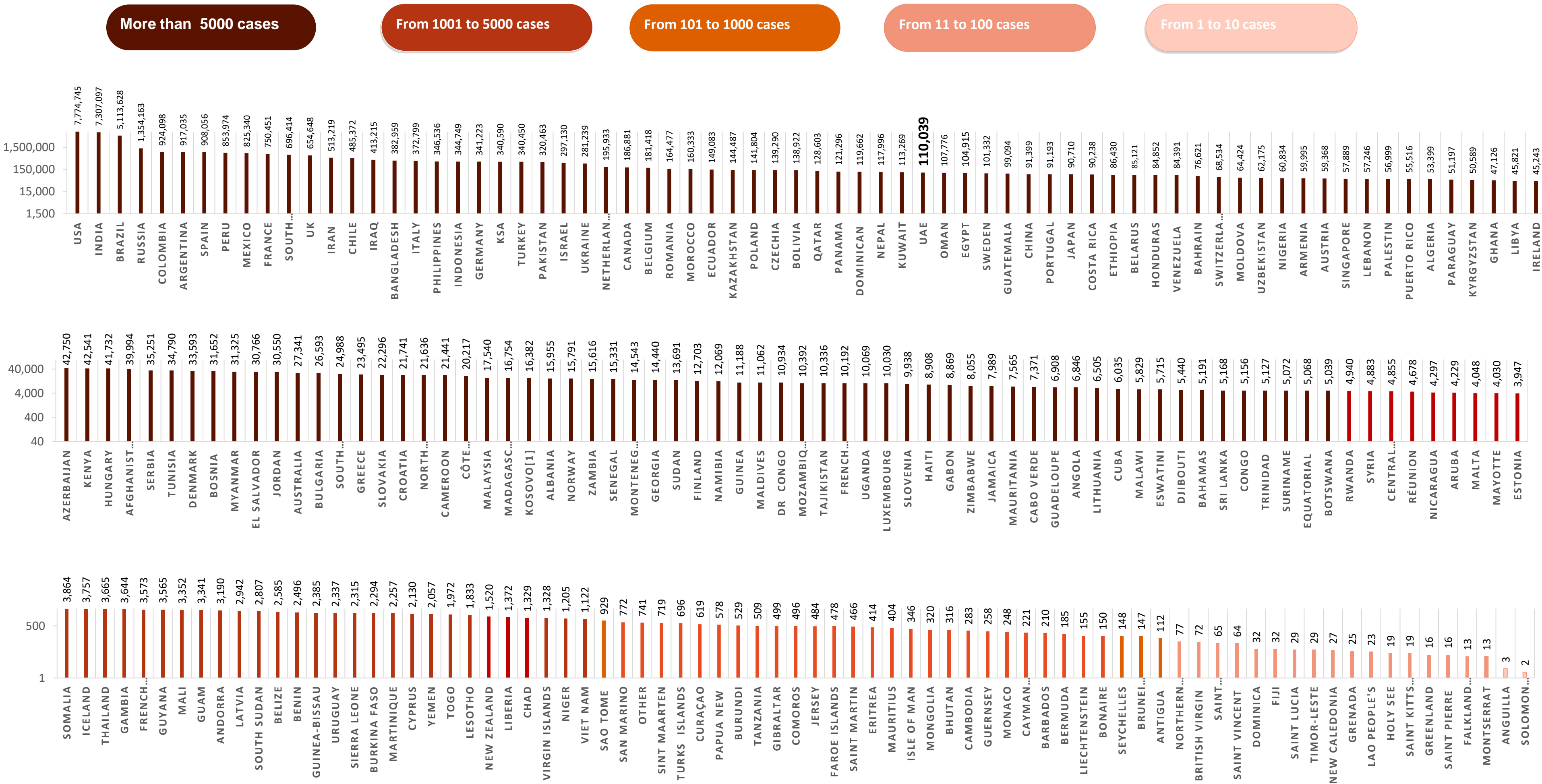
From 101 to 1000 cases

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)



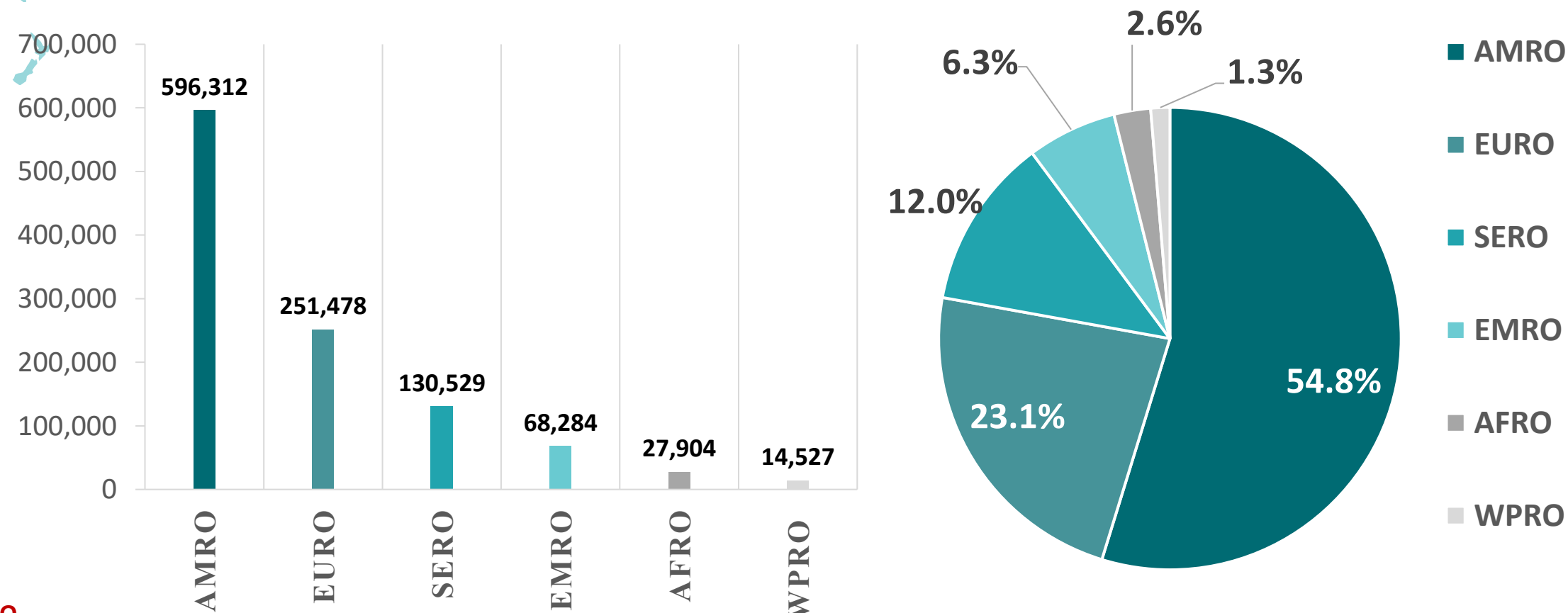


Figure 8: Global Distribution of COVID-19 Cases per Region

## INFECTED



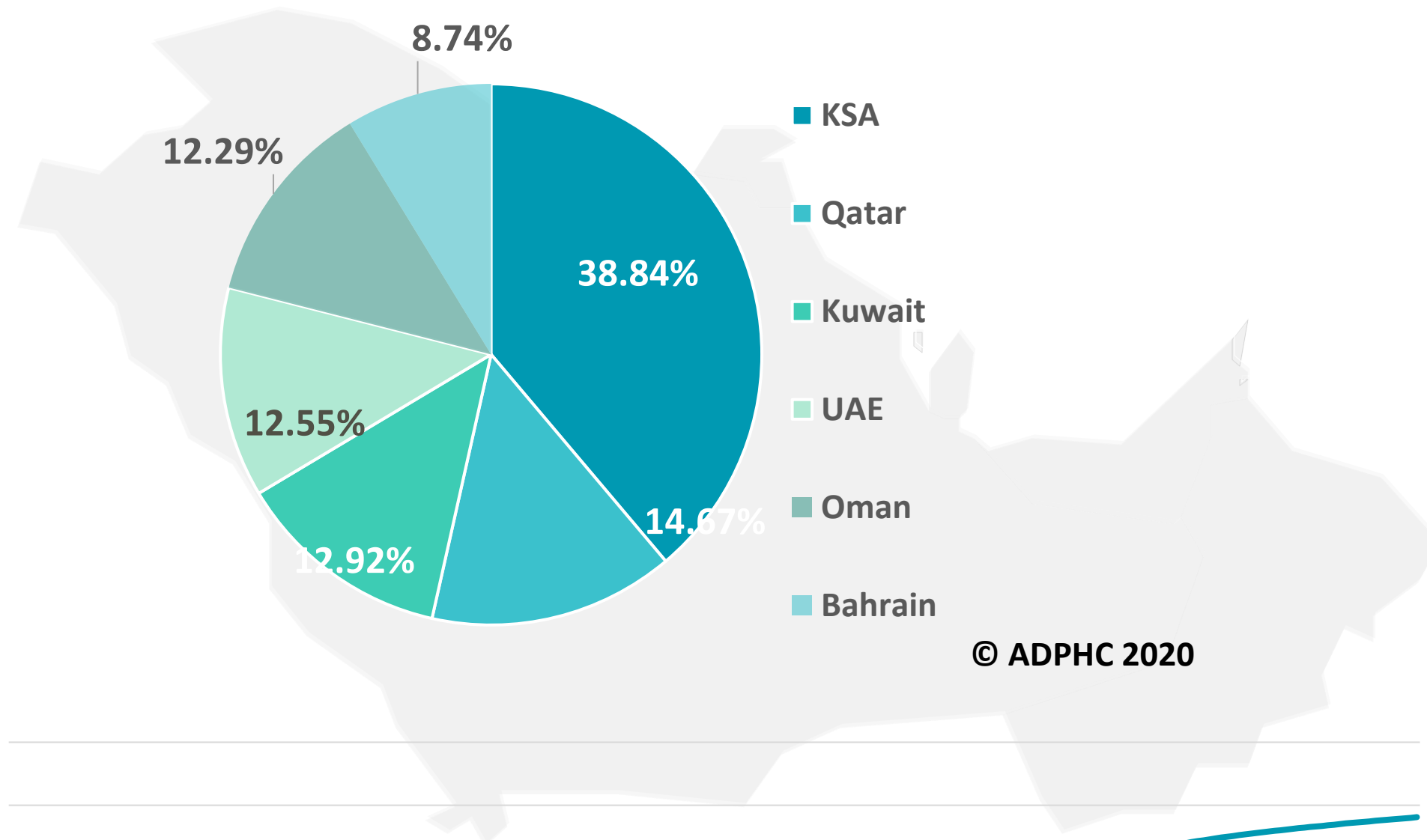
## DEATHS



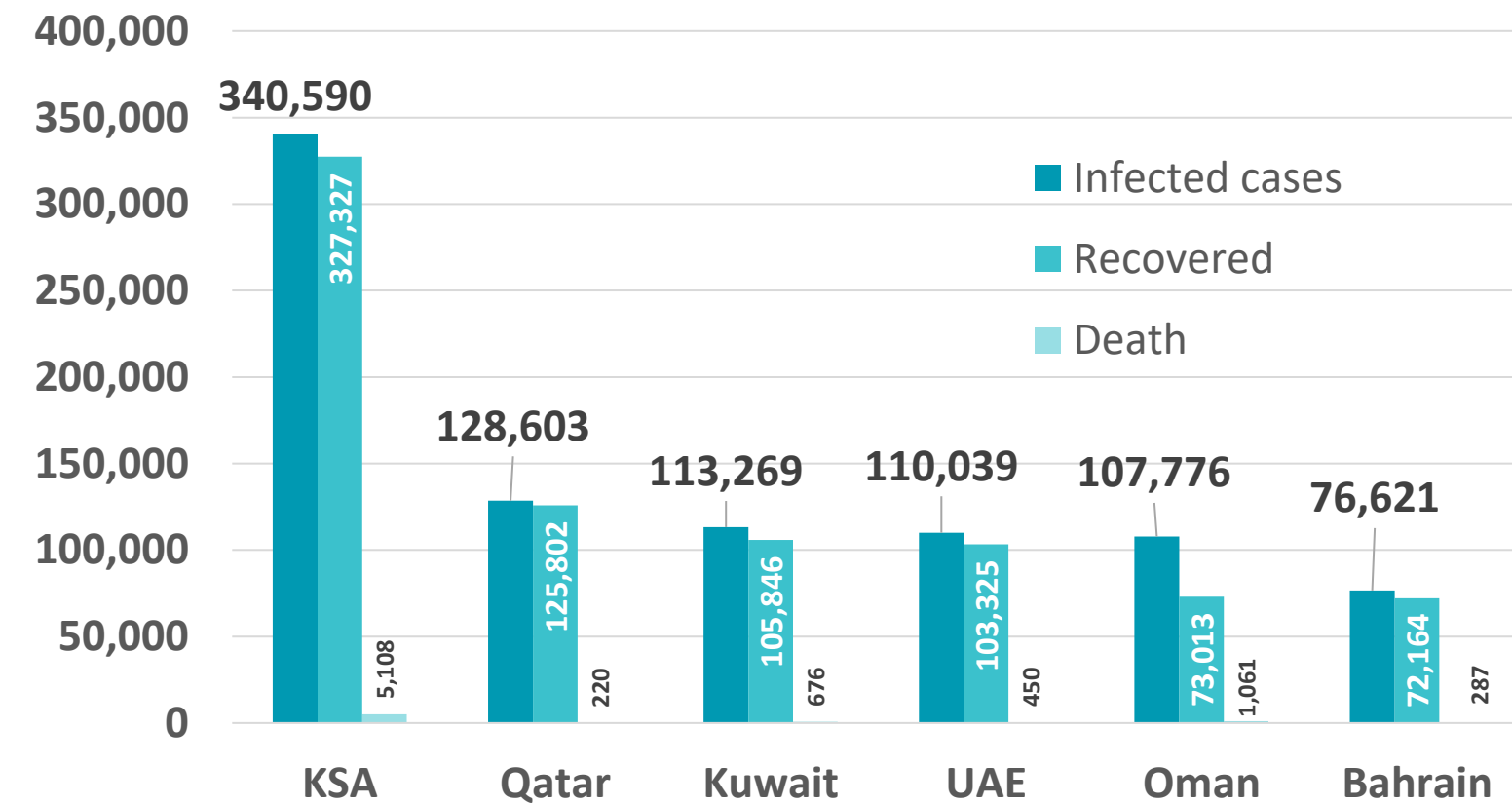
Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: [WHO](#)

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

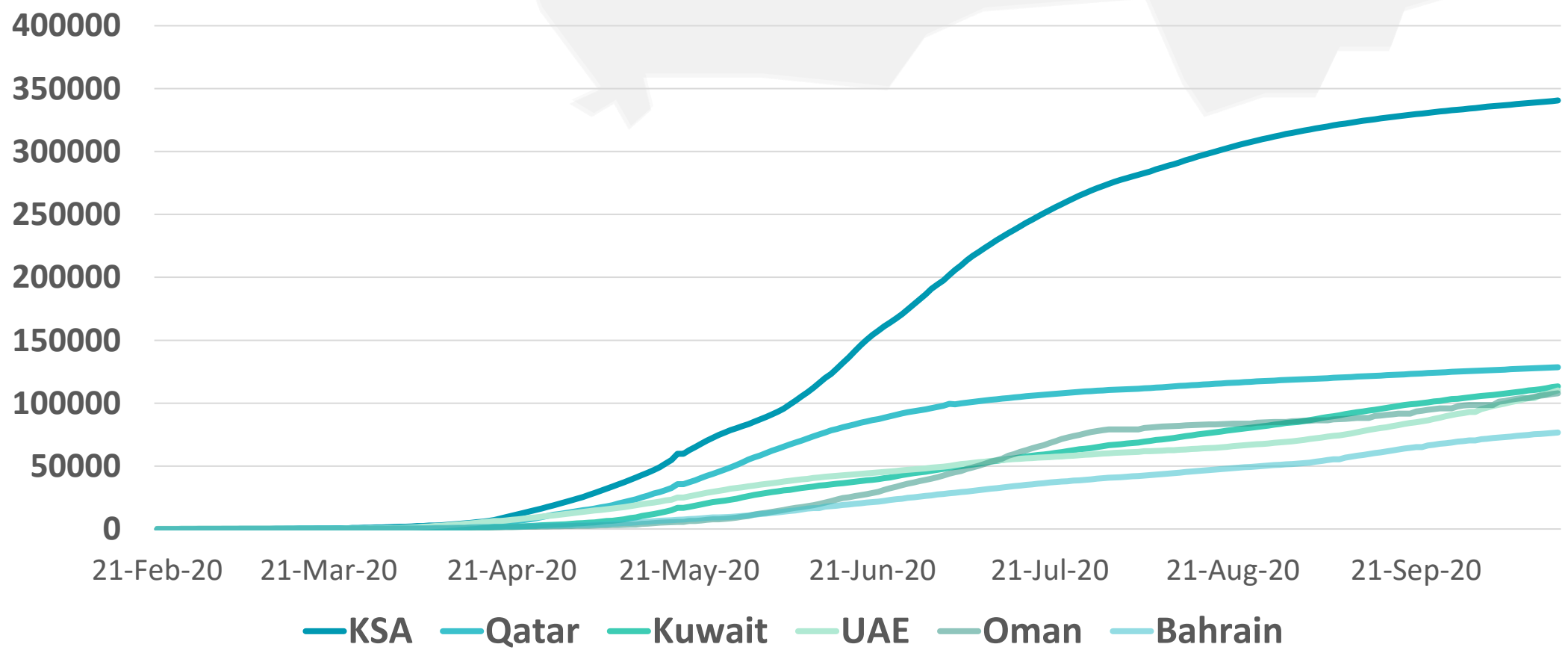
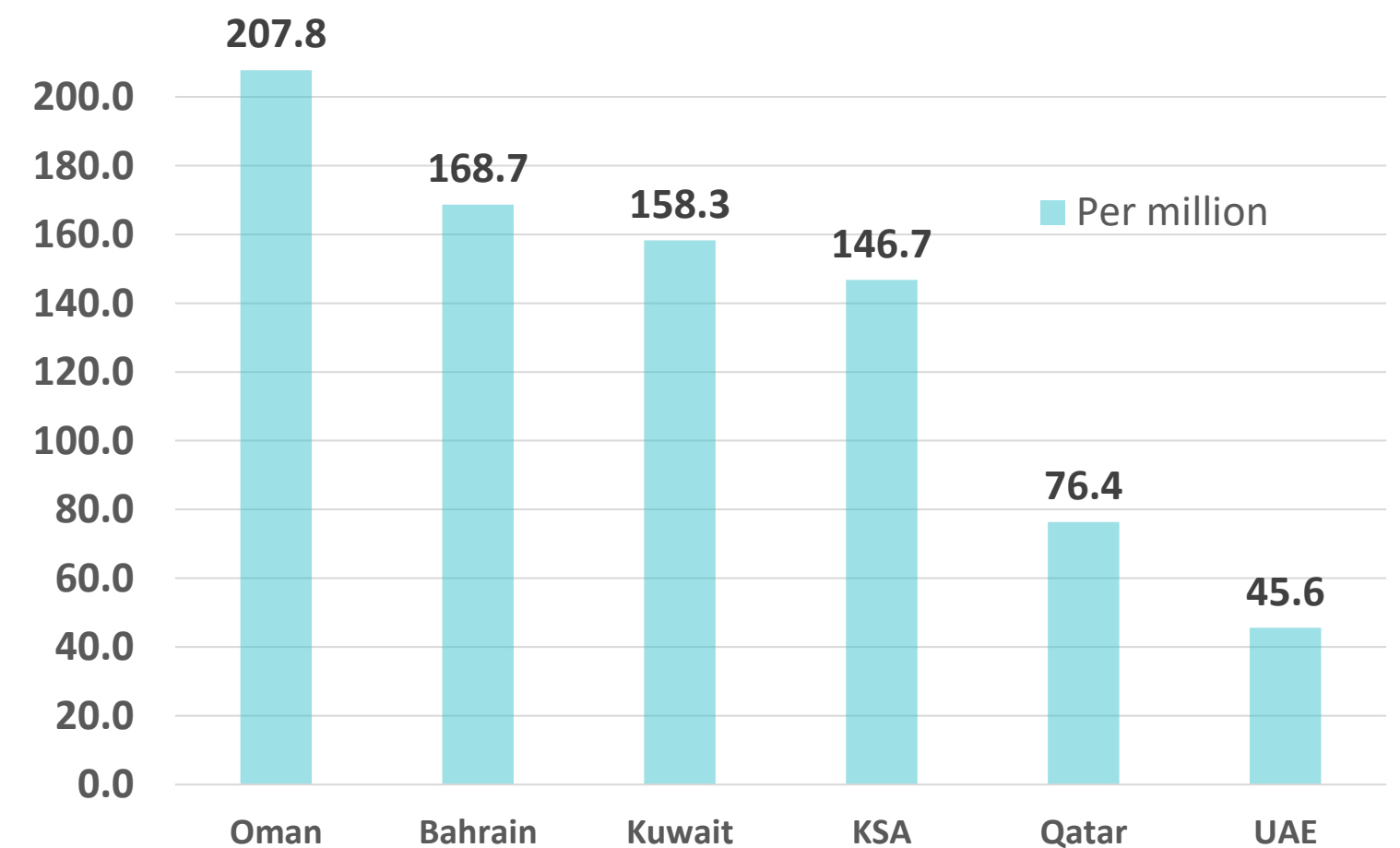
### TOTAL NUMBER OF INFECTED CASES



### TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



### DEATHS PER MILLION



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

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

### UAE



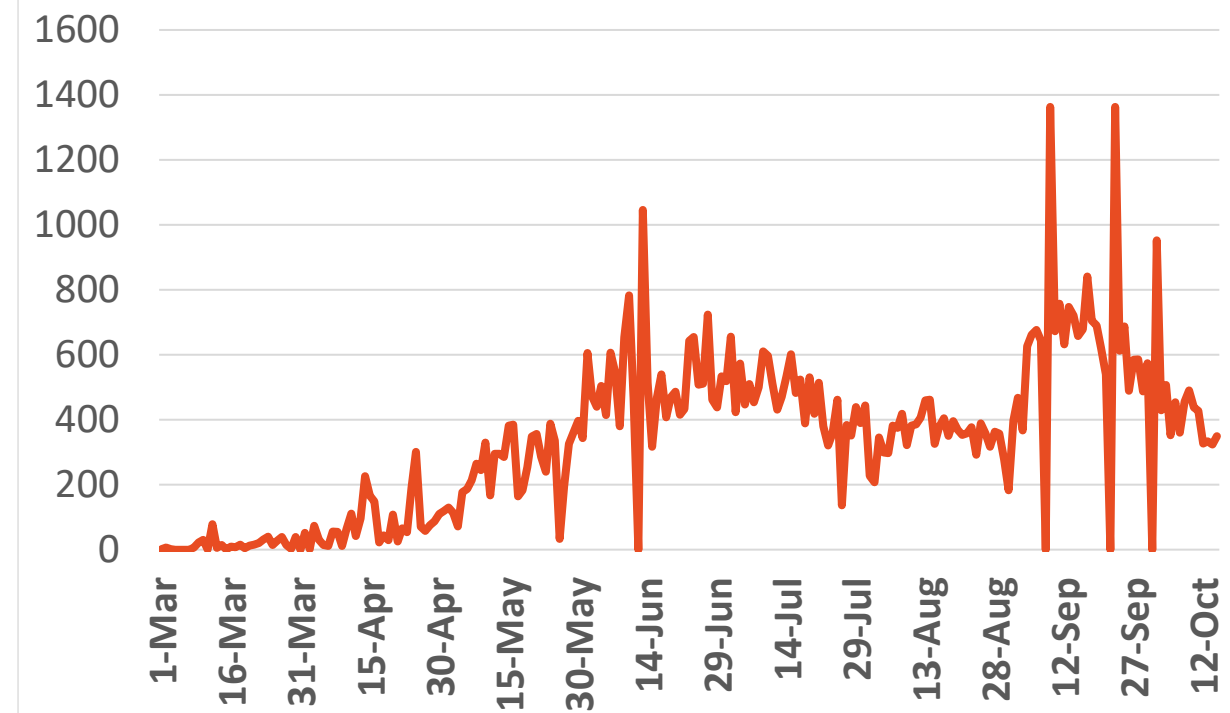
Source : National Emergency Crisis and Disaster Management Authority

### KSA



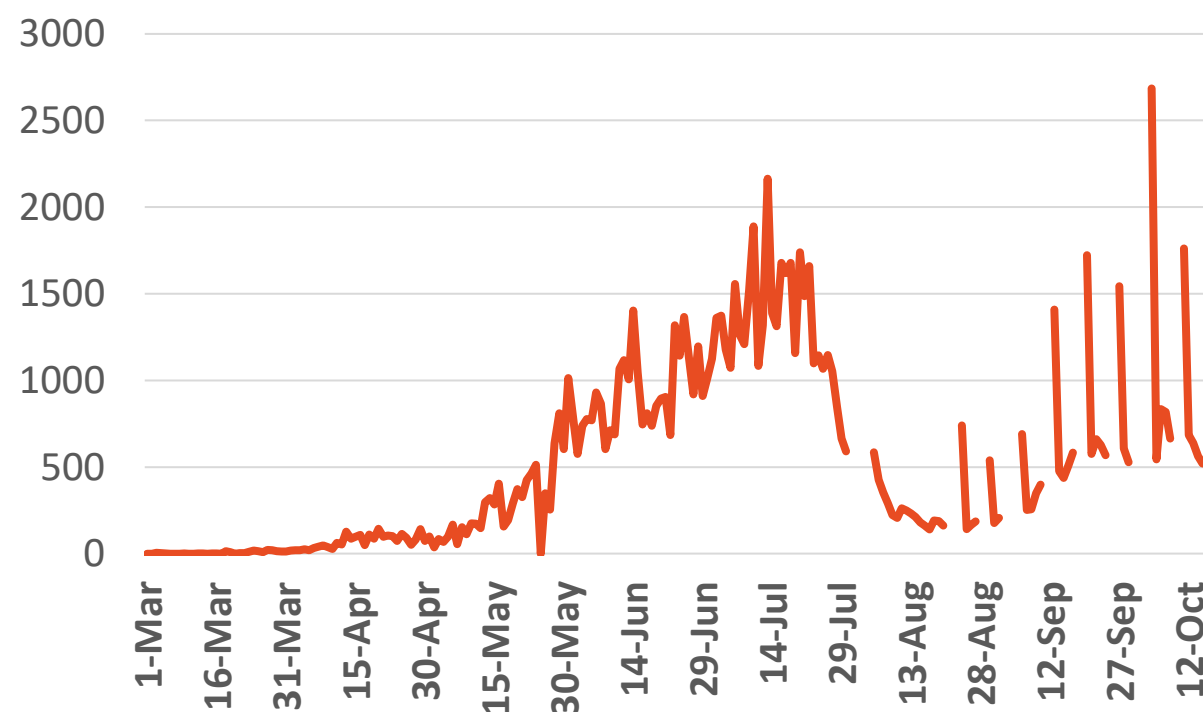
Source : KSA ministry of health

### Bahrain



Source :WHO

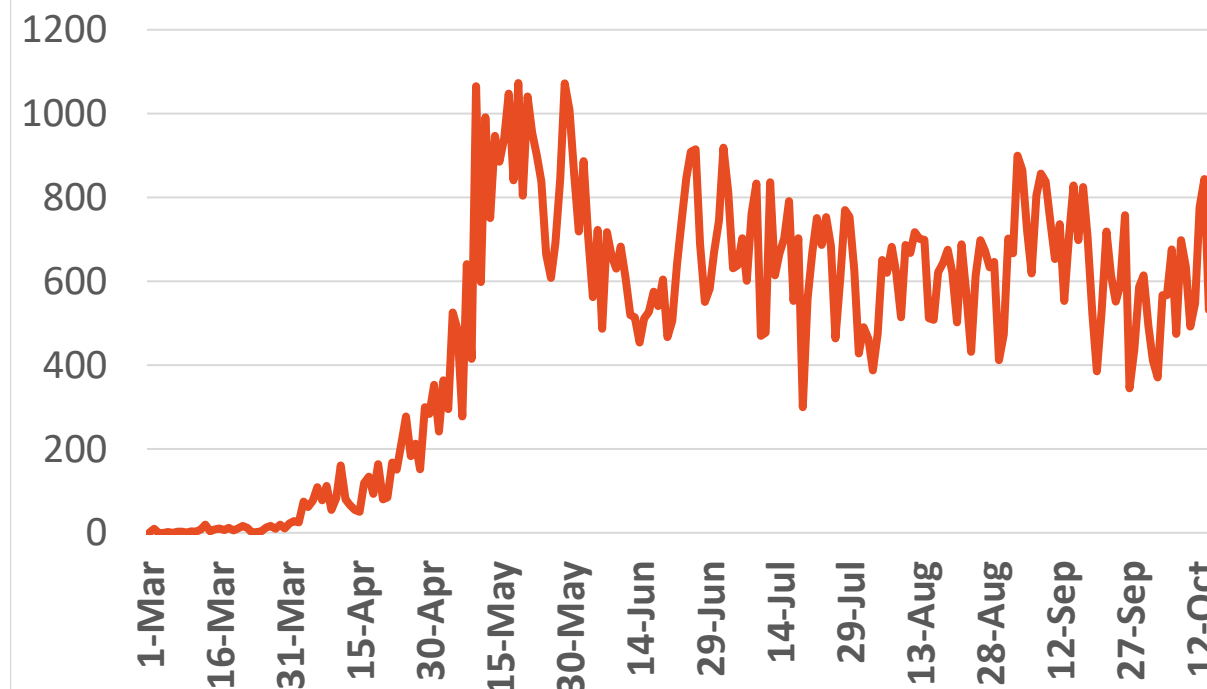
### Oman



Source :Oman ministry of health

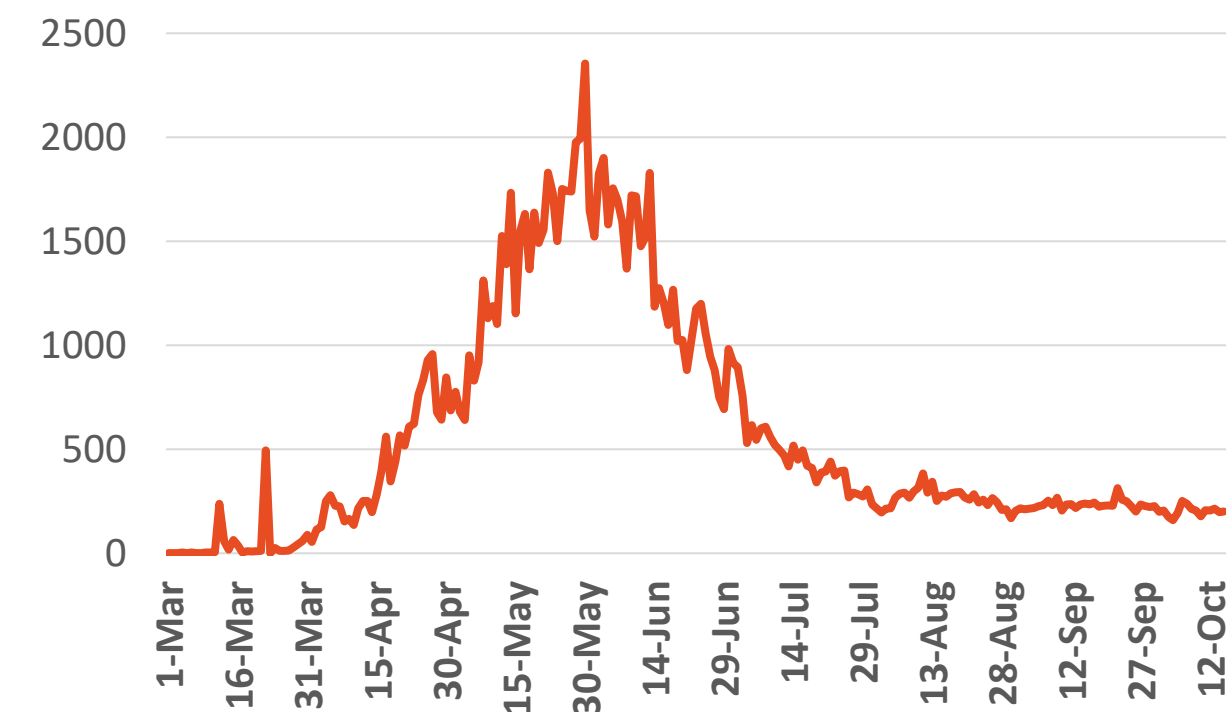
### Kuwait

© ADPHC 2020



Source : Kuwait ministry of health

### Qatar



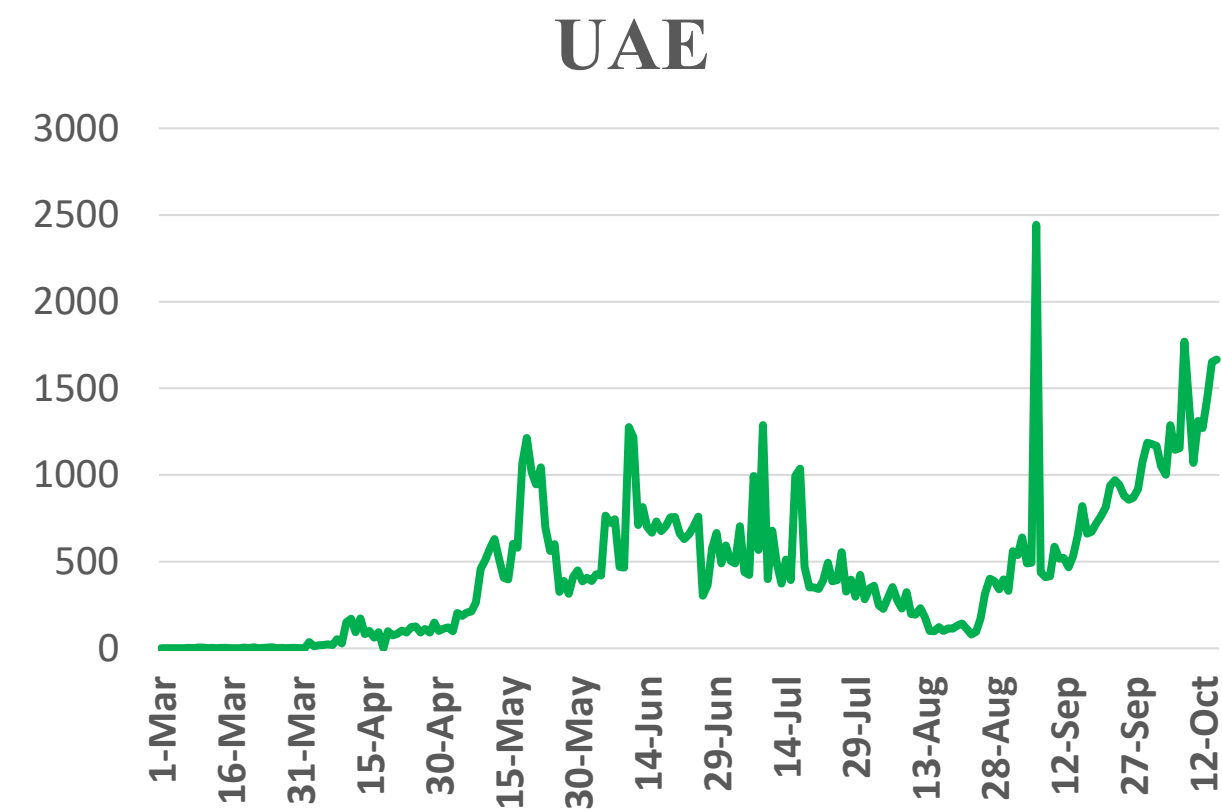
Source : Qatar ministry of health

\*No announced statistic data from 31 July to 4 August, 21,23,28,30 August 2, 4, 5,11,12,18,19,25, 26,30 September,1,2,9 & 10 October

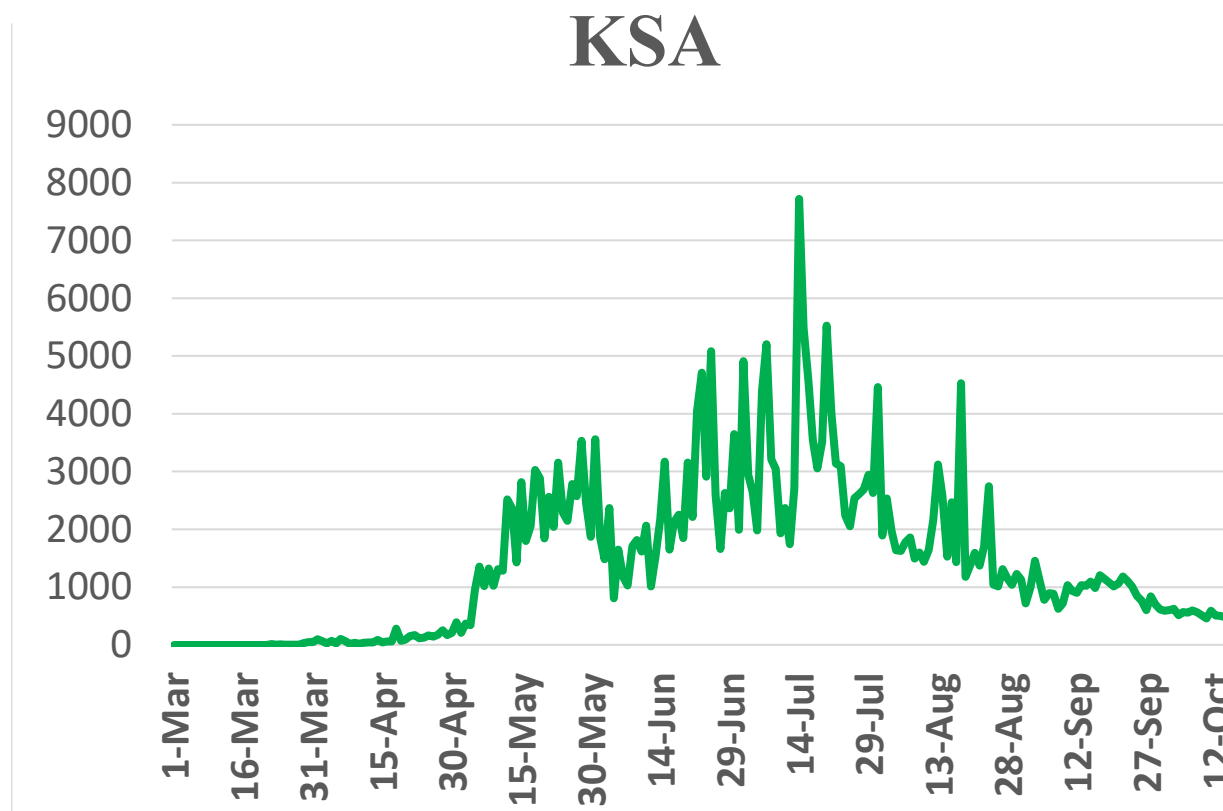
\*No announced statistic data on weekends and official holidays.



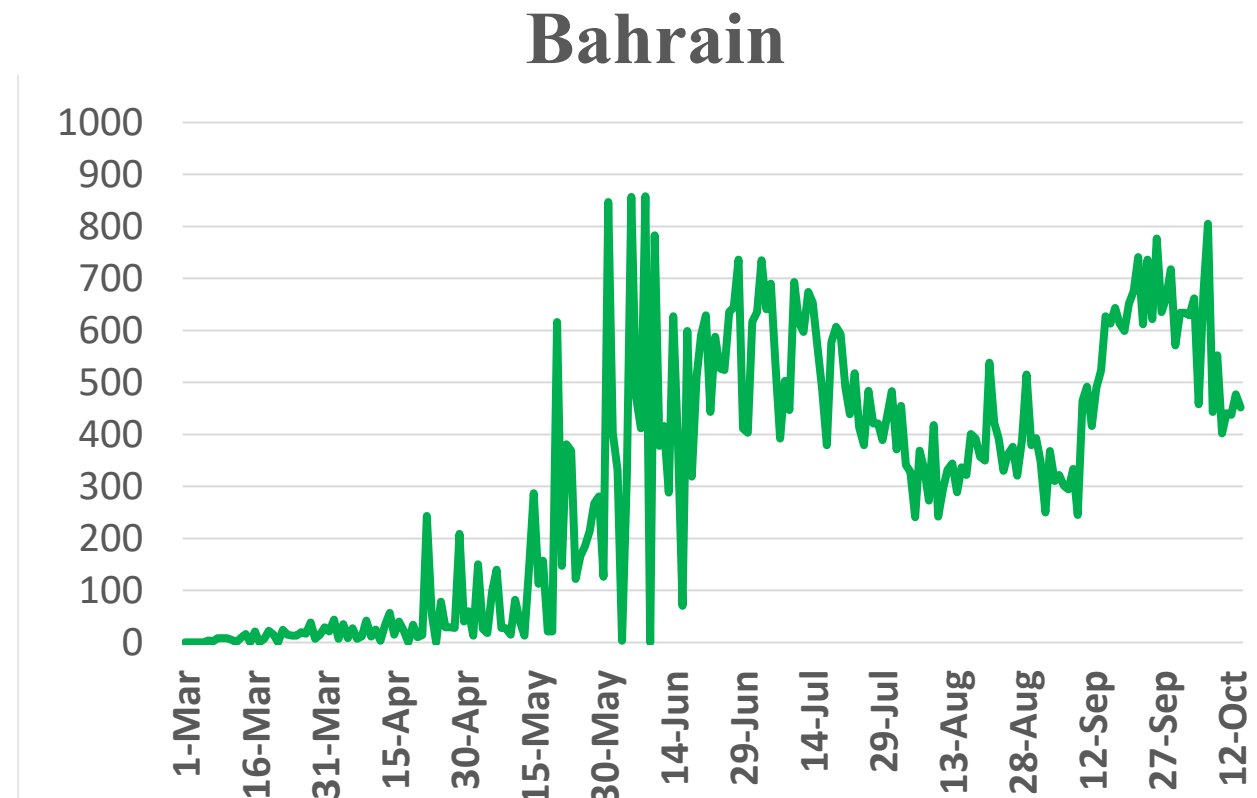
**Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries**



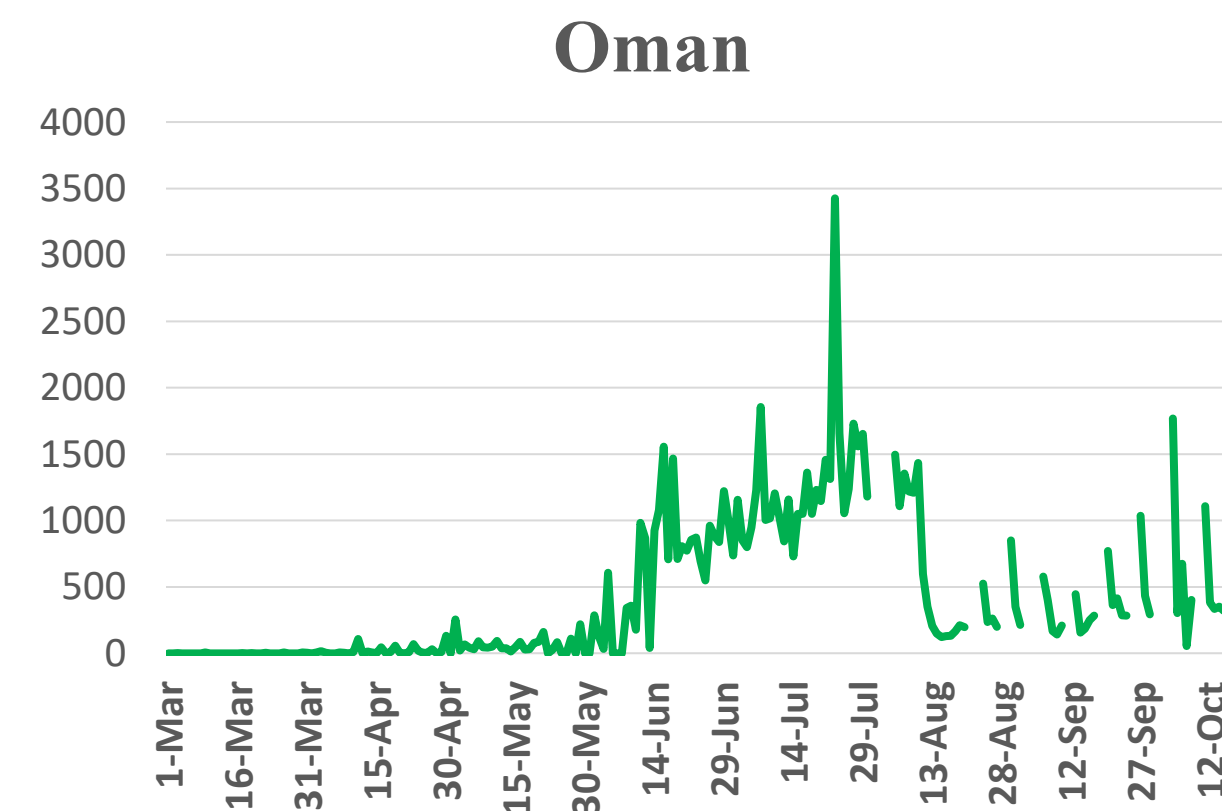
Source : National Emergency Crisis and Disaster Management Authority



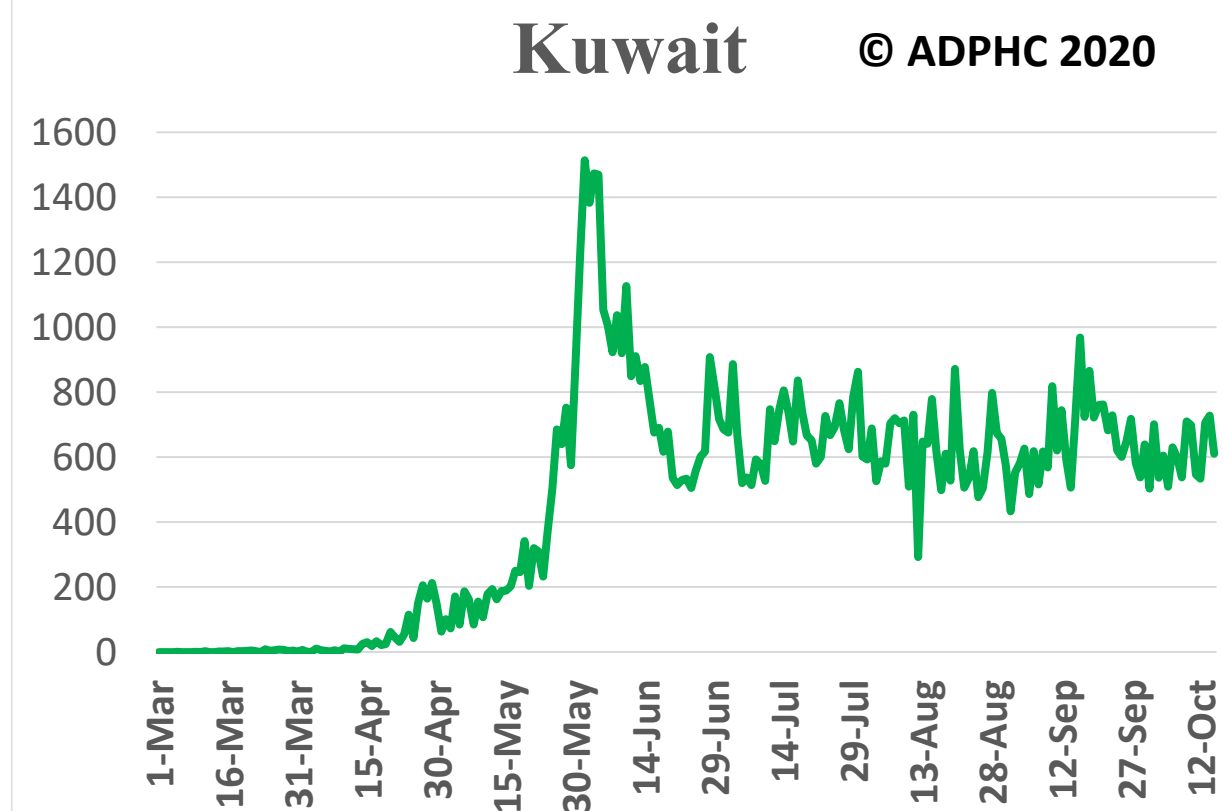
Source : KSA ministry of health



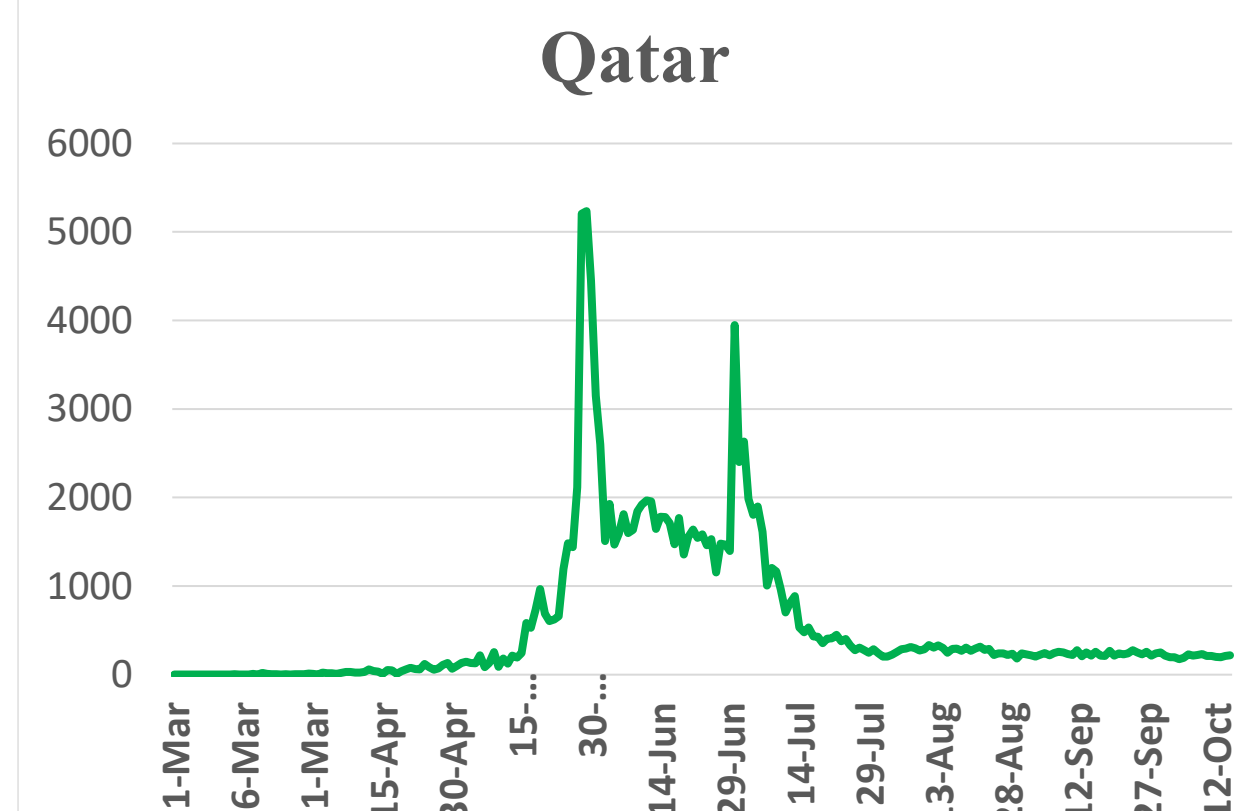
Source : Bahrain ministry of health



Source : Oman ministry of health



Source : Kuwait ministry of health



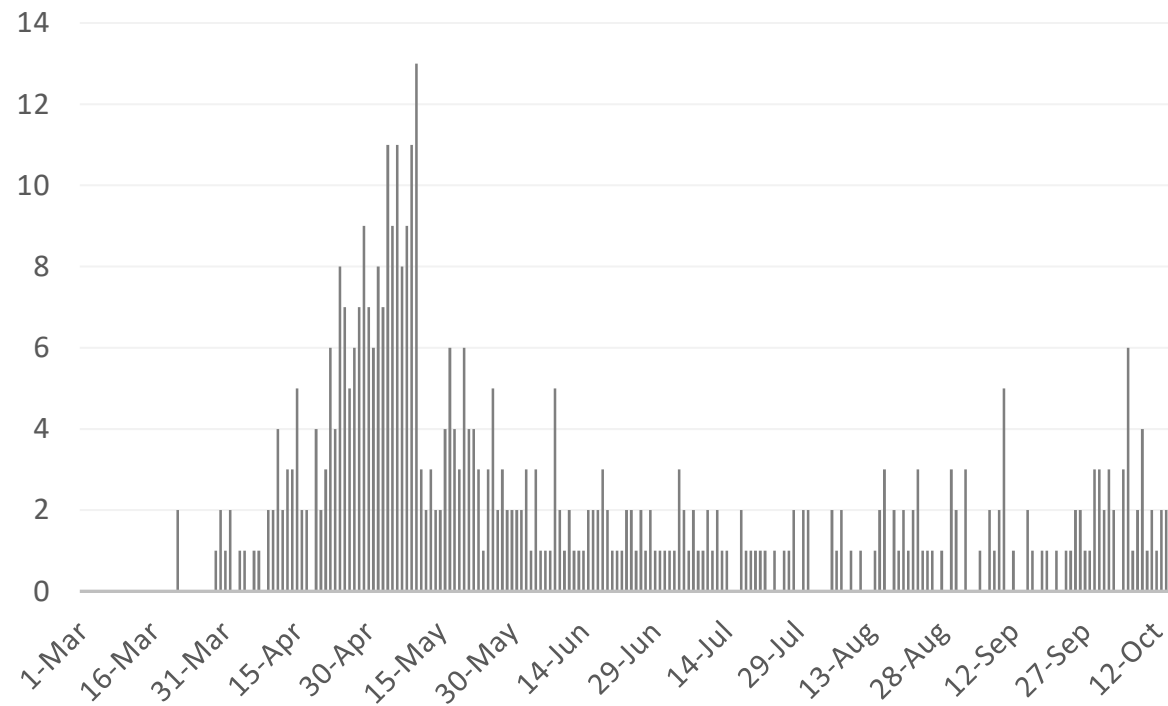
Source : Qatar ministry of health

\*No announced statistic data from 31 July to 4 August, 21,23,28,30 August 2, 4, 5,11,12,18,19,25, 26,30 September,1,2,9 &10 October  
\*No announced statistic data on weekends and official holidays.



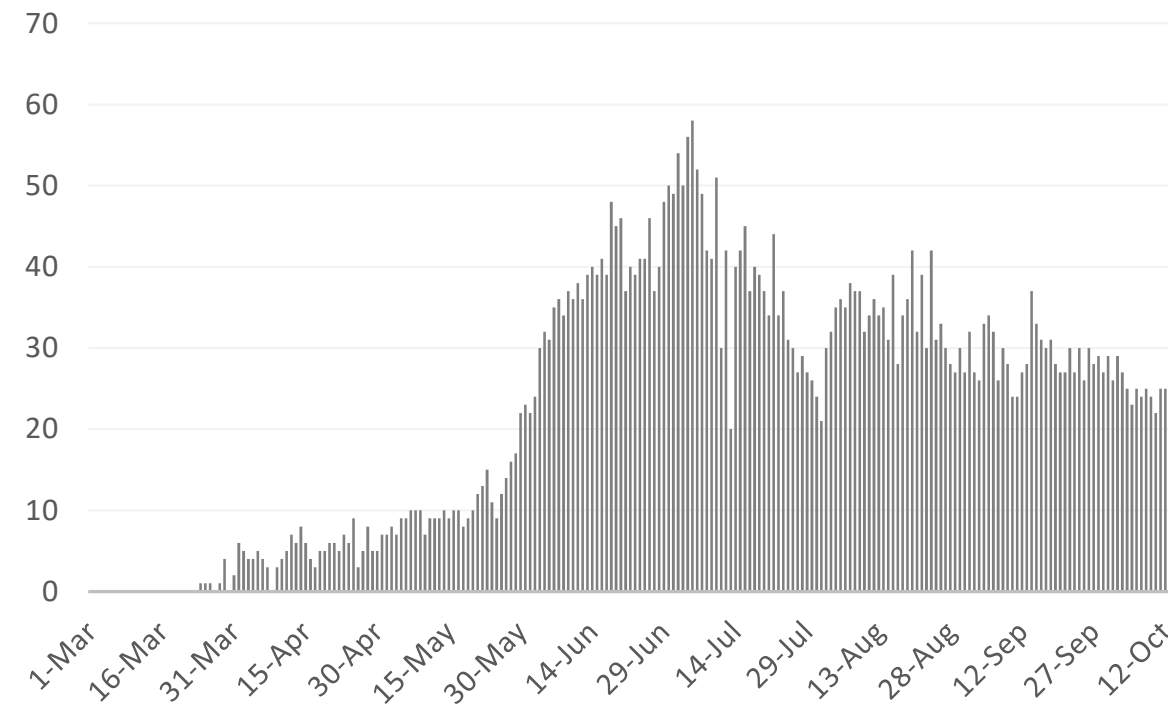
## Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

### UAE



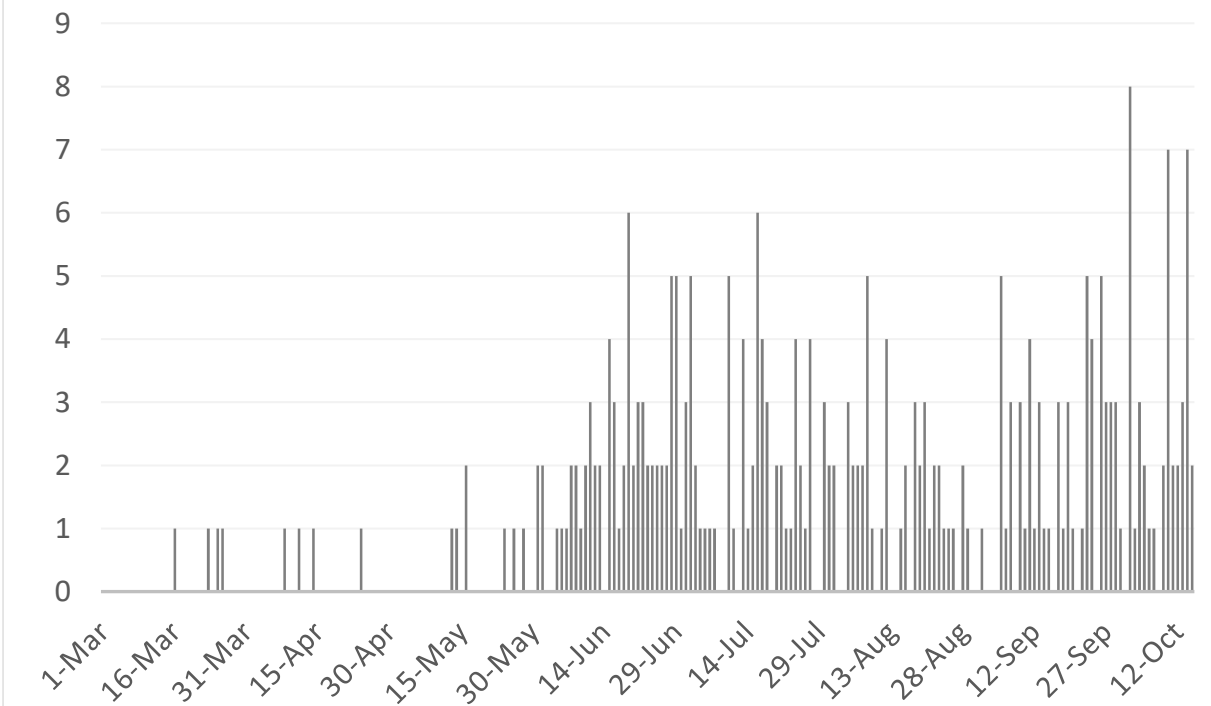
Source : National Emergency Crisis and Disaster Management Authority

### KSA



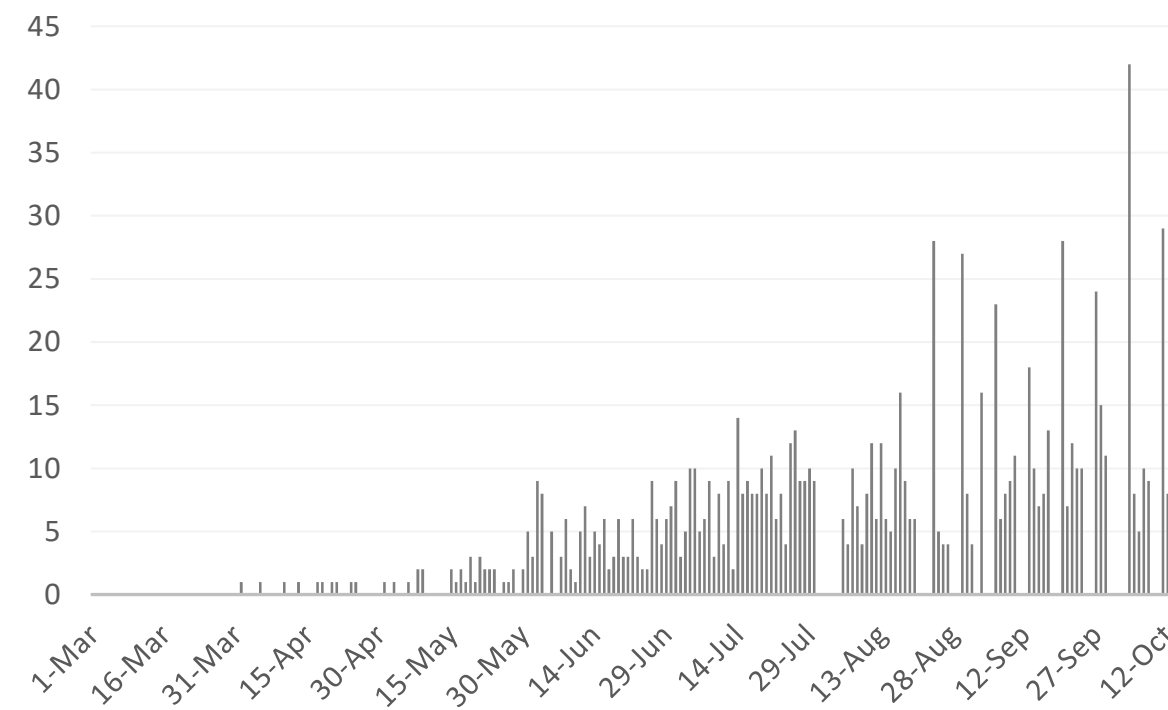
Source : KSA ministry of health

### Bahrain



Source :WHO

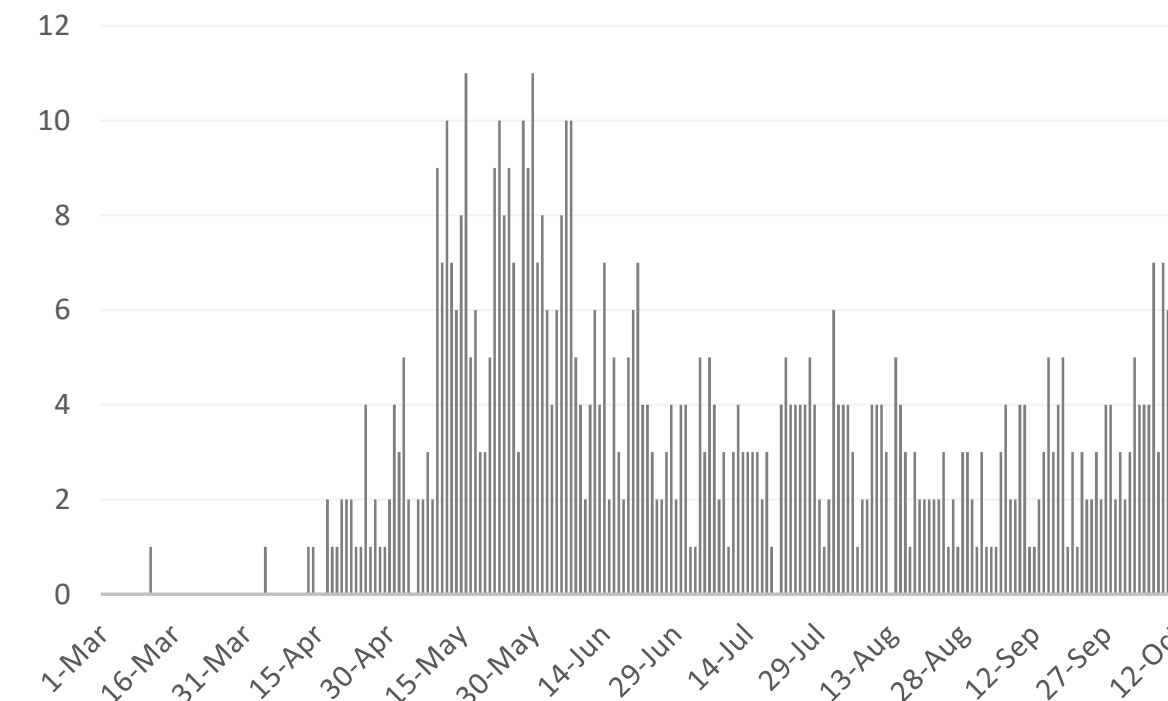
### Oman



Source :Oman ministry of health

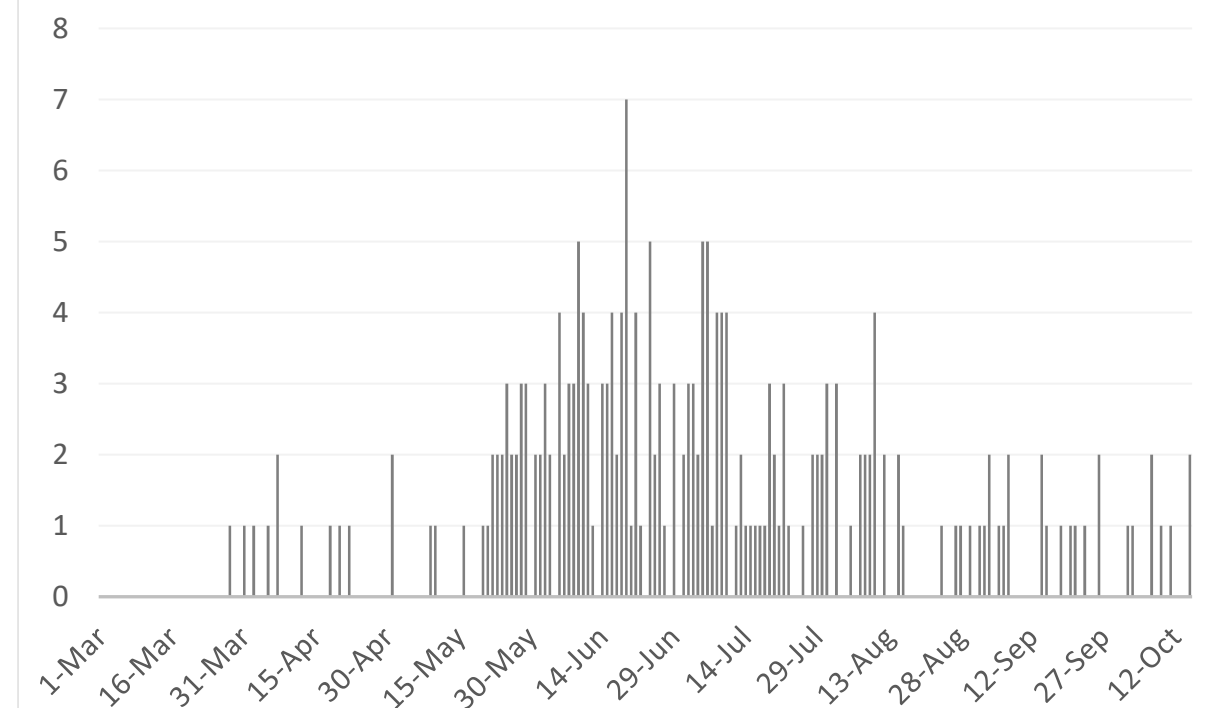
### Kuwait

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Source : Kuwait ministry of health

### Qatar



Source : Qatar ministry of health

\*No announced statistic data from 31 July to 4 August, 21,23,28,30 August 2, 4, 5,11,12,18,19,25 ,26,30 September,1,2,9 &10 October  
\*No announced statistic data on weekends and official holidays.



## Article 1

# Science Is Needed to Rescue the Nation From COVID-19, but Not Just Traditional Biomedical Science

Published

October 08, 2020, [JAMA Network Forum](#)

- COVID-19 has the characteristics of a classic sociological challenge.
- With a contagious disease that has many asymptomatic and unknowing spreaders, it is necessary to rely on a scientific phenomenon called empathy.
- The more adherence to physical distancing measures, such as avoiding hot spots like bars and wearing a mask in public, the quicker society will reduce community spread, and the safer many people who we do not know will be. That includes farmers, food transporters, people in jails and prisons, in homeless shelters, and in veterans' homes.
- These protective measures may sound like relatively small sacrifices (and they are) but, for people who believe their own safety is not at risk, it means addressing what an individual's role in society is and what kind of society we want to have.
- With the COVID-19 pandemic has emerged the need to examine the US society. Whether the US can be a great country when inequality, suffering, and death disproportionately affect those in society who are older and poorer.





# PUBLIC HEALTH RESPONSE

## Article 2

# The COVID-19 “Return-to-Learning” Natural Experiment

Published

October 07, 2020, [JAMA Health Forum](#)

In this article, the authors outline a framework for researchers seeking to partner with K-12 schools to ensure that ongoing decisions about children, schools, and COVID-19 are based on science.

### Stakeholder Engagement

- Partnering with directly affected stakeholders is critical to implementing a research response that addresses priorities and concerns of multistakeholder school communities.

### A Prioritized, Manageable Research Agenda

- School-specific priority research questions include:
  - What are the most feasible, acceptable, and effective screening, testing, and mitigation measures in schools for different ages?
  - What behavioral strategies, based on behavioral change literature and prior public health campaigns, encourage adherence among children of different ages to non-pharmacologic interventions (eg, mask wearing, physical distancing)?
  - What learning models (eg, in-person, remote, hybrid) maximize learning and safety? How do implementation and outcomes differ across settings with varying resources?
  - What academic, psychosocial, and health inequities are exacerbated by school disruptions due to COVID-19? What interventions are needed to address them?
- Schools can also benefit from community-level research:
  - At what level of community COVID-19 transmission do the benefits of reopening schools outweigh the transmission risks?
  - What are optimal strategies to increase access to social resources (e.g., food and housing) to protect child well-being?



## Continued

### Protecting Participant Privacy

- Protecting the privacy of participants, particularly children, while developing real-world evidence is paramount.

### Leveraging Different Study Designs

- While randomized clinical trials are the research gold standard, more rapid study designs must be leveraged. These designs include crossover, non-placebo-controlled parallel, stepped-wedge, pre-post intervention with a control group, and “rapid-cycle randomization,” as well as observational studies that exploit policy variation in schools’ plans.

### Streamlining Data Collection

- An effective research response requires enabling efficient, low-burden data collection, given the limited time and resources.
- To facilitate standardization and data comparability across settings, a boundary organization should lead the development of common metrics and ensure wide dissemination through public health and educational bodies.
- To maximize efficiency:
  - COVID-19–related questions could be added to ongoing data collection efforts
  - Existing research networks can make district-level data publicly available for broad use.





# THANK YOU

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