

# SCIENTIFIC RESEARCH MONITORING ON COVID-19

**17 SEPTEMBER 2020**

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# SCIENTIFIC RESEARCH MONITORING ON COVID-19

## (ISSUE 228)

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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**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

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

Reassuring the Public and Clinical Community About the Scientific Review and Approval of a COVID-19 Vaccine

## Vaccine

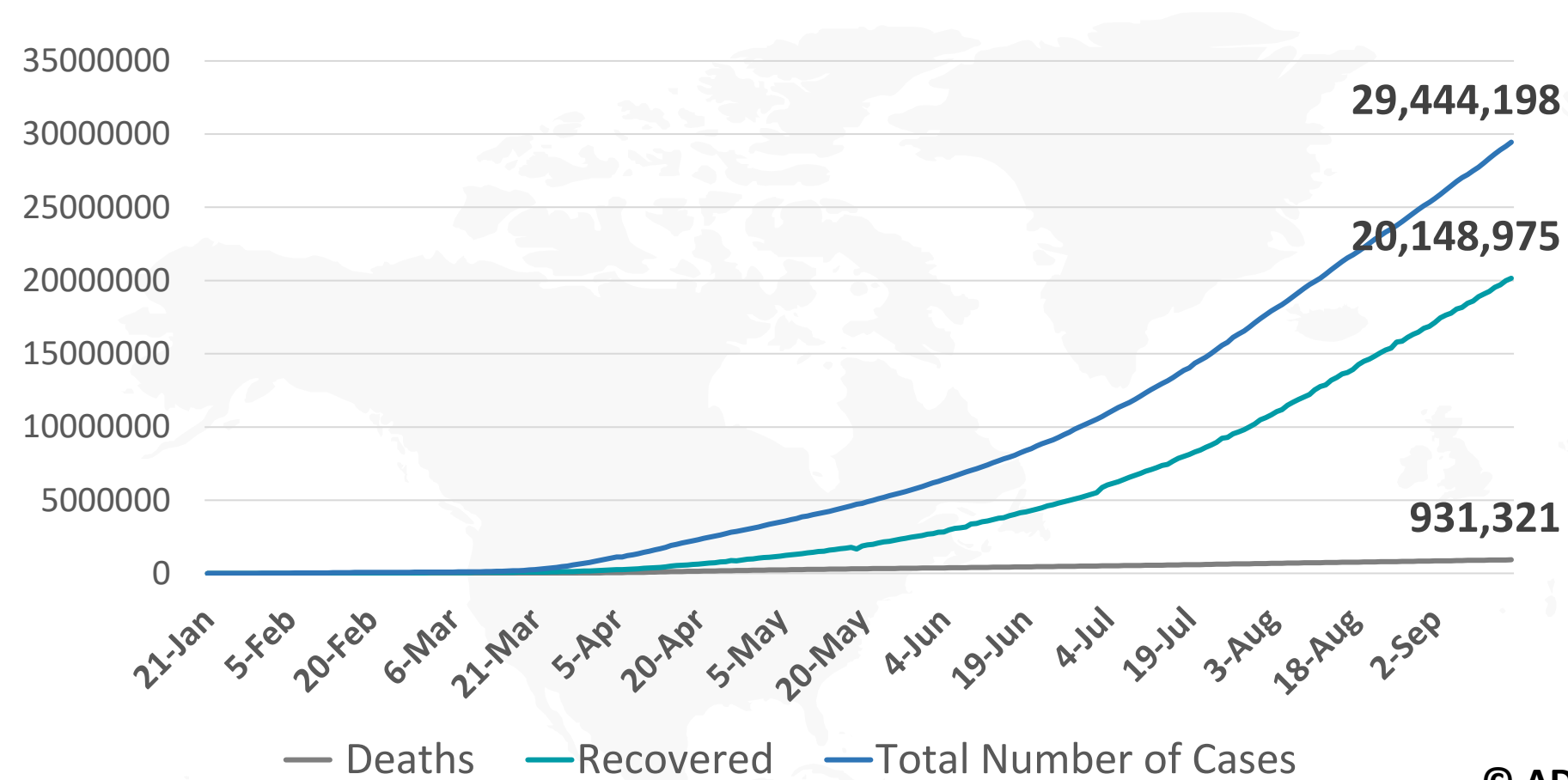
Mapping Global Trends in Vaccine Confidence and Investigating Barriers to Vaccine Uptake: A Large-Scale Retrospective Temporal Modelling Study

## Public Health Response

Comparison of Clinical Features of COVID-19 vs Seasonal Influenza A and B in US Children

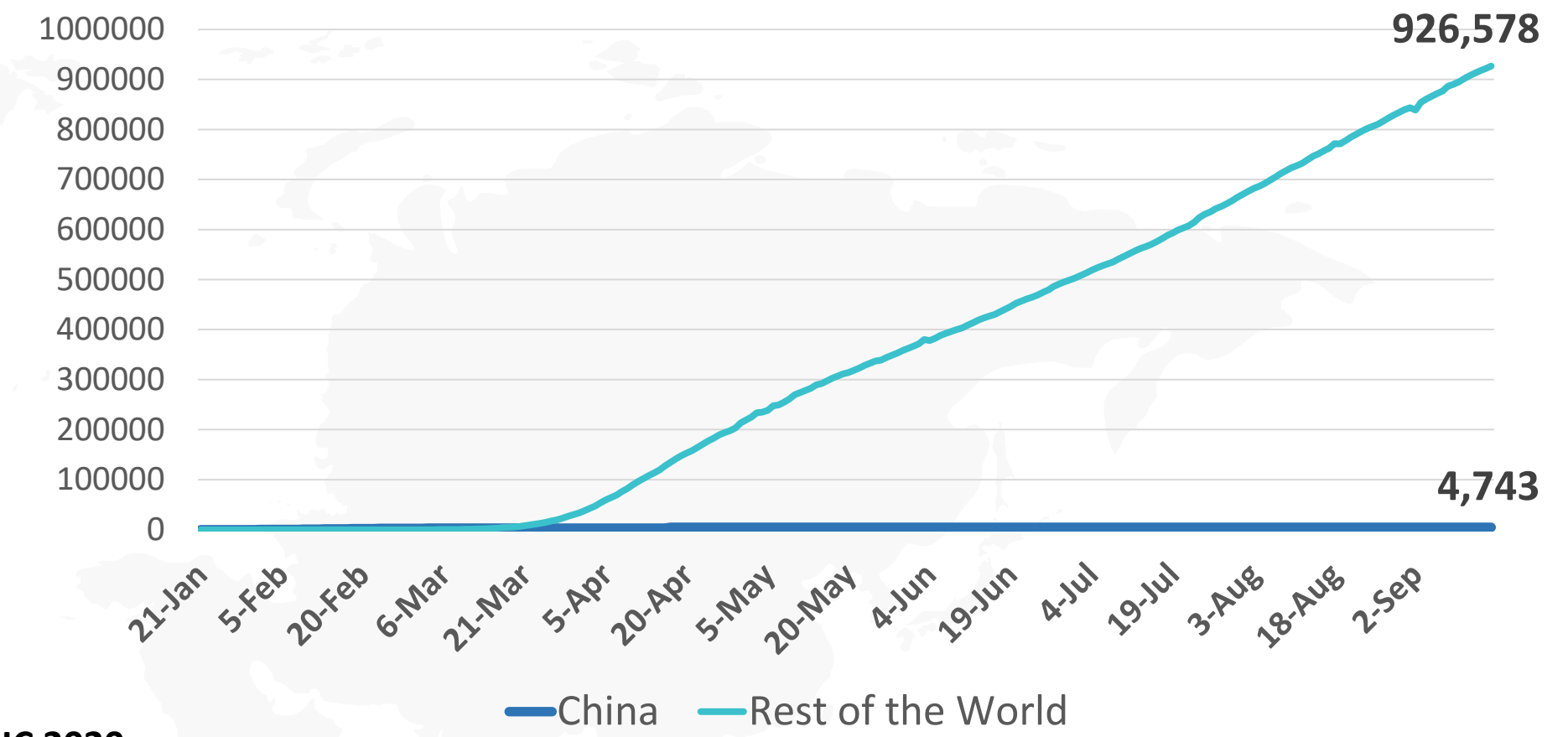


**Figure 1: Total Number of Infected, Recovered, and Death Cases**

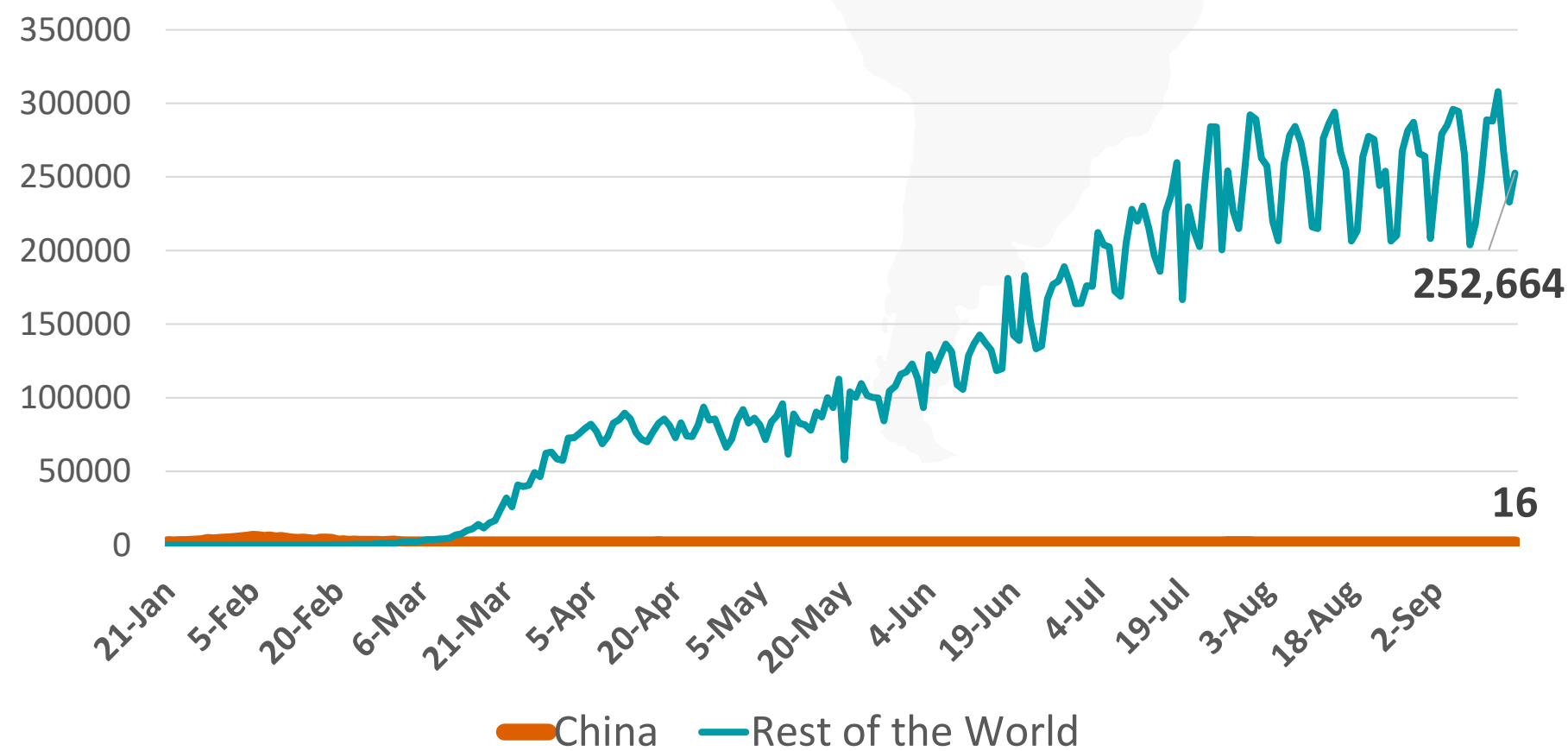


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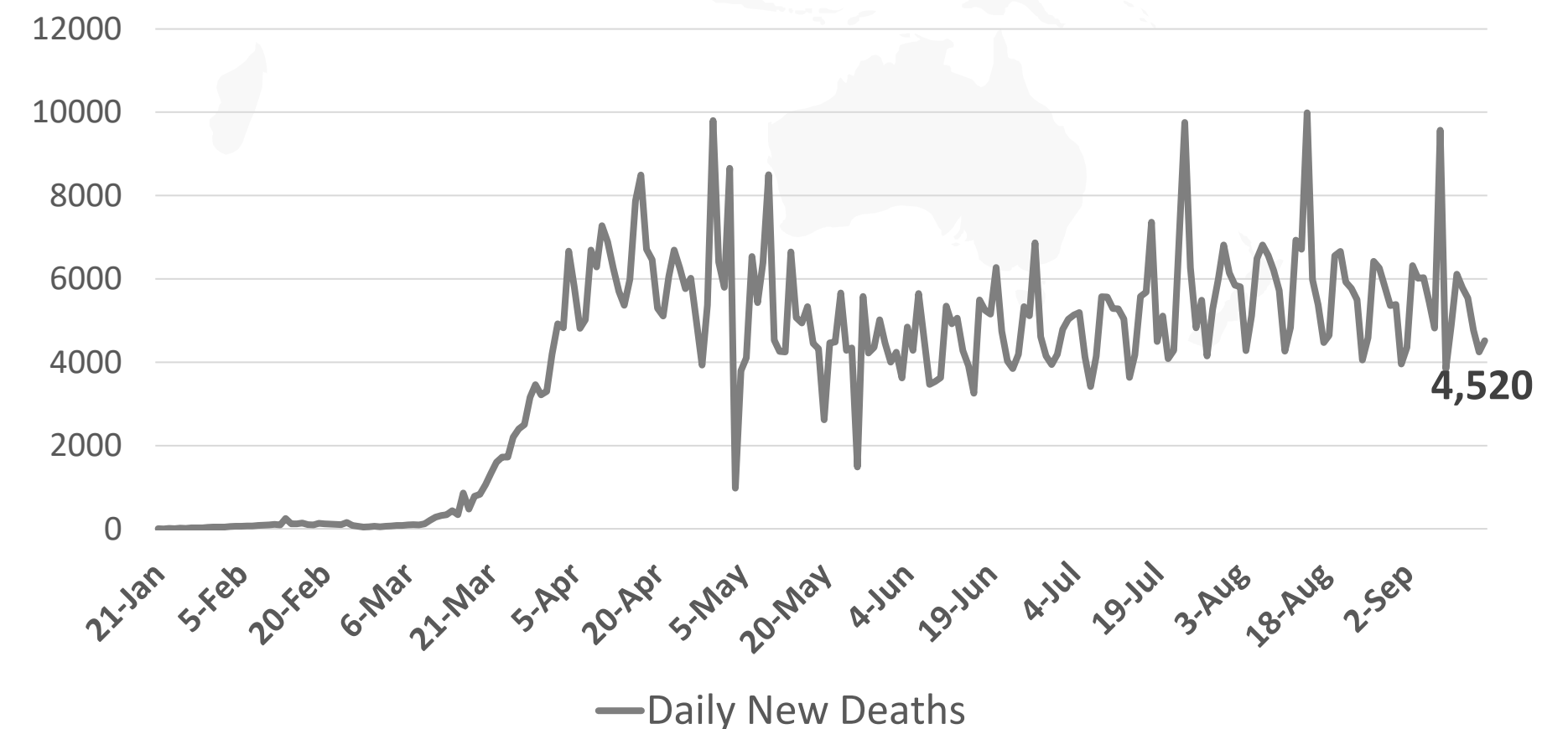
**Figure 3: Total Number of Death Due to COVID-19 (china and result of the world)**



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

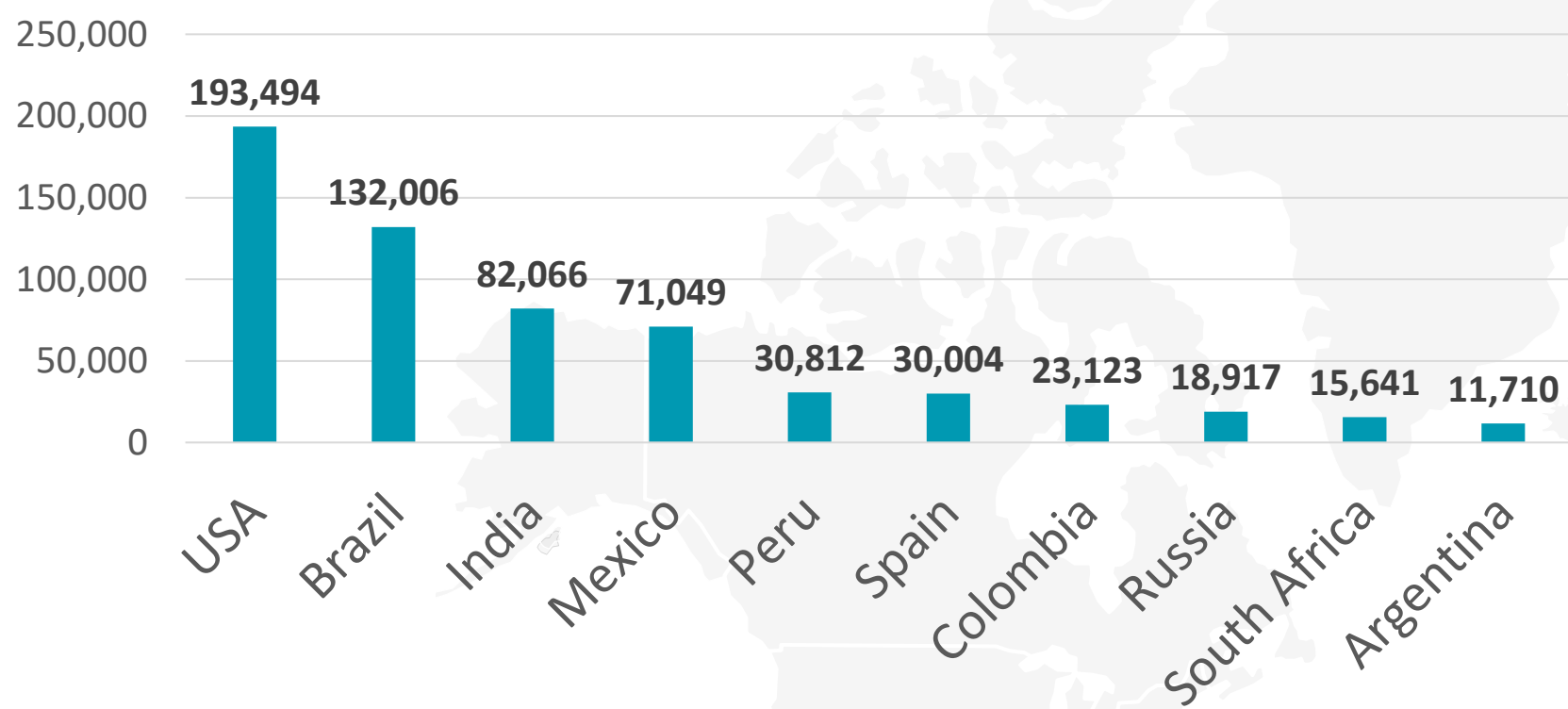


**Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)**

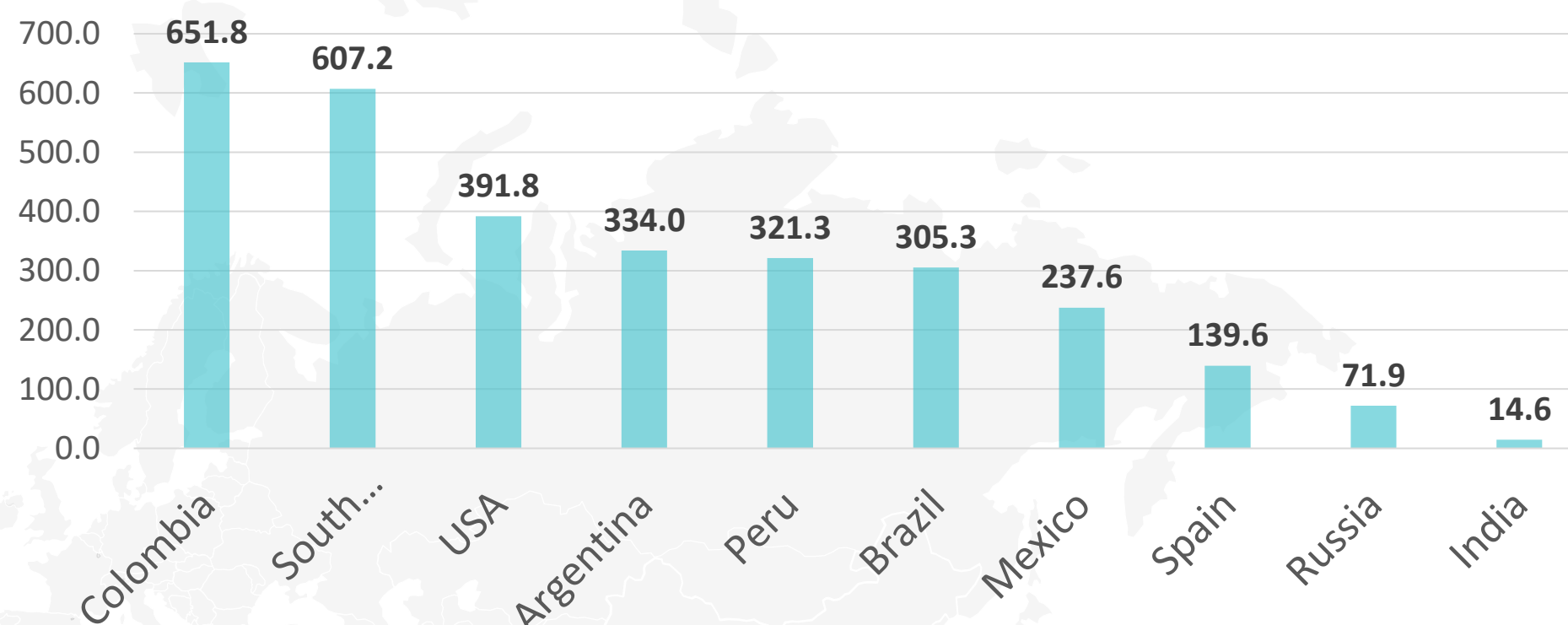


## Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19

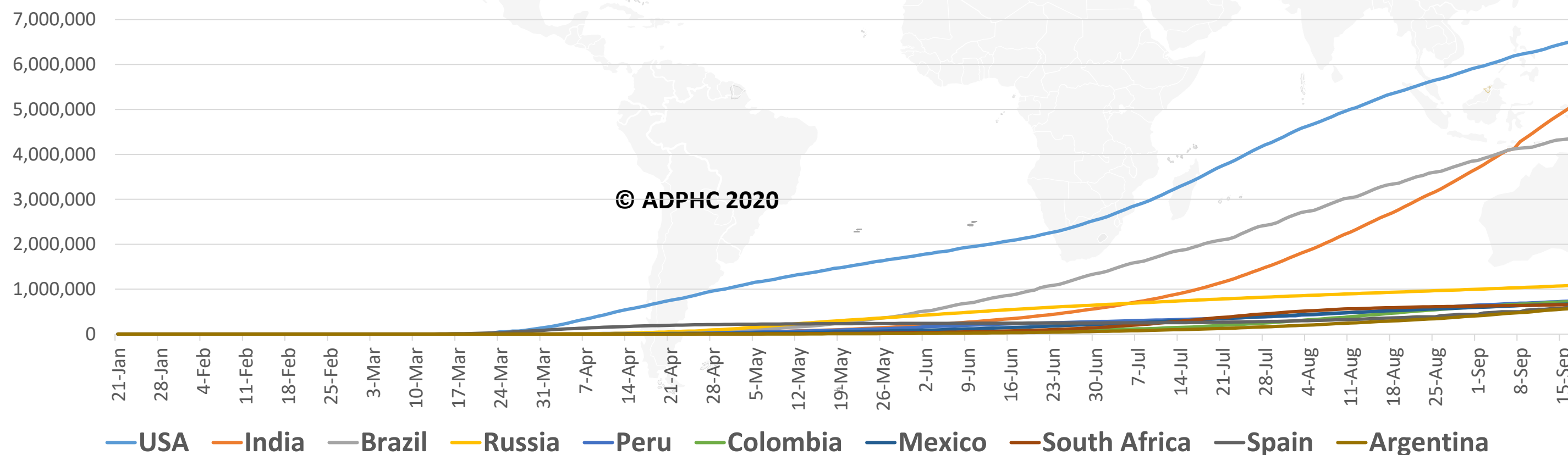
### TOTAL DEATHS



### DEATHS PER MILLION



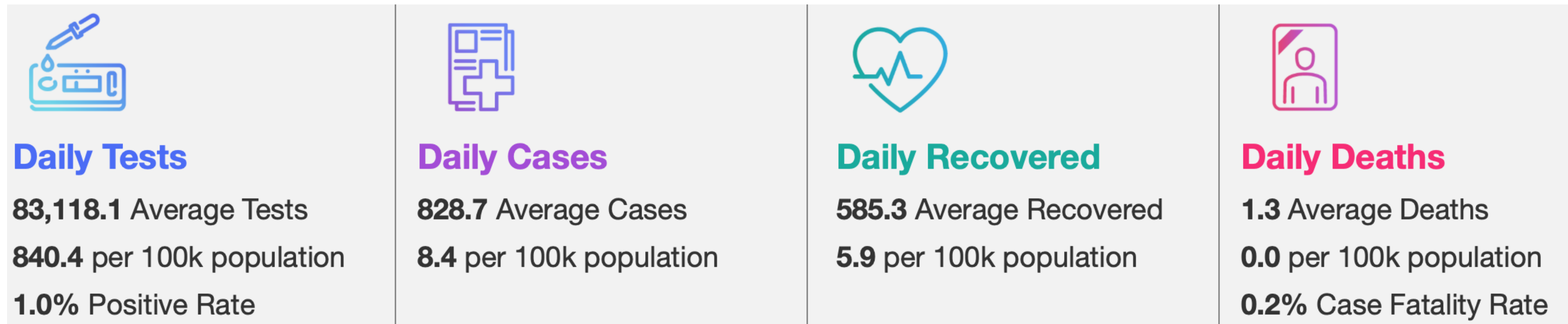
### TOTAL INFECTED CASES



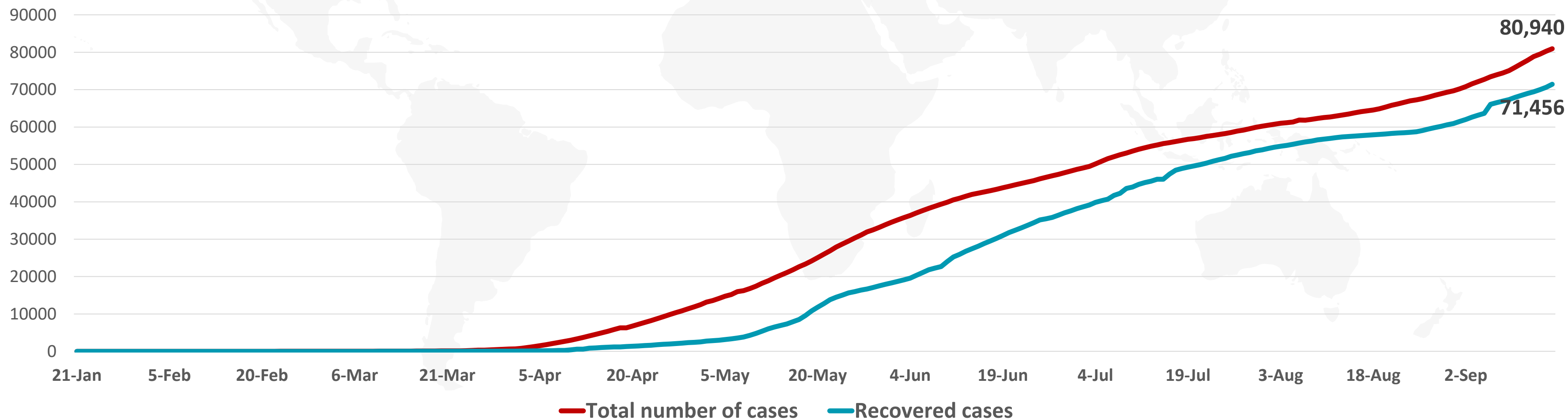
USA	6,496,246
Brazil	5,020,359
India	4,345,610
Russia	1,079,519
Peru	733,860
Colombia	721,892
Mexico	671,716
South Africa	651,521
Spain	603,167
Argentina	565,446



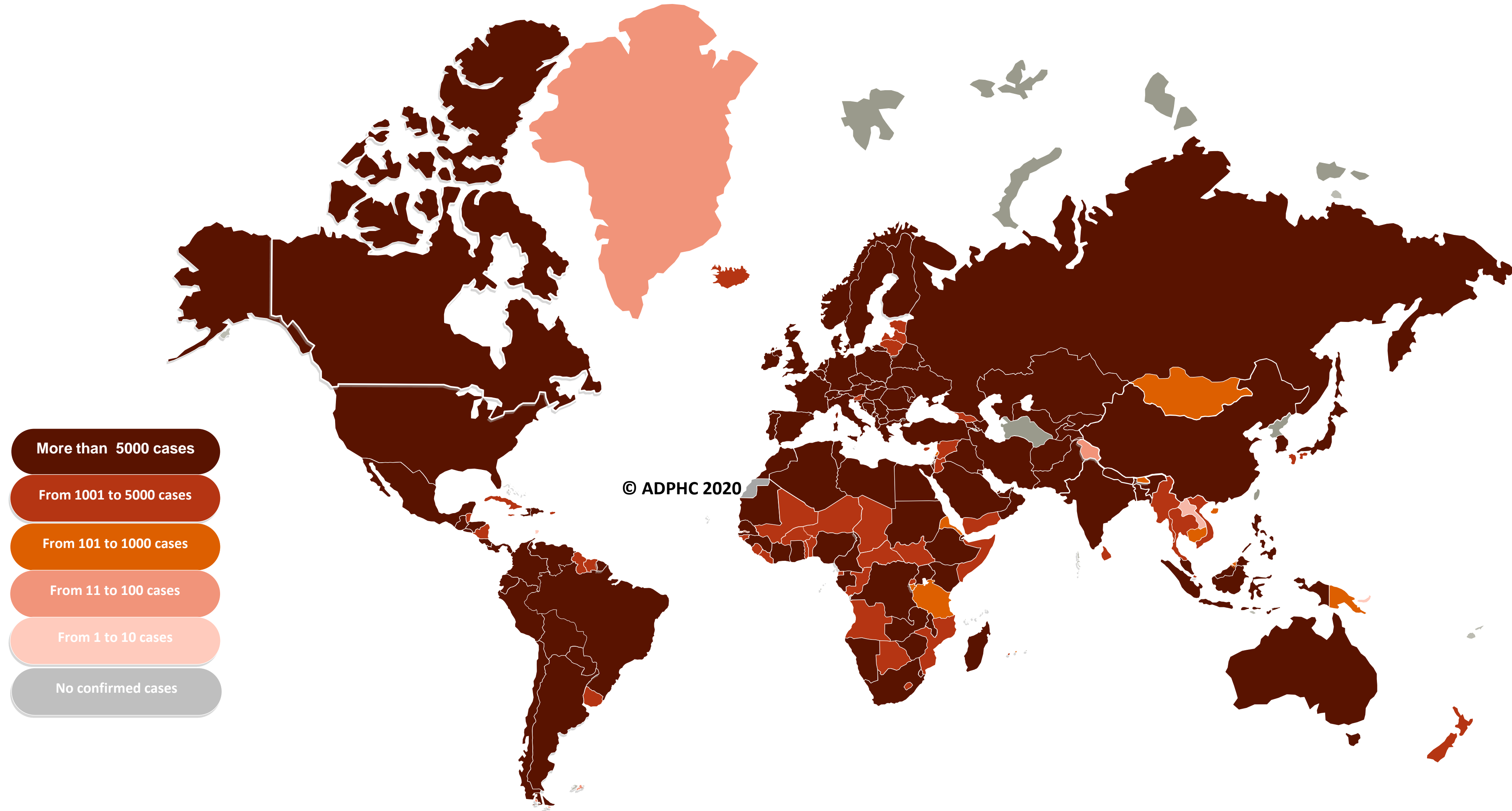
**Figure 6: COVID-19 Status in the UAE** (Federal Competitiveness and Statistics Authority Dashboard)



## 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

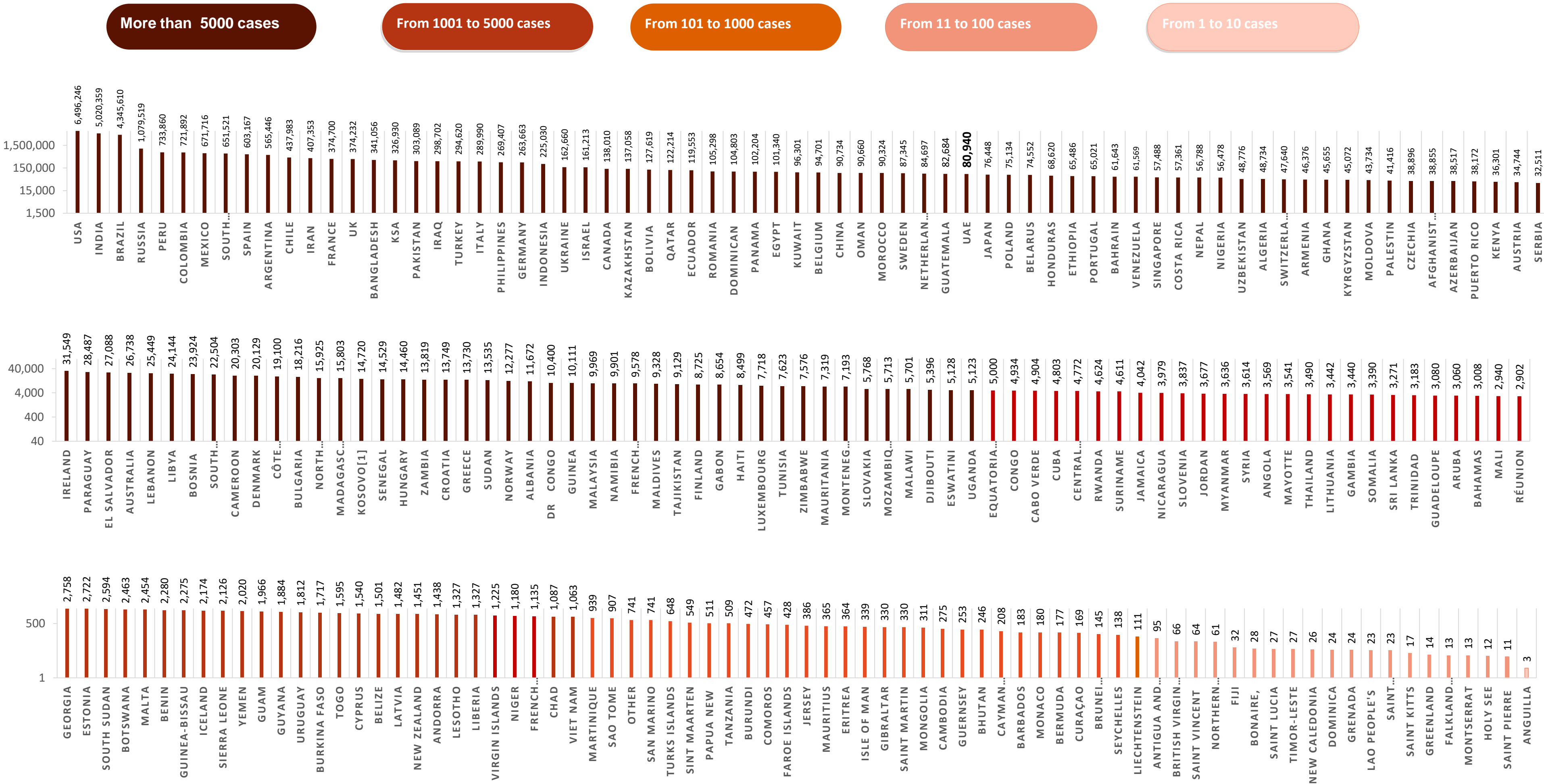
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

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



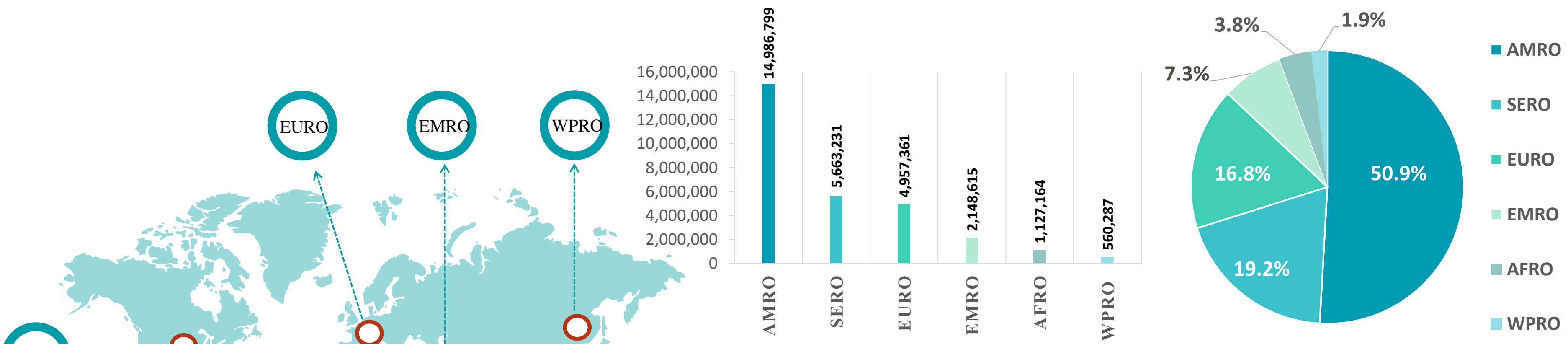
Other\*: includes cases and deaths reported under the international conveyance(Diamond Princess)



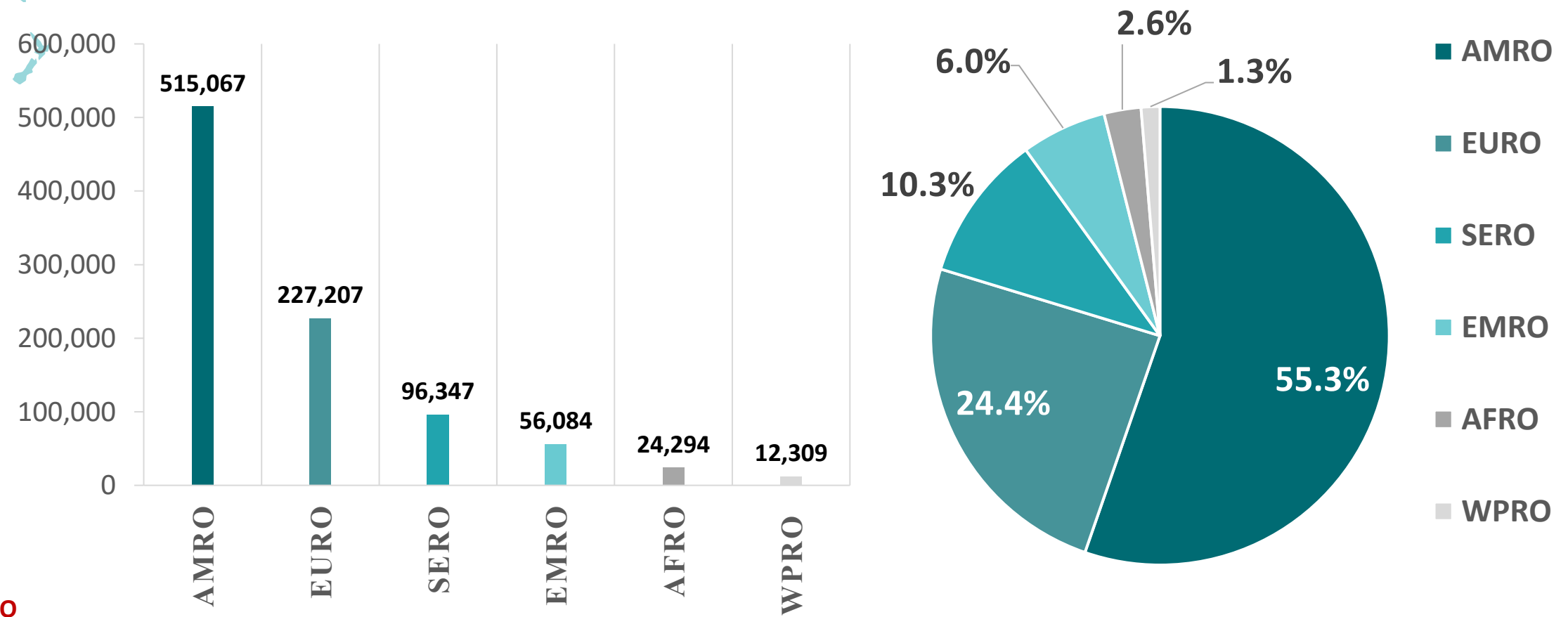


Figure 8: Global Distribution of COVID-19 Cases per Region

## INFECTED



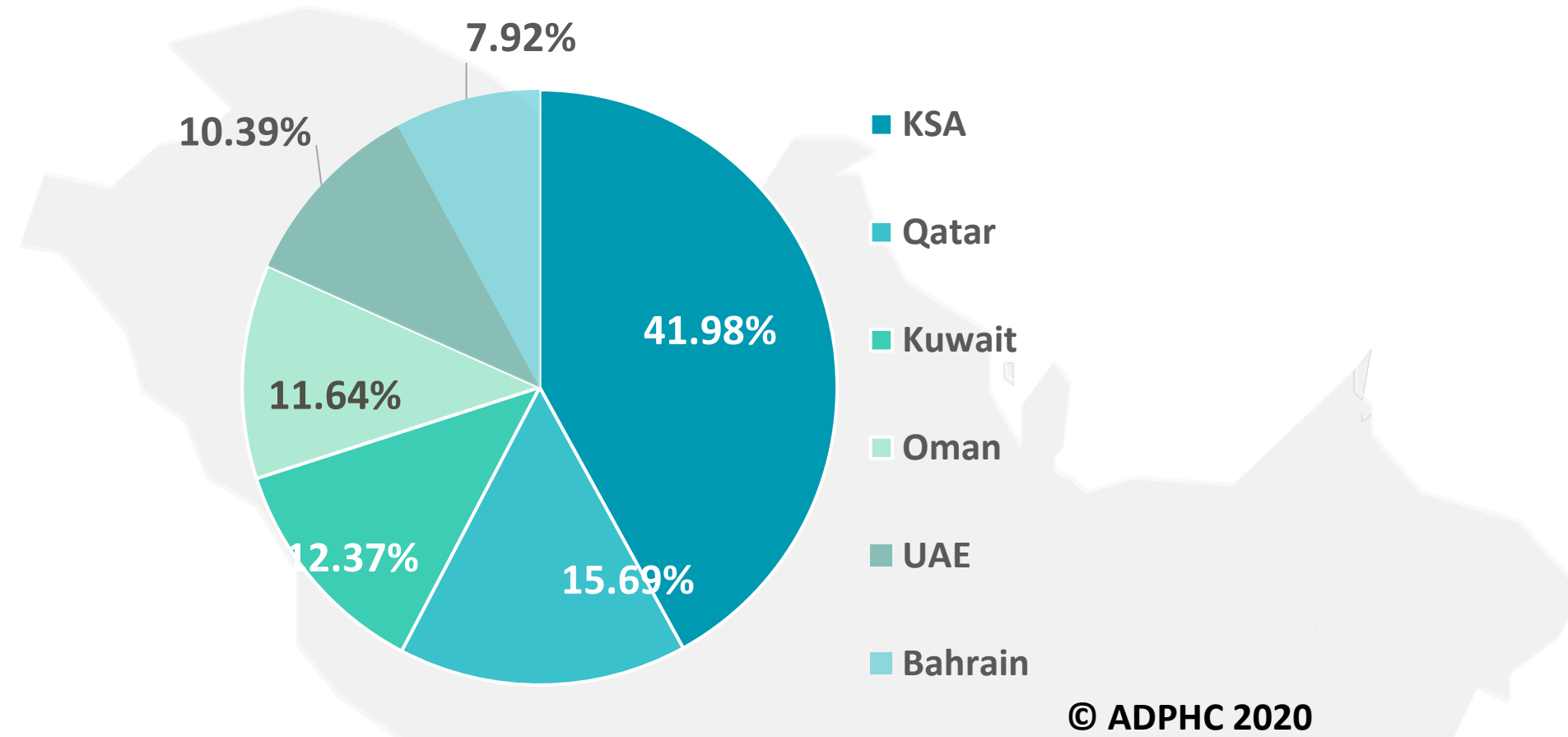
## DEATHS



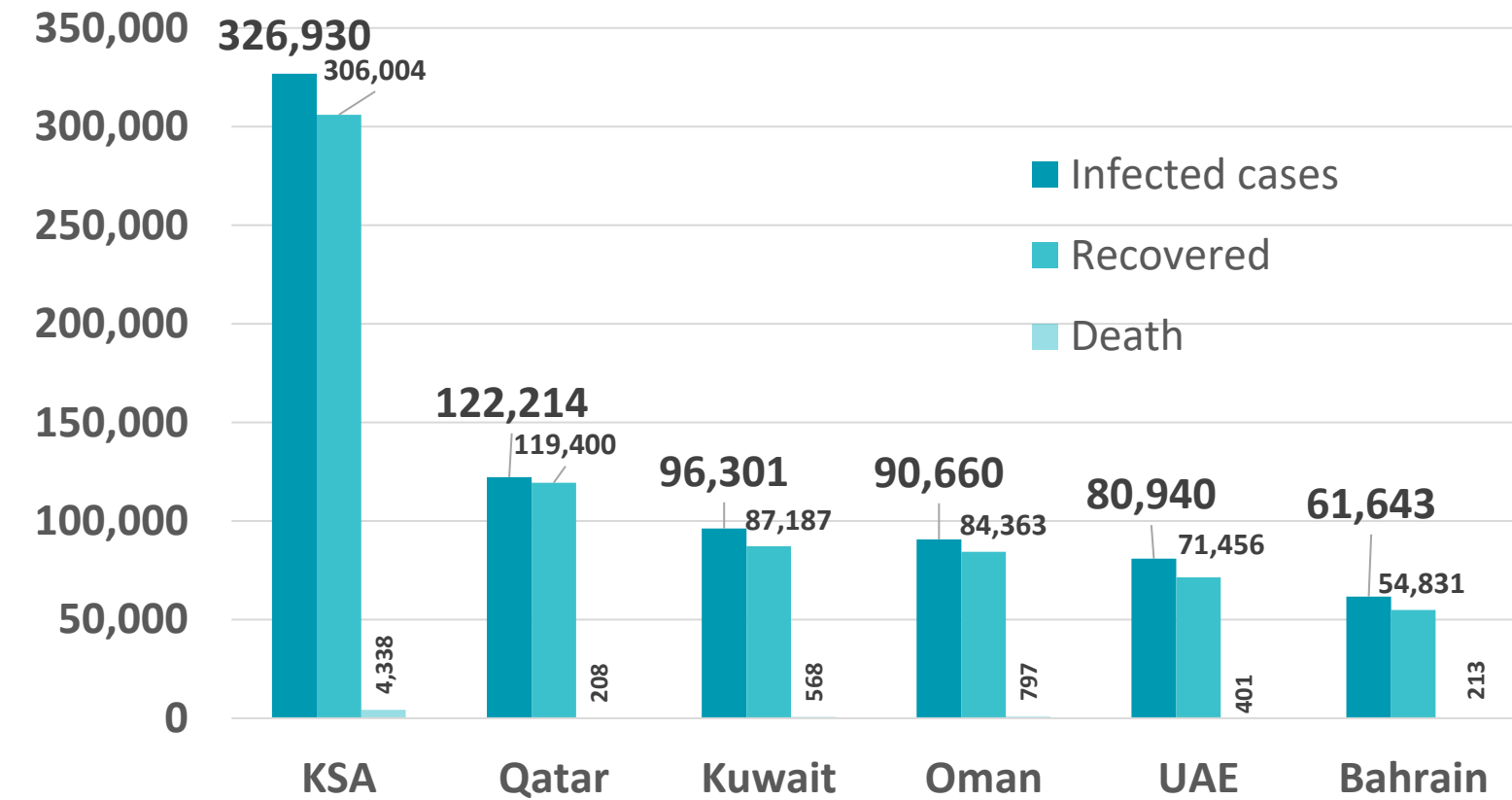
Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: [WHO](#)

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

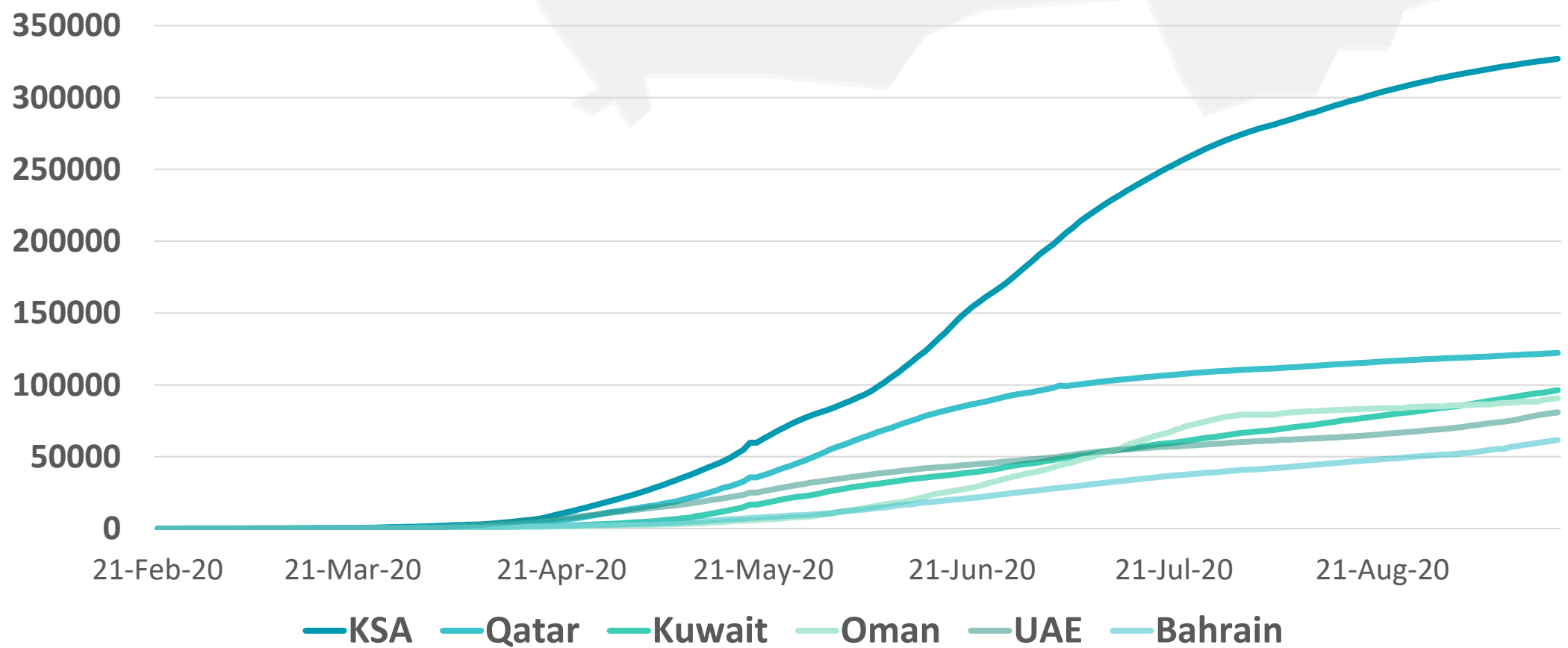
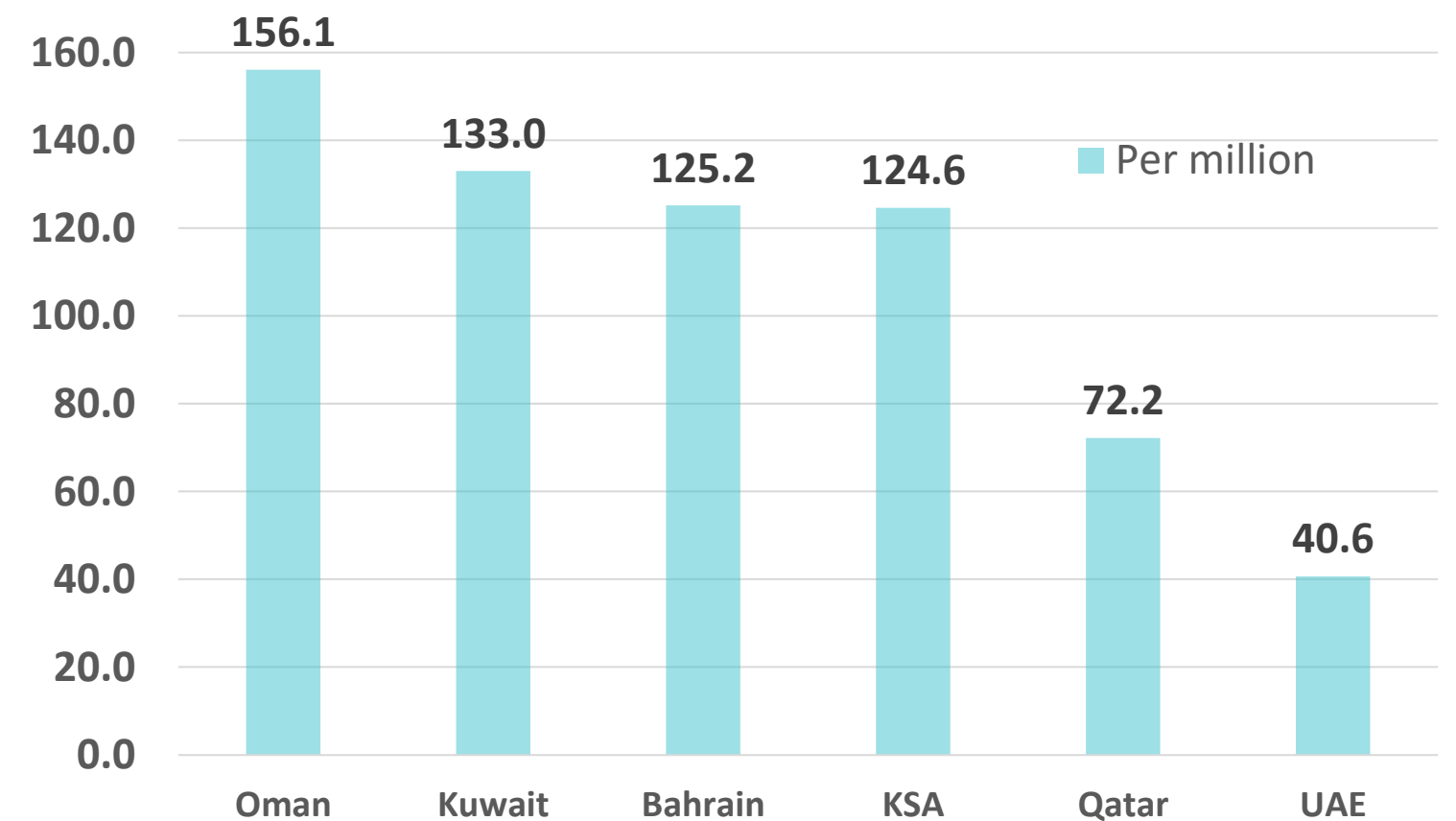
### TOTAL NUMBER OF INFECTED CASES



### 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



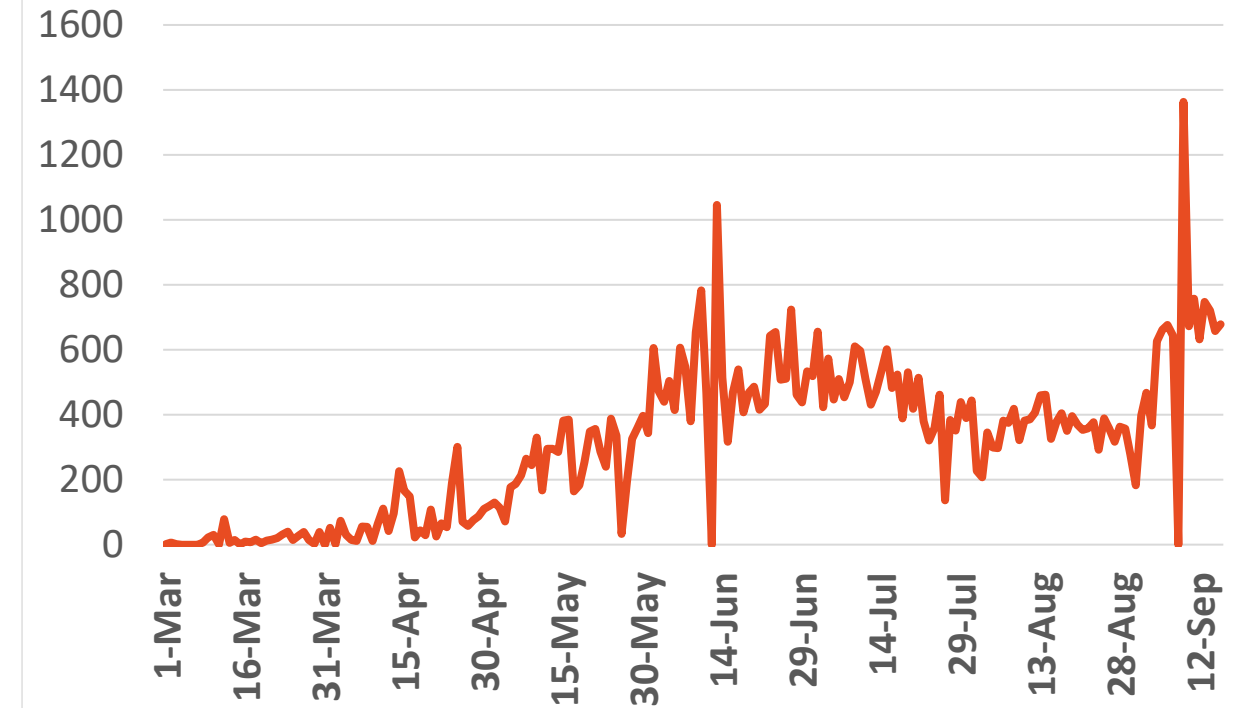
Source : National Emergency Crisis and Disaster Management Authority

### KSA



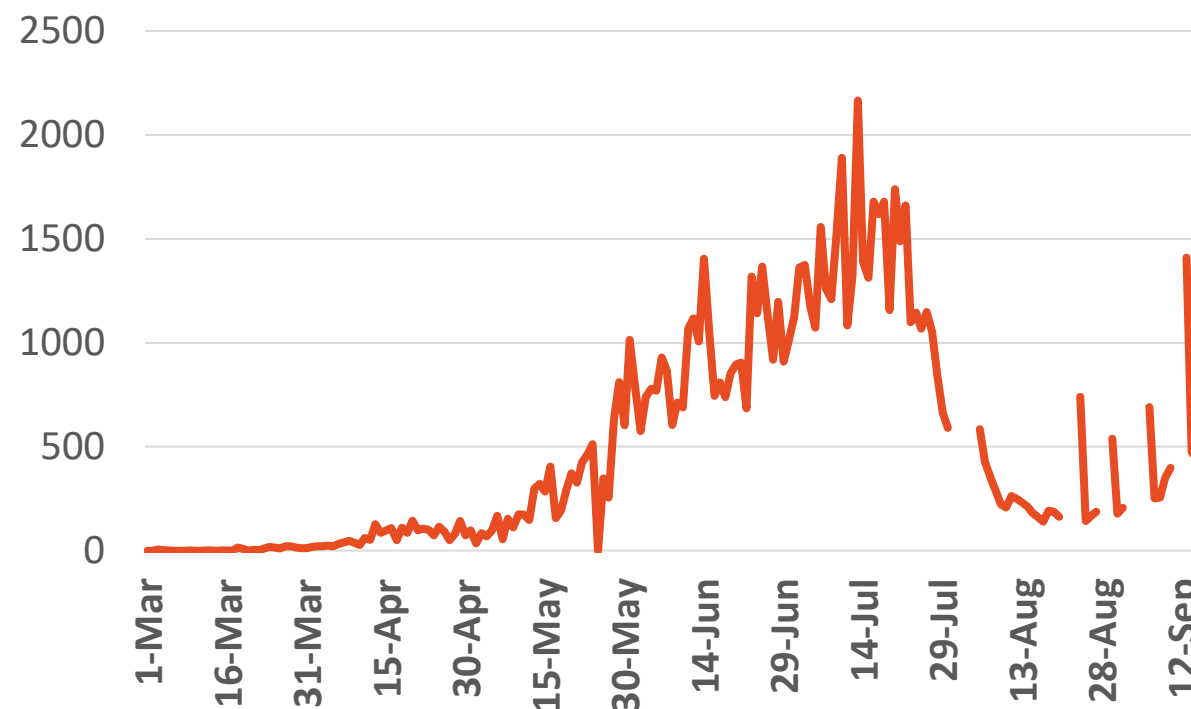
Source : KSA ministry of health

### Bahrain



Source :WHO

### Oman

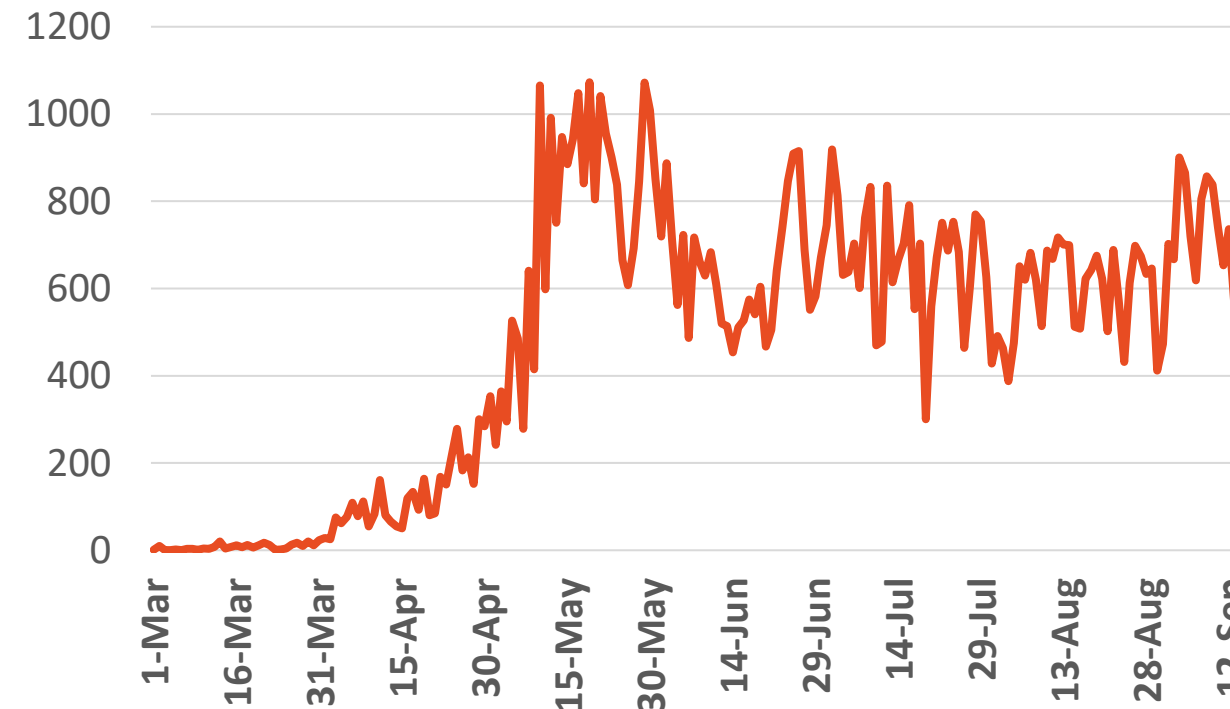


Source :Oman ministry of health

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

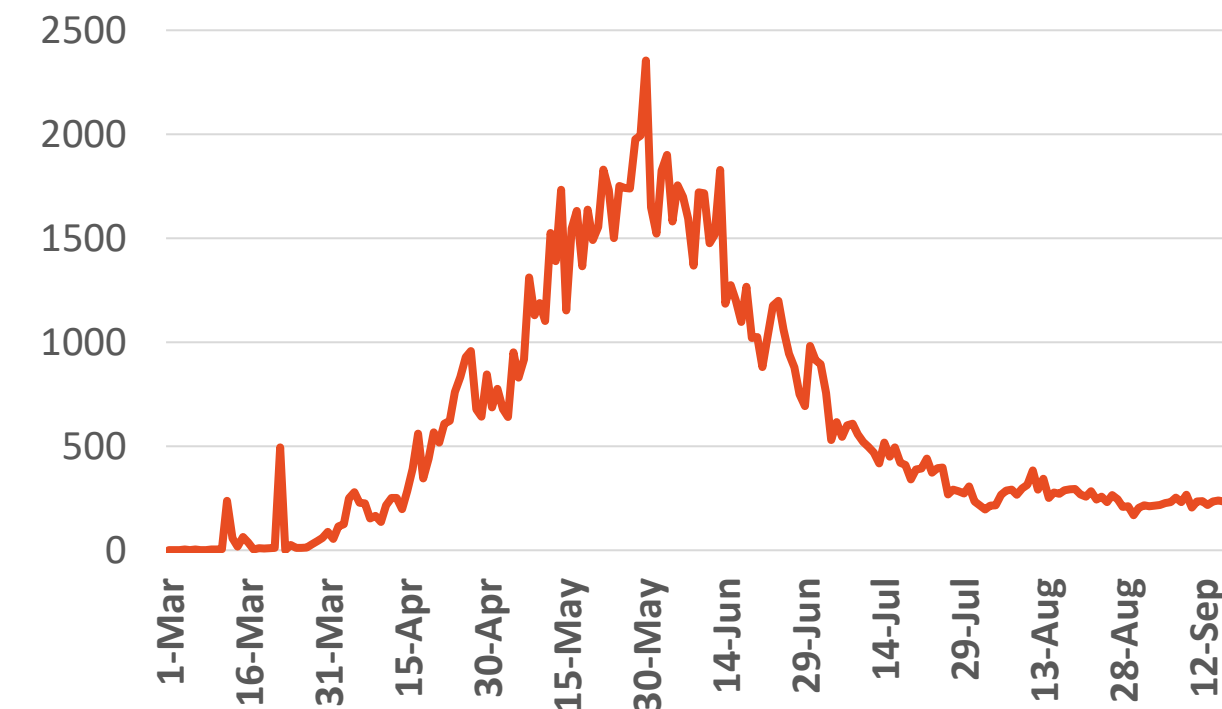
### Kuwait

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Source : Kuwait ministry of health

### Qatar



Source : Qatar ministry of health



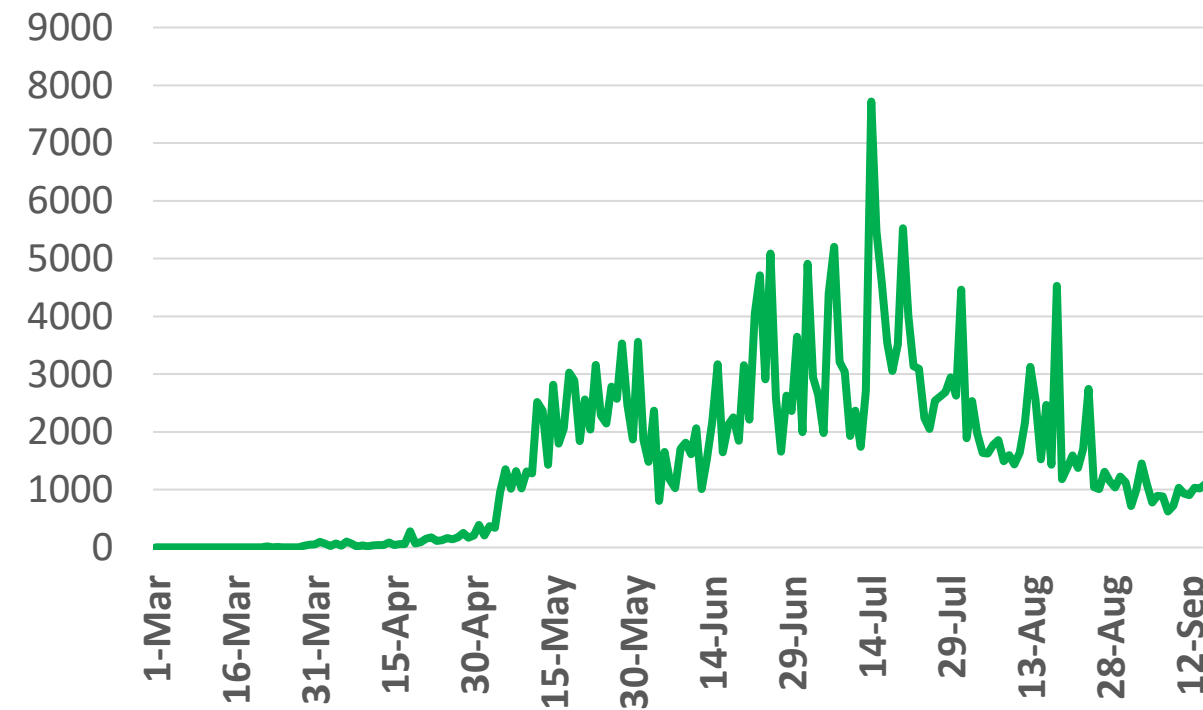
**Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries**

## UAE



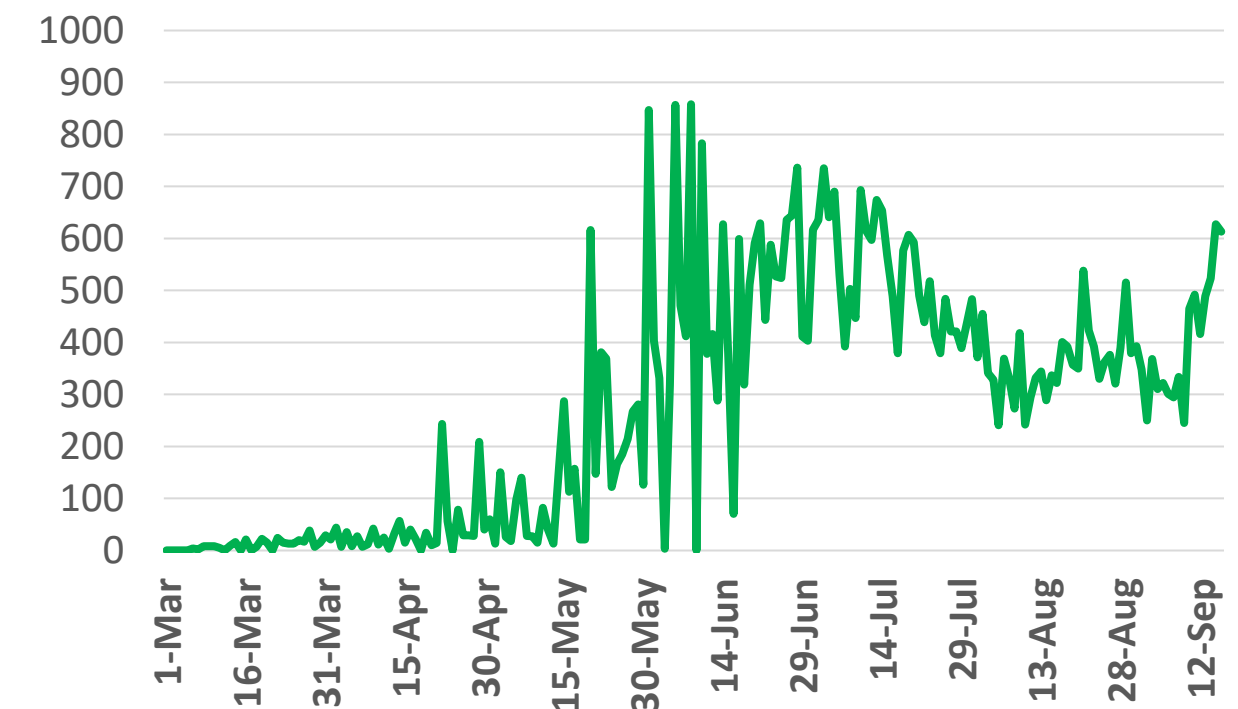
Source : National Emergency Crisis and Disaster Management Authority

## KSA



Source : KSA ministry of health

## Bahrain



Source : Bahrain ministry of health

## 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 to 23 August & from 28 to 30 August, 2, 4, 5, 11 & 12 September

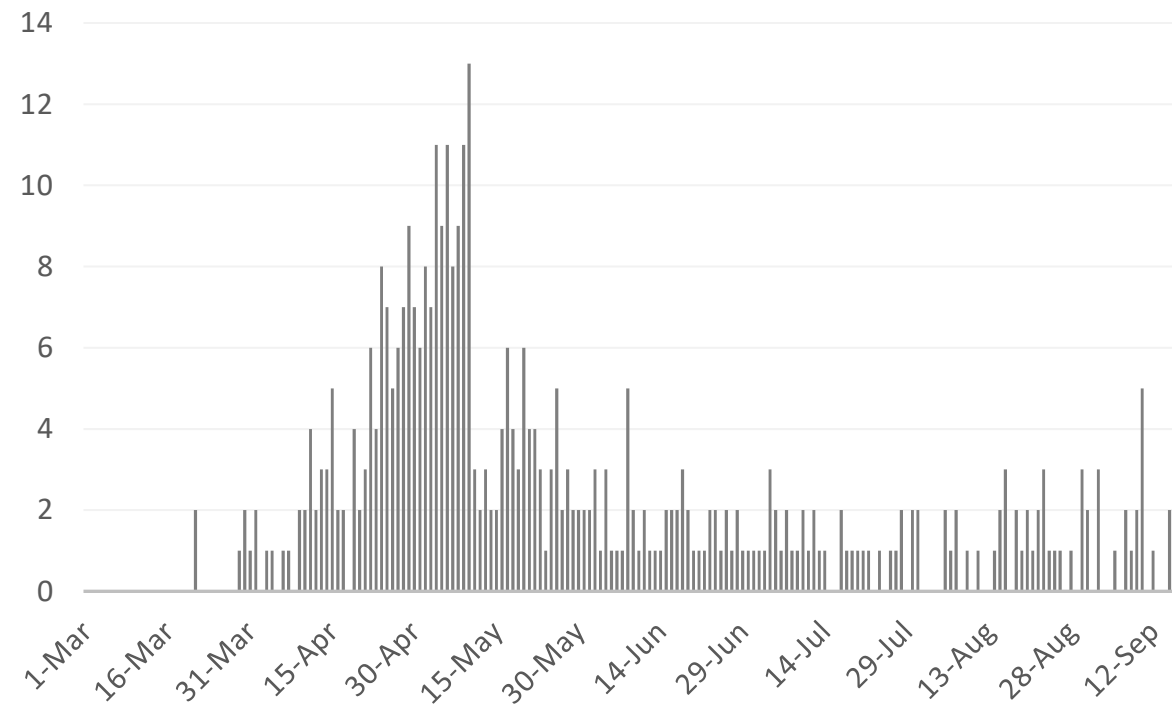
\*No announced statistic data on weekends and official holidays.





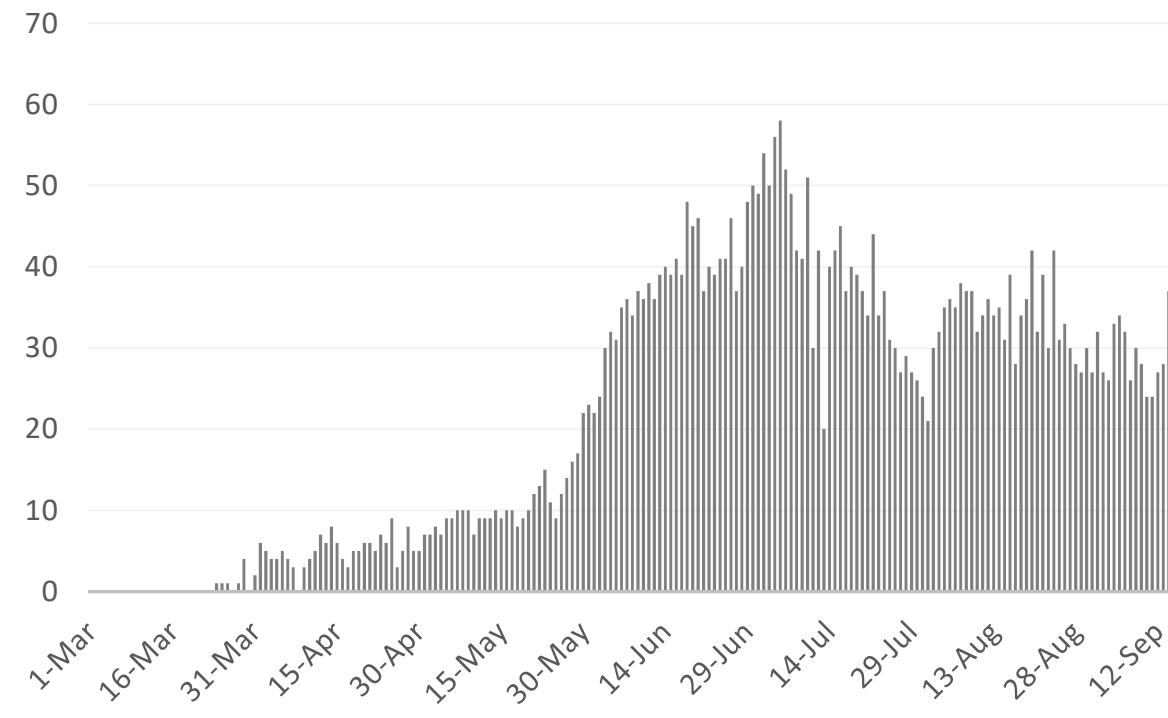
## Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

### UAE



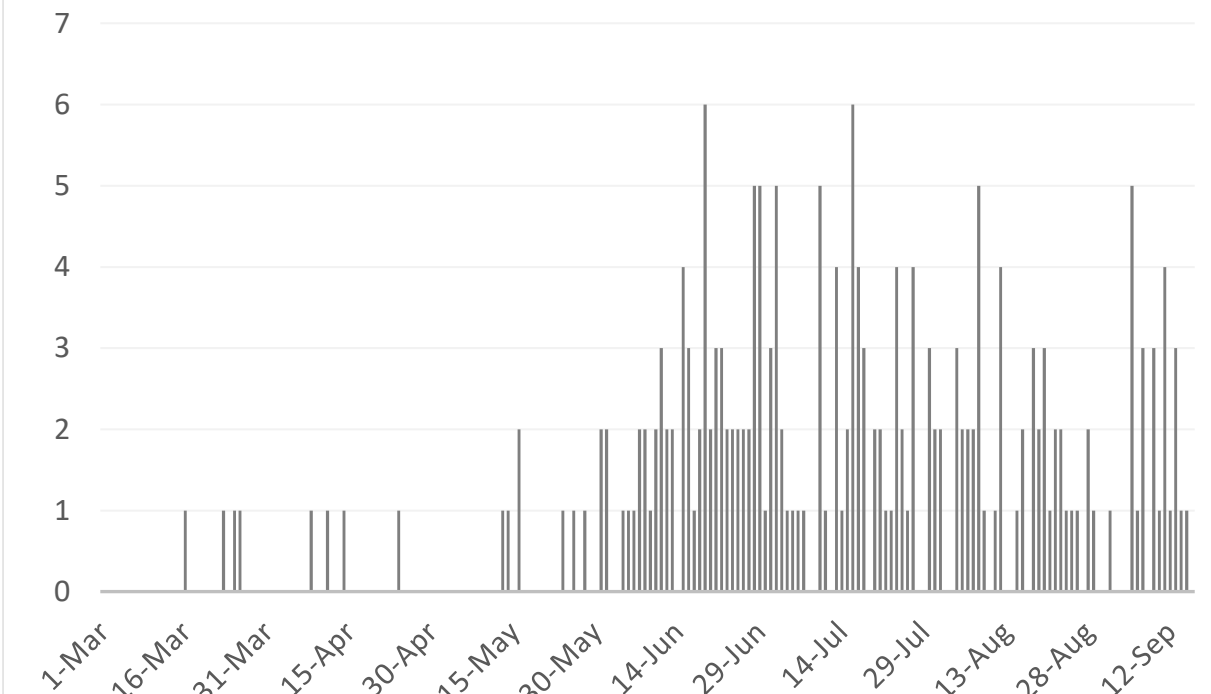
Source : National Emergency Crisis and Disaster Management Authority

### KSA



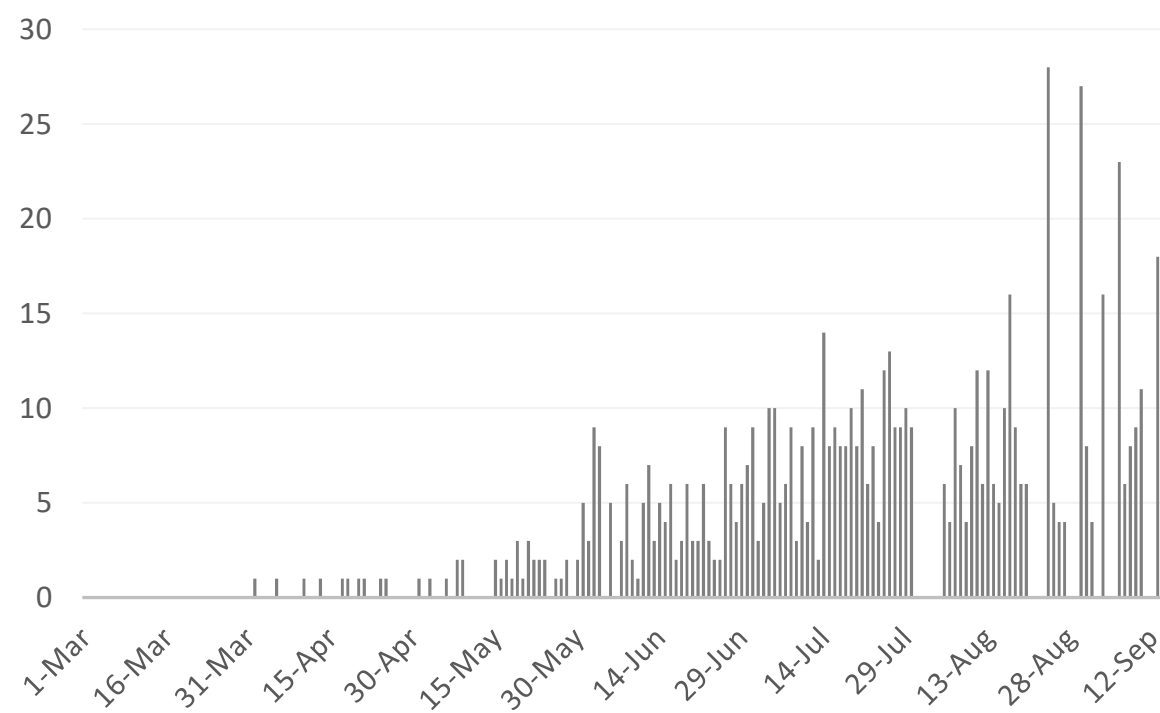
Source : KSA ministry of health

### Bahrain



Source :WHO

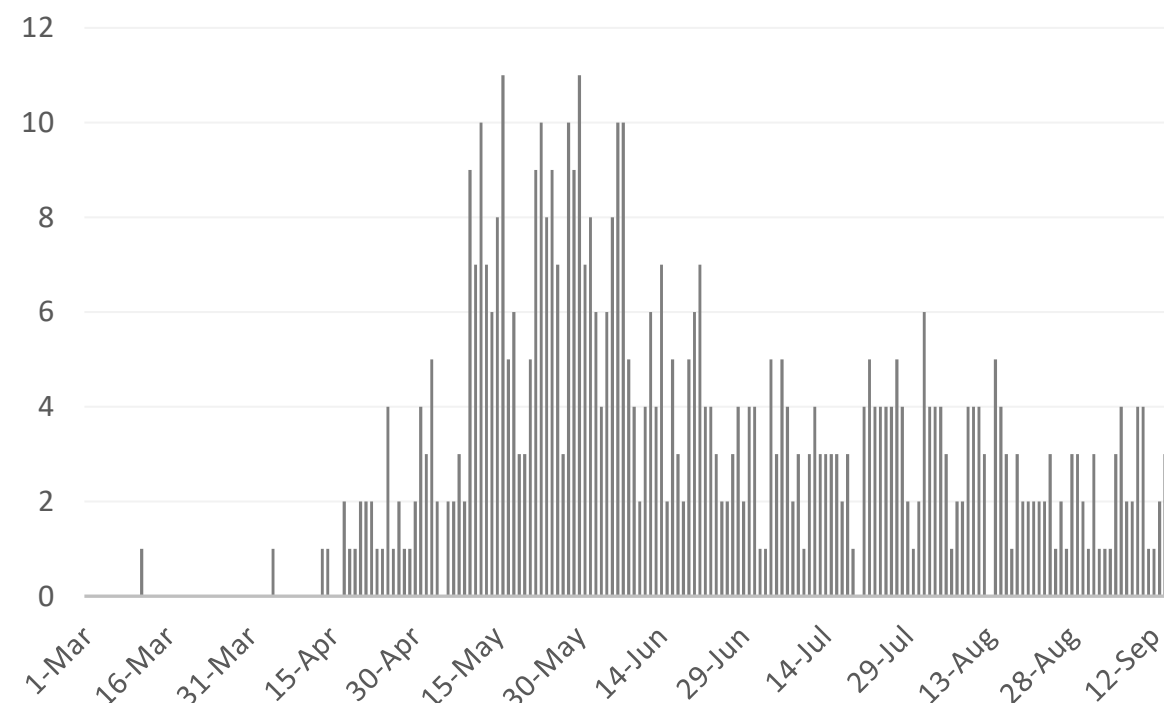
### Oman



Source :Oman ministry of health

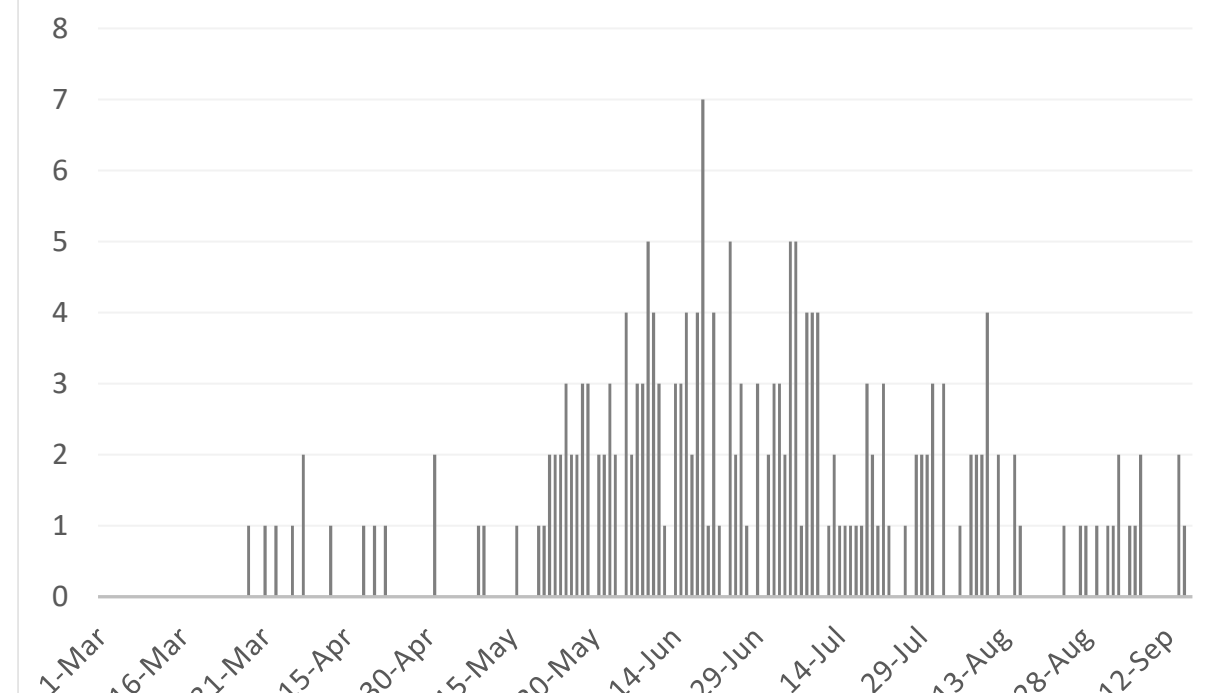
### Kuwait

© ADPHC 2020



Source : Kuwait ministry of health

### Qatar



Source : Qatar ministry of health

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

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





# PUBLIC HEALTH RESPONSE

## Article 1

# Reassuring the Public and Clinical Community About the Scientific Review and Approval of a COVID-19 Vaccine

Published

10 September 2020 [JAMA](#)

- In the United States (US), Food and Drug Administration (FDA) is willing to use an Emergency Use Authorization (EUA) for vaccines before phase 3 trials are complete. The EUA provides a rapid approach to facilitate the availability and use of vaccines during a public health emergency.
- According to the director of the FDA center responsible for vaccine review, the vaccine will only be authorized or licensed when it meets the guidelines for safety and efficacy. FDA staff can evaluate the phase 3 trial data and decide if the trials establish safety and effectiveness. After that, they should be able to recommend either an EUA or full licensure to provide access to a safe and effective vaccine as quickly as possible.
- Important safeguards should be established to reassure the clinical community and public about any vaccine approval.
- The FDA should explain the role of the data and safety monitoring board (DSMB) for the vaccine trials, and any correspondence between the DSMB and the investigators should be shared with the public. Two additional groups such as Vaccines and Related Biological Products Advisory Committee and the Advisory Committee on Immunization Practices (ACIP) have an important responsibility to the government and the public.
- The FDA should share all the available data about a vaccine candidate with vaccine advisory committee and ACIP before making any decision about an EUA or approval. The FDA should seek the input of both committees before making a decision. An FDA decision consistent with the advice of these independent experts will then reassure the public.
- The FDA remains the agency to answer the question of when vaccines are safe and effective for the population. It also remains essential for the FDA to be fully informed by scientific experts, to promote trust and confidence on the path to ending the pandemic.



## Article 2

# Mapping Global Trends in Vaccine Confidence and Investigating Barriers to Vaccine Uptake: A Large-Scale Retrospective Temporal Modelling Study

Published

September 10, 2020 [THE LANCET](#)

- Between September, 2015 and December, 2019, reported vaccine confidence levels were collected from 284,381 participants aged  $\geq 18$  years across 149 countries using data from 290 nationally representative surveys. Vaccine confidence levels were measured through three survey statements relating to individual perceptions on the importance, safety, and effectiveness of vaccines. Online, telephone, and face to face survey methodologies were used. In order to explore barriers to vaccine uptake, data was extracted from the Wellcome Global Monitor (WGM) surveys on demographics (age, gender, and religious beliefs) and socio-economic condition (education and income) in addition to sources of trust and information seeking behaviors.
- It was estimated that vaccine confidence levels (importance, safety, and effectiveness) fell in Afghanistan, Indonesia, Pakistan, Philippines, and South Korea between November, 2015 and December, 2019. During the study period, in Afghanistan, Azerbaijan, Indonesia, Nigeria, Pakistan, and Serbia, significantly increased number of participants strongly disagreed that vaccines are safe. Some countries in the European Union (EU) such as Finland, France, Ireland, and Italy showed improvement in confidence levels between 2018 and 2019. Regarding vaccine uptake, the results indicated that minority religious groups tended to have lower likelihood of uptake.
- This study provides novel insights into global variations in vaccine confidence and presents the country dependent factors that regulate vaccine decisions. A key implication of this analysis is the importance of regular monitoring to detect emerging trends to prompt interventions to build and sustain vaccine confidence.







# PUBLIC HEALTH RESPONSE

## Article 3 Comparison of Clinical Features of COVID-19 vs Seasonal Influenza A and B in US Children

Published

08 September 2020 [JAMA](#)

There are many similarities between COVID-19 and seasonal influenza (transmission and clinical presentation). This retrospective cohort illustrated and compared children who were diagnosed with COVID-19, seasonal influenza A, and influenza B in a free-standing children hospital in Washington. DC.

### Methods

- This study compared the results of 315 pediatric patients with COVID-19 between March 25 and May 15, 2020, to 1402 pediatric patients with seasonal influenza (A and B) between October 1, 2019 and June 6, 2020.

### Findings

- There were similarities in both groups in hospitalization rate, ICU admission rate, and mechanical ventilator use. However, there was no statistically significant difference in ventilator support (Table 1).
- There was a decrease in influenza cases after applying COVID-19 precautionary measures, which lead to zero cases of co-infection of both COVID-19 and seasonal influenza.

### Conclusion

- The findings of this study suggest prompt identification and treatment of children with a respiratory viral infection in health care facilities as the influenza season approaching.

Table 1. Comparison of Outcomes Among Patients With COVID-19, Influenza A, and Influenza B

Outcome	COVID-19	Seasonal influenza		
		A and B	A	B
Patients tested positive, No.	315	1402	674	728
Patients hospitalized, No. (%)	54 (17.1)	291 (20.8)	143 (21.2)	148 (20.3)
Patients requiring ICU stay, No. (%)	18 (5.7)	98 (7.0)	59 (8.8)	39 (5.4)
Patients requiring mechanical ventilator support, No. (%)	10 (3.1)	27 (1.9)	16 (2.4)	11 (1.5)
Hospital length of stay, mean (range), d	8.4 (1-45)	5.7 (1-100)	6.3 (1-100)	5.1 (1-58)
Mechanical ventilator support, median (range), d	10.1 (2-41)	7.0 (1-38)	8.1 (1-38)	5.4 (1-16)
Deaths, No. (%)	0	2 (0.1)	2 (0.3)	0



# THANK YOU

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