

# SCIENTIFIC RESEARCH MONITORING ON COVID-19

28 SEPTEMBER 2020

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# SCIENTIFIC RESEARCH MONITORING ON COVID-19

## (ISSUE 239)

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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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.

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# RESEARCH UPDATES

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## Immunology

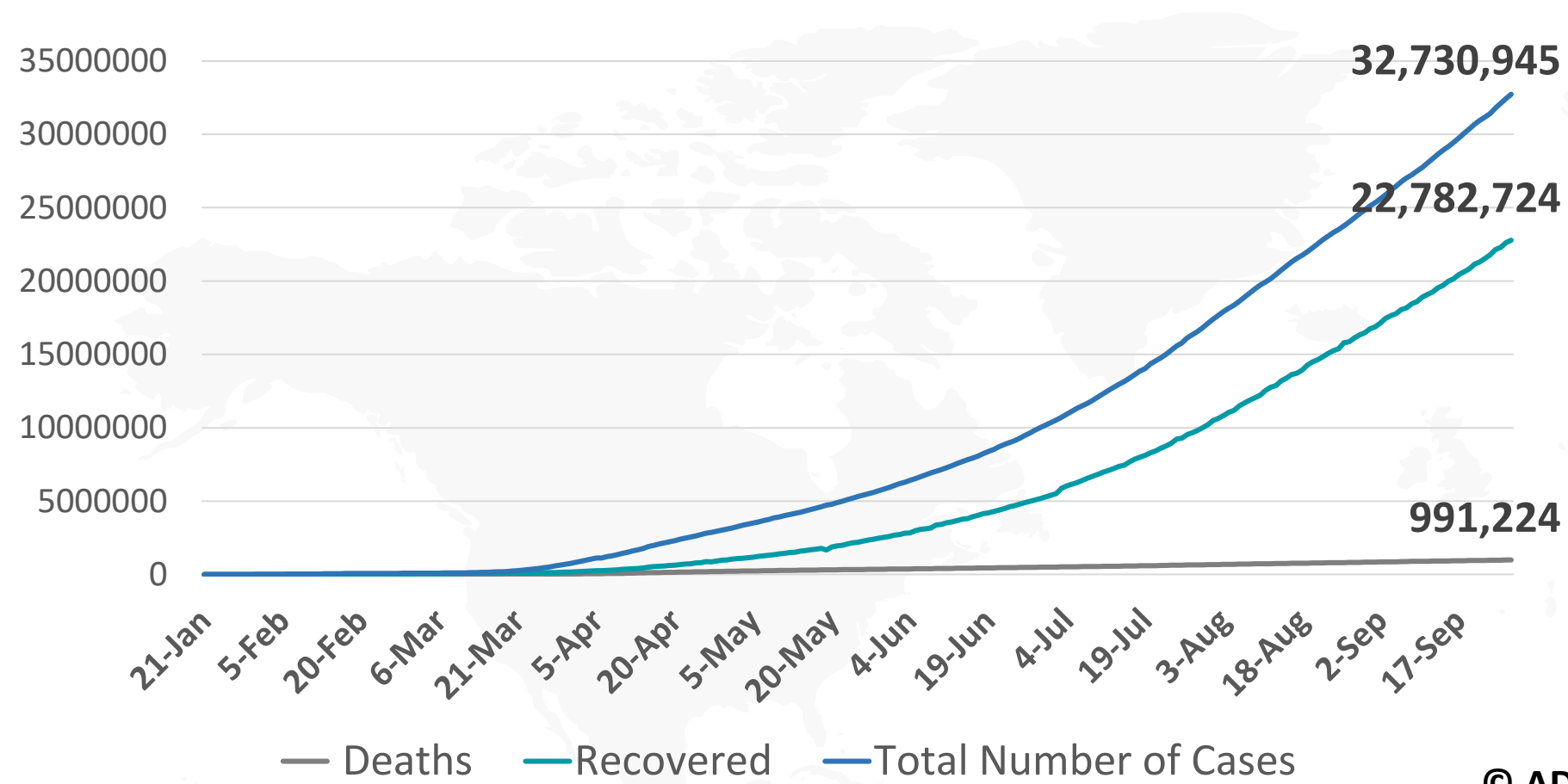
**The Pandemic Paused the US School-to-Prison Pipeline: Potential Lessons Learned**

## Epidemiology

**Prevalence of SARS-CoV-2 Antibodies in a Large Nationwide Sample of Patients on Dialysis in the USA: A Cross-Sectional Study**

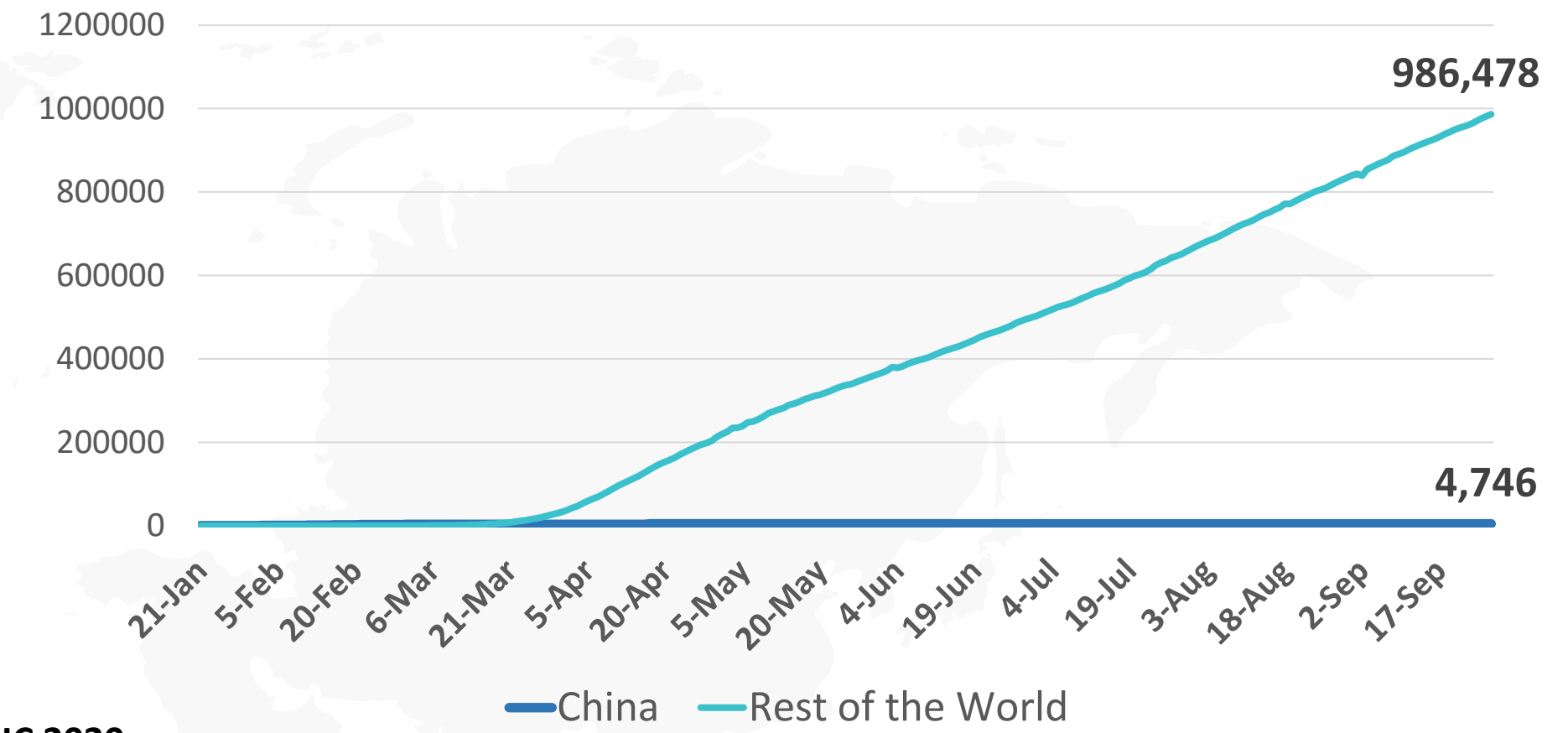


**Figure 1: Total Number of Infected, Recovered, and Death Cases**

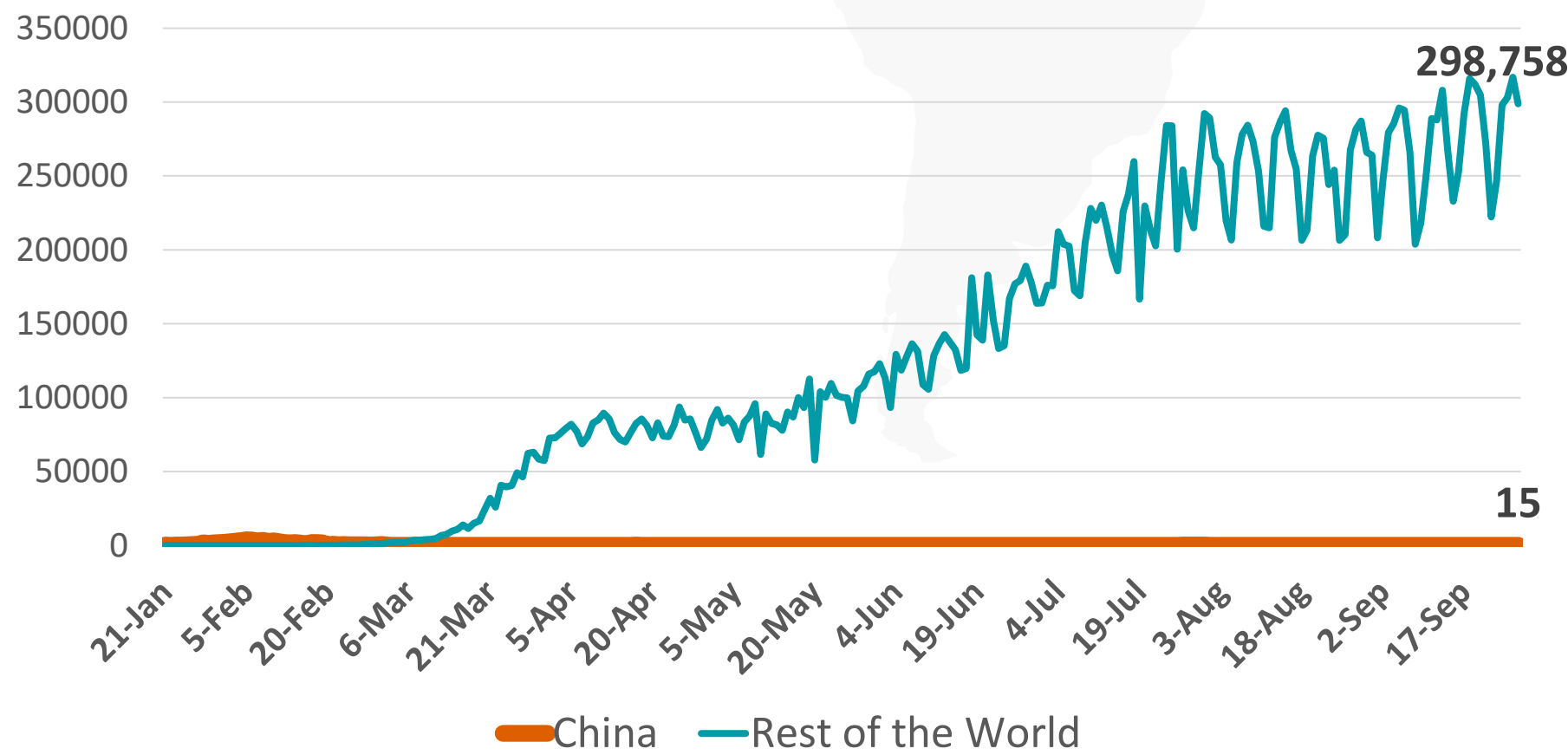


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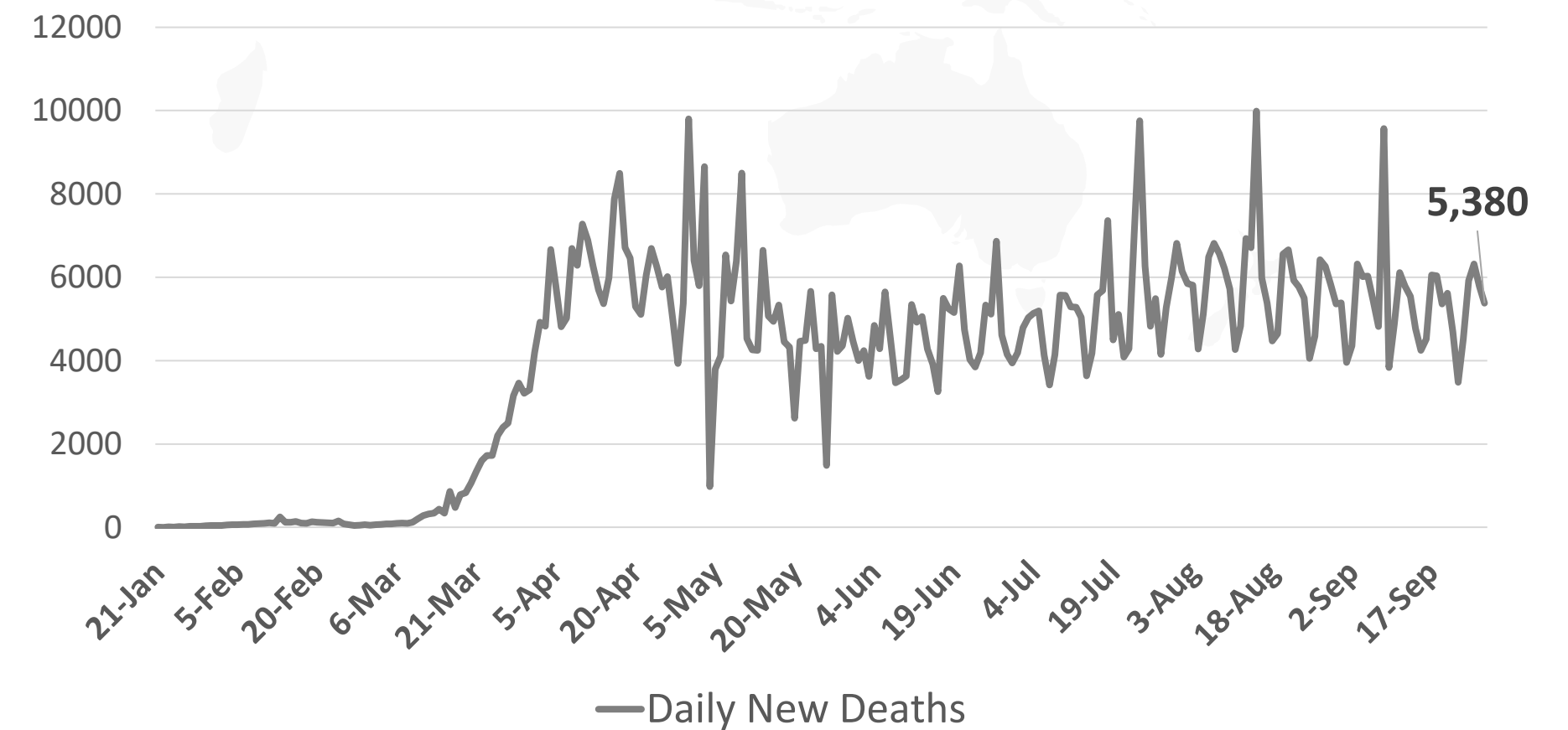
**Figure 3: Total Number of Death Due to COVID-19 (china and result of the world)**



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

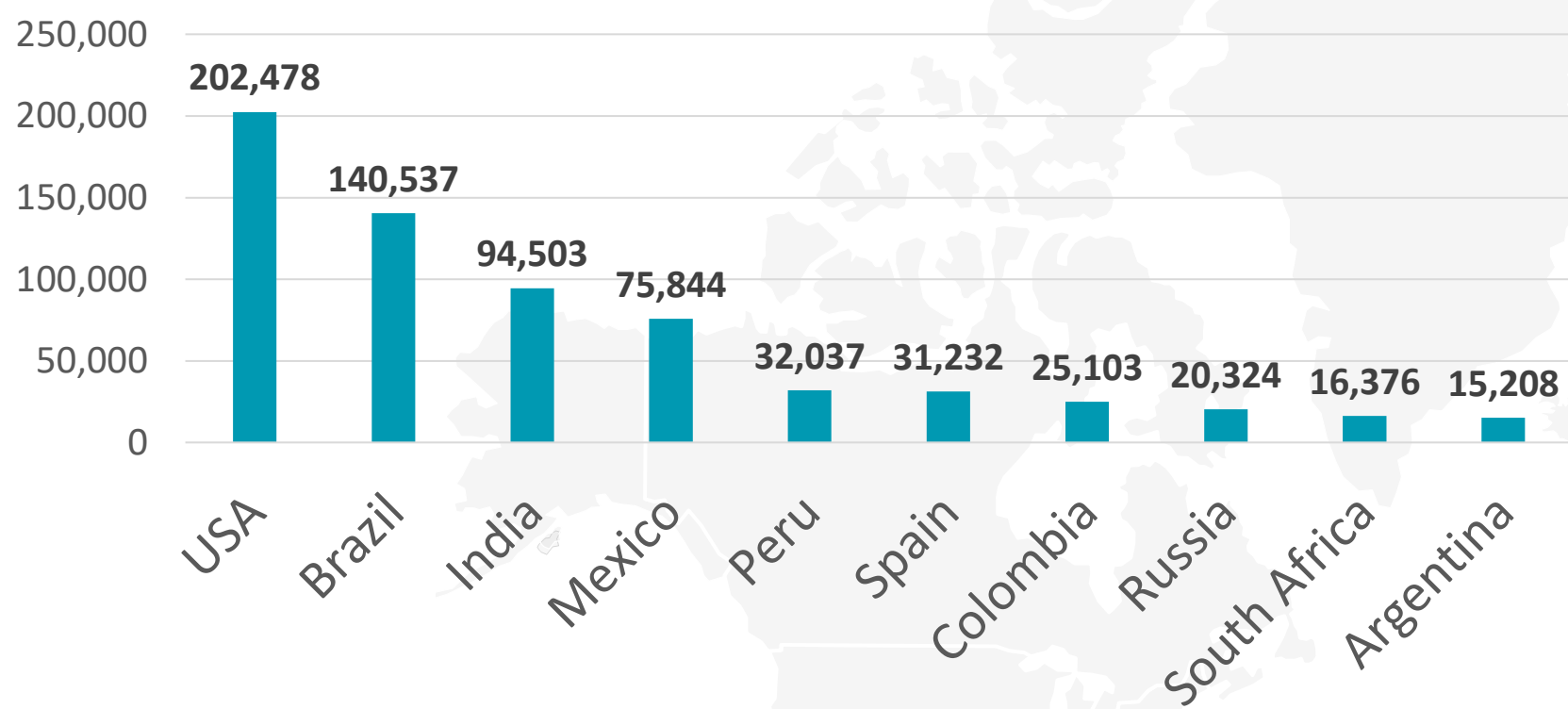


**Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)**

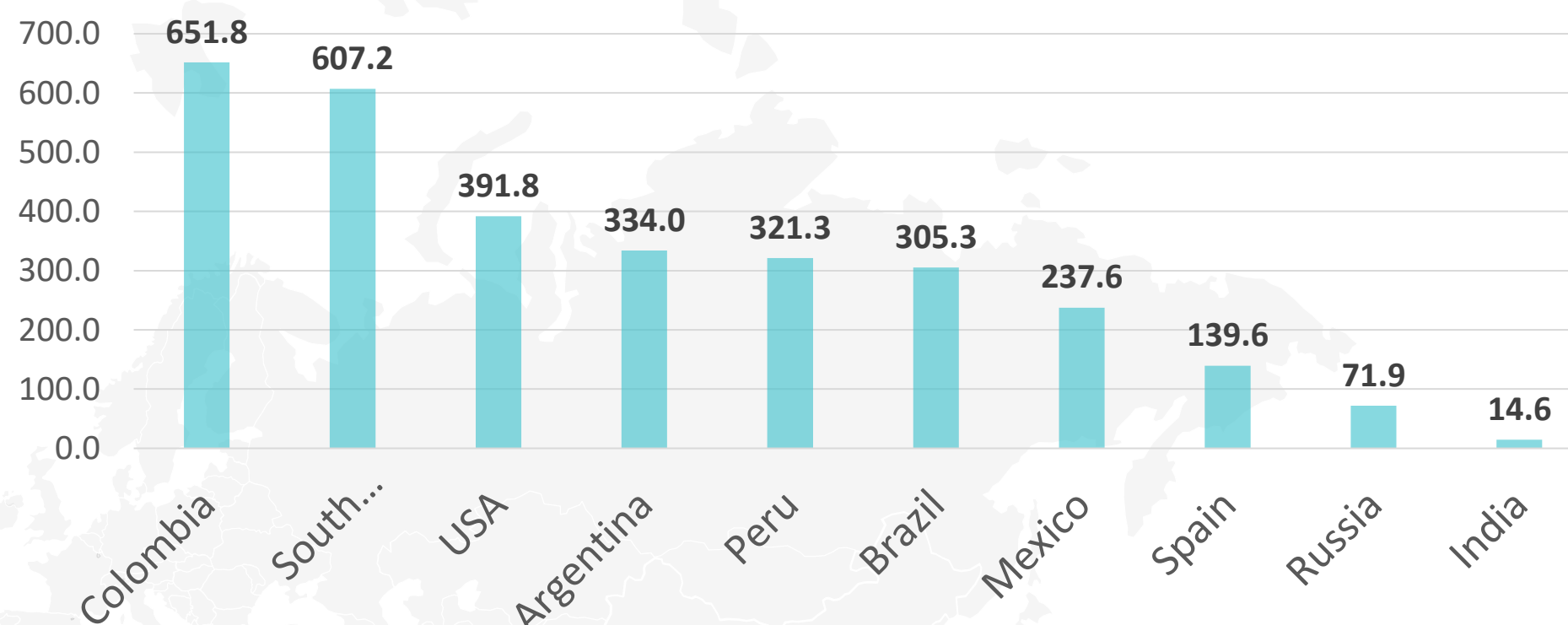


## Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19

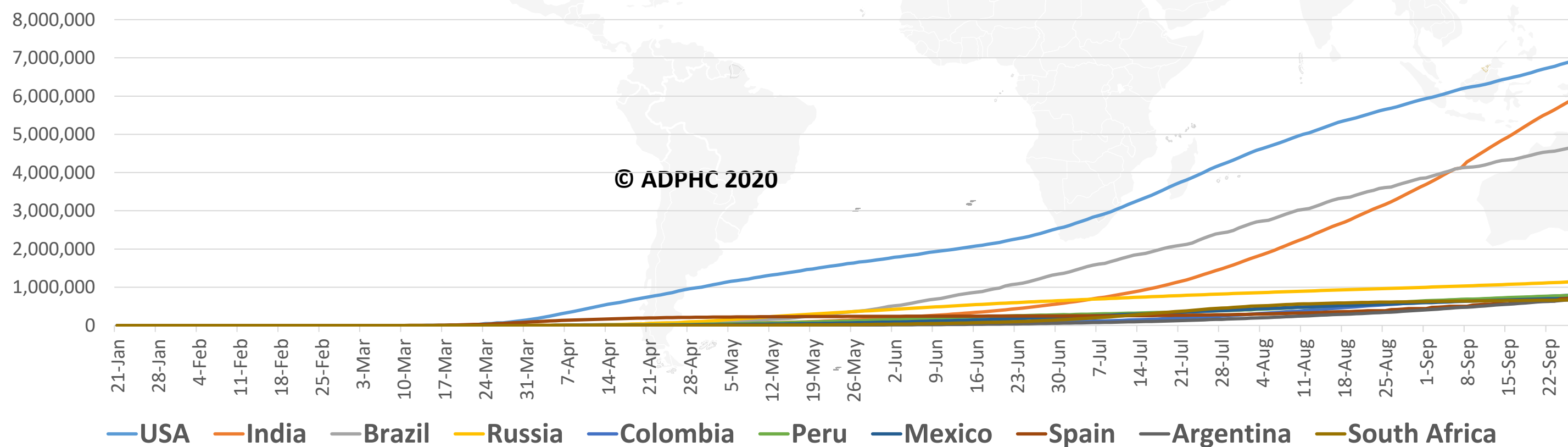
### TOTAL DEATHS



### DEATHS PER MILLION

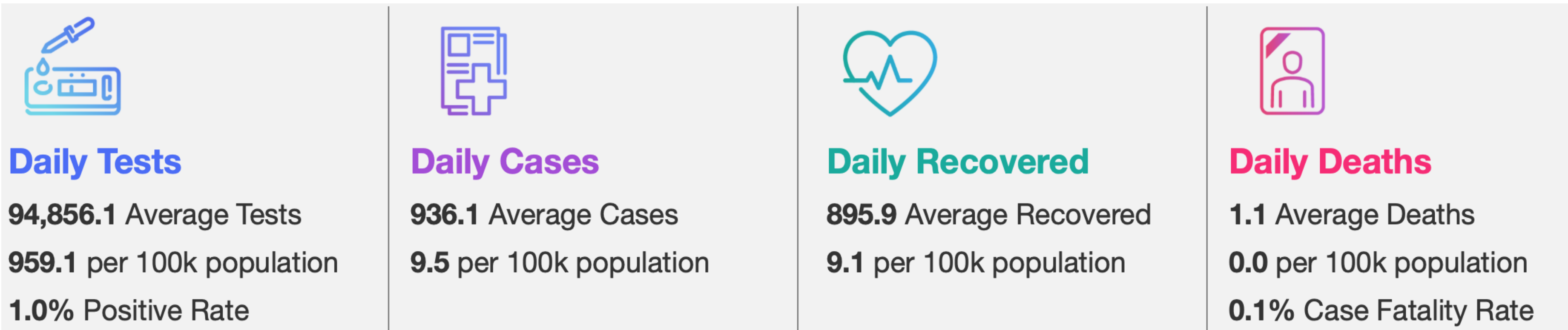


### TOTAL INFECTED CASES

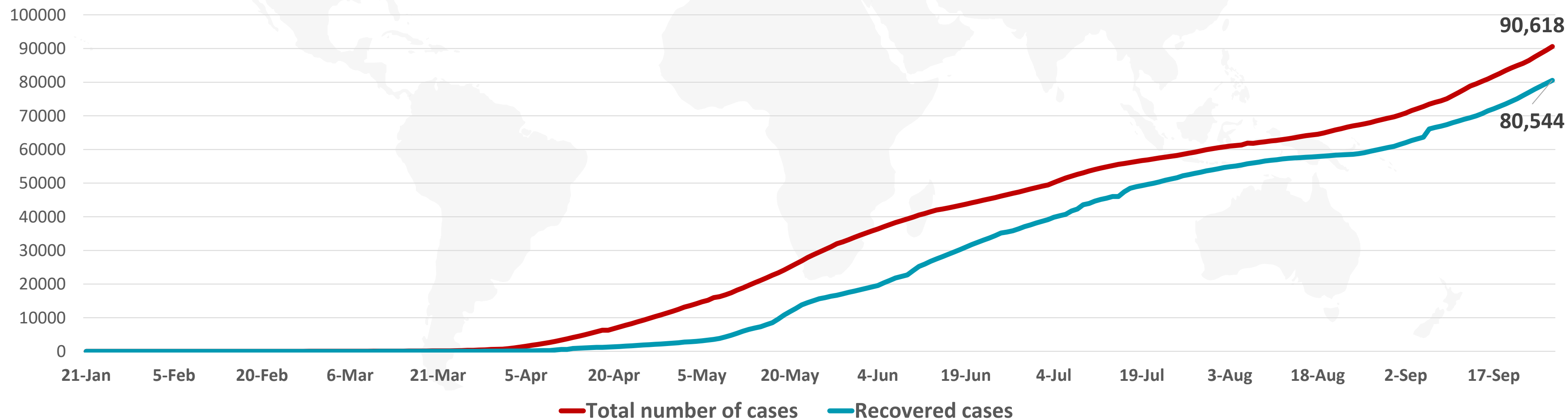


USA	6,960,152
India	5,992,532
Brazil	4,689,613
Russia	1,151,438
Colombia	798,317
Peru	794,584
Mexico	720,858
Spain	716,481
Argentina	691,235
South Africa	669,498

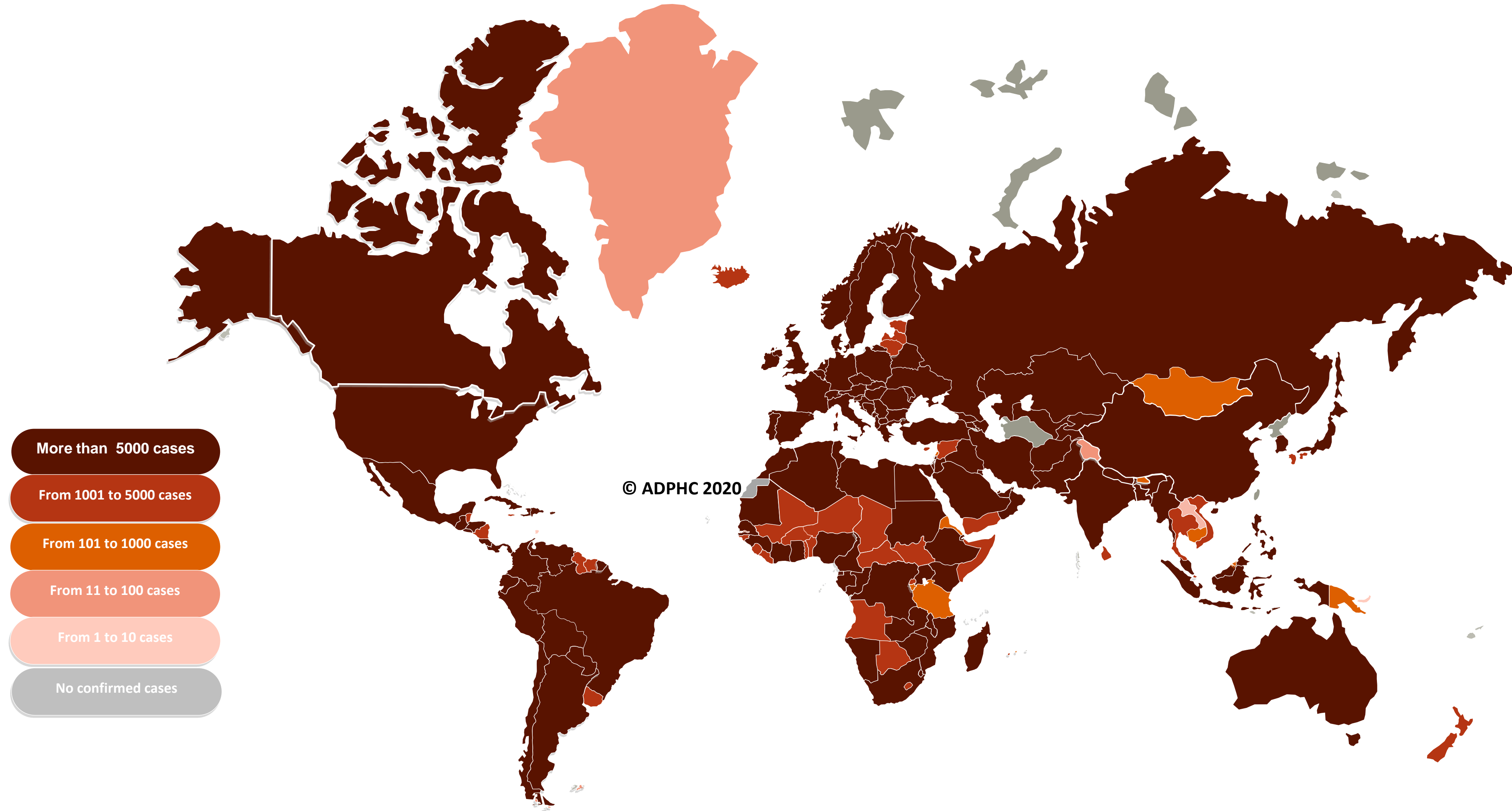
**Figure 6: COVID-19 Status in the UAE** (Federal Competitiveness and Statistics Authority Dashboard)



## 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

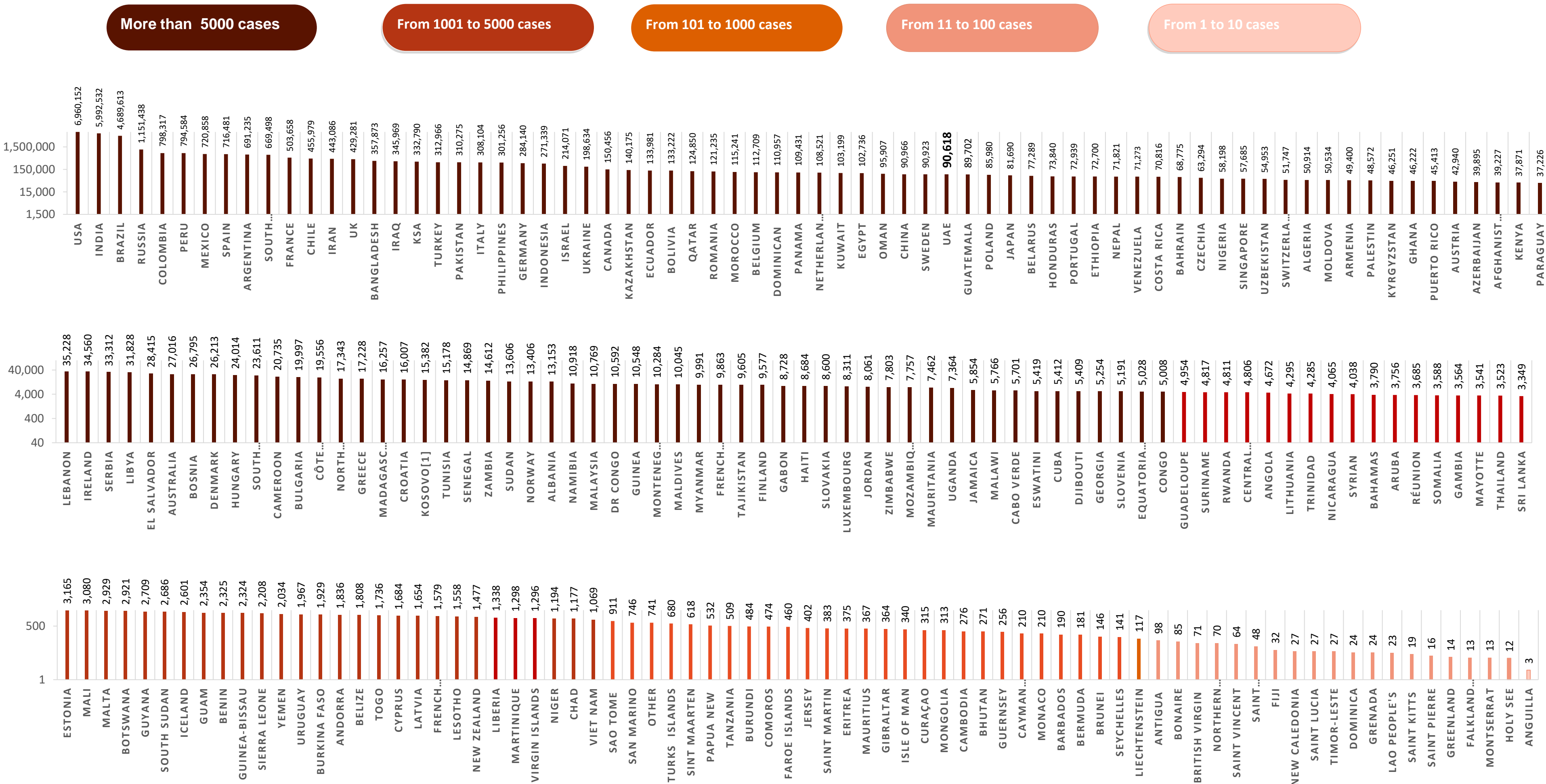
From 101 to 1000 cases

From 11 to 100 cases

From 1 to 10 cases

No confirmed cases

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



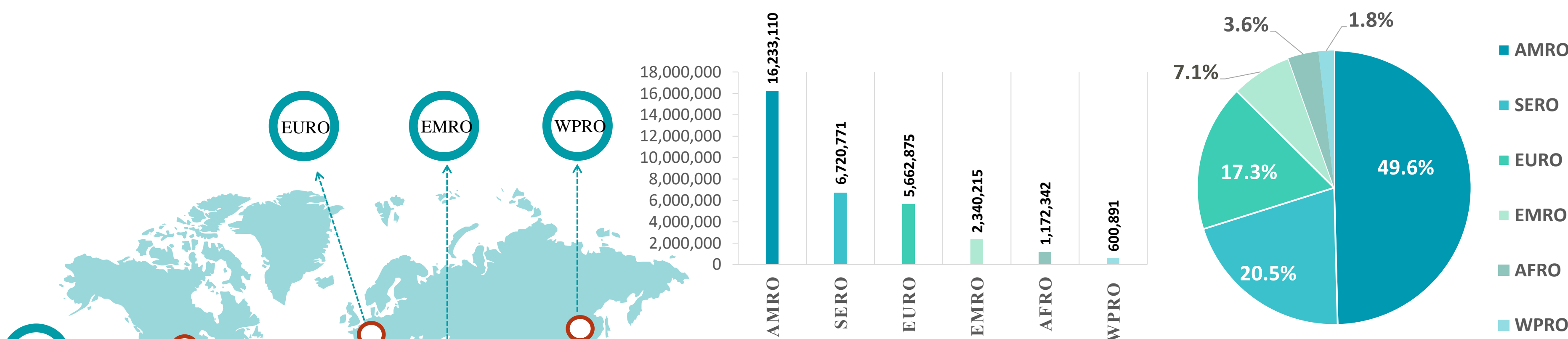
Other\*: includes cases and deaths reported under the international conveyance (Diamond Princess)



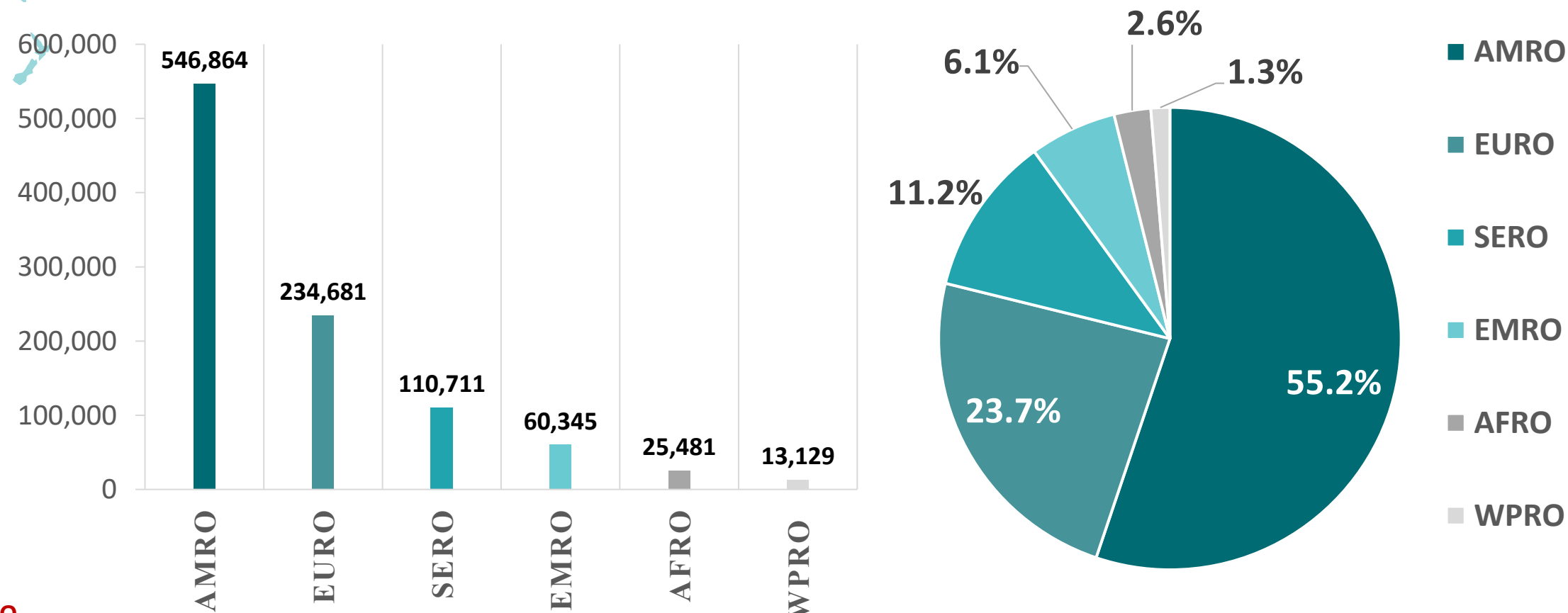


## Figure 8: Global Distribution of COVID-19 Cases per Region

### INFECTED



### DEATHS



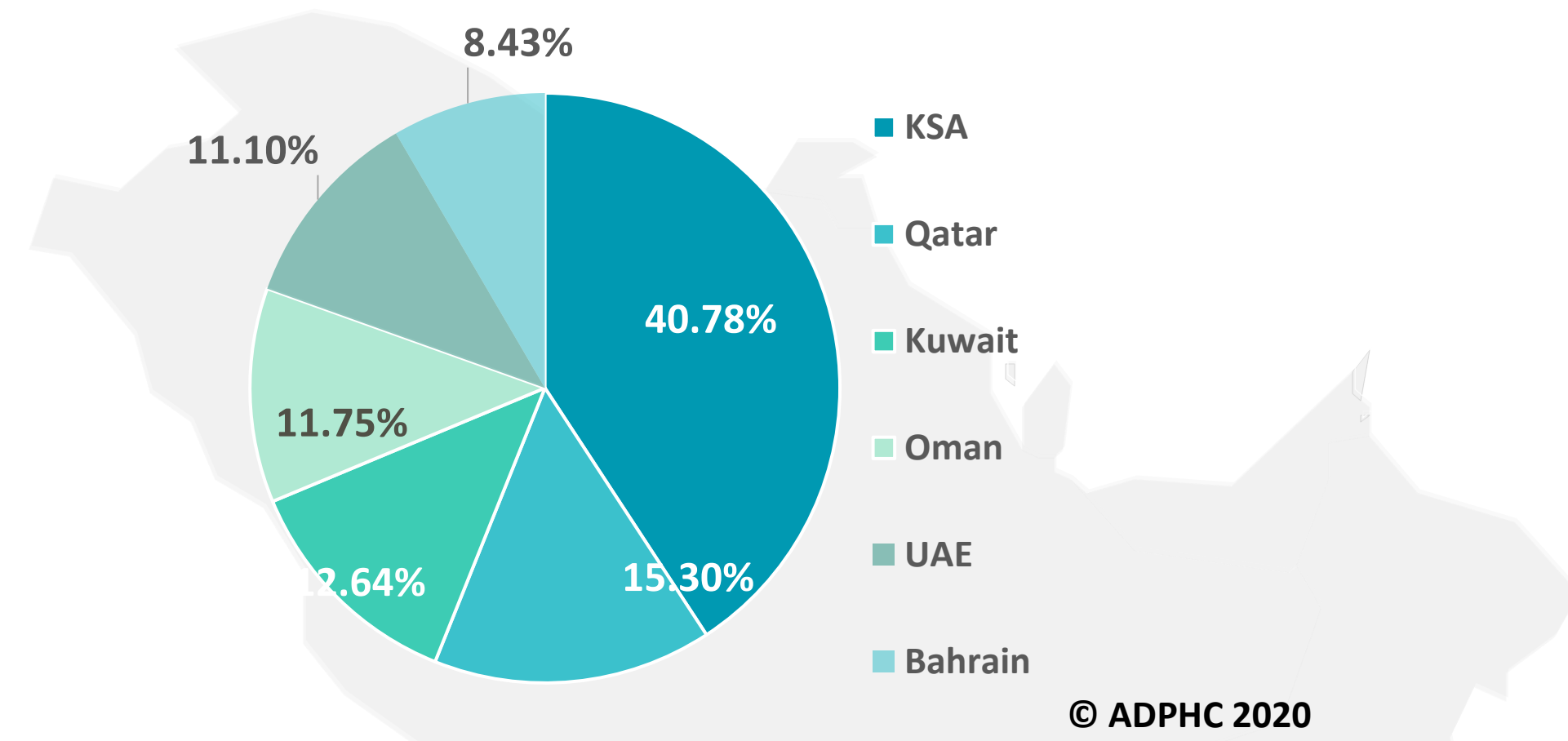
Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: [WHO](#)

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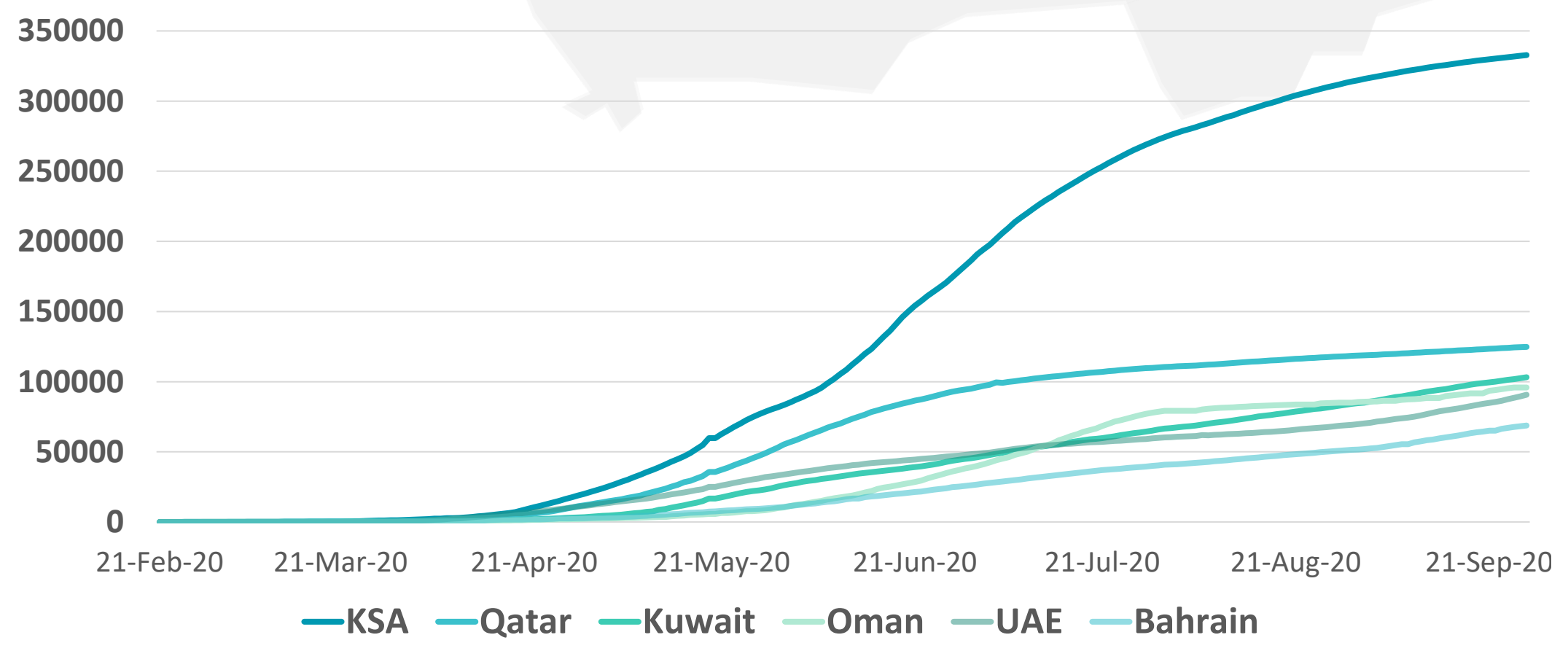
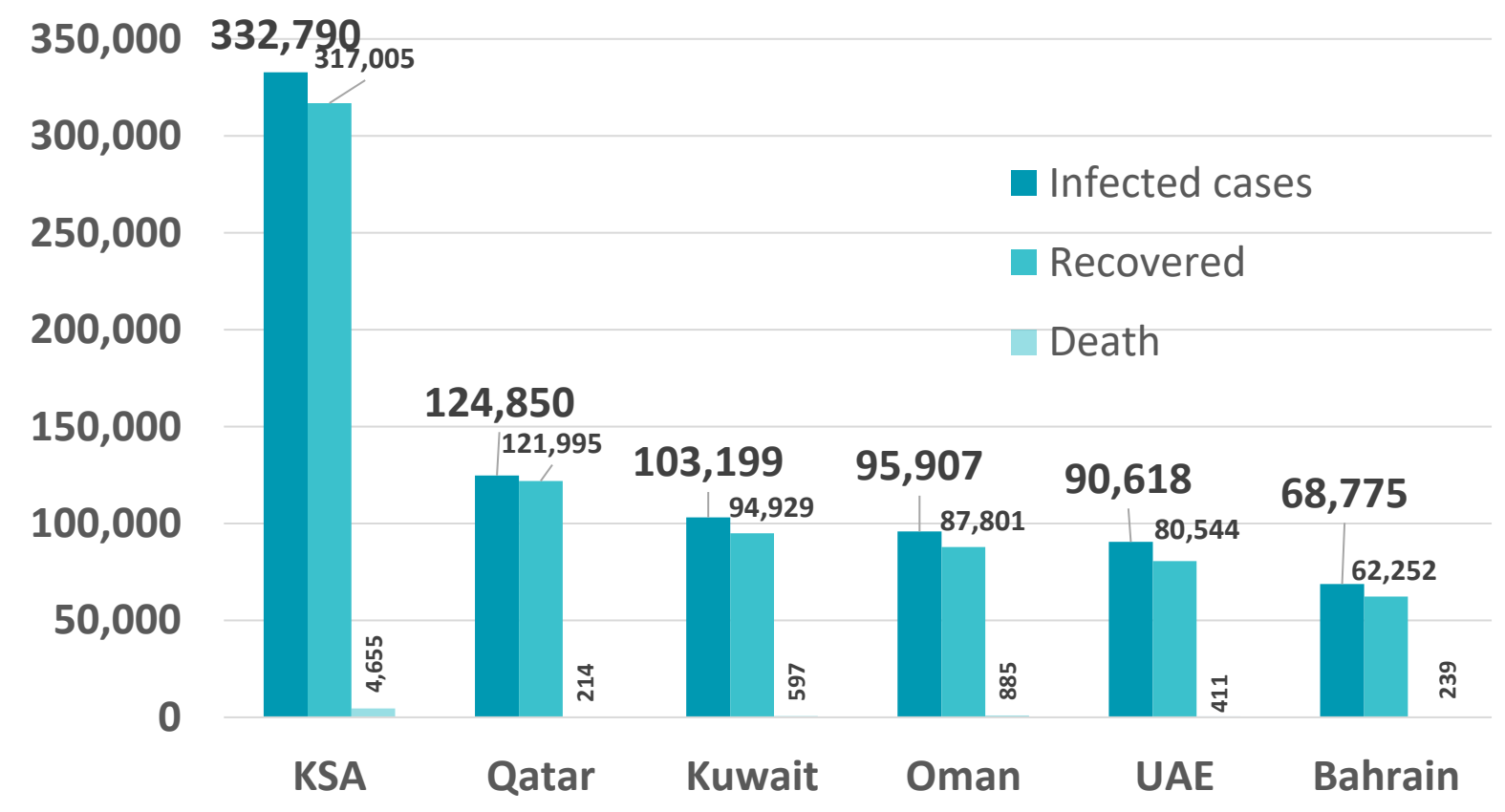
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## Figure 9: Comparative Analysis of the Distribution of COVID-19 Cases in GCC Countries

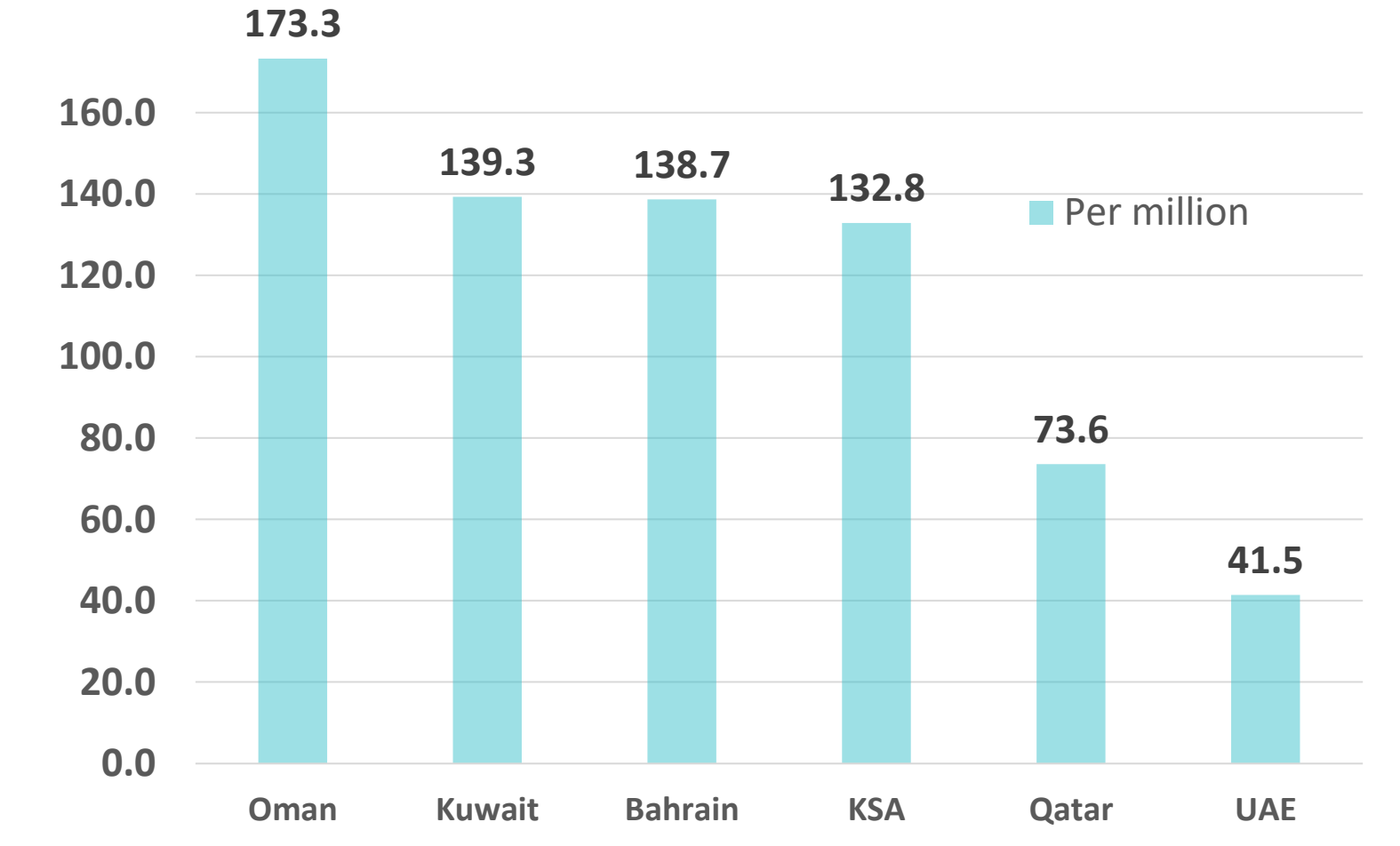
### TOTAL NUMBER OF INFECTED CASES



### 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



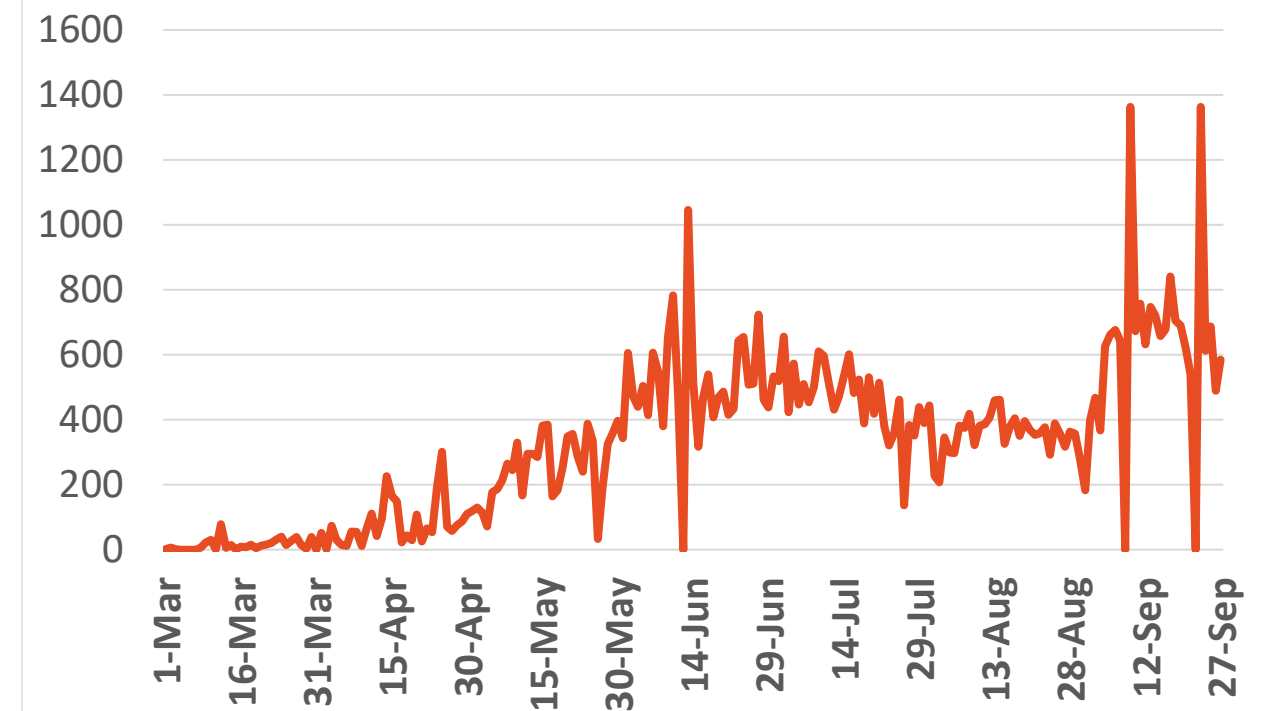
Source : National Emergency Crisis and Disaster Management Authority

### KSA



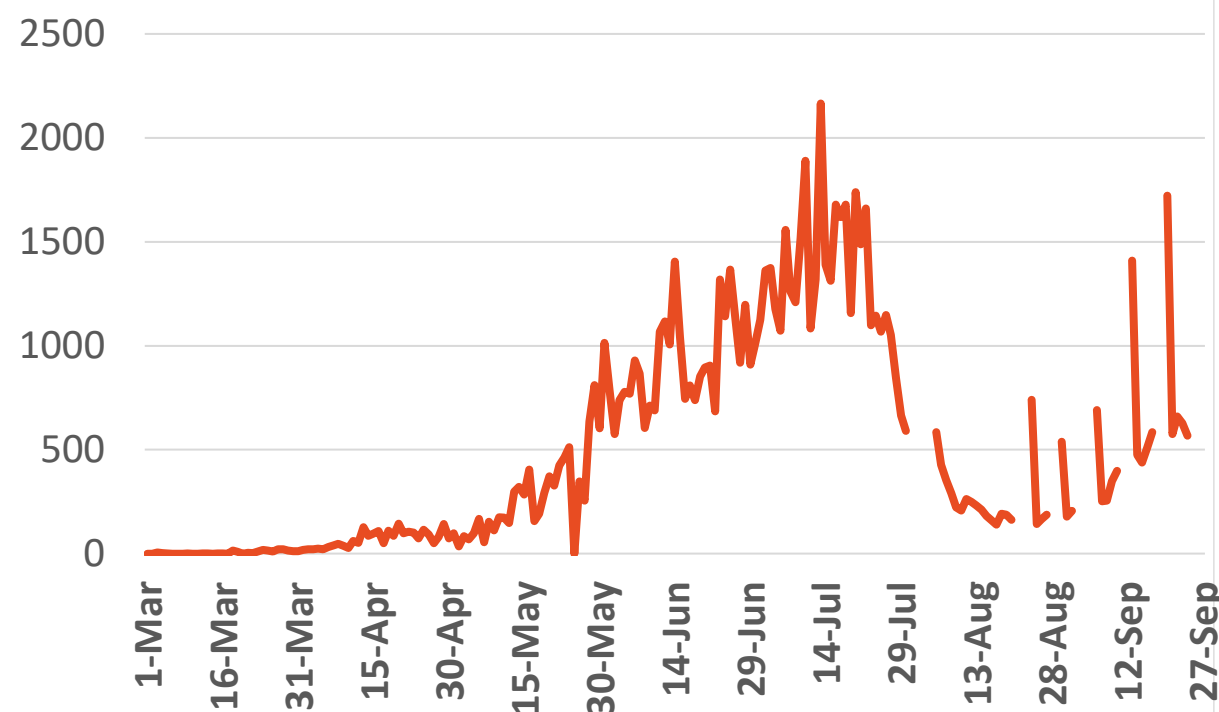
Source : KSA ministry of health

### Bahrain



Source :WHO

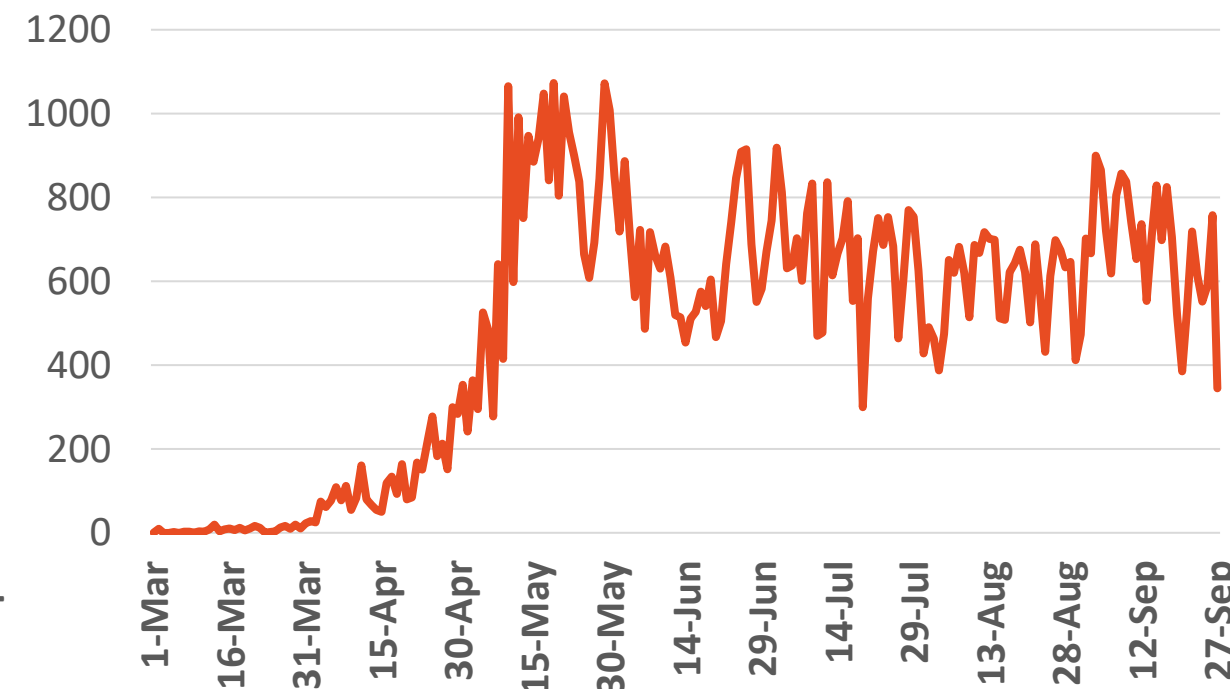
### Oman



Source :Oman ministry of health

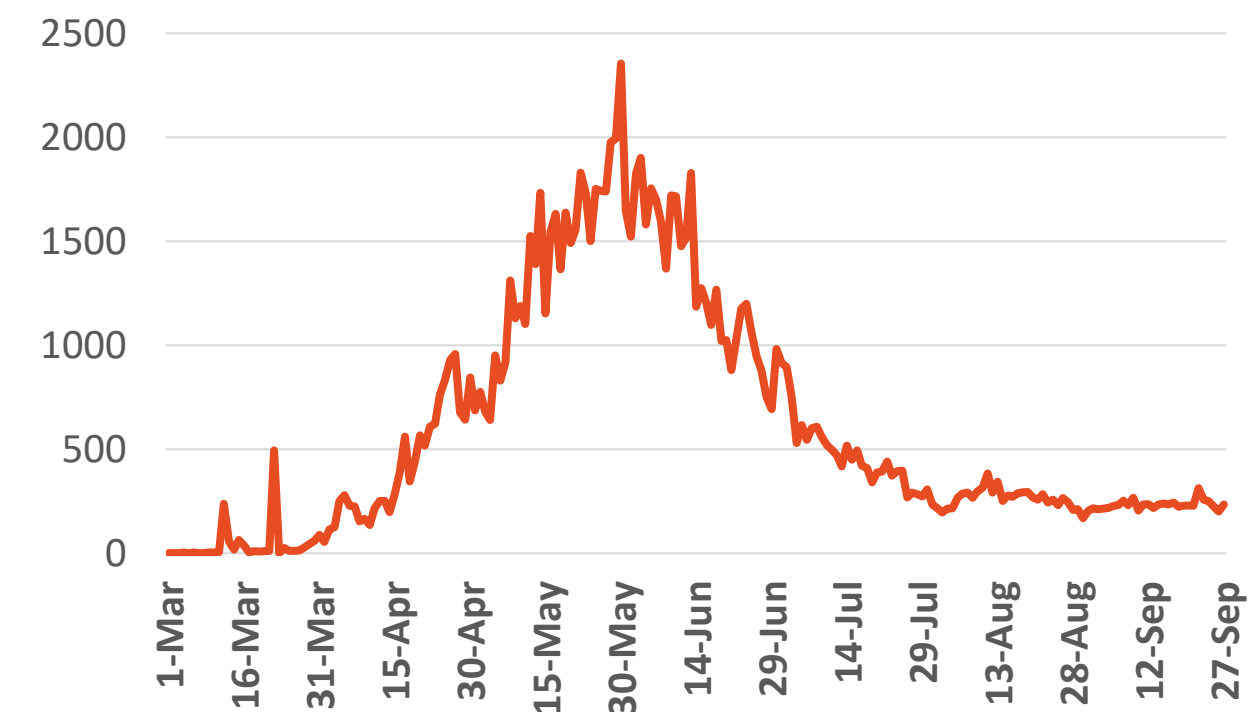
### Kuwait

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Source : Kuwait ministry of health

### Qatar

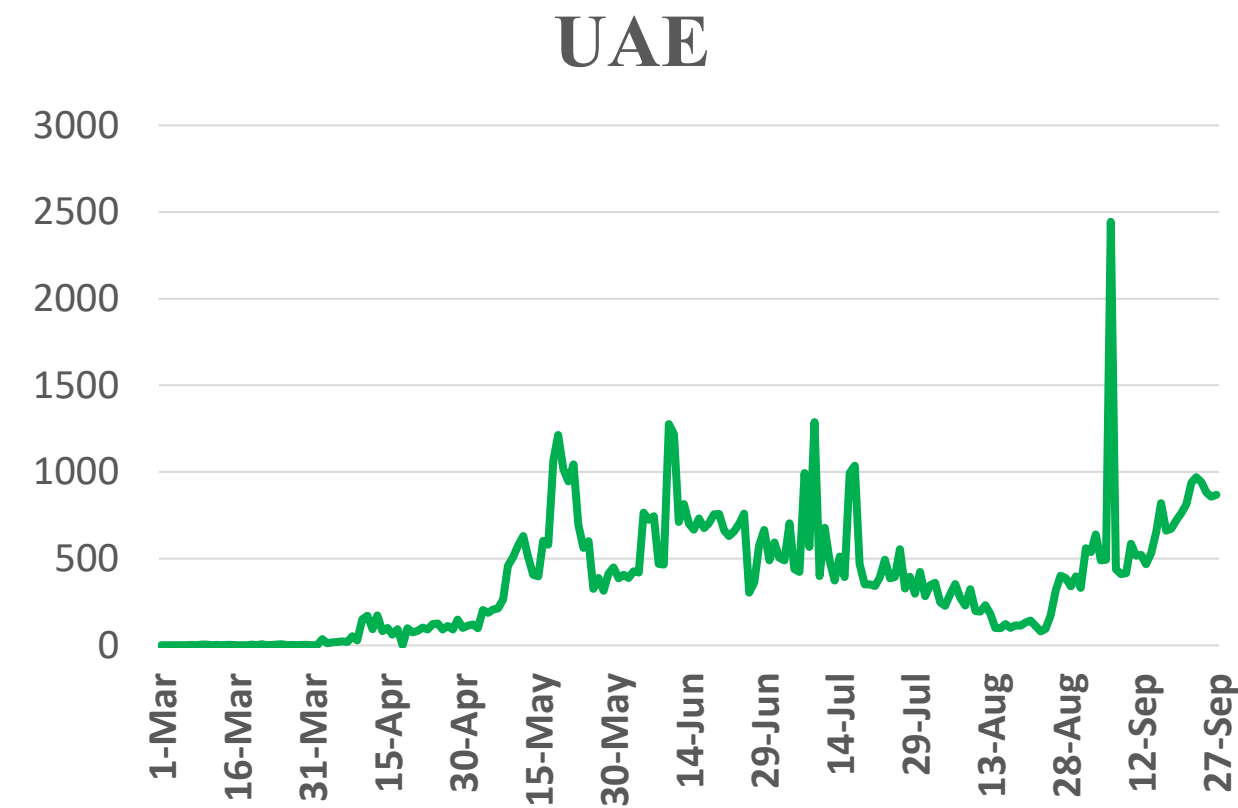


Source : Qatar ministry of health

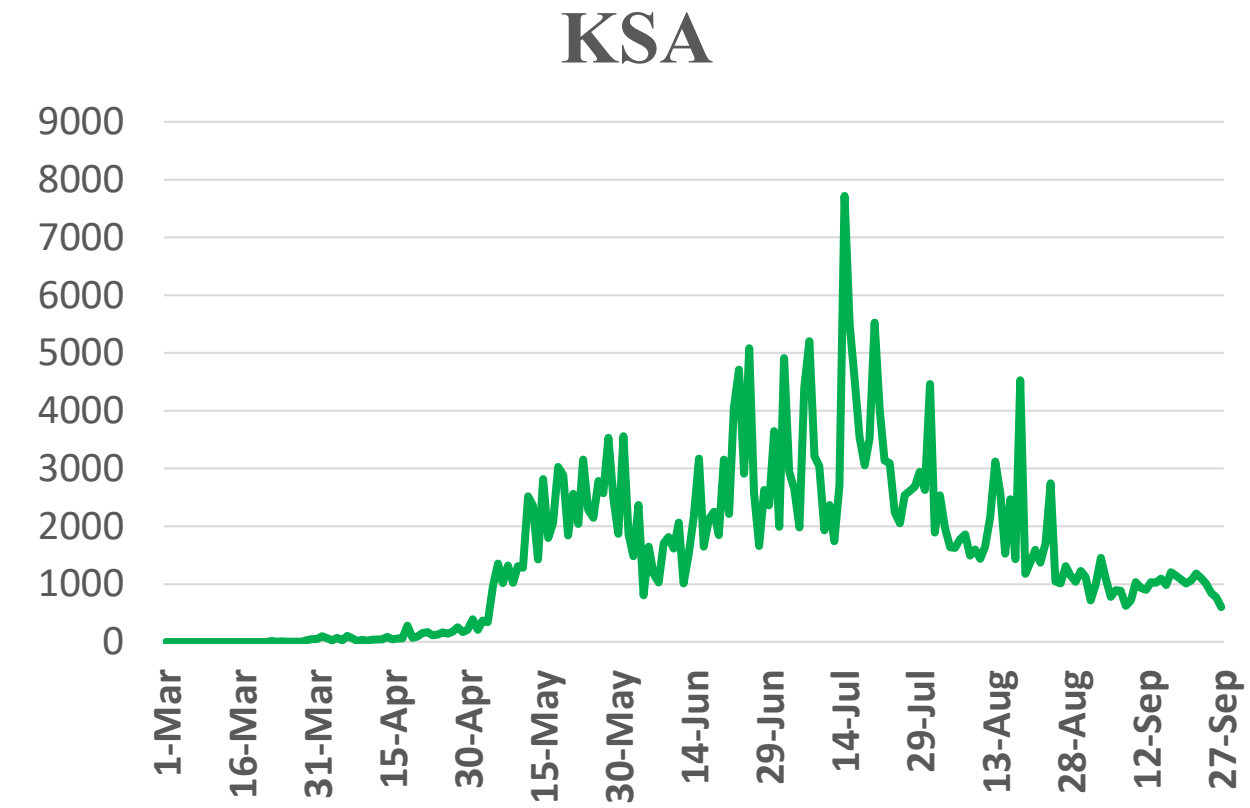
\*No announced statistic data from 31 July to 4 August, 21,23,28,30 August, 2, 4, 5,11,12,18,19,25 & 26 September  
\*No announced statistic data on weekends and official holidays.



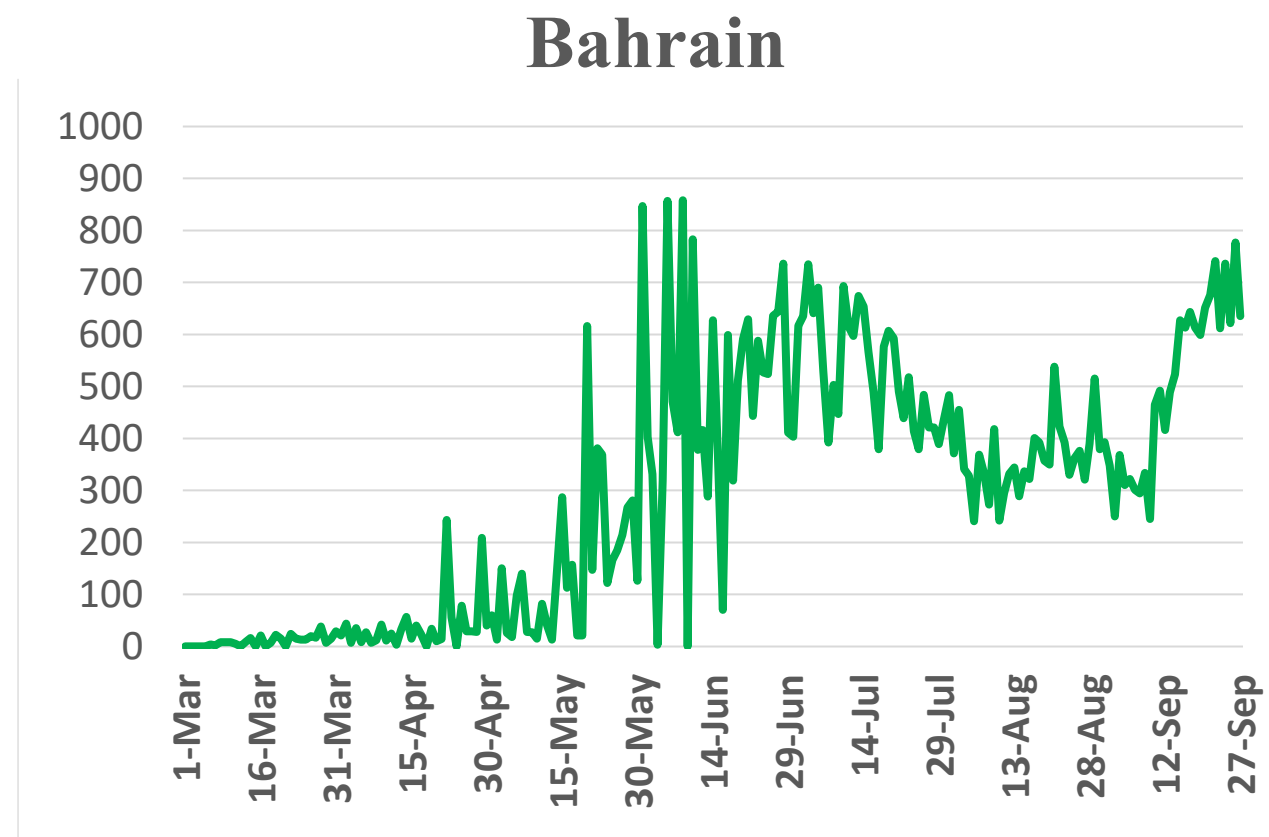
**Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries**



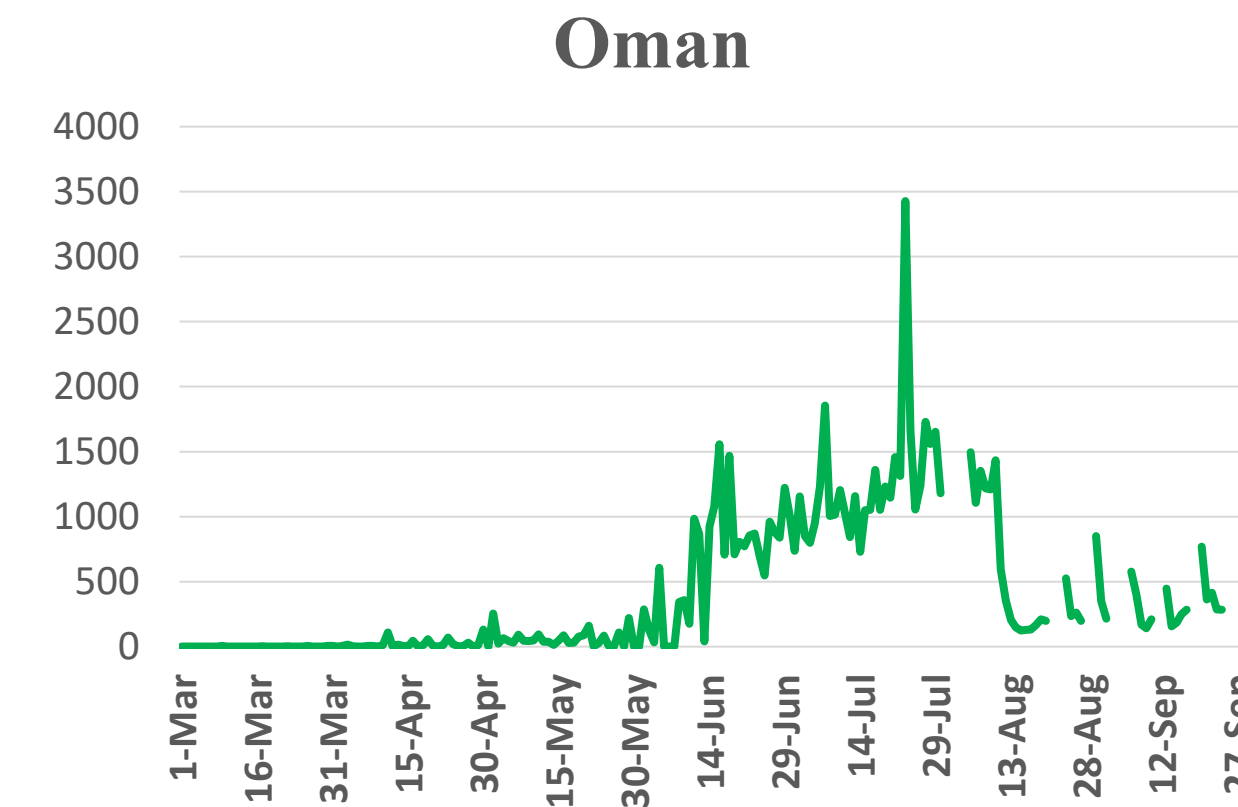
Source : National Emergency Crisis and Disaster Management Authority



Source : KSA ministry of health

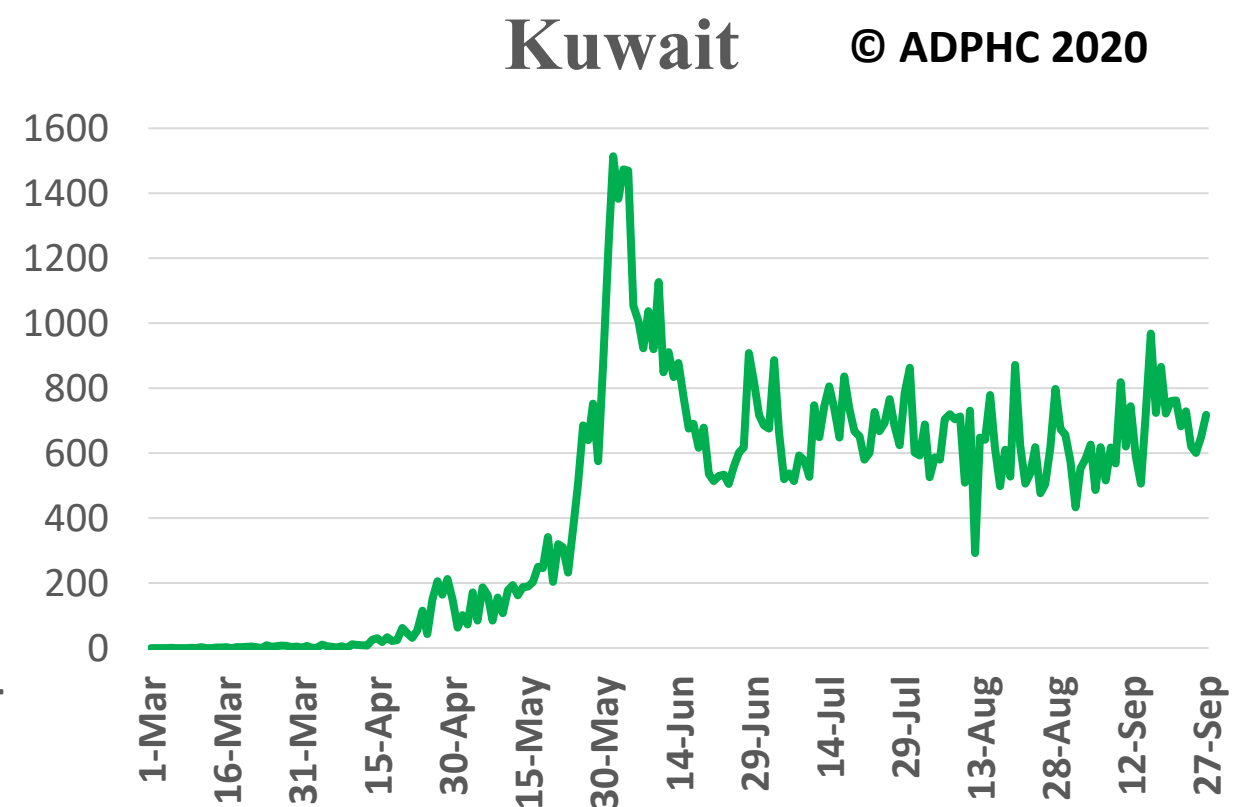


Source : Bahrain ministry of health

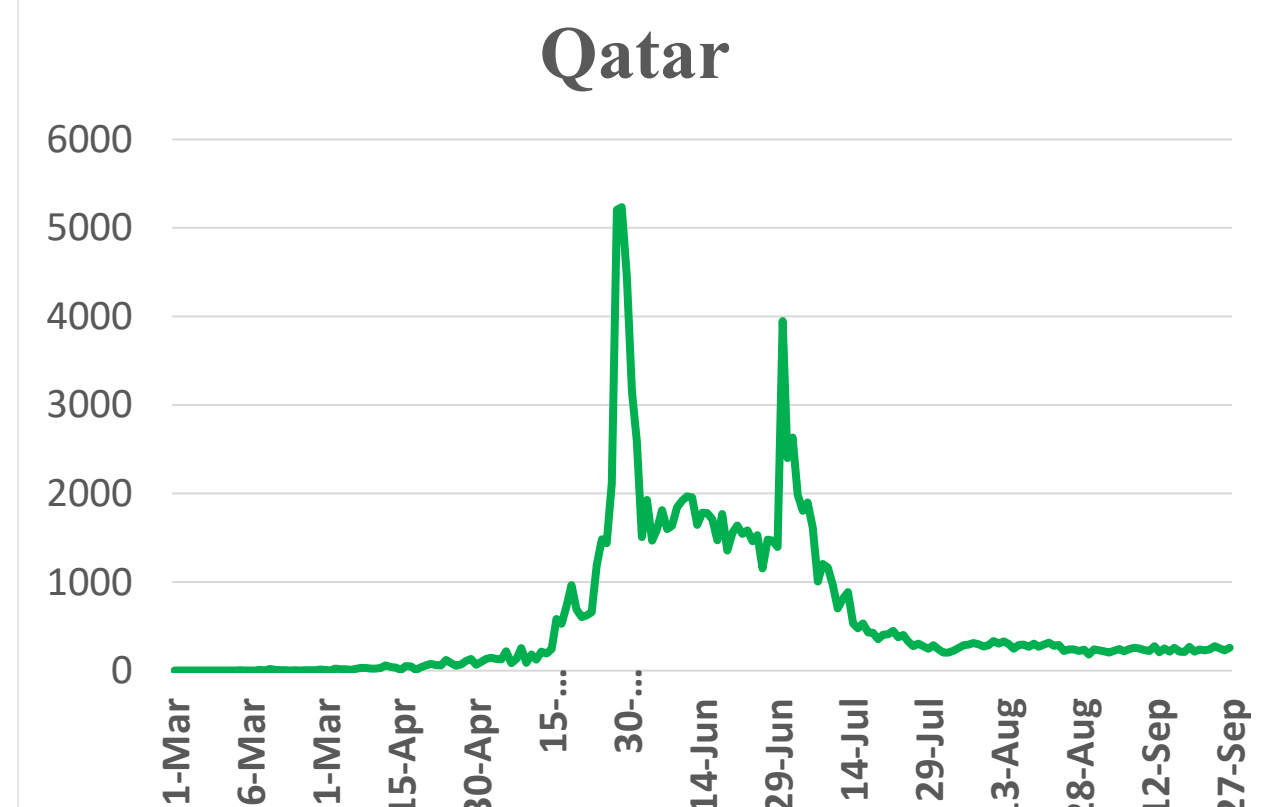


Source : Oman ministry of health

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



Source : Kuwait ministry of health



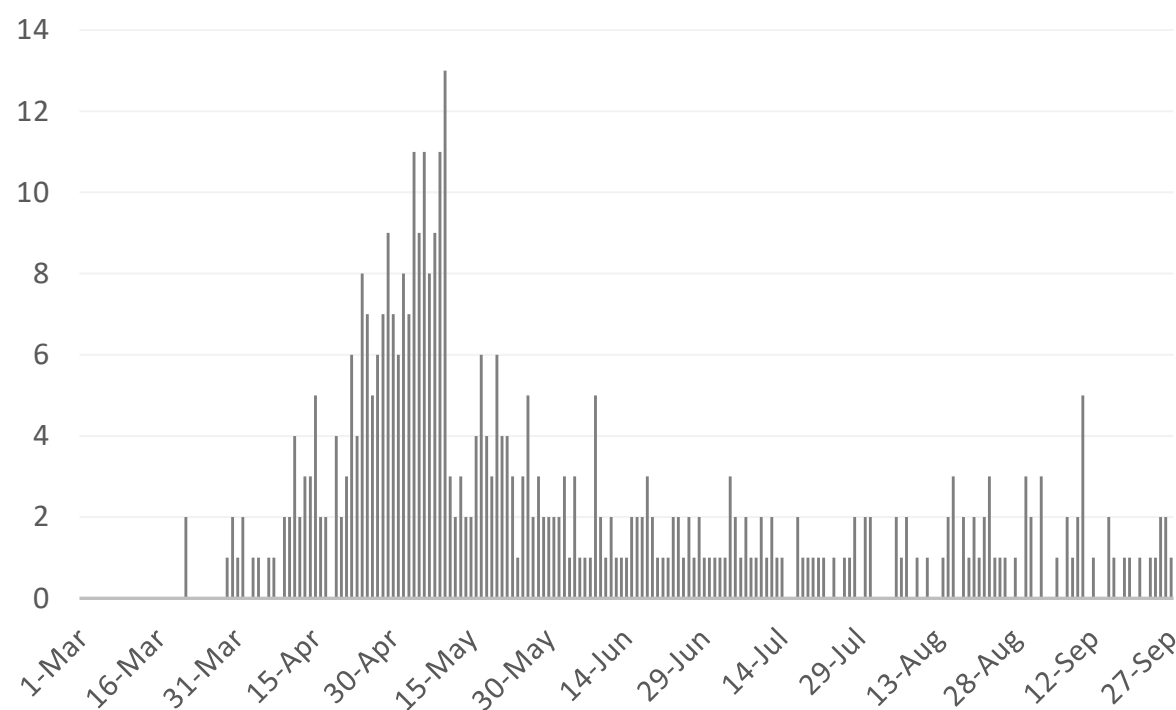
Source : Qatar ministry of health

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



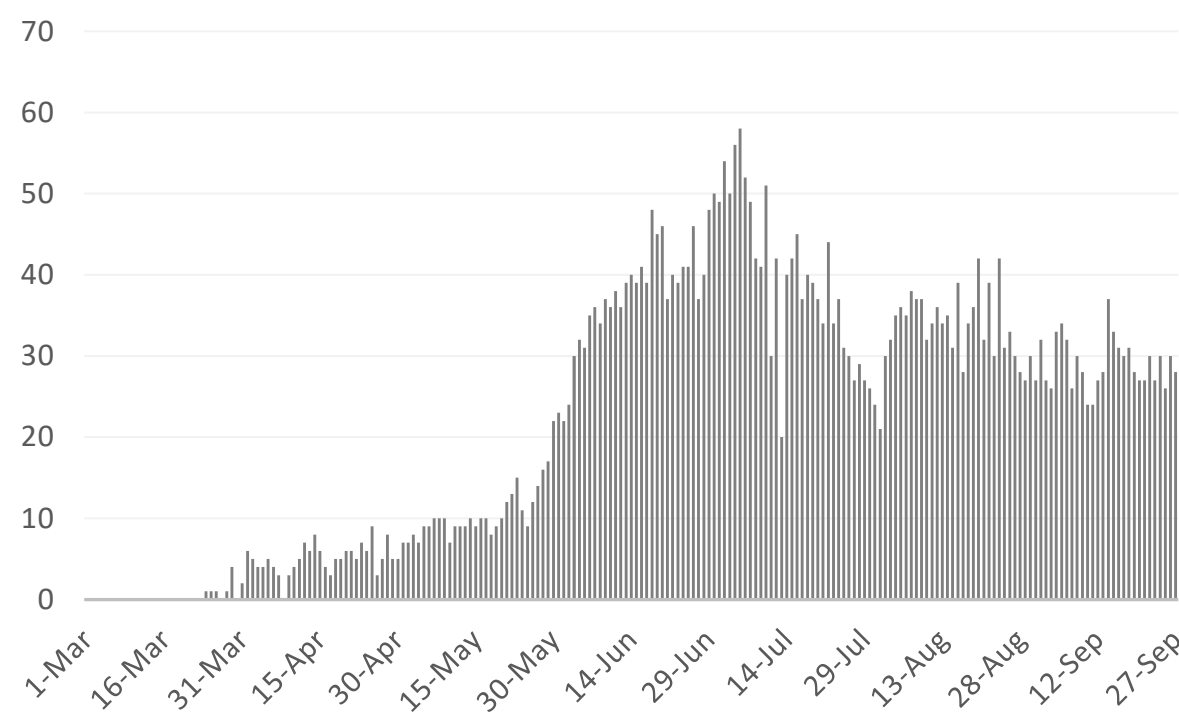
## Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

### UAE



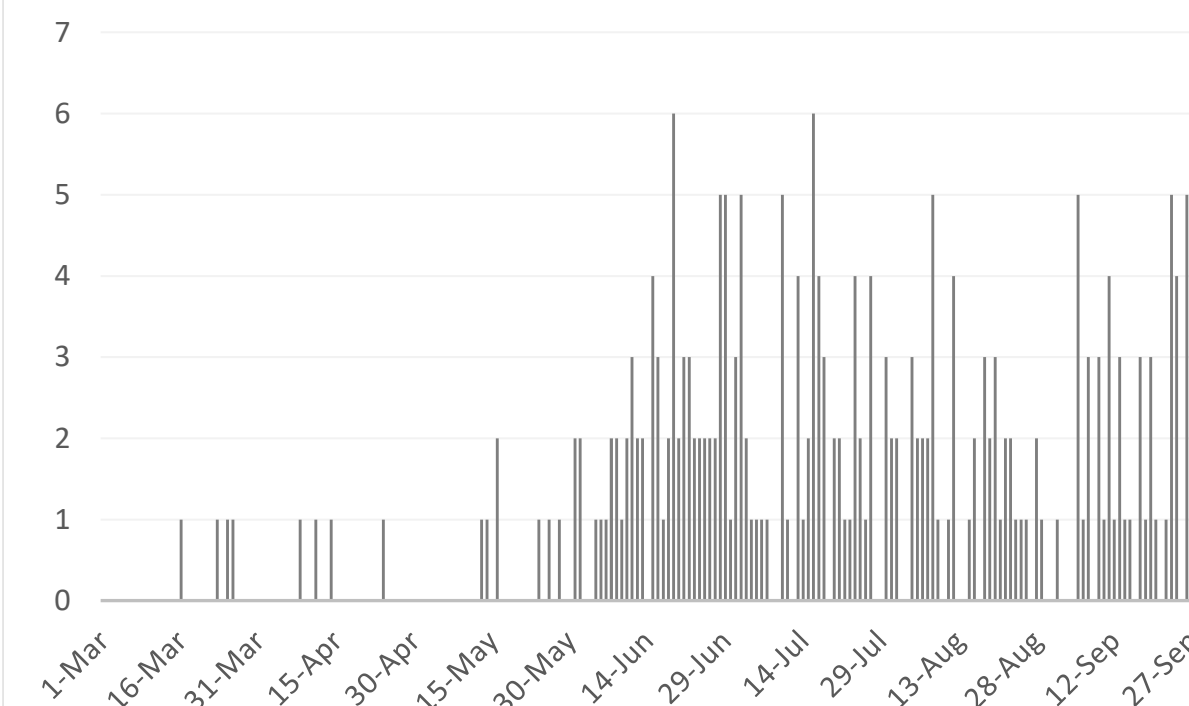
Source : National Emergency Crisis and Disaster Management Authority

### KSA



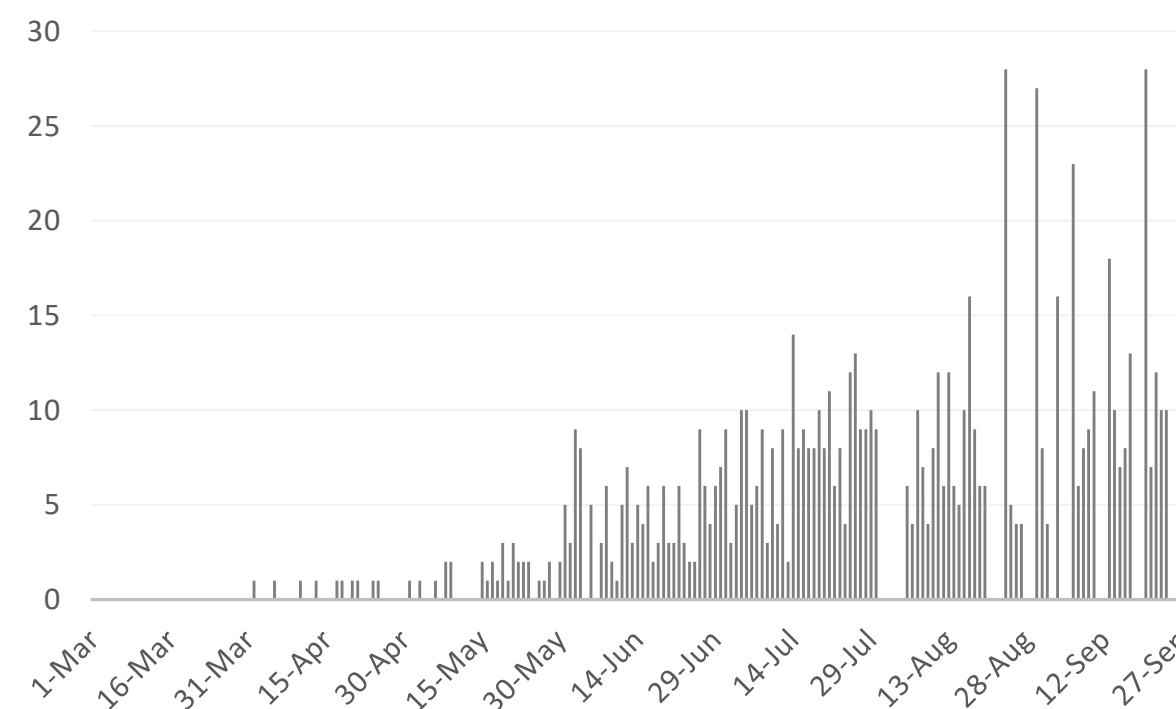
Source : KSA ministry of health

### Bahrain



Source :WHO

### Oman



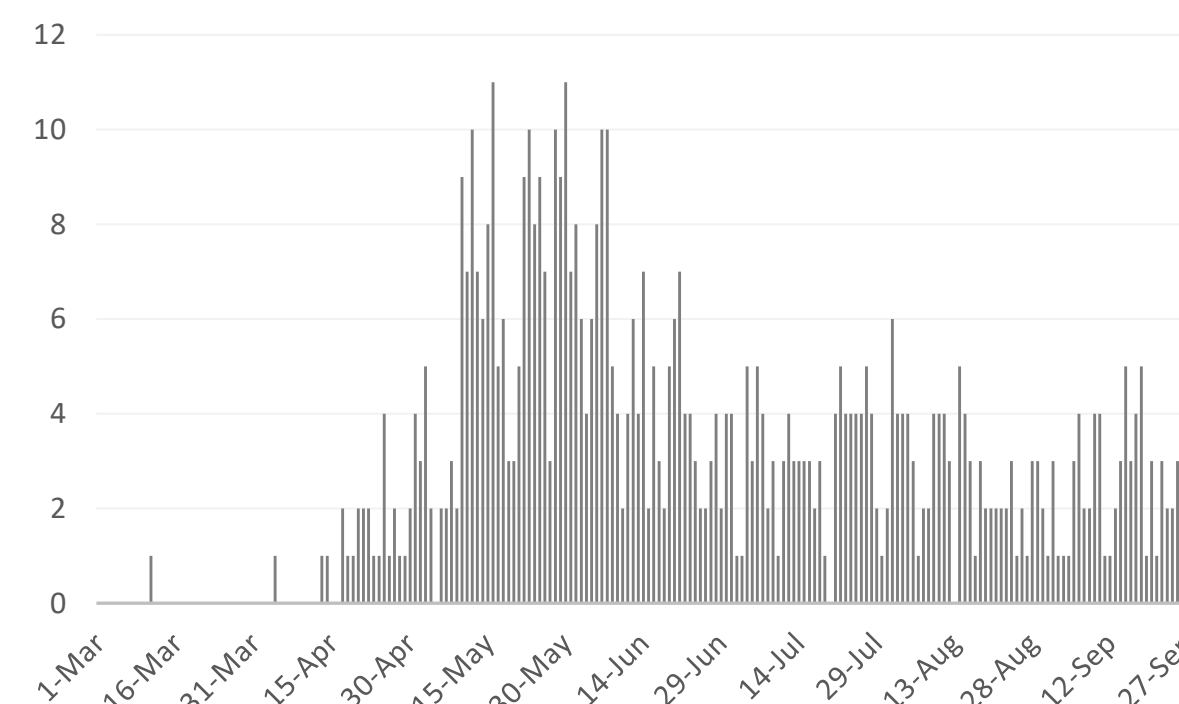
Source :Oman ministry of health

\*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.

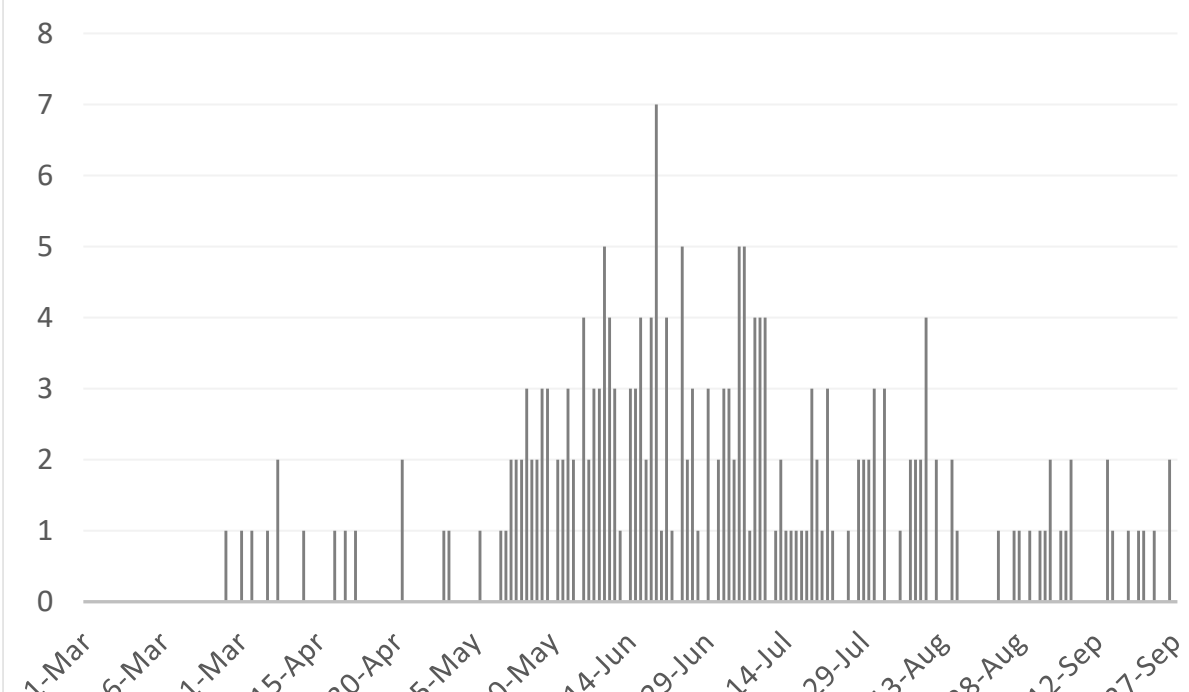
### Kuwait

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Source : Kuwait ministry of health

### Qatar



Source : Qatar ministry of health



## Article 1

# The Pandemic Paused the US School-to-Prison Pipeline: Potential Lessons Learned

Published

September 17, 2020 [THE LANCET](#)

- In the United States (US), during COVID-19 pandemic, virtual learning placed adolescents out of the reach of harsh school disciplinary procedures (zero-tolerance policies, out of school suspensions, expulsions, and law enforcement referrals) contributing to a sharp reduction in juvenile court referrals.
- Decreasing the involvement of adolescents in juvenile court and lower detention rates is at risk when schools return to in-person classes. Some adolescents will have been out of school for five months or more. Pre-existing educational gaps have increased as many of them lack access to the internet or computers to access lessons. Furthermore, some of them do not have parents/caregivers who can support them.
- Reappearance of the school-to-prison pipeline is an expected outcome, one that would place vulnerable adolescents into a system that is not only ill-equipped to address their physical and mental health requirement but also associated with poor adult trajectories. Furthermore, this pandemic has proven challenging to control in correctional environments, and adolescents who have been detained have higher rates of chronic illness when compared with a community sample.
- Health care providers need to promote coping strategies before disciplinary problems arise. Additionally, they can advocate for structural approaches such as school justice partnerships to reduce justice system referrals in collaboration with local school and judicial systems. Families need to understand the special education process for adolescents who have a diagnosis that substantially affects their educational experience. These steps might help turn the pipeline into a permanent cessation and contribute to healthy life trajectories for adolescents.



## Article 2

Published

# Prevalence of SARS-CoV-2 Antibodies in a Large Nationwide Sample of Patients on Dialysis in the USA: A Cross-Sectional Study

September 25, 2020 [THE LANCET](#)

- In this cross-sectional study in the United States (US), plasma was tested, from randomly selected adult ( $\geq 18$  years) patients ( $n=28,503$ ) receiving dialysis in July 2020. Data on age, gender, ethnicity, and residence and facility zip codes were extracted from the anonymized electronic health records, linking patient-level residence data with cumulative and daily cases and deaths per 100,000 population and with nasal swab test positivity rates. Prevalence estimates were standardized according to the overall US adult dialysis and adult population.
- Seroprevalence of SARS-CoV-2 was 8.0% in the sample, 8.3% when standardized to the US adult dialysis population, and 9.3% when standardized to the US adult population. When standardized to the US adult dialysis population, seroprevalence ranged from 3.5% in the west to 27.2% in the northeast. Comparing seroprevalent and case counts per 100,000 population, 9.2% of seropositive patients were diagnosed.
- Residents of Hispanic and non-Hispanic Black neighbourhoods experienced higher seropositivity [odds ratio (OR)-2.3; 95% CI: 1.9-2.6] and [OR-3.9; 95% CI: 3.4-4.6] respectively as compared with residents of non-Hispanic white. Residents of neighbourhoods in the highest population density quintile experienced higher seropositivity [OR-10.3; 95% CI: 8.7-12.2] as compared with residents of the lowest density quintile. Reduction in workplace visits  $\geq 5\%$  were associated with lower seropositivity [OR-0.4; 95% CI: 0.3-0.5] as compared with a reduction of  $<5\%$ .
- The results show striking differences in seroprevalence with higher seroprevalence in younger patients, Black and Hispanic patients, patients living in poorer neighbourhoods, Black and Hispanic neighbourhoods, and densely populated metropolitan areas. These data can help to inform surveillance and management strategies during the next phase of the pandemic.





## Continued

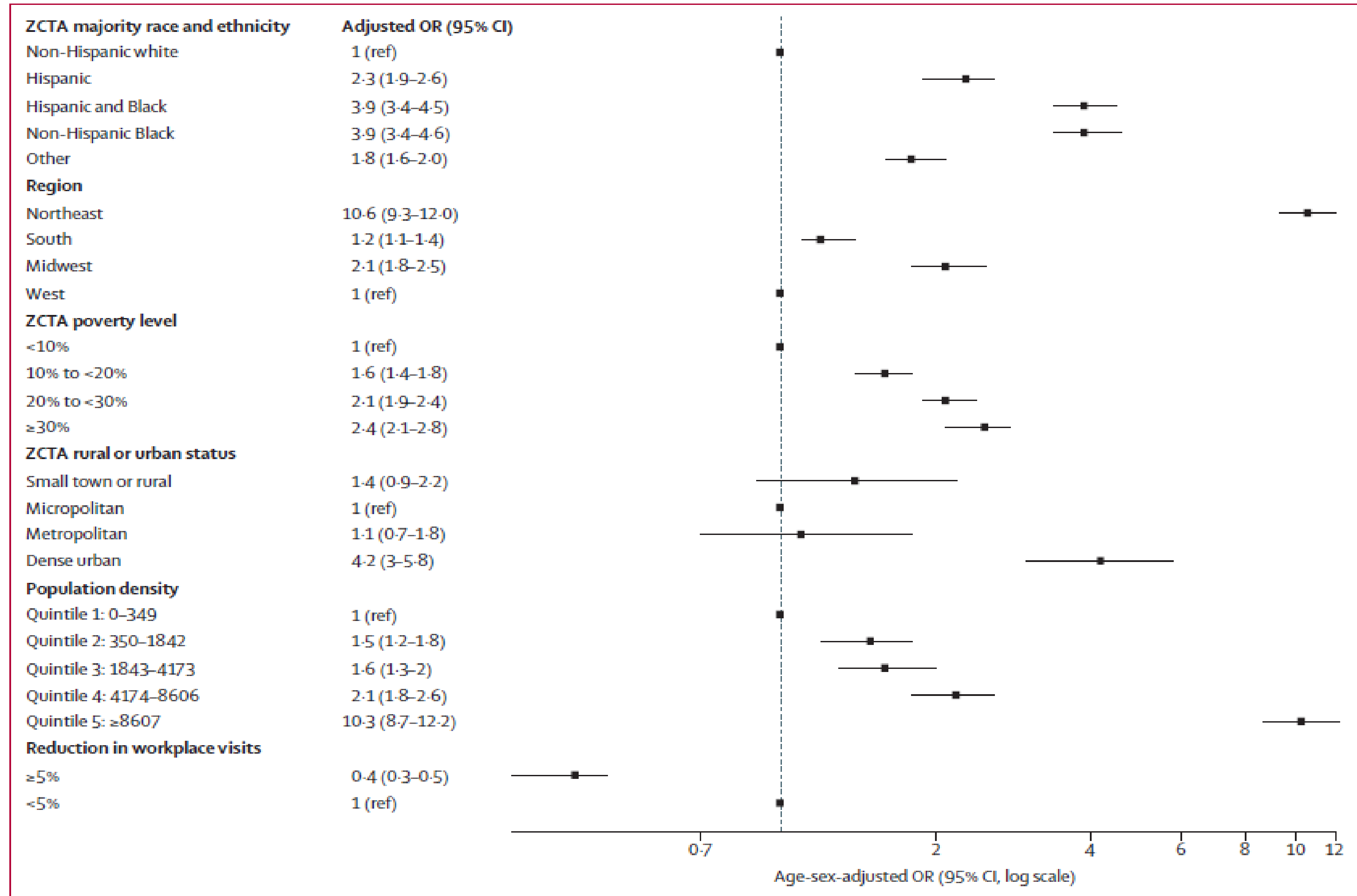


Figure 4: Forest plot for odds of SARS-CoV-2 seropositivity





# THANK YOU

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