

# SCIENTIFIC RESEARCH MONITORING ON COVID-19

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# SCIENTIFIC RESEARCH MONITORING ON COVID-19

## (ISSUE 537 )

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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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.

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# 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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## Clinical Features

**Clinical Characteristics and Outcomes Among Hospitalized Adults with Severe COVID-19 Admitted to a Tertiary Medical Center and Receiving Antiviral, Antimalarial, Glucocorticoids, or Immunomodulation with Tocilizumab or Cyclosporine**

## Public Health Response

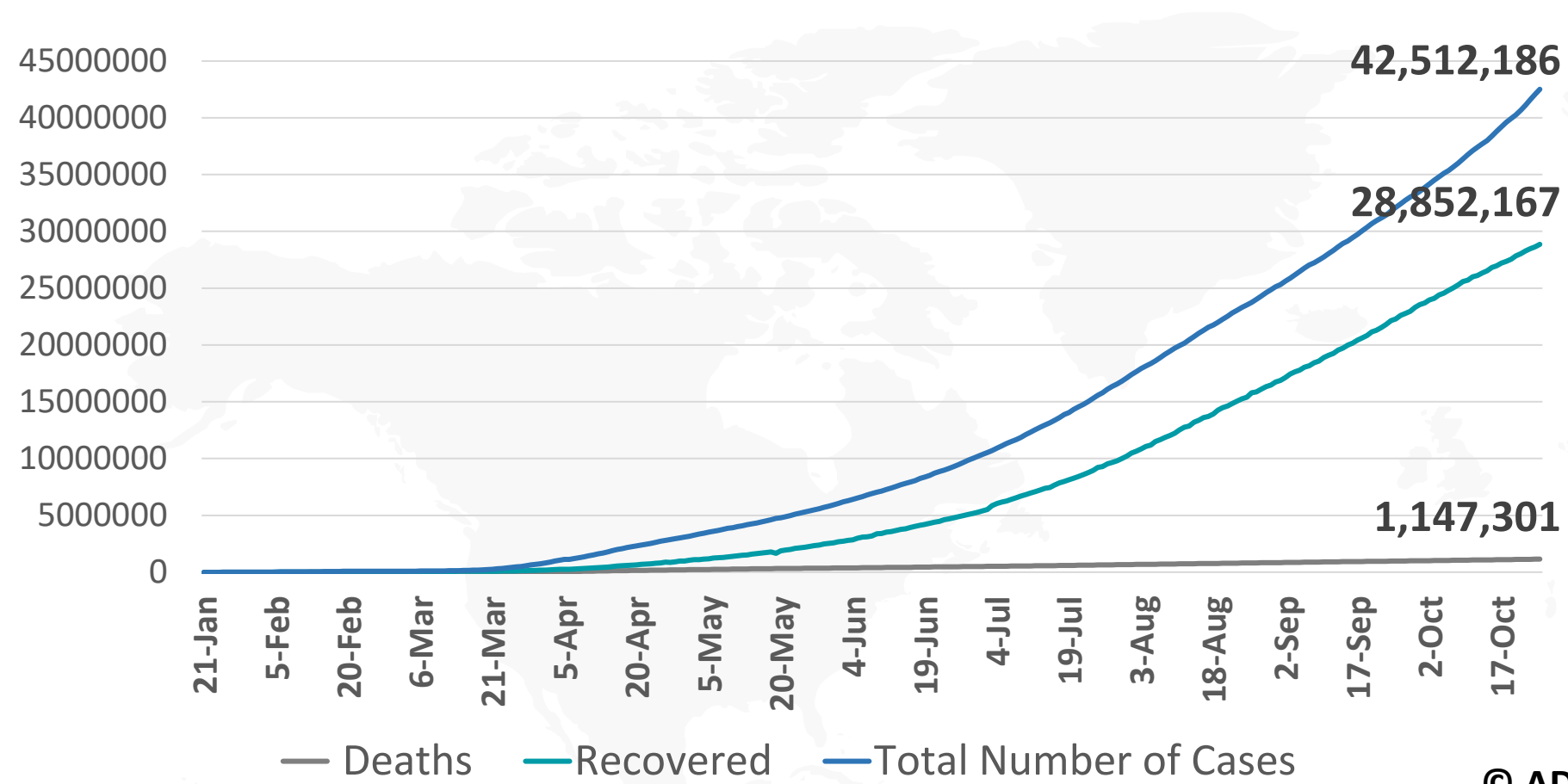
**The Lombardy Region of Italy Launches the First Investigative COVID-19 Commission**

## Public Health Response

**Scientific Consensus on the COVID-19 Pandemic: We Need to Act Now**

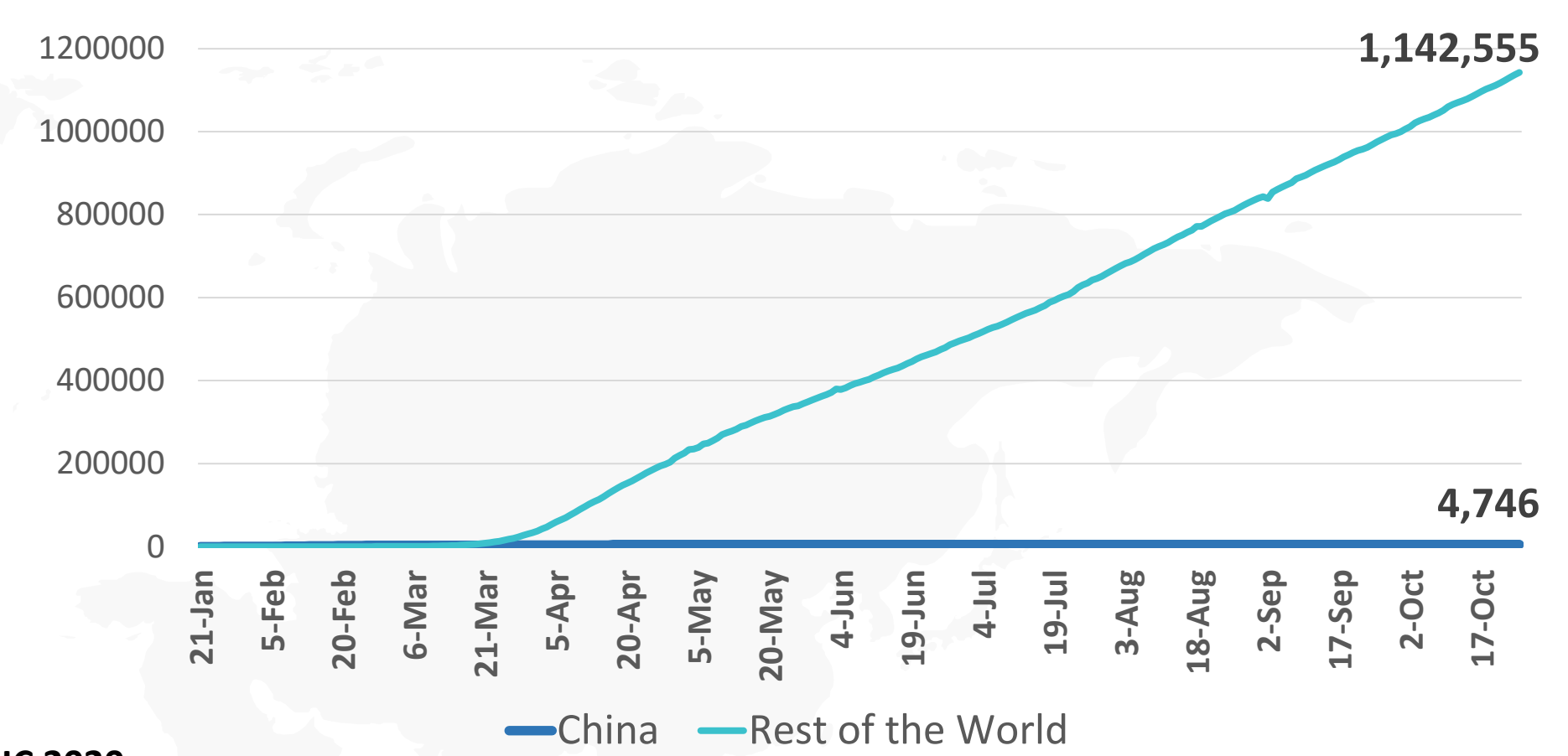


**Figure 1: Total Number of Infected, Recovered, and Death Cases**

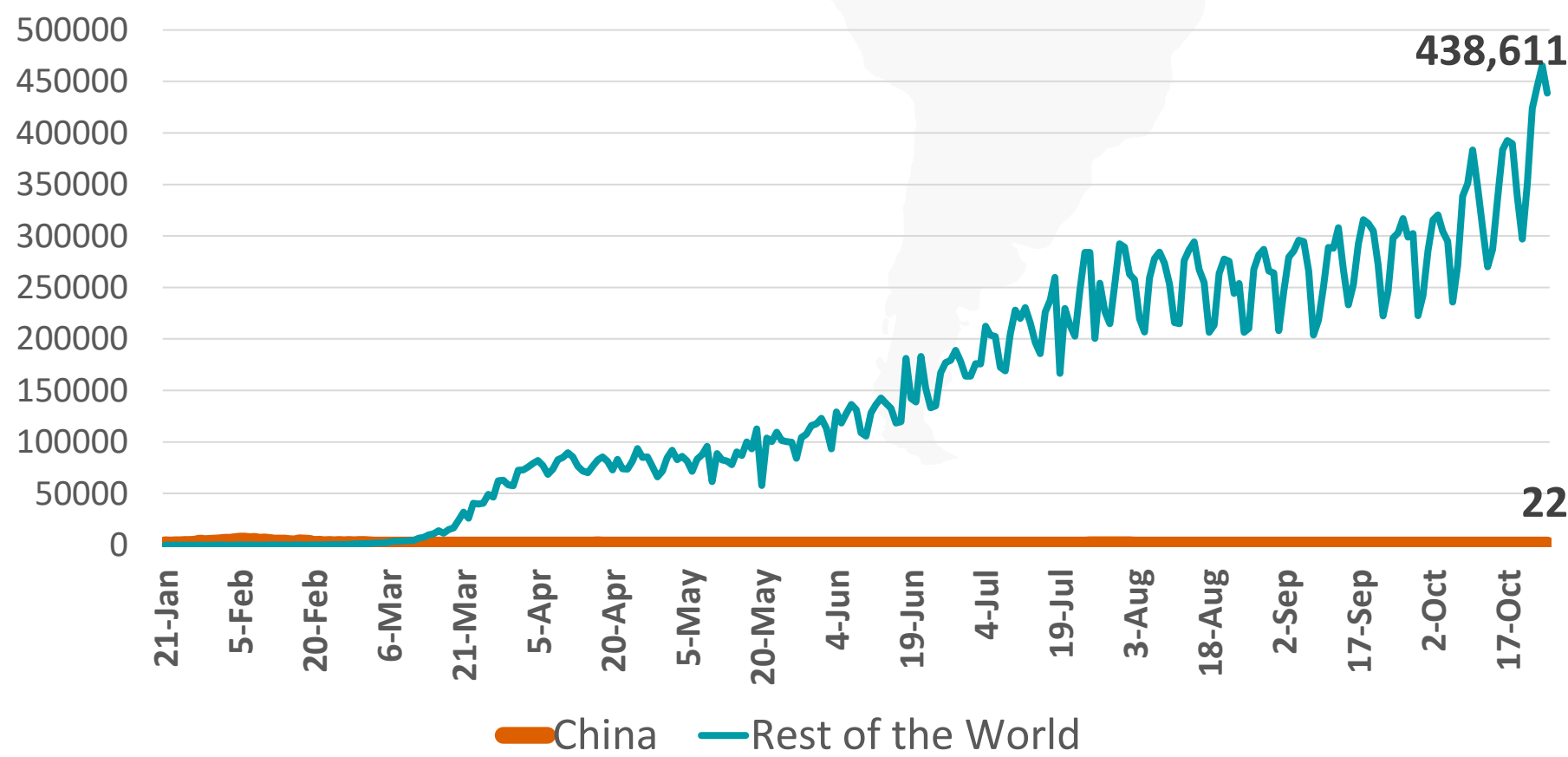


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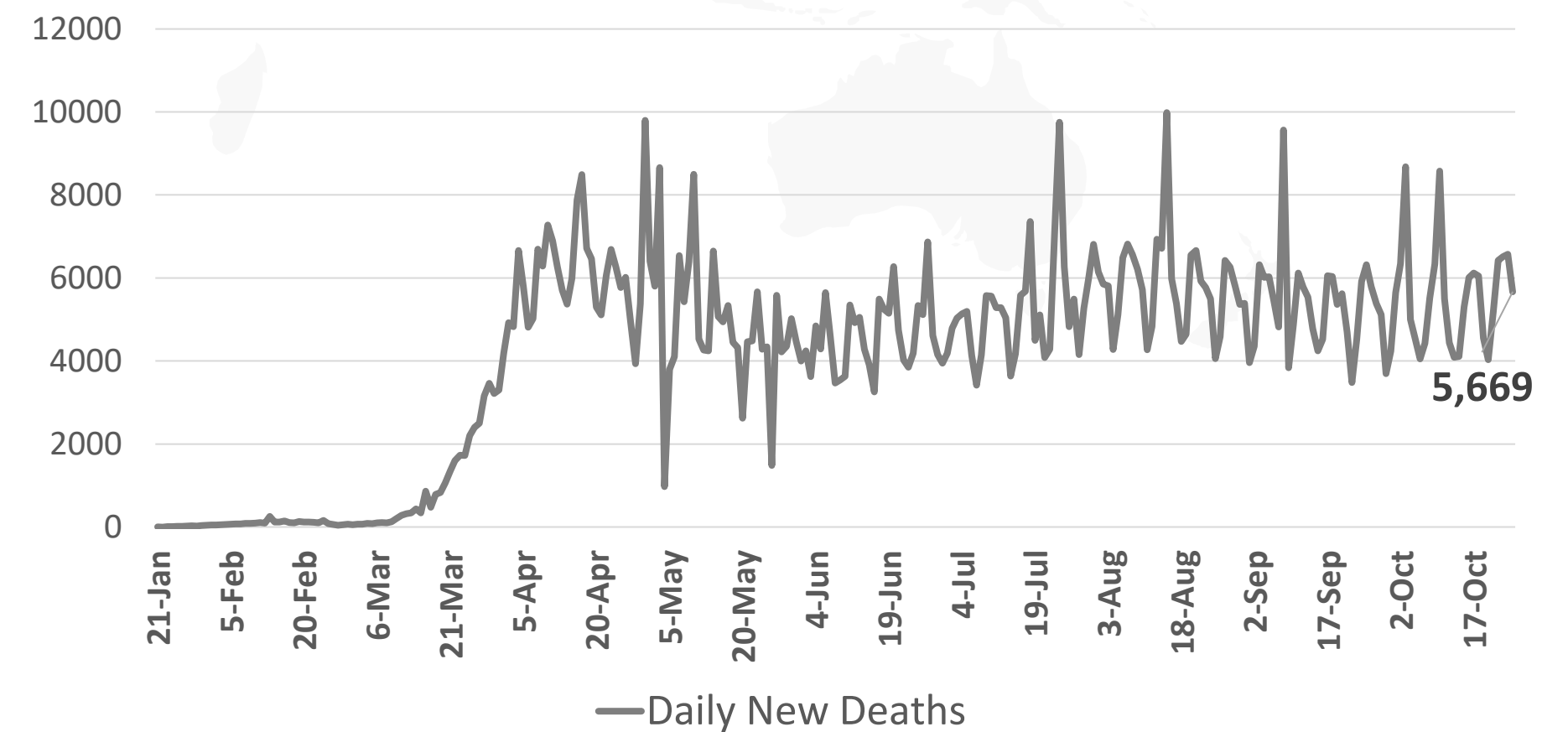
**Figure 3: Total Number of Death Due to COVID-19 (china and result of the world)**



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

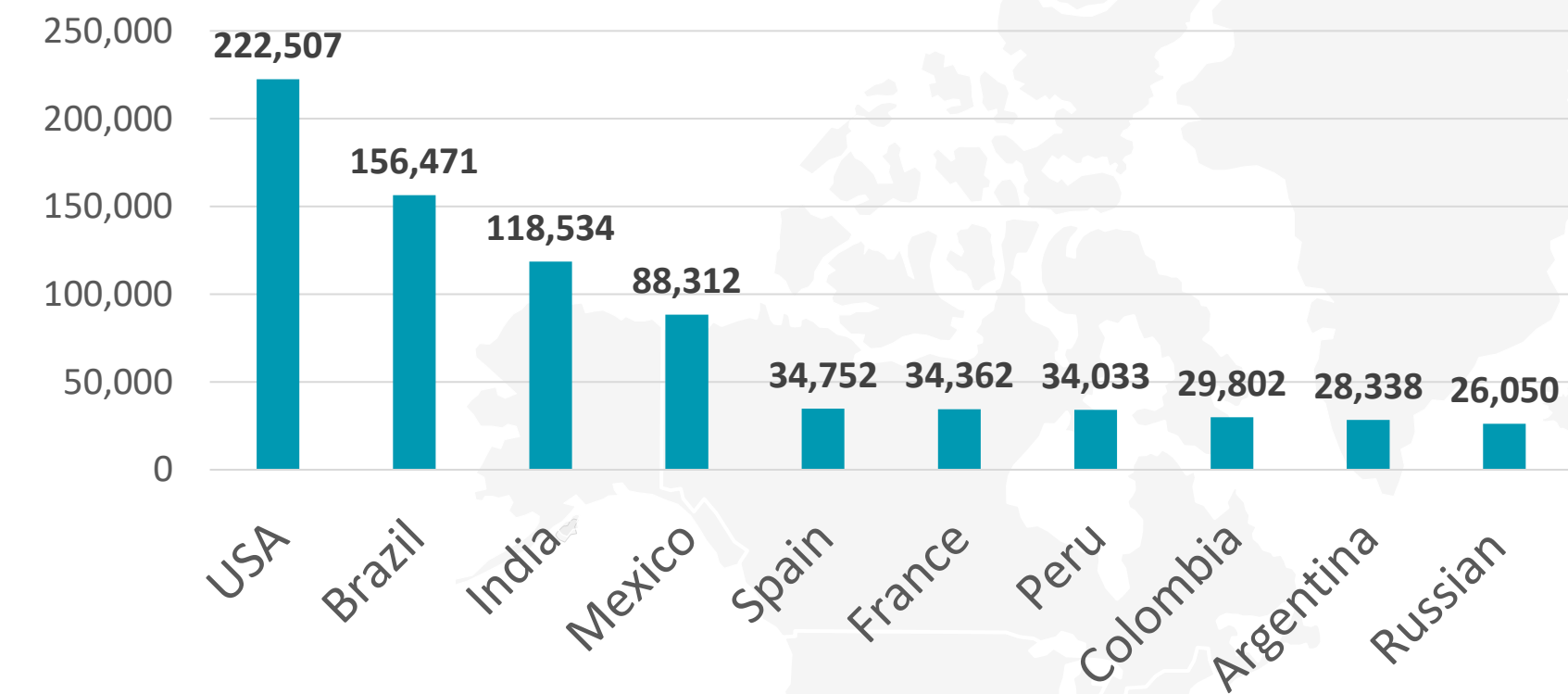


**Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)**

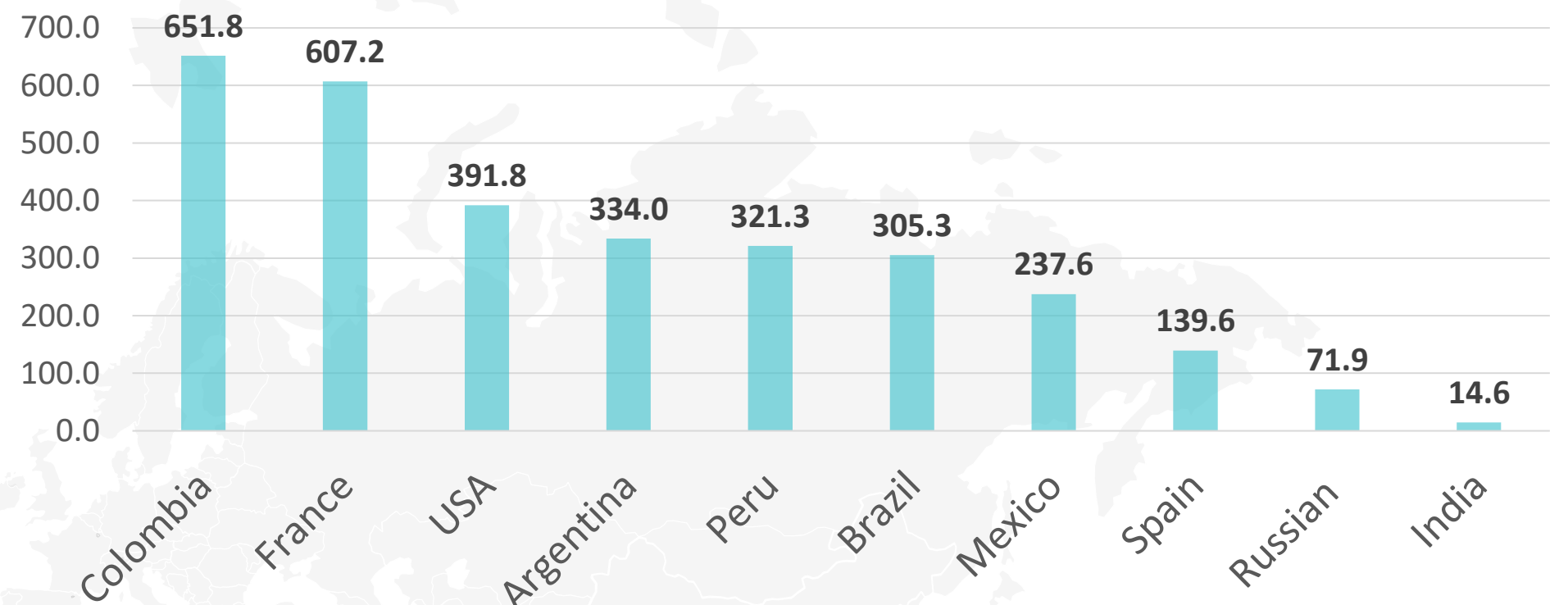


## Figure 5: Top 10 Countries in the Total Number of Cases Due to COVID-19

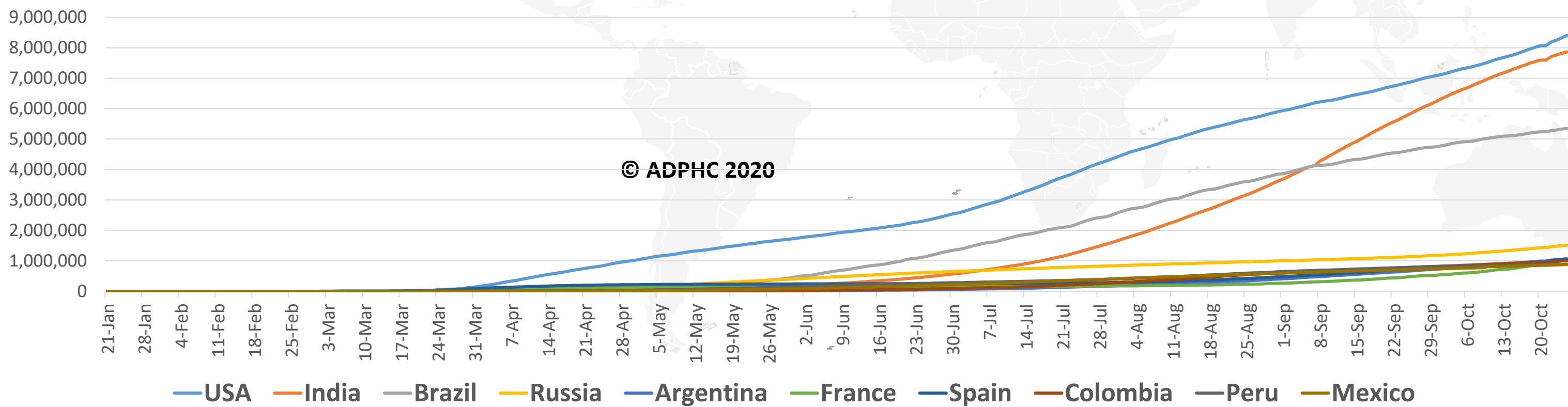
### TOTAL DEATHS



### DEATHS PER MILLION

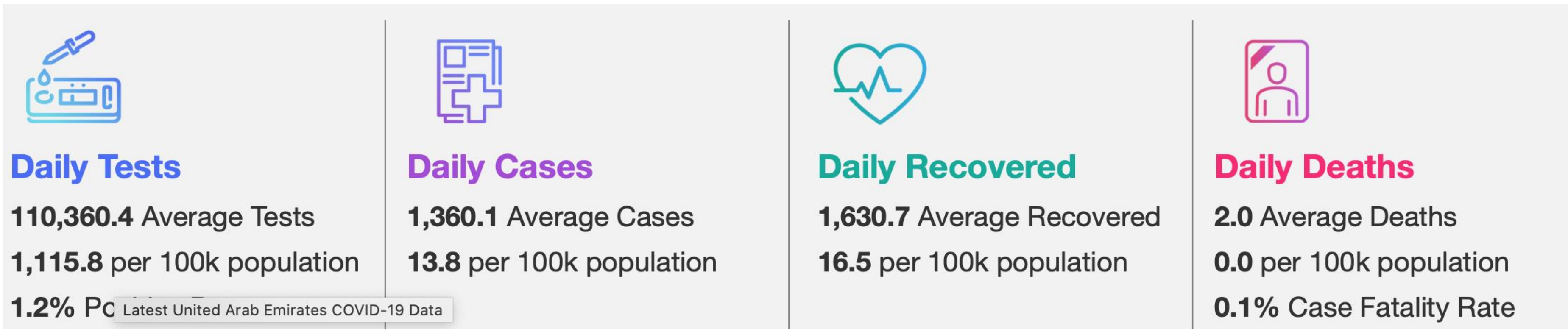


### TOTAL INFECTED CASES

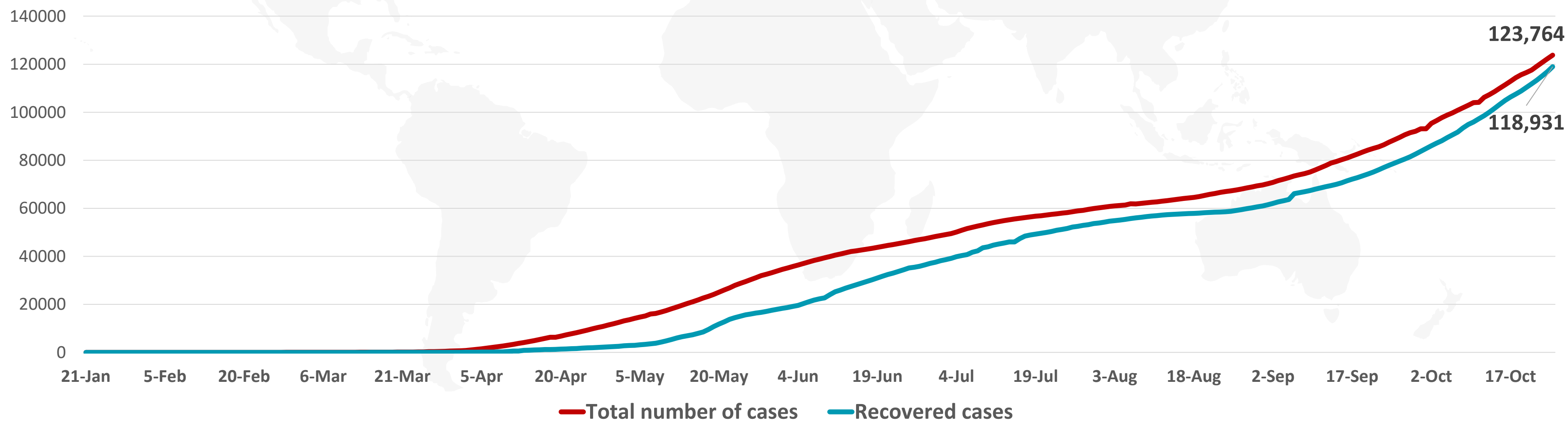


USA	222,507
India	118,534
Brazil	156,471
Russia	26,050
Argentina	28,338
France	34,362
Spain	34,752
Colombia	29,802
Peru	34,033
Mexico	88,312

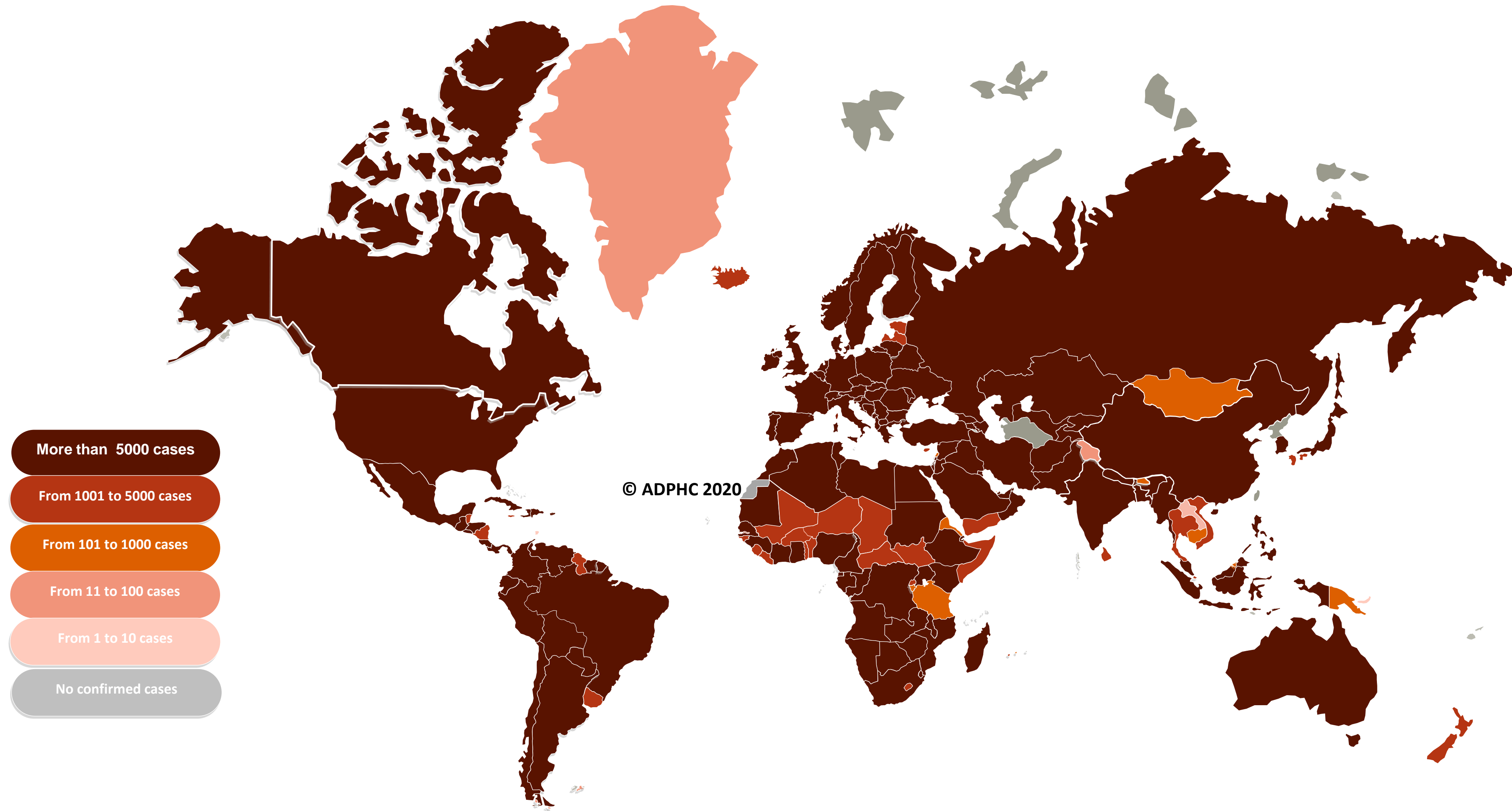
**Figure 6: COVID-19 Status in the UAE** (Federal Competitiveness and Statistics Authority Dashboard)



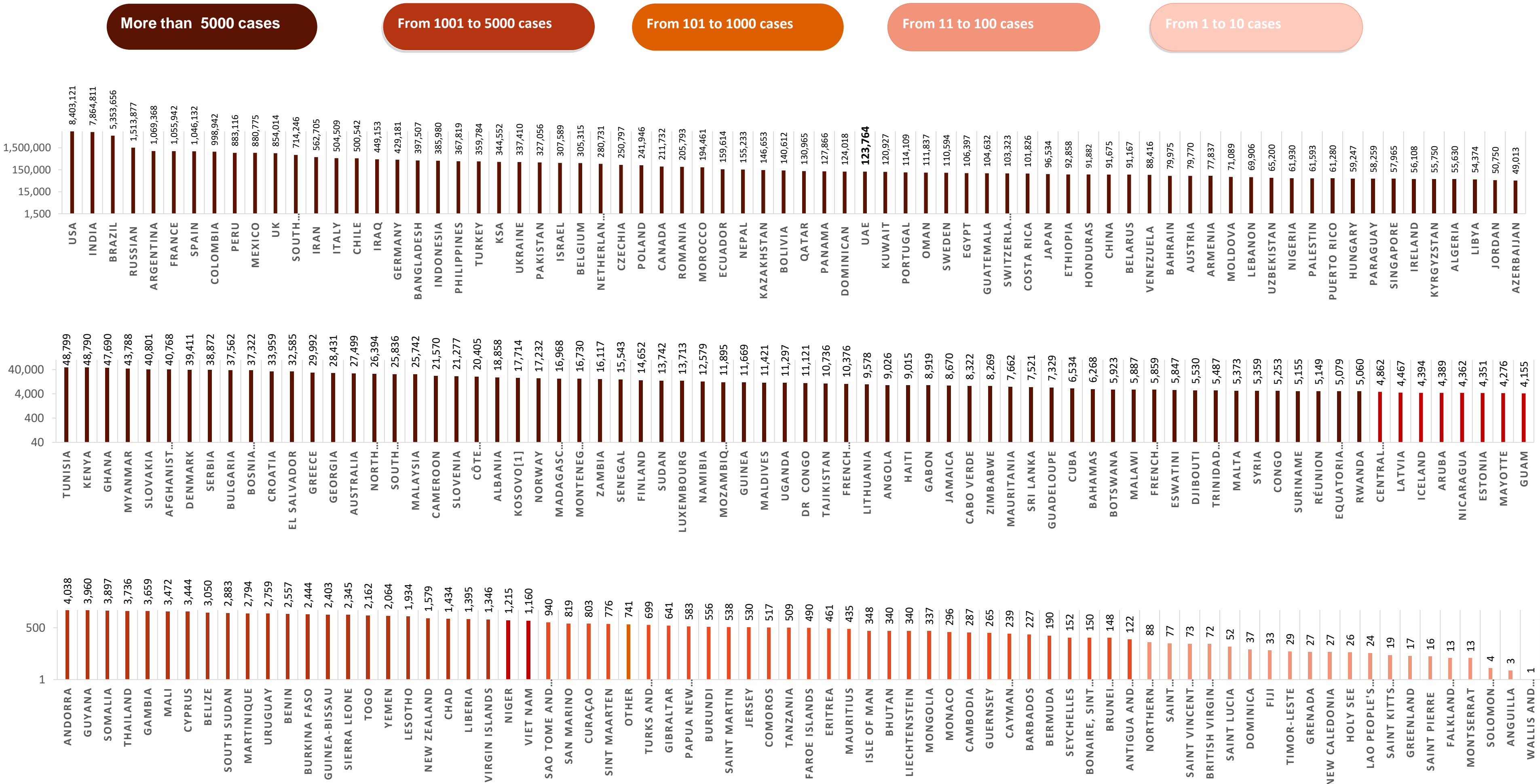
## TOTAL NUMBER OF INFECTED AND RECOVERED CASES DUE TO COVID-19 REPORTED BY THE UAE



## Figure 7A : Global Distribution of COVID-19 Cases



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

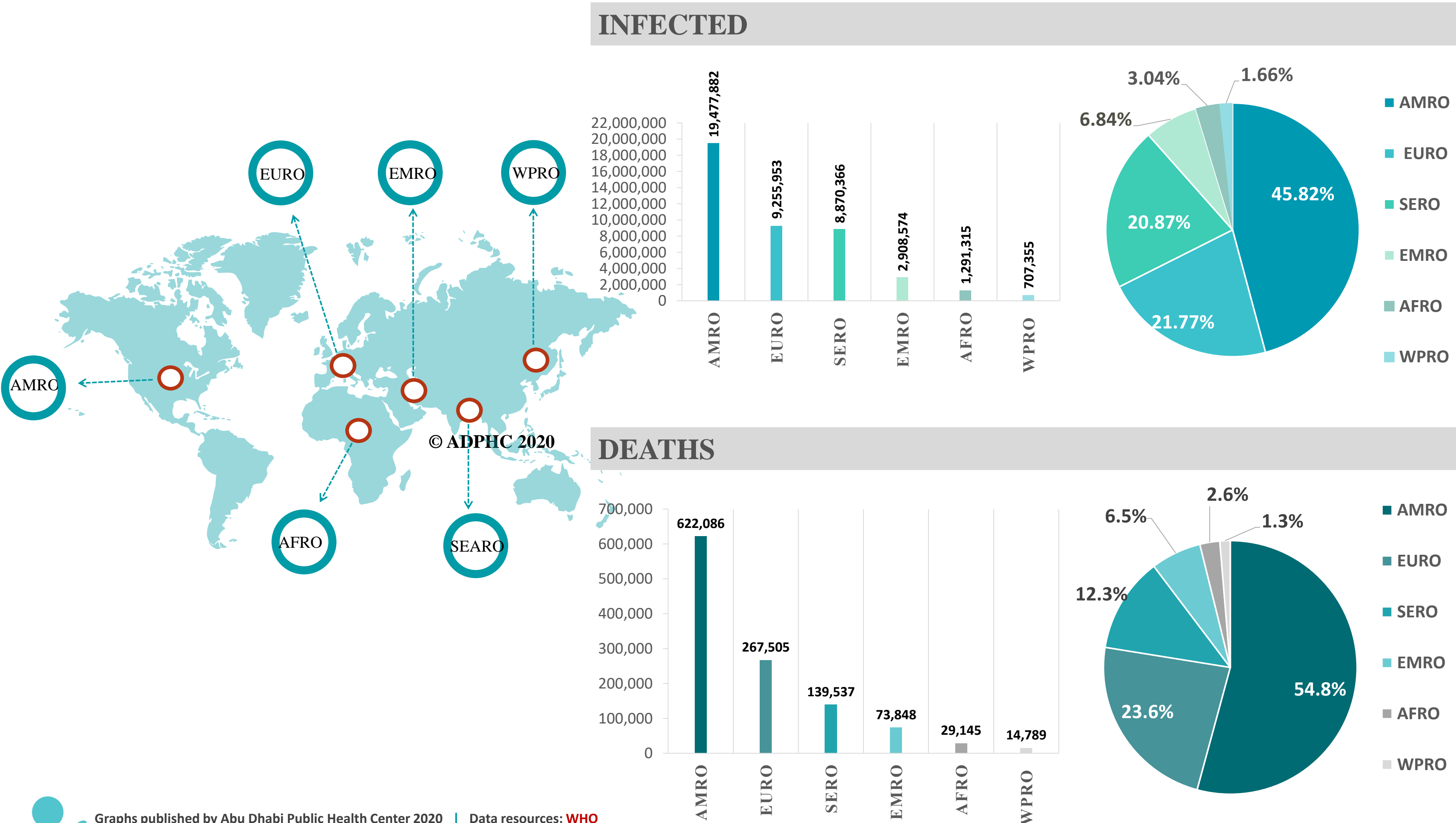


Other\*: includes cases and deaths reported under the international conveyance(Diamond Princess)





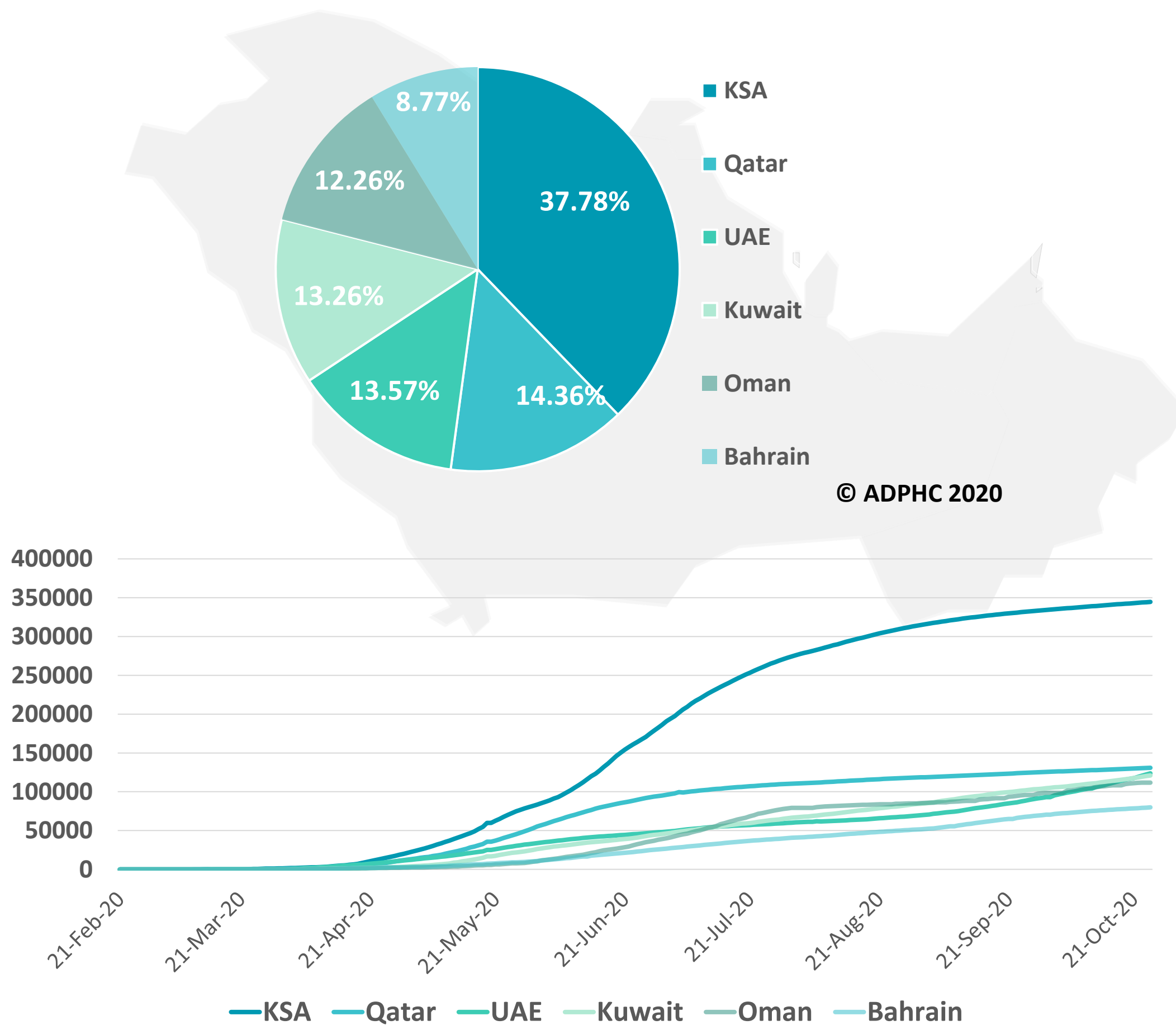
## Figure 8: Global Distribution of COVID-19 Cases per Region



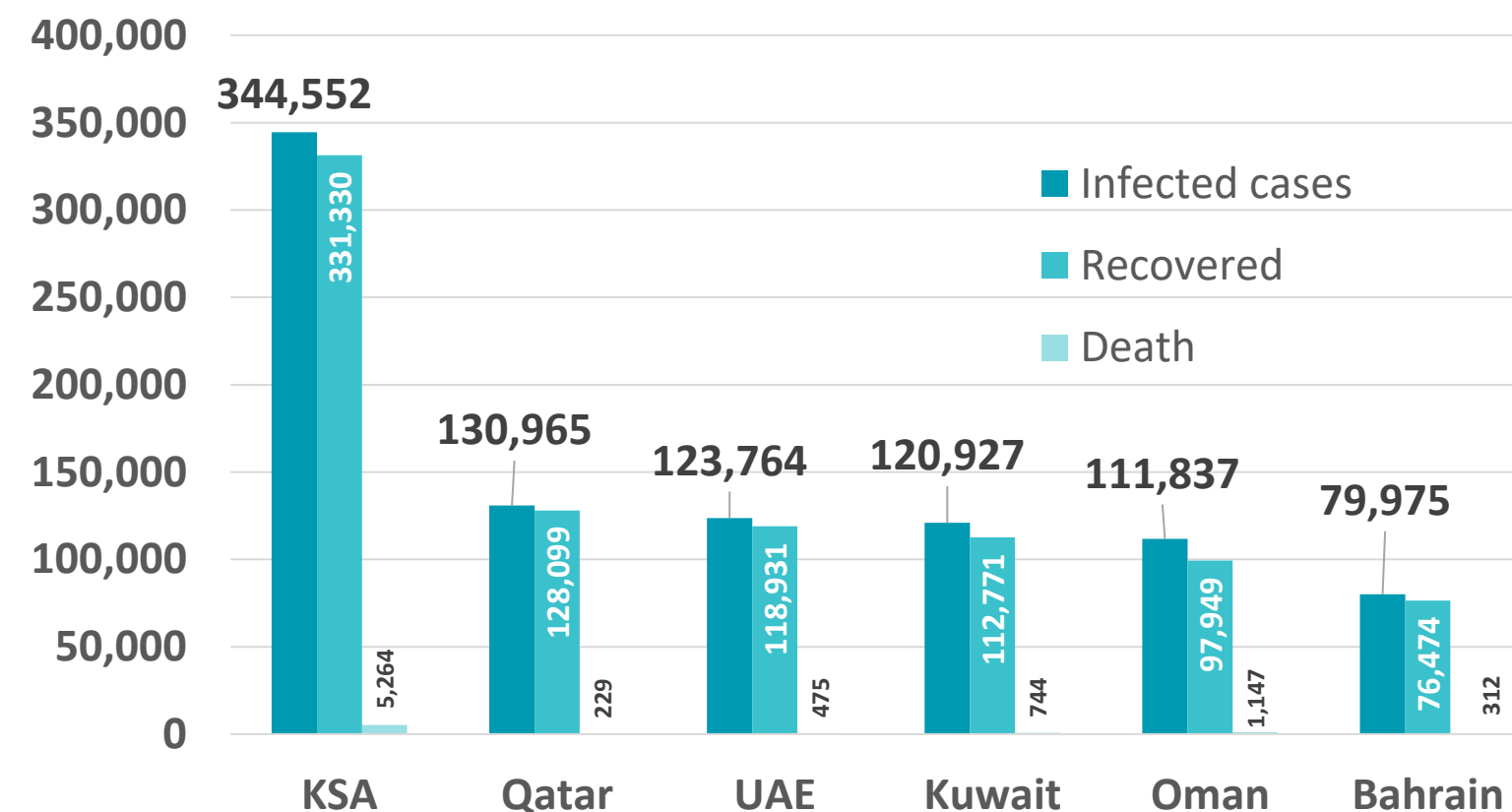
Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: [WHO](#)

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

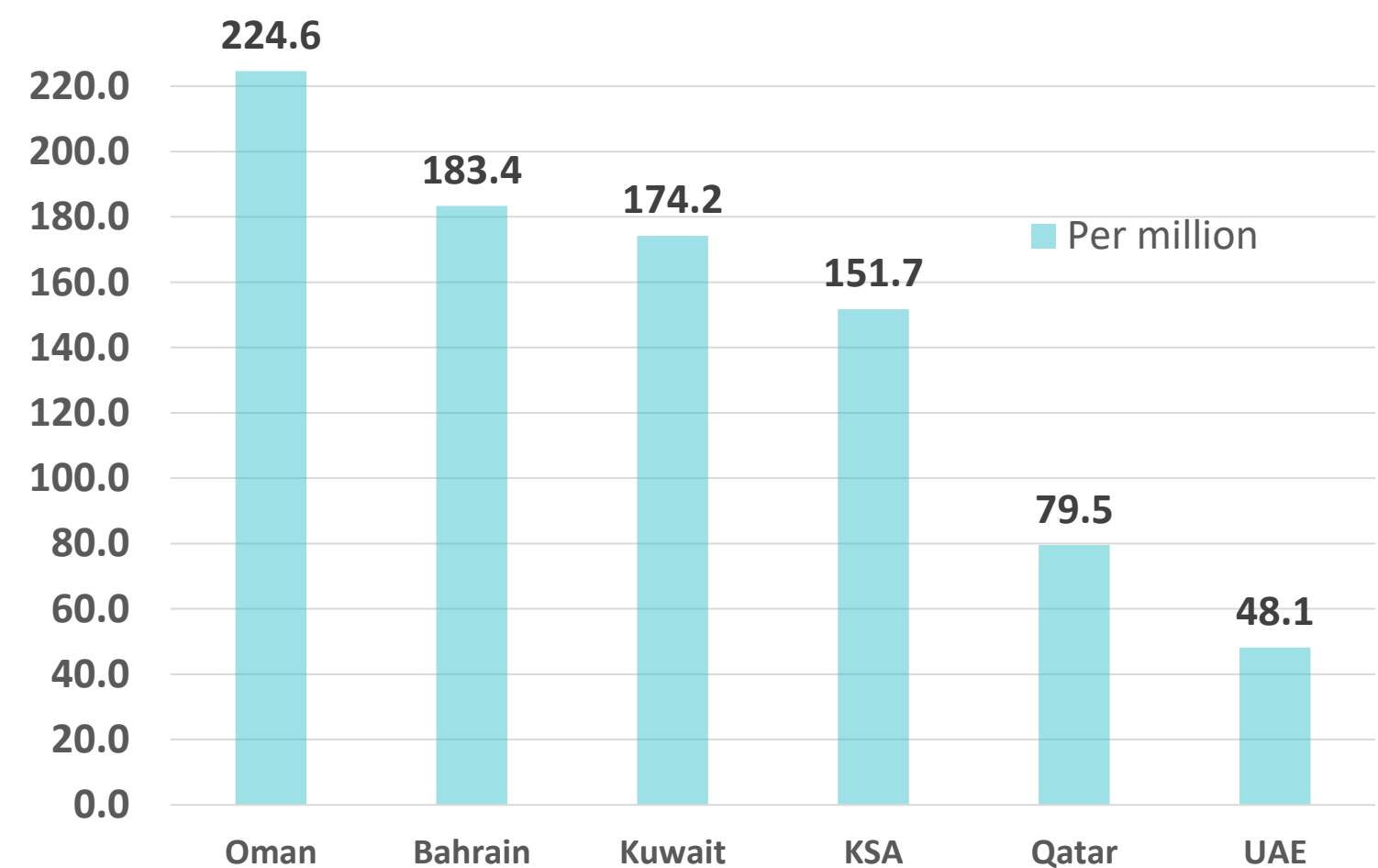
### TOTAL NUMBER OF INFECTED CASES



### TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



### DEATHS PER MILLION



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

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

### UAE



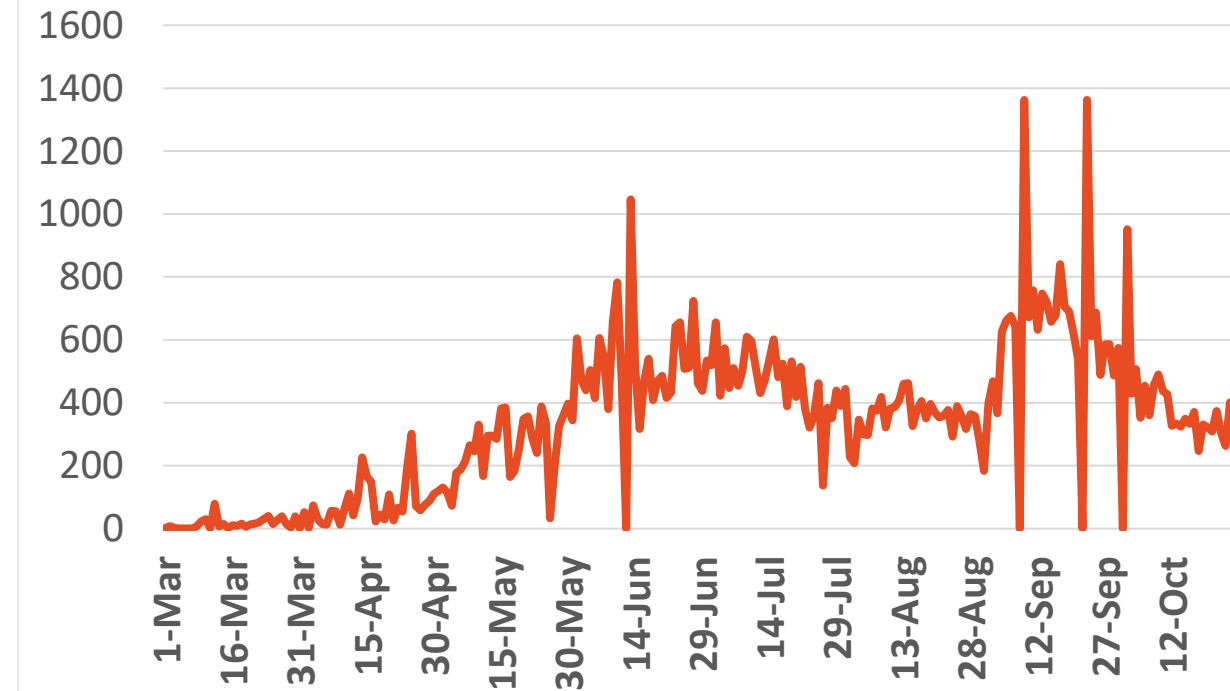
Source : National Emergency Crisis and Disaster Management Authority

### KSA



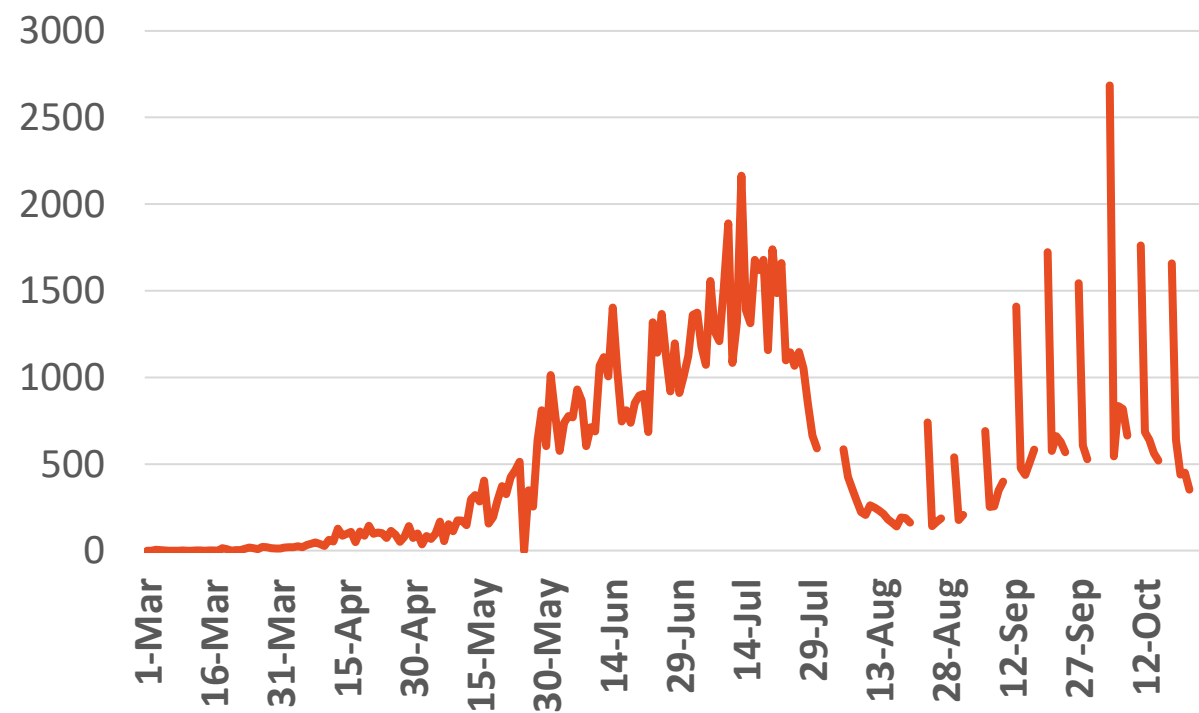
Source : KSA ministry of health

### Bahrain



Source :WHO

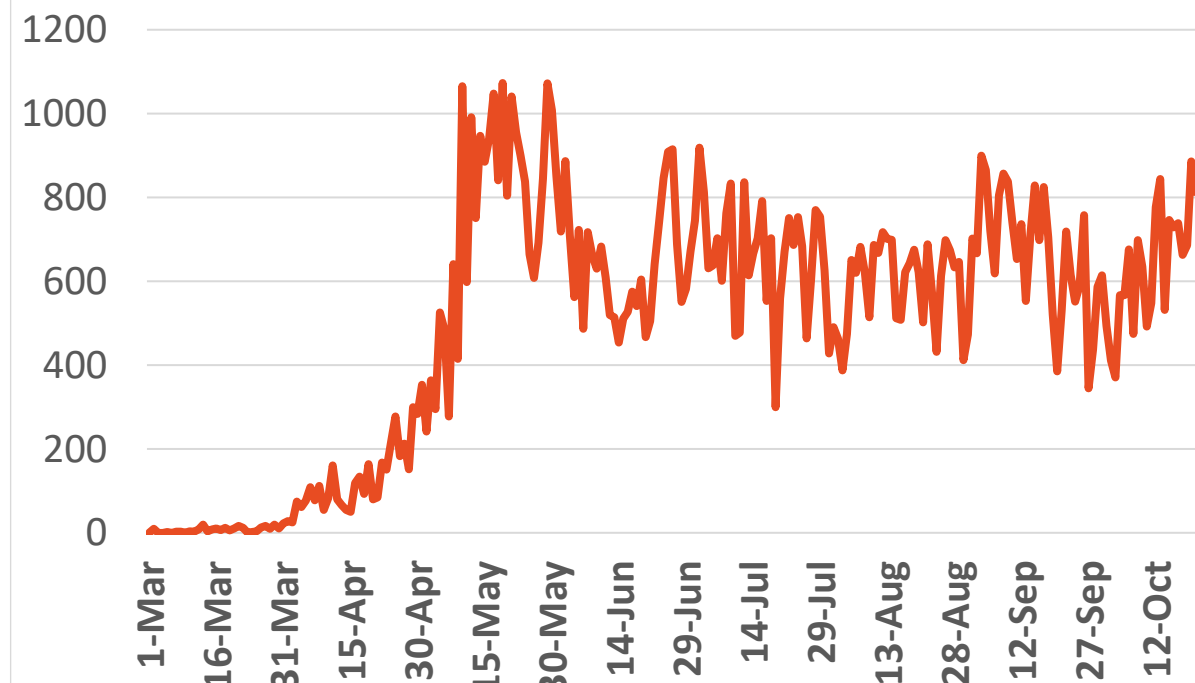
### Oman



Source :Oman ministry of health

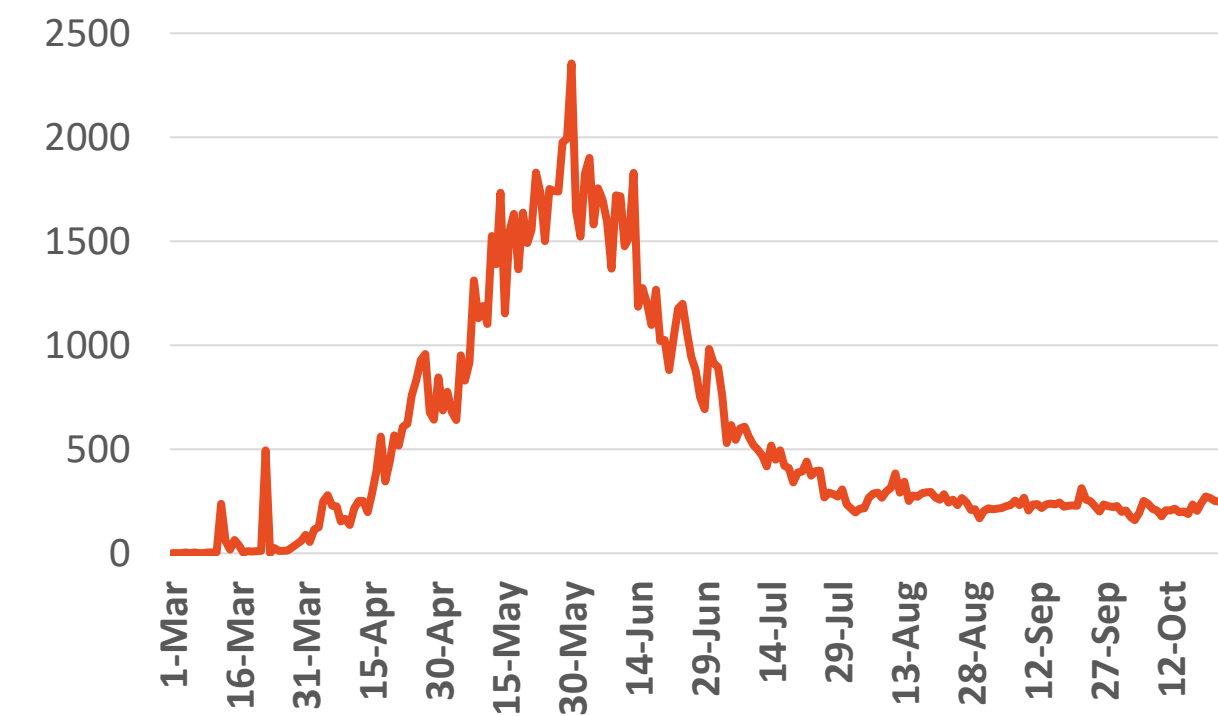
### Kuwait

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Source : Kuwait ministry of health

### Qatar



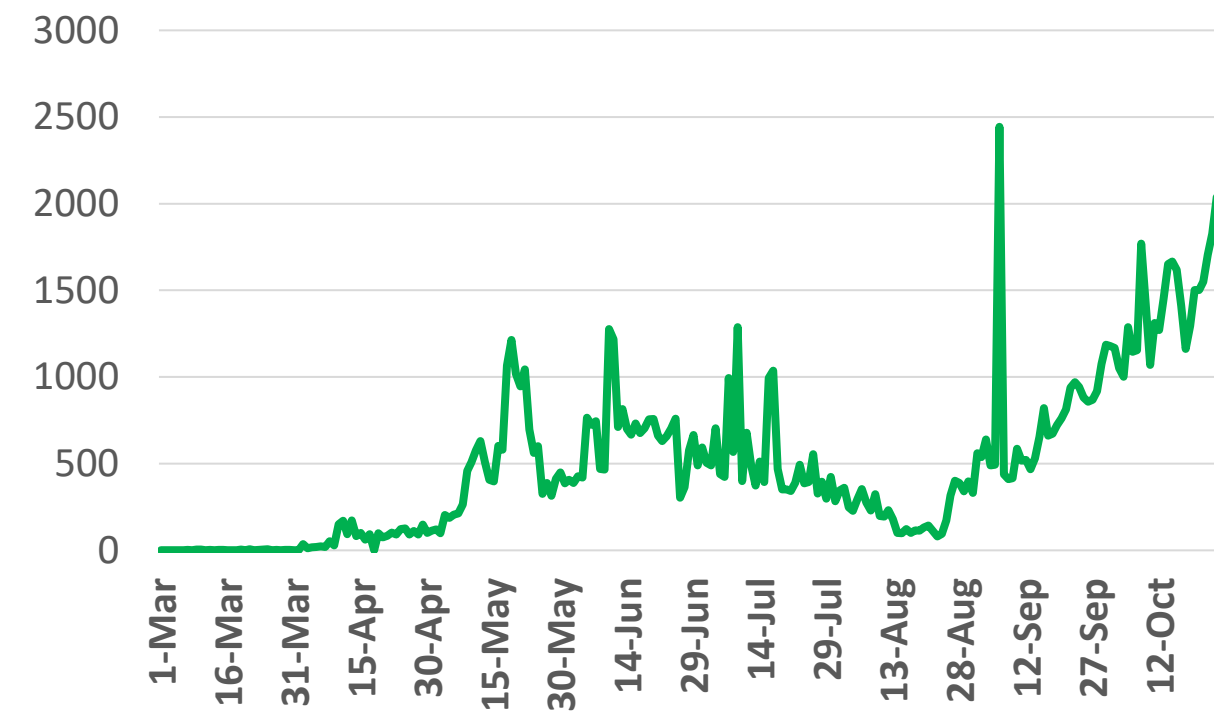
Source : Qatar ministry of health

\*No announced statistic data from 31 July to 4 August, 21,23,28,30 August 2, 4, 5,11,12,18,19,25, 26,30 September,1,2,9,10,16,17,23 & 24 October  
\*No announced statistic data on weekends and official holidays.



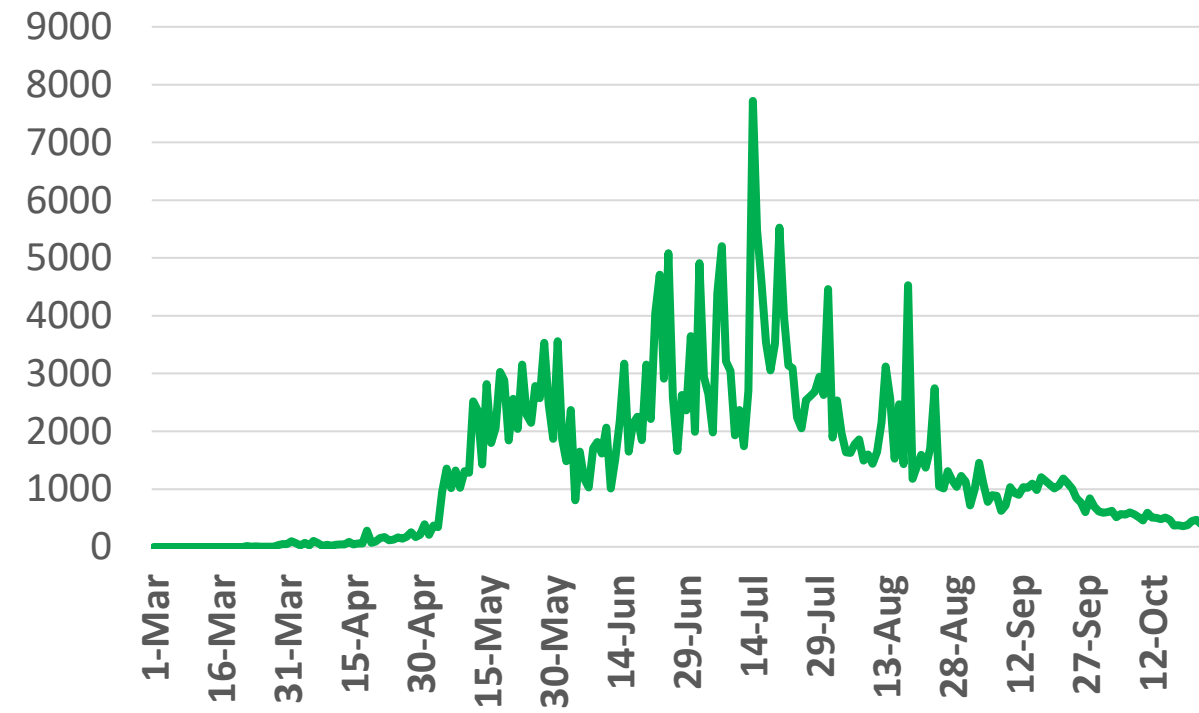
**Figure 11: Comparative Analysis of the Distribution of COVID-19 Newly Recovered Cases in GCC Countries**

## UAE



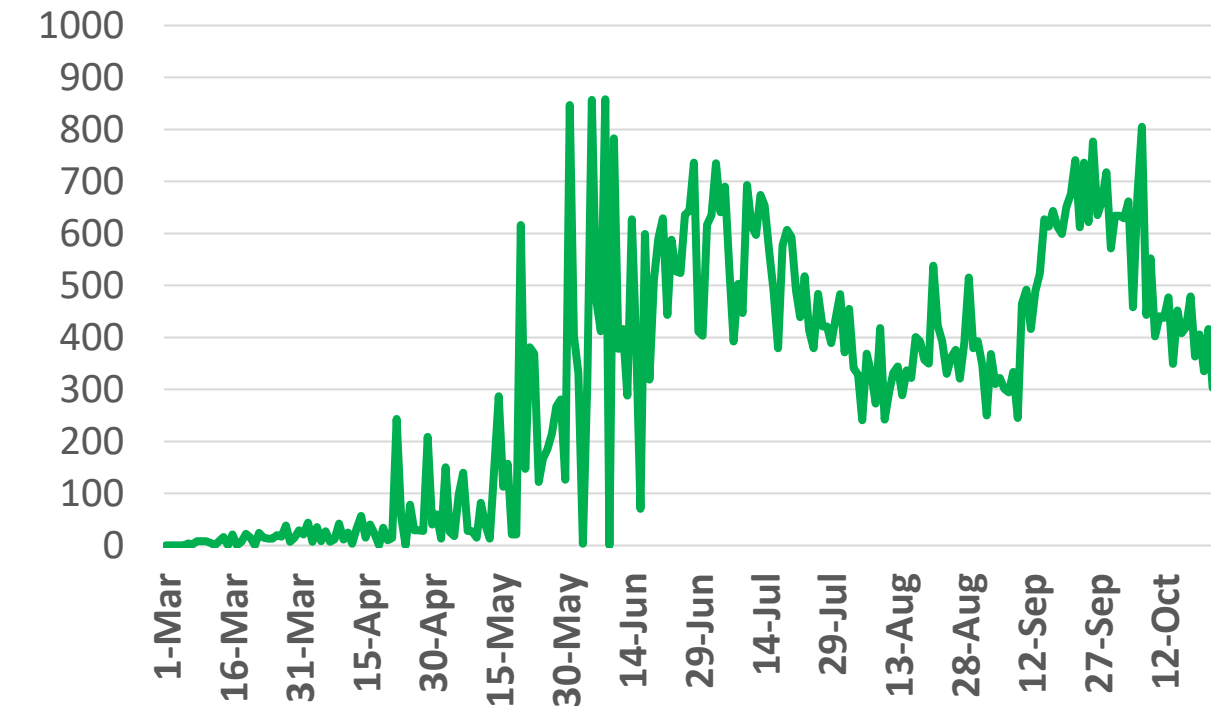
Source : National Emergency Crisis and Disaster Management Authority

## KSA



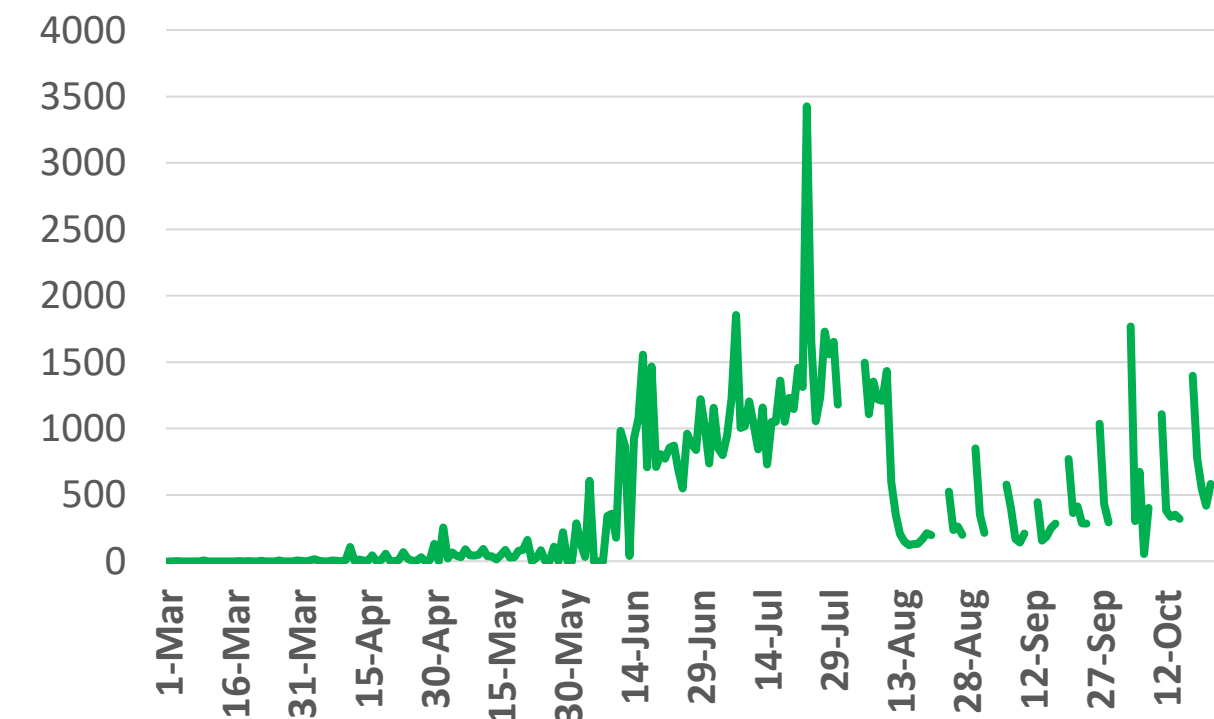
Source : KSA ministry of health

## Bahrain



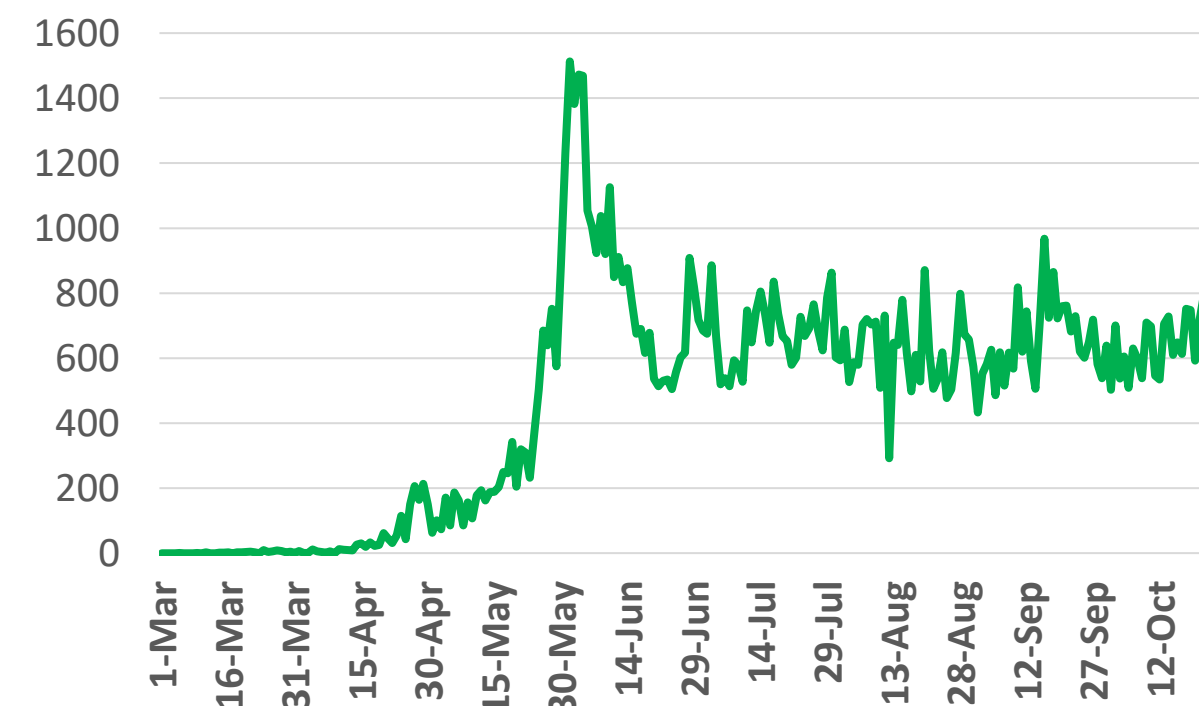
Source : Bahrain ministry of health

## Oman



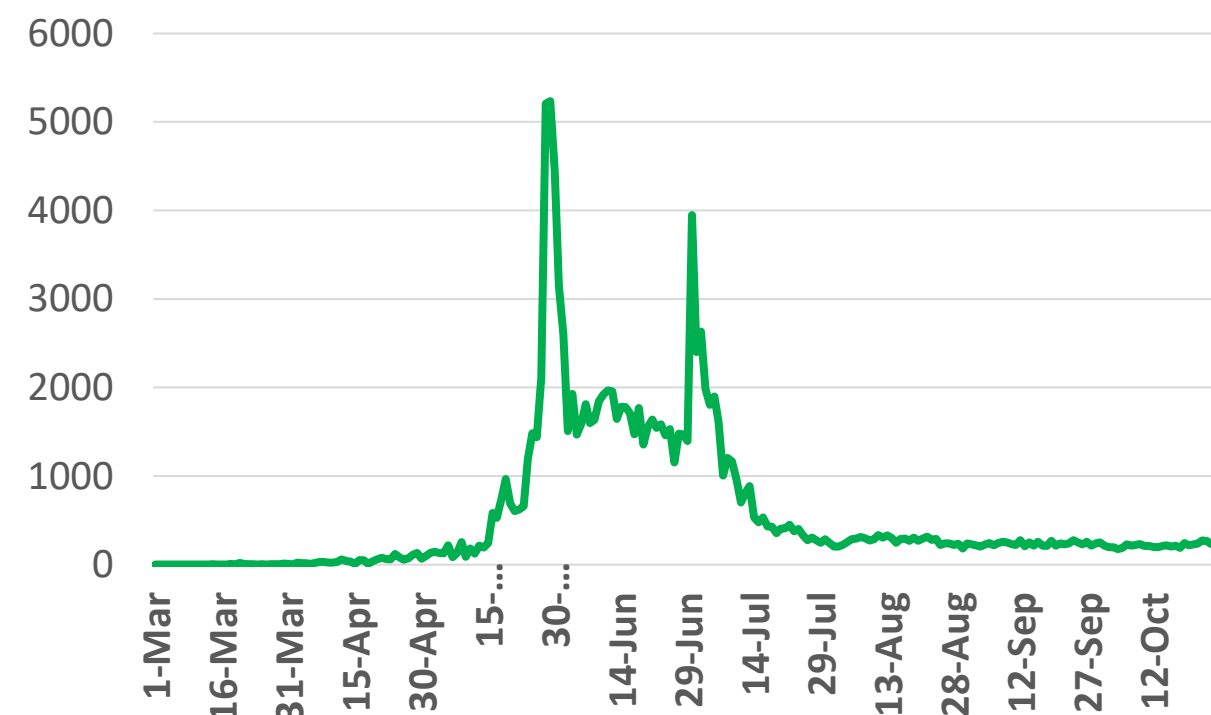
Source : Oman ministry of health

## KUWAIT © ADPHC 2020



Source : Kuwait ministry of health

## Qatar



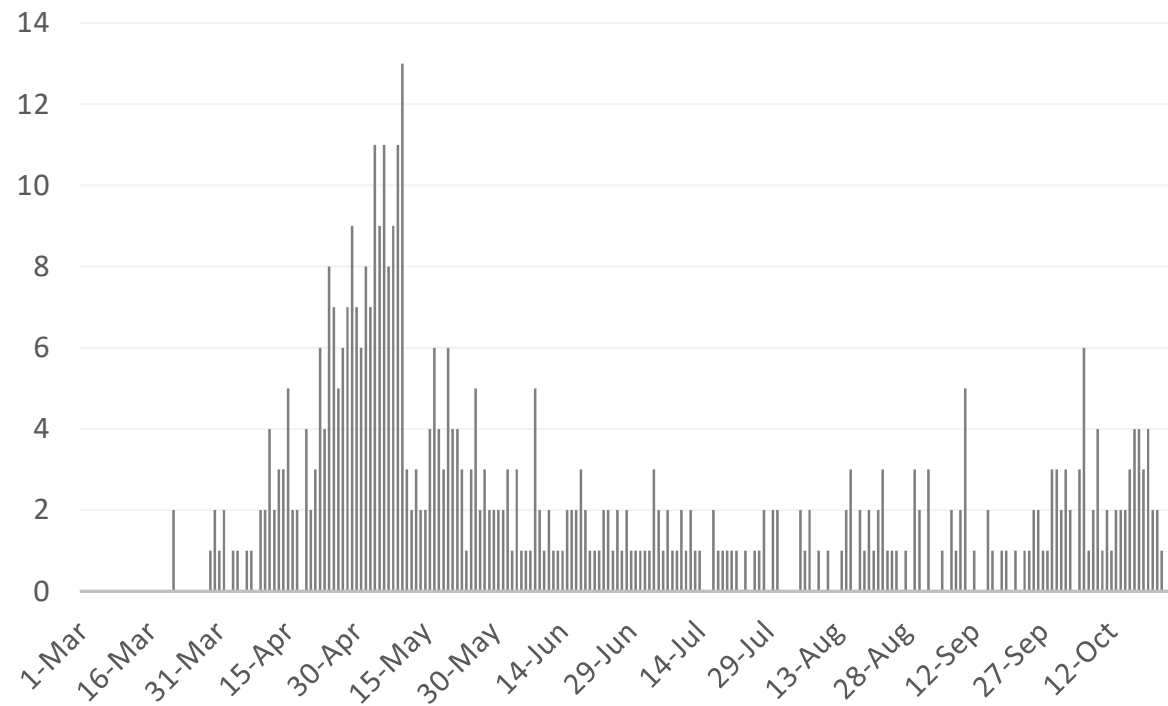
Source : Qatar ministry of health

\*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,1,2,9,10,16 &17,23 &24 October  
\*No announced statistic data on weekends and official holidays.



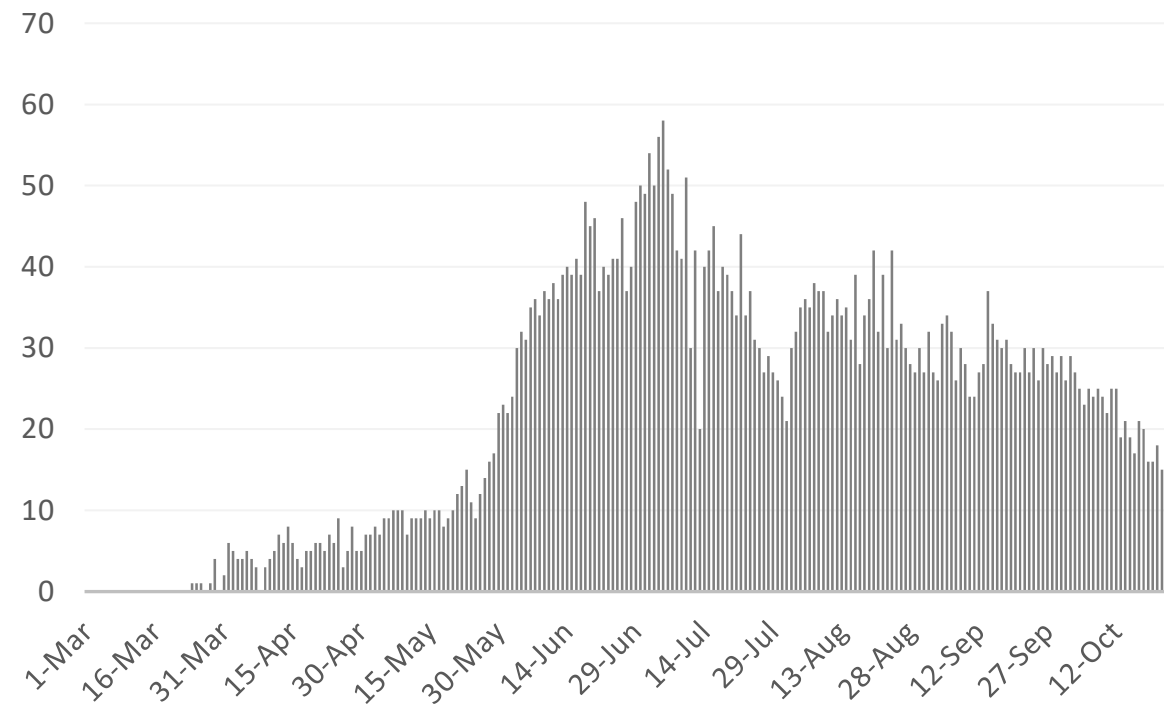
## Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

### UAE



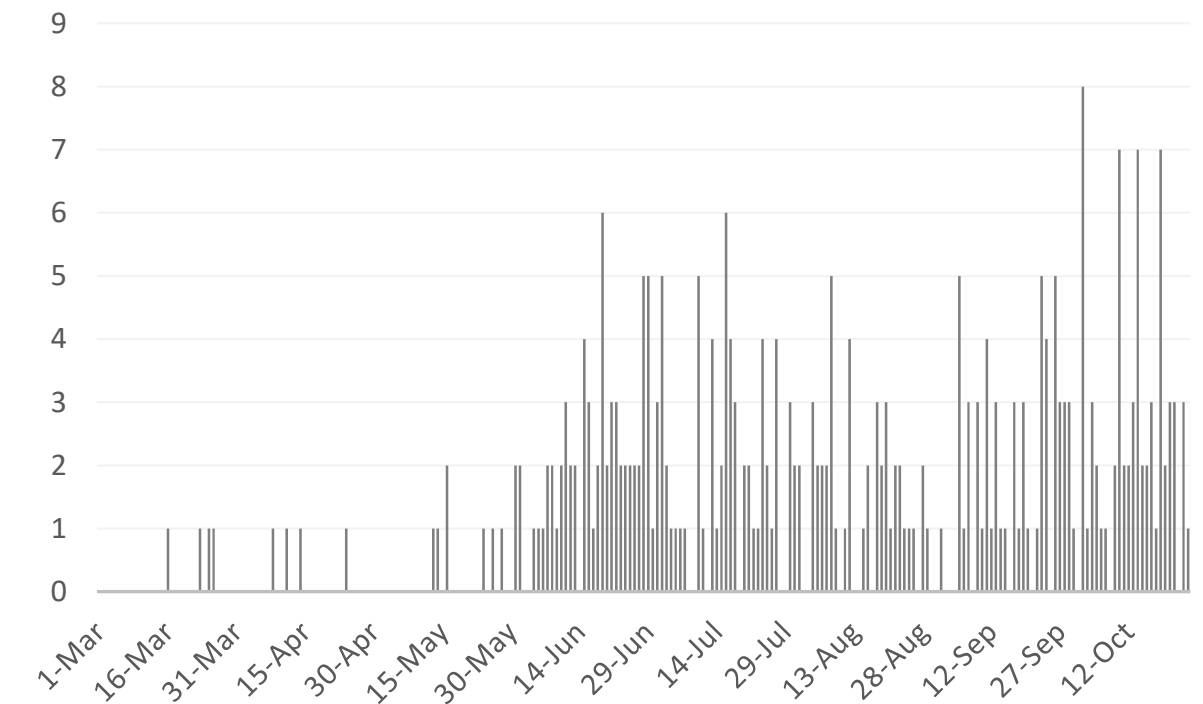
Source : National Emergency Crisis and Disaster Management Authority

### KSA



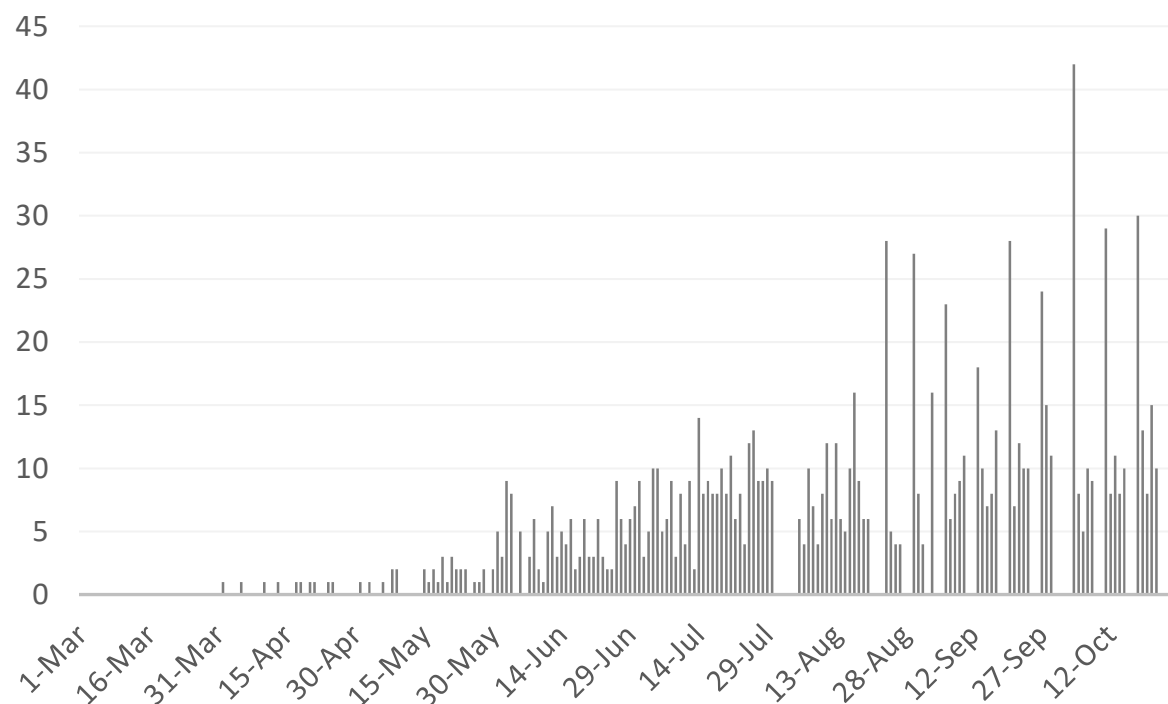
Source : KSA ministry of health

### Bahrain



Source :WHO

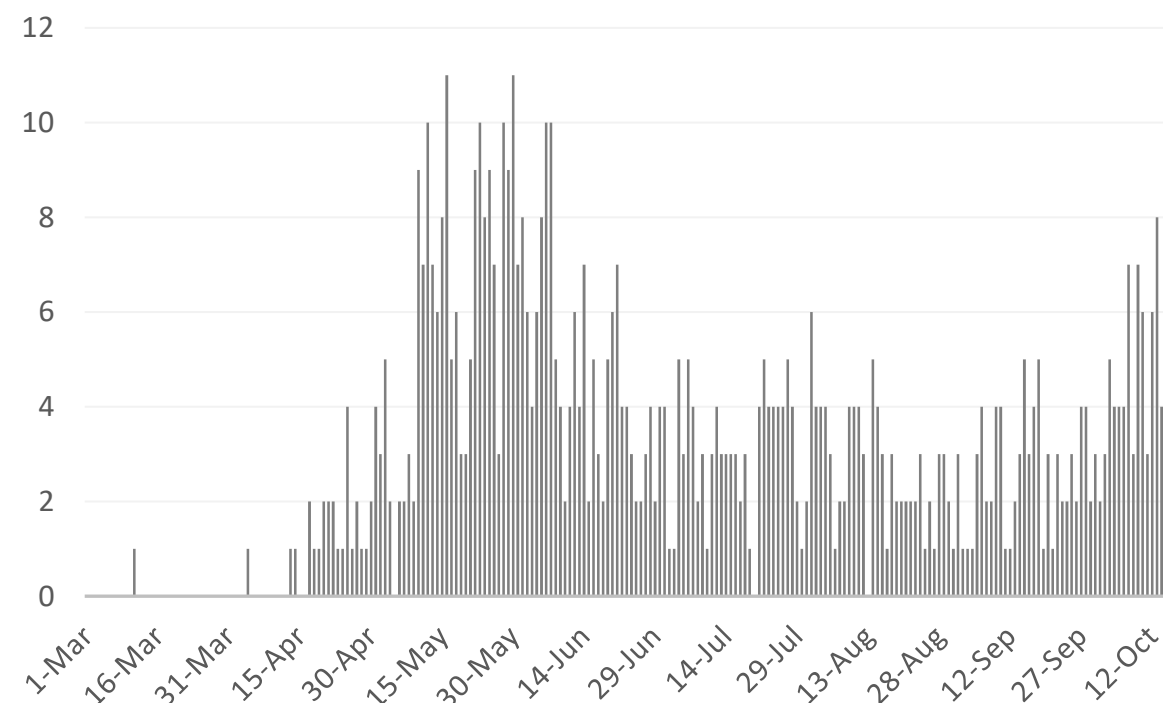
### Oman



Source :Oman ministry of health

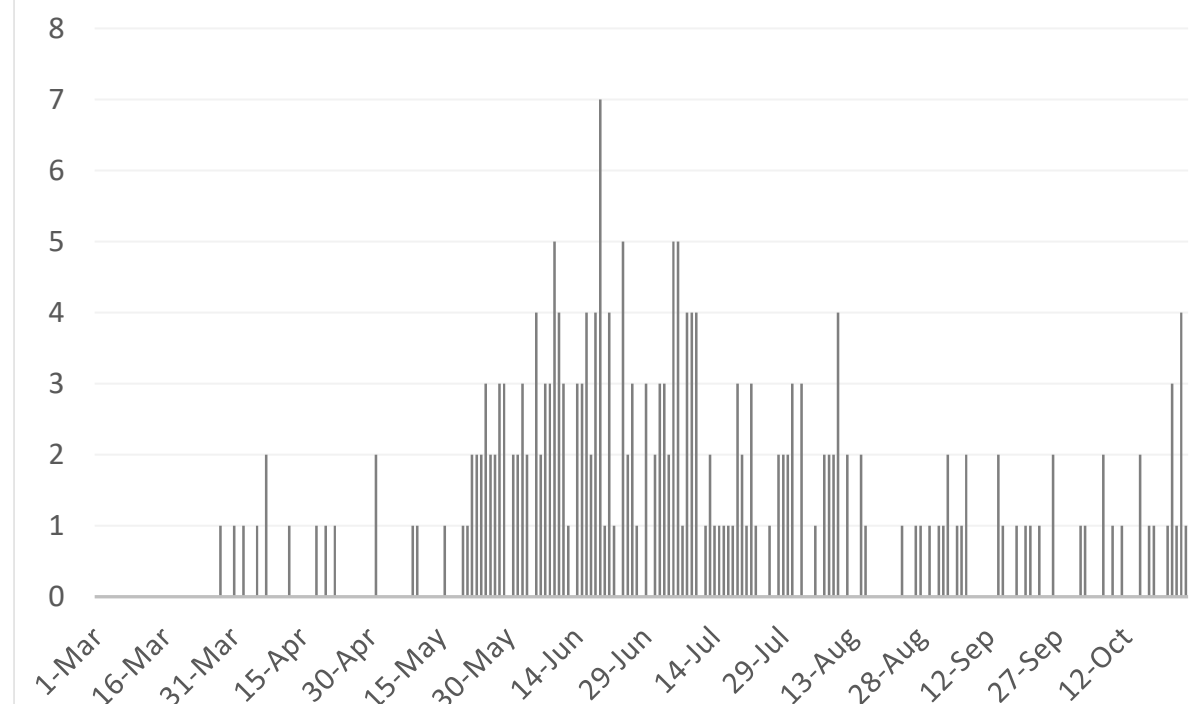
### Kuwait

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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,1,2,9,10,16 &17,23 &24 October  
\*No announced statistic data on weekends and official holidays.





## Article 1

### Published

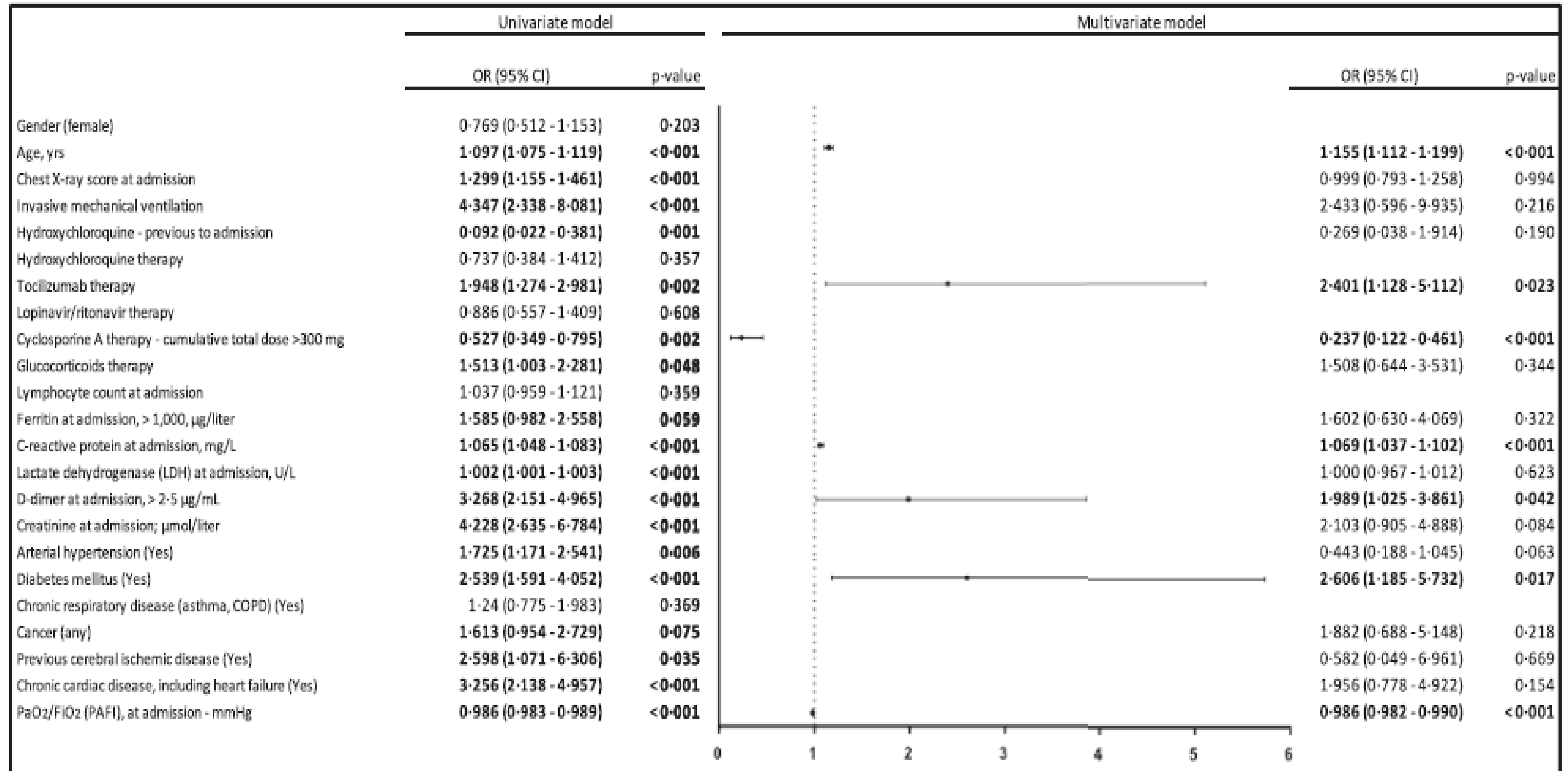
## Clinical Characteristics and Outcomes Among Hospitalized Adults with Severe COVID-19 Admitted to a Tertiary Medical Center and Receiving Antiviral, Antimalarial, Glucocorticoids, or Immunomodulation with Tocilizumab or Cyclosporine

October 15, 2020 [The Lancet](#)

- In Spain, a retrospective observational study was conducted with adult patients diagnosed with COVID-19 (n=607) admitted to Hospital Universitario Quironsalud Madrid (between March 10 and April 15, 2020, and then followed up until May 12, 2020). Data was collected using the electronic health records and included demographic information, baseline comorbidities, radiographic and laboratory tests, inpatient medications for COVID-19, and clinical outcomes. Univariate and multivariate logistic regression analysis was performed to evaluate potential risk factors for in-hospital mortality.
- The most common comorbidities were **hypertension (46.9%)**, **chronic cardiac (22.6%)** and **respiratory (19.3%) diseases**, and **diabetes (16.1%)**. Nearly a **quarter (23.2%) of the patients died**. In the multivariate model, **the risk of death increased with older age** [Odds Ratio (OR)-1.15; 95% CI: 1.11-1.2], increased **C-reactive protein (CRP)** at admission [OR-1.07; 95% CI: 1.04-1.10], **D-dimer >2.5 mg/mL** [OR-1.99; 95% CI: 1.03-3.86], **diabetes mellitus** [OR-2.61; 95% CI: 1.19-5.73], and the **PaO<sub>2</sub>/FiO<sub>2</sub> at admission** [OR-0.99; 95% CI: 0.98-0.99]. Regarding prescribed therapies, **Tocilizumab therapy** showed an **increased odd of death** [OR-2.4; 95% CI: 1.13-5.11]. On the other hand, **Cyclosporine A (CsA)** was associated with a **significant decrease in mortality** [OR-0.24; 95% CI: 0.12-0.46].
- These findings showed **the positive effect of CsA on in-hospital mortality associated with severe COVID-19**. Based on a retrospective analysis of observational data in the single-center study, the results should support the development of a **randomized, multicenter, clinical trial to evaluate the efficacy and safety of CsA in the treatment of patients with severe COVID-19**.



## Continued



**Fig. 2.** Univariate and multivariate logistic regression model of the risk factors for in-hospital death, including baseline comorbidities, laboratories parameters and available therapies.





# PUBLIC HEALTH RESPONSE

## Article 2

# The Lombardy Region of Italy Launches the First Investigative COVID-19 Commission

Published

October 15, 2020 [The Lancet](#)

- In Italy, consecutive local governments in Lombardy region have promoted private health care institutions that have an important role within the welfare system accounting for approximately 40% of the total health services provided. During COVID-19 pandemic, the regional council of Lombardy has established an investigative commission within the regional assembly to analyze the series of events and specific choices that led to so many infections and deaths in a region with an extremely high standard of health care. This investigative commission is the first in all of Europe as well as in the world.
- The commission's work will last for one year, and if completed properly, it will apply to entire Italian and international community. As many people have suffered and died during this pandemic, people have a right to know what exactly has happened and it is anticipated that people will accept the commission's reports if it is presented with full transparency.
- Cooperation with the researchers will be crucial. Experts' counsel and research are essential to recognize the mistakes in the past. Scientists not only have the duty to be objective observers but also to speak up. A call for all political representatives to get involved, and take into account the science as the main voice in the investigative process being aware that true cooperation is required to develop better strategies for the future.







## Article 3

# Scientific Consensus on the COVID-19

Published

## Pandemic: We Need to Act Now

October 14, 2020 [The Lancet](#)

- During COVID-19 pandemic, the arrival of a second wave has led to a resumed interest in herd immunity approach that suggests allowing a large uncontrolled outbreak in the low-risk population when protecting the vulnerable groups. It has been suggested that this would lead to the development of infection acquired population immunity in the low-risk population that will ultimately protect the vulnerable. However, this is a misconception unsupported by scientific evidence.
- Uncontrolled transmission in younger people risks substantial morbidity and mortality in the entire population that would overwhelm the ability of health care systems to provide acute and routine care. Besides, there is no evidence for lasting protective immunity following natural infection and transmission that would be the outcome of decreased immunity would present a risk to a vulnerable population.
- **Prolonged isolation is not realistically possible and highly unethical.** Previous research showed that it is not feasible to restrict uncontrolled outbreaks to a specific part of society. This approach risks further aggravating the socioeconomic inequities and structural discriminations that already laid by the pandemic. Special efforts to protect the vulnerable population are crucial; however, it must go with multidimensional population-based strategies.
- Effective measures that prevent transmission need to be implemented widely. Continuing restrictions will be required for a short term to decrease transmission and fix inappropriate pandemic response systems to prevent future lockdowns. The purpose of these restrictions is to suppress infections effectively to lower levels that allow rapid detection of localized outbreaks and rapid response through efficient and comprehensive find, test, trace, isolate, and support systems so life can return to near normal without the need for generalized restrictions.



# THANK YOU

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