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HEALTH CENTRE

SCIENTIFIC RESEARCH MONITORING ON COVID-19

18 OCTOBER 2020

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SCIENTIFIC RESEARCH MONITORING ON COVID-19 (ISSUE 259)

مركز أبوظبي للصحة العامة
ABU DHABI PUBLIC HEALTH CENTRE

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.
For further inquiries you may communicate with us as 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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Pandemic-Driven Posttraumatic Growth for Organizations and Individuals

Vaccine

Influenza Vaccination to Reduce Cardiovascular Morbidity and Mortality in Patients with COVID-19

Public Health Response

COVID-19 and the Future of Drug Marketing

EPIDEMIOLOGY

FROM 21 JAN TO 17 OCT PT 2020

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

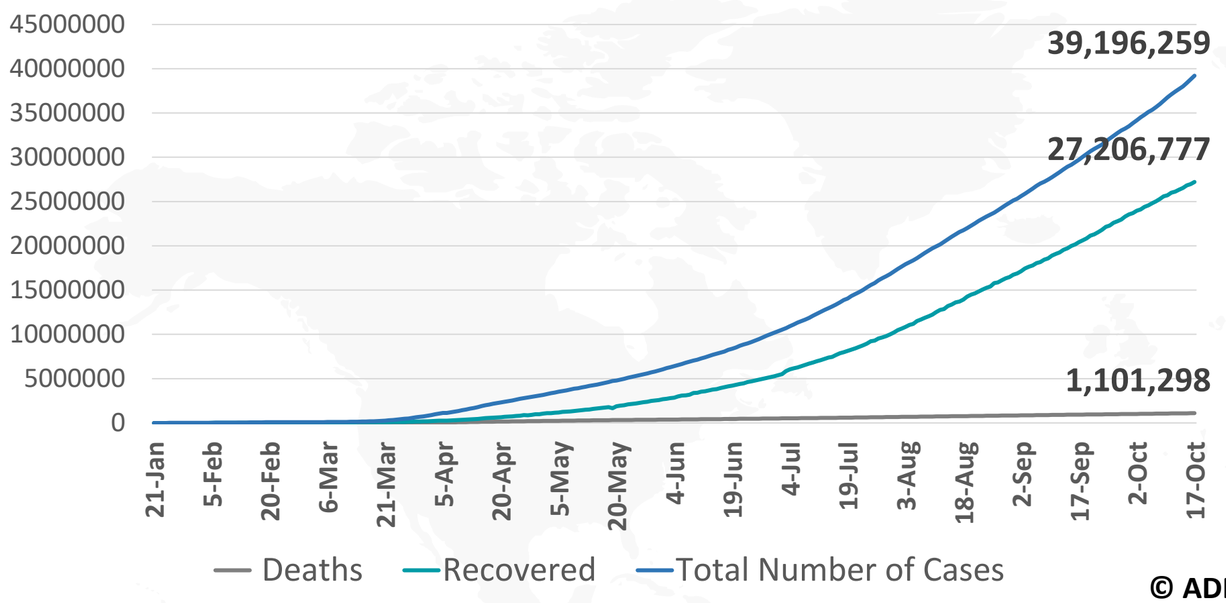


Figure 3: Total Number of Death Due to COVID-19 (china and result of the world)

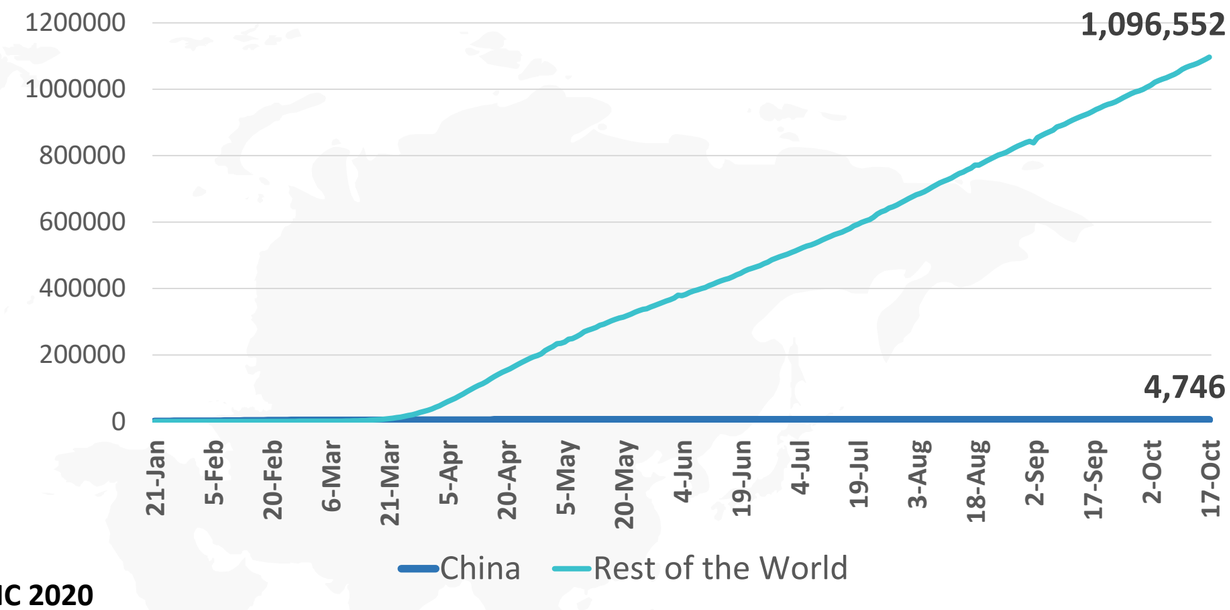


Figure 2: Daily New Infected COVID-19 Cases (China and rest of the world)

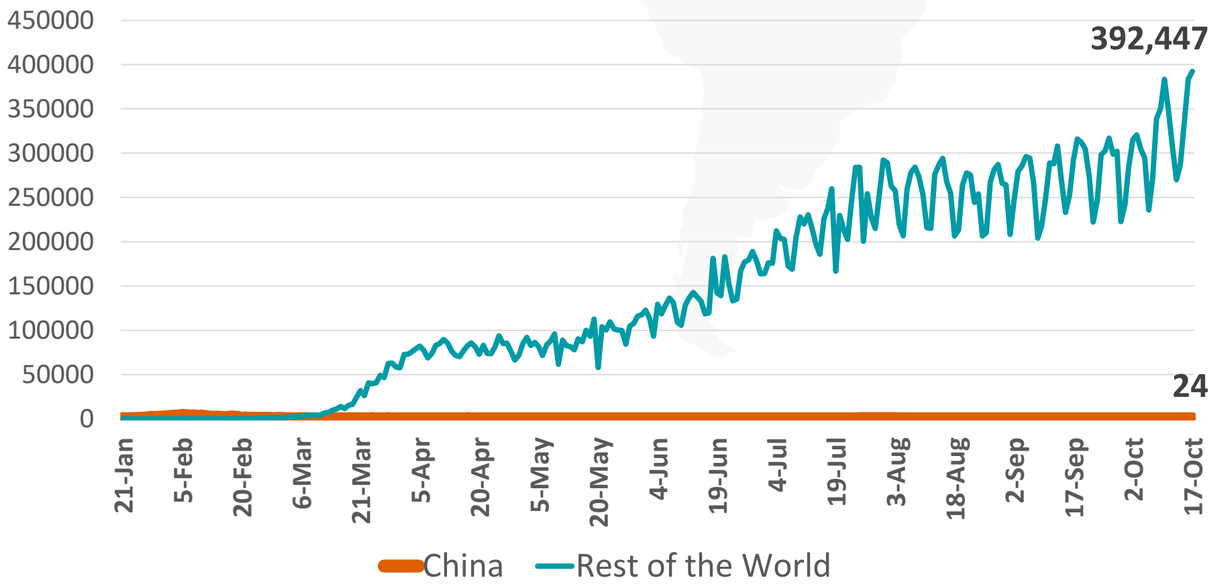
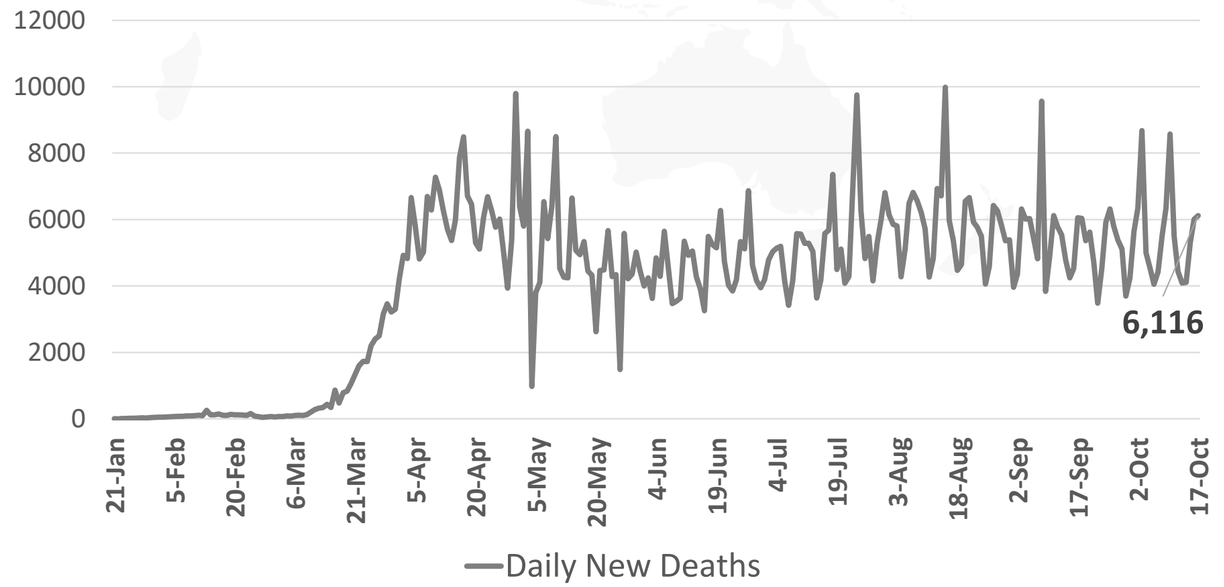


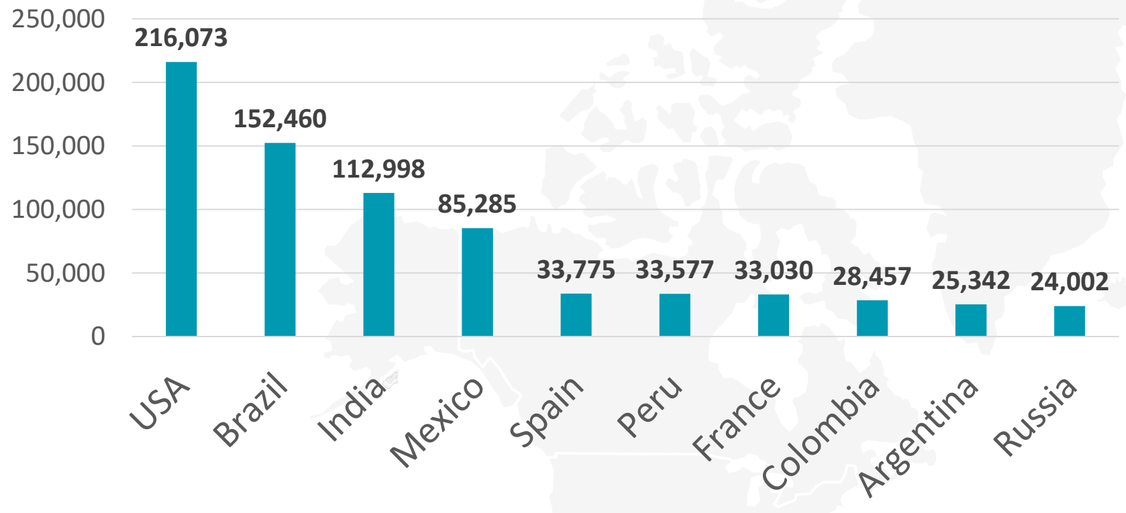
Figure 4: Global Daily New Deaths Due to COVID-19 (china and rest of the world)



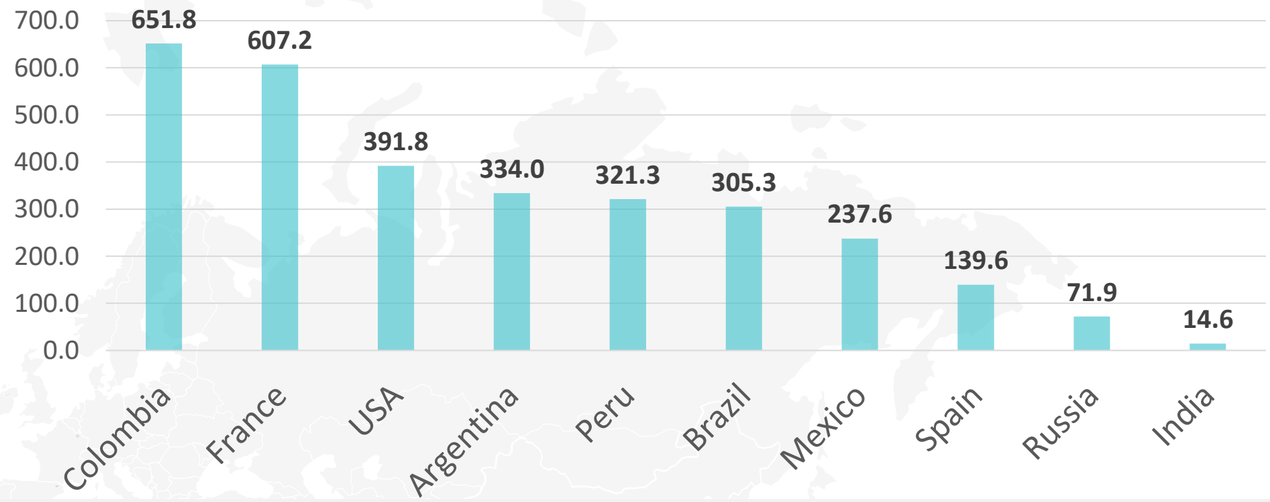
Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: John Hopkins, WHO

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

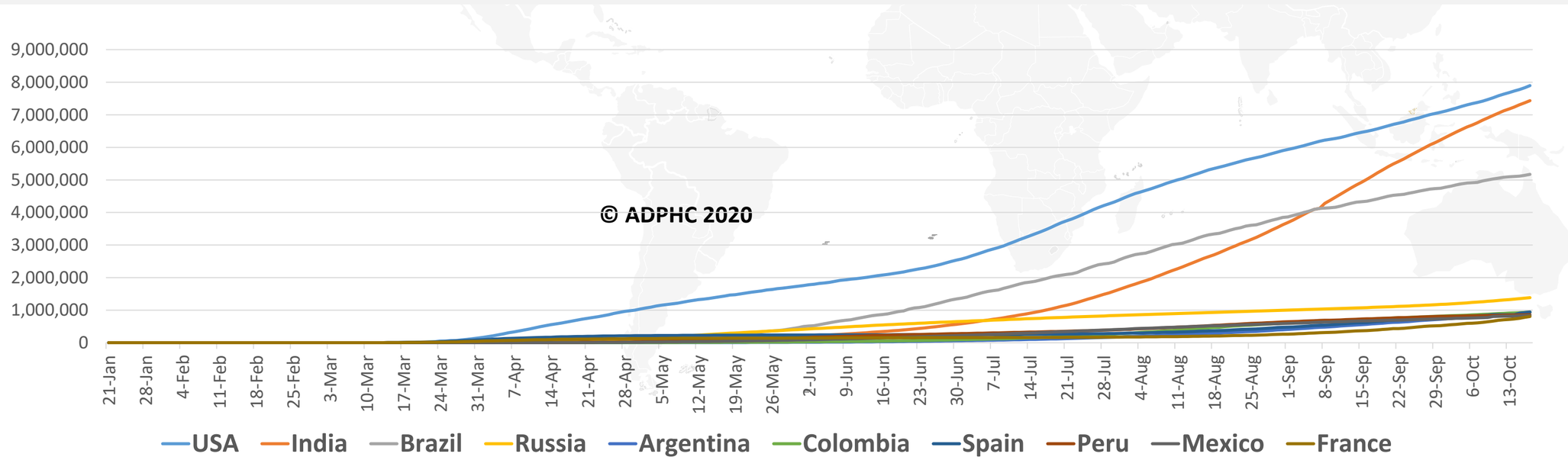
TOTAL DEATHS



DEATHS PER MILLION



TOTAL INFECTED CASES



USA	7,896,895
India	7,432,680
Brazil	5,169,386
Russia	1,384,235
Argentina	949,063
Colombia	936,982
Spain	936,560
Peru	859,740
Mexico	834,910
France	805,718

Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: WHO

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

Daily Tests

110,531.9 Average Tests

1,117.6 per 100k population

1.2% Positive Rate

Daily Cases

1,322.0 Average Cases

13.4 per 100k population

Daily Recovered

1,483.0 Average Recovered

15.0 per 100k population

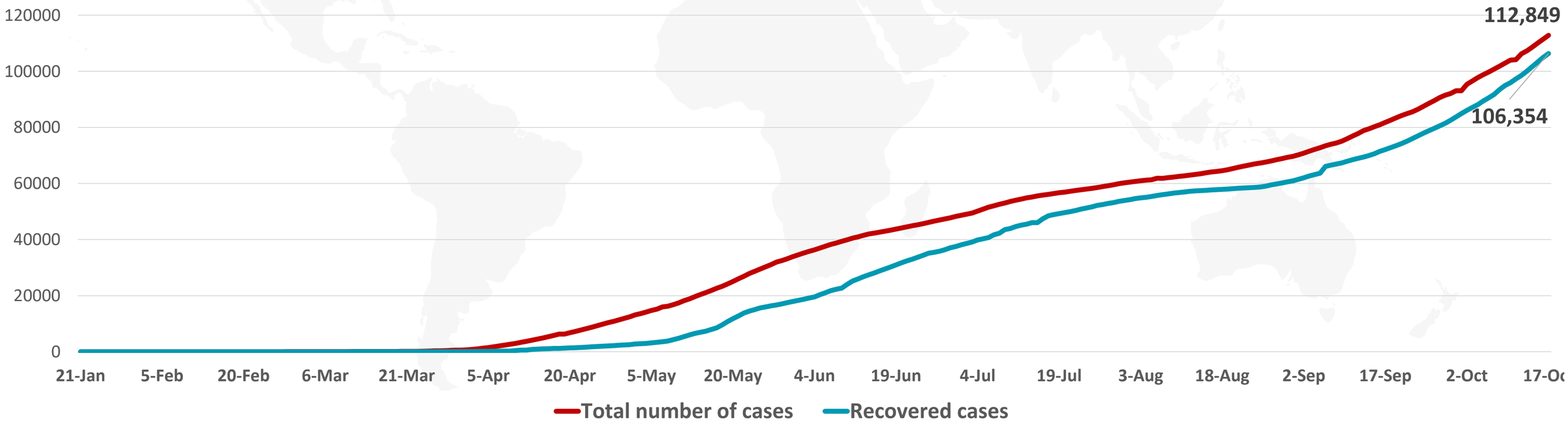
Daily Deaths

2.3 Average Deaths

0.0 per 100k population

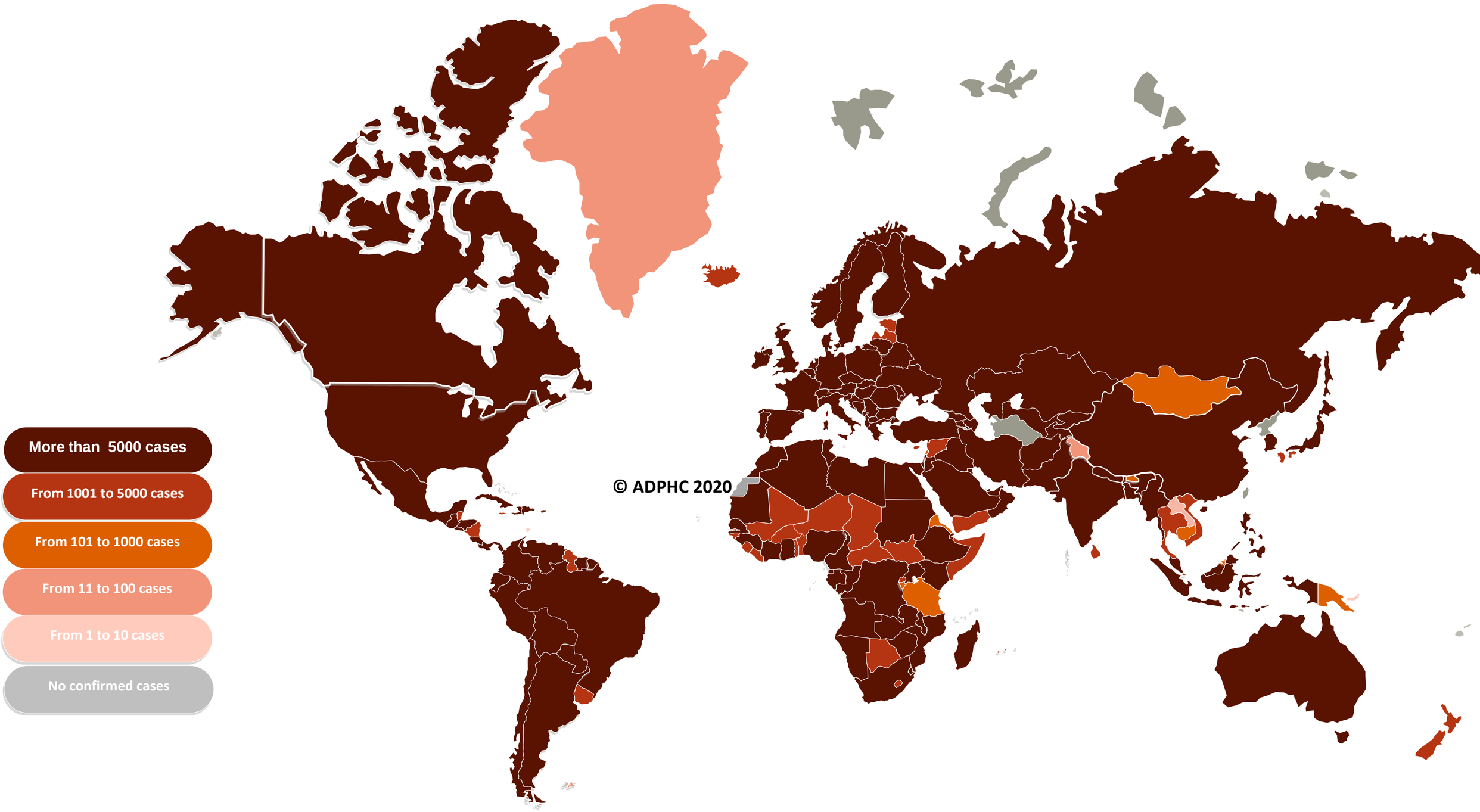
0.2% Case Fatality Rate

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



Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: FCSA, WHO, John Hopkins

Figure 7A : Global Distribution of COVID-19 Cases



Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: WHO

EPIDEMIOLOGY

Date: 17 OCT 2020

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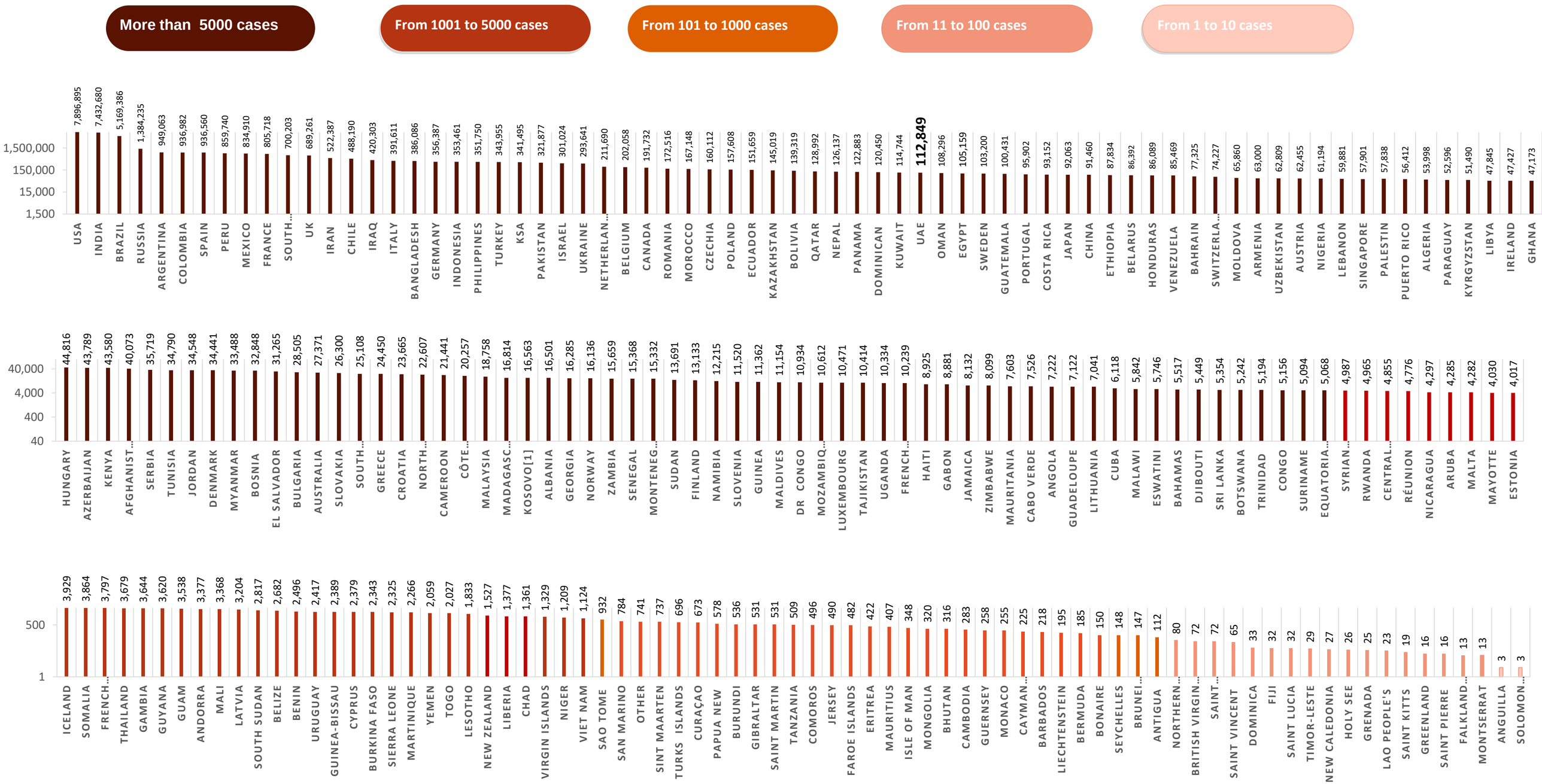
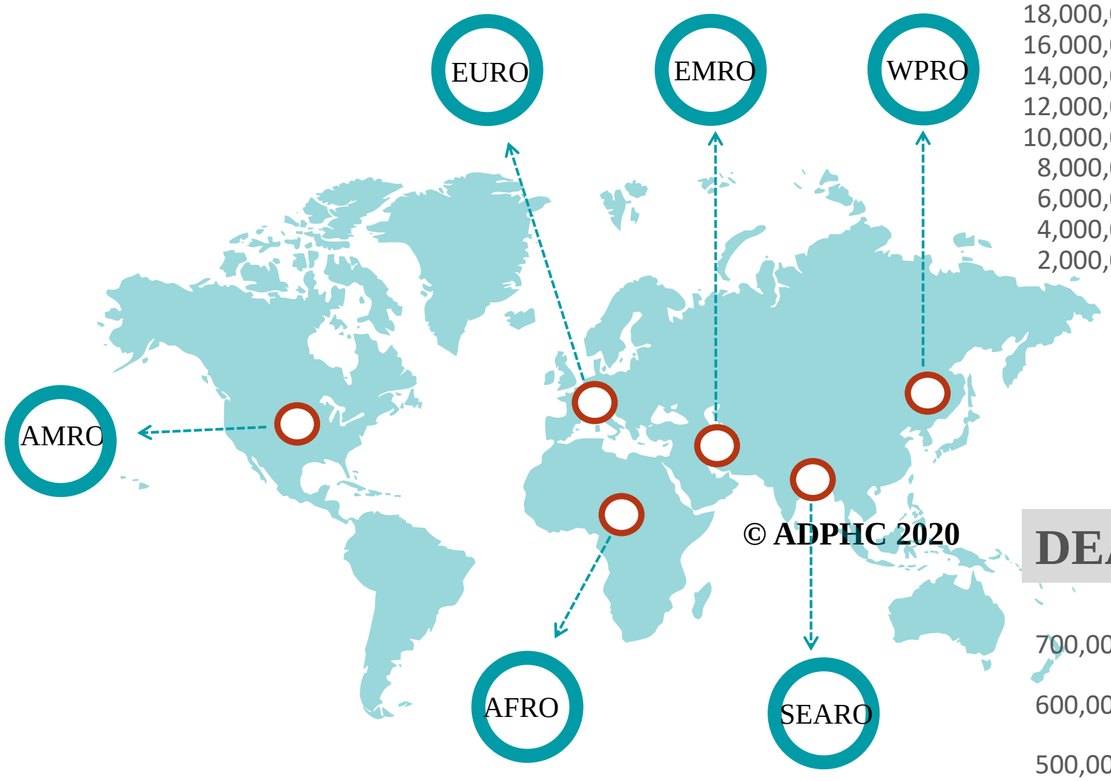
Figure 7B: Bar Chart Illustrates the Global Distribution of COVID19 Cases



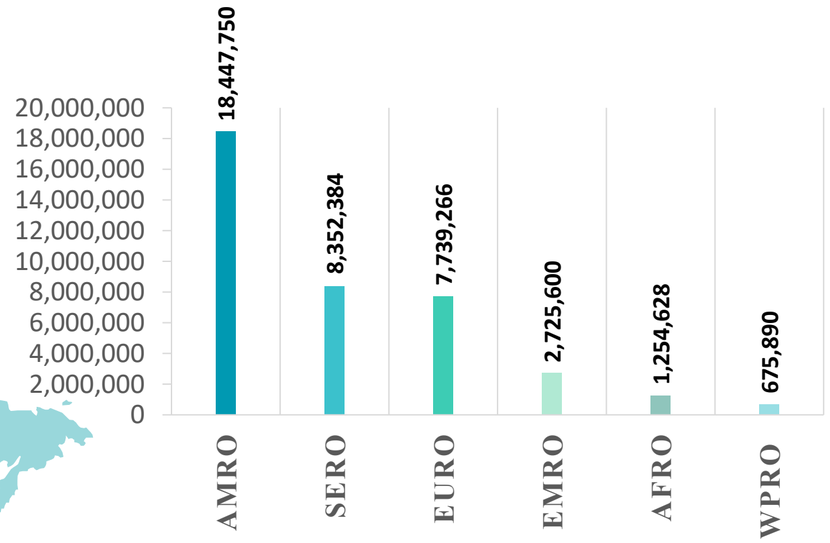
Other*:includes cases and deaths reported under the international conveyance(Diamond Princess)

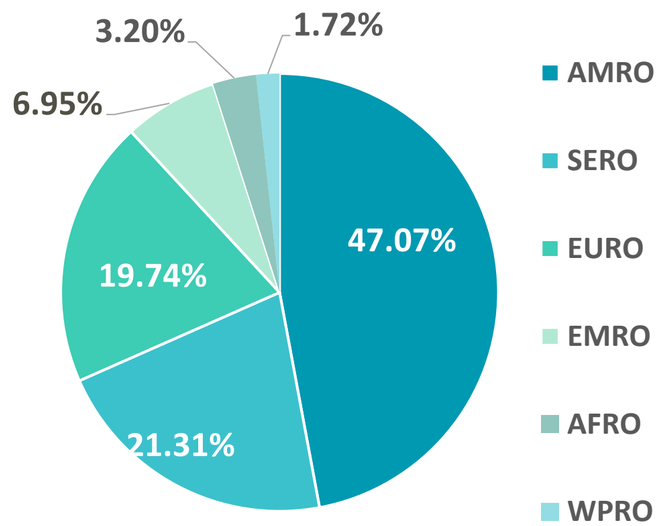
Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: WHO

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

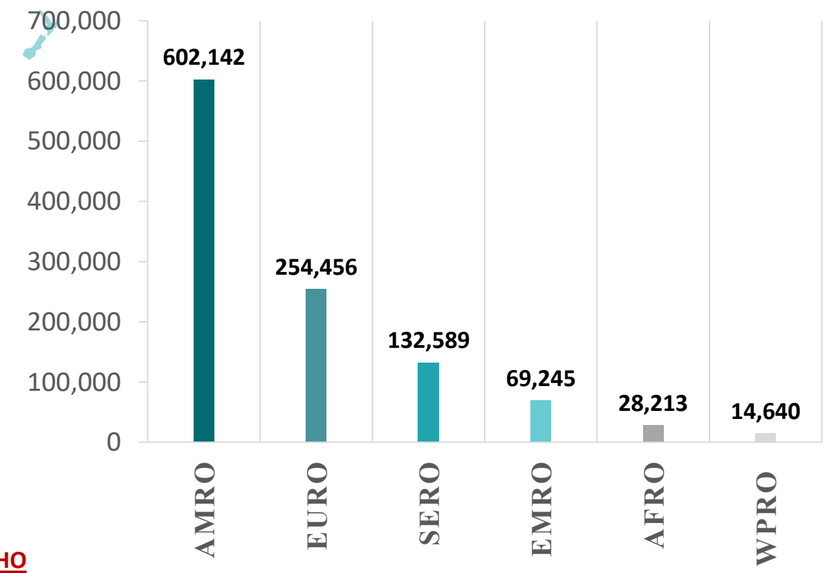


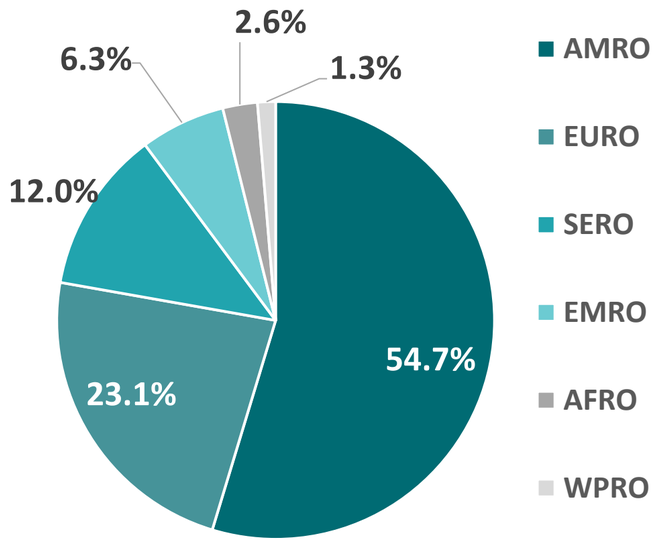
INFECTED





DEATHS

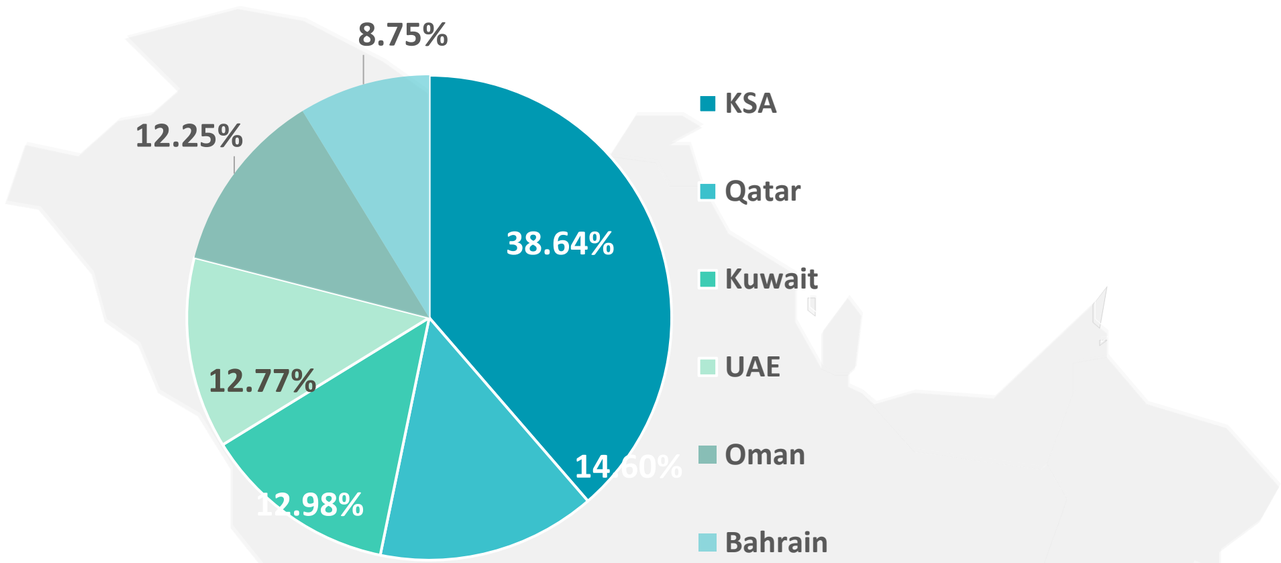


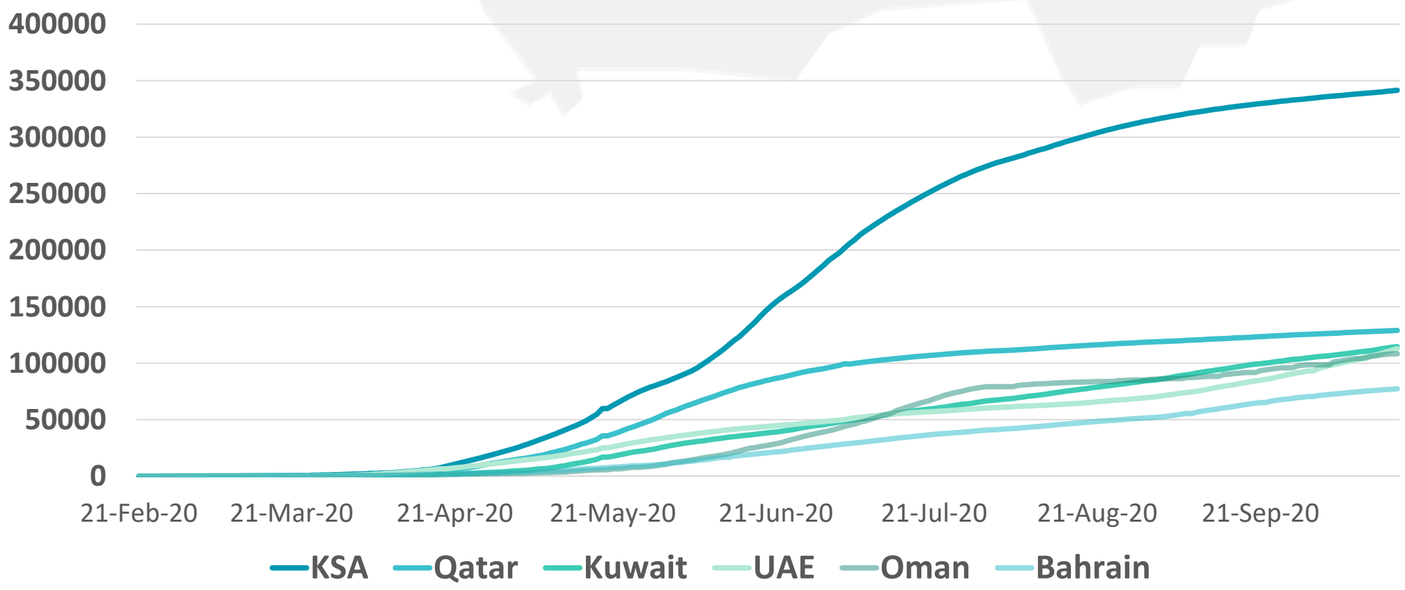


Graphs published by Abu Dhabi Public Health Center 2020 | Data resources: WHO

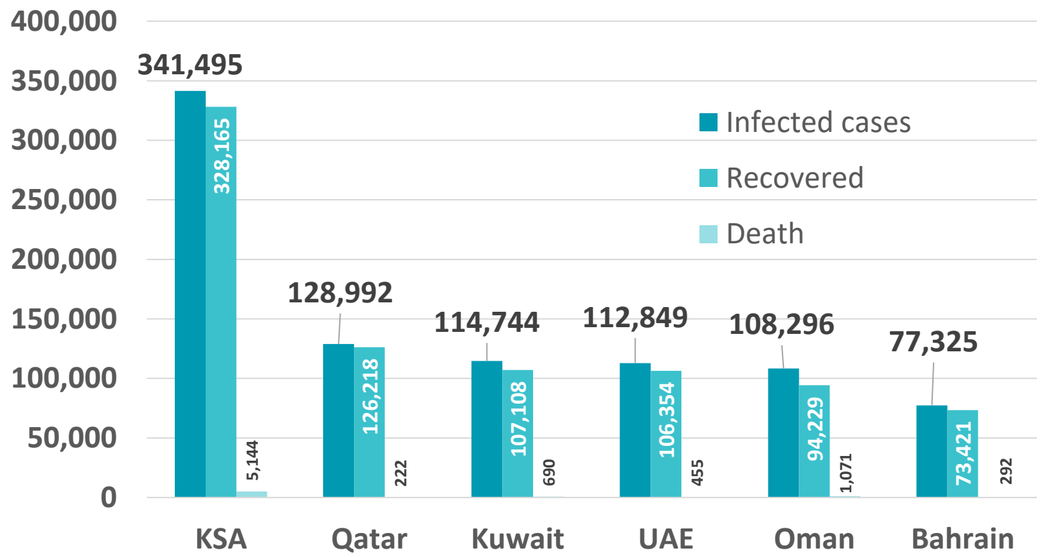
Figure 9: Comparative Analysis of the Distribution of COVID-19 Cases in GCC Countries

TOTAL NUMBER OF INFECTED CASES

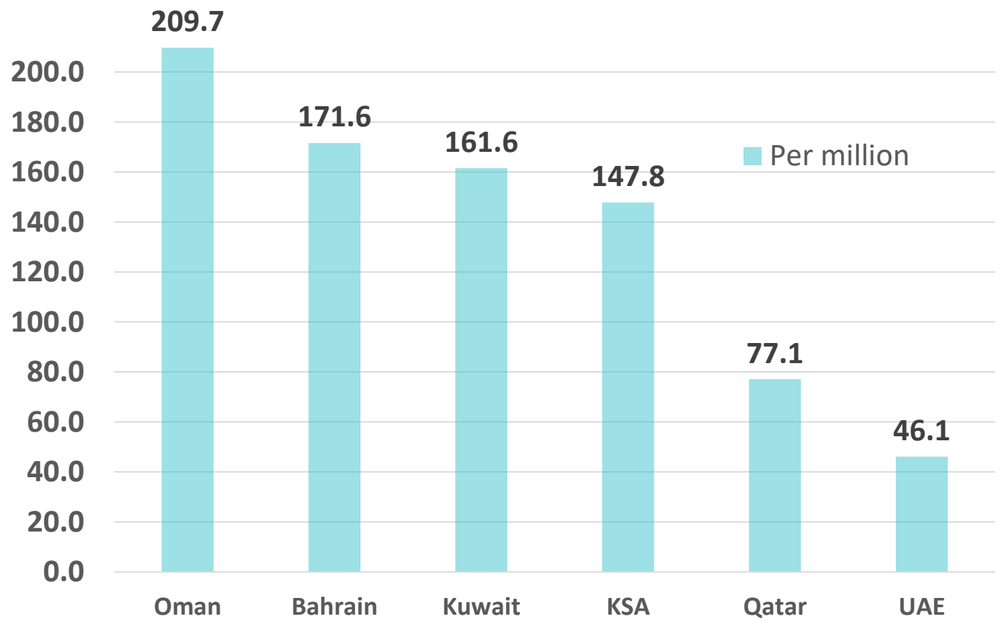




TOTAL NUMBER OF INFECTED, RECOVERED AND DEATHS



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

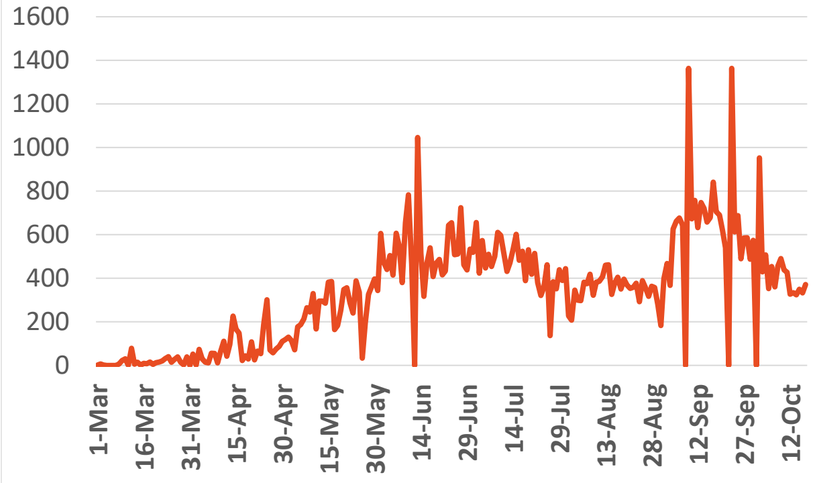
UAE

Source : National Emergency Crisis and Disaster Management Authority

KSA

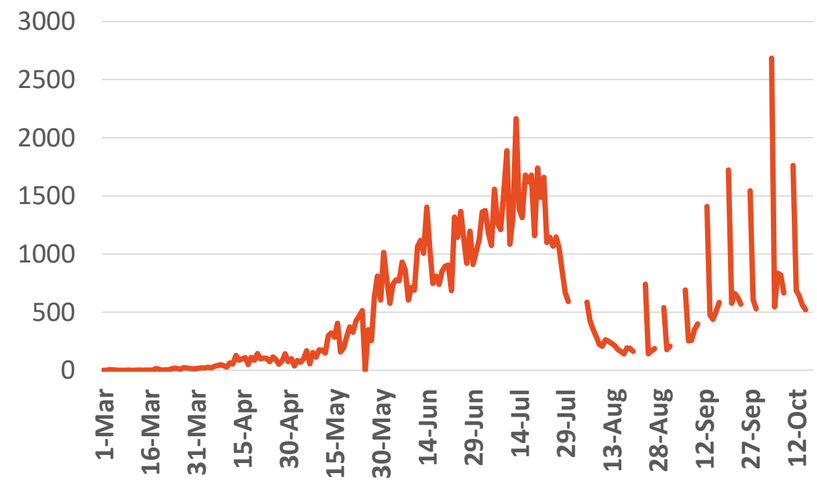
Source : KSA ministry of health

Bahrain



Source :WHO

Oman

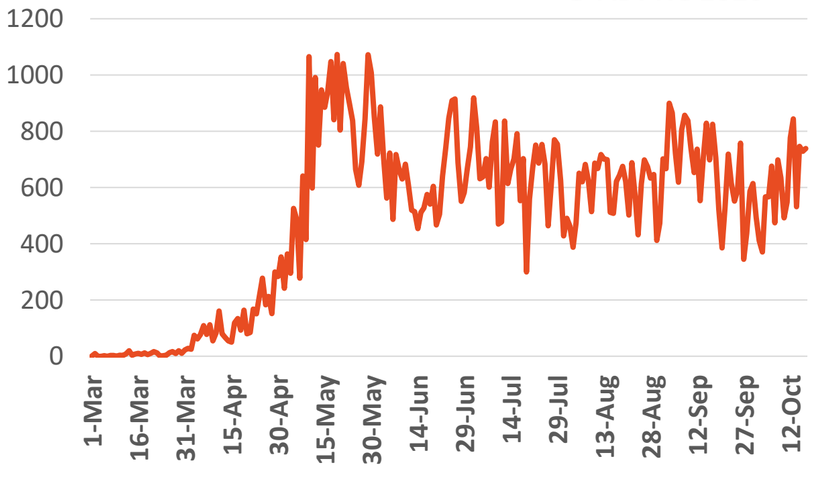


Source :Oman ministry of health

*No announced statistic data from 31 July to 4 August, 21,23,28,30 August 2, 4، 5,11,12,18,19,25 ,26,30 September,1,2,9,10,16 &17 October

*No announced statistic data on weekends and official holidays.

Kuwait



Source : Kuwait ministry of health

Qatar

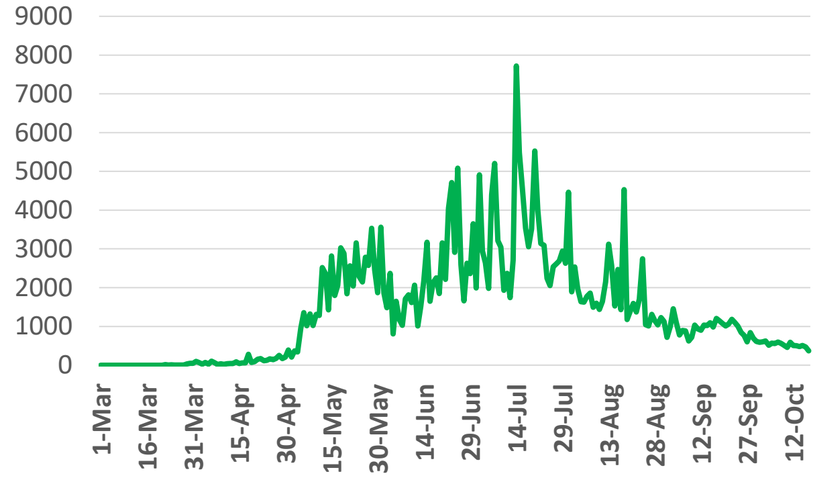
Source : Qatar ministry of health

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

UAE

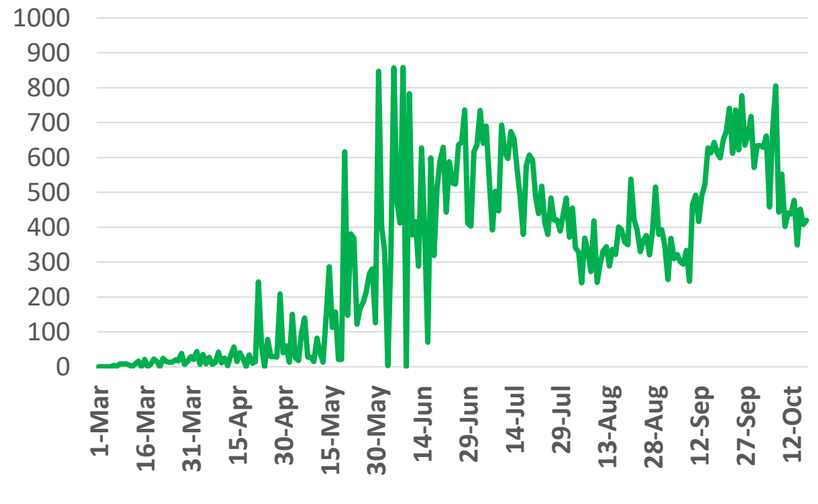
Source : National Emergency Crisis and Disaster Management Authority

KSA



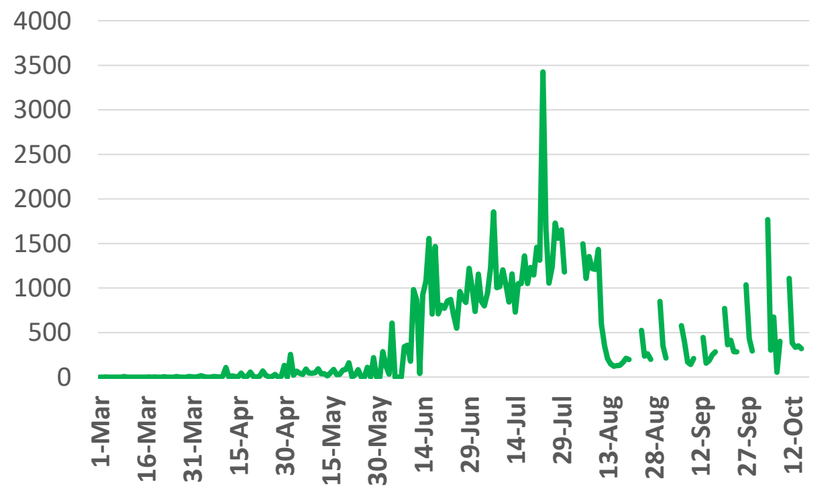
Source : KSA ministry of health

Bahrain



Source : Bahrain ministry of health

Oman



Source :Oman ministry of health

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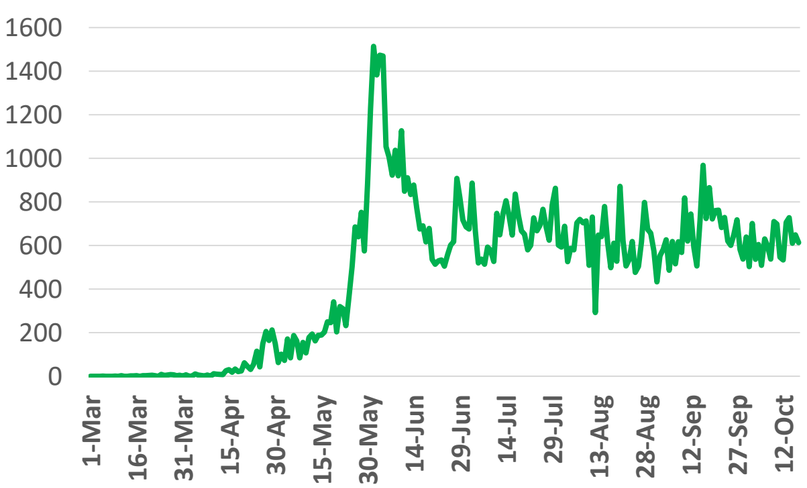
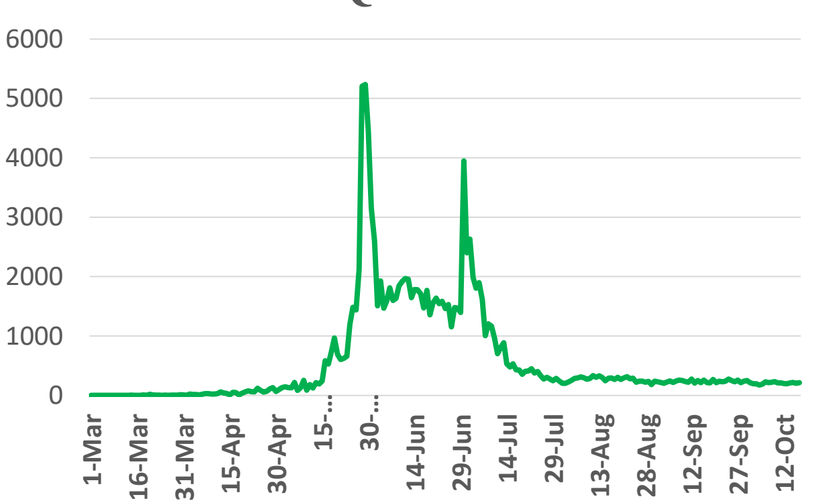
*No announced statistic data on weekends and official holidays.

Kuwait



Source : Kuwait ministry of health

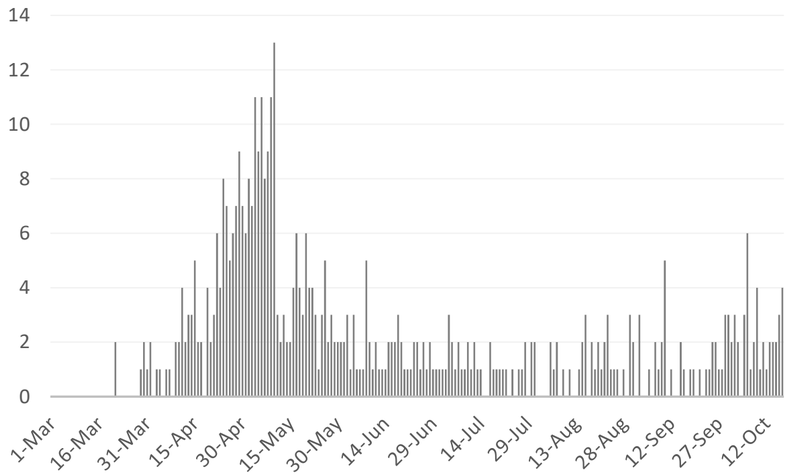
Qatar



Source : Qatar ministry of health

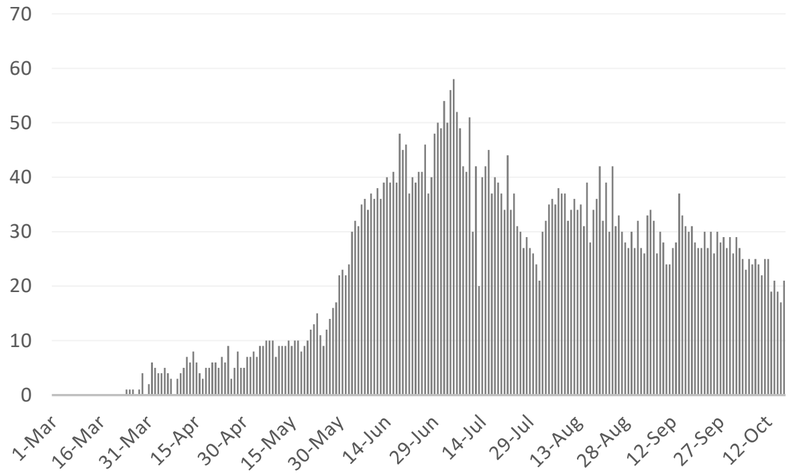
Figure 12: Comparative Analysis of the Distribution of COVID-19 New Death Cases in GCC Countries

UAE



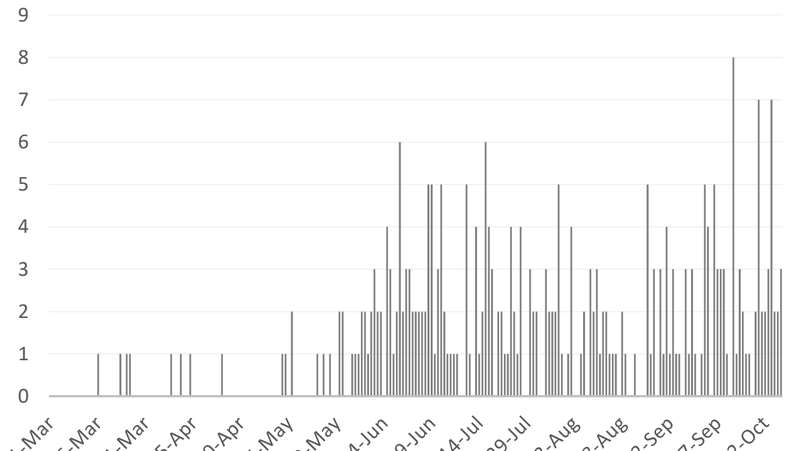
Source : National Emergency Crisis and Disaster Management Authority

KSA



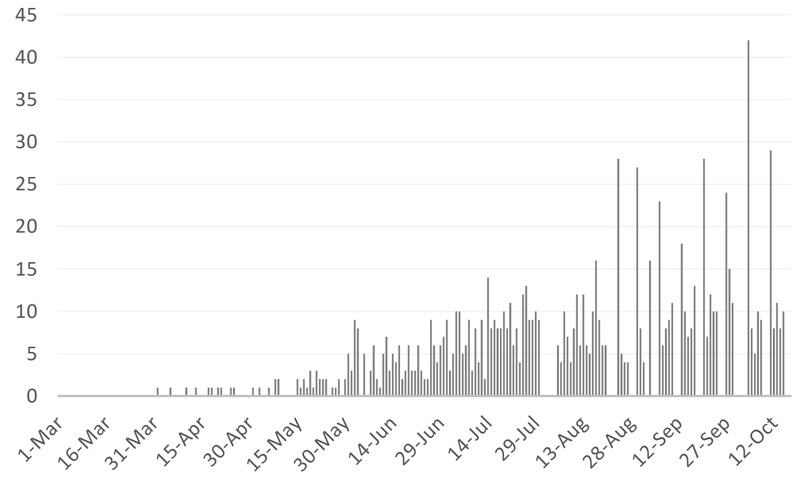
Source : KSA ministry of health

Bahrain



Source :WHO

Oman



Source :Oman ministry of health

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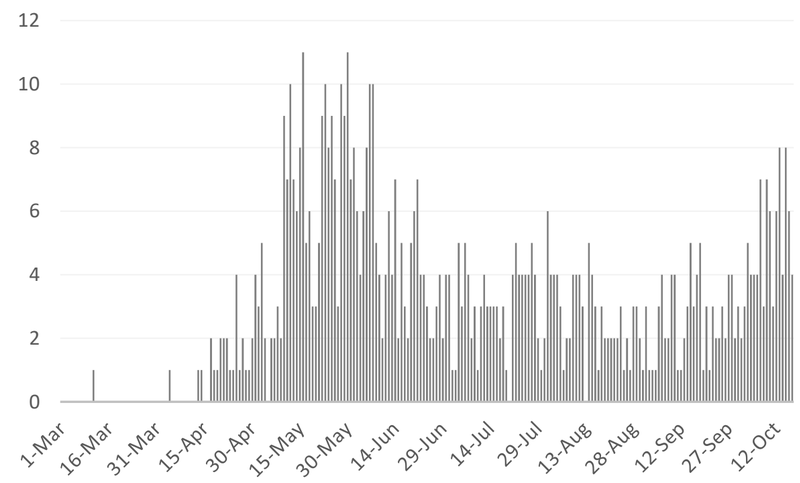
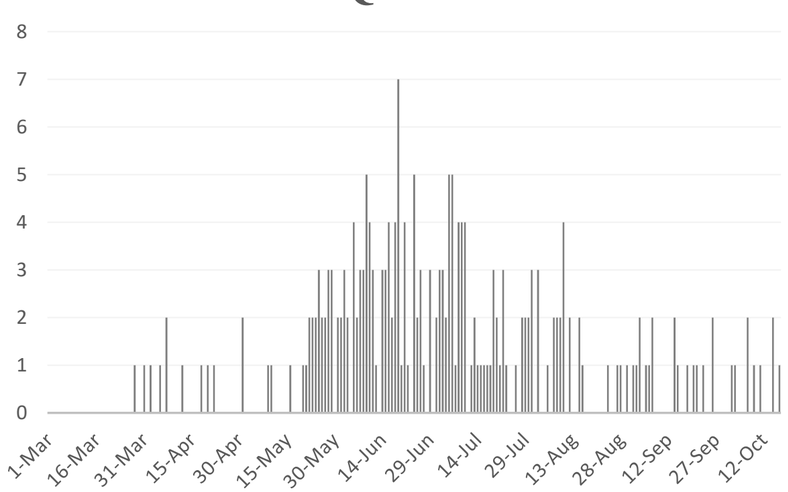
Kuwait



Source : Kuwait ministry of health

Qatar



Source : Qatar ministry of health

Article 1

Pandemic-Driven Posttraumatic Growth for Organizations and Individuals

Published October 08, 2020 JAMA

- Posttraumatic growth can be defined as positive psychological changes experienced because of a struggle with highly challenging life circumstances and through establishing perspectives for a ‘new normal’ when the old normal is no longer an option.

- This growth includes five domains -
  - Development of deeper relationships.
  - Openness to new possibilities
  - Greater sense of strength.
  - Stronger sense of spirituality.
  - Greater appreciation. The affected individuals might start to explore the domains through a series of questions.

- Organizational posttraumatic growth has been defined as a process by which organizations are not only restored but also increase productivity as a result of addressing and learning from a traumatic event. Posttraumatic growth can be assessed in individuals within the organization using the posttraumatic growth inventory. Organizational posttraumatic growth can be evaluated by quantity and quality of the lessons learned in an after crisis review process.

- Posttraumatic growth process can be accelerated with these steps –
  - Evaluate how individuals or organizations have been affected by this pandemic and what can be learned from the experience. Engage a dedicated team of leaders and frontline health care providers who work together to reconsider a ‘new normal’.
  - Identify role models which have grown through adversity that demonstrate how posttraumatic growth occurs and how an organization of affected individuals can emerge from the pandemic stronger and inspired.
  - Learn to know the current situation as both a trauma with consequences as well as an opportunity to improve it.
  - Evaluate how this experience may have served to connect the individuals or organizations to the society and provide decent solutions.
  - Regarding dealing with loss and grief during this pandemic, realize that it may be possible to notice which is missing, what is important, and for what organizations are appreciative.

Continued

eTable. Questions to Explore Domains of Posttraumatic Growth at the Individual and Organizational Levels

	Domains of posttraumatic growth				
	Development of deeper relationships	**Openness to new possibilities**	**Greater sense of strength**	**Stronger sense of spirituality**	**Greater appreciation**
Individual	Who has experience surviving such a trauma? Are there people whom I trust to share this experience and gain perspective in reframing the experience?	While I cannot change what has happened, what can I learn from this experience? How can this experience better prepare me for future stress and trauma? How can I transform tragedy into triumph?	Because I survived this experience, am I stronger than I thought? Are there role models who have grown stronger under conditions of extreme adversity and suffering?	Is this experience bigger than myself? What brings meaning to my life? What are my true values? Are my choices aligned with my values?	Will this be a wake-up call for me and push me to reorder priorities in my life?
Organization	What can we learn from other organizations that have survived similar traumas? Does our community feel they can trust and rely on us during crisis? Do we engage our community in open, honest 2-way communication?	Where have inertia and tradition prevented us from considering new ways of delivering care to better serve our patients? Can this disruption propel our innovation and improvement?	What strength did our organization display in surviving this trauma? How can we leverage this quality to bring about necessary change in other areas?	What are our true mission, vision, and values? Are we authentically serving our community and patients?	Are we taking care of the well-being of the people of our organization to the extent we should?

Article 2

Published

Influenza Vaccination to Reduce Cardiovascular Morbidity and Mortality in Patients With COVID-19

October 13, 2020 The Journal Of American College Of Cardiology

- Respiratory virus infections (e.g. seasonal influenza, COVID-19 etc) are associated with increased risks of cardiovascular disease (CVD) such as acute myocardial infarction (MI).
- Underlying CVD is also related to an elevated risk of complications following respiratory virus infections, including increased morbidity, mortality, and health care utilization.
- Several international trials are investigating whether seasonal influenza vaccine reduces the risk of cardiovascular events among patients with Heart Failure or other Heart diseases.
- There are three large ongoing multinational cardiovascular outcome trials (CVOTs) examining the cardioprotective effects of different doses of influenza vaccines.
  - Influenza Vaccine to Effectively Stop Cardio Thoracic Events and Decompensated heart failure (INVESTED)
  - Influenza Vaccination After Myocardial Infarction (IAMI)
  - Influenza Vaccine to Prevent Adverse Vascular Events (IVVE)
- It is hypothesized that the effect size from influenza vaccination is comparable to existing secondary cardiovascular prevention strategies. During COVID-19 pandemic, these active trial networks may be well-positioned to redeploy their clinical coordination and data management infrastructure to study investigational strategies for primary prevention of COVID-19 or reducing its subsequent cardiopulmonary complications in patients with or who are at risk of CVD.

VACCINE

Continued

TABLE 3 Overview of the Influenza Vaccine Cardiovascular Outcome Trials

	INVESTED	IAMI	RCT-IVVE
Trial title	INfluenza Vaccine to Effectively Stop cardioThoracic Events and Decompensated heart failure	Influenza Vaccination After Myocardial Infarction	Influenza Vaccine to Prevent Adverse Vascular Events
NCT number	NCT02787044	NCT02831608	NCT02762851
Trial design	Pragmatic, randomized, quadruple-masked, parallel-assignment, active-controlled trial	Prospective registry-based, randomized, quadruple-masked, parallel-assignment, placebo-controlled trial	Randomized, quadruple-masked, parallel-assignment, placebo-controlled trial
Recruitment started	September 2016	October 2016	June 2016
Anticipated enrollment	9,300	4,400	5,000
Estimated study completion	February 2021	September 2021	May 2021
Intervention	High-dose trivalent inactivated influenza vaccine (IIV3-HD)	Standard-dose trivalent inactivated influenza vaccine (IIV3) Standard-dose quadrivalent inactivated influenza vaccine (IIV4)	Standard-dose trivalent inactivated influenza vaccine (IIV3)
Comparator	Standard-dose quadrivalent inactivated influenza vaccine (IIV4)	Placebo, intramuscular saline injection	Placebo, intramuscular saline injection
Key inclusion criteria	≥18 yrs of age Documented history of either: Hospitalization for spontaneous (type 1) or secondary (type 2) MI within 1 yr of baseline visit, or HF hospitalization within 2 yrs of the baseline visit. 1+ additional risk factor, e.g.: Age ≥65 yrs Diabetes mellitus Obesity (BMI ≥30 kg/m^2) Smoker CKD (eGFR ≤ 60) Reduced LVEF (<40%) Prior MI or HF hospitalization Peripheral artery disease Ischemic stroke	Meet study definition for either: STEMI, or NSTEMI Stable CAD ≥75 yrs of age undergoing angiography/PCI AND with 1+ additional risk factor AND ≥18 yrs of age A finalized coronary angiography/PCI (optional for sites in Bangladesh)	≥18 yrs of age New York Heart Association functional class II, III, and IV HF
Recruitment time	4 influenza seasons	4 influenza seasons	3 influenza seasons
Trial participants, n	5,266 enrolled as of October 9, 2019	2,573 enrolled as of March 2, 2020	4,871 enrolled as of January 14, 2019
Primary endpoints	Time to first occurrence of all-cause death or cardiopulmonary hospitalization up to 3 yrs	Composite endpoint of time to all-cause death, a new MI or stent thrombosis (first occurring, ICD-10 codes), at 1 yr	Composite of cardiovascular death, nonfatal MI, nonfatal stroke, and hospitalizations for HF at 6 months
Regions	North America (United States and Canada)	Europe, Australia, Asia (8 countries)	Asia, Middle East, and Africa (10 countries)
No. of sites	190	30	10
Substudy (Y/N)	Yes, vaccine immunogenicity	Yes, vaccine immunogenicity	Yes, serological substudy to assess influenza infection

BMI = body mass index; CAD = coronary artery disease; CKD = chronic kidney disease; eGFR = estimated glomerular filtration rate; HF = heart failure; IAMI = Study on the Effect of Influenza Vaccination After Heart Attack on Future Cardiovascular Prognosis; ICD-10 = International Statistical Classification of Diseases and Related Health Problems-10th Revision; INVESTED = INfluenza Vaccine to Effectively Stop Cardio Thoracic Events and Decompensated Heart Failure; LVEF = left ventricular ejection fraction; MI = myocardial infarction; NSTEMI = non-ST-segment elevation myocardial infarction; PCI = percutaneous coronary intervention; RCT-IVVE = Influenza Vaccine To Prevent Adverse Vascular Events; STEMI = ST-segment elevation myocardial infarction.

Article 3

COVID-19 and the Future of Drug Marketing

Published September 8, 2020 The JAMA

- During the COVID-19 pandemic, some changes (such as strict restrictions on access to clinics and hospitals) provide an opportunity to reset the boundaries and norms for physician-industry interactions. Pharmaceutical sales representatives are no longer have casual access to physicians and they are forced to make online appointments to present their products. Free meals can no longer facilitate sales frequencies. Secret conversations about off label uses become less stealthy when they have to be conducted by video.

- The shift to online presentations has made drug promotion less expensive for companies as there are no travel cost for sales representatives and physicians, no dining events, and less costly video call that can reach a large audience. Furthermore, as the remote working has dissolved the boundaries between home and office, sales representatives can reach physicians in their homes at any time.

- Increased use of smartphone and tablet apps to involve physicians create greater risks of unwanted collection of data on their private information and phone activity. As webinars become a popular mode of promotional activity, it may be more difficult for physicians to distinguish between educational and marketing content.

- Policy makers should update the regulatory approaches because of shifting to digital promotion. Firms could be required to record their virtual contacts so that regulators can monitor interactions and content. New guidelines need to be issued regarding advertising webinars that will help physicians to distinguish between educational and promotional events.

THANK YOU

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