

ABU DHABI PUBLIC
HEALTH CENTRE

مركز أبوظبي
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Scientific Research Monitoring on COVID-19

6 May 2020

Summary on COVID19



SARS-COV2 virus

- The virus have been sequenced and found to be similar to MERS-CoV and SARS-CoV. Research revealed that the virus originated in a bat reservoir.
- New designation for the disease and the virus: COVID-19 and SARS-COV2.
- SARS-COV2 stay viable in aerosol for hours and in surface up to 3 days.
- Two strain have been identified for SARS-COV2 (L type (more aggressive) and S type .

Transmission

- Transmission from human to human has been confirmed. Incubation period ranges from 5 days and can reach up to 14 days.
- Suggested human-to-human transmission occurs through droplets, contact and fomites, similar to Severe Acute Respiratory Syndrome (SARS).
- Isolation is the best measure to control transmission.

Clinical features and outcome

- Non-specific and the disease presentation can range from no symptoms (asymptomatic) to severe pneumonia and death.
- Highest risk for severe disease and death include people aged over 60 years and those with underlying conditions
- Pregnant women infected with SARS-COV2 may experience symptoms similar to those of non-pregnant adults. No evidence suggests transmission from mother to newborn if infected late in pregnancy. No evidence of transmission through breast milk.

Therapies and vaccination

- Efforts currently in developing therapies for this virus focus on previously known medications and vaccination for MERS-CoV and SARS-CoV. In addition to other type of medication.
- WHO forum held 11-12 Feb 2020 to mobilize research on COVID19 vaccinations and therapies.

Summary on COVID19 (Cont.)

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COVID19 in figure

- 80% of laboratory confirmed patients have had mild to moderate disease
- 13.8% have severe disease.
- 6.1% are critical
- Children account for 2.4% of all reported cases.(less than 19 years)



Todays' Highlights

All articles presented in this report represents the authors' views and not necessarily represents Abu Dhabi Public Health Center views or directions.

Scientific Research

- **Transmission:** a book gave protocol for ophthalmologist to prevent the transmission of covid19 in their practice.
- **Public health response:** a qualitative survey address the health care workers in china experience during the pandemic found that the intensive work drained health-care providers physically and emotionally; therefore comprehensive support should be provided to safeguard the wellbeing of health-care providers and preparedness and efficacy promoted to manage crises.

Due to abundant COVID19 information resources and given the urgent need to keep up with the updates .Below is a cluster of other academic articles for interested reviewer.

Others

- [Association of Use of Angiotensin-Converting Enzyme Inhibitors and Angiotensin II Receptor Blockers With Testing Positive for Coronavirus Disease 2019 \(COVID-19\)](#)
- [The arrival of SARS-CoV-2 in Venezuela](#)
- [Immune mechanisms for increased risk of severe COVID-19 in Down syndrome](#)



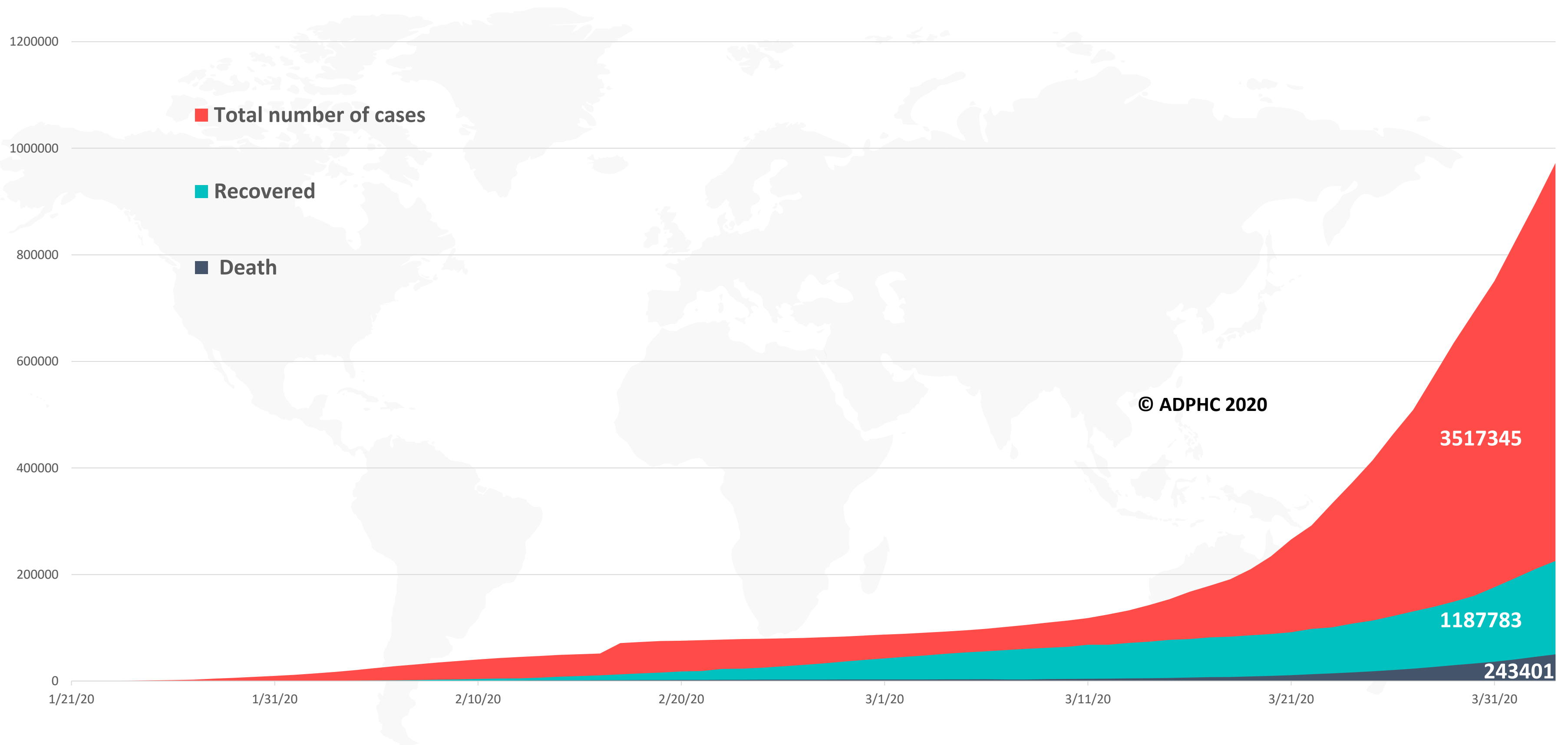
WHO daily report 5 May 2020

- Every year on May 5 we celebrate Hand Hygiene Day to mobilize people around the world to increase adherence to hand hygiene practices in healthcare facilities. In his media briefing, the Director-General reminded us that ‘around the world, fewer than two-thirds of healthcare facilities are equipped with hand hygiene stations, and 3 billion people lack soap and water at home’. Dr Poonam Khetrpal Singh, WHO Regional Director for South-East Asia, said that ‘Effective infection prevention and control measures, including hand hygiene, are crucial to ensuring health facilities do not become hubs of COVID-19 transmission’.
- A WHO COVID-19 mission has arrived in Tajikistan to support the country’s response to the pandemic.
- Today also marks the International Day of the Midwife. Midwives provide life-saving services to pregnant women, ensuring healthy outcomes for women and their babies. As the Director-General said in his media briefing, ‘They’re risking their lives to give life to others.’ WHO Regional Office for Europe has released a news article of the experiences of a midwife in Italy.
- Yesterday leaders from 40 countries around the world came together to support the Access to COVID19 Tools (ACT) Accelerator, a WHO initiative to support the development, production and equitable distribution of vaccines, diagnostics and therapeutics against COVID-19. Some €7.4 billion were pledged, in what the Director-General described as a ‘powerful and inspiring demonstration of global solidarity’.

Epidemiology



Figure 1: Total number of infected, recovered, and death cases (January 21st to May 5, 2020)

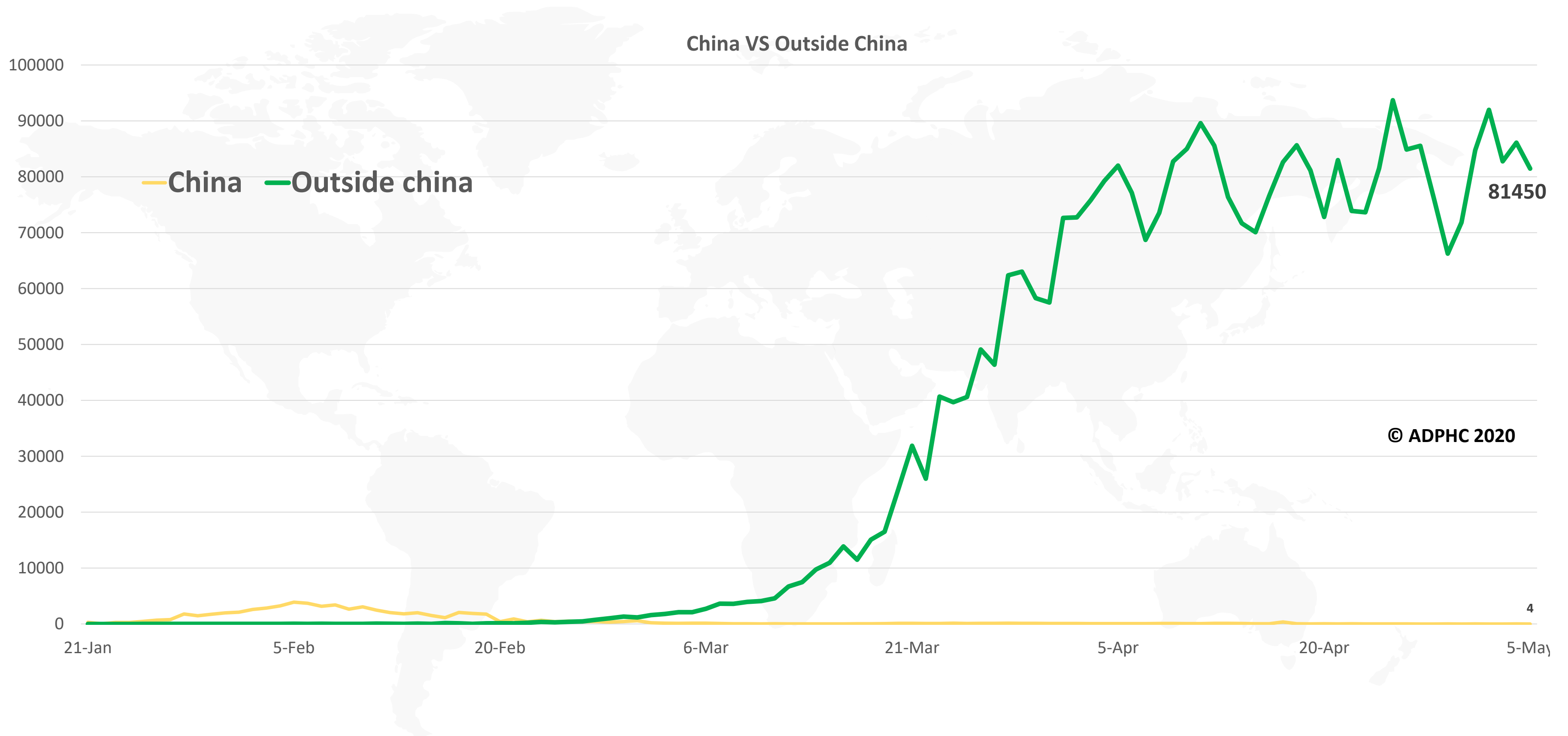


Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](#), [John Hopkins University](#)



Figure 2: Daily new infected COVID-19 cases reported between (January 21 to May 5, 2020).



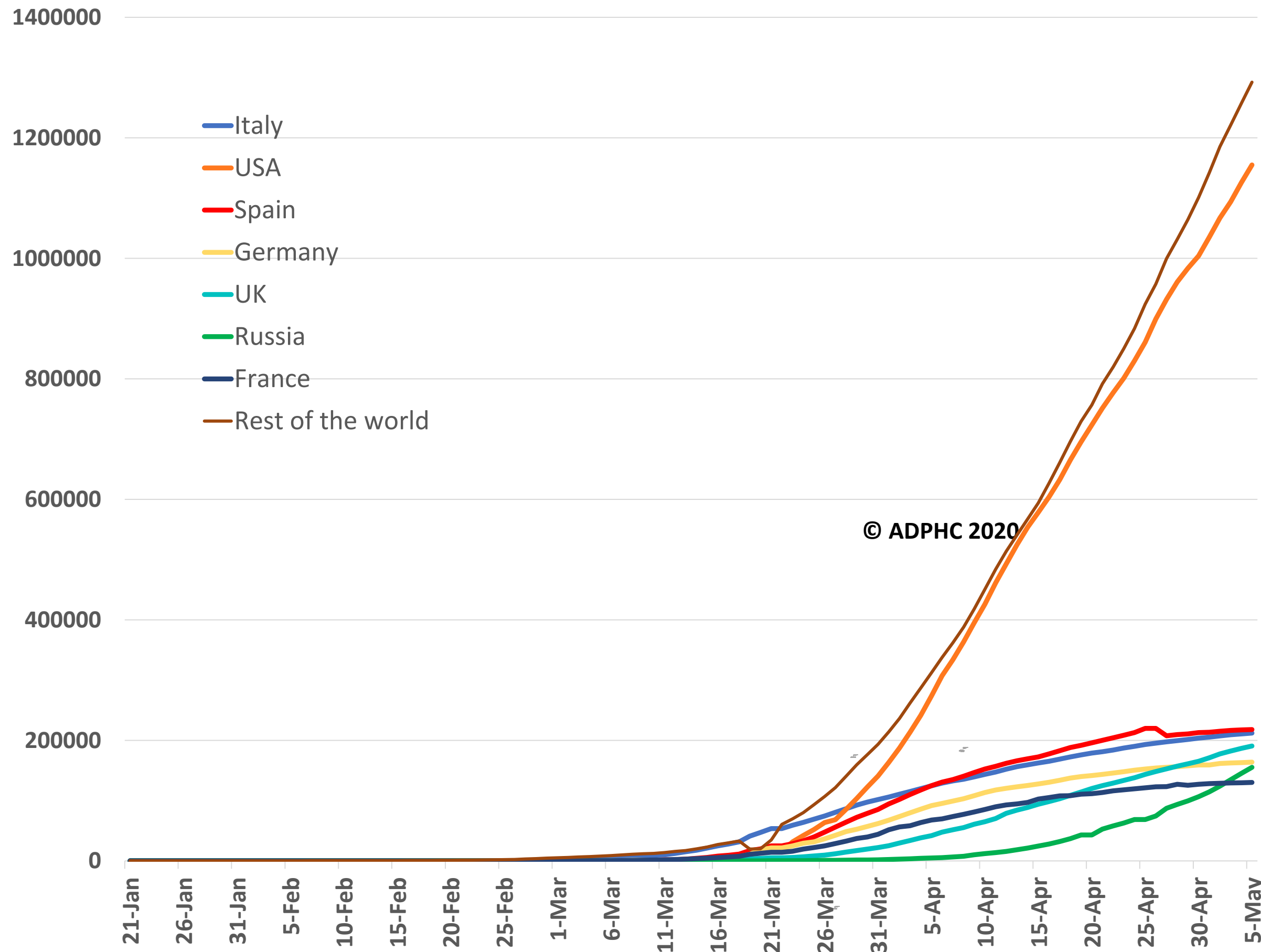
Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](https://www.who.int/)

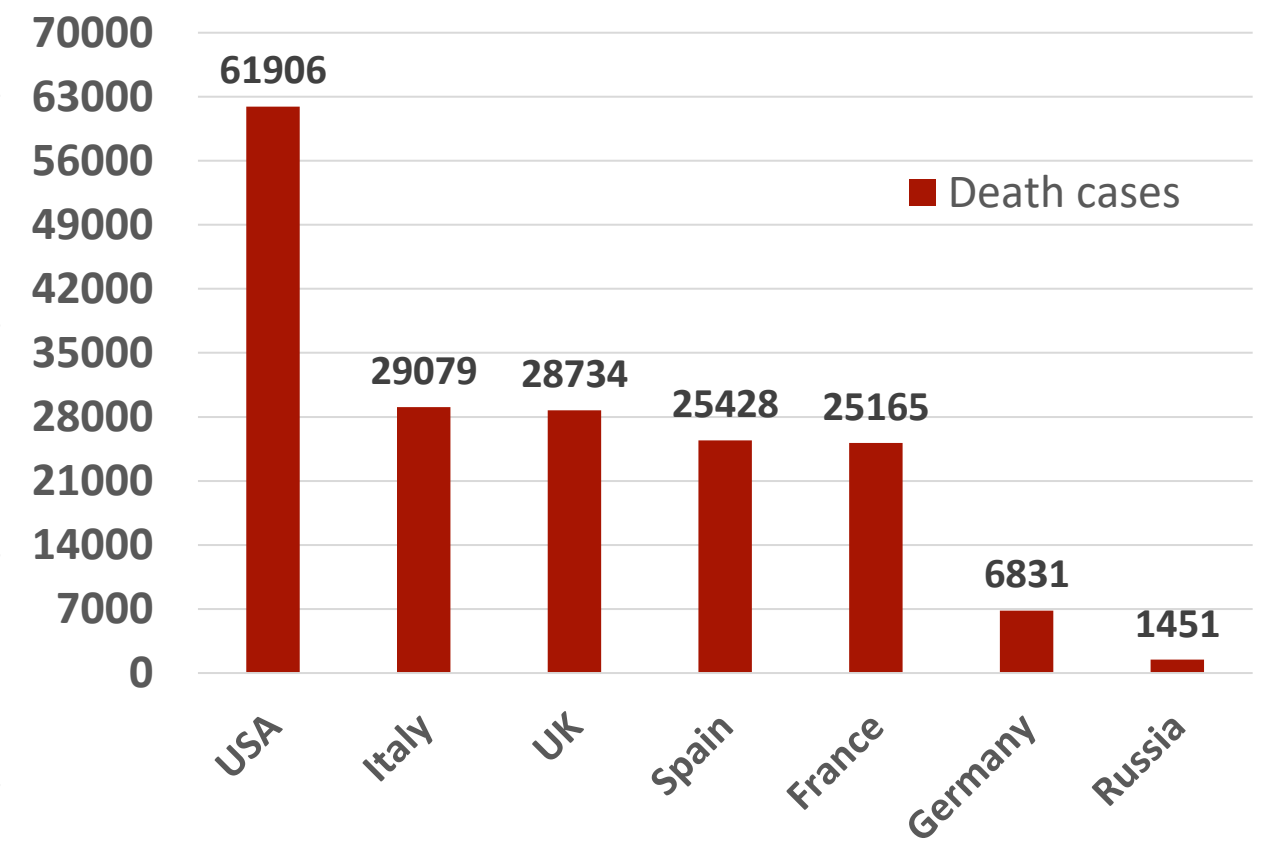
Epidemiology



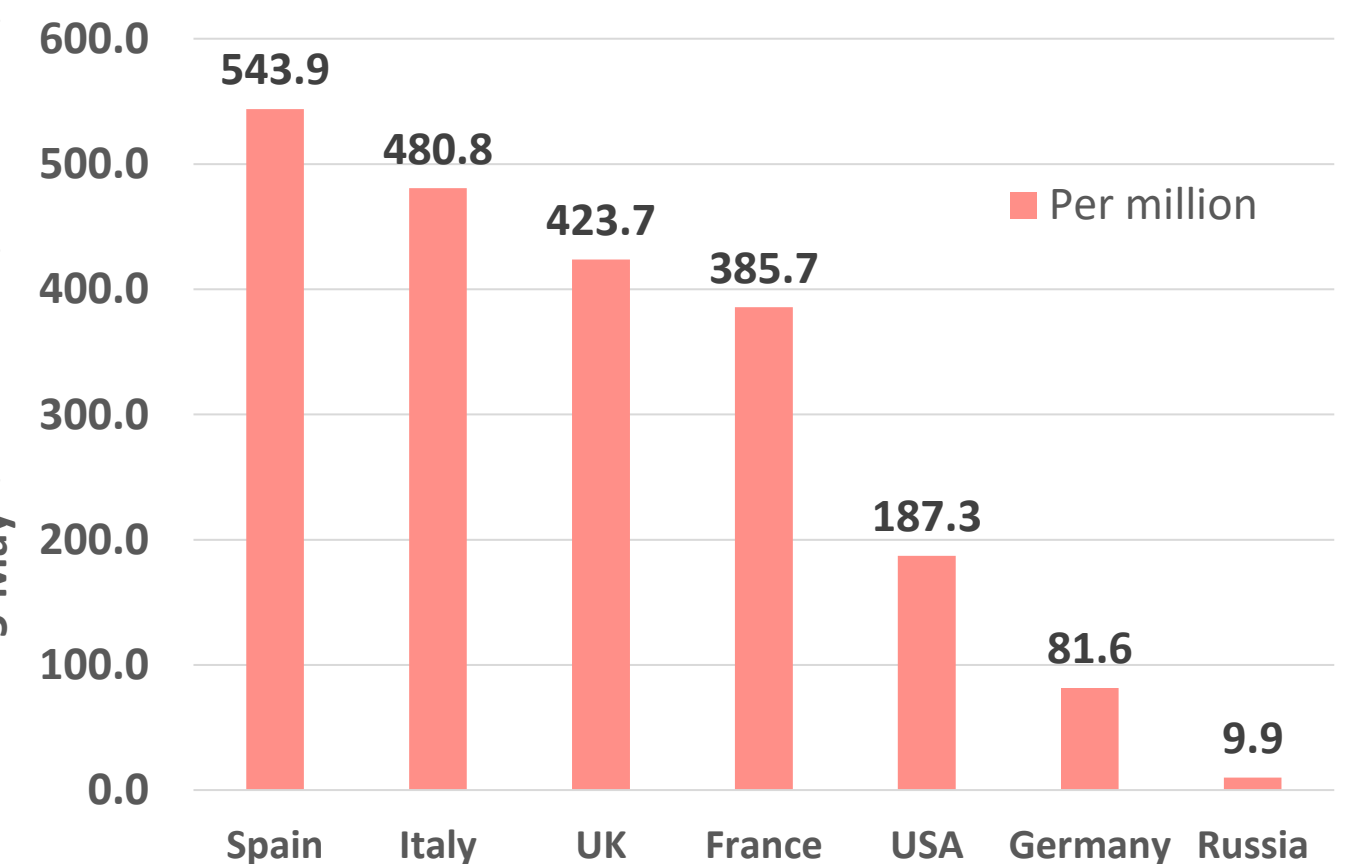
Figure 3 : Top 7 countries in the total number of cases due to COVID-19 (January 21 to May 5, 2020).



TOTAL DEATHS



DEATHS PER MILLION



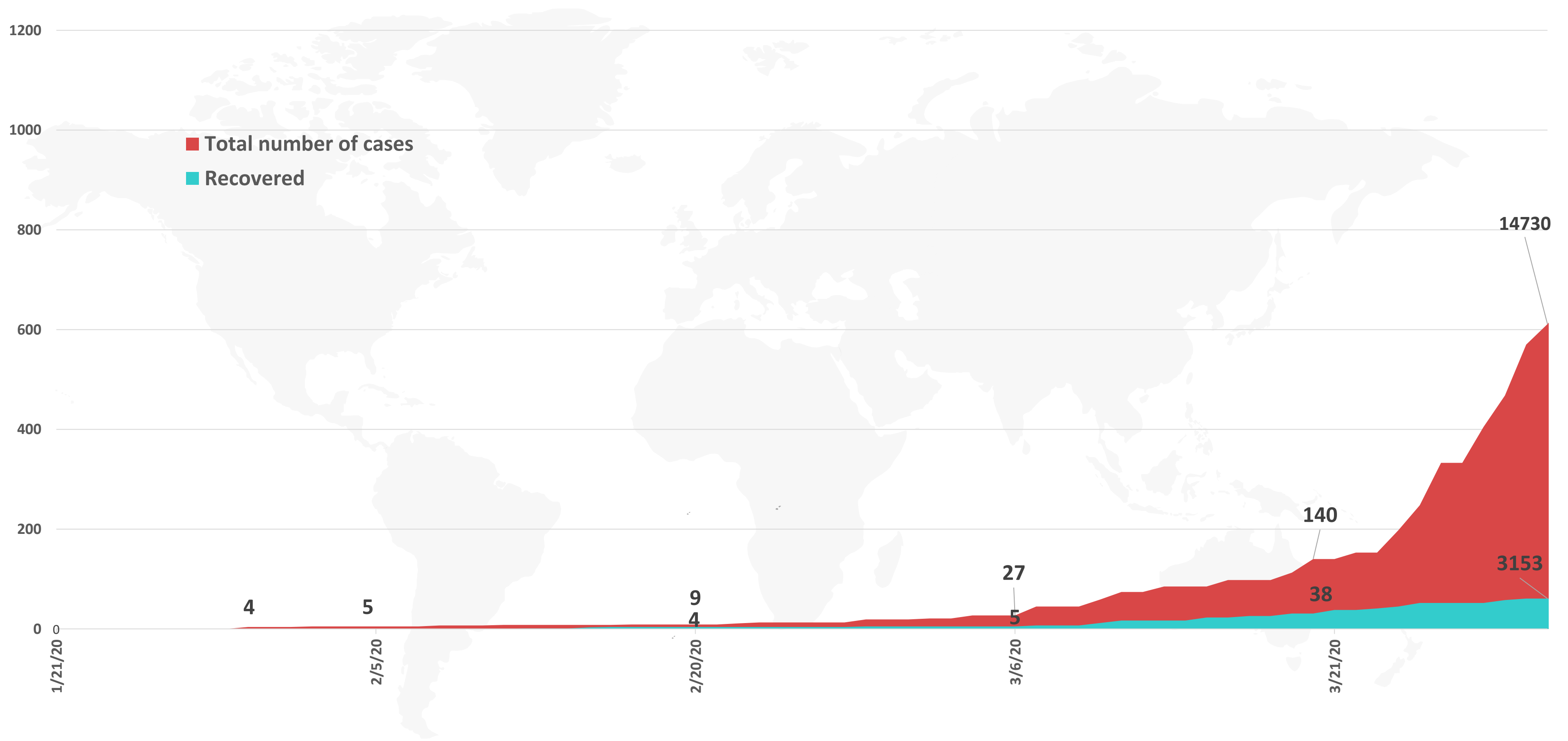
Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](https://www.who.int)

Epidemiology



Figure 4: Total number of COVID-19 infected and recovered cases in UAE over time



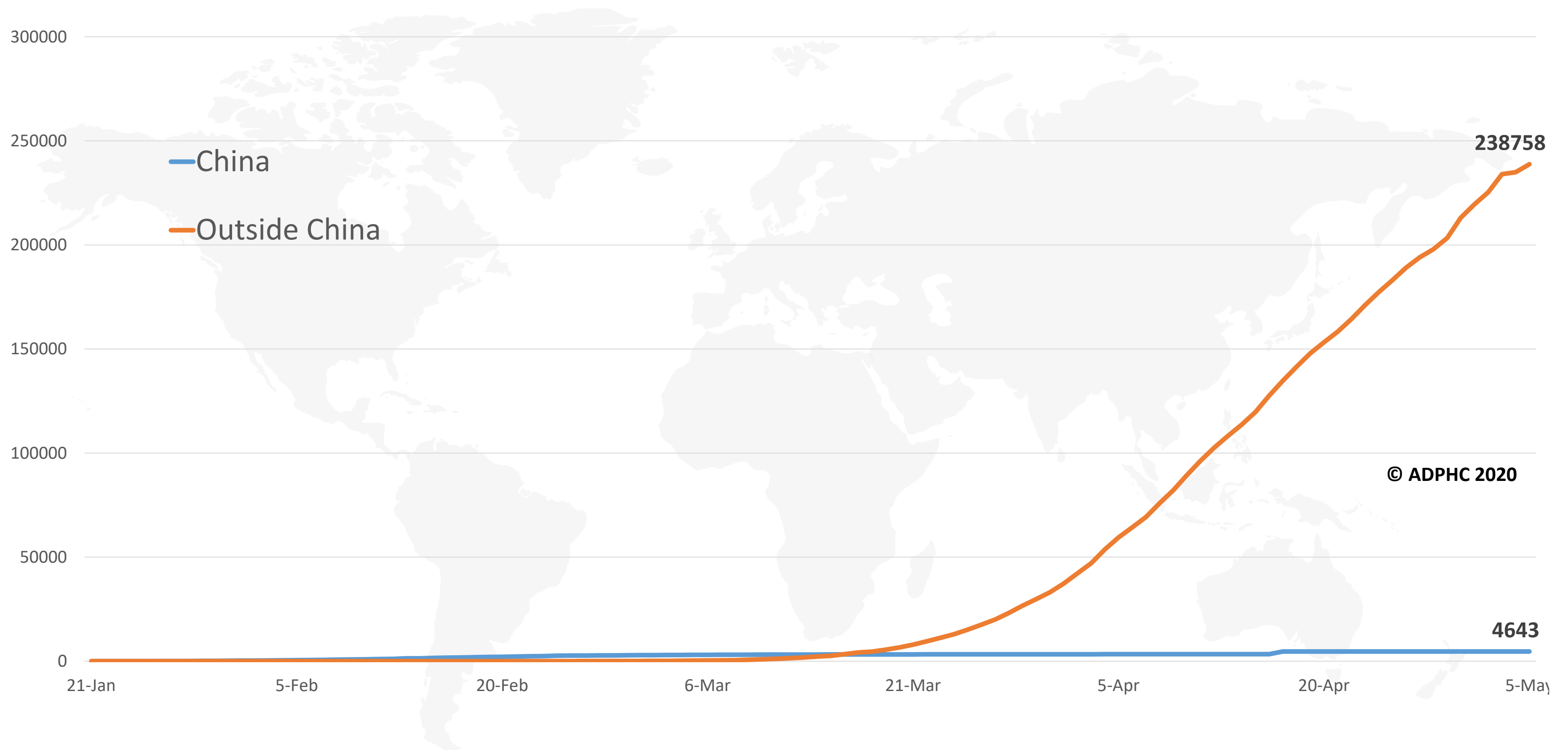
Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](#), [John Hopkins University](#)

Epidemiology



Figure 5: Total number of death due to COVID-19 reported by China and the rest of the world (January 22 to May 5, 2020).



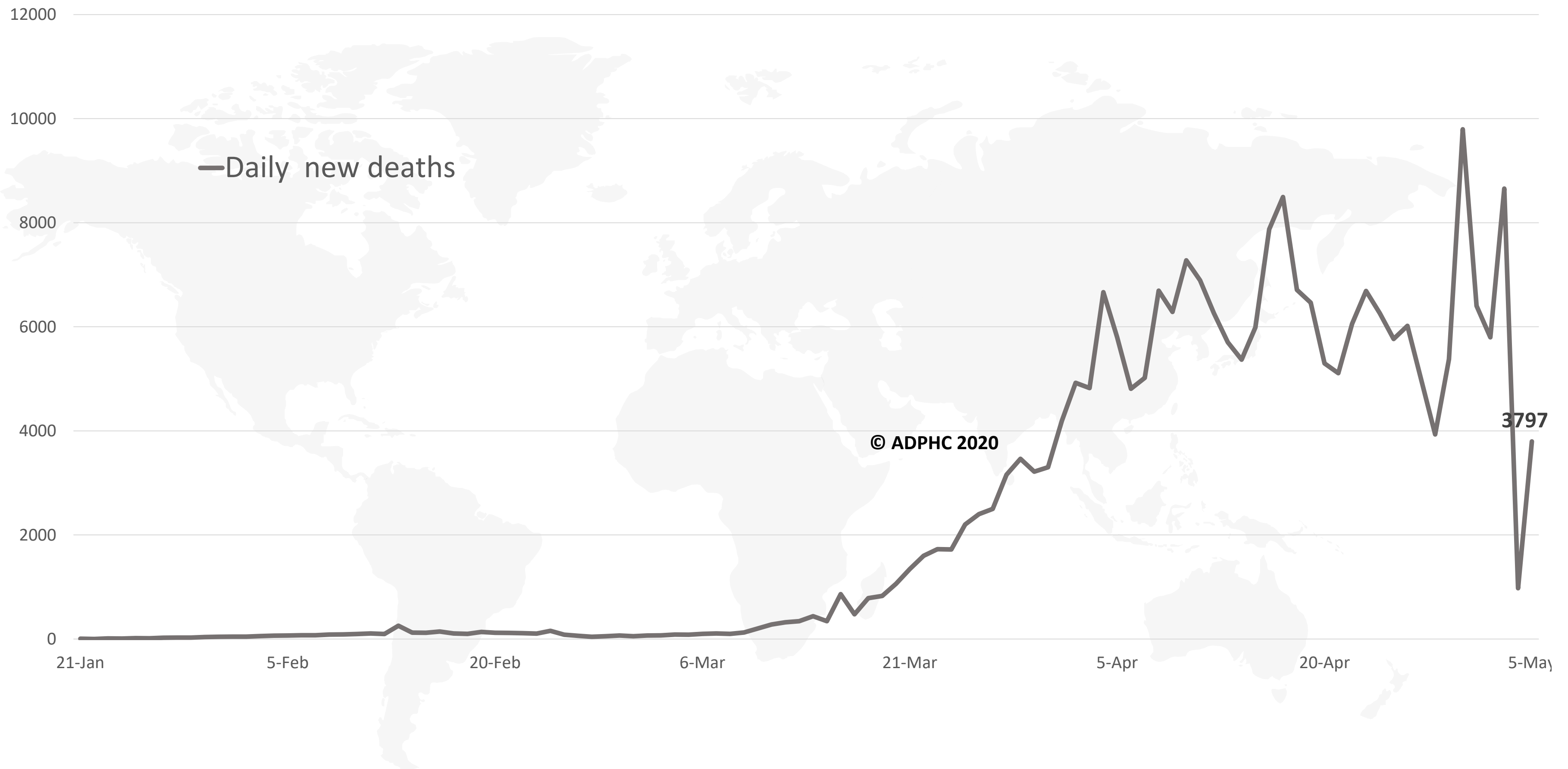
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Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](https://www.who.int/)



Figure 6: Global daily new deaths due to COVID-19 (January 22 to May 5, 2020).



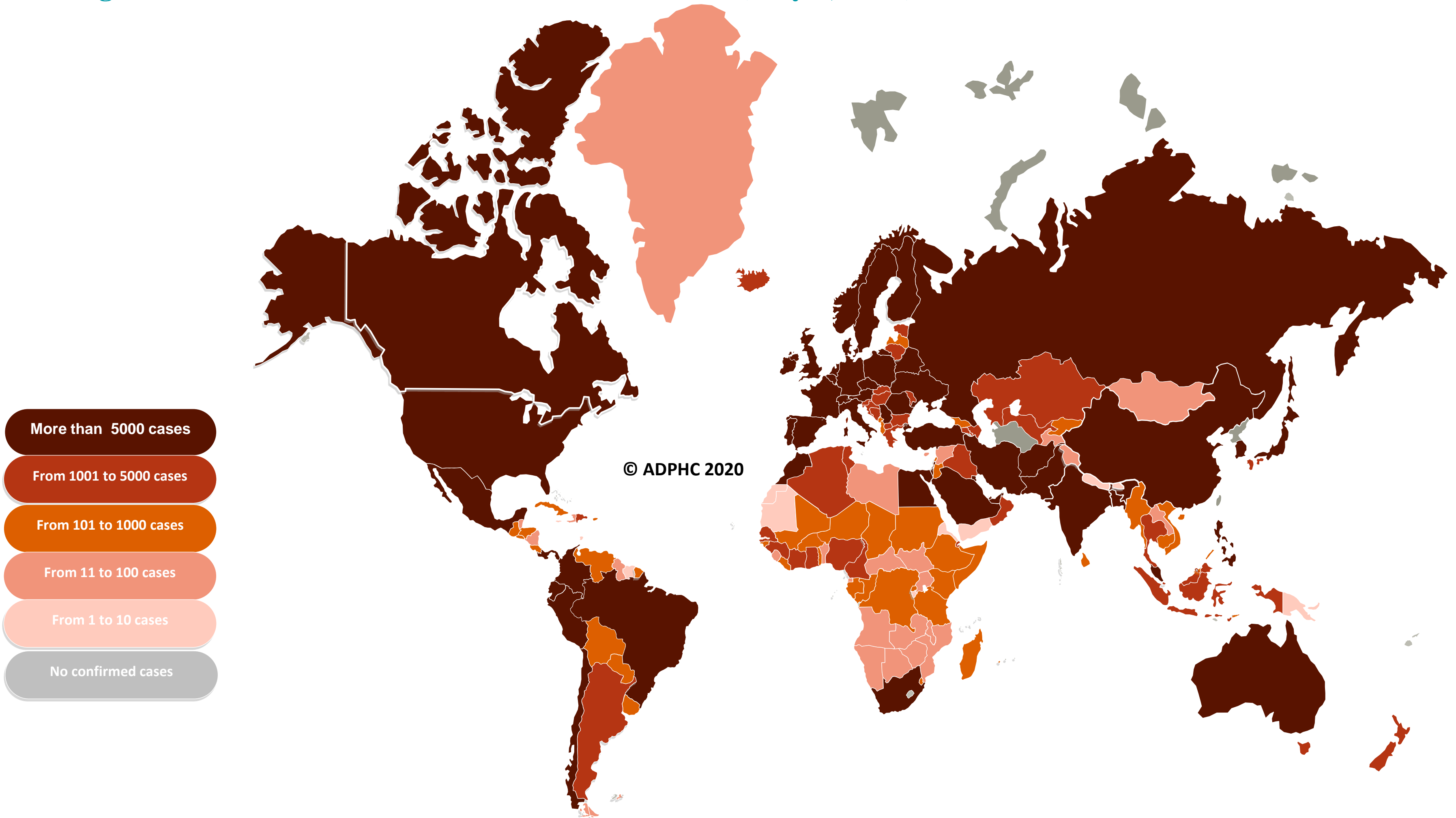
Line graph published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](#)

Epidemiology



Figure 7a : Global distribution of COVID-19 cases (May 5, 2020).



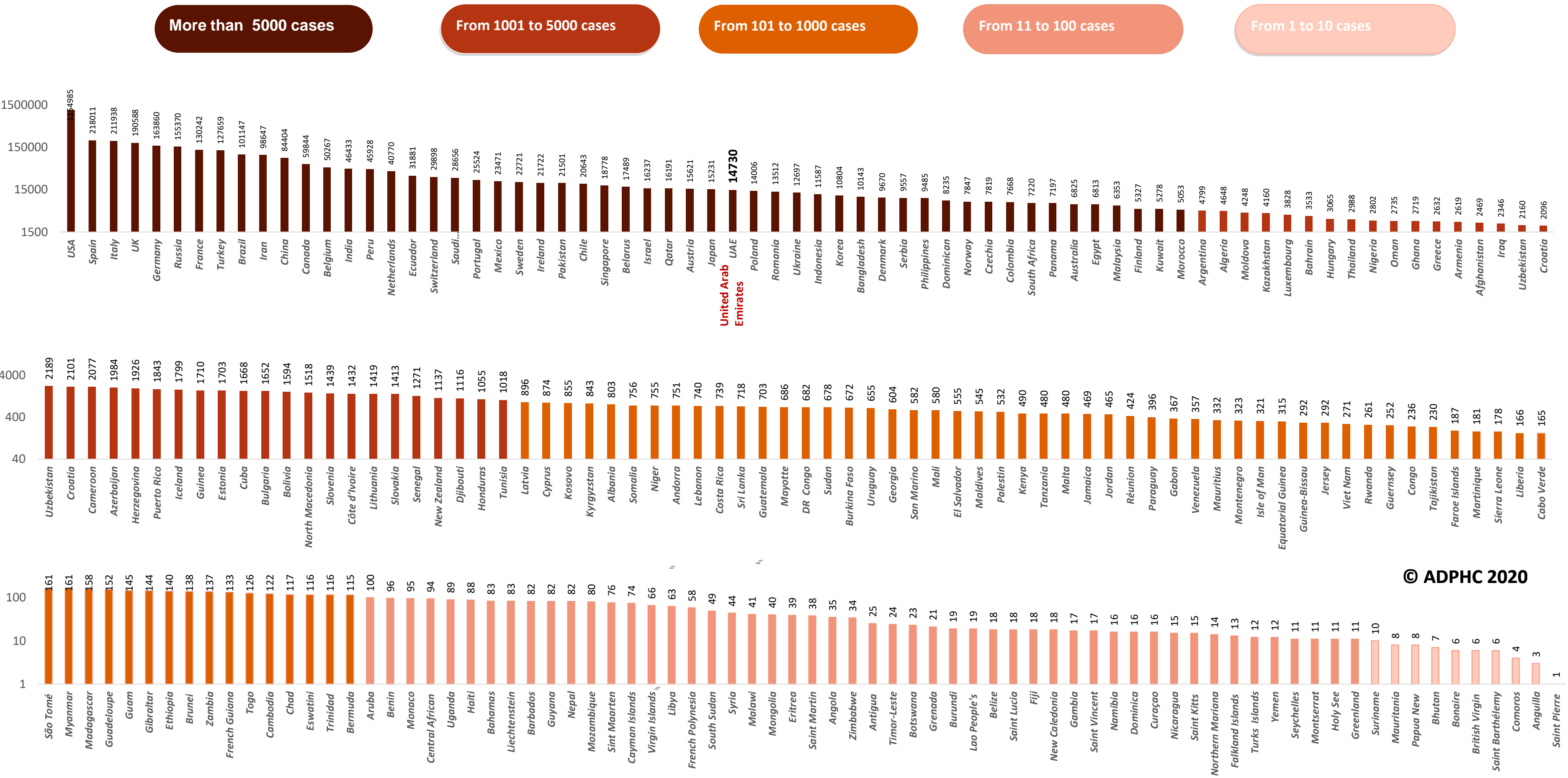
- More than 5000 cases
- From 1001 to 5000 cases
- From 101 to 1000 cases
- From 11 to 100 cases
- From 1 to 10 cases
- No confirmed cases

Map chart published by Abu Dhabi Public Health Center 2020.

Epidemiology



Figure 7B: Bar chart illustrate the global distribution of COVID19 cases May 5, 2020)



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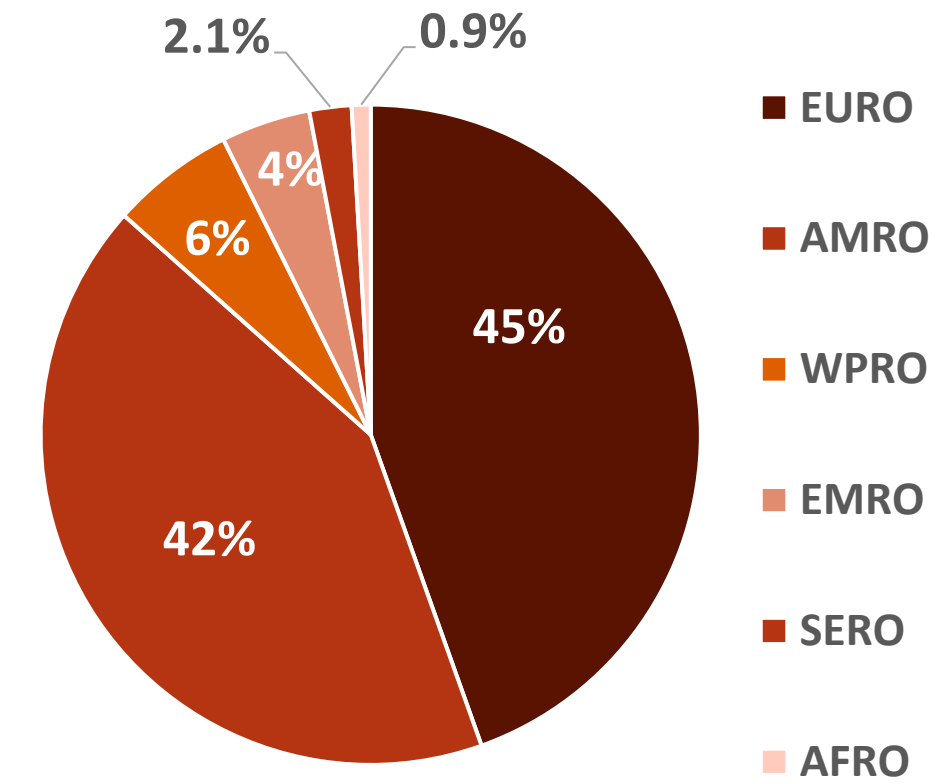
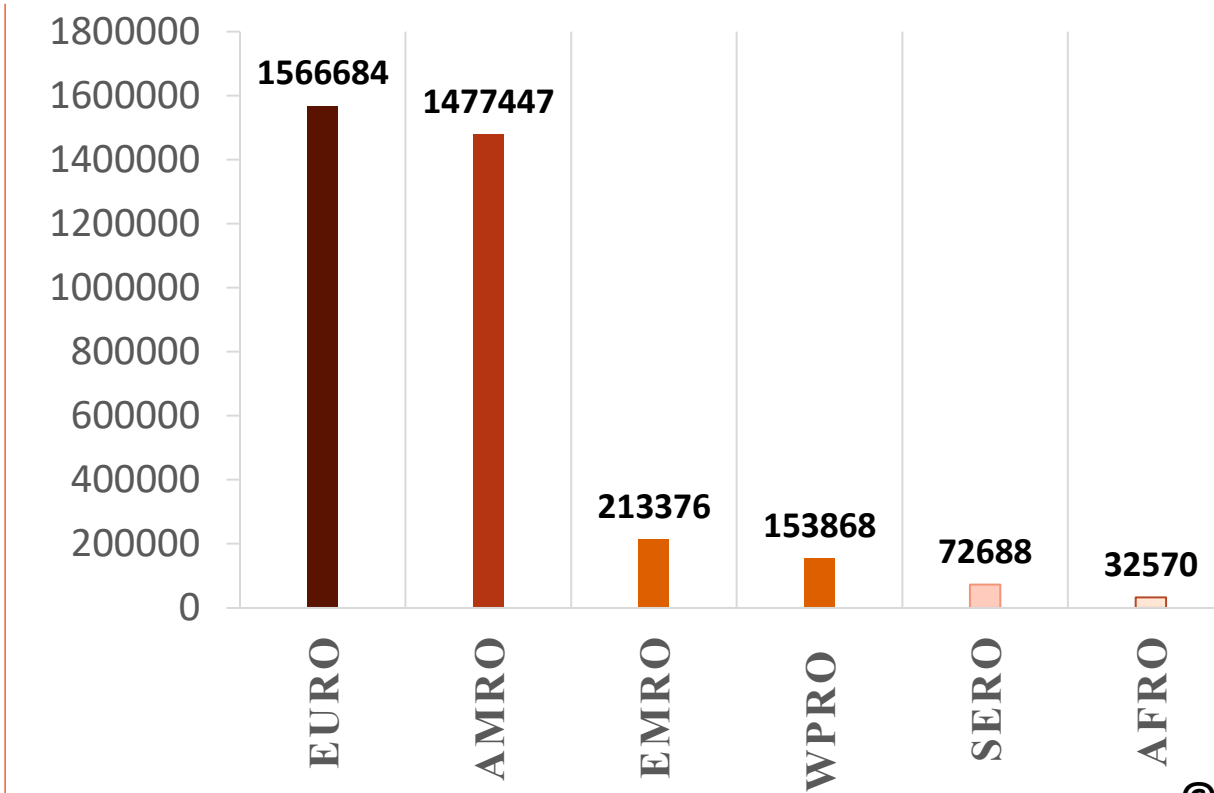
Map chart published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](https://www.who.int/)



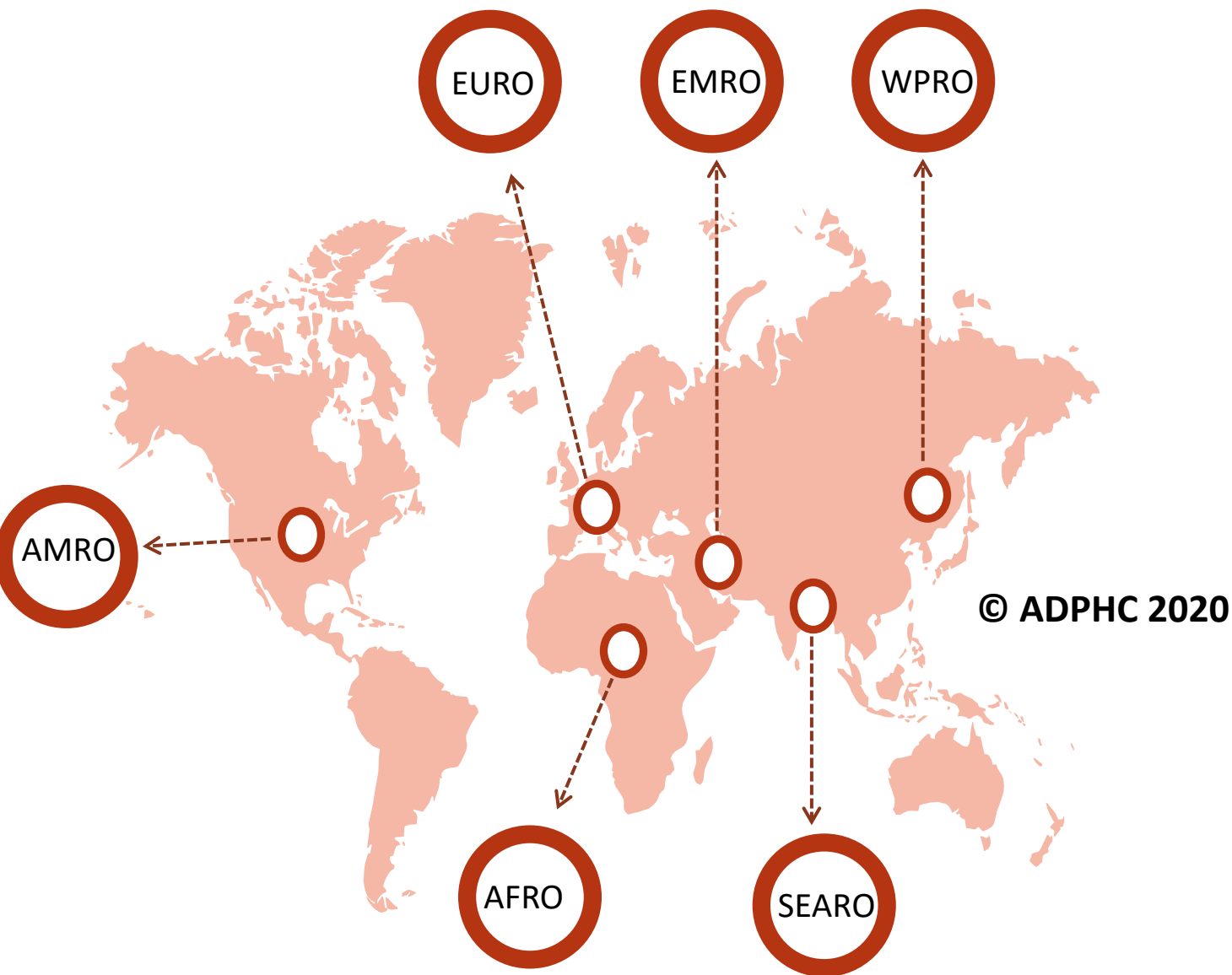
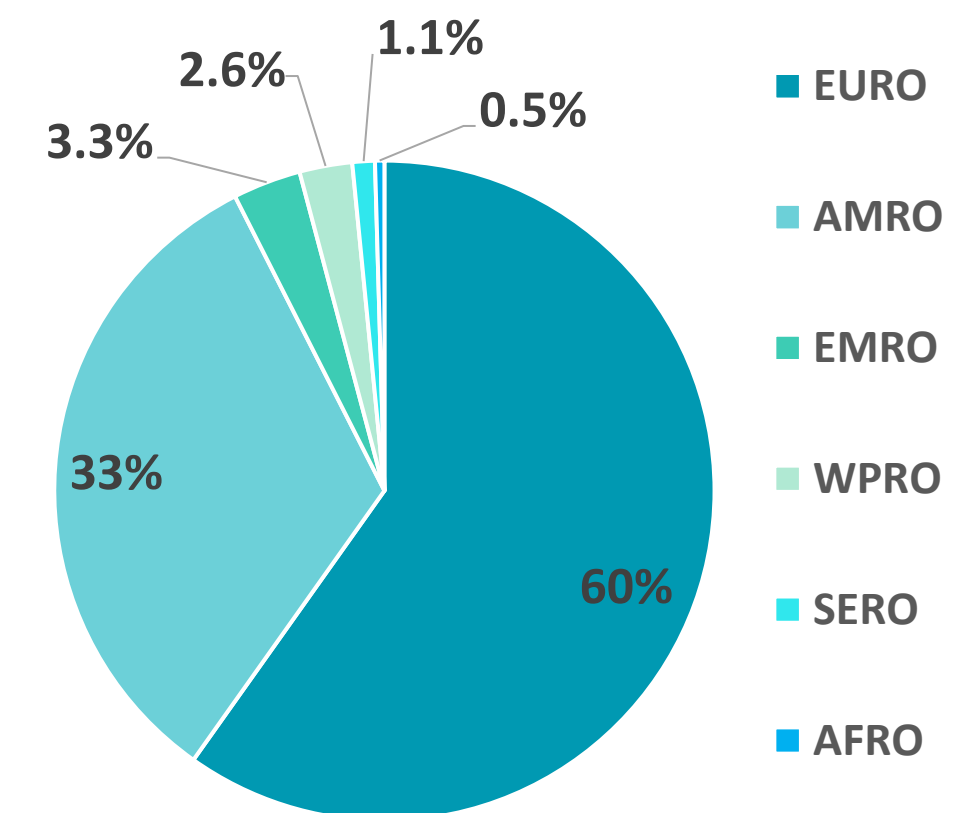
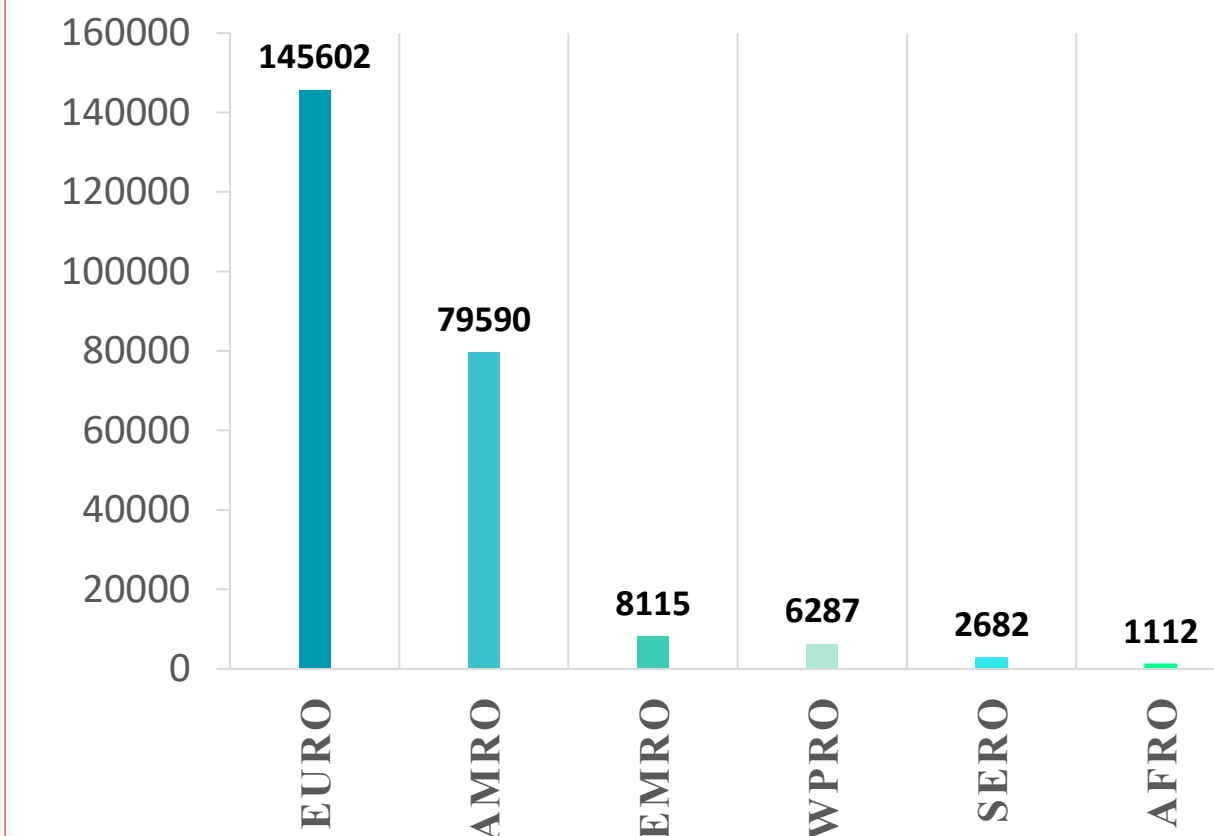
Figure 8: illustrate the Global distribution of COVID19 cases per region (May 5, 2020)

INFECTED



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DEATH



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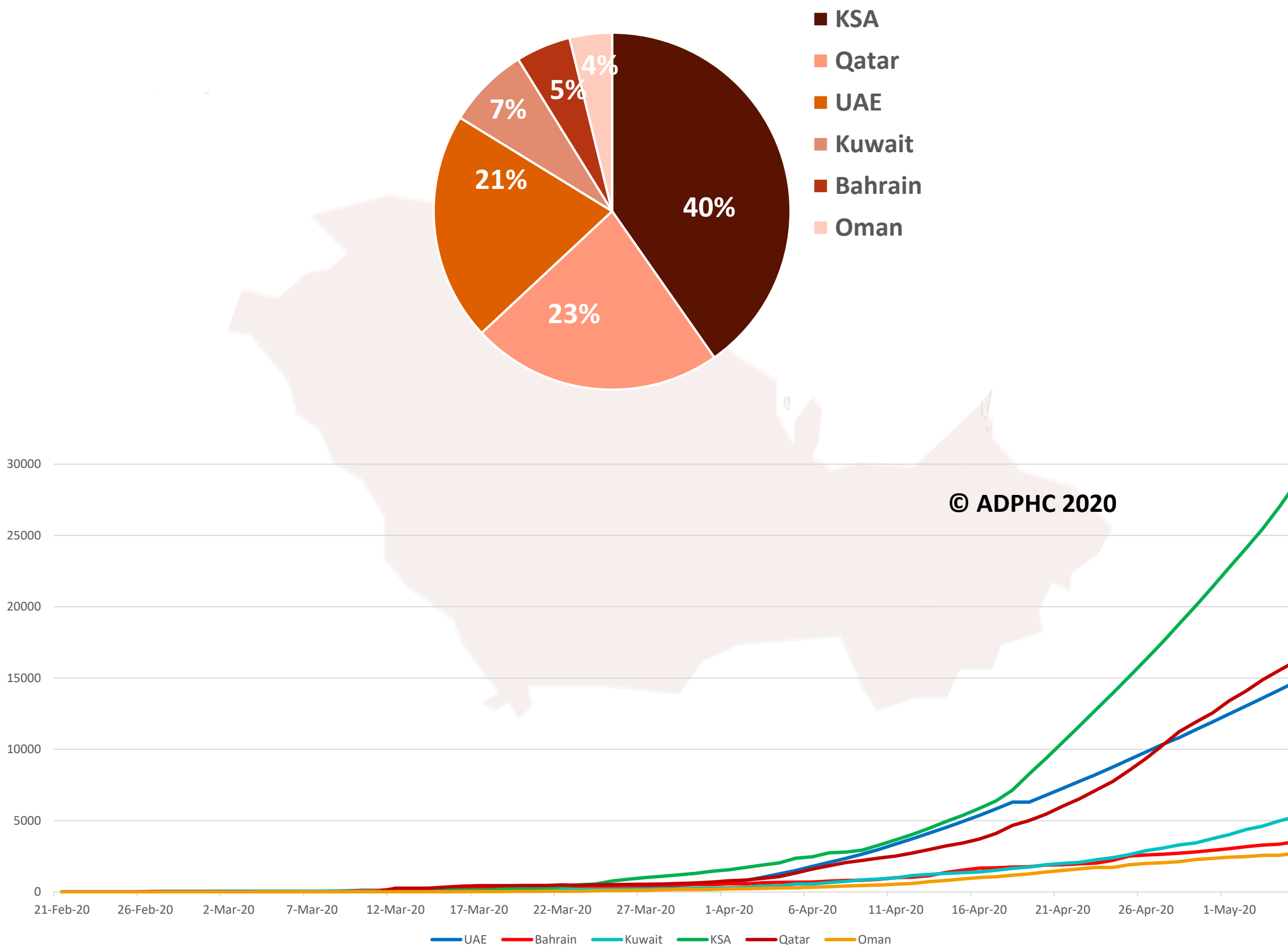
Data resources: [WHO](https://www.who.int/)

Epidemiology

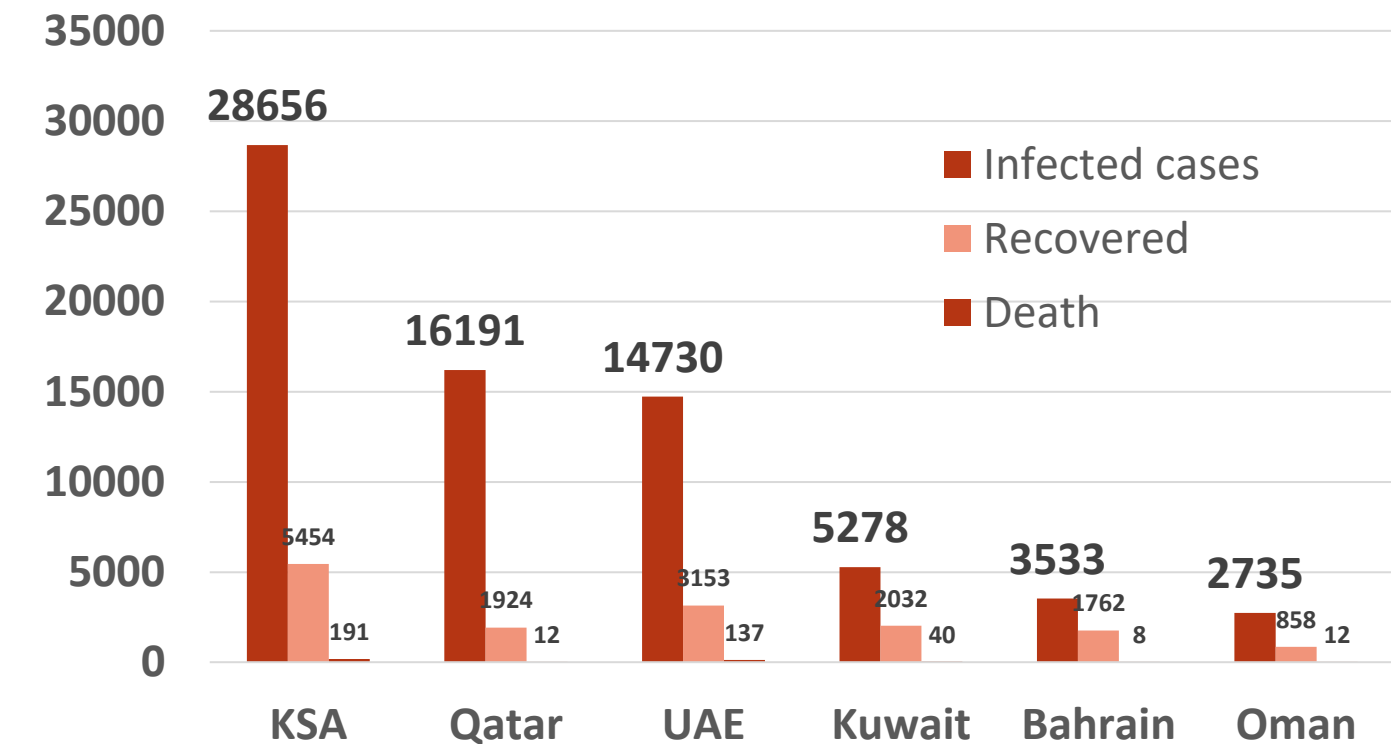


Figure 9: Comparative analysis of the distribution of COVID19 cases in GCC countries (May 5, 2020)

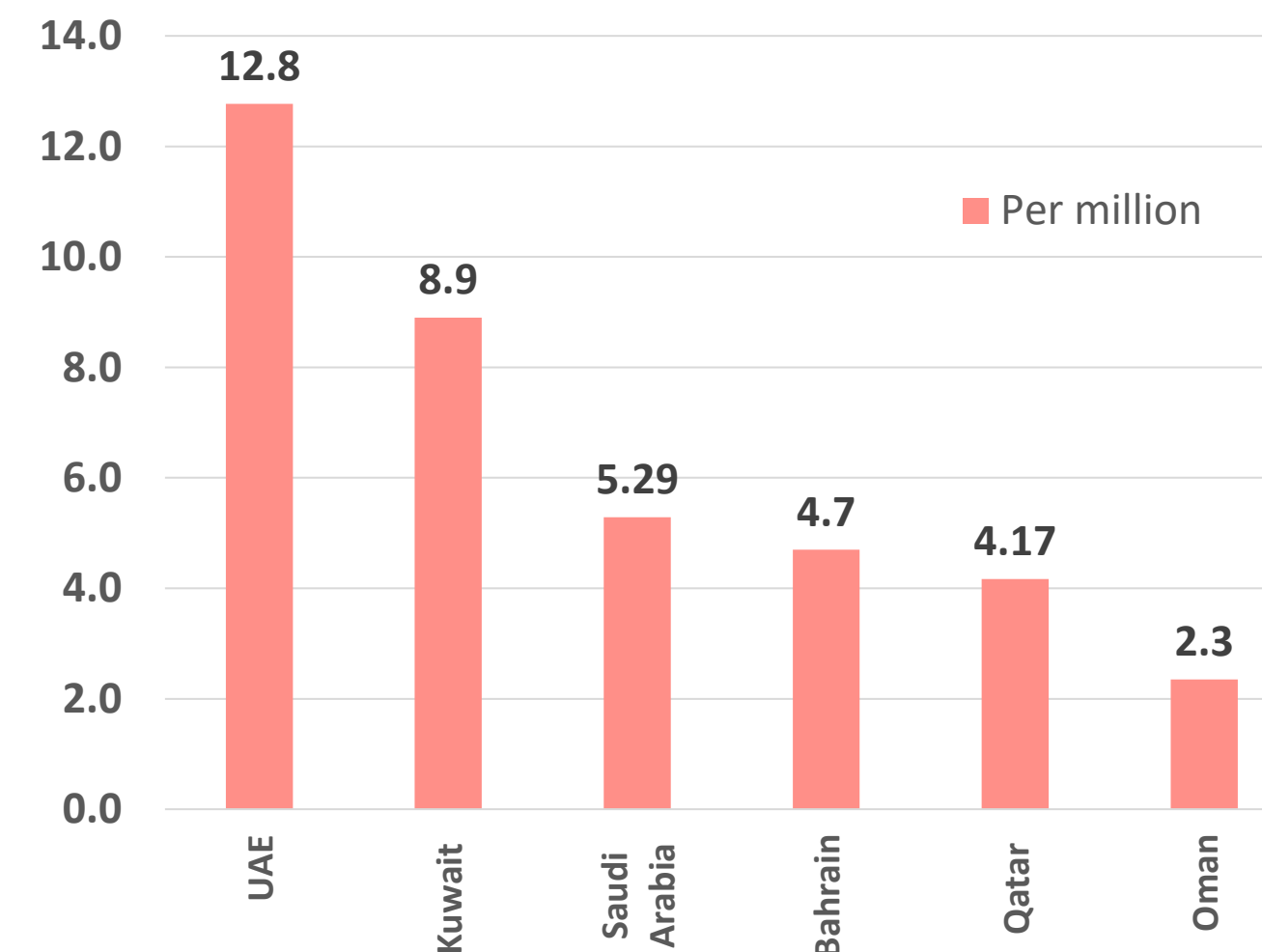
TOTAL NUMBER OF INFECTED CASES



Total number of infected, recovered and Deaths



Death per million



charts published by Abu Dhabi Public Health Center 2020.

Data resources: [WHO](https://www.who.int/)

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Transmission

This work is done by Ministry of Health and Prevention, Statistics and Research Department.

Article 1/book review: COVID-19: An Ophthalmological Update

Published: April 30th, 2020 in [Coronavirus Disease 2019 \(COVID-19\)-Springer Nature](#)

Summary:

This is a book review made for ophthalmologists to address the possible modes of spread that are anticipated by different healthcare professionals. The review showed how other conjunctival secretions and tears being one of the body fluids can potentially play a role in transmitting the disease inadvertently. Conjunctival secretions from patients and asymptomatic contacts of COVID-19 cases may also spread the disease additionally into the community. Direct inoculation of body fluids into the conjunctiva of healthy individual is also postulated to be another mode of spread. The risk to health care providers thus, becomes strikingly high. An ophthalmologist who is vigilant can play a crucial role in breaking the chain of such transmissions.

The authors of the review have proposed a protocol to prevent infection in ophthalmology clinics:

- Figure 1 on the Patients are categorized into four groups according to the triage system,
- Figure 2 highlights the protocol for attending patients visiting ophthalmology clinics during COVID-19 outbreak



Transmission

This work is done by Ministry of Health and Prevention, Statistics and Research Department.

Article 1: COVID-19: An Ophthalmological Update, continued

Published: April 30th, 2020 in Coronavirus Disease 2019 (COVID-19)-Springer Nature

Summary:

Groups	Patient presentation
1	Otherwise healthy patients with no travel/contact history in the last 2-3 weeks.
2	Patients appearing healthy but with recent contact/travel history, quarantined and declared unaffected.
3	Patients appearing healthy but with recent contact/travel history, not quarantined.
4	Patients with obvious signs of respiratory illness (cough, fever)

Figure 1 : Triage of patients presenting to ophthalmology clinic

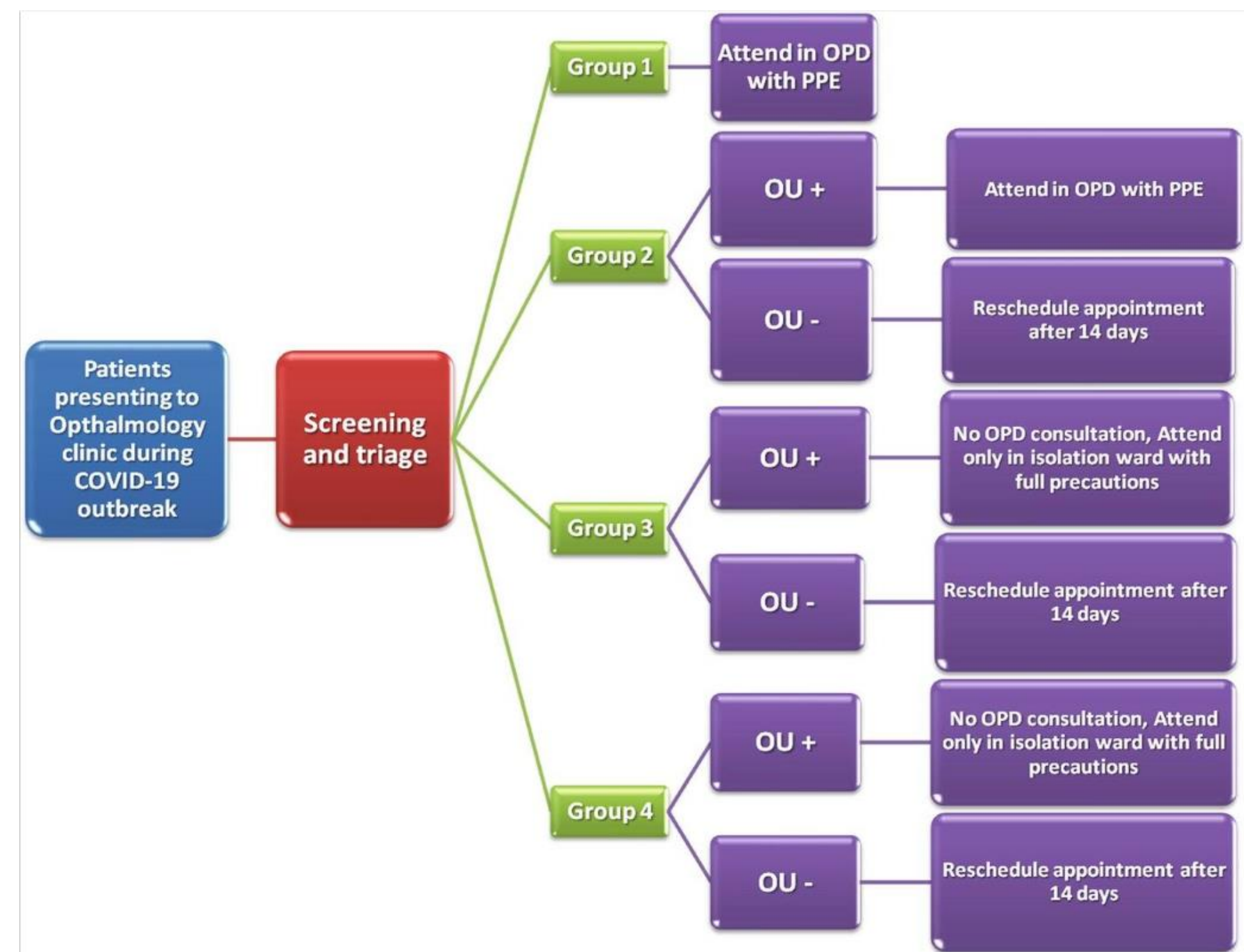


Figure 2: Flow chart of attending patients visiting ophthalmology clinic. *OPD* outpatient department, *PPE* personal protective equipment, *OU* ophthalmic urgency.

Public Health response



This work is done by Ministry of Health and Prevention, Statistics and Research Department.

Article 2: The experiences of health-care providers during the COVID-19 crisis in China: a qualitative study

Published: April 29th, 2020 in The Lancet –Global Health

Summary:

The study used an empirical phenomenological approach to address the experiences of health-care providers caring for patients with COVID-19 in early stages of the outbreak. Nine nurses and four physicians were interviewed over telephone from Feb 10 to Feb 15, 2020. Three Themes emerged from the analysis that included “being fully responsible for patients' wellbeing—‘this is my duty’”; “challenges of working on COVID-19 wards”; and “resilience amid challenges”. The study also highlighted some comprehensive support required for front line health care providers, such as professional psychological support, supervision and monitoring of infection control, effective communication, reasonable work schedules, and sufficient personal protective equipment. An intensive training was recommended for healthcare professional having limited infectious disease expertise.

Findings:

The findings of the study revealed that health-care providers showed great strength and resilience in the face of various challenges. Healthcare professionals were challenged due to working in an entirely different and new context. Health care professionals further experienced exhaustion because of heavy workloads and protective gear, the fear of becoming infected and infecting others, felt powerless to handle patients' conditions, and managing relations in such a stressful situation. Health-care providers identified many sources of social support and used self-management strategies to cope with this situation.