

## Letter to the Editor

**Cite this article:** Ng YJ, Samy AL, Tan SL, *et al.* (2022) Floods amidst COVID-19 in Malaysia: implications on the pandemic responses. *Disaster Med Public Health Prep* **16**: 2218–2219. doi: <https://doi.org/10.1017/dmp.2021.371>.

First published online: 23 December 2021


### Keywords:

Floods; COVID-19; Malaysia; implications; recommendations

### Corresponding author:

Alexander Lourdes Samy,  
E-mail: [alexander.lourdes@yahoo.com](mailto:alexander.lourdes@yahoo.com).

# Floods Amidst COVID-19 in Malaysia: Implications on the Pandemic Responses

Yuki Julius Ng<sup>1,2,3</sup>, Alexander Lourdes Samy<sup>4,5,6</sup> , Shu Leed Tan<sup>7,8,9</sup>, Prishalini Ramesh<sup>1</sup>, Wei Pin Hung<sup>1,3</sup>, Attaulah Ahmadi<sup>10,11</sup> and Don Eliseo Lucero-Prisno III<sup>12,13</sup>

<sup>1</sup>Department of Orthopaedic Surgery, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia; <sup>2</sup>School of Medicine, International Medical University, Bukit Jalil, Kuala Lumpur, Malaysia; <sup>3</sup>International Student Surgical Network Malaysia, Kuala Lumpur, Malaysia; <sup>4</sup>Centre for ASEAN Regionalism University of Malaya, Kuala Lumpur, Malaysia; <sup>5</sup>Asia-Europe Institute, University of Malaya, Kuala Lumpur, Malaysia; <sup>6</sup>Department of Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia; <sup>7</sup>Department of Anaesthesiology and Intensive Care, Hospital Selayang, Selangor, Malaysia; <sup>8</sup>Department of Anaesthesiology and Intensive Care, Hospital Tuanku Ja'afar, Negeri Sembilan, Malaysia; <sup>9</sup>Department of Primary Care Medicine, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia; <sup>10</sup>Medical Research Center, Kateb University, Kabul, Afghanistan; <sup>11</sup>Department of Public Health, International School of Medicine, Bishek, Kyrgyzstan; <sup>12</sup>Department of Global Health and Development, London School of Hygiene and Tropical Medicine, London, UK and <sup>13</sup>Faculty of Management and Development Studies, University of the Philippines, Philippines

The coronavirus disease (COVID-19) pandemic has brought a deleterious impact to the health and well-being of populations worldwide. Besides the increasing number of cases, high infectivity rate, mutations, and mortality, the situation was complicated with natural disasters in some countries. The East Coast of Peninsular and East Malaysia was hit by its annual monsoon flood in November 2020, affecting more than 48 000 people, as of January 8, 2021.<sup>1</sup> It was considered one of the worst floods as it occurred during the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)/COVID-19 pandemic.

During the flood, a large number of flood victims was displaced and relocated to relief centers. Overcrowding of these relief centers posed a great challenge in implementing disease control and prevention standard operating procedures (SOPs), such as social distancing and quarantine. Furthermore, risk of the SARS-CoV-2 (COVID-19) infection increased as evacuees had to share facilities, such as bathrooms and toilets, due to limited resources. These situations led to the emergence of new COVID-19 clusters, such as the Taman Bahagia cluster in Pahang and the Jalan Niaga cluster in Johor.<sup>2</sup> Besides these, flood victims prioritized saving their lives and essentials over bringing along personal protective equipment (PPE), that is, face masks and hand sanitizers. In addition, PPE items were soiled from the flood waters, further hampering the observance of SOPs. Meanwhile, a lack of clean water supply resulted in an increase in water-borne disease, adding further burden on the already impaired health care system during the pandemic.<sup>3</sup> Contact tracing was challenging during the floods. The Ministry of Health Malaysia introduced a mobile application called “MySejahtera,” where users check in to places using QR codes.<sup>4</sup> During the floods, mobile phones and electronic gadgets were damaged or inadequately charged, hence contact tracing was done manually, either by telephone interview at relief centers or by recording onto a log book. The authorities then identified and referred symptomatic individuals to hospitals or quarantined the asymptomatic individuals according to protocols developed by the ministry.<sup>4</sup> Moreover, there is an increased risk of SARS-CoV-2 (COVID-19) transmission during disaster relief, whereby asymptomatic SARS-CoV-2 positive volunteers infected flood victims, or vice versa. To mitigate the risk of COVID-19, some charitable organizations sponsored SARS-CoV-2 (COVID-19) swab tests to the flood relief centers.<sup>5</sup>

In short, the monsoon flood worsened the COVID-19 situation in Malaysia. The authors suggest a proper mitigation and preparedness of risk assessment for future disasters. The inclusion of relevant stakeholders such as city planners, civil engineers, and other professions is crucial to better prepare for the next disaster. A good warning system should also be in place to prepare the affected population ahead of time to save lives and prevent further damages. Furthermore, emphasis should be given to specific communities, such as those with low socioeconomic status and immigrants, due to their limitation in facilities and resources. Authorities should engage and educate these communities on crisis preparedness strategies. Establishment of a resilient health care system

through intersectoral collaboration between health care providers and other relevant stakeholders should be emphasized.

**Acknowledgments.** We would like to thank Professor Dr Shalimar Abdullah (Vice President) and Ms Masniza Mustaffa (Health Coordinator) from Mercy Malaysia for providing us with information from their experience in providing relief to the flood victims.

## References

1. More Than 48,000 People Evacuated in Malaysia to Escape Floods. The Straits Times. Published January 7, 2021. Accessed January 23, 2021. <https://www.straitstimes.com/asia/se-asia/more-than-48000-people-evacuated-in-malaysia-to-escape-floods>
2. List of Locations Affected by COVID-19 (Jan 25). Malaysiakini. Published January 23, 2021. Accessed January 25, 2021. <https://www.malaysiakini.com/news/560313>
3. Phillips CA, Caldas A, Cleetus R, *et al.* Compound climate risks in the COVID-19 pandemic. *Nat Clim Chang.* 2020;10(7):586-588. doi: 10.1038/s41558-020-0804-2
4. How Contact Tracing Is Done For COVID-19. Ministry of Health Malaysia. Published 2020. Accessed January 23, 2021. <https://www.infosihat.gov.my/index.php/multimedia/infografik/item/how-contact-tracing-is-done-for-covid-19>
5. KPJ IMSHA Join-Up to Provide Swab-Test for Flood Volunteers. New Strait Times. Published January 18, 2021. Accessed January 23, 2021. <https://www.nst.com.my/news/nation/2021/01/658352/kpj-imsha-join-provide-swab-test-flood-volunteers>