Sri Petaling COVID-19 cluster in Malaysia: challenges and the mitigation strategies

Hisham Atan Edinur[1,2,3], Sabreena Safuan[1]

[1]School of Health Sciences, Universiti Sains Malaysia, Health Campus, 16150, Kubang Kerian, Kelantan, Malaysia
[2]Institute of Tropical Biodiversity and Sustainable Development, Universiti Malaysia Terengganu, 21030 Kuala Nerus, Terengganu, Malaysia
[3]Environmental Futures Research Institute, Griffith University, Nathan, Queensland 4111, Australia.

Contributions: HAE collected and analyzed the data and wrote the manuscript. SS designed and edited the manuscript. All authors approved the final version of the manuscript.

To the Editor,

Malaysia was impacted by two successive COVID-19 waves. The first smaller wave with a total of 22 cases were reported from 24th January to 15th February 2020. Most of the COVID-19 cases in the first wave were imported cases who have travelled to affected countries (1). The second wave which started from 27th February 2020 involved massive local transmission (2) among individuals who attended a four-day (27th February 2020 to 1st March 2020) religious event at the Sri Petaling Mosque, Selangor. Sri Petaling cluster became the largest COVID-19 cluster in Malaysia branching into many other subclusters with more than 3,370 cases (Table 1). Other than Malaysians who were the major participants (14,500), around 1500 were international participants (e.g. Thais, Bruneians, Indonesians) which has caused local transmission in their respective countries (3). The Sri Petaling COVID-19 cluster has officially ended on 7th July with no reported new cases for 28 days since 11th June 2020 (4) due to the various effort put together by the Malaysian government.

Malaysia was alerted for the potential extensive spread of COVID-19 when the Ministry of Health director-general of Malaysia was informed by the Bruneian authority that one of the Sri Petaling participants returning to Brunei was screened positive (5). In just two-week post-Sri Petaling gathering, Malaysia recorded the highest number of COVID-19 cases in Southeast Asia. As the gathering was an open gathering, fighting this cluster proof to be very challenging. Identification of attendees and contact tracing was difficult as official records were incomplete (6). Significant attendees were undocumented migrants without valid travel documents. Quarantine area was also a problem since both symptomatic and asymptomatic individuals have to undergo 14-day mandatory containment. In addition, COVID-19 test was conducted for all Sri Petaling attendees which requires an endless supply of test kits and an increase laboratory testing capacity. There was also an issue of PPE stock among front liners in which at the peak of COVID-19 infection, there are only two-week supply of PPE left (7).

Malaysian authorities have shown an exemplified response as soon as being alerted on the Sri Petaling cases. Social distancing during the second wave was enforced under the movement control order and several localities were under total lockdown due to high transmission rate (2). Tracing process was carried out effectively by working closely with the organizer of the Sri Petaling gathering. Round the clock announcements were made via the official channel and the social media to urge people to come forward and get tested. Illegal migrants were urged to be tested and the Malaysian government closed one eye on their documents. As a result, more than 42,000 individuals were screened for the disease (4). Moreover, 160 hospitals nation-wide were gazetted for treatment and screening of COVID-19 and trade centres were

Table 1. COVID-19 sub-clusters connected to Sri Petaling gathering. Data were obtained from the Ministry of Health, Malaysia (18).

Sub-cluster	State/Federal territory	No of positive cases
Kampung Sungai Lui	Pahang	211
Pasar Borong	Kuala Lumpur	204
Bandar Baru Ibrahim Majid	Johor	193
Selangor Mansion	Kuala Lumpur	179
Bandar Baru Bangi	Selangor	159
Maahad Darul Uloom Al Islamiyyah	Pahang	85
Plaza City One Tower	Kuala Lumpur	55
Rembau	Negeri Sembilan	53
Madrasah Bustanul Ulum Abu Bakar	Melaka	41
SP in Kuching	Sarawak	41
PKNS Flats	Selangor	37
Pasar Besar Jalan Othman	Selangor	28
Pekan	Pahang	22
Pasir Gudang Edible Oil	Johor	15
Malayan Mansion	Kuala Lumpur	13
Madrasah Penanti	Pulau Pinang	11
Wet Market, Selayang	Selangor	6

converted as a temporary facility for COVID-19 treatment (5). To combat the test kits issue, in house testing procedure was designed soon after information on COVID-19 genomic was made available to global community by the Chinese Health Authorities using existing diagnostic facility (5). In Malaysia, symptomatic COVID-19 patients were treated with lower dose of hydroxychloroquine and in combination with other drug including anti-HIV and anti-inflammatory drug for those with cardiac and inflammation issues. These drug prescriptions and doses were adjusted or adopted from reported cases overseas (e.g. China and Italy) resulted to a low death and higher recovery rates in Malaysia (5). Malaysian have also come together to produce PPE at home to tackle the shortage of PPE.

Overall, the mitigation strategies practice by Malaysia is highly effective as observed in the R-naught (R_0) from 3.55 at the highest peak to current 0.6 (6), one of the countries with the lowest infectious rate. We have outlined the strategies implemented to the largest cluster of COVID-19 in Malaysia which can be used as a model to fight current COVID-19 infection and for future pandemics.

Conflict of interest

Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article.

References

1. World Health Organization (2020) COVID-19: Virtual Press Conference. https://www.who.int/docs/default-source/coronaviruse/transcripts/who-audio-emergencies-coronavirus-press-conference-15jun2020.pdf?sfvrsn=5c219824_2. (accessed 12.07.2020)
2. Che Mat, NF., Edinur HA., Abdul Razab MKA. And Safuan S. (2020). A single mass gathering resulted in massive transmission of COVID-19 infections in Malaysia with further international spread. J Travel Med, 27(3), 1–4.
3. Chaw L., Koh W.C., Jamaludin S.A., Naing L., Alikhan M.F. and Wong J. (2020). Analysis of SARS-CoV-2 transmission in different settings, among cases and close contacts 5 from the Tablighi cluster in Brunei Darussalam. medRxiv, https://doi.org/10.1101/2020.05.04.20090043

4. Ministry of Health (2020). Updates on the coronavirus disease 2019 (COVID-19) situation in Malaysia, 8 July 2020. http://covid-19.moh.gov.my/terkini/072020/situasi-terkini-08-julai-2020/Kenyataan%20Akhbar%20KPK%20 COVID-19%20(8%20Julai%202020)%20–20EN.pdf. (accessed 19.07.2020)

5. Rahman F. (2020). The Malaysian Response to COVID-19: building preparedness for 'surge capacity', testing efficiency, and containment. https://kpkesihatan.com/2020/06/16/ the-malaysian-response-to-covid-19-building-preparedness-for-surge-capacity-testing-efficiency-and-containment/. (accessed 12.07.2020)

6. Roslan, S (2020) Tabligh event attendees 12k, not 16k. https://www.nst.com.my/ news/nation/2020/03/577014/tabligh-event-attendees-12k-not-16k (accessed 26.07.2020)

7. Kanyakumari, D. (2020) COVID-19: Malaysia left with 2 weeks worth of personal protective equipment for hospitals. https://www.channelnewsasia.com/news/asia/ covid-19-malaysia-left-with-2-weeks-worth-of-personal-protective-12637648. (accessed 26.07.2020)

8. Syamsiah S. and Abdul Ghafar, M.F. (2020) COVID-19: Malaysia in the final recovery phase -Noor Hisham. https://www.theedgemarkets.com/article/covid19-malaysia-final-recovery-phase-%E2%80%94-noor-hisham. (accessed 20.07.2020)

───────

Correspondence:
Sabreena Safuan
School of Health Sciences Health Campus, Universiti Sains Malaysia 16150 Kubang Kerian, Kelantan, Malaysia.
Tel: + 609-7677823
Fax: +609-7677515
E-mail: sabreena@usm.my