KNOWLEDGE AND NEW NORMS PRACTICES AMONG REMOTE COMMUNITIES IN MALAYSIA DURING COVID-19 PANDEMIC

Maznieda Mahjom
Asan Ali Golam Hassan
Rohaida Ismail
Nurul Fadzilah Deraman
Rosmanajihah Mat Lazim
Mizanurfakhri Ghazali
Lim Kuang Kuay
Noor Syaqilah Shawaluddin
Tuan Mohd Amin Tuan Lah
Ahmad Shuib Yahya

ABSTRACT

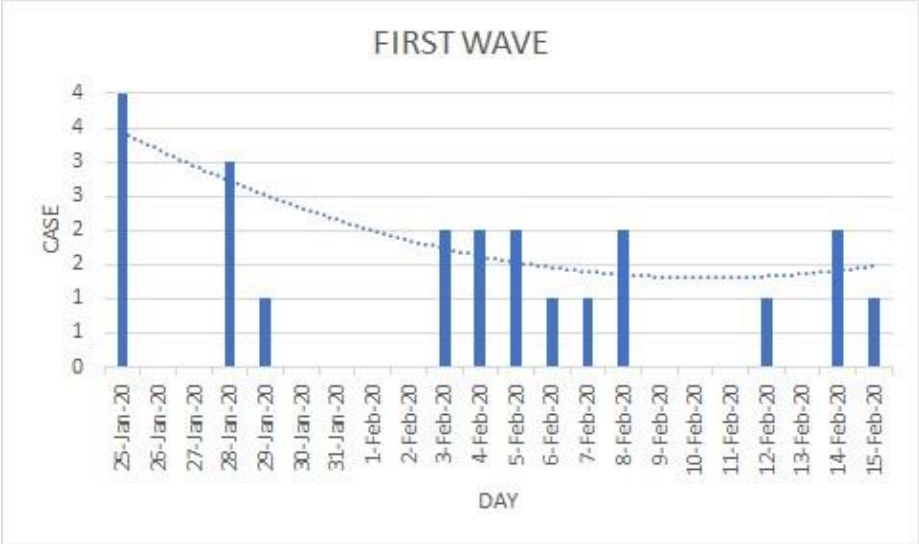
Introduction*: COVID-19 pandemic has affected all levels of urban, suburban and rural area communities. The new terms such as Movement Control Order (MCO), Lockdown, compliance of Standard Operating Procedure (SOP), online shopping, home-based teaching and learning (PDPR) and food delivery services made a family seem to have a sort of cultural shock. For those who understand and could accept the reality, they were easily adapted. However, the acceptance level of a family institution toward challenges and 'the new norms' was still unknown.*
Objectives*: This study aims to evaluate the knowledge and understanding level of COVID-19 among remote communities from the health aspect and the impact on their family.*
Methodology*: This pilot study was performed at a selected area in Johor, Malaysia. A physical interview was done whereby the head of the selected family was asked with eight (8) sectioned questions. The research team had to undergo a strict SOP and all members were required to do Rapid Test Kit before collecting data. All test results were uploaded into MySejahtera application. A total of 104 respondents were interviewed from 12th September 2021 until 17th September 2021.*
Findings*: The findings showed that 46.6% of the remote communities experienced a reduction in gross monthly income. The majority of them have knowledge on COVID-19 and more than 50% of respondents practised the new normal such as wearing face masks, washing hands frequently, staying at home and practising physical distancing.*
Conclusion*: This study revealed that the remote communities have fair knowledge on good health practices against COVID-19 and they were aware of the effects of this pandemic toward their family institutions. Thus, further study should be done in Malaysia to verify the effects comprehensively.*

Keywords: remote community, COVID-19, post-COVID, the new norms, family institution Introduction

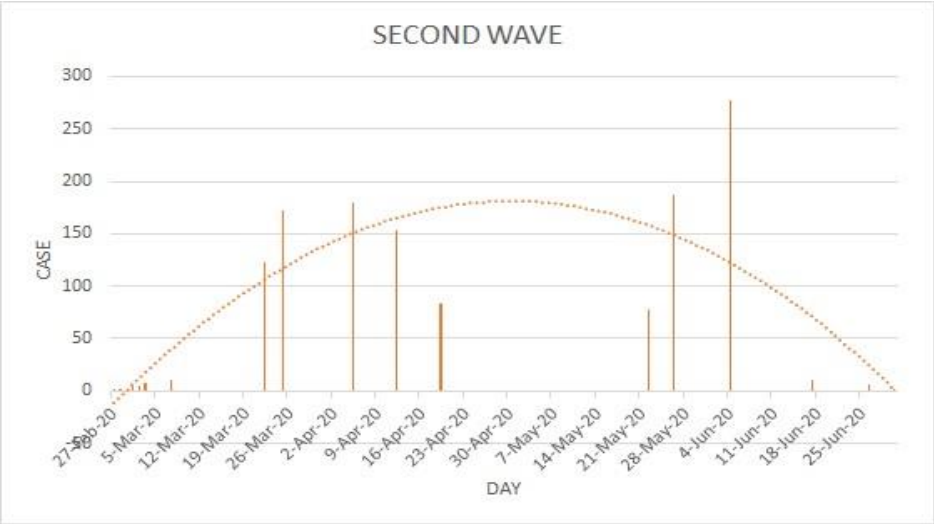
INTRODUCTION

Novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which caused outbreaks of coronavirus disease 2019 (COVID-19) was first detected in December 2019 in Wuhan, China, and it was then spread rapidly to the rest of the world including Malaysia. This new COVID-19 outbreak was declared by the World Health Organisation (WHO) as a pandemic in March 2020 when it recorded an alarming acceleration of cases everyday (WHO, 2020). As of 30 September 2021, there were more than 2.3 trillion cases worldwide, while in Malaysia the number was more than 2.2 million cases.

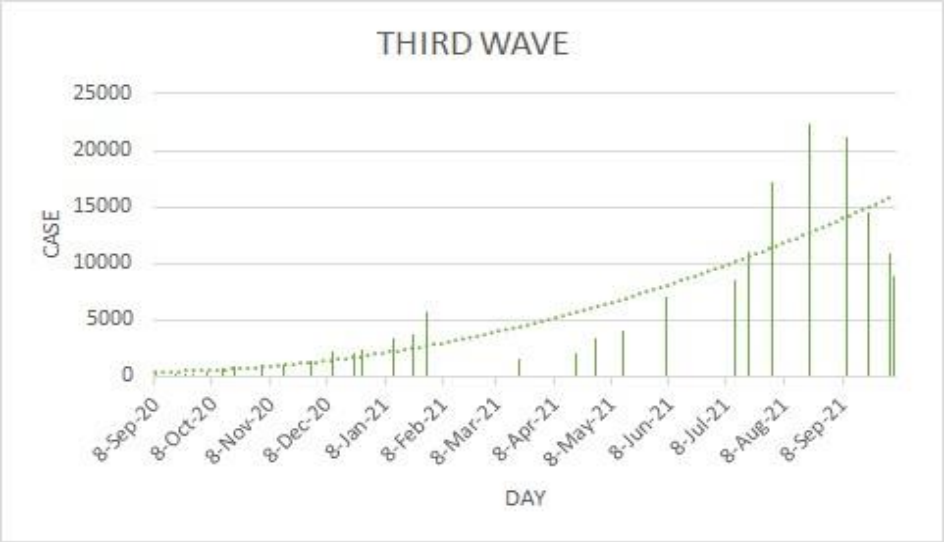
In February 2020, COVID-19 first hit Malaysia in Selangor involving a Chinese tourist coming from Wuhan who had entered through Singapore. Since then, the first wave of COVID-19 occurred with the recording of 22 confirmed cases. The 22nd case marked the end of the first wave in Malaysia as there was no new case notified within the next 11 days (Hashim et al., 2021; Rampal & Liew, 2021). The second wave of COVID-19 infection started in February 2020, and by 13 March 2020, a total of 756 samples were tested with the reporting 174 confirmed cases. The biggest COVID-19 cluster was the Seri Petaling, involving a religious gathering at a mosque in Kuala Lumpur. The second wave lasted until 30 June 2020 (MOH, 2020; Rampal & Liew, 2021). The third wave recorded a surge of daily cases in four digits which began in September 2020. The main contributors were Benteng Lahad Datu cluster in Sabah and Tembok cluster in Kedah, which were related to public gathering. The sudden surge of COVID-19 cases put Malaysia in a difficult situation to curb the spreading of this infection. According to the former Health Minister, Datuk Seri Dr Adham Baba, at that time Malaysia was facing the third wave of COVID-19 as there was no significant decline reported, and later to consider Malaysia entered the fourth wave of COVID19 (Rampal & Liew, 2021; The Star, 2021).



(a)



(b)



(c)

Figure 1 shows the number of cases reported during the (a) first wave, (b) second wave and (c) third wave of COVID-19 in Malaysia (Source: Researcher)

In order to curb the increase of COVID-19 cases, the enforcement of the Movement Control Order (MCO) under the Police Act 1967 and the Prevention and Control of Disease Act 1988 had been applied. Malaysia MCO or lockdown had been implemented gradually starting with MCO 1.0 on March 18, 2020 until May 2020 in 4 phases. During the MCO phases, all services are currently closed except for essential services. MCO 2.0 begins January 13, 2021 and MCO 3.0 begins May 12, 2021 where the economic and essential services sectors are allowed to operate. Other activities such as tourism, entertainment, recreation, social, religious and cross-border were prohibited (Malaysian National Security Council, 2021).

COVID-19 pandemic impacts the whole economic sectors of the world and showed inclination towards e-commerce. Due to the closing of retail establishments, consumers now have to rely only on internet purchasing to meet their demands (Julia et al, 2020). Studies showed that 52% of shoppers avoid going to physical stores and congested places and 36% chose not to do so until they obtain the coronavirus vaccine. The popular online purchased products were cleaning apparatus, disposable items, cooking apparatus, air purifier and exercise equipment (Anam et al, 2020).

Education system posed a great challenge in forcing educators to switch to an online form of teaching method overnight (Dhawan, 2020). However, lack of resources in academic institutions, poor internet access and availability, as well as a lack of latest technology make the online digital learning has questionable effectiveness in education system (Muhammad et al, 2020). The closure of schools during MCO also had an impact on the education and economic well-being of students, throughout their lives. The cancellation of the two major primary school exams in April 2020, which were *Ujian Pencapaian Sekolah Rendah* (UPSR) and *Pentaksiran Tingkatan 3* (PT3), affected more than 450,000 UPSR candidates and approximately 440,000 PT3 candidates.

MCO negatively impacted the country's economy as high-risk informal workers were losing their jobs and increased the number of unemployed people and caused harm to the people in many psychological and sociological ways. Life stress due to MCO triggers various physical and mental health illnesses and even potential suicidal attempts. Based on Polis Di Raja Malaysia (PDRM) statistics, the first three months of 2021 reported a total of 336 suicide cases. This number is half of the suicides cases reported in the whole 12 months of 2020 and 2019, which was 631 and 609 cases respectively (Choong, 2021). The Government has implemented various economic stimulus packages (*Bantuan Prihatin Nasional*) to help the people, and its impact on remote communities is expected to be somewhat limited. In this regard, this study will analyze the understanding and sensitivity of the remote community on the Covid-19 pandemic and the impact of the COVID-19 pandemic with the MCO on the health and socioeconomic status of remote communities in Malaysia.

The movement and activity restriction during the pandemic affected all levels of communities including remote communities. There are several new terms and practices that are unfamiliar within our communities that have to be implemented such as new norms, SOP, food delivery, online learning and online shopping. New norms are defined as some event which has not been a regular practice before. Such new norms are the use of face masks, sanitizing hand upon contact and physical distancing (World Health Organisation - Malaysia, 2020). The new norms are closely related to the SOP implemented by the Government. The main reason such SOPs were introduced is to curb the spread of COVID-19, and it was proven by the decreasing number of cases towards the end of the first wave, right after the strict implementation of the SOPs (Ministry of Health,

2021). In addition, a recent study on the correlation between 'new normal' compliance and the spread of COVID-19 infection was performed in several counties in the United States of America. The authors hypothesized that the social capital played an important role in controlling the virus spreading. It was reported that social capital which stands on trust and relationship within a community significantly reduced the number of infection and growth of the virus (Makridis and Wu, 2021). Hence, the SOP compliance among all levels of community especially remote communities is necessary to control the COVID-19 infection.

Despite the negative impact that occurs during COVID-19 pandemic, retail e-commerce grows significantly due to the increase of online shoppers. Online food delivery is the largest segment under e-commerce. The convenience provided together with changes in people's lifestyle making online food delivery grows rapidly. However, limited exposure to technology, internet network, accessibility and bad experience in using the platform may affect certain groups of communities to utilize this convenience e-commerce segment, such as remote communities. For example, a study in Pakistan revealed that only 15% of the population chose this type of service as they preferred the on so-called order (Gallup and Gilani, 2020). In contrast, a study in Brazil reported that 64% continuity of online food delivery was due to time saving and user-friendly apps (Zanetta et al., 2021) . This feature provides various lists of restaurants to facilitate the food selection and leaving great experience to consumers hence motivating them to persistently use the online food delivery. Thus, it is important to determine the exposure of technology in remote communities to utilize such platforms for their own use. Currently there is limited study on the impact of COVID19 among remote communities to the new norms. Therefore, this study aims to evaluate the knowledge and understanding level among remote communities towards COVID-19 from the health aspect and its impact on their family.

METHODOLOGY

This cross-sectional descriptive study was conducted in September 2021 at selected locations in Johor, a southern state in Peninsular Malaysia. It was part of a larger study to measure the impacts of COVID-19 pandemic to socioeconomic and health outcomes of remote communities in Peninsular Malaysia. The sampling population was remote communities who live in rural and remote areas with populations less than 10,000 people. The sample framework was determined by matching the remote areas with the Remote Criteria and Remote Traits used by the Ministry of Education and Strata 4 in the Department of Statistic Malaysia (DOSM) framework. Data of population, enumeration block (EB) and living quarters (LQ) was obtained from the DOSM, and that was further used in the two-stage stratified sampling. There were 7 EB from 5 sub districts in Johor that fulfilled the DOSM Strata

4 remote areas, and all these EB were included in this study. LQ was then selected through a random process, respondents were the head of household for the selected LQ.

The sample size was calculated using the sample size calculator which can be accessed from the Creative Research Systems survey software at https://www.surveysystem.com/sscalc.htm. The 95% confidence level and confidence interval of 5 were being used in the calculation. The minimum sample size calculated was 104 respondents. Inclusion criteria was the head of households (HHs) based on the DOSM framework, and exclusion criteria was empty homes at the time of survey and those who refused to participate in the study.

This study utilized questionnaires through the interview process with the selected head of household (HH) as respondents. The field work was conducted by the researchers, research assistants (RA) and enumerators and in Malay language. All the enumerators were trained with the methods and style of questioning, procedures, and manner of filling in the forms and questionnaires before they commenced their field work. Each participant was reimbursed for participating in this study. The respondents are allowed to withdraw voluntarily whenever he/ she would like to do so or when notified by the principal investigator. The withdrawn respondents will be replaced by the participant which fulfills the inclusion criteria.

The precaution on communicable disease transmission was carried out in which the researcher, research assistants and enumerator. All team members are required to complete COVID-19 vaccination and allowed to join field work after 14 days of receiving a second dose. Health declaration and testing of COVID-19 was done in accordance with the National Security Council requirement, prior to field work activity and repeated every 2 weeks. The COVID-19 rapid test results were uploaded in the online MySejahtera application. All team members were equipped with hand sanitizer, face mask, face shield, disposable gown and glove and to be worn throughout the interview session. The respondents' health status including temperature screening were also checked before convening the interview. Data entered in a proforma sheet using Microsoft Excel and analyzed using the Statistical Package for Social Sciences (SPSS) version 26 for descriptive and association.

This study was approved by the Medical Research & Ethics Committee, Ministry of Health Malaysia with reference no: KKM/NIHSEC/P21-1727(12). The confidentiality of the data had been strictly maintained, in which only the investigators had the access to the data available.

RESULTS

Based on the findings, it was revealed that the new norms were faced at different levels in remote communities, including the head of family and their children (Table 2 and Table 4). These situations occurred mostly due to restriction of movement during Movement Control Order (MCO) or National Recovery Plan (NRP) to stop the spread of COVID-19. During the pandemic, it was found that nearly half of remote communities had their income decreased for approximately 48% reduction. Meanwhile, almost 50% of remote communities had decreased their income for more than eight months because of retrenchment and no other jobs available during this hard time.

Table 1: Impact of COVID-19 on gross monthly income

Gross monthly income	n (%)
Gross monthly income reduction	
Yes	48 (46.6)
No	55 (53.4)
Duration of income reduction	
Less than 8 months	15 (51.7)
More than 8 months	14 (48.3)

Referring to table 2, children were adapted to some new normal during pandemic with 92.9% of them stayed at home during MCO with 79.6% of children asked about the reopening of their school. In addition, 63% of caretakers did observe their children for at most four (4) hours daily and 76.9% of caretakers prepared a space for their children to study during MCO. In a meantime, less than half of caretakers (44.6%) stated that there was no internet connectivity issue for the purpose of online learning while 33.9% caretakers encountered 50% of connectivity disturbances during online classes.

Table 2: New norms practices among children

New norms	n (%)
Stay at home	
Yes	52 (92.9)
No	4 (7.1)
Enthusiasm to go back to school	
Daily	14 (28.6)
Weekly	15 (30.6)
Monthly	10 (20.4)
Never	10 (20.4)
Learning hours monitored by caretakers (hours)	
0-4	29 (63.0)
5-8	12 (26.1)
More than 10 hours	5 (10.9)
Learning space	
Yes	40 (76.9)
No	12 (23.1)
Internet connectivity	
No connectivity issues	25 (44.6)
50% connectivity disturbances	19 (33.9)
more than 75% connectivity disturbances	12 (21.4)

Table 3 displayed the epidemiological knowledge of the Johore remote communities in which they were aware when COVID-19 first came to Malaysia (85.6%), from which country it started (86.4%), how it spread (90.3%), and the symptoms of the disease (88.5%). However, less knowledge was related to the cumulative number of cases in Malaysia (38.8%), type of variance (65.4%) and categorical level of infection (57.7%).

Table 3: Knowledge level on COVID-19 among remote communities

Knowledge on COVID-19	n (%)
First COVID-19 existence	89 (85.6)
Origin (country) of COVID-19	89 (86.4)
Method of transmission (MOT)	93 (90.3)
Symptoms of COVID-19	92 (88.5)
Cumulative cases in Malaysia	40 (38.8)
Type of virus variance	68 (65.4)
Categorical level of infection	60 (57.7)

The new norms practiced (Table 4) to prevent COVID-19 infection among the remote communities showed that, as many as 93.2% of the population wore face masks when leaving home, 84.5% often washed their hands with soap or 'hand sanitizer' and 73.8% practiced one -meter social distancing, 62.1% stayed away from crowded places, 32.0% did not shaking their hands with friend and relatives when they met and 25.2% used tissues when coughing or sneezing.

Table 4: New norms practices among remote communities

New norms practices	n (%)
Wear face masks	96 (93.2)
Wash hands with soap/hand sanitizer	87 (84.5)
One-meter social distancing	76 (73.8)
Avoid crowded places	64 (62.1)
Avoid shaking hands	33 (32.0)
Use tissues when coughing and sneezing	26 (25.2)
Seek Modern treatment	> 99 (> 97.1)
Agreed on COVID-19 vaccination	103 (99.0)
Aware on MySejahtera apps	99 (95.2)
Registered with MySejahtera apps	96 (92.3)

Those who are experiencing symptoms of COVID-19 infection such as fever, cough and shortness of breath, the majority of the population (over 97.1%) referred to modern treatment (Allopathy) compared to before the pandemic. Study also showed that the majority, (99%) agreed to be given the COVID-19 vaccine, (95.2%) knew about the MySejahtera application and 92.3% had registered the application.

DISCUSSION

The study found that family institutions were affected during the COVID-19 pandemic. The Movement Control Order and Recovery Plan undertaken by the government to break the COVID19 chain caused changes in many aspects of society life. In this study, the income of the rural community; to decrease by 46.6%. Generally, COVID-19 affects the income of workers due to many countries implementing lockdown and closing of the economy in view to prevent the infection. A similar study in Columbia recorded that the income of their workers decreased by 50% compared to the time before the pandemic (Jose et al,2020).

Plus, a significant impact on the economy can be seen in rural regions because they are considered vulnerable groups who are exposed to high risk of illness, especially the elderly and the poor. The shortage of workers and less diversified economy might have forced them to continue to work during the pandemic. However, due to business closure and trade disruptions, the rural regions are affected with reduced productivity which causes the people to lose their source of income (Organisation for Economic Co-operation and Development, 2020).

On the other hand, the children's daily activities also changed during the pandemic. The COVID19 preventive and control measures, such as lockdown and home quarantine, have had a significant impact on children's lifestyles and routines. School closures, a lack of outdoor activities, group activities, lack of direct engagement with peers, changes in dietary habits, and sleeping habits are some of the most typical changes. Distance learning was one of the solutions implemented during this COVID-19 lockdown period to help kids continue their education online which kept the kids busy (Buthaina et al,2020). This study showed that 92.9% children stayed at home during MCO/ lockdown and due to changes in their lifestyles routine, 79.6% enthusiastic to go back to school to meet their peers and group activities. Online classes are not effective for them as only 55.3% of parents claimed that they had internet network disturbances.

The changes in daily activities during the pandemic has developed new norms that everyone realised the risk of COVID-19 which needs them to work together to break the virus chain transmission as the pandemic has not ended yet. School closures, lockdown, online learning and social distancing are some of the measures implemented by the communities in accordance to the approaches by WHO to avoid 3Cs; crowded places, close-contact settings and confined and enclosed spaces (WHO, 2020).

A good health practices and consistent adherence towards the SOP can protect ourselves and others against the COVID-19 infection.This study showed that the majority of the respondents displayed a high level of adherence to some components of health practices suggested by the WHO such as wearing face masks when outside, washing hands with soap and hand-sanitizer, and practicing physical distancing. A study by Azlan et al. (2020) also portrayed a similar result towards a high level of knowledge of COVID-19 among the respondents which recorded more than half of the respondents following the suggested protective measures. However, less than 30% of the respondents practise a good cough and sneezing etiquette by covering with elbow.

Overall knowledge is fair that leads to fair health practices among remote communities. However, the detailed knowledge is still poor. If this type of knowledge can be improved, the health practices will improve and the number of cases can be reduced in remote communities.

In view to improve the awareness and knowledge among remote communities on COVID-19 related issues, we recommend that our health team from multiple agencies collaborate on the knowledge dissemination. The private and government health agency can start an active outreach program in remote communities. This programme can also involve the non-governmental agency (NGO) and university students. To improve the mass media and social media platform, the Public Works Department and Ministry of Communication and Multimedia need to improve on the telecommunication network in the remote area. The finding from the study also will support development of a post pandemic recovery plan among remote communities in Malaysia.

The finding of the study is limited to only one state of Peninsular Malaysia. The study should extend to all Malaysia if we want to explore the impact of COVID-19 in remote communities in Malaysia including East Malaysia. Further studies are required to look at the overall impact of society on preparedness if a similar pandemic occurs in the future.

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Conflicts of Interest: The authors declare that they have no competing interests.

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Maznieda Mahjom
Pusat Penyelidikan Kesihatan Pekerjaan,
Institut Kesihatan Umum, Institut Kesihatan Negara, Kementerian Kesihatan Malaysia

Asan Ali Golam Hassan
Azman Hashim International Business School, Universiti Teknologi Malaysia

Rohaida Ismail
Institut Penyelidikan Perubatan, Institut Kesihatan Negara, Kementerian Kesihatan Malaysia

Nurul Fadzilah Deraman
Hospital Orang Asli, Gombak, Selangor, Kementerian Kesihatan Malaysia

Rosmanajihah Mat Lazim
Pusat Penyelidikan Kesihatan Pekerjaan,
Institut Kesihatan Umum, Institut Kesihatan Negara, Kementerian Kesihatan Malaysia.
Department of Biomedical Science, Kulliyyah of Allied Health Sciences,
International Islamic University Malaysia

Mizanurfakhri Ghazali
Pusat Penyelidikan Kesihatan Pekerjaan,
Institut Kesihatan Umum, Institut Kesihatan Negara, Kementerian Kesihatan Malaysia.
Institute of Medical and Molecular Biotechnology (IMMB),
Fakulti Perubatan, Universiti Teknologi MARA

Lim Kuang Kuay
Pusat Penyelidikan Kesihatan Pekerjaan,
Institut Kesihatan Umum, Institut Kesihatan Negara, Kementerian Kesihatan Malaysia

Noor Syaqilah Shawaluddin
Pusat Penyelidikan Kesihatan Pekerjaan,
Institut Kesihatan Umum, Institut Kesihatan Negara, Kementerian Kesihatan Malaysia

Tuan Mohd Amin Tuan Lah
Pusat Penyelidikan Kesihatan Pekerjaan,
Institut Kesihatan Umum, Institut Kesihatan Negara, Kementerian Kesihatan Malaysia

Ahmad Shuib Yahya
Azman Hashim International Business School, Universiti Teknologi Malaysia