

Malaysia's third COVID-19 wave – a paradigm shift required

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ABSTRACT

The first case of COVID-19 was reported in Malaysia on the 25 January 2020. By the 20 January 2021, the cumulative numbers reported confirmed cases of COVID-19 had reached 169,379 including 630 deaths. Malaysia has been hit by three waves of COVID-19. This article reports on the three waves, the current situation and some of the possible factors associated. It outlines the need to reassess the overall situation, re-strategize the approach in order to contain the spread. The first COVID-19 wave lasted from 25 January to 16 February 2020, the second wave occurred between the 27 February 2020 and the 30 June 2020. The current third wave began on 8th September 2020. The sudden surge of cases in the third wave was mainly due to the two largest contributors, namely the Benteng Lahad Datu cluster in Sabah state and Kedah's Tembok cluster. The current situation is critical. The daily confirmed cases of COVID-19 continue to soar. The challenges faced by healthcare workers and other front liners is tremendous. Non-communicable diseases such as cardiovascular diseases, diabetes and cancer are the leading cause of death in Malaysia. A paradigm shift in the approach is required to ensure the sustainability of the normal healthcare services provided by the government especially for the lower income groups. There is also a need to expedite the tabling of Tobacco Control Bill in coming parliament session which is long overdue. H.E. the King of Malaysia has called on all Malaysians to put aside political, racial and religious differences and show the spirit of loyalty, humanitarianism and steadfastness in fighting the COVID-19 pandemic.

GLOBAL SITUATION UPDATE

By the 20 January 2021, the cumulative number of reported confirmed cases of COVID-19 globally had reached 96,624,404 including 2,065,672 deaths and 69,273,006 had recovered since the start of the pandemic.¹ The pandemic has caused high and far reaching social, economic and political impact on nearly all the countries in the world. With all the advancement in technology and tools over the years, scientists all over the world, are still grappling with a lack of detailed knowledge of the molecular mechanisms that generate the endless flow of mutations and adaptations that is making SARS-CoV-2 difficult or impossible to contend with. In addition to reducing the determinant/risk factors related to the disease, the most effective method of preventing infectious diseases is vaccination. Vaccine for COVID-19 is being developed and marketed globally at unprecedented scale and speed.² There are different COVID-19 vaccines.

There are currently more than 50 COVID-19 vaccine candidates in trials. The World Health Organization (WHO) on 31 December 2020 listed the Comirnaty COVID-19 mRNA vaccine for emergency use, making the Pfizer/BioNTech vaccine the first to receive emergency validation from WHO since the outbreak.³ Comirnaty is a vaccine for preventing coronavirus disease 2019 (COVID-19) in people aged 16 years and older. Comirnaty contains a molecule called messenger RNA (mRNA) with instructions for producing a protein from SARS-CoV-2, the virus that causes COVID-19. However, there are COVID-19 vaccines for which certain national regulatory authorities have authorized for emergency use.

However, it is important to note that multiple COVID-19 variants are now circulating globally. In the United Kingdom (UK), a new variant called B.1.1.7 has emerged which has an unusually large number of mutations. This variant spreads more easily and quickly than other variants. Globally, scientists do not know how widely these new variants have spread, how the disease caused by these new variants differs from the disease caused by other variants that are currently circulating, how these variants affect the existing therapies and vaccines. Scientists are working to learn more about these variants and their implications.⁴ More than 32 other countries have detected the new COVID-19 variant first seen in the UK.⁵

COVID-19 STATUS IN MALAYSIA

The first case of COVID-19 in Malaysia was reported on the 25 January 2020, involving three China tourists who had entered Malaysia via Johor from Singapore on Jan 23.¹ Since then Malaysia was hit by three waves of COVID-19 before the end of 2020.² The first wave lasted from 25 January to 16 February 2020. The number of cases then rose to 22 by the 16 February 2020, representing a first wave of cases. The second wave started on the 27 February 2020 and lasted until the 30 June 2020. The biggest cluster was the Seri Petaling cluster, involving a religious gathering held at a mosque in Seri Petaling Kuala Lumpur. The handling of two waves were handled well.⁶⁻⁸ Rampal in May 2020 reported that the number of new cases of COVID-19 confirmed per day showed a decline at that point in time. Although this may have indicated that the peak was over. It did not indicate that COVID-19 outbreak has ended. In a propagated source outbreak, we may experience many peaks, the successive waves may involve more and more people, until the pool of susceptible people is exhausted. It is important to remind that the flattening the curve does not mean eradication of the disease. COVID-19 infection will be around for a while.⁷

The third wave

The third wave began on 8 September 2020.⁶ Malaysia is facing a much tougher task in curbing the COVID-19 pandemic in the third wave compared to the previous two waves. The COVID-19 pandemic is straining the health systems and the economy of the country. The Director General (DG) Health, Tan Sri Dato' Seri Dr Noor Hisham bin Abdullah, on 9 September 2020 stated that this sudden surge of cases was due to the two largest contributors, namely the Benteng LD cluster in Sabah and Kedah's Tembok cluster. The Institute of Medical Research (IMR) Malaysia had detected the D614G-type mutation in the virus samples. The D614G-type can be easily transmitted with a higher infection probability.⁹ By the 20 January 2021, the cumulative number of reported confirmed cases of COVID-19 had reached 169,379 including 630 deaths and 127,662 had recovered. The daily number of confirmed cases continue to soar. The situation has become critical and the daily confirmed cases of COVID-19 reaching 2,000 to more than 4,000. Healthcare workers including doctors, nurses and other front-liners have been found to be positive for COVID-19. Politicians including Ministers have also been found to be positive for COVID-19. The increase in the number of COVID-19 cases and overburdened healthcare is taking a toll on the front-liners. The challengers faced by healthcare workers and other front-liners was tremendous. The COVID-19 designated hospitals and low-risk treatment centres were nearing their limits.

The DG of Health, Ministry of Health (MoH), Malaysia stated on 6 January 2021 that the Malaysian health system has been pressured and are at a breaking point because cases are increasing every day with almost full utilisation of the hospitals and low risk isolation centres. He has suggested for the implementation of targeted movement control order (MCO).¹⁰ The MoH has issued several criteria to allow positive cases to be treated at home. These patients are instructed to remain home and be contactable at all times.

The Yang di-Pertuan Agong (King) has called on all Malaysians to put aside political, racial and religious differences and show the spirit of loyalty, humanitarianism and steadfastness in fighting the COVID-19 pandemic.¹¹

Possible factors associated with the third wave

The third wave can be attributed to multiple factors related to the agent, host and environment. The coronavirus disease 19 (COVID-19) is a highly transmissible and pathogenic viral infection caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Current evidence suggests that the main way the virus spreads is by respiratory droplets mainly when an infected person is in close contact with another person. The rapid human to human transfer has been noted widely.

Politics and 16th Sabah election

The Prime Minister of Malaysia, Tan Sri Dato' Haji Muhyiddin bin Haji Mohd Yassin, on the 18 November 2020 admitted that the Sabah state election in September was the cause of the latest wave of COVID-19 infections in the country. The number of cumulative cases in the state was 808

on nomination day on the 12 September 2020, increasing by 91.5% to 1,547 cases on polling day on the 26 September 2020. Four weeks later on the 24 October 2020, Sabah recorded 11,285 cumulative cases, becoming the first state in the country to record more than 10,000 cases.¹² By the 20 January 2021, 45,008 confirmed cases (out of which 44,602 had recovered) and 305 deaths have been reported.¹³ It is to be noted that thousands of political campaigners along with Cabinet Ministers that returned to their home states after the state polls, caused a spike in coronavirus cases throughout Malaysia. A possible factor is that politicians were more interested in the polls rather than following standard operating procedures (SOPs) set by the Government. It is not possible at this stage to verify whether the politicians spread the disease from Sabah to Peninsular Malaysia or vice versa as no COVID-19 test was carried out before they went to Sabah. The Government of Malaysia and the MoH in particular has been constantly reminding the people regarding maintaining physical distancing, wearing facemask and regular hand washing. If this was followed strictly by the politicians, the third wave would not have been so serious. Another possible factor for the increase in confirmed cases is the rate of COVID-19 tests performed per 1,000 population in Malaysia and Sabah in particular before and after Sabah cluster.

The Tembok cluster from the Alor Setar prison in Kedah also contributed significantly to the third COVID-19 wave. This cluster was detected on the September 2020 following the death of a 46-year-old man who had worked in the prison. A COVID-19 test after his death found the man to have been infected with the virus. Subsequent tests discovered the infection within the cluster has spread among prison inmates. This cluster became one of the biggest and most active cluster in the country.

Other Factors

COVID-19 testing rate

Rampal et al, 2020 had reported that the rate of COVID-19 tests performed per 100 population in Malaysia was very much lower than in Singapore. The testing rate has subsequently been increased during the last few months. The increase in the COVID-19 testing rate and coverage of the population could partially explain the increase in confirmed cases. They may have been there and spreading to others but not tested.

Attitude of the politicians and the population

The Government has been constantly providing risk communication on daily basis. While the healthcare workers and the other front-liners were taking risks because of COVID-19, what the public read in the papers daily, is efforts being made by politicians to destabilise the country and seek a change in the Government or clamour for general elections. All Malaysians need to put aside political, racial and religious differences and fight the COVID-19 pandemic. Pockets of the population have still not grappled with the seriousness of the current pandemic. This could be due to fact that their livelihood is affected badly, lack of knowledge,

internalisation of the knowledge leading to 'I won't be affected' attitude or due to the low mortality rate of SARS-CoV-2.

Third COVID-19 wave – a paradigm shift required **Paradigm shift required**

As the country enters into this critical stage of the pandemic, we need to reassess the overall situation, re-strategise and move ahead. The questions we need to ask ourselves are: are we not putting too much resources such as money, materials, staff, and other assets in one disease that has low mortality? Are the other normal health care services for managing other diseases that cause more mortality being affected? Are we going to follow other countries where their health care structure is at the brink of collapse? We must sit back and realise that we are faced with the double burden of disease. Non-communicable diseases such as cardiovascular diseases, diabetes and cancer are the leading cause of death in Malaysia. Are they not being neglected and are we going to neglect our population especially those in the lower income group from these services provided by the Government?

Management of the outbreak

The policy of Malaysia first need to be emphasised. All Malaysians should put aside political, racial and religious differences and show unity and steadfastness in fighting the COVID-19 pandemic. District Action Committee that already exist should be activated and become responsible for the containment of the outbreak in their own districts. It should be chaired by the District Officer and the Secretary should be the Medical Officer of Health. All heads of Government departments at the district must assist the MOH. All their staff should be roped in to assist the District Health Office to manage any COVID-19 outbreak. The Members of Parliaments and State assembly representatives members should play active part in ensuring the people understand their roles and abide by the SOPs set by the Government. The village and regional heads (*Ketua kampung* and *penghulu*) must play an active role. The District Officer and the Medical Officer of Health must be represented at the State Epidemic Committees. Meetings can be through an online platform in place of face-to-face ones and they should bring the most relevant people into the meeting. This will require broad and well-coordinated collaborative efforts to flatten the curve. In all the cities and towns similar committees to assist the health staff. There is no one-size-fits-all approach, hence all districts should be allowed to conduct their own level of preparedness, alert and response and reinforce community-led activities. The outbreak investigation and management teams need to be improved and better coordinated. Collaborative efforts and communication between District Health Office and hospitals need to be further enhanced and sustained.

The testing procedure may be speeded up. The time a patient's blood is sent for COVID-19 test to the time it is processed, and if diagnosed as positive; to the time the case is notified to the health authorities or authorities concerned with investigation; to the time action is taken need to be reduced. If the processing time for the test fails to achieve fast enough turnaround times (ideally, 1 to 2 days) to permit

effective contact-tracing efforts it will delay the action and contribute to the spread of the virus. Each of these steps are important and need to be monitored by the Medical Officer of Health.

Risk communication appears to be good, as the risk communication came from the top and have not caused panic among the public. However, it does not seem to have the impact it is expected to have. The population need to be constantly reminded on maintaining physical distancing, wear facemask, especially when distancing cannot be maintained, keeping rooms well ventilated, avoiding crowds and close contact, regularly washing their hands. A quick survey needs to be carried out to evaluate the impact of the risk communication and how to improve it.

Mobilisation of the communities, Non-governmental organisations (NGOs) and the private sector

We need to further enhance the role of the general practitioners (GPs) in COVID-19 pandemic. They should be included to perform daily assessment on the health status of those that have been confined to home quarantine. COVID-19 patients who are asymptomatic or having mild symptoms (Clinical stage 1 and 2) with no comorbidity could be managed at home. The GPs could be included in the monitoring and assessment of this group of patients. The Government should formulate a payment mechanism to compensate the GPs for their contribution. Linkage between the public health sector and GPs as partners in prevention need to be enhanced. The standard of care among patients with non-communicable diseases should be maintained during this pandemic.

Meetings and Consultations with Experts in Public Health

There are many public health experts who have sound practical experience in outbreak management and had served or are serving the Government. A committee/faculty can be formed to guide the Ministry of Health in flattening the curve.

End greed and corruption

We have been constantly reminded in the newspapers of the extent of corruption in the country. We as Malaysians, need to end it. And we should all assist the nation out of this pandemic. We need to empathise not sympathise with those who have lost their loved ones, lost their jobs or businesses, lost their homes due to recent floods.

Smoking and COVID-19

The current epidemiological finding suggests that active smoking is associated with an increased severity of disease and death in hospitalised COVID-19 patients. Smoking can upregulate the angiotensin-converting enzyme-2 (ACE-2) receptor utilized by SARS-CoV-2 to enter the host cell and activate a 'cytokine storm' which can lead to worsen outcomes in COVID-19 patients. This receptor can also act as a potential therapeutic target for COVID-19 and other infectious diseases.¹⁴ There is a need to expedite the tabling of Tobacco Control Bill in coming parliament session which is long overdue. Rampal, 2020⁷ has highlighted tobacco control measures that need to be taken during this pandemic without any more delay.

CONCLUSION

The handling of this pandemic demands fast and difficult decisions within the health sector and beyond, i.e., leadership at the highest political level, and a 'whole of government' and 'whole of the society' approaches. It also requires the cooperation from all communities and private sectors. The whole Malaysian Government, Members of Parliament, community leaders and the people need to continue to work together to ensure the end of the COVID-19 crisis in Malaysia.⁷ Volunteers should be trained to help in these efforts. Increase the capabilities of our public health service. Back-to-basics public health management should be our strategy. While we work towards rolling out a safe and effective vaccine, we must continue the essential public health actions to suppress transmission and reduce mortality. We should have the humility to listen, to learn, to change, to innovate and to grow.

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