SEMINAR : 1ST NATIONAL EPIDEMIOLOGY CONFERENCE 2021

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SUMMARY OF IMPORTANT KEY POINTS:

1. Between 16 March 2020 and 31 May 2021, Malaysia has reported 571,901 cases and 2,796 deaths. Malaysia's average 7-day incidence rate was 26.6 reported infections per 100,000 population (95% CI: 17.8, 38.1). The average test positive ratio and testing rate were 4.3% (95% CI: 1.6, 10.2) and 0.8 tests per 1,000 population (95% CI: <0.1, 3.7), respectively. The case fatality rates (CFR) was 0.6% (95% CI: <0.1, 3.7). Among the 2,796 cases who died, 87.3% were ≥ 50 years.
2. The public health response was successful in the suppression of COVID-19 transmission or the first half of 2020. However, a state election and outbreaks in institutionalised populations have been the catalyst for more significant community propagation. This rising community transmission has continued in 2021, leading to increased incidence and strained healthcare systems. Calibrating NPI based on epidemiological indicators remain critical for us to live with the virus.
3. Continuous tracking and interpretation of critical epidemiological indicators of the disease such as the incidence, mortality rate, case fatality rate, Rt and testing will assist in assessing disease control locally whilst facilitating benchmarking efforts against other countries.
4. **Psychological distress, fear and coping among Malaysians during the COVID-19 pandemic:** Vulnerable groups of individuals such as patients and those impacted financially during COVID-19 should be supported for their mental wellbeing. People whose financial situation was impacted due to COVID-19 (AOR 2.16, 95% CIs 1.54–3.03), people who drank alcohol in the last four weeks (3.43, 1.45–8.10), people who were a patient (2.02, 1.39–2.93), and had higher levels of fear of COVID-19 (2.55, 1.70–3.80) were more likely to have higher levels of psychological distress. Participants who self-isolated due to exposure to COVID-19 (3.12, 1.04–9.32) and who had moderate to very high levels of psychological distress (2.56, 1.71–3.83) had higher levels of fear. Participants who provided care to a family member/patient with a suspected case of COVID-19 were more likely to be moderately to highly resilient compared to those who did not.
5. The population density of 143 districts in Malaysia, as per data from Malaysia’s 2010 population census, was plotted against cumulative COVID-19 cases and infection rates of COVID-19 cases, which were obtained from Malaysia’s Ministry of Health between 19 January 2020 and 31 December 2020. Based on the observations, districts that have high population densities and are highly inter-connected with neighbouring districts, whether geographically, socio-economically, or infrastructurally, tend to experience spikes in COVID-19 cases within weeks of each other. Using a parametric approach of the Pearson correlation, population density was found to have a moderately strong relationship to cumulative COVID-19 cases (p-value of 0.000 and R2 of 0.415) and a weak relationship to COVID-19 infection rates (p-value of 0.005 and R2 of 0.047).
6. In Malaysia and other countries, urban districts were the sources of initial COVID-19 outbreaks. The spread of the disease to neighbouring districts is wider in areas that are intensely inter-connected economically and infrastructurally, as opposed to isolated places with poor connections. However, as humans are social creatures, isolation is costly and unwieldy as a permanent measure. The severity of an outbreak is also dependent on factors, such as swift containment measures, the demographics of the population, access to healthcare, and adherence to precautionary measures. As a passive strategy, the sustainability of existing city and urban planning policies may warrant revisiting to make cities more resilient against future contagions.
7. **Preventive measures**

The Malaysian government review the implemented measures based on the current country’s pandemic situation from time to time. Every state is under different phases in 4-Phase National Recovery Plan (NRP), based on the state’s COVID-19 situation.

Phase 1 – MCO 1.0 from 18th March 2020 till 3rd May 2020

Phase 2 - Conditional MCO from 4th May 2020 till 9th June 2020

Phase 3 - Recovery MCO from 10th June till 31st December 2020

Phase 4 – CMCO in the areas with high COVID-19 cases from 14th December 2020 till 31st December 2020

Phase 5 – Recovery MCO from 1st January 2021 till 31st March 2021

Phase 6 – MCO 2.0 from 13th January 2021 till 4th March 2021

Phase 7 – MCO 3.0 from 1st June 2021 to 28th June 2021

Current Measure – Phase Three (Kelantan and Sarawak); Phase Four (Perlis, Kedah, Penang, Perak, Sabah, Pahang, Terengganu, Selangor, Melaka, Negeri Sembilan, Johor, Federal Territory of Kuala Lumpur, Federal Territory of Putrajaya and Federal Territory of Labuan). Several areas or localities with high cases are under the Enhanced MCO for a certain period.

\*The transition from one phase to the next phase will be based on three threshold indicators: the state of COVID-19 transmission in the community based on the number of daily cases of infection; the capacity of the public health system based on the rate of ICU wards occupancy; and the percentage of the population covered with two doses of vaccine injection.

1. SOPs For Phase Three under NRP (Updated on 7th November 2021):

* Cross-districts within the same state and cross-state (based on district boundaries set by the State Government) are allowed for fully vaccinated individuals by showing vaccination card/ digital certificate and identity card/ passport as a proof.
* Not fully vaccinated individuals are allowed to travel in 3 passengers per car only to buy necessities, getting health and medical treatment, vaccination, carrying out official Government affairs, safety or emergency.
* Fully vaccinated individuals are allowed:
  + to perform prayer activities in houses of worships;
  + to perform all sports and recreational activities individually;
  + to dine-in at restaurants;
* Seminars, workshops, courses, trainings, talks, meetings, incentives, conventions and exhibitions are allowed for fully vaccinated individuals, and only involves 50% capacity of the premises.
* For the manufacturing, construction, quarrying and mining sector that achieves complete vaccination rates for employees allowed to operate as follows:
  + Less than 80%: Allowed to operate with a capacity of 80% of employees.
  + 80% to 100%: Allowed to operate with 100% employee capacity.
* Agriculture, fisheries, livestock, farming, commodities and logging, as well as its supply chain are allowed to operate. In addition, all manufacturing, construction and its chains are allowed to operate.
* Businesses and services such as restaurants are allowed to operate from 6 a.m. to 12 a.m. while health services centres such as hospital and clinic are allowed to operate 24 hours.
* All the schools and educational institutions are allowed to operate face to face with 50% rotation of class capacity.
* Social events such as ceremonies, weddings, receptions, celebrations, reunions, retreats and other social gatherings are prohibited.
* Any tourism activities that involving border-crossing are prohibited (subject to relevant authorities’ approval).

1. SOPs For Phase Four under NRP (Updated on 7th November 2021):

* Cross-state is allowed for fully vaccinated individuals by showing vaccination card/ digital certificate and identity card/ passport as a proof.
* Fully vaccinated individuals are allowed:
  + to perform prayer activities in houses of worships;
  + to perform all sports and recreational activities individually;
  + to dine-in at restaurants; and
  + Seminars, workshops, courses, training, and talks are allowed with 50% space capacity and physical distance. Individuals that are not vaccinated need to undergo a per-event test using self-test kit before attending the event.
* For the manufacturing, construction, quarrying and mining sector that achieves complete vaccination rates for employees allowed to operate as follows:
  + Less than 80%: Allowed to operate with a capacity of 80% of employees.
  + 80% to 100%: Allowed to operate with 100% employee capacity
* All the business activities such as tourism, agriculture, fisheries, livestock, farming, commodities and logging, as well as its supply chain are allowed to operate.
* All the schools, educational institutions and private educational institutions are reopened with the gradual admission of students in 3 stages.
* Social events such as ceremonies, weddings, receptions, celebrations, reunions, retreats and other social gatherings are allowed with 50% space capacity and physical distancing.
* Sectors and activities that are not allowed:
  + entertainment activities (nightclubs or pubs);
  + cross-border tourism activities (subject to relevant authorities’ approval).

1. SOP For Enhanced Movement Control Order (EMCO):

* EMCO areas will be closed and controlled by the police.
* All residents are NOT ALLOWED TO LEAVE their residences.
* Only one (1) representative from each home is allowed to buy necessities at grocery stores within the EMCO area that is allowed by the police.
* Movement in/ in-and-out of the EMCO area to obtain healthcare services, medication, vaccination and emergency is allowed after getting permission from the police.
* Economic and industrial activities that are not included as essential services such as tourism, childcare, social events, cultural activities, education, prayer activities, sports and recreational activities are prohibited.

1. **Penalties**

According to the Emergency (Prevention and Control of Infectious Diseases) (Amendment) Ordinance 2021, effective from 11th March 2021, any individuals who violate SOPs stipulated for the prevention and control of the COVID-19 pandemic can be fined up to RM10,000. Companies or corporations that violate the SOPs can be fined up to RM50,000.

1. **Foreign Travel Restrictions**

International travel is still not permitted as Malaysian borders remain closed. All foreign travellers to Malaysia are subject to relevant authorities’ approval.