

## Mengketil Cluster; Unprecedented Large COVID-19 Community Outbreak in Kelantan

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### **ABSTRACT:**

**Introduction :** During the second wave of COVID-19 pandemic in Malaysia, Mengketil Cluster had raised much concern from stakeholders and public due to its high infectivity rate, involvement of several workplace including healthcare workers and rapidly spread across the districts in Kelantan state.

**Objective :** To report a community COVID-19 cluster in Kelantan, and to share our experiences with regard of the outbreak management.

**Methods :** A cross sectional study was conducted. Data collection was done by extracting information from COVID-19 surveillance data in Kelantan from 1st November until 30th December 2020. Descriptive analysis was done using Microsoft Excel.

**Results :** The total number of cases in Mengketil cluster was 88 cases, out of 2,024 people being screened, giving the positivity rate of 4.3%. Half of the cases were symptomatic. All 88 cases were identified and notified within 27 days. After the outbreak was declared & control measures was initiated, the number of cases significantly declined. Among all cases in this cluster, 9.0% of them were healthcare workers. Out of these, 50.0% were being exposed & most likely acquired the infection at their workplace. Only 6.8% of cases were admitted to Intensive Care Unit, and only 2 deaths were reported, corresponding to Case fatality Rate of 2.3%. In term of outbreak control measures, the case investigation and contact tracing were done within 24 hours after notification received. The sampling capacity at district level was enhanced, with sampling capacity of 100 samples per day. All the cases were immediately admitted to be isolated at hospital once being confirmed as positive COVID-19. Following detection of cases among healthcare workers, massive sampling among all staffs in Machang District CPRC was also commenced on 17th November 2022. The state CPRC also immediately mobilized Relief team to help District CPRC, in which 24 staffs including public health physicians were mobilized there for 2 weeks, until 30th November 2020. To curb the transmission in the community and facilitate outbreak control activities, CMCO in whole Kelantan was enforced starting from 21st November until 6th December 2020. The CMCO was continued in 4 districts with highest of number of cases including Machang, until 11th December 2020.

**Discussion :** Eventhough the primary source of infection in the cluster could not be identified, we managed to curb the transmission by doing series of surveillance or targeted community sampling, based on the movement history of the confirmed cases. Interagency collaboration under the District Disaster Operational Control Centre also contributed a lot in coordinating outbreak control activities, including community sampling, community health education and promotion, enforcement and disinfection at public places. The sudden increase in number of cases in this cluster might be contributed by population mobility, social interaction and low adherence to COVID-19 Strict Operating Procedures. Nonetheless, the increase would also reflect an effective case investigation & contact tracing done during that crucial period.

**Conclusion :** Mengketil Cluster was the first unprecedented large community COVID-19 outbreak in Kelantan. The transmission however, was successfully contained after effective outbreak control measures taken.

### **KEYWORDS:**