

Managing dengue outbreak in Sepang District, Selangor: What we have done after COVID-19

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ABSTRACT

Introduction: Dengue, a vector-borne viral illness transmitted by *Aedes* mosquitoes is always a major health concern in Malaysia with its highest concentration of cases in Selangor due to high and dense population. In 2022, after the COVID-19 restriction movement era, dengue cases and outbreak started to rise back. In 2023, Sepang District Health Office have applied several strategies to overcome the incoming trend. This paper aims to elaborate further the strategies that have been implemented in Sepang district. **Materials and Method:** Using the e-dengue system, the confirmed dengue cases registered in Sepang district between 1st January 2022 and 31st December 2023 were included in the study while the outbreaks data were derived from Sistem Pengurusan Wabak Denggi (SPWD) supported by Sepang's Dengue Operational Room daily report. The minutes of Sepang Epidemiology Review meeting, Sepang District Dengue Action meeting and other dengue control measures documents were reviewed. **Results:** In 2022, 1,541 dengue cases were registered with 67 outbreaks which 54 of them were Wabak Terkawal (WT), 0 Wabak Tak Terkawal (WTK) and 1 Hot Spot (HS). Despite the escalating number to 2,341 of registered cases in 2023, the number of outbreaks were much reduced to 15 outbreaks (14 WT and 1 HS). From the early 2023, emphasize were made on dengue sporadic cases by ensuring the control measures (Pemusnahan Tempat Pembiakan (PTP), Semburan Ruang Termal (SRT), larviciding with 200-meter radius) for these cases were done within 3 days once the cases registered. This can be done by analysing the cases per locality, mobilizing staff from other units, enhance collaboration with agencies and local council as well as empowering the communities. Training and encouragement to the staff also being done regularly. **Conclusion:** The vector control activities were efficient when all activities are successfully implemented on the right time and place with adequate logistics while the effectiveness depend on successful elimination of the infective larval and adult stage vectors. However, enough resources are fundamental in enabling these strategies to work.