



<sup>1</sup>Suriya K.Siti Umairah M, Bala Murali S, Lily R, Noor Elliza

Johor State Health Department Public Health Division

### Background

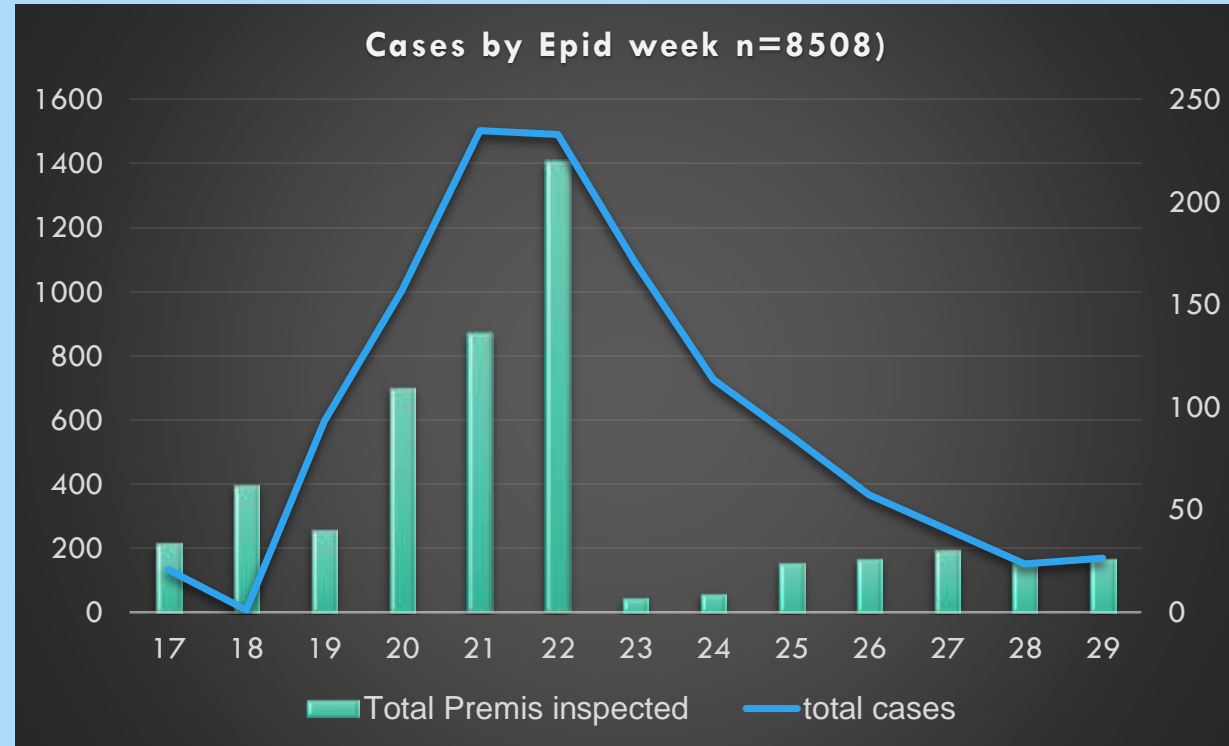
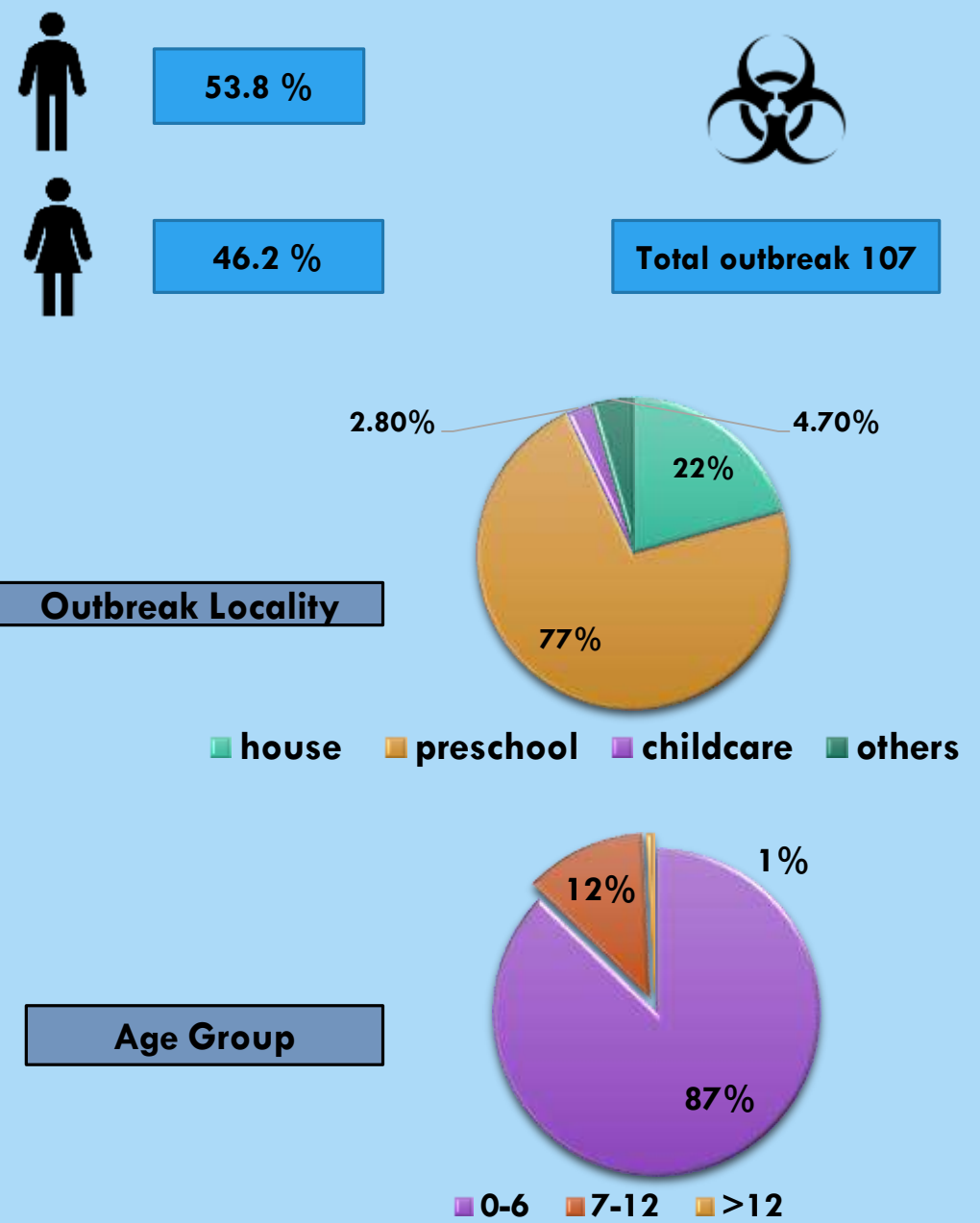
Hand Foot-and-Mouth disease (HFMD) continues to be the most prevalent among young children of all febrile illnesses and rash syndromes. Although this viral infection is highly contagious, it is benign and self-limiting. Severe cases have a low occurrence, and fatalities are uncommon. In the mid-1900s, HFMD arose in the Asia-Pacific region as a major public health threat. All Malaysian states have recently reported an increase in HFMD cases, with Johor, the most populous and most diverse state, being the hardest hit. Basic educational expertise and skills, are essential components of health. In addition, health enforcement plays a crucial role in assisting the implementation and enforcement of relevant laws and regulations to combat this disease. The objective of the study to describe the prevalence and enforcement activity of HFMD cases in Johor.

### Methods

HFMD is a notifiable disease in Malaysia. A cross sectional investigation was carried out using secondary data gathered from Disease Infectious Control unit and Inspectorate and Enforcement unit. Data analyses was performed using Microsoft Excel and SPSS.

### Results

Activity	Type Of Premises	Total	Mean	SSD
Disinfection In Premises	House	6069	1924	2802.2
	Pre School	1163		
	Childcare	43		
	Others	421		
Premises Closed	Preschool	107	42	56.4
	Childcare	14		
	School	5		
Health Promotion	Meetings	420	2686	4587.2
	Townhall	721		
	Individual Advice	9555		
	Others	50		



### Discussion

A total of 8508 cases and 107 outbreaks was reported from January to July 2022. The highest outbreak contribution originated from childcare centre 72 (77%), personal home 20 (22%), Preschool 10 (4.7%) and others 5 (2.8%). Bivariate correlation test was conducted to determine three continuous variables. The results show a significant relationship between enforcement activity, health promotion, and cases notified in Johor (P value <0.01, correlation coefficient 1.00).

### Conclusion

National strategies on health education and health enforcement of individual and public health behaviours, jointly by ministries of Health, Education and Home affairs in collaboration with relevant professional bodies, such as infection control societies, can provide framework that is appropriate to tackle the increasing in cases and muster for future outbreaks. Education campaigns directed at reducing the spread of disease, particularly in high-risk age groups, include disseminating information on good personal hygiene habits should be continuously conducted even though if the case has reduced.

### References

- Aswathraj, S., Arunkumar, G., Alidjinou, E. K., & Hober, D. (2016). Hand, foot and mouth disease (HFMD): emerging epidemiology and the need for a vaccine strategy. In *Medical Microbiology and Immunology* (Vol. 205, Issue 5, pp. 397–407). Springer Verlag. <https://doi.org/10.1007/s00430-016-0465-y>
- Jiang, L., Jiang, H., Tian, X., Xia, X., & Huang, T. (2021). Epidemiological characteristics of hand, foot, and mouth disease in Yunnan Province, China, 2008–2019. *BMC Infectious Diseases*, 21(1). <https://doi.org/10.1186/s12879-021-06462-4>
- Fong, S. Y., Mori, D., Rundi, C., Yap, J. F., Jikal, M., Latip, A. L. B. A., Johnny, V., & Ahmed, K. (2021). A five-year retrospective study on the epidemiology of hand, foot and mouth disease in Sabah, Malaysia. *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-021-96083-3>
- Nurul Azmawati Mohamed, Habibah Faroque, Mohd Dzulkhairi Mohd Rani, Nur Syazana Umar, Tengku Zetty Maztura Tengku Jamaluddin, Ilina Isahak, & Siti Mariah Mahmud. (2020). Hand Foot and Mouth Disease (HFMD) Educational Workshop for Preschool Teachers: An Interventional Study. *International Journal of Research in Pharmaceutical Sciences*, 11(SPL4), 1551–1558. <https://doi.org/10.26452/ijrps.v11spl4.4337>