Awareness, acceptance and willingness to pay for dengue vaccine among elderly adults in a semi-urban town in Malaysia

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ABSTRACT

Introduction: Dengue remains a major public health concern in Malaysia. In June 2024, the Ministry of Health Malaysia introduced Qdenga®, the first dengue vaccine publicly available in the country. Administered in two doses three months apart, the vaccine is approved for individuals aged four years and above and is currently available through selected private medical practitioners. Given the persistent burden of dengue and the importance of vaccination in high-risk populations, this study aimed to determine the levels of awareness, acceptance, and willingness to pay (WTP) for the dengue vaccine among elderly adults in a semi-urban Malaysian town. **Materials and Methods:** A cross-sectional study was conducted in among adults residing in a town in southern state of Peninsular Malaysia, in April 2025. The questionnaire consisted of seven sections: demographic profile, knowledge on dengue fever, attitude towards vaccination, knowledge on dengue vaccine, dengue prevention practice, dengue vaccine acceptance and dengue vaccine WTP. All the scales' scores were converted to 100%, for ease of comparison, except for the knowledge of dengue vaccine, which had a maximum score of 5. **Results:** 380 adults participated in the survey. Among those, 31.3% were young adults (aged 18 to 39), 37.4% were middle-aged (aged 40 to 59) and 31.3% were elderly (aged 60 or above). The elder respondents demonstrated moderate level of knowledge on dengue fever (mean, SD = 58.5, 21.4), good level of attitude towards vaccine (median, IQR = 80.0, 26.7), very poor awareness on dengue vaccine (Median, IQR = 0.0, 3.0), good level of acceptance towards dengue vaccine (Median, IQR = 91.4, 20.0) and good level on WTP (72.3%). Among those who were willing to pay, 55.8% of the elderly were willing to pay less than MYR100, 27.9% for MYR100 to less than MYR300, and 16.3% were willing to pay MYR300 or more. Except for knowledge on dengue fever, there was no significant difference among the elderly and the two other younger age groups, for all the variables studied ($p \geq 0.05$). **Conclusion:** Despite very low awareness of the dengue vaccine, elderly adults in this semi-urban Malaysian town showed high acceptance when informed, and most were willing to pay for vaccination. Strengthening dengue vaccine awareness for all adults, alongside age-sensitive outreach to elderly populations, may help ensure equitable access and uptake in semi-urban communities.

Keywords: Dengue vaccine, elderly, older adults, Malaysia, willingness to pay