EP016

MINISTRY OF HEALTH MALAYSIA
INSTITUTE FOR HEALTH BEHAVIOURAL RESEARCH

ATTITUDINAL, BEHAVIORAL, AND TRUST DISPARITIES: A COMPARISON BETWEEN VACCINE-HESITANT AND NON-HESITANT MOTHERS IN MALAYSIA





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INTRODUCTION

- Vaccine hesitancy threatens immunization success globally.[1]
- Malaysia: high coverage but re-emerging outbreaks (measles, diphtheria).[2]
- Hesitancy is not refusal → it is indecision.[3]

Key message:
Understanding why mothers hesitate is more important than just measuring prevalence.

OBJECTIVE

To compare attitudinal, behavioral, and trust-related differences between vaccine-hesitant and non-hesitant mothers in Malaysia.

METHODOLOGY

- Design: nationally representative cross-sectional household survey (NHMS 2022)
- Sampling frame: enumeration block (EBs)
- Sampling method: two-stage stratified cluster sampling method (1st: EBs, 2nd: Living quarters)
- Study population: mothers (15 to 49 years) with children aged < 2 years
- The final sample sizes for mothers with children aged < 2 years: 5930 mothers (single proportion)
- Tool: self-administered, validated 15-items Parent Attitudes about Childhood Vaccines (PACV).[4]
- Data collection: August to October 2022
- Outcome: Responses were scored as 2 (hesitant), 1 (unsure), and 0 (non-hesitant), summed and converted to a 0–100 scale. Mothers with scores ≥50 were classified as vaccine-hesitant and vice versa.[4]
- Analysis:
  - Descriptive statistics, differences between groups were analyzed using the Rao-Scott chi-square test, accounting for complex sampling ($p<0.05$).
- Ethical approval was obtained from the Medical and Research Ethics Committee (MREC), Ministry of Health, Malaysia (NMRR-20-959-53329). Parental consents were obtained.

Take Home Messages

"Low prevalence does not mean low risk—small pockets of hesitancy can drive outbreaks."

"Vaccine hesitancy is not just about knowledge—it is about trust."



RESULTS

The household survey response rate was 74.9%. The prevalence of vaccine hesitancy was 4.6% (95% CI: 3.8, 5.5). The vaccine hesitancy gap between vaccine-hesitant and non-hesitant mothers in Malaysia is shown in **Figure 1**.

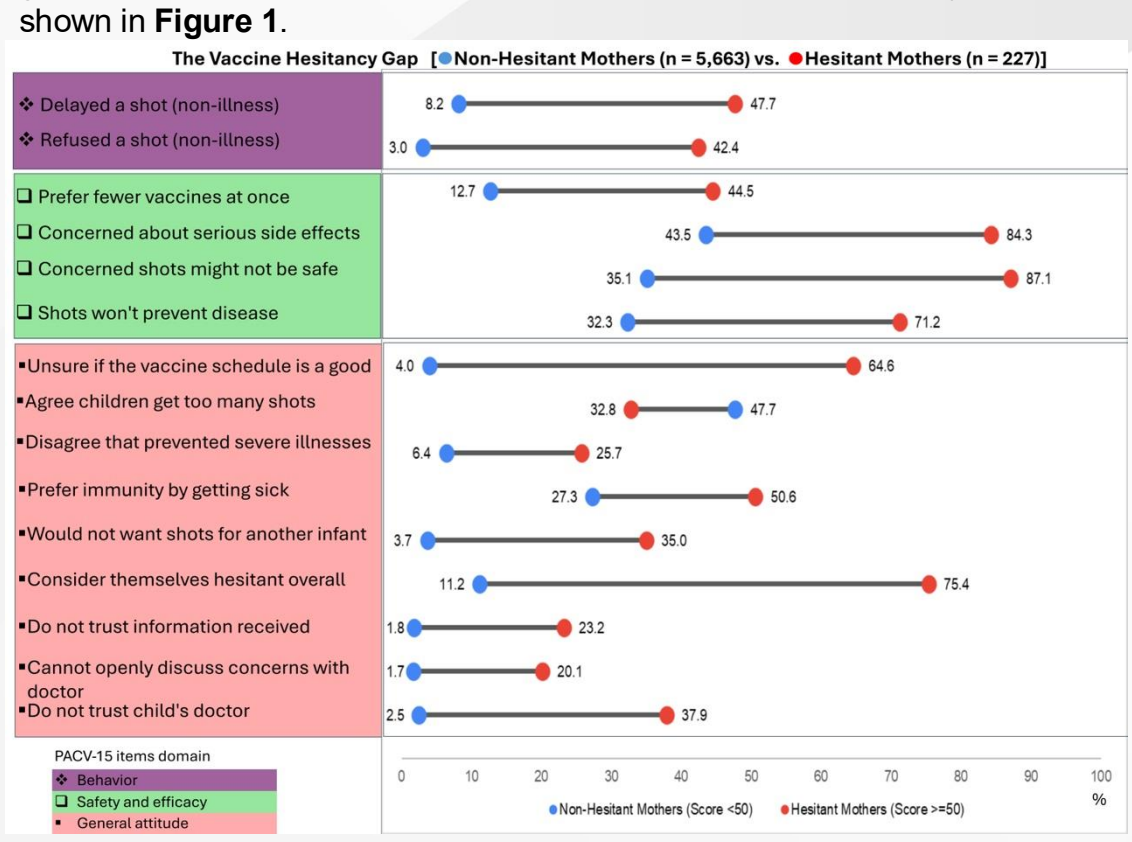


Figure 1: The vaccine hesitancy gap in Malaysia: Disparities in behaviors, safety and attitudes (N=5930).

DISCUSSION AND CONCLUSION

Low prevalence (4.6%), but still epidemiologically important (previous studies: 11.6–14.5%) [4,5]

Small hesitant groups can trigger outbreaks (measles, diphtheria, pertussis, polio)[2]

Key gap: TRUST
→ Hesitant mothers trust healthcare providers less[3]
→ Less open to discuss vaccination

Hesitancy is multidimensional [3,6]
→ Cognitive (beliefs)
→ Emotional (fear)
→ Relational (trust)



Not fixed behavior
→ Hesitant mothers can be influenced by **trusted information**[6]

Implication
→ Move beyond passive messaging
→ Focus on **trust-building engagement**

ACKNOWLEDGEMENT

The authors would like to express their gratitude to the dedicated data collectors and research team members of the National Health and Morbidity Survey (NHMS): Maternal and Child Health 2022. Besides that, the authors would like to thank the Director General of the Ministry of Health Malaysia for his approval of the article's presentation.

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