

## Documents

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**Influence of maternal risk perception and vaccination knowledge on childhood vaccination intentions**  
(2025) *BMC public health*, 25 (1), p. 671.

**DOI:** 10.1186/s12889-025-21815-3

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**Abstract**

**BACKGROUND:** Vaccine hesitancy remains a significant barrier to effective public health strategies aimed at overcoming the resurgence of vaccine-preventable diseases globally. This study aims to explore the roles of maternal knowledge, risk perception, health self-efficacy, and demographic characteristics in influencing the intention of antenatal mothers to accept childhood vaccination for their newborns. **METHODS:** A descriptive and analytic cross sectional study design was conducted from March to September 2021, among antenatal mothers attending routine antenatal follow-ups at 17 public health clinics in Selangor, Malaysia. A validated and reliable self administered questionnaire was used to collect data on demographic characteristics, knowledge, risk perceptions, health self-efficacy, and vaccination intentions among antenatal mothers. Multiple linear regression analysis was used to identify determinants of vaccination intention among antenatal mothers. **RESULTS:** The study included 796 antenatal mothers, predominantly Malay mothers (87.5%). The respondents presented a high mean vaccination intention score of  $26.02 \pm 2.77$ . Significant determinants of vaccination intention among antenatal mothers included the number of children ( $\beta = 0.156$ , 95% CI [0.013, 0.299],  $p = 0.032$ ), knowledge score ( $\beta = 0.397$ , 95% CI [0.288, 0.506],  $p < 0.001$ ), and risk perception score ( $\beta = 0.047$ , 95% CI [0.036, 0.058],  $p < 0.001$ ). However, health self-efficacy was not significantly associated with vaccination intention. **CONCLUSION:** Psychological and cognitive factors play important roles in influencing maternal vaccination intention. Intervention that aimed at increasing level of maternal knowledge and addressing maternal risk perception, focusing on less experienced mothers would be an effective strategies to improve maternal vaccination intention. © 2025. The Author(s).

**Author Keywords**

Immunization; Knowledge; Parent; Perception; Self-efficacy; Vaccine hesitancy

**Index Keywords**

adult, attitude to health, behavior, cross-sectional study, female, human, Malaysia, mother, newborn, pregnancy, psychology, questionnaire, self concept, vaccination, vaccine hesitancy, young adult; Adult, Cross-Sectional Studies, Female, Health Knowledge, Attitudes, Practice, Humans, Infant, Newborn, Intention, Malaysia, Mothers, Pregnancy, Self Efficacy, Surveys and Questionnaires, Vaccination, Vaccination Hesitancy, Young Adult

**ISSN:** 14712458

**PubMed ID:** 39966911

**Language of Original Document:** English

**Abbreviated Source Title:** BMC Public Health

2-s2.0-85219143841

**Document Type:** Article

**Publication Stage:** Final

**Source:** Scopus