

Parental affordability and willingness to pay for universal masking amongst government school students in Kuching, Sarawak

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ABSTRACT

Introduction: Financial affordability to purchase commodities for disease prevention is an important public health issue. The objective of this paper is to report the financial affordability and willingness to pay amongst the parents of government students for their children's non-medical mask use, using a newly created Household Face Mask Affordability Questionnaire (MAQ).

Materials and Methods: This was a cross-sectional study involving the parents or guardians of 50.6% (44/87) government schools in the whole of Kuching Division of Sarawak. The sampling method was multistage cluster sampling, whereby stage one involved random sampling of 49.2% (30/61) primary schools and 53.8% (14/46) secondary schools in the Kuching Division, followed by stage two cluster sampling of one class per non-examination standard in each randomly sampled school. All students in the sampled classes were asked to bring a face-validated questionnaire (MAQ) back home to be answered by one of their parents or a guardian. A total of 2559 out of 3661 distributed questionnaires were collected, with a response rate of 70%. The data collection period was between April and June of 2022 so as the recall bias of the information collected, especially on the actual spending on the face masks for the school going students, was minimised. The relevant summary statistics for self-perceived face masks characteristics, face mask expenses, affordability and willingness to pay were calculated. We regress separately the monthly affordability and willingness to pay amount against age, occupation, marital status, total number of children, monthly income and monthly saving to build predictive models for affordability and willingness to pay amount per child per month.

Results: The average Scale-level Face Validity Indexes for all aspects of validity (clarity, comprehension, relevancy, representativeness) are high (0.91 to 1.00) for MAQ. Most of the respondents were mothers, married, working as private employees with a mean age of 41 and belonged to the B40 and M40 group. The average monthly saving per family was RM540, which was about 15% of the total income. The average actual monthly spending to purchase face masks for one child is RM24. On average, a family can afford to pay RM23.80 for one child per month to purchase face masks.

The willingness to pay for the same was RM25.27. The median affordability, willingness to pay and actual spending for face masks per child was RM16.67 per month. Taking 75th percentile as the reasonable maximum expenses per child for face masks per month, the affordable amount by most parents is RM30, with the willingness to pay at 10% higher. Affordability to purchase a face mask is influenced by the marital status, occupation, income, saving and the number of dependent of the breadwinner of a household. The most important face mask characteristics expected by the parents are better filtration efficiency and easier breathability.

Conclusion: The affordability and willingness to pay the amount to purchase face masks amongst parents of government students in Sarawak were RM30 and RM33 per child per month, respectively.

KEYWORDS:

Affordability, willingness to pay, face mask, universal masking, COVID-19

INTRODUCTION

The COVID-19 pandemic forces the world population to adopt new norms in life, namely social distancing, wearing face masks and frequent sanitising.¹ These new norms are essential and were made compulsory in Malaysia since 1st August 2020 to the general population in an effort to prevent COVID-19 transmission in the country.² Amongst these new norms, the requirement to wear face mask imposes financial burden on the population, especially amongst the family with schooling children, because of the shortage in supply and single-use feature of most non-medical masks in the market.^{3,4}

The World Health Organization has recommended universal masking, meaning that everyone should wear a mask for COVID-19 source control, rather than protection.⁵ Source control means that if everyone is wearing a mask, then the chances of virus transmission from an unknown infected person will be reduced significantly. Hence, Malaysia government has implemented universal masking policy, either disposable or reusable, from 1st August 2020 for 2 years, to control the COVID-19 cases in the country.

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