

## **Association between household food insecurity and nutritional outcomes among children in Northeastern of Peninsular Malaysia**

### **ABSTRACT**

**Background/Objectives:** The purpose of the study was to investigate the relationship between household food insecurity and nutritional status of children in low-income households. A cross sectional study involved a survey of households (n = 223) receiving the financial assistance. **Subjects/Methods:** Eligible mothers that fulfilled the inclusion criteria such as non-pregnant, non-lactating mothers, aged 18 to 55 years with their youngest children aged 2 to 12 years, were purposively selected. The Radimer/Cornell hunger and food-insecurity instrument was administered and children's height and weight were measured. **Results:** About 16.1% of the households were food secure, while 83.9% experienced some kind of food insecurity. Out of food insecure category, 29.6% households were food insecure, 19.3% women were individual food insecure and 35.0% fell into the child hunger category. Education of the mother (P = 0.047), household size (P = 0.024), number of children (P = 0.024), number of children going to school (P = 0.048), total monthly income (P < 0.001), income per capital (P < 0.001), number of household members contributing to the income (P = 0.018) and food expenditure (P = 0.006) were significant risk factors for household food insecurity. The prevalence of underweight, stunting and wasting in children were 61.0%, 61.4% and 30.6% respectively. Based on multinomial logistic regression, children in food-insecure households were 2.15 times more likely to be underweight and three times to be stunted than children in the food-secure households. **Conclusions:** The findings suggest that household food insecurity is associated with the nutritional status of the children in the rural area of Northeastern Peninsular Malaysia.

**Keyword:** Northeastern Peninsular Malaysia; Child hunger; Household food insecurity; Nutritional status