

## The relationship between household income and dietary intakes of 1-10 year old urban Malaysian

### ABSTRACT

**BACKGROUND/OBJECTIVES:** Diet plays an important role in growth and development of children. However, dietary intakes of children living in either rural or urban areas can be influenced by household income. This cross-sectional study examined energy, nutrient and food group intakes of 749 urban children (1-10 years old) by household income status. **SUBJECTS/METHODS:** Children's dietary intakes were obtained using food recall and record for two days. Diet adequacy was assessed based on recommended intakes of energy and nutrients and food group servings. **RESULTS:** For toddlers, all nutrients except dietary fiber (5.5 g) exceeded recommended intakes. Among older children (preschoolers and school children), calcium (548 mg, 435 mg) and dietary fiber (7.4 g, 9.4 g) did not meet recommendations while percentage of energy from total fat and saturated fats exceeded 30% and 10%, respectively. The mean sodium intakes of preschoolers (1,684 mg) and school children (2,000 mg) were relatively high. Toddlers in all income groups had similar energy and nutrient intakes and percentages meeting the recommended intakes. However, low income older children had lowest intakes of energy ( $P < 0.05$ ) and most nutrients ( $P < 0.05$ ) and highest proportions that did not meet recommended energy and nutrient intakes. For all food groups, except milk and dairy products, all age groups had mean intakes below the recommended servings. Compared to middle and high income groups, low income preschoolers had the lowest mean intake of fruits (0.07 serving), meat/poultry (0.78 serving) and milk/dairy products (1.14 serving) while low income toddlers and school children had the least mean intake of fruits (0.09 serving) and milk/dairy products (0.54 serving), respectively. **CONCLUSION:** Low socioeconomic status, as indicated by low household income, could limit access to adequate diets, particularly for older children. Parents and caregivers may need dietary guidance to ensure adequate quantity and quality of home food supply and foster healthy eating habits in children.

**Keyword:** Children; Dietary intake; Energy and nutrients; Food groups; Household income