

**Abstract**

This study was conducted to assess the prevalence and effects of household food insecurity in pre-school children of rural area. A sample of 300 children belonging to low, middle and high socio-economic classes (SECs), selected randomly was surveyed. Semi structured questionnaire was designed to collect information from housewives about food security status of the households and the children. Total calories from food intake was calculated and compared with anthropometric measurement (height, weight and BMI) of children and level of Hemoglobin (Hb), Mean Corpuscular Volume (MCV), Mean Corpuscular Hemoglobin (MCH), Mean Corpuscular Hemoglobin Concentration (MCHC) and Packed Cell Volume (PCV) of children.

Results of the study showed that 24.7% children were getting adequate energy in the range of 1331-3115Kcal from food while 58.7%, 20.7% and 64.7%, of children were getting protein (29-106g), lipid (40-95 g) and carbohydrate (130-563g). Children were also taking adequate quantity of calcium (511-1548mg), thiamine (0.5-3.2mg) and niacin (10-42mg) at 45%, 22.7% and 28.7% respectively. Majority of energy and nutrients deficient children were from low socio-economic class as compared to middle and high socio-economic classes. Underweight children were 84% ($10.4-18.4 \text{ Kg/m}^2$) while 14.3% children were normal weight ($18.5-24.9 \text{ Kg/m}^2$), 1% overweight ($25.0-29.9 \text{ Kg/m}^2$) and 0.7% were obese ($32.0-33.8 \text{ Kg/m}^2$). Blood analysis showed that 55% children were nutritionally anemic (6.7-10.7 g/dL) and majority of them were from low socio-economic class. Correlation analysis showed that there was significant positive correlation between energy, nutrients and BMI and blood attributes.

Food insecurity was very high at all age levels in pre-school children and it has affected the BMI and health of children particularly from low socio-economic class. Awareness about temporal intake of food quality and balanced food is needed to control food insecurity in children.