

**Nutritional status of children below five years in Malaysia: anthropometric analyses from the third National Health and Morbidity survey III (NHMS, 2006)**

**ABSTRACT**

The Third National Health and Morbidity Survey (NHMS III) was conducted in 2006 on a nationally representative sample of population in Malaysia. Over 21,000 children aged 0-17.9 years were measured for body weight and stature according to the protocol of the World Health Organization. This article describes the nutritional status of children aged 0-59.9 months. Mean z score for weight-for-age (WAZ), height-for-age (HAZ) and BMI-for-age were compared with the z-scores tables of the WHO standards. The overall prevalence of underweight and stunting of the children were 12.9% and 17.2% respectively. These levels included 2.4% severe underweight and 6.0% severe stunting. In terms of z scores, the age group of 0-5.9 months showed the best nutritional status with mean WAZ of -0.33 (95%CI: -0.52, 0.15) and -0.40 (-0.57, 0.24) for boys and girls respectively, while mean HAZ was 0.64 (0.38, 0.89) for boys and 0.76 (0.54, 0.98) for girls. Mean HAZ and WAZ status was least satisfactory after about 6 months, suggesting a faltering in growth rate at an age that coincides with dependence on complementary feeding. Prevalence of overweight based on BMI-for-age for the sexes combined was 6.4%, while that based on WAZ was 3.4%. The NHMS III results indicate that Malaysian children have better nutritional status compared to children under 5 years in neighbouring countries. In order to meet the targets set in the National Plan of Nutrition (2006-2015), more effective intervention programmes are needed to accelerate the reduction of underweight and stunting, and to arrest the rise of overweight in young children.

**Keyword:** Children below 5 years; Nutritional status; Third NHMS