

# Factors Associated With Undernutrition Among Children in a Rural District of Kelantan, Malaysia

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## Abstract

The aim of the study was to identify the factors associated with undernutrition indicators in children 5 years and younger in a rural community in Malaysia. A total of 295 children and their carers were selected from community clinics based on a multistage sampling method. Pretested questionnaire, anthropometric measurement, and dietary assessment were used for data collection. There was 69% stunting, 63.4% underweight, 40% wasting, and 26.8% with mid-upper-arm circumference (MUAC) for age below a z score of  $-2$  among children. In all, 10 factors were found to be associated with different indicators of undernutrition. Age was the only factor that had association with all the undernutrition indicators. Total household income and total expenditure showed significant association with underweight. Birth weight was reported to have significant association with underweight, stunting, and low MUAC-for-age. The findings suggest that the factors of undernutrition were different for different indicators of undernutrition and thus give a more comprehensive picture on factors contributing to acute and chronic malnutrition.

## Keywords

undernutrition, children younger than 5 years, rural area, anthropometric indicators

## Introduction

Undernutrition is the direct result of inadequate dietary intake, the presence of disease, or the interaction of these 2 factors.<sup>1</sup> Over the years, undernutrition has been linked to the cause of death among children 5 years old and younger. In developing countries, the highest level of underweight prevalence was found in South Asia, where almost half (46%) of the children aged 5 years and younger were underweight.<sup>2</sup> Studies also reported that 52.5% of all deaths in young children were attributable to undernutrition.<sup>3</sup>

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