

Age Trends in Under-nutrition among Sabar Males of Purulia, West Bengal, India

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ABSTRACT The present cross-sectional study was conducted among adult Sabar males of Purulia district of West Bengal, India, to determine the prevalence of under-nutrition based on Body Mass Index (BMI) $<18.5 \text{ kg/m}^2$ and mid upper arm circumference (MUAC) $<24.0 \text{ cm}$. Data was collected from 13 villages of Purulia District. A total of 307 healthy adult Sabar men aged 18-60 years were measured. Anthropometric variables of height (cm), weight (kg) and MUAC (cm) were measured using standard protocol. Based on BMI (kg/m^2), Chronic Energy Deficiency (CED) was used as a measure for under-nutrition. The overall presence of under-nutrition based on BMI (kg/m^2) and MUAC (cm) were 47.2 percent and 54.4 percent, respectively. The rate of under-nutrition increased with age. There was a highly significant difference between MUAC (cm) and BMI (kg/m^2) ($p < 0.001$) among studied participants. Therefore, the present study proposes the use of MUAC global cut off of $<24.0 \text{ cm}$ may be combined with BMI for more accurate screening of under-nutrition with better precision among different ethnic communities.