



Article

Prevalence of Undernutrition and Anemia among Santal Adivasi Children, Birbhum District, West Bengal, India

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Abstract: India's Adivasi scheduled tribe population is disproportionately affected by undernutrition and anemia, thereby prevailing in the poorest wealth deciles denominated as socially and economically vulnerable. This study was designed to assess the extent of child undernutrition (conventional and composite index of anthropometric failure (CIAF) classification), as well as the burden of anemia in children and its independent nutrition specific and sensitive drivers, moreover to reflect the living conditions of Santal Adivasis. The research survey was conducted in 21 Santal villages, Birbhum District, West Bengal, in 2015. An overall 307 children (aged 6–39 months) and their mothers ($n = 288$) were assessed for their hemoglobin (Hb) levels (HemoCue Hb201+) and anthropometric indices such as height/length, weight and mid-upper arm circumference (MUAC). Moreover, socio-demographic household characteristics were surveyed. The study confirmed Adivasi children lagging behind national average with a high prevalence of undernutrition (height-for-age z-score (HAZ) 51.9%, weight-for-age z-score (WAZ) 49.2%, weight-for-height z-score WHZ 19.0% and CIAF 61.6%) and of moderate and severe anemia (Hb < 10 g/dL, 73.3% altogether). Child's age <24 months, low WAZ scores, morbidity (any fever, diarrhea or respiratory infection) on the checkup day or during previous week, low maternal Hb level, and lack of dietary diversification were identified as predictors for anemia, thereby warrant targeted interventions to decrease the high anemia rates assessed in the study site.

Keywords: young child undernutrition; CIAF; morbidity; anemia; independent predictors of anemia; socio-economic and demographic information; Santals; Adivasi; West Bengal; India