

Nutritional Status of Rural Bengali Adolescent Boys of Tripura

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To the Editor: Assessment of nutritional status is significant in developing countries like India where the vast majority of the populations are undernourished and underprivileged. Studies describing the nutritional status of adolescents from north-eastern part of India are limited. This community based cross-sectional study was conducted to determine the current nutritional status of rural adolescent Bengali boys of Tripura.

A total of 550 school-going Bengali boys (aged 8–16 y) from 30 randomly selected villages, representing the state of Tripura, were included using multistage cluster sampling method. Standing height and body weight were measured; body mass index (BMI) was derived. Age specific prevalences of stunting, thinness, overweight and obesity were calculated according to the classification of World Health Organization (WHO) [1], using the new IAP growth charts [2]. Nutritional status was also assessed using the 2007 WHO growth reference data [3].

These boys had lower socio-economic status. Using the IAP growth charts [2] as reference, the overall (age combined) prevalence of stunting (height-for-age <3rd percentile) was found low: 9.09 %. Prevalence across age groups fluctuated from 0 to 21.31 % below the 3rd percentile. The overall prevalence of thinness (*i.e.*, BMI-for-age <5th percentile) was 12 %, which is higher than that of stunting. Prevalence across age groups fluctuated from 6.45 to 16.67 % below the 5th percentile. The overall prevalence of overweight (*i.e.*, BMI-for-age \geq 23 adult equivalent) was 7.09 %. Prevalence across age groups fluctuated from 1.67 to 11.29 %. The overall age specific prevalence of obesity (*i.e.*, BMI-for-age \geq 27 adult equivalent) was very low (0.36 %). The overall prevalence

of stunting and thinness (21.15 and 40.32 % respectively) was found higher and overweight (4.30 %) was found lower when WHO reference data [3] was used. The prevalence rate of undernutrition among the boys of the present study was comparatively lower than the urban Bengali boys of Kolkata [4] and rural tribal children of Tripura [5].

In general, the Bengali boys of Tripura had lower rates of undernutrition. The over diagnosis of undernutrition and under diagnosis of overnutrition may be avoided by using the new IAP growth charts. We propose that future studies should use these charts to determine the growth and nutritional status of children and adolescents from India.

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Conflict of Interest None.

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