

Body Composition among Rural Bengalee Preschool Children of Integrated Child Development Service (ICDS) Scheme of Sagar Island, South 24 Parganas, West Bengal, India

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ABSTRACT The present study was carried out to study age and sex variations in body composition characteristics among preschool children of Integrated Child Development Service (ICDS) Scheme from Sagar Island, South 24 Parganas, West Bengal. This cross-sectional study was undertaken at 28 Integrated Child Development Services scheme centres of this area. Subjects were randomly selected from these centers. A total of 656 (Boys: 326; Girls: 330) preschool children of 3-5 years were measured. It was found that boys were taller and heavier than girls at all ages except 3 years. With increasing age, there was a gradual decline in mean skinfolds thickness. ANOVA revealed that there existed significant age variations ($p < 0.001$) in all anthropometric measurements, body mass index (BMI) and body composition variables except for fat mass (FM) among boys. Mean Percentage Body Fat (PBF) values among boys decreased with increasing age, but among girls mean PBF values increased with increasing age. A similar sexual dimorphism trend was observed with fat mass (FM) and fat mass index (FMI). Results of the sex specific correlation coefficient between anthropometric measurements and body composition variables showed that majority of the body composition variables were highly correlated with the anthropometric variables. In conclusion, the researchers observed that there was sexual heterogeneity in the relationship between age and body adiposity as measured by PBF, FM and FMI.