

## **Physical Growth of Punjabi Girls in Government and Public Schools in Punjab**

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### **Abstract**

The present study has been conducted with the objective of finding out the growth differential between the girls studying in government and public schools so as to highlight the biological disparity resulting from a diverse socio-economic scenario obtaining in the state of Punjab. Data on 790 school girls ranging in age from 11-15 years and inhabiting the cities of Kotkapura and Mohali, Punjab, were collected separately from Government and Private/Public Schools during the month of January, 2006. It must be mentioned here that the Government Schools provide practically free education as the fee structure is very nominal. Every child was measured for height, body weight, upper arm circumference, biacromial and bicristal diameter and biceps and triceps skinfold employing the techniques of *Lohman et al. (1988)*. The girls studying in government schools have significantly smaller values of height, weight, mid arm circumference, diameters and skinfolds than their peer studying in public schools. The average annualized deficit in the growth of height and weight of public and government school girls is around 5.9cm and 6.9 kg, respectively. To transform this backlog in years, it would amount to around one and a half year in height and 2.4 years in weight. Not only are the public school girls significantly taller and heavier than the government school girls but they have also significantly larger values of BMI. The larger values of Body Mass index in public school girls indicates that they are relatively greater in body weight than the government schools when the height is kept constant. The finding of the present study indicates the role of social diversity on the biological outcome of the children.

**Key Words: Public School, Government School, Punjabi, Weight, Height, Growth**

### **Introduction**

It is a widely known fact that the unfavorable environments of the third world hamper the growth and development of children. The developmental strategies bring in improvements in the living standards of the people along with an overall improvement in nutrition and these situations are helpful in the optimal physical growth of children throughout the globe. Malnutrition is a double-edged sword having one side of under nutrition resulting in stunted growth and the other the over nutrition leading to obesity and overweight (*Singh 2002*). *Alderman et al. (2006)* found from his studies that malnutrition emerges from poverty and it shows strong associations with an

inadequate diet, poor health and sanitation services and inadequate care for young children. Thus in order to play down the effect of malnutrition, two pronged strategy of income growth and nutrition interventions is required. The regional variations in physical growth of children arise not only due to the geographical characteristics but also due to the marginal resource availability in many areas of the world (*Eveleth and Tanner 1990*).

*Eiben and Mascie-Taylor ( 2004)* reported the effect of family size on physical growth of children from the Hungarian National Growth Study on 39,035 children and youth aged 3–18 years and found that children where the family members are numerous are shorter, have lower body mass with smaller