SUMMARY
The present study, entitled "Age changes in anthropometric measurements and physical performance in Tibetan girls from 5 to 18 years", has been conducted with a view to describe the trends in physical growth and performance of Tibetan girls.

The cross-sectional data consists of 520 Tibetan females ranging in age from 5 to 18 years and residing in Dharamsala (H.P.). The subjects included in the present study are homogeneous with respect to sex, geographic location, ethnic stock and socio-economic status. In all 20 anthropometric measurements have been taken on each individual, including 12 absolute measurements, 3 circumferential and 5 skinfold measurements. In addition, each individual was subjected to 6 performance tests. Physiological variable, such as blood pressure and pulse rate, were also recorded. The information regarding puberal status has also been included. Usual statistical methods such as Mean, Standard deviation, Coefficient of variation, Gain per year, Range, Coefficient of correlation, and Probit analysis were employed to interpret the data in numerical terms.

Tibetan females are found to be considerably taller and heavier at all stages of growth from 5 to 18 years, when compared with ICMR norms. They show marked similarities
with Punjabi and Maharashtrian girls in their body heights.
In general, Tibetan girls are tall and well-built as compared to Indian populations.

(1) Growth curves indicate that there is a general increase in body dimensions in Tibetan girls with increase in age.

(2) Growth curves for stature, sitting height and arm length show a regular increase at all age levels. However, growth is rapid up to 14 years of age. Curves for biacromial diameter and bicristal diameter exhibit a slow but regular increase from 5 to 18 years.

(3) Bisygomatic diameter and facial length register an increase up to 14 years, followed by a post-puberal period of slow increment which continues up to 18 years.

(4) Growth curves for upper-arm circumference and calf circumference show a gradual increase up to 16 years, followed by a slow increment from 16 to 18 years. Head circumference also shows an increase up to 17 years.

(5) The curves for log transformed skinfolds show a decline in the mean values during the pre-puberal years. However, the increase becomes rapid during puberty and continues throughout the adolescent phase.

(6) Body dimensions of Tibetan females depict that considerable changes occur in body form during
growth from childhood to adulthood. In general, their body becomes broader and the upper extremity grows longer in relation to stature and sitting height. Head also becomes larger in relation to body height.

(7) The pubescent girls are considerably heavier, taller and broader in build than the non-pubescent girls of the same age.

(8) Out of the physiological variables investigated, namely blood pressure and pulse rate, the former has been observed to increase with increase in age, the increase being more marked during puberty. The pulse rate on the other hand decreases as the age increases and the decrease is rapid after puberty.

(9) Curves for performance tests like Sargent jump and standing broad jump show that performance is best at the age of 7 years. The curve for shotput show that the performance improves with age and hence, is best during post-pubescence period. Similarly, the performance of shuttle run and 50-metre dash also improves with age, but the performance is best during adolescence.

(10) In the Tibetan girls under study, weight shows direct relationship with shotput whereas an inverse relationship is found with shuttle run, 50-metre
dash and modified pull ups. Height shows a direct relationship with Sargent jump, standing broad jump and shotput.

(11) Comparison of the growth curves of mean height and weight of Tibetan girls has also been done with Americans, Britishers, Japanese, Chinese, Ethiopians and Jamaican girls of African origin. It has been found that the Tibetan girls are considerably shorter and lighter than Americans, Britishers, Jamaicans and Ethiopians at almost all stages of growth. However, they show close similarities with Chinese girls regarding body size.