

## Anthropometric Measurements of Meitei Children of Khangabok Village, Manipur

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**ABSTRACT** Anthropometric measurements of 2750 Meitei children of Khangabok village between the age of 5-12 years were undertaken. The mean values of height, weight, head circumference, chest circumference, mid-arm circumference and calf circumference were within the normal accepted range.

### RESULTS AND DISCUSSION

The mean values and standard deviation of height, weight, head circumference, chest circumference, mid arm circumference and calf circumference for different measurements at different age groups are presented in table 1.

### INTRODUCTION

Anthropometric measurements have been used to detect malnutrition in the community. A number of growth studies have been conducted in the different geographical regions of the early providing important nutritional and anthropometric profiles of children (ICMR (1972), Sidhu and Phull (1974), Sidhu and Kansal (1977), Singal and Sidhu (1981) and others). So far no such studies has been undertaken on the Khangabok village of Manipur. In this present study anthropometric measurements of Meitei children of Khangabok village of (5-12) years have been presented.

In assessing the nutritional status of children anthropometric measurements, play a very important role. Of the anthropometric measurements, measurements of heights and weights gives the maximum information regarding the nutritional state of a community. In this present studies Jelliffe's classification followed.

### MATERIAL AND METHODS

The present report is based on the data collected from 2750 children (1430 male and 1320 female) of 5-12 years aged belonging to Khangabok part I and II villages, Thoubal district Manipur. Six measurements were taken, according to the procedure of Jelliffe (1966). The data of birth of boys and girls were noted from enrolment registers of the school and then corroborating them with the information supplied by their parents or guardians. The measurements were taken by the first author. The values of mean and standard variation were calculated by following standard formulae. The health camp were conducted by the

Body weight has been used for the assessment of nutritional status *i.e.* height is an indicator of linear growth over a period. Unlike in case of weight, ever gained, height cannot decreased, also it is relatively less affected by acute and short episodes of malnutrition, but it is affected by chronic nutrition. Ghai and Sandhu (1968) have reported that the children with higher groups are heavier and taller than those with low economic condition.

The mid arm head circumference ratio in the assessment of protein energy malnutrition is still controversial. Jansen and Mannetje (1982) observed that the upper arm circumference/head circumference ratio did not seem to be mere useful than the upper arm circumference alone and was of limited value in assessing the nutritional status of individuals as well as of population groups.

The mean height and weight, head and chest circumference, mid arm and calf circumference of the Meitei children studied

Table 1: Anthropometric measurements of Khangabok Meitei children of varying age groups

Age	No.	Height (cm) Mean $\pm$ S.D.	Weight (kg) Mean $\pm$ S.D.	Head circum- ference (cm) Mean $\pm$ S.D.	Chest circum- ference (cm) Mean $\pm$ S.D.	Midarm circum- ference (cm) Mean $\pm$ S.D.	Calf circum- ference (cm) Mean $\pm$ S.D.
<i>Males</i>							
5-6	210	104.42 $\pm$ 9.17	15.10 $\pm$ 2.74	50.54 $\pm$ 2.40	54.90 $\pm$ 2.86	14.38 $\pm$ 1.28	21.52 $\pm$ 1.68
6-7	195	109.00 $\pm$ 9.08	15.27 $\pm$ 2.78	50.97 $\pm$ 1.82	56.74 $\pm$ 3.74	15.85 $\pm$ 1.37	22.35 $\pm$ 1.86
7-8	225	115.35 $\pm$ 5.87	16.40 $\pm$ 3.63	51.02 $\pm$ 1.62	58.65 $\pm$ 3.19	16.06 $\pm$ 1.19	22.54 $\pm$ 1.82
8-9	204	117.18 $\pm$ 5.49	20.92 $\pm$ 6.38	51.98 $\pm$ 1.34	58.96 $\pm$ 3.28	16.10 $\pm$ 1.37	23.08 $\pm$ 1.72
9-10	207	124.19 $\pm$ 8.17	22.74 $\pm$ 2.12	52.30 $\pm$ 1.42	61.39 $\pm$ 3.57	16.52 $\pm$ 1.09	23.55 $\pm$ 1.95
10-11	205	126.40 $\pm$ 5.78	23.13 $\pm$ 2.68	53.02 $\pm$ 1.98	61.24 $\pm$ 3.51	17.07 $\pm$ 1.07	24.86 $\pm$ 1.64
11-12	187	135.23 $\pm$ 8.77	27.83 $\pm$ 5.34	53.26 $\pm$ 1.46	66.57 $\pm$ 3.87	18.42 $\pm$ 1.78	26.03 $\pm$ 3.09
<i>Females</i>							
5-6	201	102.60 $\pm$ 9.43	15.10 $\pm$ 3.37	49.30 $\pm$ 4.70	54.38 $\pm$ 4.80	15.63 $\pm$ 1.15	21.51 $\pm$ 1.71
6-7	208	107.01 $\pm$ 11.08	16.24 $\pm$ 4.80	50.67 $\pm$ 1.64	57.39 $\pm$ 4.25	16.04 $\pm$ 1.27	23.08 $\pm$ 1.90
7-8	212	115.65 $\pm$ 5.82	19.60 $\pm$ 2.54	51.30 $\pm$ 1.34	58.48 $\pm$ 2.72	16.41 $\pm$ 1.07	23.01 $\pm$ 1.73
8-9	200	118.72 $\pm$ 8.82	20.53 $\pm$ 2.32	51.88 $\pm$ 1.52	59.24 $\pm$ 2.50	16.70 $\pm$ 1.56	23.63 $\pm$ 1.06
9-10	177	123.00 $\pm$ 9.23	22.54 $\pm$ 4.32	52.31 $\pm$ 1.34	60.46 $\pm$ 3.97	16.74 $\pm$ 1.56	23.71 $\pm$ 2.26
10-11	165	130.13 $\pm$ 8.64	25.11 $\pm$ 4.14	52.42 $\pm$ 1.38	64.36 $\pm$ 1.89	18.21 $\pm$ 1.39	25.95 $\pm$ 2.39
11-12	157	136.52 $\pm$ 5.94	28.52 $\pm$ 5.47	52.38 $\pm$ 1.44	68.06 $\pm$ 5.69	19.10 $\pm$ 2.30	26.32 $\pm$ 2.14

were found to be within the accepted normal Indian standard (ICMR).

The gradual increase of height and weight with the mean height, weight, head circumference, chest circumference, mid-arm circumference and calf circumference were less in females as compared to males in all the age groups. The anthropometric pattern of Meitei children of Khangabok village of this present study shows that this nutritional status is not lower than other Indian community.

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