

Anthropometric Growth Reference for Indian Children and Adolescents

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ABSTRACT

Objective: We aimed to develop anthropometric growth references for Indian children and adolescents, based on available 'healthy' child data from multiple national surveys

Methodology: Data on 'healthy' children, defined by comparable WHO's Multicentre Growth Reference Study (MGRS) selection criteria, were extracted from four Indian surveys over the last 2 decades, viz, NFHS-3, 4, and 5 and Comprehensive National Nutrition Survey (CNNS). Reference distributions of height-for-age for children up to 19 years, weight-for-age for children up to 9y, weight-for-height for children less than 5 years and BMI for age for children between 5-19 y were estimated by GAMLSS with Box-Cox Power Exponential (BCPE) family. The national prevalence of growth faltering was also estimated by the NFHS-5 and CNNS data.

Results: The distributions of the new proposed Indian growth references are consistently lower than the WHO global standard, except in the first 6 months of age. Based on these references, growth faltering in Indian children and adolescents reduced > 50% in comparison with the WHO standard.

Conclusion: The study findings revealed that the WHO one-standard-fits-all approach may lead to inflated estimates of under nutrition in India and could be a driver of misdirected policy and public health expenditure in the Indian context. However, these findings need validation through prospective and focussed studies for more robust evidence base.

Keywords: Anthropometry, Body Mass Index (BMI)-for-age, Growth reference, Stature-for-age, Weight-for-age, Weight-for-height

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INTRODUCTION

The prevalence of undernutrition among under-five Indian children, as measured through the WHO Child Growth Standards, remains high in the latest National Family Health Survey (NFHS-5, 2019-21) with 35.5% of children being stunted, 32.1% underweight and 19.2% wasted [1]. Another national survey, the Comprehensive National Nutrition Survey (CNNS 2016-18) also reported a prevalence of 35% stunting, 33% underweight and 17% wasting in a similar population [2]. These reports present a negligible decline from the 38.4% stunting, 35.7% underweight and 21% wasting reported in NFHS-4 (2014-15) [3], NFHS-3 (2004-05) [4]. This static level of growth faltering questions the impact of existing national programs aimed to prevent under nutrition in young children [5]. However, the apparent lack of adequate response could also be due to the use of the one-size-fits-

all WHO Child Growth Standards to diagnose growth faltering in the Indian context.

The WHO Growth Standards for under 5-year-old children were presented in the Multicentre Growth Reference Study (MGRS), 2006, which described these as how children should grow when their needs are met [6]. Longitudinal and cross-sectional data from six countries (Brazil, Ghana, India, Oman, Norway and USA), from participants who had no economic, environmental or biological risk factors for growth, who were singleton, delivered at term gestation, with no significant morbidity, and with non-smoking mothers who agreed to follow infant feeding recommendations. Affluent neighbourhoods were purposively selected for Ghana and India. Growth references for school going children and adolescents (5-19 years) were developed by the WHO using the same data (derived from US children and adolescents) that was used for the construction of the original National Center for Health Statistics (NCHS) charts [6]. This involved the pooling of three data sets; Health Examination Survey (HES) Cycle II and Cycle III, and Health and Nutrition Examination Survey (HANES) Cycle I [7]. No information was given regarding their feeding.

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In the Indian context, there has been recent advocacy for the use of local growth standards. The national representativeness of the small homogenous affluent neighbourhoods in South Delhi in the Indian site in the WHO study (0-5 years) has been questioned. Further justification stems from the analyses of national survey datasets, utilizing inclusion criteria similar to MGRS by WHO, which demonstrate a significant deviation of mean *z*-scores by WHO standards from zero for all the three indices: Height-for-age *z*-score (HAZ), weight-for-age *z*-score (WAZ) and weight-for-height *z*-score (WHZ) in under-five children (-0.52 to -0.79) in a subset of healthy Indian children [8]. In effect, using the WHO standard instead of these contextual references almost doubled the estimated growth failure in India [8]. From a clinical perspective, the use of WHO growth standards has also been shown to result in disease misclassification, including pathological short stature [9,10], macrocephaly and microcephaly [11], screening of fetal growth restriction for predicting future morbidity [12] and diagnosing cardiometabolic risk factors [13,14]. The WHO growth references for 5-19 years were developed from a potentially obesogenic environment (USA). Thus, there is a need for nationally representative standard for 5-19 years, preferably as a single (continuous), representative and contemporary Indian growth standard spanning from birth to 19 years for use in clinical practice [15].

We therefore aimed to develop anthropometric growth references for Indian children from birth to 19 years of age using predefined criteria to select participants at low risk of growth constraint from contemporary data of nationally representative surveys. These were compared against the global WHO anthropometric growth standards. In addition, based on the newly constructed growth references, we developed a simple software application to permit the immediate calculation of various indices of child growth from birth to 19 years. We prefer to use the term growth reference instead of standard, especially since these analyses emanate from retrospective datasets, and need further validation from robust, prospective studies.

METHODS

This study used multiple national cross sectional survey data sets, from each of which subsets of healthy children were extracted. Selection was based on uniform criteria for socio-demographic variables, so as to replicate those used in the WHO-MGRS survey to the extent feasible.

The Comprehensive National Nutritional Survey (CNNS, 2016-18) was the first ever nationally representative nutrition survey of Indian children and adolescents [2]. The CNNS survey reported data from preschool children (0-4-year-old), school-age children (5-9-year-

old), and adolescents (10-19-year-old) in all the 30 geographical states of India by multistage sampling. Children and adolescents with physical deformity, cognitive disabilities, chronic illness, acute febrile or infectious illness, acute injury, ongoing fever, and pregnancy were excluded. Data of 31,058 children for under-5-year-old, 36,775 for 5-9-year-old and 34,154 for adolescents with valid anthropometric measurements were used for selection of healthy subset for analysis across the age groups.

The National Family Health Surveys (NFHS) [1,3,4] are large-scale, multi-round surveys conducted in a randomly selected representative sample of households across India. Multistage random sampling, with a consistent sampling strategy is used. The survey provides state and national information for India. Data on under-5 children from NFHS-5 (2019-21), NFHS-4 (2015-16) and NFHS-3 (2005-06) were accessed [1,3,4]. The NFHS-5, NFHS-4 and NFHS-3 collected anthropometric measurements and sociodemographic information from 2,32,920, 2,59,627 and 1,24,385 children of age below 5 years, respectively, from across India.

The 'healthy child' selection criteria for children aged 1-4 years replicated to the extent feasible, those used by the 2006 WHO MGRS for Indian site [16]. Accordingly, a healthy child should *a*) live in an urban locality; *b*) belong to the highest two quintiles of socio-economic status (SES) as defined by respective surveys; *c*) have a non-smoking mother with education that was graduate or above; *d*) be exclusively breastfed for the first 4 months; *e*) be partially breastfed for 12 months; and *f*) be without infection, including any fever and diarrhea, in the two weeks prior to the survey. When applied to all under-5 children in the four selected national surveys, 13,204 under-5 children were selected in the analytical sample; 1,821 from NFHS-3, 4,531 from NFHS-4, 4,918 from NFHS-5 and 1,934 from CNNS (Fig. 1).

Healthy 5- to 19-year-old children and adolescents were selected from CNNS, based on the criteria that the child should: *a*) live in an urban locality; *b*) belong to richer and richest SES as defined by CNNS; *c*) be non-anemic; *d*) not use tobacco; *e*) have serum albumin concentration ≥ 3.5 g/dL; hemoglobin A1c (HbA1c) concentration $\leq 6\%$ and serum C-Reactive Protein level ≤ 5 mg/dL. Thus, 6,659 healthy children were extracted of which 3,583 were between 5-9 years while 3,077 were between 10-19 years.

Statistical methods: Prior to analysis, children in the lower and upper 5% (below 5th and above 95th percentile) of the respective *z*-scores were excluded to avoid excess variability due to unobserved factors. Homogeneity in the

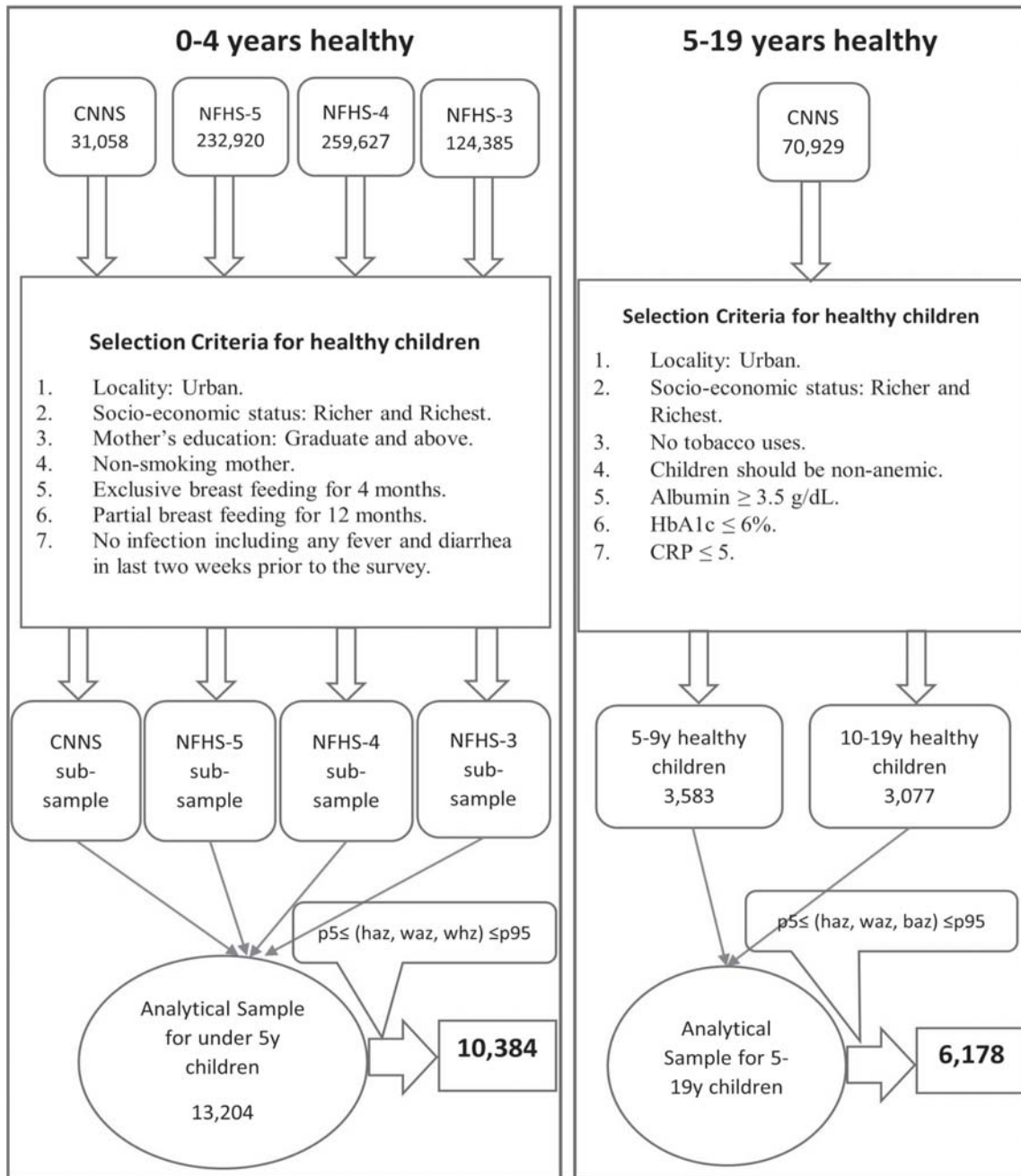


Fig. 1 Steps involved in the selection of the analytical sample (p5 5th percentile, p95 95th percentile)

mean and variance of under-five growth metrics has been demonstrated across all the four surveys using the same extracted healthy subset [8] hence, these data were combined. A similar strategy was used for older children. If significant differences from 0 for these growth standards were found, growth reference were derived from the analytical sample described above, using the standard generalized additive model for location, scale and shape

(GAMLSS) [17]. This method was used by WHO to develop their growth standards.

For 0 to 4-year-old children, the analytical sample data were used to derive the required parameters for the HAZ, WAZ and WHZ using GAMLSS with Box-Cox Power Exponential (BCPE) family. The GAMLSS technique can model the temporal growth with highly asymmetric data and can define age-specific distribution by location, scale,

and shape (skewness and kurtosis) parameters without assuming any parametric probability distribution.

A penalized cubic smoothing function was used which estimated degrees of freedom by a least generalized cross validation score. Therefore, no degrees of freedom were required to be specified. Further, as a penalized spline was used, power transformation of age was not considered, because the number of knots and position are learned by the data in penalized splines. Observing that the kurtosis parameter (τ) of BCPE family was close to 2, we restricted ($\tau = 2$) for three references. Similarly, the skewness parameter or Box-Cox power parameter (ν) for HAZ reference was fixed at 1 but allowed to vary over age for WAZ and WHZ parameters. The goodness of fit of the model was examined by Q-Q normal plot of the z-scores that plotted sample quantiles against theoretical quantiles of normal distribution. To assess the fitting within subintervals of age ranges, a worm plot of z-scores was used. If most of the dots fell on the diagonal line (45° angle) for Q-Q normal plot or in between the two dotted lines for each subgroup in worm plot, it was considered to be a good fit. With final models, BCPE parameters ($\mu, \sigma, \nu, \tau = 2$) of HAZ, WAZ and WHZ references were estimated for each month of age until 5 years, separately. Further, age-specific HAZ, WAZ and WHZ were computed and compared within subsets of analytical sample by upper one and upper two deciles of Wealth Index with entire analytical sample as part of sensitivity analysis for choice of upper four deciles of Wealth Index as the cut-off.

The prevalence of stunting, underweight and wasting or thinness across age and sex groups of Indian children and adolescents was estimated in the NFHS-5 (for under-5) and the CNNS (for 5- to 19-year-old children) using the derived references. The values so obtained were compared with corresponding prevalence data obtained using the WHO Child Growth Standards. Non-overlapping 95% confidence intervals of the estimate of prevalence between the study references and the WHO standards was considered as statistically significant difference. Further, the occurrence of double burden of malnutrition (DBM), as the prevalence of a significant proportion of overweight or obese (WHZ > 2.0 or BAZ > 2.0) along with underweight (WHZ < -2.0 or BAZ < -2.0) children was also examined with the use of both standards. The statistical software R version 4.2.1 (R Core Team, 2022, Vienna, Austria) was used for data analysis. The accepted false positive error for all statistical tests was set at 5%.

RESULTS

For 0-4-year-old children: After excluding data corresponding to the upper and lower 5% of HAZ, WAZ

and WHZ, 10,384 (CNNS: 1,585; NFHS-3: 1,561; NFHS-4: 3,622; NFHS-5: 3,616) valid data for under-five children (5377 boys, 5007 girls) were obtained. All growth metrics indicated substantial deviation from the standard normal distribution are shown in **Table I**. Age and sex of children in the analytical sample are reported in **Web Fig 1**. Location (l), scale (s) and shape (s) parameters for new reference HAZ (0 to 59 months), reference WAZ (0 to 59 months) and reference WHZ (50 to 120 cm), estimated by GAMLSS are reported in **Web Tables I-III**, respectively. Reference centile curves for HAZ, WAZ and WHZ for boys and girls are shown in **Fig. 2**. The overall fitting of the model to the data was found to be satisfactory. The 2.5th, 50th and 95.5th centile curves were estimated and compared between presently derived Indian reference and WHO Child Growth Standards in **Fig. 3**.

For 5-19-year-old children: After excluding data using the process described *vide supra*, data of 6,178 children were available from CNNS; 3,299 (1745 boys, 1554 girls) were in the 5 to 9 years age group while 2,879 (1458 boys, 1421 girls) were in the 10 to 19 years age group. Age (months) specific frequency distribution is reported in **Web Fig 1** and growth metrics indicating a substantial deviation from the standard normal distribution are shown in **Table I**.

Data estimated by GAMLSS are reported in **Web Tables I, II and IV**. The reference centile curves for HAZ, WAZ and BAZ are reported in **Fig. 4**. The goodness fit measure indicated satisfactory fit of the model to the data. Like in the under-five-year-old children, the centiles of the presently derived Indian references for children aged 5 to 19 years were also consistently lower than the existing WHO references for each respective metric (**Fig. 3**).

The prevalence of stunting (15% vs 35%), underweight (17% vs 32%) and wasting (11% vs 19%)

Table I Distribution of z-scores for Different Anthropometric Growth Metrics Derived Against WHO Global Standards for Indian Children and Adolescents

Variable	Estimated z-score	
	Mean(95%CI)	SD(95%CI)
<i>0-4 y children</i>		
HAZ	-0.69 (-0.71, -0.66)	1.16 (1.14,1.17)
WAZ	-0.75 (-0.76, -0.73)	0.93 (0.91, 0.94)
WHZ	-0.53 (-0.55, -0.51)	1.07 (1.06, 1.08)
<i>5-19 y children</i>		
HAZ	-0.78 (-0.8, -0.76)	1.01 (1, 1.03)
WAZ	-0.8 (-0.83, -0.77)	1.14 (1.12, 1.16)
BAZ	-0.71 (-0.74, -0.69)	1.19 (1.17, 1.22)

HAZ Height-for-age z-score, WAZ Weight-for-age z-score, WHZ Weight-for-height z-score

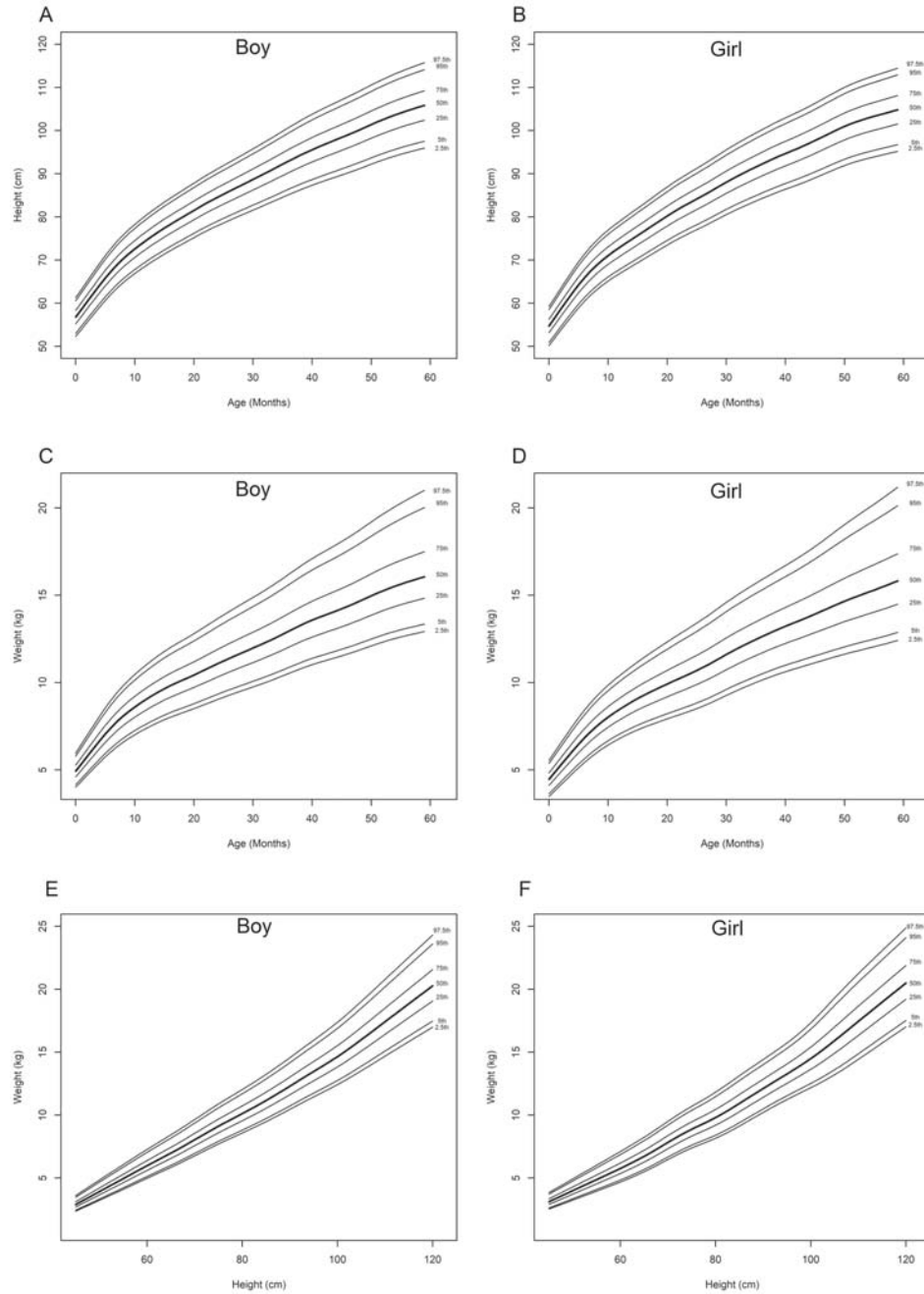


Fig. 2 Centiles of reference growth of height-for-age, weight-for-age, and weight-for-height in Indian children aged 0-4y

among children aged under-five were significantly reduced when the references for growth were applied to the NFHS-5 data, in comparison to the WHO Growth Standards. The prevalence of stunting in the CNNS data for children aged 5 to 19 years (6% vs 21%), 10- to 14-year-olds (7% vs 25%) and 15- to 19-year-olds (5% vs 29%) was also significantly reduced when India-specific

height standard was compared to the WHO height standards. A similar pattern was observed for thinness based on BMI standards (**Table II**).

The prevalence of overweight, as measured by WHZ >2 for under-five-year-old children and BMI-for-age Z scores (BAZ) >2 for children and adolescents aged above 5 years, using the present Indian reference, were

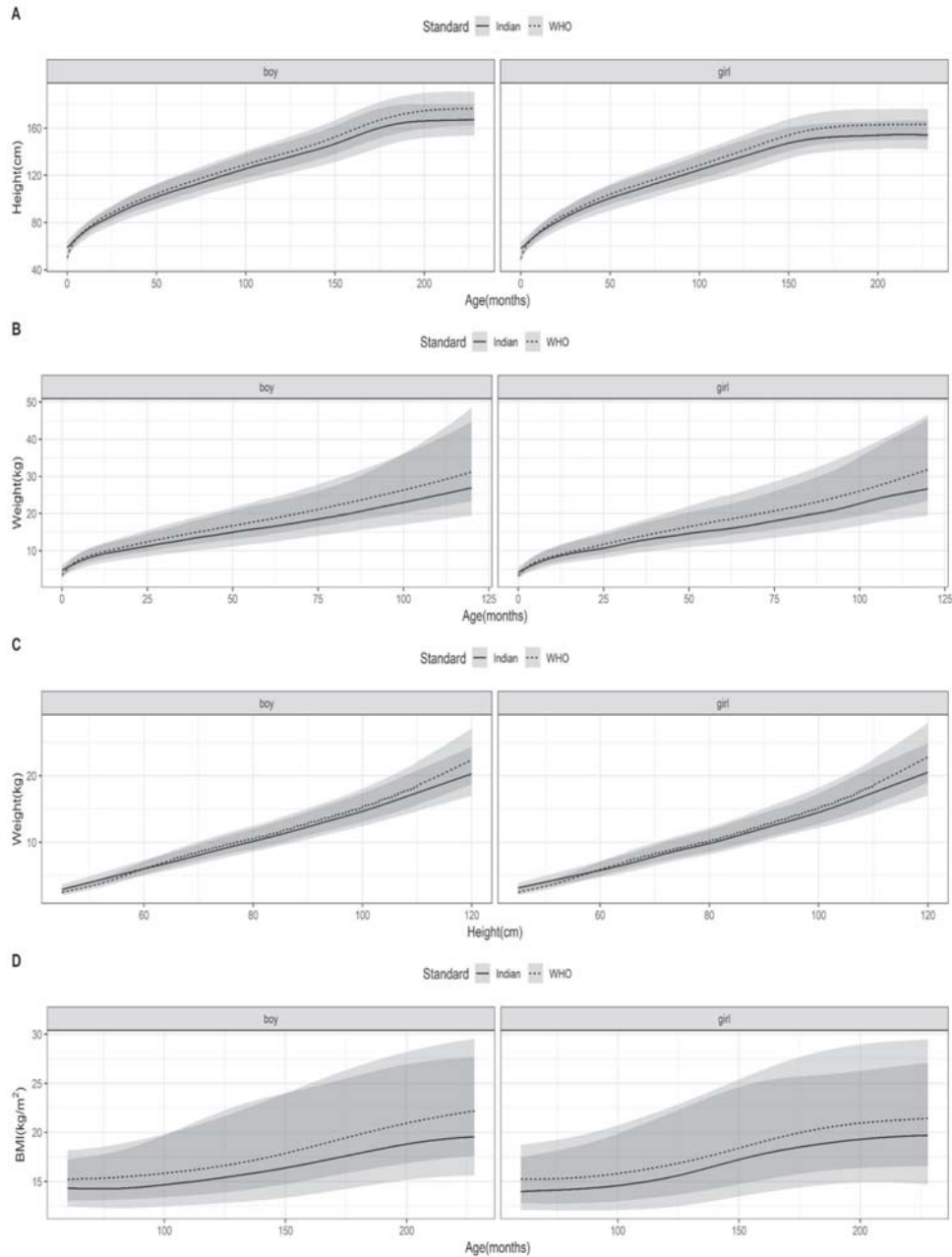


Fig. 3 Comparison of the present Indian growth reference against WHO growth standards and references (median with band of 2.5th and 97.5th percentiles). A Height-for-age; B Weight-for-age; C Weight-for-height; D BMI-for-age

comparable with the prevalence of overweight derived using the WHO standard (4.4% vs 3.4% for age <5y; 2.8% vs 2.1% for 5-19y; 1.6% vs 1.3% for 10-14y and 0.8% vs 0.1% for 15-19y respectively, **Table III**). However, the risk of being overweight (as measured by WHZ >1 for under-five children or BAZ >1 children and adolescents aged >5y) was higher using the present Indian reference in

comparison with the WHO standard (13.8% vs 9.0% for < 5 year; 12% vs 6.3% for 5 to 19 year; 12.7% vs 7.5% for 10 to 15 year and 11.9% vs 4.3% respectively) as seen in **Table II**.

A user friendly web application (<https://datatools.sjri.res.in/ZSC/>) was developed on Python and Streamlit to calculate z-score and risk of growth faltering [8].

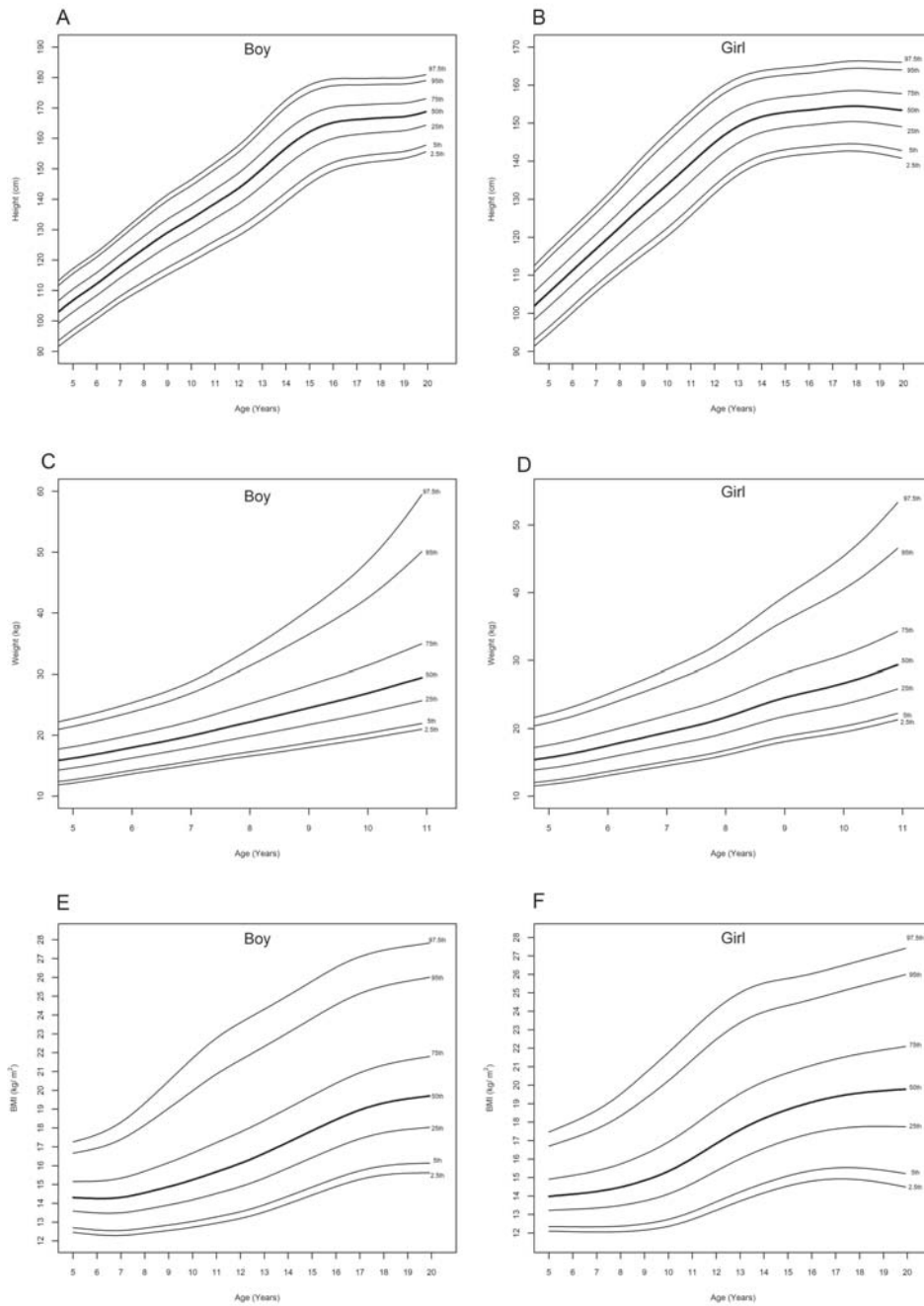


Fig. 4 Centiles of standard growth of height-for-age, weight-for-age, and BMI-for-age for Indian children aged 5-19 years

DISCUSSION

This paper has constructed contextual, nationally representative, and contemporary growth curves which are continuous; unlike the WHO standard, with a discontinuity at 2 years and a different population after 5 years. The ideal approach to constructing growth references locally would be through a prospective, adequately powered and

specifically focused study. Till such standards become available, we provide a reasonable alternative to fulfil the need for children aged 0-19 years. Following earlier reports [11] we reassessed the appropriateness of WHO Growth Standards using data on healthy children in India, and proceeded to develop India-specific anthropometric growth references across ages and for both genders of

children and adolescents. This was possible because a healthy representative sample of under-5 year-old children could be selected from four different national surveys over the last 15 or so years, and similarly, a healthy sample of 5- to 19-year-old children could be selected from the CNNS, using similar criteria for health as used in the WHO MGRS study [16] as used by WHO [7] along with additional biomedical parameters (Fig. 1) making the analytical data more robust. The present references were also developed by the same conventional GAMLSS [17] technique as was used by WHO [16].

The present references were consistently lower than the WHO growth standards (Fig.3). Thus, with these references, the estimates of growth faltering in Indian children and adolescents were reduced by ~40-80% across different metrics in comparison to those derived from WHO growth standards (Table II).

A caveat is that the present derived reference should only be applied for children aged 4 months and above, since in the healthy subsample of children had a limited representation of children upto 3 months of age. Therefore, the WHO Growth Standards should be recommended for infants upto 3 months of age.

A high prevalence of undernutrition is usually reported

in low- and middle- income countries surveys when WHO Growth Standards are used [18]. However, several studies have critically examined the validity of the WHO Growth Standards for different populations, and a systematic review of the comparison of the use of regional growth references against the WHO Growth Standards has recommended the adoption of regional standards for growth [19]. While a method of creating synthetic growth reference charts by incorporating information from existing reference growth studies has also been suggested [20], there are no studies, to our knowledge, that have critically examined the appropriateness of the WHO standard, or the generation of contextual standards by using local healthy child populations defined by the stringent inclusion criteria that were used by WHO to develop the global standards.

Given that the NFHS-5 has shown an increase in the prevalence of overweight children from 9.9% to 13.8% compared to NFHS-4, it seems likely that the supplementary programs are having some effect on the right-hand tail of this distribution already. Using the present overweight cut-offs, the prevalence of overweight is much more, and this points to a serious emerging problem of double burden of malnutrition (DBM) in Indian children, which may be the tip of the iceberg, as an

Table II Comparison of the Prevalence (95% CI) of Growth Faltering and Overweight or Obese Derived by WHO Standard and Indian Reference for Indian Children and Adolescents (Under 5y: NFHS-5 and Above 5y: CNNS)

Standard	Prevalence (%) with 95% CI			
	<5y	5-9y	10-14y	15-19y
<i>Stunting</i>				
WHO	35.5 (35.2, 35.9)	20.8 (20.1, 21.5)	24.9 (23.9, 26.0)	28.9 (27.7, 30.2)
India	15.5 (15.3, 15.8)	6.2 (5.8, 6.6)	7.4 (6.8, 7.9)	5.5 (5.1, 6)
<i>Underweight</i>				
WHO	32.1 (31.8, 32.5)	30.5 (29.5, 31.4)		
India	16.9 (16.6, 17.1)	5.4 (5, 5.7)		
<i>Wasting</i>				
WHO	19.2 (18.9, 19.6)			
India	10.9 (10.6, 11.2)			
<i>Thinness</i>				
WHO		19.3 (18.6, 20.0)	22.9 (22.0, 23.8)	17.0 (16.2, 17.7)
India		5.3 (4.9, 5.7)	5.7 (5.2, 6.1)	3.2 (2.8, 3.5)
<i>Risk of overweight (WHZ>1) or overweight (BAZ>1)</i>				
WHO	9.0 (8.8, 9.2)	6.3 (5.7, 6.8)	7.5 (6.8, 8.2)	4.3 (3.9, 4.7)
India	13.8 (13.5, 14.0)	12.0 (11.2, 12.9)	12.7 (11.7, 13.6)	11.9 (11.0, 12.9)
<i>Overweight (WHZ>2) or obese (BAZ>2)</i>				
WHO	3.4 (3.3, 3.5)	2.1 (1.9, 2.4)	1.3 (1.1, 1.5)	0.05 (0.01, 0.09)
India	4.4 (4.2, 4.6)	2.8 (2.5, 3.1)	1.6 (1.4, 1.8)	0.79 (0.59, 0.98)

WHO World health organization, BAZ Body mass index-for-age z-score, WHZ Weight-for-height z-score

WHAT THIS STUDY ADDS?

- The distribution of growth metrics among 'healthy' children and adolescents of India deviate significantly from the WHO growth standards.
- New growth references for Indian children and adolescents, based on 'healthy' participants were developed, which are nationally representative and could be more suitable for routine clinical use and for informing policy.
- Estimates of the prevalence of growth faltering among Indian children and adolescents reduced by approximately half using these references in comparison to WHO growth standards.

analysis of metabolic indicators of obesity in the CNNS showed that over 50% of adolescent children, whether normal weight, underweight or stunted, had at least one biomarker (high blood glucose, triglycerides or high blood pressure) of excess nutrition [21]. This is because Indians are likely to have a greater adiposity for a given BAZ or WHZ [22], but this surprising finding is somewhat vindicated in the increased prevalence of anthropometric overweight in different age groups (13.8%, 12.0%, 11.7% and 11.9% for < 5 y, 5-19 y, 10-14 y and 15-19 y respectively) when the present standard is applied to the NFHS-5 and the CNNS populations. Further, the underestimation of possible risk of overweight (WHZ > 1; 14% vs 9%) diverts policy action away from the emerging epidemic of overnutrition and DBM in this age group.

A strength of this study is the use of data extracted from four different national surveys over different times and that the age-specific mean HAZ, WAZ and WHZ of the extracted analytical sample are consistent across the upper four deciles and the uppermost decile (**Web Fig. 2**) for under-5-year-old children. The 5-19 year data from the CNNS is recent, nationally representative and employed predefined criteria, including biochemistry, to select participants for analysis. The extreme measurements at both ends were also removed before analysis to avoid undue variability by unknown and unobserved factors, which are expected to partially account for the measurement error. The limitations are lack of adequate data for 0-3 months age, 'intersurveyor' variability in measurements, which is mostly random in largescale surveys, and some dissimilarity in selection criteria from the WHO MGRS due to non-availability of relevant data.

It could be argued that that the 'affluent neighbourhood' in South Delhi that were sampled for the WHO MGRS represented the most privileged and were therefore best suited for selecting children free from environmental constraints for child growth. However, we believe that environmental growth constraints among the richer families selected by us are broadly comparable,

given the additional socio-demographic selection criteria. Further, these children are more representative of the national population.

The evidence presented here and from the systematic review [19], argues that the one-growth standard-fits-all approach for deriving population estimates of anthropometric growth faltering could be misleading. However, these findings need validation through prospective and focussed studies for developing a more robust evidence base. In the interim, Indian stakeholders could consider using the present growth references for routine clinical use and for informing policy after factoring for the potential barriers and logistic challenges.

Ethics clearance: The Institution Ethics Review board of St. John's Medical College provided waiver of review for this secondary data analysis. No. 164/2022, dated Aug 22, 2022.

Contributors: SG, TT, AVK: Conceptualised the study; RM, SG, AVK, TT: Wrote the first draft of the paper. HPS: Reviewed and edited the manuscript. RM, SG: Performed the statistical analysis. All authors have approved the final version of the manuscript. SG, TT: Had access to the data and have verified the data.

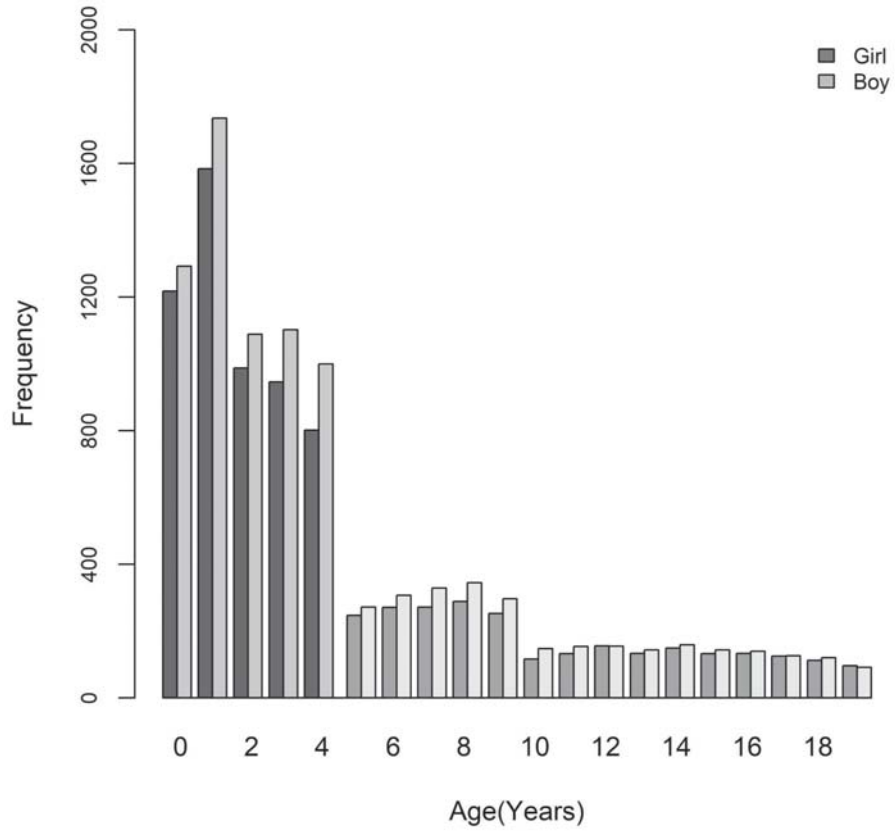
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Competing interest: None stated.

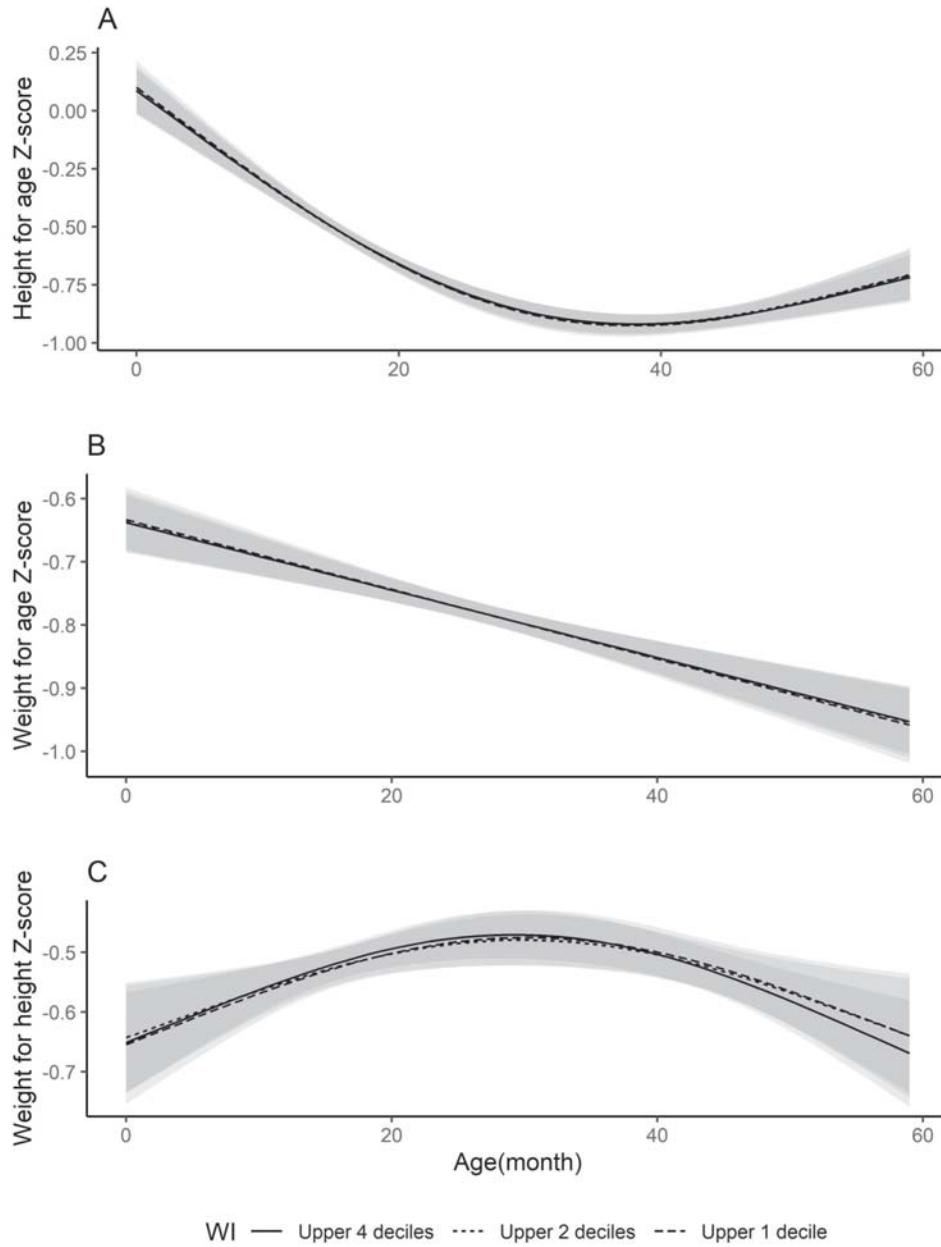
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Web Fig. 1 The multiple bar diagrams depict age and sex wise available data



Web Fig. 2 Age-specific mean Z-scores of HAZ, WAZ and WHZ of healthy under-five children across upper 4 deciles, upper 2 deciles and uppermost deciles of wealth

Web Table I LMS parameters of height-for-age for Indian children and adolescents

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
0	56.7705	0.0403	1	54.7045	0.0421	1
1	58.6132	0.0403	1	56.6709	0.0421	1
2	60.4558	0.0403	1	58.6324	0.0421	1
3	62.2903	0.0403	1	60.5642	0.0422	1
4	64.0805	0.0402	1	62.4376	0.0422	1
5	65.8000	0.0402	1	64.2247	0.0422	1
6	67.4207	0.0402	1	65.8874	0.0423	1
7	68.9137	0.0401	1	67.3906	0.0423	1
8	70.2547	0.0401	1	68.7336	0.0423	1
9	71.4614	0.0400	1	69.9385	0.0424	1
10	72.5724	0.0400	1	71.0281	0.0424	1
11	73.6232	0.0400	1	72.0304	0.0424	1
12	74.6272	0.0399	1	72.9765	0.0425	1
13	75.5892	0.0398	1	73.8957	0.0425	1
14	76.5136	0.0398	1	74.8027	0.0425	1
15	77.4023	0.0397	1	75.7044	0.0426	1
16	78.2565	0.0397	1	76.6072	0.0426	1
17	79.0803	0.0396	1	77.5119	0.0427	1
18	79.8871	0.0396	1	78.4169	0.0427	1
19	80.6925	0.0396	1	79.3193	0.0427	1
20	81.5040	0.0396	1	80.2069	0.0428	1
21	82.3072	0.0396	1	81.0636	0.0428	1
22	83.0838	0.0396	1	81.8767	0.0429	1
23	83.8247	0.0396	1	82.6526	0.0430	1
24	84.5392	0.0397	1	83.4043	0.0430	1
25	85.2392	0.0398	1	84.1455	0.0431	1
26	85.9328	0.0400	1	84.8907	0.0432	1
27	86.6218	0.0401	1	85.6549	0.0432	1
28	87.3077	0.0403	1	86.4473	0.0433	1
29	87.9922	0.0406	1	87.2501	0.0434	1
30	88.6778	0.0408	1	88.0384	0.0435	1
31	89.3669	0.0411	1	88.7924	0.0436	1
32	90.0626	0.0414	1	89.5149	0.0437	1
33	90.7680	0.0417	1	90.2138	0.0438	1
34	91.4858	0.0420	1	90.8963	0.0439	1
35	92.2096	0.0424	1	91.5655	0.0440	1
36	92.9258	0.0427	1	92.2236	0.0441	1

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
37	93.6213	0.0430	1	92.8707	0.0442	1
38	94.2917	0.0433	1	93.5000	0.0443	1
39	94.9379	0.0436	1	94.1034	0.0444	1
40	95.5610	0.0439	1	94.6793	0.0446	1
41	96.1630	0.0442	1	95.2443	0.0447	1
42	96.7461	0.0445	1	95.8178	0.0448	1
43	97.3135	0.0447	1	96.4143	0.0449	1
44	97.8715	0.0450	1	97.0353	0.0450	1
45	98.4282	0.0452	1	97.6806	0.0451	1
46	98.9910	0.0454	1	98.3464	0.0453	1
47	99.5665	0.0456	1	99.0213	0.0454	1
48	100.1609	0.0458	1	99.6929	0.0455	1
49	100.7752	0.0460	1	100.3467	0.0456	1
50	101.3924	0.0462	1	100.9649	0.0458	1
51	101.9923	0.0463	1	101.5290	0.0459	1
52	102.5604	0.0465	1	102.0319	0.0460	1
53	103.0984	0.0467	1	102.4858	0.0461	1
54	103.6106	0.0468	1	102.9044	0.0463	1
55	104.0996	0.0470	1	103.3001	0.0464	1
56	104.5648	0.0472	1	103.6829	0.0465	1
57	105.0052	0.0473	1	104.0622	0.0466	1
58	105.4232	0.0475	1	104.4439	0.0468	1
59	105.8261	0.0477	1	104.8283	0.0469	1
60	106.2262	0.0478	1	105.2132	0.0470	1
61	107.2885	0.0519	1	106.0276	0.0525	1
62	107.7489	0.0517	1	106.5068	0.0524	1
63	108.2018	0.0515	1	106.9862	0.0523	1
64	108.6490	0.0512	1	107.4658	0.0522	1
65	109.0922	0.0510	1	107.9456	0.0520	1
66	109.5333	0.0508	1	108.4249	0.0519	1
67	109.9739	0.0505	1	108.9040	0.0517	1
68	110.4158	0.0503	1	109.3834	0.0515	1
69	110.8608	0.0501	1	109.8632	0.0514	1
70	111.3106	0.0499	1	110.3432	0.0512	1
71	111.7671	0.0497	1	110.8229	0.0510	1
72	112.2319	0.0495	1	111.3018	0.0508	1
73	112.7051	0.0494	1	111.7798	0.0506	1
74	113.1857	0.0492	1	112.2572	0.0505	1

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
75	113.6724	0.0491	1	112.7337	0.0503	1
76	114.1641	0.0490	1	113.2092	0.0501	1
77	114.6597	0.0490	1	113.6838	0.0500	1
78	115.1578	0.0489	1	114.1574	0.0498	1
79	115.6574	0.0489	1	114.6298	0.0497	1
80	116.1572	0.0488	1	115.1015	0.0496	1
81	116.6562	0.0489	1	115.5730	0.0495	1
82	117.1530	0.0489	1	116.0452	0.0494	1
83	117.6466	0.0489	1	116.5179	0.0493	1
84	118.1358	0.0490	1	116.9904	0.0493	1
85	118.6200	0.0490	1	117.4622	0.0492	1
86	119.0998	0.0491	1	117.9333	0.0492	1
87	119.5756	0.0492	1	118.4037	0.0491	1
88	120.0479	0.0494	1	118.8737	0.0491	1
89	120.5172	0.0495	1	119.3434	0.0491	1
90	120.9839	0.0496	1	119.8130	0.0492	1
91	121.4485	0.0498	1	120.2829	0.0492	1
92	121.9115	0.0499	1	120.7539	0.0493	1
93	122.3734	0.0501	1	121.2272	0.0493	1
94	122.8347	0.0503	1	121.7033	0.0494	1
95	123.2958	0.0504	1	122.1821	0.0495	1
96	123.7571	0.0506	1	122.6632	0.0496	1
97	124.2188	0.0507	1	123.1456	0.0497	1
98	124.6801	0.0508	1	123.6286	0.0499	1
99	125.1401	0.0510	1	124.1119	0.0500	1
100	125.5980	0.0511	1	124.5948	0.0501	1
101	126.0530	0.0512	1	125.0764	0.0503	1
102	126.5041	0.0513	1	125.5566	0.0504	1
103	126.9506	0.0514	1	126.0353	0.0506	1
104	127.3916	0.0515	1	126.5119	0.0507	1
105	127.8263	0.0516	1	126.9862	0.0508	1
106	128.2538	0.0516	1	127.4574	0.0510	1
107	128.6733	0.0517	1	127.9249	0.0511	1
108	129.0839	0.0517	1	128.3885	0.0512	1
109	129.4854	0.0517	1	128.8479	0.0513	1
110	129.8788	0.0517	1	129.3041	0.0514	1
111	130.2655	0.0517	1	129.7580	0.0515	1
112	130.6470	0.0517	1	130.2105	0.0516	1

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
113	131.0244	0.0517	1	130.6621	0.0517	1
114	131.3993	0.0516	1	131.1132	0.0517	1
115	131.7730	0.0516	1	131.5640	0.0518	1
116	132.1468	0.0515	1	132.0152	0.0518	1
117	132.5221	0.0515	1	132.4673	0.0518	1
118	132.9003	0.0515	1	132.9208	0.0518	1
119	133.2827	0.0514	1	133.3760	0.0517	1
120	133.6707	0.0514	1	133.8327	0.0517	1
121	134.0653	0.0514	1	134.2909	0.0516	1
122	134.4660	0.0513	1	134.7500	0.0516	1
123	134.8718	0.0513	1	135.2101	0.0515	1
124	135.2819	0.0513	1	135.6715	0.0514	1
125	135.6954	0.0513	1	136.1344	0.0512	1
126	136.1114	0.0513	1	136.5987	0.0511	1
127	136.5290	0.0513	1	137.0643	0.0510	1
128	136.9473	0.0513	1	137.5309	0.0508	1
129	137.3654	0.0514	1	137.9984	0.0506	1
130	137.7824	0.0514	1	138.4665	0.0504	1
131	138.1975	0.0514	1	138.9352	0.0503	1
132	138.6097	0.0514	1	139.4045	0.0501	1
133	139.0184	0.0515	1	139.8746	0.0498	1
134	139.4245	0.0515	1	140.3454	0.0496	1
135	139.8294	0.0516	1	140.8162	0.0494	1
136	140.2348	0.0516	1	141.2857	0.0492	1
137	140.6419	0.0517	1	141.7526	0.0489	1
138	141.0524	0.0518	1	142.2158	0.0487	1
139	141.4677	0.0519	1	142.6745	0.0484	1
140	141.8892	0.0519	1	143.1281	0.0482	1
141	142.3185	0.0520	1	143.5762	0.0479	1
142	142.7571	0.0521	1	144.0180	0.0477	1
143	143.2063	0.0522	1	144.4527	0.0474	1
144	143.6678	0.0523	1	144.8792	0.0471	1
145	144.1427	0.0525	1	145.2969	0.0468	1
146	144.6311	0.0526	1	145.7054	0.0465	1
147	145.1319	0.0527	1	146.1044	0.0462	1
148	145.6442	0.0529	1	146.4933	0.0459	1
149	146.1671	0.0530	1	146.8714	0.0457	1
150	146.6997	0.0532	1	147.2381	0.0454	1

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
151	147.2409	0.0533	1	147.5927	0.0451	1
152	147.7900	0.0534	1	147.9351	0.0448	1
153	148.3459	0.0536	1	148.2651	0.0445	1
154	148.9076	0.0537	1	148.5829	0.0442	1
155	149.4744	0.0538	1	148.8885	0.0439	1
156	150.0451	0.0539	1	149.1820	0.0436	1
157	150.6189	0.0541	1	149.4632	0.0433	1
158	151.1948	0.0541	1	149.7318	0.0430	1
159	151.7714	0.0542	1	149.9874	0.0427	1
160	152.3478	0.0543	1	150.2297	0.0425	1
161	152.9226	0.0543	1	150.4583	0.0422	1
162	153.4947	0.0544	1	150.6737	0.0420	1
163	154.0630	0.0544	1	150.8764	0.0417	1
164	154.6262	0.0544	1	151.0667	0.0415	1
165	155.1833	0.0543	1	151.2451	0.0412	1
166	155.7330	0.0543	1	151.4118	0.0410	1
167	156.2741	0.0542	1	151.5676	0.0408	1
168	156.8055	0.0541	1	151.7132	0.0406	1
169	157.3260	0.0539	1	151.8489	0.0404	1
170	157.8348	0.0537	1	151.9746	0.0402	1
171	158.3313	0.0535	1	152.0907	0.0400	1
172	158.8151	0.0533	1	152.1979	0.0399	1
173	159.2857	0.0531	1	152.2971	0.0397	1
174	159.7425	0.0528	1	152.3894	0.0396	1
175	160.1852	0.0525	1	152.4761	0.0395	1
176	160.6132	0.0522	1	152.5585	0.0393	1
177	161.0260	0.0519	1	152.6376	0.0392	1
178	161.4231	0.0515	1	152.7137	0.0391	1
179	161.8041	0.0512	1	152.7867	0.0390	1
180	162.1684	0.0508	1	152.8566	0.0390	1
181	162.5156	0.0504	1	152.9234	0.0389	1
182	162.8454	0.0500	1	152.9870	0.0388	1
183	163.1579	0.0497	1	153.0475	0.0387	1
184	163.4531	0.0493	1	153.1047	0.0387	1
185	163.7312	0.0489	1	153.1586	0.0386	1
186	163.9922	0.0485	1	153.2095	0.0386	1
187	164.2363	0.0481	1	153.2581	0.0386	1
188	164.4636	0.0477	1	153.3053	0.0385	1

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
189	164.6741	0.0474	1	153.3515	0.0385	1
190	164.8679	0.0470	1	153.3975	0.0385	1
191	165.0452	0.0466	1	153.4440	0.0385	1
192	165.2061	0.0463	1	153.4916	0.0385	1
193	165.3506	0.0459	1	153.5410	0.0385	1
194	165.4792	0.0456	1	153.5924	0.0385	1
195	165.5931	0.0453	1	153.6458	0.0385	1
196	165.6940	0.0450	1	153.7011	0.0385	1
197	165.7831	0.0447	1	153.7586	0.0385	1
198	165.8619	0.0444	1	153.8180	0.0385	1
199	165.9319	0.0441	1	153.8788	0.0386	1
200	165.9945	0.0439	1	153.9404	0.0386	1
201	166.0510	0.0437	1	154.0018	0.0386	1
202	166.1031	0.0434	1	154.0621	0.0386	1
203	166.1520	0.0432	1	154.1204	0.0387	1
204	166.1992	0.0430	1	154.1762	0.0387	1
205	166.2463	0.0428	1	154.2287	0.0387	1
206	166.2941	0.0427	1	154.2777	0.0387	1
207	166.3427	0.0425	1	154.3227	0.0388	1
208	166.3915	0.0424	1	154.3633	0.0388	1
209	166.4401	0.0423	1	154.3993	0.0389	1
210	166.4881	0.0421	1	154.4308	0.0389	1
211	166.5351	0.0420	1	154.4574	0.0389	1
212	166.5805	0.0419	1	154.4782	0.0390	1
213	166.6240	0.0418	1	154.4928	0.0390	1
214	166.6652	0.0417	1	154.5013	0.0391	1
215	166.7035	0.0416	1	154.5038	0.0391	1
216	166.7386	0.0415	1	154.5004	0.0391	1
217	166.7699	0.0414	1	154.4917	0.0392	1
218	166.7974	0.0413	1	154.4775	0.0392	1
219	166.8222	0.0412	1	154.4581	0.0393	1
220	166.8457	0.0411	1	154.4336	0.0393	1
221	166.8697	0.0410	1	154.4042	0.0394	1
222	166.8957	0.0409	1	154.3697	0.0395	1
223	166.9253	0.0408	1	154.3303	0.0396	1
224	166.9600	0.0407	1	154.2865	0.0397	1
225	167.0016	0.0406	1	154.2387	0.0397	1
226	167.0514	0.0405	1	154.1875	0.0399	1

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
227	167.1112	0.0403	1	154.1334	0.0400	1
228	167.1826	0.0402	1	154.0769	0.0401	1
229	167.2670	0.0400	1	154.0188	0.0402	1
230	167.3659	0.0399	1	153.9594	0.0404	1
231	167.4790	0.0397	1	153.8994	0.0405	1
232	167.6052	0.0395	1	153.8389	0.0407	1
233	167.7432	0.0394	1	153.7779	0.0408	1
234	167.8919	0.0392	1	153.7168	0.0410	1
235	168.0501	0.0390	1	153.6560	0.0412	1
236	168.2168	0.0388	1	153.5959	0.0414	1
237	168.3906	0.0386	1	153.5364	0.0416	1
238	168.5706	0.0384	1	153.4773	0.0417	1
239	168.7554	0.0382	1	153.4185	0.0419	1

M Location parameter, *S* Scale parameter, *L* Shape parameter

Web Table II LMS parameters of weight-for-age for Indian children aged 0 to 10 years

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
0	4.9259	0.1008	0.4106	4.4608	0.1183	0.5851
1	5.3590	0.1009	0.3886	4.8695	0.1172	0.5633
2	5.7921	0.1010	0.3666	5.2776	0.1161	0.5415
3	6.2230	0.1011	0.3446	5.6822	0.1150	0.5198
4	6.6422	0.1013	0.3225	6.0795	0.1140	0.4980
5	7.0434	0.1014	0.3005	6.4645	0.1129	0.4763
6	7.4198	0.1015	0.2785	6.8298	0.1119	0.4545
7	7.7650	0.1016	0.2565	7.1684	0.1110	0.4327
8	8.0736	0.1017	0.2345	7.4787	0.1101	0.4110
9	8.3491	0.1019	0.2125	7.7624	0.1094	0.3892
10	8.6001	0.1020	0.1905	8.0217	0.1088	0.3674
11	8.8342	0.1022	0.1685	8.2602	0.1083	0.3457
12	9.0550	0.1023	0.1465	8.4826	0.1081	0.3239
13	9.2642	0.1025	0.1245	8.6935	0.1081	0.3022
14	9.4630	0.1027	0.1025	8.8940	0.1083	0.2804
15	9.6498	0.1029	0.0805	9.0839	0.1088	0.2586
16	9.8221	0.1031	0.0585	9.2632	0.1095	0.2369
17	9.9793	0.1034	0.0365	9.4337	0.1103	0.2151
18	10.1280	0.1036	0.0145	9.5984	0.1111	0.1933
19	10.2763	0.1039	-0.0075	9.7597	0.1120	0.1716
20	10.4300	0.1042	-0.0295	9.9182	0.1129	0.1498
21	10.5887	0.1045	-0.0515	10.0738	0.1137	0.1281
22	10.7507	0.1048	-0.0735	10.2269	0.1144	0.1063
23	10.9143	0.1051	-0.0955	10.3793	0.1150	0.0845
24	11.0769	0.1055	-0.1175	10.5337	0.1156	0.0628
25	11.2359	0.1058	-0.1395	10.6929	0.1159	0.0410
26	11.3902	0.1061	-0.1615	10.8595	0.1162	0.0192
27	11.5404	0.1065	-0.1835	11.0360	0.1163	-0.0025
28	11.6875	0.1068	-0.2055	11.2236	0.1162	-0.0243
29	11.8328	0.1072	-0.2275	11.4170	0.1161	-0.0460
30	11.9780	0.1075	-0.2495	11.6090	0.1158	-0.0678
31	12.1249	0.1079	-0.2715	11.7939	0.1156	-0.0896
32	12.2754	0.1083	-0.2935	11.9715	0.1154	-0.1113
33	12.4312	0.1086	-0.3155	12.1429	0.1151	-0.1331
34	12.5942	0.1090	-0.3375	12.3093	0.1149	-0.1549
35	12.7631	0.1094	-0.3595	12.4714	0.1147	-0.1766
36	12.9347	0.1098	-0.3815	12.6299	0.1146	-0.1984

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
37	13.1054	0.1102	-0.4035	12.7851	0.1146	-0.2202
38	13.2717	0.1107	-0.4255	12.9362	0.1147	-0.2419
39	13.4295	0.1111	-0.4475	13.0820	0.1149	-0.2637
40	13.5757	0.1116	-0.4695	13.2224	0.1153	-0.2855
41	13.7118	0.1121	-0.4915	13.3598	0.1158	-0.3072
42	13.8415	0.1125	-0.5135	13.4970	0.1164	-0.3290
43	13.9685	0.1130	-0.5355	13.6364	0.1172	-0.3508
44	14.0959	0.1135	-0.5574	13.7786	0.1182	-0.3725
45	14.2268	0.1141	-0.5794	13.9238	0.1192	-0.3943
46	14.3635	0.1146	-0.6014	14.0718	0.1204	-0.4161
47	14.5066	0.1151	-0.6234	14.2209	0.1216	-0.4378
48	14.6562	0.1156	-0.6454	14.3694	0.1228	-0.4596
49	14.8111	0.1162	-0.6674	14.5152	0.1240	-0.4814
50	14.9666	0.1167	-0.6894	14.6567	0.1252	-0.5031
51	15.1173	0.1173	-0.7114	14.7919	0.1264	-0.5249
52	15.2592	0.1179	-0.7334	14.9207	0.1276	-0.5467
53	15.3925	0.1184	-0.7554	15.0459	0.1287	-0.5684
54	15.5179	0.1190	-0.7774	15.1705	0.1298	-0.5902
55	15.6362	0.1196	-0.7994	15.2964	0.1309	-0.6120
56	15.7483	0.1202	-0.8214	15.4242	0.1319	-0.6337
57	15.8549	0.1208	-0.8434	15.5544	0.1329	-0.6555
58	15.9571	0.1214	-0.8654	15.6869	0.1339	-0.6773
59	16.0566	0.1220	-0.8874	15.8209	0.1348	-0.6990
60	16.1556	0.1227	-0.9094	15.9553	0.1358	-0.7208
61	16.3678	0.1582	-0.5284	15.8248	0.1609	-0.5482
62	16.5002	0.1579	-0.5468	15.9458	0.1612	-0.5605
63	16.6372	0.1575	-0.5652	16.0734	0.1615	-0.5728
64	16.7784	0.1571	-0.5834	16.2075	0.1617	-0.5851
65	16.9231	0.1568	-0.6015	16.3480	0.1620	-0.5974
66	17.0711	0.1564	-0.6195	16.4950	0.1623	-0.6097
67	17.2217	0.1561	-0.6372	16.6482	0.1626	-0.6220
68	17.3745	0.1558	-0.6549	16.8066	0.1629	-0.6344
69	17.5287	0.1555	-0.6724	16.9690	0.1632	-0.6467
70	17.6838	0.1553	-0.6897	17.1343	0.1635	-0.6590
71	17.8393	0.1551	-0.7068	17.3010	0.1638	-0.6713
72	17.9944	0.1550	-0.7238	17.4682	0.1641	-0.6836
73	18.1486	0.1549	-0.7406	17.6345	0.1644	-0.6959
74	18.3019	0.1550	-0.7572	17.7994	0.1648	-0.7082

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
75	18.4549	0.1551	-0.7736	17.9634	0.1651	-0.7205
76	18.6084	0.1553	-0.7898	18.1269	0.1655	-0.7328
77	18.7631	0.1555	-0.8059	18.2904	0.1659	-0.7451
78	18.9197	0.1559	-0.8217	18.4543	0.1663	-0.7574
79	19.0790	0.1563	-0.8374	18.6191	0.1667	-0.7697
80	19.2417	0.1568	-0.8529	18.7852	0.1672	-0.7820
81	19.4080	0.1574	-0.8683	18.9525	0.1677	-0.7943
82	19.5780	0.1581	-0.8834	19.1205	0.1682	-0.8066
83	19.7518	0.1588	-0.8983	19.2885	0.1687	-0.8189
84	19.9295	0.1597	-0.9131	19.4561	0.1692	-0.8312
85	20.1111	0.1606	-0.9277	19.6229	0.1698	-0.8435
86	20.2967	0.1616	-0.9422	19.7881	0.1704	-0.8558
87	20.4861	0.1627	-0.9565	19.9521	0.1710	-0.8681
88	20.6783	0.1639	-0.9706	20.1164	0.1716	-0.8804
89	20.8724	0.1651	-0.9845	20.2832	0.1722	-0.8927
90	21.0672	0.1664	-0.9983	20.4546	0.1729	-0.9050
91	21.2617	0.1678	-1.0120	20.6327	0.1736	-0.9173
92	21.4548	0.1692	-1.0255	20.8195	0.1743	-0.9296
93	21.6454	0.1706	-1.0389	21.0170	0.1750	-0.9419
94	21.8335	0.1721	-1.0522	21.2258	0.1758	-0.9542
95	22.0198	0.1736	-1.0653	21.4451	0.1765	-0.9665
96	22.2051	0.1751	-1.0783	21.6738	0.1773	-0.9788
97	22.3902	0.1766	-1.0912	21.9110	0.1781	-0.9911
98	22.5761	0.1781	-1.1040	22.1556	0.1789	-1.0034
99	22.7634	0.1796	-1.1167	22.4067	0.1797	-1.0157
100	22.9530	0.1810	-1.1293	22.6631	0.1806	-1.0280
101	23.1447	0.1825	-1.1418	22.9222	0.1814	-1.0403
102	23.3381	0.1839	-1.1542	23.1808	0.1823	-1.0526
103	23.5329	0.1853	-1.1665	23.4360	0.1831	-1.0649
104	23.7287	0.1866	-1.1787	23.6845	0.1840	-1.0772
105	23.9251	0.1879	-1.1908	23.9232	0.1849	-1.0895
106	24.1218	0.1892	-1.2029	24.1490	0.1857	-1.1018
107	24.3185	0.1905	-1.2149	24.3603	0.1866	-1.1141
108	24.5150	0.1917	-1.2268	24.5590	0.1874	-1.1264
109	24.7113	0.1929	-1.2387	24.7469	0.1882	-1.1387
110	24.9074	0.1941	-1.2504	24.9264	0.1891	-1.1510
111	25.1033	0.1953	-1.2622	25.0995	0.1899	-1.1633
112	25.2987	0.1965	-1.2738	25.2682	0.1907	-1.1756

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
113	25.4939	0.1977	-1.2854	25.4348	0.1916	-1.1879
114	25.6892	0.1989	-1.2970	25.6010	0.1924	-1.2002
115	25.8856	0.2002	-1.3085	25.7684	0.1932	-1.2125
116	26.0842	0.2014	-1.3200	25.9386	0.1940	-1.2248
117	26.2860	0.2028	-1.3314	26.1132	0.1949	-1.2371
118	26.4918	0.2041	-1.3428	26.2938	0.1957	-1.2494
119	26.7028	0.2055	-1.3542	26.4819	0.1965	-1.2617
120	26.9196	0.2069	-1.3655	26.6790	0.1973	-1.2740
121	27.1416	0.2084	-1.3768	26.8851	0.1981	-1.2863
122	27.3678	0.2099	-1.3881	27.0998	0.1990	-1.2986
123	27.5974	0.2114	-1.3993	27.3230	0.1998	-1.3109
124	27.8292	0.2130	-1.4106	27.5544	0.2006	-1.3232
125	28.0624	0.2146	-1.4218	27.7938	0.2014	-1.3355
126	28.2960	0.2163	-1.4330	28.0407	0.2023	-1.3478
127	28.5295	0.2179	-1.4442	28.2948	0.2031	-1.3601
128	28.7627	0.2196	-1.4554	28.5549	0.2040	-1.3724
129	28.9957	0.2214	-1.4666	28.8201	0.2048	-1.3847
130	29.2287	0.2231	-1.4777	29.0891	0.2057	-1.3970
131	29.4615	0.2249	-1.4889	29.3610	0.2065	-1.4093

M Location parameter, *S* Scale parameter, *L* Shape parameter

Web Table III LMS parameters of weight-for-height of Indian Children aged <5 years

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
45	2.8933	0.1067	-0.4117	3.1179	0.1065	-0.0135
45.1	2.9139	0.1066	-0.4114	3.1354	0.1065	-0.0137
45.2	2.9345	0.1065	-0.4110	3.1530	0.1065	-0.0140
45.3	2.9551	0.1065	-0.4107	3.1705	0.1065	-0.0143
45.4	2.9757	0.1064	-0.4104	3.1881	0.1065	-0.0145
45.5	2.9963	0.1063	-0.4100	3.2056	0.1065	-0.0148
45.6	3.0169	0.1062	-0.4097	3.2232	0.1065	-0.0150
45.7	3.0375	0.1062	-0.4093	3.2407	0.1065	-0.0153
45.8	3.0581	0.1061	-0.4090	3.2582	0.1065	-0.0156
45.9	3.0787	0.1060	-0.4086	3.2758	0.1065	-0.0158
46	3.0993	0.1060	-0.4083	3.2933	0.1065	-0.0161
46.1	3.1199	0.1059	-0.4080	3.3109	0.1065	-0.0163
46.2	3.1404	0.1058	-0.4076	3.3284	0.1065	-0.0166
46.3	3.1610	0.1057	-0.4073	3.3460	0.1065	-0.0169
46.4	3.1816	0.1057	-0.4069	3.3635	0.1065	-0.0171
46.5	3.2022	0.1056	-0.4066	3.3811	0.1065	-0.0174
46.6	3.2228	0.1055	-0.4062	3.3986	0.1065	-0.0177
46.7	3.2434	0.1055	-0.4059	3.4162	0.1065	-0.0179
46.8	3.2640	0.1054	-0.4056	3.4337	0.1065	-0.0182
46.9	3.2846	0.1053	-0.4052	3.4513	0.1066	-0.0184
47	3.3052	0.1052	-0.4049	3.4688	0.1066	-0.0187
47.1	3.3258	0.1052	-0.4045	3.4864	0.1066	-0.0190
47.2	3.3464	0.1051	-0.4042	3.5039	0.1066	-0.0192
47.3	3.3670	0.1050	-0.4038	3.5215	0.1066	-0.0195
47.4	3.3876	0.1050	-0.4035	3.5390	0.1066	-0.0197
47.5	3.4082	0.1049	-0.4032	3.5566	0.1066	-0.0200
47.6	3.4288	0.1048	-0.4028	3.5741	0.1066	-0.0203
47.7	3.4494	0.1048	-0.4025	3.5916	0.1066	-0.0205
47.8	3.4700	0.1047	-0.4021	3.6092	0.1066	-0.0208
47.9	3.4906	0.1046	-0.4018	3.6267	0.1066	-0.0210
48	3.5111	0.1045	-0.4014	3.6443	0.1066	-0.0213
48.1	3.5317	0.1045	-0.4011	3.6618	0.1066	-0.0216
48.2	3.5523	0.1044	-0.4008	3.6794	0.1066	-0.0218
48.3	3.5729	0.1043	-0.4004	3.6969	0.1066	-0.0221
48.4	3.5935	0.1043	-0.4001	3.7145	0.1066	-0.0224
48.5	3.6141	0.1042	-0.3997	3.7320	0.1066	-0.0226
48.6	3.6347	0.1041	-0.3994	3.7496	0.1066	-0.0229

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
48.7	3.6553	0.1040	-0.3991	3.7671	0.1066	-0.0231
48.8	3.6759	0.1040	-0.3987	3.7847	0.1066	-0.0234
48.9	3.6965	0.1039	-0.3984	3.8022	0.1066	-0.0237
49	3.7171	0.1038	-0.3980	3.8198	0.1067	-0.0239
49.1	3.7377	0.1038	-0.3977	3.8373	0.1067	-0.0242
49.2	3.7583	0.1037	-0.3973	3.8549	0.1067	-0.0244
49.3	3.7789	0.1036	-0.3970	3.8724	0.1067	-0.0247
49.4	3.7995	0.1036	-0.3967	3.8899	0.1067	-0.0250
49.5	3.8201	0.1035	-0.3963	3.9075	0.1067	-0.0252
49.6	3.8407	0.1034	-0.3960	3.9250	0.1067	-0.0255
49.7	3.8613	0.1033	-0.3956	3.9426	0.1067	-0.0258
49.8	3.8819	0.1033	-0.3953	3.9601	0.1067	-0.0260
49.9	3.9024	0.1032	-0.3949	3.9777	0.1067	-0.0263
50	3.9230	0.1031	-0.3946	3.9952	0.1067	-0.0265
50.1	3.9436	0.1031	-0.3943	4.0128	0.1067	-0.0268
50.2	3.9642	0.1030	-0.3939	4.0303	0.1067	-0.0271
50.3	3.9848	0.1029	-0.3936	4.0479	0.1067	-0.0273
50.4	4.0054	0.1029	-0.3932	4.0654	0.1067	-0.0276
50.5	4.0260	0.1028	-0.3929	4.0830	0.1067	-0.0278
50.6	4.0466	0.1027	-0.3925	4.1005	0.1067	-0.0281
50.7	4.0672	0.1027	-0.3922	4.1181	0.1067	-0.0284
50.8	4.0878	0.1026	-0.3919	4.1356	0.1067	-0.0286
50.9	4.1084	0.1025	-0.3915	4.1532	0.1067	-0.0289
51	4.1290	0.1024	-0.3912	4.1707	0.1067	-0.0291
51.1	4.1496	0.1024	-0.3908	4.1882	0.1068	-0.0294
51.2	4.1702	0.1023	-0.3905	4.2058	0.1068	-0.0297
51.3	4.1908	0.1022	-0.3901	4.2233	0.1068	-0.0299
51.4	4.2114	0.1022	-0.3898	4.2409	0.1068	-0.0302
51.5	4.2320	0.1021	-0.3895	4.2584	0.1068	-0.0305
51.6	4.2526	0.1020	-0.3891	4.2760	0.1068	-0.0307
51.7	4.2732	0.1020	-0.3888	4.2935	0.1068	-0.0310
51.8	4.2937	0.1019	-0.3884	4.3111	0.1068	-0.0312
51.9	4.3143	0.1018	-0.3881	4.3286	0.1068	-0.0315
52	4.3349	0.1018	-0.3877	4.3462	0.1068	-0.0318
52.1	4.3555	0.1017	-0.3874	4.3637	0.1068	-0.0320
52.2	4.3761	0.1016	-0.3871	4.3813	0.1068	-0.0323
52.3	4.3967	0.1016	-0.3867	4.3988	0.1068	-0.0325
52.4	4.4173	0.1015	-0.3864	4.4164	0.1068	-0.0328

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
52.5	4.4379	0.1014	-0.3860	4.4339	0.1068	-0.0331
52.6	4.4585	0.1013	-0.3857	4.4515	0.1068	-0.0333
52.7	4.4791	0.1013	-0.3853	4.4690	0.1068	-0.0336
52.8	4.4997	0.1012	-0.3850	4.4865	0.1068	-0.0339
52.9	4.5203	0.1011	-0.3847	4.5041	0.1068	-0.0341
53	4.5409	0.1011	-0.3843	4.5216	0.1068	-0.0344
53.1	4.5615	0.1010	-0.3840	4.5392	0.1068	-0.0346
53.2	4.5821	0.1009	-0.3836	4.5567	0.1069	-0.0349
53.3	4.6027	0.1009	-0.3833	4.5742	0.1069	-0.0352
53.4	4.6233	0.1008	-0.3829	4.5918	0.1069	-0.0354
53.5	4.6439	0.1007	-0.3826	4.6093	0.1069	-0.0357
53.6	4.6644	0.1007	-0.3823	4.6269	0.1069	-0.0359
53.7	4.6850	0.1006	-0.3819	4.6444	0.1069	-0.0362
53.8	4.7056	0.1005	-0.3816	4.6619	0.1069	-0.0365
53.9	4.7262	0.1005	-0.3812	4.6794	0.1069	-0.0367
54	4.7468	0.1004	-0.3809	4.6970	0.1069	-0.0370
54.1	4.7674	0.1003	-0.3805	4.7145	0.1069	-0.0372
54.2	4.7880	0.1003	-0.3802	4.7320	0.1069	-0.0375
54.3	4.8086	0.1002	-0.3799	4.7495	0.1069	-0.0378
54.4	4.8292	0.1001	-0.3795	4.7671	0.1069	-0.0380
54.5	4.8498	0.1001	-0.3792	4.7846	0.1069	-0.0383
54.6	4.8704	0.1000	-0.3788	4.8021	0.1069	-0.0386
54.7	4.8910	0.0999	-0.3785	4.8196	0.1069	-0.0388
54.8	4.9116	0.0999	-0.3781	4.8371	0.1069	-0.0391
54.9	4.9322	0.0998	-0.3778	4.8546	0.1069	-0.0393
55	4.9528	0.0997	-0.3775	4.8721	0.1069	-0.0396
55.1	4.9734	0.0997	-0.3771	4.8897	0.1069	-0.0399
55.2	4.9940	0.0996	-0.3768	4.9072	0.1069	-0.0401
55.3	5.0146	0.0995	-0.3764	4.9247	0.1069	-0.0404
55.4	5.0352	0.0994	-0.3761	4.9422	0.1069	-0.0406
55.5	5.0557	0.0994	-0.3758	4.9597	0.1069	-0.0409
55.6	5.0763	0.0993	-0.3754	4.9773	0.1069	-0.0412
55.7	5.0969	0.0992	-0.3751	4.9948	0.1069	-0.0414
55.8	5.1175	0.0992	-0.3747	5.0123	0.1069	-0.0417
55.9	5.1381	0.0991	-0.3744	5.0299	0.1069	-0.0420
56	5.1587	0.0990	-0.3740	5.0474	0.1069	-0.0422
56.1	5.1793	0.0990	-0.3737	5.0649	0.1069	-0.0425
56.2	5.1999	0.0989	-0.3734	5.0825	0.1069	-0.0427

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
56.3	5.2205	0.0988	-0.3730	5.1001	0.1069	-0.0430
56.4	5.2411	0.0988	-0.3727	5.1176	0.1069	-0.0433
56.5	5.2617	0.0987	-0.3723	5.1352	0.1069	-0.0435
56.6	5.2823	0.0986	-0.3720	5.1528	0.1069	-0.0438
56.7	5.3029	0.0986	-0.3716	5.1704	0.1069	-0.0440
56.8	5.3235	0.0985	-0.3713	5.1880	0.1069	-0.0443
56.9	5.3441	0.0984	-0.3710	5.2056	0.1069	-0.0446
57	5.3647	0.0984	-0.3706	5.2232	0.1069	-0.0448
57.1	5.3853	0.0983	-0.3703	5.2408	0.1069	-0.0451
57.2	5.4059	0.0982	-0.3699	5.2585	0.1069	-0.0454
57.3	5.4265	0.0982	-0.3696	5.2761	0.1069	-0.0456
57.4	5.4470	0.0981	-0.3692	5.2938	0.1069	-0.0459
57.5	5.4676	0.0980	-0.3689	5.3115	0.1069	-0.0461
57.6	5.4882	0.0980	-0.3686	5.3292	0.1068	-0.0464
57.7	5.5088	0.0979	-0.3682	5.3469	0.1068	-0.0467
57.8	5.5294	0.0979	-0.3679	5.3646	0.1068	-0.0469
57.9	5.5500	0.0978	-0.3675	5.3823	0.1068	-0.0472
58	5.5705	0.0977	-0.3672	5.4001	0.1068	-0.0474
58.1	5.5911	0.0977	-0.3668	5.4179	0.1068	-0.0477
58.2	5.6116	0.0976	-0.3665	5.4357	0.1068	-0.0480
58.3	5.6321	0.0975	-0.3662	5.4535	0.1068	-0.0482
58.4	5.6526	0.0975	-0.3658	5.4713	0.1068	-0.0485
58.5	5.6731	0.0974	-0.3655	5.4891	0.1068	-0.0487
58.6	5.6936	0.0973	-0.3651	5.5070	0.1067	-0.0490
58.7	5.7141	0.0973	-0.3648	5.5249	0.1067	-0.0493
58.8	5.7345	0.0972	-0.3644	5.5428	0.1067	-0.0495
58.9	5.7550	0.0971	-0.3641	5.5607	0.1067	-0.0498
59	5.7754	0.0971	-0.3638	5.5786	0.1067	-0.0501
59.1	5.7958	0.0970	-0.3634	5.5966	0.1067	-0.0503
59.2	5.8162	0.0969	-0.3631	5.6146	0.1066	-0.0506
59.3	5.8366	0.0969	-0.3627	5.6326	0.1066	-0.0508
59.4	5.8569	0.0968	-0.3624	5.6507	0.1066	-0.0511
59.5	5.8772	0.0967	-0.3620	5.6687	0.1066	-0.0514
59.6	5.8976	0.0967	-0.3617	5.6868	0.1065	-0.0516
59.7	5.9178	0.0966	-0.3614	5.7049	0.1065	-0.0519
59.8	5.9381	0.0965	-0.3610	5.7231	0.1065	-0.0521
59.9	5.9584	0.0965	-0.3607	5.7412	0.1065	-0.0524
60	5.9786	0.0964	-0.3603	5.7594	0.1064	-0.0527

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
60.1	5.9988	0.0964	-0.3600	5.7776	0.1064	-0.0529
60.2	6.0190	0.0963	-0.3596	5.7959	0.1064	-0.0532
60.3	6.0391	0.0962	-0.3593	5.8142	0.1063	-0.0535
60.4	6.0593	0.0962	-0.3590	5.8325	0.1063	-0.0537
60.5	6.0794	0.0961	-0.3586	5.8508	0.1063	-0.0540
60.6	6.0995	0.0960	-0.3583	5.8692	0.1062	-0.0542
60.7	6.1195	0.0960	-0.3579	5.8876	0.1062	-0.0545
60.8	6.1396	0.0959	-0.3576	5.9061	0.1061	-0.0548
60.9	6.1596	0.0958	-0.3572	5.9245	0.1061	-0.0550
61	6.1797	0.0958	-0.3569	5.9430	0.1061	-0.0553
61.1	6.1997	0.0957	-0.3566	5.9616	0.1060	-0.0555
61.2	6.2197	0.0956	-0.3562	5.9802	0.1060	-0.0558
61.3	6.2397	0.0956	-0.3559	5.9988	0.1059	-0.0561
61.4	6.2596	0.0955	-0.3555	6.0174	0.1059	-0.0563
61.5	6.2796	0.0955	-0.3552	6.0361	0.1058	-0.0566
61.6	6.2995	0.0954	-0.3548	6.0548	0.1058	-0.0568
61.7	6.3195	0.0953	-0.3545	6.0736	0.1057	-0.0571
61.8	6.3394	0.0953	-0.3542	6.0924	0.1056	-0.0574
61.9	6.3593	0.0952	-0.3538	6.1113	0.1056	-0.0576
62	6.3793	0.0951	-0.3535	6.1302	0.1055	-0.0579
62.1	6.3992	0.0951	-0.3531	6.1491	0.1055	-0.0582
62.2	6.4191	0.0950	-0.3528	6.1681	0.1054	-0.0584
62.3	6.4390	0.0950	-0.3524	6.1871	0.1053	-0.0587
62.4	6.4588	0.0949	-0.3521	6.2062	0.1053	-0.0589
62.5	6.4787	0.0948	-0.3518	6.2253	0.1052	-0.0592
62.6	6.4986	0.0948	-0.3514	6.2445	0.1051	-0.0595
62.7	6.5185	0.0947	-0.3511	6.2637	0.1051	-0.0597
62.8	6.5384	0.0947	-0.3507	6.2830	0.1050	-0.0600
62.9	6.5583	0.0946	-0.3504	6.3023	0.1049	-0.0602
63	6.5781	0.0945	-0.3501	6.3217	0.1048	-0.0605
63.1	6.5980	0.0945	-0.3497	6.3411	0.1048	-0.0608
63.2	6.6179	0.0944	-0.3494	6.3606	0.1047	-0.0610
63.3	6.6378	0.0943	-0.3490	6.3802	0.1046	-0.0613
63.4	6.6577	0.0943	-0.3487	6.3998	0.1045	-0.0616
63.5	6.6776	0.0942	-0.3483	6.4195	0.1044	-0.0618
63.6	6.6975	0.0942	-0.3480	6.4392	0.1043	-0.0621
63.7	6.7174	0.0941	-0.3477	6.4590	0.1043	-0.0623
63.8	6.7374	0.0940	-0.3473	6.4789	0.1042	-0.0626

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
63.9	6.7573	0.0940	-0.3470	6.4988	0.1041	-0.0629
64	6.7773	0.0939	-0.3466	6.5188	0.1040	-0.0631
64.1	6.7973	0.0939	-0.3463	6.5389	0.1039	-0.0634
64.2	6.8173	0.0938	-0.3459	6.5590	0.1038	-0.0636
64.3	6.8373	0.0937	-0.3456	6.5792	0.1037	-0.0639
64.4	6.8573	0.0937	-0.3453	6.5995	0.1036	-0.0642
64.5	6.8774	0.0936	-0.3449	6.6198	0.1035	-0.0644
64.6	6.8975	0.0936	-0.3446	6.6402	0.1034	-0.0647
64.7	6.9176	0.0935	-0.3442	6.6607	0.1034	-0.0649
64.8	6.9377	0.0934	-0.3439	6.6813	0.1033	-0.0652
64.9	6.9579	0.0934	-0.3435	6.7019	0.1032	-0.0655
65	6.9781	0.0933	-0.3432	6.7226	0.1031	-0.0657
65.1	6.9983	0.0933	-0.3429	6.7434	0.1030	-0.0660
65.2	7.0186	0.0932	-0.3425	6.7642	0.1029	-0.0663
65.3	7.0389	0.0932	-0.3422	6.7851	0.1028	-0.0665
65.4	7.0593	0.0931	-0.3418	6.8061	0.1027	-0.0668
65.5	7.0796	0.0930	-0.3415	6.8271	0.1026	-0.0670
65.6	7.1001	0.0930	-0.3411	6.8483	0.1025	-0.0673
65.7	7.1205	0.0929	-0.3408	6.8694	0.1024	-0.0676
65.8	7.1410	0.0929	-0.3405	6.8907	0.1023	-0.0678
65.9	7.1616	0.0928	-0.3401	6.9120	0.1021	-0.0681
66	7.1822	0.0927	-0.3398	6.9334	0.1020	-0.0683
66.1	7.2028	0.0927	-0.3394	6.9548	0.1019	-0.0686
66.2	7.2235	0.0926	-0.3391	6.9764	0.1018	-0.0689
66.3	7.2443	0.0926	-0.3387	6.9979	0.1017	-0.0691
66.4	7.2651	0.0925	-0.3384	7.0196	0.1016	-0.0694
66.5	7.2859	0.0925	-0.3381	7.0413	0.1015	-0.0697
66.6	7.3068	0.0924	-0.3377	7.0631	0.1014	-0.0699
66.7	7.3278	0.0923	-0.3374	7.0849	0.1013	-0.0702
66.8	7.3488	0.0923	-0.3370	7.1068	0.1012	-0.0704
66.9	7.3698	0.0922	-0.3367	7.1287	0.1011	-0.0707
67	7.3909	0.0922	-0.3363	7.1507	0.1010	-0.0710
67.1	7.4120	0.0921	-0.3360	7.1728	0.1009	-0.0712
67.2	7.4332	0.0921	-0.3357	7.1949	0.1008	-0.0715
67.3	7.4544	0.0920	-0.3353	7.2171	0.1007	-0.0717
67.4	7.4756	0.0919	-0.3350	7.2394	0.1006	-0.0720
67.5	7.4969	0.0919	-0.3346	7.2617	0.1005	-0.0723
67.6	7.5182	0.0918	-0.3343	7.2840	0.1004	-0.0725

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
67.7	7.5396	0.0918	-0.3339	7.3064	0.1003	-0.0728
67.8	7.5610	0.0917	-0.3336	7.3289	0.1002	-0.0730
67.9	7.5824	0.0917	-0.3333	7.3514	0.1001	-0.0733
68	7.6038	0.0916	-0.3329	7.3740	0.1000	-0.0736
68.1	7.6253	0.0916	-0.3326	7.3967	0.0999	-0.0738
68.2	7.6468	0.0915	-0.3322	7.4193	0.0998	-0.0741
68.3	7.6684	0.0915	-0.3319	7.4421	0.0997	-0.0744
68.4	7.6900	0.0914	-0.3315	7.4648	0.0996	-0.0746
68.5	7.7116	0.0913	-0.3312	7.4876	0.0995	-0.0749
68.6	7.7332	0.0913	-0.3309	7.5104	0.0994	-0.0751
68.7	7.7548	0.0912	-0.3305	7.5333	0.0993	-0.0754
68.8	7.7765	0.0912	-0.3302	7.5561	0.0992	-0.0757
68.9	7.7982	0.0911	-0.3298	7.5790	0.0991	-0.0759
69	7.8199	0.0911	-0.3295	7.6019	0.0990	-0.0762
69.1	7.8417	0.0910	-0.3291	7.6248	0.0989	-0.0764
69.2	7.8634	0.0910	-0.3288	7.6477	0.0988	-0.0767
69.3	7.8852	0.0909	-0.3285	7.6706	0.0987	-0.0770
69.4	7.9070	0.0909	-0.3281	7.6935	0.0986	-0.0772
69.5	7.9288	0.0908	-0.3278	7.7164	0.0985	-0.0775
69.6	7.9506	0.0907	-0.3274	7.7393	0.0984	-0.0778
69.7	7.9724	0.0907	-0.3271	7.7622	0.0983	-0.0780
69.8	7.9943	0.0906	-0.3268	7.7850	0.0982	-0.0783
69.9	8.0161	0.0906	-0.3264	7.8079	0.0981	-0.0785
70	8.0380	0.0905	-0.3261	7.8307	0.0980	-0.0788
70.1	8.0598	0.0905	-0.3257	7.8534	0.0979	-0.0791
70.2	8.0817	0.0904	-0.3254	7.8761	0.0979	-0.0793
70.3	8.1036	0.0904	-0.3250	7.8988	0.0978	-0.0796
70.4	8.1255	0.0903	-0.3247	7.9214	0.0977	-0.0798
70.5	8.1474	0.0903	-0.3244	7.9440	0.0976	-0.0801
70.6	8.1692	0.0902	-0.3240	7.9666	0.0975	-0.0804
70.7	8.1911	0.0902	-0.3237	7.9890	0.0974	-0.0806
70.8	8.2130	0.0901	-0.3233	8.0114	0.0973	-0.0809
70.9	8.2349	0.0901	-0.3230	8.0338	0.0972	-0.0811
71	8.2567	0.0900	-0.3226	8.0560	0.0971	-0.0814
71.1	8.2786	0.0900	-0.3223	8.0782	0.0970	-0.0817
71.2	8.3005	0.0899	-0.3220	8.1003	0.0970	-0.0819
71.3	8.3223	0.0899	-0.3216	8.1224	0.0969	-0.0822
71.4	8.3441	0.0898	-0.3213	8.1443	0.0968	-0.0825

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
71.5	8.3660	0.0898	-0.3209	8.1661	0.0967	-0.0827
71.6	8.3878	0.0897	-0.3206	8.1879	0.0966	-0.0830
71.7	8.4096	0.0897	-0.3202	8.2096	0.0965	-0.0832
71.8	8.4313	0.0896	-0.3199	8.2312	0.0964	-0.0835
71.9	8.4531	0.0895	-0.3196	8.2527	0.0963	-0.0838
72	8.4748	0.0895	-0.3192	8.2741	0.0963	-0.0840
72.1	8.4966	0.0894	-0.3189	8.2954	0.0962	-0.0843
72.2	8.5183	0.0894	-0.3185	8.3167	0.0961	-0.0845
72.3	8.5399	0.0893	-0.3182	8.3378	0.0960	-0.0848
72.4	8.5616	0.0893	-0.3178	8.3589	0.0959	-0.0851
72.5	8.5832	0.0892	-0.3175	8.3799	0.0959	-0.0853
72.6	8.6048	0.0892	-0.3172	8.4007	0.0958	-0.0856
72.7	8.6264	0.0892	-0.3168	8.4215	0.0957	-0.0859
72.8	8.6479	0.0891	-0.3165	8.4422	0.0956	-0.0861
72.9	8.6695	0.0891	-0.3161	8.4628	0.0955	-0.0864
73	8.6910	0.0890	-0.3158	8.4834	0.0955	-0.0866
73.1	8.7124	0.0890	-0.3154	8.5038	0.0954	-0.0869
73.2	8.7338	0.0889	-0.3151	8.5241	0.0953	-0.0872
73.3	8.7552	0.0889	-0.3148	8.5444	0.0953	-0.0874
73.4	8.7766	0.0888	-0.3144	8.5645	0.0952	-0.0877
73.5	8.7979	0.0888	-0.3141	8.5846	0.0951	-0.0879
73.6	8.8192	0.0887	-0.3137	8.6046	0.0951	-0.0882
73.7	8.8405	0.0887	-0.3134	8.6244	0.0950	-0.0885
73.8	8.8617	0.0886	-0.3130	8.6442	0.0949	-0.0887
73.9	8.8829	0.0886	-0.3127	8.6639	0.0949	-0.0890
74	8.9041	0.0885	-0.3124	8.6835	0.0948	-0.0892
74.1	8.9252	0.0885	-0.3120	8.7030	0.0948	-0.0895
74.2	8.9463	0.0884	-0.3117	8.7224	0.0947	-0.0898
74.3	8.9674	0.0884	-0.3113	8.7417	0.0947	-0.0900
74.4	8.9884	0.0883	-0.3110	8.7609	0.0946	-0.0903
74.5	9.0093	0.0883	-0.3106	8.7801	0.0946	-0.0906
74.6	9.0303	0.0883	-0.3103	8.7991	0.0945	-0.0908
74.7	9.0512	0.0882	-0.3100	8.8180	0.0945	-0.0911
74.8	9.0720	0.0882	-0.3096	8.8369	0.0945	-0.0913
74.9	9.0928	0.0881	-0.3093	8.8556	0.0944	-0.0916
75	9.1136	0.0881	-0.3089	8.8743	0.0944	-0.0919
75.1	9.1343	0.0880	-0.3086	8.8929	0.0944	-0.0921
75.2	9.1550	0.0880	-0.3082	8.9114	0.0943	-0.0924

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
75.3	9.1756	0.0879	-0.3079	8.9299	0.0943	-0.0926
75.4	9.1962	0.0879	-0.3076	8.9483	0.0943	-0.0929
75.5	9.2167	0.0879	-0.3072	8.9666	0.0943	-0.0932
75.6	9.2372	0.0878	-0.3069	8.9849	0.0942	-0.0934
75.7	9.2576	0.0878	-0.3065	9.0031	0.0942	-0.0937
75.8	9.2780	0.0877	-0.3062	9.0213	0.0942	-0.0940
75.9	9.2984	0.0877	-0.3058	9.0394	0.0942	-0.0942
76	9.3187	0.0876	-0.3055	9.0576	0.0942	-0.0945
76.1	9.3390	0.0876	-0.3052	9.0756	0.0942	-0.0947
76.2	9.3592	0.0876	-0.3048	9.0937	0.0942	-0.0950
76.3	9.3794	0.0875	-0.3045	9.1117	0.0941	-0.0953
76.4	9.3996	0.0875	-0.3041	9.1297	0.0941	-0.0955
76.5	9.4197	0.0874	-0.3038	9.1477	0.0941	-0.0958
76.6	9.4398	0.0874	-0.3034	9.1657	0.0941	-0.0960
76.7	9.4599	0.0874	-0.3031	9.1837	0.0941	-0.0963
76.8	9.4799	0.0873	-0.3028	9.2017	0.0941	-0.0966
76.9	9.4999	0.0873	-0.3024	9.2197	0.0941	-0.0968
77	9.5199	0.0872	-0.3021	9.2377	0.0941	-0.0971
77.1	9.5399	0.0872	-0.3017	9.2558	0.0941	-0.0974
77.2	9.5599	0.0872	-0.3014	9.2738	0.0941	-0.0976
77.3	9.5798	0.0871	-0.3011	9.2919	0.0941	-0.0979
77.4	9.5997	0.0871	-0.3007	9.3100	0.0942	-0.0981
77.5	9.6196	0.0871	-0.3004	9.3281	0.0942	-0.0984
77.6	9.6395	0.0870	-0.3000	9.3463	0.0942	-0.0987
77.7	9.6594	0.0870	-0.2997	9.3645	0.0942	-0.0989
77.8	9.6793	0.0869	-0.2993	9.3827	0.0942	-0.0992
77.9	9.6991	0.0869	-0.2990	9.4010	0.0942	-0.0994
78	9.7190	0.0869	-0.2987	9.4194	0.0942	-0.0997
78.1	9.7388	0.0868	-0.2983	9.4378	0.0942	-0.1000
78.2	9.7587	0.0868	-0.2980	9.4563	0.0942	-0.1002
78.3	9.7785	0.0868	-0.2976	9.4748	0.0943	-0.1005
78.4	9.7984	0.0867	-0.2973	9.4934	0.0943	-0.1007
78.5	9.8182	0.0867	-0.2969	9.5121	0.0943	-0.1010
78.6	9.8381	0.0867	-0.2966	9.5309	0.0943	-0.1013
78.7	9.8579	0.0866	-0.2963	9.5497	0.0943	-0.1015
78.8	9.8778	0.0866	-0.2959	9.5686	0.0943	-0.1018
78.9	9.8977	0.0866	-0.2956	9.5875	0.0944	-0.1021
79	9.9175	0.0865	-0.2952	9.6066	0.0944	-0.1023

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
79.1	9.9374	0.0865	-0.2949	9.6257	0.0944	-0.1026
79.2	9.9573	0.0865	-0.2945	9.6449	0.0944	-0.1028
79.3	9.9772	0.0864	-0.2942	9.6642	0.0944	-0.1031
79.4	9.9971	0.0864	-0.2939	9.6836	0.0944	-0.1034
79.5	10.0171	0.0864	-0.2935	9.7031	0.0944	-0.1036
79.6	10.0370	0.0863	-0.2932	9.7226	0.0945	-0.1039
79.7	10.0570	0.0863	-0.2928	9.7423	0.0945	-0.1041
79.8	10.0770	0.0863	-0.2925	9.7620	0.0945	-0.1044
79.9	10.0969	0.0862	-0.2921	9.7819	0.0945	-0.1047
80	10.1170	0.0862	-0.2918	9.8018	0.0945	-0.1049
80.1	10.1370	0.0862	-0.2915	9.8219	0.0945	-0.1052
80.2	10.1571	0.0861	-0.2911	9.8421	0.0945	-0.1055
80.3	10.1771	0.0861	-0.2908	9.8623	0.0945	-0.1057
80.4	10.1972	0.0861	-0.2904	9.8827	0.0945	-0.1060
80.5	10.2174	0.0861	-0.2901	9.9032	0.0945	-0.1062
80.6	10.2375	0.0860	-0.2897	9.9238	0.0945	-0.1065
80.7	10.2577	0.0860	-0.2894	9.9445	0.0945	-0.1068
80.8	10.2779	0.0860	-0.2891	9.9654	0.0945	-0.1070
80.9	10.2981	0.0859	-0.2887	9.9863	0.0945	-0.1073
81	10.3184	0.0859	-0.2884	10.0074	0.0945	-0.1075
81.1	10.3387	0.0859	-0.2880	10.0286	0.0945	-0.1078
81.2	10.3590	0.0859	-0.2877	10.0500	0.0945	-0.1081
81.3	10.3793	0.0858	-0.2873	10.0714	0.0945	-0.1083
81.4	10.3997	0.0858	-0.2870	10.0930	0.0945	-0.1086
81.5	10.4201	0.0858	-0.2867	10.1147	0.0945	-0.1088
81.6	10.4406	0.0858	-0.2863	10.1366	0.0945	-0.1091
81.7	10.4611	0.0857	-0.2860	10.1585	0.0945	-0.1094
81.8	10.4816	0.0857	-0.2856	10.1806	0.0944	-0.1096
81.9	10.5022	0.0857	-0.2853	10.2028	0.0944	-0.1099
82	10.5228	0.0857	-0.2849	10.2251	0.0944	-0.1102
82.1	10.5434	0.0856	-0.2846	10.2475	0.0944	-0.1104
82.2	10.5641	0.0856	-0.2843	10.2700	0.0943	-0.1107
82.3	10.5848	0.0856	-0.2839	10.2926	0.0943	-0.1109
82.4	10.6056	0.0856	-0.2836	10.3152	0.0943	-0.1112
82.5	10.6264	0.0855	-0.2832	10.3380	0.0942	-0.1115
82.6	10.6472	0.0855	-0.2829	10.3608	0.0942	-0.1117
82.7	10.6681	0.0855	-0.2825	10.3838	0.0942	-0.1120
82.8	10.6890	0.0855	-0.2822	10.4068	0.0941	-0.1122

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
82.9	10.7099	0.0854	-0.2819	10.4298	0.0941	-0.1125
83	10.7309	0.0854	-0.2815	10.4530	0.0940	-0.1128
83.1	10.7519	0.0854	-0.2812	10.4762	0.0940	-0.1130
83.2	10.7730	0.0854	-0.2808	10.4995	0.0939	-0.1133
83.3	10.7941	0.0854	-0.2805	10.5228	0.0939	-0.1136
83.4	10.8152	0.0853	-0.2802	10.5462	0.0938	-0.1138
83.5	10.8364	0.0853	-0.2798	10.5696	0.0938	-0.1141
83.6	10.8576	0.0853	-0.2795	10.5931	0.0937	-0.1143
83.7	10.8789	0.0853	-0.2791	10.6166	0.0936	-0.1146
83.8	10.9001	0.0852	-0.2788	10.6401	0.0936	-0.1149
83.9	10.9215	0.0852	-0.2784	10.6637	0.0935	-0.1151
84	10.9428	0.0852	-0.2781	10.6873	0.0935	-0.1154
84.1	10.9642	0.0852	-0.2778	10.7110	0.0934	-0.1156
84.2	10.9857	0.0852	-0.2774	10.7347	0.0933	-0.1159
84.3	11.0072	0.0851	-0.2771	10.7583	0.0932	-0.1162
84.4	11.0287	0.0851	-0.2767	10.7821	0.0932	-0.1164
84.5	11.0502	0.0851	-0.2764	10.8058	0.0931	-0.1167
84.6	11.0718	0.0851	-0.2760	10.8295	0.0930	-0.1170
84.7	11.0935	0.0851	-0.2757	10.8532	0.0929	-0.1172
84.8	11.1151	0.0851	-0.2754	10.8770	0.0928	-0.1175
84.9	11.1368	0.0850	-0.2750	10.9007	0.0928	-0.1177
85	11.1586	0.0850	-0.2747	10.9245	0.0927	-0.1180
85.1	11.1804	0.0850	-0.2743	10.9482	0.0926	-0.1183
85.2	11.2022	0.0850	-0.2740	10.9720	0.0925	-0.1185
85.3	11.2241	0.0850	-0.2736	10.9957	0.0924	-0.1188
85.4	11.2460	0.0849	-0.2733	11.0195	0.0923	-0.1190
85.5	11.2679	0.0849	-0.2730	11.0432	0.0922	-0.1193
85.6	11.2899	0.0849	-0.2726	11.0670	0.0921	-0.1196
85.7	11.3119	0.0849	-0.2723	11.0908	0.0920	-0.1198
85.8	11.3340	0.0849	-0.2719	11.1145	0.0919	-0.1201
85.9	11.3561	0.0849	-0.2716	11.1383	0.0919	-0.1203
86	11.3783	0.0848	-0.2712	11.1621	0.0918	-0.1206
86.1	11.4004	0.0848	-0.2709	11.1858	0.0917	-0.1209
86.2	11.4227	0.0848	-0.2706	11.2096	0.0916	-0.1211
86.3	11.4449	0.0848	-0.2702	11.2334	0.0915	-0.1214
86.4	11.4672	0.0848	-0.2699	11.2571	0.0914	-0.1217
86.5	11.4896	0.0848	-0.2695	11.2809	0.0913	-0.1219
86.6	11.5120	0.0848	-0.2692	11.3046	0.0912	-0.1222

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
86.7	11.5344	0.0847	-0.2688	11.3284	0.0911	-0.1224
86.8	11.5569	0.0847	-0.2685	11.3521	0.0910	-0.1227
86.9	11.5794	0.0847	-0.2682	11.3759	0.0908	-0.1230
87	11.6019	0.0847	-0.2678	11.3996	0.0907	-0.1232
87.1	11.6245	0.0847	-0.2675	11.4234	0.0906	-0.1235
87.2	11.6472	0.0847	-0.2671	11.4471	0.0905	-0.1237
87.3	11.6699	0.0847	-0.2668	11.4708	0.0904	-0.1240
87.4	11.6926	0.0846	-0.2664	11.4945	0.0903	-0.1243
87.5	11.7153	0.0846	-0.2661	11.5183	0.0902	-0.1245
87.6	11.7382	0.0846	-0.2658	11.5420	0.0901	-0.1248
87.7	11.7610	0.0846	-0.2654	11.5657	0.0900	-0.1251
87.8	11.7839	0.0846	-0.2651	11.5894	0.0899	-0.1253
87.9	11.8068	0.0846	-0.2647	11.6131	0.0898	-0.1256
88	11.8298	0.0846	-0.2644	11.6367	0.0897	-0.1258
88.1	11.8528	0.0846	-0.2640	11.6604	0.0896	-0.1261
88.2	11.8759	0.0846	-0.2637	11.6841	0.0895	-0.1264
88.3	11.8990	0.0845	-0.2634	11.7077	0.0894	-0.1266
88.4	11.9221	0.0845	-0.2630	11.7314	0.0894	-0.1269
88.5	11.9453	0.0845	-0.2627	11.7550	0.0893	-0.1271
88.6	11.9685	0.0845	-0.2623	11.7786	0.0892	-0.1274
88.7	11.9917	0.0845	-0.2620	11.8022	0.0891	-0.1277
88.8	12.0150	0.0845	-0.2616	11.8258	0.0890	-0.1279
88.9	12.0383	0.0845	-0.2613	11.8494	0.0889	-0.1282
89	12.0616	0.0845	-0.2610	11.8730	0.0888	-0.1284
89.1	12.0850	0.0845	-0.2606	11.8966	0.0887	-0.1287
89.2	12.1084	0.0845	-0.2603	11.9201	0.0886	-0.1290
89.3	12.1318	0.0845	-0.2599	11.9437	0.0885	-0.1292
89.4	12.1552	0.0844	-0.2596	11.9672	0.0884	-0.1295
89.5	12.1786	0.0844	-0.2592	11.9907	0.0884	-0.1298
89.6	12.2021	0.0844	-0.2589	12.0142	0.0883	-0.1300
89.7	12.2256	0.0844	-0.2586	12.0377	0.0882	-0.1303
89.8	12.2491	0.0844	-0.2582	12.0612	0.0881	-0.1305
89.9	12.2726	0.0844	-0.2579	12.0846	0.0880	-0.1308
90	12.2962	0.0844	-0.2575	12.1081	0.0879	-0.1311
90.1	12.3197	0.0844	-0.2572	12.1315	0.0879	-0.1313
90.2	12.3433	0.0844	-0.2569	12.1549	0.0878	-0.1316
90.3	12.3668	0.0844	-0.2565	12.1783	0.0877	-0.1318
90.4	12.3904	0.0844	-0.2562	12.2017	0.0876	-0.1321

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
90.5	12.4140	0.0844	-0.2558	12.2251	0.0875	-0.1324
90.6	12.4376	0.0844	-0.2555	12.2484	0.0875	-0.1326
90.7	12.4612	0.0844	-0.2551	12.2718	0.0874	-0.1329
90.8	12.4848	0.0844	-0.2548	12.2951	0.0873	-0.1332
90.9	12.5084	0.0844	-0.2545	12.3184	0.0873	-0.1334
91	12.5320	0.0844	-0.2541	12.3416	0.0872	-0.1337
91.1	12.5556	0.0844	-0.2538	12.3649	0.0871	-0.1339
91.2	12.5792	0.0844	-0.2534	12.3881	0.0870	-0.1342
91.3	12.6027	0.0843	-0.2531	12.4114	0.0870	-0.1345
91.4	12.6263	0.0843	-0.2527	12.4346	0.0869	-0.1347
91.5	12.6499	0.0843	-0.2524	12.4578	0.0869	-0.1350
91.6	12.6735	0.0843	-0.2521	12.4809	0.0868	-0.1352
91.7	12.6971	0.0843	-0.2517	12.5041	0.0867	-0.1355
91.8	12.7206	0.0843	-0.2514	12.5272	0.0867	-0.1358
91.9	12.7442	0.0843	-0.2510	12.5503	0.0866	-0.1360
92	12.7677	0.0843	-0.2507	12.5734	0.0866	-0.1363
92.1	12.7912	0.0843	-0.2503	12.5965	0.0865	-0.1365
92.2	12.8147	0.0843	-0.2500	12.6196	0.0864	-0.1368
92.3	12.8382	0.0843	-0.2497	12.6427	0.0864	-0.1371
92.4	12.8617	0.0844	-0.2493	12.6658	0.0863	-0.1373
92.5	12.8852	0.0844	-0.2490	12.6888	0.0863	-0.1376
92.6	12.9087	0.0844	-0.2486	12.7119	0.0862	-0.1379
92.7	12.9321	0.0844	-0.2483	12.7349	0.0862	-0.1381
92.8	12.9555	0.0844	-0.2479	12.7580	0.0862	-0.1384
92.9	12.9789	0.0844	-0.2476	12.7810	0.0861	-0.1386
93	13.0023	0.0844	-0.2473	12.8041	0.0861	-0.1389
93.1	13.0257	0.0844	-0.2469	12.8271	0.0860	-0.1392
93.2	13.0490	0.0844	-0.2466	12.8501	0.0860	-0.1394
93.3	13.0723	0.0844	-0.2462	12.8732	0.0860	-0.1397
93.4	13.0956	0.0844	-0.2459	12.8962	0.0860	-0.1399
93.5	13.1189	0.0844	-0.2455	12.9192	0.0859	-0.1402
93.6	13.1421	0.0844	-0.2452	12.9423	0.0859	-0.1405
93.7	13.1654	0.0844	-0.2449	12.9653	0.0859	-0.1407
93.8	13.1886	0.0844	-0.2445	12.9884	0.0859	-0.1410
93.9	13.2117	0.0844	-0.2442	13.0114	0.0858	-0.1413
94	13.2349	0.0844	-0.2438	13.0345	0.0858	-0.1415
94.1	13.2580	0.0844	-0.2435	13.0575	0.0858	-0.1418
94.2	13.2810	0.0845	-0.2431	13.0806	0.0858	-0.1420

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
94.3	13.3041	0.0845	-0.2428	13.1037	0.0858	-0.1423
94.4	13.3271	0.0845	-0.2425	13.1268	0.0858	-0.1426
94.5	13.3501	0.0845	-0.2421	13.1499	0.0858	-0.1428
94.6	13.3731	0.0845	-0.2418	13.1730	0.0858	-0.1431
94.7	13.3960	0.0845	-0.2414	13.1962	0.0858	-0.1433
94.8	13.4190	0.0845	-0.2411	13.2193	0.0858	-0.1436
94.9	13.4419	0.0845	-0.2407	13.2425	0.0858	-0.1439
95	13.4648	0.0845	-0.2404	13.2657	0.0858	-0.1441
95.1	13.4877	0.0845	-0.2401	13.2889	0.0858	-0.1444
95.2	13.5106	0.0846	-0.2397	13.3121	0.0859	-0.1446
95.3	13.5335	0.0846	-0.2394	13.3354	0.0859	-0.1449
95.4	13.5564	0.0846	-0.2390	13.3587	0.0859	-0.1452
95.5	13.5792	0.0846	-0.2387	13.3820	0.0859	-0.1454
95.6	13.6021	0.0846	-0.2383	13.4053	0.0860	-0.1457
95.7	13.6250	0.0846	-0.2380	13.4287	0.0860	-0.1460
95.8	13.6479	0.0846	-0.2377	13.4521	0.0860	-0.1462
95.9	13.6708	0.0847	-0.2373	13.4755	0.0861	-0.1465
96	13.6937	0.0847	-0.2370	13.4990	0.0861	-0.1467
96.1	13.7166	0.0847	-0.2366	13.5225	0.0861	-0.1470
96.2	13.7396	0.0847	-0.2363	13.5461	0.0862	-0.1473
96.3	13.7625	0.0847	-0.2359	13.5697	0.0862	-0.1475
96.4	13.7855	0.0847	-0.2356	13.5933	0.0863	-0.1478
96.5	13.8085	0.0848	-0.2353	13.6170	0.0863	-0.1480
96.6	13.8315	0.0848	-0.2349	13.6407	0.0864	-0.1483
96.7	13.8546	0.0848	-0.2346	13.6645	0.0865	-0.1486
96.8	13.8776	0.0848	-0.2342	13.6883	0.0865	-0.1488
96.9	13.9007	0.0848	-0.2339	13.7122	0.0866	-0.1491
97	13.9239	0.0848	-0.2335	13.7362	0.0867	-0.1494
97.1	13.9471	0.0849	-0.2332	13.7601	0.0867	-0.1496
97.2	13.9703	0.0849	-0.2329	13.7842	0.0868	-0.1499
97.3	13.9935	0.0849	-0.2325	13.8083	0.0869	-0.1501
97.4	14.0168	0.0849	-0.2322	13.8325	0.0870	-0.1504
97.5	14.0402	0.0849	-0.2318	13.8567	0.0871	-0.1507
97.6	14.0635	0.0850	-0.2315	13.8810	0.0871	-0.1509
97.7	14.0870	0.0850	-0.2311	13.9054	0.0872	-0.1512
97.8	14.1105	0.0850	-0.2308	13.9298	0.0873	-0.1514
97.9	14.1340	0.0850	-0.2305	13.9543	0.0874	-0.1517
98	14.1576	0.0851	-0.2301	13.9789	0.0875	-0.1520

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
98.1	14.1812	0.0851	-0.2298	14.0036	0.0876	-0.1522
98.2	14.2049	0.0851	-0.2294	14.0283	0.0877	-0.1525
98.3	14.2287	0.0851	-0.2291	14.0531	0.0878	-0.1527
98.4	14.2525	0.0851	-0.2287	14.0780	0.0880	-0.1530
98.5	14.2763	0.0852	-0.2284	14.1029	0.0881	-0.1533
98.6	14.3003	0.0852	-0.2281	14.1279	0.0882	-0.1535
98.7	14.3243	0.0852	-0.2277	14.1530	0.0883	-0.1538
98.8	14.3483	0.0852	-0.2274	14.1782	0.0884	-0.1541
98.9	14.3725	0.0853	-0.2270	14.2035	0.0885	-0.1543
99	14.3967	0.0853	-0.2267	14.2289	0.0887	-0.1546
99.1	14.4209	0.0853	-0.2263	14.2543	0.0888	-0.1548
99.2	14.4453	0.0853	-0.2260	14.2798	0.0889	-0.1551
99.3	14.4697	0.0854	-0.2257	14.3054	0.0891	-0.1554
99.4	14.4942	0.0854	-0.2253	14.3311	0.0892	-0.1556
99.5	14.5188	0.0854	-0.2250	14.3569	0.0893	-0.1559
99.6	14.5434	0.0854	-0.2246	14.3827	0.0895	-0.1561
99.7	14.5682	0.0855	-0.2243	14.4087	0.0896	-0.1564
99.8	14.5930	0.0855	-0.2239	14.4347	0.0897	-0.1567
99.9	14.6179	0.0855	-0.2236	14.4609	0.0899	-0.1569
100	14.6429	0.0855	-0.2233	14.4871	0.0900	-0.1572
100.1	14.6679	0.0856	-0.2229	14.5134	0.0902	-0.1574
100.2	14.6931	0.0856	-0.2226	14.5398	0.0903	-0.1577
100.3	14.7184	0.0856	-0.2222	14.5664	0.0904	-0.1580
100.4	14.7437	0.0856	-0.2219	14.5930	0.0906	-0.1582
100.5	14.7692	0.0857	-0.2215	14.6197	0.0907	-0.1585
100.6	14.7947	0.0857	-0.2212	14.6465	0.0909	-0.1588
100.7	14.8203	0.0857	-0.2209	14.6734	0.0910	-0.1590
100.8	14.8460	0.0858	-0.2205	14.7004	0.0912	-0.1593
100.9	14.8718	0.0858	-0.2202	14.7275	0.0913	-0.1595
101	14.8977	0.0858	-0.2198	14.7547	0.0915	-0.1598
101.1	14.9237	0.0858	-0.2195	14.7820	0.0916	-0.1601
101.2	14.9497	0.0859	-0.2191	14.8094	0.0918	-0.1603
101.3	14.9759	0.0859	-0.2188	14.8369	0.0919	-0.1606
101.4	15.0021	0.0859	-0.2185	14.8645	0.0921	-0.1608
101.5	15.0284	0.0860	-0.2181	14.8923	0.0922	-0.1611
101.6	15.0547	0.0860	-0.2178	14.9201	0.0924	-0.1614
101.7	15.0812	0.0860	-0.2174	14.9480	0.0925	-0.1616
101.8	15.1077	0.0860	-0.2171	14.9760	0.0927	-0.1619

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
101.9	15.1343	0.0861	-0.2167	15.0041	0.0928	-0.1621
102	15.1609	0.0861	-0.2164	15.0324	0.0930	-0.1624
102.1	15.1877	0.0861	-0.2161	15.0607	0.0931	-0.1627
102.2	15.2145	0.0862	-0.2157	15.0890	0.0933	-0.1629
102.3	15.2413	0.0862	-0.2154	15.1175	0.0934	-0.1632
102.4	15.2683	0.0862	-0.2150	15.1461	0.0936	-0.1635
102.5	15.2953	0.0862	-0.2147	15.1747	0.0937	-0.1637
102.6	15.3223	0.0863	-0.2144	15.2035	0.0938	-0.1640
102.7	15.3495	0.0863	-0.2140	15.2323	0.0940	-0.1642
102.8	15.3767	0.0863	-0.2137	15.2612	0.0941	-0.1645
102.9	15.4039	0.0864	-0.2133	15.2901	0.0943	-0.1648
103	15.4312	0.0864	-0.2130	15.3191	0.0944	-0.1650
103.1	15.4586	0.0864	-0.2126	15.3483	0.0945	-0.1653
103.2	15.4860	0.0865	-0.2123	15.3774	0.0947	-0.1655
103.3	15.5135	0.0865	-0.2120	15.4067	0.0948	-0.1658
103.4	15.5410	0.0865	-0.2116	15.4360	0.0949	-0.1661
103.5	15.5686	0.0865	-0.2113	15.4653	0.0951	-0.1663
103.6	15.5962	0.0866	-0.2109	15.4948	0.0952	-0.1666
103.7	15.6239	0.0866	-0.2106	15.5243	0.0953	-0.1669
103.8	15.6516	0.0866	-0.2102	15.5538	0.0954	-0.1671
103.9	15.6794	0.0867	-0.2099	15.5834	0.0956	-0.1674
104	15.7072	0.0867	-0.2096	15.6131	0.0957	-0.1676
104.1	15.7351	0.0867	-0.2092	15.6428	0.0958	-0.1679
104.2	15.7630	0.0868	-0.2089	15.6726	0.0959	-0.1682
104.3	15.7909	0.0868	-0.2085	15.7024	0.0960	-0.1684
104.4	15.8189	0.0868	-0.2082	15.7323	0.0962	-0.1687
104.5	15.8469	0.0869	-0.2078	15.7622	0.0963	-0.1689
104.6	15.8750	0.0869	-0.2075	15.7921	0.0964	-0.1692
104.7	15.9031	0.0869	-0.2072	15.8221	0.0965	-0.1695
104.8	15.9312	0.0869	-0.2068	15.8521	0.0966	-0.1697
104.9	15.9594	0.0870	-0.2065	15.8822	0.0967	-0.1700
105	15.9876	0.0870	-0.2061	15.9123	0.0968	-0.1702
105.1	16.0158	0.0870	-0.2058	15.9424	0.0969	-0.1705
105.2	16.0441	0.0871	-0.2054	15.9726	0.0969	-0.1708
105.3	16.0724	0.0871	-0.2051	16.0028	0.0970	-0.1710
105.4	16.1007	0.0871	-0.2048	16.0331	0.0971	-0.1713
105.5	16.1290	0.0872	-0.2044	16.0634	0.0972	-0.1716
105.6	16.1574	0.0872	-0.2041	16.0937	0.0973	-0.1718

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
105.7	16.1858	0.0872	-0.2037	16.1240	0.0974	-0.1721
105.8	16.2142	0.0873	-0.2034	16.1544	0.0974	-0.1723
105.9	16.2427	0.0873	-0.2030	16.1848	0.0975	-0.1726
106	16.2711	0.0873	-0.2027	16.2152	0.0976	-0.1729
106.1	16.2996	0.0874	-0.2024	16.2456	0.0976	-0.1731
106.2	16.3281	0.0874	-0.2020	16.2761	0.0977	-0.1734
106.3	16.3566	0.0874	-0.2017	16.3066	0.0978	-0.1736
106.4	16.3852	0.0874	-0.2013	16.3371	0.0978	-0.1739
106.5	16.4137	0.0875	-0.2010	16.3677	0.0979	-0.1742
106.6	16.4423	0.0875	-0.2006	16.3982	0.0979	-0.1744
106.7	16.4709	0.0875	-0.2003	16.4288	0.0980	-0.1747
106.8	16.4994	0.0876	-0.2000	16.4594	0.0980	-0.1749
106.9	16.5280	0.0876	-0.1996	16.4900	0.0981	-0.1752
107	16.5566	0.0876	-0.1993	16.5206	0.0981	-0.1755
107.1	16.5853	0.0877	-0.1989	16.5513	0.0982	-0.1757
107.2	16.6139	0.0877	-0.1986	16.5819	0.0982	-0.1760
107.3	16.6425	0.0877	-0.1982	16.6126	0.0982	-0.1763
107.4	16.6712	0.0877	-0.1979	16.6433	0.0983	-0.1765
107.5	16.6998	0.0878	-0.1976	16.6740	0.0983	-0.1768
107.6	16.7285	0.0878	-0.1972	16.7047	0.0983	-0.1770
107.7	16.7572	0.0878	-0.1969	16.7354	0.0984	-0.1773
107.8	16.7858	0.0879	-0.1965	16.7661	0.0984	-0.1776
107.9	16.8145	0.0879	-0.1962	16.7968	0.0984	-0.1778
108	16.8432	0.0879	-0.1958	16.8276	0.0985	-0.1781
108.1	16.8719	0.0880	-0.1955	16.8583	0.0985	-0.1783
108.2	16.9006	0.0880	-0.1952	16.8890	0.0985	-0.1786
108.3	16.9293	0.0880	-0.1948	16.9198	0.0985	-0.1789
108.4	16.9580	0.0881	-0.1945	16.9505	0.0985	-0.1791
108.5	16.9867	0.0881	-0.1941	16.9813	0.0985	-0.1794
108.6	17.0154	0.0881	-0.1938	17.0120	0.0986	-0.1796
108.7	17.0441	0.0881	-0.1934	17.0428	0.0986	-0.1799
108.8	17.0728	0.0882	-0.1931	17.0736	0.0986	-0.1802
108.9	17.1015	0.0882	-0.1928	17.1043	0.0986	-0.1804
109	17.1303	0.0882	-0.1924	17.1351	0.0986	-0.1807
109.1	17.1590	0.0883	-0.1921	17.1658	0.0986	-0.1810
109.2	17.1877	0.0883	-0.1917	17.1966	0.0986	-0.1812
109.3	17.2164	0.0883	-0.1914	17.2274	0.0986	-0.1815
109.4	17.2451	0.0883	-0.1910	17.2581	0.0986	-0.1817

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
109.5	17.2738	0.0884	-0.1907	17.2889	0.0986	-0.1820
109.6	17.3025	0.0884	-0.1904	17.3197	0.0986	-0.1823
109.7	17.3312	0.0884	-0.1900	17.3504	0.0986	-0.1825
109.8	17.3599	0.0885	-0.1897	17.3812	0.0986	-0.1828
109.9	17.3886	0.0885	-0.1893	17.4119	0.0986	-0.1830
110	17.4173	0.0885	-0.1890	17.4427	0.0986	-0.1833
110.1	17.4460	0.0886	-0.1886	17.4735	0.0986	-0.1836
110.2	17.4747	0.0886	-0.1883	17.5042	0.0985	-0.1838
110.3	17.5033	0.0886	-0.1880	17.5350	0.0985	-0.1841
110.4	17.5320	0.0886	-0.1876	17.5657	0.0985	-0.1844
110.5	17.5607	0.0887	-0.1873	17.5965	0.0985	-0.1846
110.6	17.5893	0.0887	-0.1869	17.6272	0.0985	-0.1849
110.7	17.6180	0.0887	-0.1866	17.6579	0.0985	-0.1851
110.8	17.6467	0.0888	-0.1862	17.6887	0.0985	-0.1854
110.9	17.6753	0.0888	-0.1859	17.7194	0.0985	-0.1857
111	17.7040	0.0888	-0.1856	17.7501	0.0984	-0.1859
111.1	17.7326	0.0888	-0.1852	17.7808	0.0984	-0.1862
111.2	17.7612	0.0889	-0.1849	17.8116	0.0984	-0.1864
111.3	17.7899	0.0889	-0.1845	17.8423	0.0984	-0.1867
111.4	17.8185	0.0889	-0.1842	17.8730	0.0984	-0.1870
111.5	17.8471	0.0890	-0.1838	17.9037	0.0984	-0.1872
111.6	17.8758	0.0890	-0.1835	17.9344	0.0983	-0.1875
111.7	17.9044	0.0890	-0.1832	17.9650	0.0983	-0.1877
111.8	17.9330	0.0890	-0.1828	17.9957	0.0983	-0.1880
111.9	17.9616	0.0891	-0.1825	18.0264	0.0983	-0.1883
112	17.9902	0.0891	-0.1821	18.0570	0.0983	-0.1885
112.1	18.0188	0.0891	-0.1818	18.0877	0.0983	-0.1888
112.2	18.0474	0.0892	-0.1814	18.1184	0.0982	-0.1891
112.3	18.0760	0.0892	-0.1811	18.1490	0.0982	-0.1893
112.4	18.1046	0.0892	-0.1807	18.1796	0.0982	-0.1896
112.5	18.1332	0.0892	-0.1804	18.2103	0.0982	-0.1898
112.6	18.1617	0.0893	-0.1801	18.2409	0.0982	-0.1901
112.7	18.1903	0.0893	-0.1797	18.2715	0.0981	-0.1904
112.8	18.2189	0.0893	-0.1794	18.3021	0.0981	-0.1906
112.9	18.2474	0.0893	-0.1790	18.3327	0.0981	-0.1909
113	18.2760	0.0894	-0.1787	18.3633	0.0981	-0.1911
113.1	18.3045	0.0894	-0.1783	18.3939	0.0981	-0.1914
113.2	18.3331	0.0894	-0.1780	18.4245	0.0980	-0.1917

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
113.3	18.3616	0.0895	-0.1777	18.4551	0.0980	-0.1919
113.4	18.3902	0.0895	-0.1773	18.4856	0.0980	-0.1922
113.5	18.4187	0.0895	-0.1770	18.5162	0.0980	-0.1924
113.6	18.4472	0.0895	-0.1766	18.5467	0.0980	-0.1927
113.7	18.4757	0.0896	-0.1763	18.5773	0.0979	-0.1930
113.8	18.5043	0.0896	-0.1759	18.6078	0.0979	-0.1932
113.9	18.5328	0.0896	-0.1756	18.6383	0.0979	-0.1935
114	18.5613	0.0897	-0.1753	18.6688	0.0979	-0.1938
114.1	18.5898	0.0897	-0.1749	18.6994	0.0978	-0.1940
114.2	18.6183	0.0897	-0.1746	18.7299	0.0978	-0.1943
114.3	18.6468	0.0897	-0.1742	18.7604	0.0978	-0.1945
114.4	18.6753	0.0898	-0.1739	18.7908	0.0978	-0.1948
114.5	18.7038	0.0898	-0.1735	18.8213	0.0978	-0.1951
114.6	18.7323	0.0898	-0.1732	18.8518	0.0977	-0.1953
114.7	18.7608	0.0899	-0.1729	18.8823	0.0977	-0.1956
114.8	18.7892	0.0899	-0.1725	18.9127	0.0977	-0.1958
114.9	18.8177	0.0899	-0.1722	18.9432	0.0977	-0.1961
115	18.8462	0.0899	-0.1718	18.9736	0.0977	-0.1964
115.1	18.8747	0.0900	-0.1715	19.0040	0.0977	-0.1966
115.2	18.9031	0.0900	-0.1711	19.0345	0.0976	-0.1969
115.3	18.9316	0.0900	-0.1708	19.0649	0.0976	-0.1971
115.4	18.9601	0.0900	-0.1705	19.0953	0.0976	-0.1974
115.5	18.9885	0.0901	-0.1701	19.1257	0.0976	-0.1977
115.6	19.0170	0.0901	-0.1698	19.1561	0.0976	-0.1979
115.7	19.0454	0.0901	-0.1694	19.1865	0.0975	-0.1982
115.8	19.0739	0.0902	-0.1691	19.2169	0.0975	-0.1985
115.9	19.1023	0.0902	-0.1687	19.2472	0.0975	-0.1987
116	19.1308	0.0902	-0.1684	19.2776	0.0975	-0.1990
116.1	19.1592	0.0902	-0.1681	19.3080	0.0975	-0.1992
116.2	19.1877	0.0903	-0.1677	19.3384	0.0975	-0.1995
116.3	19.2161	0.0903	-0.1674	19.3687	0.0974	-0.1998
116.4	19.2446	0.0903	-0.1670	19.3991	0.0974	-0.2000
116.5	19.2730	0.0903	-0.1667	19.4294	0.0974	-0.2003
116.6	19.3014	0.0904	-0.1663	19.4598	0.0974	-0.2005
116.7	19.3299	0.0904	-0.1660	19.4901	0.0974	-0.2008
116.8	19.3583	0.0904	-0.1657	19.5204	0.0973	-0.2011
116.9	19.3867	0.0905	-0.1653	19.5508	0.0973	-0.2013
117	19.4152	0.0905	-0.1650	19.5811	0.0973	-0.2016

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Height (cm)</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
117.1	19.4436	0.0905	-0.1646	19.6114	0.0973	-0.2018
117.2	19.4720	0.0905	-0.1643	19.6418	0.0973	-0.2021
117.3	19.5005	0.0906	-0.1639	19.6721	0.0973	-0.2024
117.4	19.5289	0.0906	-0.1636	19.7024	0.0972	-0.2026
117.5	19.5573	0.0906	-0.1633	19.7327	0.0972	-0.2029
117.6	19.5857	0.0907	-0.1629	19.7631	0.0972	-0.2032
117.7	19.6142	0.0907	-0.1626	19.7934	0.0972	-0.2034
117.8	19.6426	0.0907	-0.1622	19.8237	0.0972	-0.2037
117.9	19.6710	0.0907	-0.1619	19.8540	0.0972	-0.2039
118	19.6994	0.0908	-0.1615	19.8844	0.0971	-0.2042
118.1	19.7278	0.0908	-0.1612	19.9147	0.0971	-0.2045
118.2	19.7562	0.0908	-0.1609	19.9450	0.0971	-0.2047
118.3	19.7847	0.0908	-0.1605	19.9753	0.0971	-0.2050
118.4	19.8131	0.0909	-0.1602	20.0057	0.0971	-0.2052
118.5	19.8415	0.0909	-0.1598	20.0360	0.0971	-0.2055
118.6	19.8699	0.0909	-0.1595	20.0663	0.0970	-0.2058
118.7	19.8983	0.0910	-0.1591	20.0966	0.0970	-0.2060
118.8	19.9267	0.0910	-0.1588	20.1270	0.0970	-0.2063
118.9	19.9552	0.0910	-0.1585	20.1573	0.0970	-0.2066
119	19.9836	0.0910	-0.1581	20.1876	0.0970	-0.2068
119.1	20.0120	0.0911	-0.1578	20.2179	0.0970	-0.2071
119.2	20.0404	0.0911	-0.1574	20.2482	0.0969	-0.2073
119.3	20.0688	0.0911	-0.1571	20.2786	0.0969	-0.2076
119.4	20.0973	0.0912	-0.1567	20.3089	0.0969	-0.2079
119.5	20.1257	0.0912	-0.1564	20.3392	0.0969	-0.2081
119.6	20.1541	0.0912	-0.1561	20.3695	0.0969	-0.2084
119.7	20.1825	0.0912	-0.1557	20.3999	0.0969	-0.2086
119.8	20.2109	0.0913	-0.1554	20.4302	0.0968	-0.2089
119.9	20.2393	0.0913	-0.1550	20.4605	0.0968	-0.2092
120	20.2678	0.0913	-0.1547	20.4908	0.0968	-0.2094

M Location parameter, *S* Scale parameter, *L* Shape parameter

Web Table IV LMS parameters of BMI-for-age for Indian children aged 5 to 19 years

Age in months	Male			Female		
	M	S	L	M	S	L
60	14.3080	0.0808	-1.8857	13.9801	0.0883	-2.3687
61	14.3028	0.0813	-1.9114	13.9910	0.0889	-2.3634
62	14.2977	0.0818	-1.9371	14.0018	0.0894	-2.3582
63	14.2926	0.0823	-1.9629	14.0125	0.0900	-2.3529
64	14.2877	0.0828	-1.9886	14.0230	0.0906	-2.3476
65	14.2829	0.0833	-2.0143	14.0332	0.0912	-2.3422
66	14.2783	0.0838	-2.0400	14.0433	0.0918	-2.3368
67	14.2738	0.0843	-2.0656	14.0531	0.0924	-2.3313
68	14.2696	0.0849	-2.0911	14.0628	0.0930	-2.3257
69	14.2657	0.0854	-2.1165	14.0724	0.0936	-2.3200
70	14.2622	0.0860	-2.1419	14.0820	0.0942	-2.3142
71	14.2593	0.0865	-2.1672	14.0916	0.0948	-2.3082
72	14.2570	0.0871	-2.1923	14.1012	0.0954	-2.3021
73	14.2555	0.0876	-2.2173	14.1110	0.0960	-2.2958
74	14.2549	0.0882	-2.2420	14.1210	0.0967	-2.2893
75	14.2553	0.0887	-2.2665	14.1313	0.0973	-2.2826
76	14.2569	0.0893	-2.2907	14.1419	0.0980	-2.2758
77	14.2597	0.0899	-2.3145	14.1531	0.0986	-2.2687
78	14.2638	0.0905	-2.3379	14.1648	0.0993	-2.2614
79	14.2692	0.0911	-2.3608	14.1770	0.0999	-2.2539
80	14.2761	0.0917	-2.3832	14.1899	0.1006	-2.2462
81	14.2843	0.0923	-2.4051	14.2033	0.1013	-2.2382
82	14.2940	0.0929	-2.4264	14.2173	0.1020	-2.2300
83	14.3051	0.0935	-2.4470	14.2319	0.1027	-2.2216
84	14.3177	0.0941	-2.4669	14.2471	0.1035	-2.2129
85	14.3319	0.0947	-2.4861	14.2628	0.1042	-2.2040
86	14.3475	0.0953	-2.5044	14.2792	0.1050	-2.1948
87	14.3647	0.0959	-2.5219	14.2961	0.1057	-2.1853
88	14.3833	0.0965	-2.5384	14.3137	0.1065	-2.1755
89	14.4031	0.0972	-2.5541	14.3320	0.1073	-2.1655
90	14.4240	0.0978	-2.5689	14.3511	0.1081	-2.1552
91	14.4460	0.0984	-2.5828	14.3709	0.1090	-2.1447
92	14.4688	0.0991	-2.5959	14.3915	0.1098	-2.1339
93	14.4924	0.0997	-2.6081	14.4129	0.1107	-2.1228
94	14.5167	0.1004	-2.6195	14.4353	0.1115	-2.1115
95	14.5414	0.1010	-2.6300	14.4587	0.1124	-2.0998
96	14.5666	0.1017	-2.6397	14.4831	0.1133	-2.0880

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
97	14.5921	0.1023	-2.6486	14.5085	0.1142	-2.0759
98	14.6180	0.1030	-2.6567	14.5349	0.1151	-2.0636
99	14.6441	0.1037	-2.6639	14.5623	0.1160	-2.0510
100	14.6704	0.1043	-2.6704	14.5907	0.1169	-2.0382
101	14.6970	0.1050	-2.6760	14.6200	0.1179	-2.0252
102	14.7237	0.1057	-2.6808	14.6501	0.1188	-2.0120
103	14.7505	0.1064	-2.6847	14.6810	0.1197	-1.9986
104	14.7773	0.1071	-2.6878	14.7127	0.1206	-1.9849
105	14.8042	0.1078	-2.6901	14.7450	0.1215	-1.9710
106	14.8311	0.1084	-2.6916	14.7780	0.1224	-1.9569
107	14.8583	0.1091	-2.6922	14.8117	0.1233	-1.9425
108	14.8856	0.1098	-2.6919	14.8462	0.1242	-1.9279
109	14.9133	0.1105	-2.6908	14.8816	0.1250	-1.9130
110	14.9414	0.1112	-2.6889	14.9178	0.1259	-1.8979
111	14.9699	0.1119	-2.6861	14.9550	0.1267	-1.8826
112	14.9989	0.1126	-2.6825	14.9934	0.1276	-1.8671
113	15.0286	0.1133	-2.6782	15.0329	0.1284	-1.8514
114	15.0589	0.1140	-2.6732	15.0736	0.1292	-1.8355
115	15.0898	0.1146	-2.6675	15.1157	0.1300	-1.8194
116	15.1213	0.1153	-2.6612	15.1590	0.1308	-1.8031
117	15.1534	0.1160	-2.6542	15.2038	0.1316	-1.7867
118	15.1861	0.1166	-2.6467	15.2499	0.1323	-1.7701
119	15.2192	0.1173	-2.6386	15.2974	0.1331	-1.7534
120	15.2528	0.1179	-2.6298	15.3464	0.1338	-1.7366
121	15.2868	0.1186	-2.6206	15.3969	0.1345	-1.7197
122	15.3212	0.1192	-2.6107	15.4489	0.1352	-1.7027
123	15.3560	0.1198	-2.6004	15.5024	0.1359	-1.6856
124	15.3911	0.1204	-2.5895	15.5573	0.1365	-1.6686
125	15.4265	0.1210	-2.5781	15.6136	0.1372	-1.6515
126	15.4621	0.1216	-2.5662	15.6712	0.1378	-1.6344
127	15.4979	0.1222	-2.5538	15.7302	0.1384	-1.6174
128	15.5338	0.1227	-2.5409	15.7903	0.1390	-1.6004
129	15.5698	0.1233	-2.5275	15.8517	0.1396	-1.5835
130	15.6060	0.1238	-2.5138	15.9141	0.1401	-1.5666
131	15.6421	0.1243	-2.4996	15.9774	0.1406	-1.5498
132	15.6782	0.1249	-2.4851	16.0417	0.1412	-1.5332
133	15.7143	0.1254	-2.4702	16.1068	0.1416	-1.5166
134	15.7505	0.1258	-2.4551	16.1726	0.1421	-1.5001

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
135	15.7868	0.1263	-2.4397	16.2390	0.1425	-1.4838
136	15.8234	0.1268	-2.4240	16.3059	0.1430	-1.4676
137	15.8601	0.1272	-2.4082	16.3731	0.1434	-1.4515
138	15.8972	0.1277	-2.3923	16.4405	0.1437	-1.4356
139	15.9346	0.1281	-2.3763	16.5079	0.1441	-1.4199
140	15.9724	0.1285	-2.3602	16.5753	0.1444	-1.4042
141	16.0107	0.1289	-2.3440	16.6426	0.1447	-1.3888
142	16.0495	0.1292	-2.3279	16.7096	0.1450	-1.3736
143	16.0889	0.1296	-2.3118	16.7763	0.1453	-1.3585
144	16.1289	0.1299	-2.2958	16.8426	0.1455	-1.3437
145	16.1694	0.1303	-2.2800	16.9085	0.1458	-1.3290
146	16.2107	0.1306	-2.2643	16.9738	0.1460	-1.3146
147	16.2526	0.1309	-2.2488	17.0387	0.1462	-1.3003
148	16.2952	0.1311	-2.2336	17.1029	0.1463	-1.2862
149	16.3386	0.1314	-2.2188	17.1666	0.1465	-1.2723
150	16.3827	0.1316	-2.2043	17.2295	0.1466	-1.2585
151	16.4276	0.1319	-2.1902	17.2918	0.1467	-1.2449
152	16.4733	0.1321	-2.1764	17.3533	0.1468	-1.2313
153	16.5195	0.1323	-2.1631	17.4140	0.1469	-1.2180
154	16.5663	0.1324	-2.1503	17.4739	0.1470	-1.2047
155	16.6137	0.1326	-2.1378	17.5328	0.1470	-1.1915
156	16.6615	0.1327	-2.1258	17.5907	0.1470	-1.1785
157	16.7097	0.1329	-2.1142	17.6478	0.1470	-1.1655
158	16.7583	0.1330	-2.1031	17.7038	0.1470	-1.1526
159	16.8071	0.1331	-2.0925	17.7588	0.1469	-1.1398
160	16.8561	0.1332	-2.0823	17.8127	0.1469	-1.1271
161	16.9054	0.1333	-2.0726	17.8655	0.1468	-1.1144
162	16.9548	0.1334	-2.0633	17.9173	0.1467	-1.1018
163	17.0044	0.1335	-2.0545	17.9679	0.1466	-1.0891
164	17.0542	0.1335	-2.0460	18.0175	0.1464	-1.0765
165	17.1041	0.1336	-2.0379	18.0661	0.1463	-1.0639
166	17.1541	0.1336	-2.0302	18.1137	0.1461	-1.0513
167	17.2042	0.1337	-2.0228	18.1604	0.1459	-1.0387
168	17.2543	0.1337	-2.0157	18.2061	0.1457	-1.0261
169	17.3045	0.1338	-2.0088	18.2510	0.1455	-1.0134
170	17.3548	0.1338	-2.0022	18.2951	0.1453	-1.0008
171	17.4051	0.1339	-1.9958	18.3382	0.1451	-0.9882
172	17.4554	0.1339	-1.9896	18.3805	0.1448	-0.9756

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
173	17.5057	0.1339	-1.9836	18.4220	0.1446	-0.9629
174	17.5560	0.1340	-1.9777	18.4627	0.1444	-0.9503
175	17.6064	0.1340	-1.9719	18.5027	0.1441	-0.9377
176	17.6567	0.1340	-1.9662	18.5418	0.1439	-0.9250
177	17.7069	0.1341	-1.9605	18.5803	0.1437	-0.9124
178	17.7572	0.1341	-1.9550	18.6181	0.1434	-0.8998
179	17.8074	0.1341	-1.9495	18.6552	0.1432	-0.8873
180	17.8575	0.1342	-1.9440	18.6916	0.1430	-0.8747
181	17.9076	0.1342	-1.9387	18.7274	0.1428	-0.8622
182	17.9576	0.1342	-1.9335	18.7626	0.1427	-0.8498
183	18.0074	0.1343	-1.9282	18.7972	0.1425	-0.8374
184	18.0572	0.1343	-1.9231	18.8313	0.1424	-0.8250
185	18.1068	0.1343	-1.9179	18.8647	0.1422	-0.8127
186	18.1562	0.1343	-1.9127	18.8976	0.1421	-0.8003
187	18.2055	0.1344	-1.9074	18.9299	0.1420	-0.7881
188	18.2546	0.1344	-1.9021	18.9617	0.1420	-0.7758
189	18.3033	0.1344	-1.8965	18.9929	0.1419	-0.7636
190	18.3518	0.1344	-1.8908	19.0235	0.1419	-0.7514
191	18.3998	0.1344	-1.8849	19.0535	0.1419	-0.7393
192	18.4474	0.1345	-1.8787	19.0829	0.1420	-0.7271
193	18.4945	0.1345	-1.8722	19.1116	0.1420	-0.7149
194	18.5410	0.1345	-1.8654	19.1396	0.1421	-0.7028
195	18.5869	0.1345	-1.8584	19.1669	0.1422	-0.6907
196	18.6321	0.1345	-1.8512	19.1934	0.1423	-0.6785
197	18.6765	0.1346	-1.8436	19.2192	0.1424	-0.6663
198	18.7202	0.1346	-1.8359	19.2444	0.1426	-0.6542
199	18.7630	0.1346	-1.8279	19.2687	0.1428	-0.6420
200	18.8049	0.1346	-1.8197	19.2924	0.1430	-0.6298
201	18.8459	0.1347	-1.8112	19.3154	0.1432	-0.6176
202	18.8859	0.1347	-1.8025	19.3377	0.1434	-0.6054
203	18.9248	0.1347	-1.7936	19.3593	0.1437	-0.5931
204	18.9626	0.1348	-1.7845	19.3802	0.1440	-0.5809
205	18.9992	0.1348	-1.7752	19.4005	0.1443	-0.5685
206	19.0347	0.1348	-1.7657	19.4202	0.1446	-0.5562
207	19.0691	0.1349	-1.7559	19.4392	0.1449	-0.5438
208	19.1023	0.1349	-1.7461	19.4575	0.1453	-0.5314
209	19.1344	0.1350	-1.7361	19.4752	0.1456	-0.5190
210	19.1654	0.1351	-1.7259	19.4922	0.1460	-0.5065

ANTHROPOMETRIC GROWTH REFERENCES FOR INDIAN CHILDREN AND ADOLESCENTS

<i>Age in months</i>	<i>Male</i>			<i>Female</i>		
	<i>M</i>	<i>S</i>	<i>L</i>	<i>M</i>	<i>S</i>	<i>L</i>
211	19.1953	0.1351	-1.7156	19.5085	0.1464	-0.4940
212	19.2241	0.1352	-1.7052	19.5242	0.1468	-0.4814
213	19.2519	0.1353	-1.6946	19.5393	0.1472	-0.4688
214	19.2786	0.1354	-1.6838	19.5538	0.1477	-0.4562
215	19.3043	0.1355	-1.6729	19.5677	0.1481	-0.4436
216	19.3290	0.1356	-1.6618	19.5810	0.1486	-0.4310
217	19.3527	0.1357	-1.6505	19.5938	0.1491	-0.4184
218	19.3754	0.1359	-1.6390	19.6061	0.1496	-0.4058
219	19.3973	0.1360	-1.6273	19.6179	0.1501	-0.3933
220	19.4183	0.1361	-1.6155	19.6291	0.1506	-0.3807
221	19.4384	0.1363	-1.6035	19.6399	0.1512	-0.3681
222	19.4576	0.1364	-1.5913	19.6502	0.1517	-0.3555
223	19.4761	0.1366	-1.5790	19.6601	0.1523	-0.3430
224	19.4938	0.1368	-1.5666	19.6695	0.1529	-0.3304
225	19.5108	0.1370	-1.5542	19.6786	0.1534	-0.3178
226	19.5271	0.1371	-1.5418	19.6873	0.1540	-0.3052
227	19.5429	0.1373	-1.5294	19.6958	0.1547	-0.2925
228	19.5581	0.1375	-1.5170	19.7040	0.1553	-0.2799
229	19.5728	0.1377	-1.5047	19.7121	0.1559	-0.2672
230	19.5871	0.1380	-1.4924	19.7199	0.1566	-0.2546
231	19.6010	0.1382	-1.4803	19.7277	0.1572	-0.2420
232	19.6147	0.1384	-1.4682	19.7353	0.1578	-0.2293
233	19.6280	0.1386	-1.4562	19.7430	0.1585	-0.2167
234	19.6411	0.1388	-1.4444	19.7506	0.1592	-0.2041
235	19.6541	0.1391	-1.4326	19.7582	0.1598	-0.1914
236	19.6668	0.1393	-1.4209	19.7658	0.1605	-0.1788
237	19.6794	0.1395	-1.4092	19.7734	0.1612	-0.1662
238	19.6919	0.1397	-1.3976	19.7810	0.1618	-0.1535
239	19.7042	0.1400	-1.3861	19.7886	0.1625	-0.1409

M Median parameter, L Location parameter, S Scale parameter