

NATIONAL NUTRITION MONITORING BUREAU

Diet and Nutritional Status of Tribal Population and Prevalence of Hypertension among Adults

Report on Second Repeat Survey



National Institute of Nutrition (ICMR)
Hyderabad - 500 007

2009

NNMB Technical Report No. 25

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**National Institute of Nutrition
Indian Council of Medical Research
Hyderabad - 500 007, India**

2009

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EXECUTIVE SUMMARY

Executive Summary

The National Nutrition Monitoring Bureau carried out second repeat survey in ITDA areas during 2007-08 covering 75% of the villages (90) which were surveyed during 1985-87 and 1998-99 and 25% of the new villages (30), to assess the current diet and nutritional status and time trends, if any, in the nutritional status and food consumption pattern of tribal population.

In view of recent increase in prevalence of overweight and obesity and its co-morbidities among urban, rural and tribal communities in epidemic proportions, assessment of prevalence of overweight and obesity and hypertension among tribal adult men and women (≥ 20 years) was also carried out in addition to the diet and nutrition surveys in 9 NNMB States.

A total of 1,15,113 individuals were covered for nutritional anthropometry, clinical examination and current history of morbidity, from 40,359 households in 1032 villages of the 9 States. Data on food and nutrient intake was collected from 41,507 individuals of different age and sex groups from about 10,077 households. Measurement of blood pressure, waist & hip circumference and information on knowledge and practices about hypertension and diabetes was collected among 47,410 adults of ≥ 20 years.

Current Nutritional Status

Food and Nutrient intake

The mean intakes of most of the foodstuffs were below the RDI. Even though, the consumption of protective foods, such as green leafy vegetables, milk and milk products, fruits, sugar and jaggery increased marginally, the consumption levels were grossly deficient compared to recommended levels. The intake of almost all the nutrients in most of the States, were below the recommended levels, particularly of those micronutrients such as vitamin A, iron and riboflavin. Among the pregnant and lactating women, the median intakes of all the nutrients were below the RDA. The extent of deficit was relatively more for vitamin A, iron, calcium and folic acid among children and pregnant women. Only about 30% of the preschool and school age children had adequate intakes of both protein and calories. Among the adult women, protein-calorie inadequacy

was found to be more among pregnant (25%) and lactating women (25%) compared to NPNL women (14%).

Anthropometry

The overall prevalence of undernutrition (<Median – 2SD) in the form of underweight, stunting and wasting among infants was 36%, 35% and 24% respectively and it tended to increasing with increase of age. The magnitude of undernutrition was significantly higher among preschool children (52%, 55% and 22% respectively), except in case of wasting as compared to infants. It was found to be relatively higher in the States of Madhya Pradesh, Maharashtra, Gujarat and Orissa. No gender differentials, however, were observed in the prevalence of undernutrition. The prevalence of undernutrition (<5 centile of BMI: thinness) among school age and adolescents was very high (6-9 years: 71%; 10-13 years: 61% & 14-17 years: 40%). The prevalence of chronic energy deficiency (CED) was 40% and 49% among adult men and women respectively.

Diet related chronic Non-communicable diseases

The prevalence of overweight and obesity among tribal men and women was 2.6% and 3.2% respectively. However, the prevalence of hypertension (SBP \geq 140 mm of Hg and /or DBP \geq 90 mm of Hg) was about 25% among men, and 23% among women. The prevalence was highest in the State of Orissa (men: 53.7%; women: 48.8%) and lowest in Gujarat (men: 9.9%; women: 6.3%).

About 44% of men and 38% of women were aware of hypertension. Of them 1.6% & 2.3% respectively were known hypertensive and only 1-2% were on treatment. About 38% men and 33% women were aware of diabetes mellitus. Of them about <1% were known diabetics. About 36% of men and 6% of women were smoking tobacco, the proportion of which was higher among 50-70 years compared to 20-30 years age group. About 11-52% were chewing tobacco, while about 2-6% were snuffing the same. The consumption of alcohol was significantly higher among tribal men (59%) compared to women (14%). Daily consumption of alcohol was reported by about 5-11% among adult men and 1-3% in women.

Time trends in diet and nutritional status

*There appeared to be either no change or a marginal decline in the intake of some of the foods by individuals of different age and sex groups. The average intake of all nutrients, except energy, thiamin, niacin and vitamin C in West Bengal, declined from 1985-89 to 2007-08, while in Orissa, except energy, iron, **calcium, vitamin A, and riboflavin**, all other nutrients increased over a period of time. The intake of most of the nutrients declined in Tamil Nadu, Karnataka, Andhra Pradesh and Gujarat and some of the nutrients like calcium, vitamin A, thiamin, niacin and vitamin C increased in Orissa, Gujarat and West Bengal.*

The proportion of individuals consuming less than 70% of RDA of cereals and pulses among tribal population was similar compared to their rural counterparts. However, the consumption of milk was relatively lower and that of GLV was higher in the tribal population compared to rural population.

A significant reduction in the nutritional deficiency signs such as kwashiorkor, marasmus, vitamin A and B-complex deficiencies among preschool children was observed over the period. The overall prevalence of underweight among 1-5 year tribal children was less compared to their rural counterparts (52% vs 55%), while the prevalence of stunting was marginally higher (55% vs 52%) and that of wasting was relatively higher (22% vs 15%).

The overall prevalence of severe underweight (weight for age <60% of NCHS values, Gomez Gr. III) decreased from 19.8% in 1985-87 to 7% in 2007-08. However, the extent of severe underweight by SD classification using WHO child Growth Standards (weight for age < Median - 3SD) decreased only marginally 3% while that of normal increased by about 5% during the period 1998-99 to 2007-08. The prevalence of severe stunting decreased by about 5% while that of severe wasting, remained similar. The prevalence of chronic energy deficiency (BMI<18.5) decreased by about 9% in adult men and by about 6% in adult women. Thus, it was observed that the improvement in the nutritional status of preschool children was only marginal.

Marginal improvement in the overall nutritional status observed over a period of time despite of no significant improvement in dietary intakes. The improvement in nutritional status could be due to non-nutritional factors, such as improved accessibility to health care facilities, sanitation, protected water supply etc.

The study highlights the need for implementation of developmental programmes in the tribal areas for the overall improvement of nutritional status of the community. There is also a need to carryout in depth studies to assess the lifestyle practices and other associated factors contributing to hypertension. The community needs to be sensitized regarding the causes and consequences of obesity, HTN and DM and to educate them about the need for adopting appropriate life styles and healthy dietary habits.

1. INTRODUCTION

The Indian Council of Medical Research (ICMR) established National Nutrition Monitoring Bureau (NNMB) in 1972 in the States of Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Maharashtra, Gujarat, Madhya Pradesh, Orissa, West Bengal and Uttar Pradesh. The Bureau, since its inception, has been carrying out diet and nutrition surveys on a regular basis in the rural and tribal areas, as well as special surveys and the results are being published as NNMB Technical Reports (1-24) which are also hosted in the NNMB website (www.nnmbindia.org). In order to study the time trends in the diet and nutritional status of the communities, the NNMB has been carrying out repeat surveys both in rural and tribal areas, by visiting the same villages every 7-10 years. First and second repeat surveys were carried out in rural population during 1988-90¹ and 1996-97² respectively. During 1998-99, the Bureau had conducted first repeat survey on tribal population in Integrated Tribal Development project Areas³.

Background

Tribal communities are isolated from general population and are socially and economically disadvantaged. They constitute 8.2% of the total population of India (Census 2001). A general feature of the tribal population of the country is their exclusive geographical habitat. In view of their habitat and dietary habits, they often distinguish themselves from other population groups. Geographical isolation, primitive agricultural practices, socio-cultural taboos, poor health seeking behaviour, poverty etc., leads to the development of various morbidities and undernutrition. Most of them are small communities with relatively low population growth rate compared to the rest of the population. Government of India identified 72 such tribal communities as primitive tribes. Nutritional status of population largely depends on the consumption of foods in relation to their needs, which in turn is influenced by the availability of food and purchasing power.

The socio-economic conditions like agricultural pattern and occupation profile are different among different tribes and are determined by the ecosystem they live in⁴. Several studies have shown a close relationship between tribal ecosystem and their nutritional status⁵. The tribal populations are at risk of undernutrition because of their dependence on primitive agricultural practices and uncertainty of food supply. Inadequate health care facilities and ecological degradation further aggravate the situation. Recognizing the problem, Government of India has been implementing several programmes under tribal sub-plan approach for the development of tribal population. Areas having more than 50% tribal population are covered under Integrated Tribal Development Agency (ITDA), while those with lesser

concentrations are covered under Modified Area Development Approach (MADA). The second repeat survey was carried out in the tribal population during 2007-08, as decided in the meeting of the NNMB Steering Committee.

A few sporadic studies carried out in the developing countries, including India, have been reporting a steady increase in the prevalence of diet related chronic diseases like overweight and obesity, hypertension, diabetes mellitus, etc. in urban as well as in rural and tribal areas. Therefore, in the present survey, in addition to diet and nutrition surveys, assessment of prevalence of overweight and obesity and hypertension among adult men and women (≥ 20 years) was also carried out.

2. OBJECTIVES

2.1 General Objective

To assess the current diet and nutritional status and time trends of tribal population in all 10 NNMB States and to assess the prevalence of obesity and hypertension among adult men and women of ≥ 20 years of tribal population

2.2 Specific Objectives

1. To assess the current status of food and nutrient intake among different age/sex/physiological groups of tribal population living in the Integrated Tribal Development Agency (ITDA) areas in NNMB States,
2. To assess the current nutritional status of all the available individuals in terms Anthropometry and Clinical examination,
3. To assess the history of morbidity during previous fortnight among all the individuals covered for anthropometry,
4. To study the time trends in the food and nutrient intakes and nutritional status since 1985-87, and
5. To assess the prevalence of overweight/obesity and hypertension among the adult men and women (≥ 20 years) of the tribal community and their awareness about hypertension and diabetes.

3. METHODOLOGY

3.1 Study design

It was a cross-sectional, community-based survey carried out in the ITDA project areas, by adopting stratified random sampling procedure.

3.2 Selection of Villages

A total of 120 villages were covered in each NNMB State. Of these, 90 villages were selected from that were covered in baseline (1985-87) and first repeat

survey (1998-99), and the remaining 30 villages were randomly selected afresh from the list of villages obtained from the ITDA (2006).

3.3 Selection of Households

From each selected village, 40 households (HHs) were chosen by adopting 'probability proportion to population size' (PPS) of different tribes. For this purpose, in each village, households were grouped according to the type of tribe and required number of HHs was covered contiguously from each tribal group by selecting a random start. Thus, a total of 4800 households (40HHs x 120 villages) were covered in each State for socioeconomic-demographic particulars and anthropometry and on a sub-sample basis, diet survey was carried out in 1200 HHs.

3.4 Sample Size Estimation

3.4.1 Nutritional status

All the available subjects from the selected 4800 HHs were covered for anthropometry, clinical examination and history of morbidity. A 24 hour recall method of diet survey was carried out in every fourth HH, covered for nutrition assessment in each village. The sample size required for each State for various investigations among different target groups of individuals are given below:

Investigations	No. of HHs	Age/Sex/ Physiological Group	Prevalence	C.I	Relative Precision	Sample required per State
Anthropometry	4800	All the available individuals				
Clinical Examination						
History of morbidity						
Diet survey	1200	All the individuals partaking meals in the HH				
Blood Pressure measurement	4800	Men (≥ 20 yrs)	10%	95%	20%	1750
		Women (≥ 20 yrs)				1750
Knowledge & Practice on HTN & DM	4800	Men (≥ 20 yrs)	-	-	-	1750
	4800	Women (≥ 20 yrs)	-	-	-	1750

3.4.2. Measurement of Blood Pressure

Earlier studies have revealed that the overall prevalence of hypertension among the rural adults of ≥ 20 years was about 10%⁶. Therefore, assuming prevalence of hypertension among tribal population as 10%, with 95% confidence interval and 20% relative precision, with design effect of 2, the sample size required for each State was computed as 1,750 adults for each gender.

3.5 Investigations

The following investigations were carried out in the selected HHs.

3.5.1 Socioeconomic and demographic particulars of HHs

Socioeconomic and demographic particulars, such as age, sex, occupation, annual family income, family size, type of family and literacy level of individuals and information about possession of agricultural land, types of crops raised, their yield during previous year, live stock, type of dwelling, environmental sanitation etc. from all the selected 40 HHs were collected by using pre-tested questionnaires.

3.5.2 Nutrition Assessment

In each village, all the available individuals in the 40 selected HHs were covered for the nutrition assessment, as follows:

3.5.2.1. Food & Nutrient Intake

A one day 24-hour recall method of diet survey was carried out to assess the food and nutrient intakes of the individuals⁷.

3.5.2.2. Anthropometry

Anthropometric measurements such as height, weight, mid upper arm circumference, fat fold thickness at triceps were carried out on all individuals using standard equipment and procedures⁸. In addition, waist & hip circumferences⁹ were also measured on all the men and women of ≥ 20 years (excluding pregnant women).

3.5.2.3. Clinical examination

All the individuals covered for the anthropometry were examined for the presence of clinical signs for nutritional deficiency.

3.5.2.4. History of morbidity

History of morbidity such as fever, diarrhoea and dysentery, acute respiratory infections, etc. during the previous fortnight was collected on all the individuals covered for nutrition assessment.

3.5.3 Measurement of blood pressure

Systolic and diastolic blood pressure for all the tribal adults covered for nutrition assessment was measured, thrice with an interval of 5 minutes gap by using mercury Sphygmomanometer.

3.5.4 Knowledge & Practice on HTN & Diabetes

Information on knowledge and practices of hypertension and diabetes was collected from all the adults (≥ 20 years) covered for anthropometry.

3.6 Training and Standardization of investigators

All the medical officers, nutritionists, social workers and technicians of different NNMB units were re-oriented and standardized at NIN before initiation of the survey, for a period of about one week in all the techniques of investigations,

including the measurement of blood pressure. During the training, emphasis was given for the investigators to achieve the maximum intra and inter-individual agreement in respect of all the measurements. At the end of the training, the teams were carried out the mock survey in a near by village.

3.7. Quality control

To ensure the quality of data, anthropometric measurements, clinical examination and blood pressure measurements were repeated in a sub-sample of individuals in the field by the staff of CRL.

3.8. Data Analysis

Descriptive statistics, univariate and multivariate analysis were carried out for assessing the prevalence and associations of outcome variable, if any, with the independent variables using SPSS version 15.0.

3.8.1. Diet and Nutritional status

3.8.1.1. Food and Nutrient Intakes of Individuals

The average daily intakes of different foods by individuals were calculated according to age/sex, physiological status and physical activity groups. The nutrient composition of the foods consumed by the individuals was computed using Food composition Tables in 'Nutritive value of Indian Foods'¹⁰. The intake of foods and median intake of various nutrients were compared with the suggested balanced diets provided in 'Recommended dietary Intakes for Indians (1981)¹¹ and 'Recommended Dietary Allowances for Indians (RDA)¹² suggested by the ICMR Expert Committee respectively.

Protein /Calorie Adequacy Status

The individuals of different age/sex/physiological and activity groups were categorized according to their protein/calorie adequacy status. The protein and energy requirement curves are assumed to follow Gaussian distribution, with a coefficient of variation of 15%. The Expert Committee of Indian Council of Medical Research (ICMR) has suggested requirements for energy as the recommended allowances, while in the case of protein, the recommended "allowance" corresponded to Mean \pm 2 SD of the requirements.

The energy/protein adequacy status for each group was determined using cut-off levels, based on RDA (1991)¹². All the individuals consuming protein and/or energy in amounts of less than Mean-2SD of requirements were considered as consuming 'inadequate' amounts.

3.8.1.2. Anthropometry

Mean heights, weights, mid-upper arm circumference and fat fold at triceps were computed according to age and gender and compared with median values of NCHS reference values as well as WHO growth standards.

Preschool Children

The 1-5 year preschool children were classified into various nutritional grades according to Gomez¹³ classification using NCHS¹⁴ values (for the purpose of comparison with earlier data) and Standard Deviation (SD) Classifications¹⁵ by using WHO Child Growth standards¹⁶ as described below:

Gomez Classification¹³

The 1-5 year children were classified into various nutritional grades according to Gomez classification, using NCHS reference values, to enable comparison with the past data, as the NNMB has been using Gomez classification since 1975 to assess the nutritional status of pre-school children.

Weight for age (% of NCHS Values)	Nutritional Grade
≥ 90	Normal
75 - 89.9	Grade I (Mild undernutrition)
60 - 74.9	Grade II (Moderate undernutrition)
< 60	Grade III (Severe undernutrition)

Standard Deviation (SD) Classification¹⁵

The World Health Organization recommends use of SD classification to categorize the children into different grades of nutritional status. The percent distribution of preschool children according to weight for age (underweight), height for age (stunting) and weight for height (wasting) were computed using WHO Child Growth Standards¹⁶ and NCHS reference values¹⁴, as given below:

SD Classification	Weight for age	Height for age	Weight for height
≥ Median – 2SD	Normal	Normal	Normal
<Median – 2SD to Median – 3SD	Moderate underweight	Moderate stunting	Moderate wasting
< Median–3 SD	Severe underweight	Severe stunting	Severe wasting

School age Children and Adolescents

The school age children and adolescents were categorized into various grades of nutritional status using the BMI Z-scores (WHO Reference values)¹⁷ as given below:

BMI Z-scores	Nutritional grade
< Median – 3 SD	Severe Thinness
– 3 SD to –2 SD	Moderate Thinness
– 2 SD to + 1 SD	Normal
+ 1 SD to + 2 SD	Overweight
≥ Median + 2 SD	Obesity

Adults

Body Mass Index (BMI)

The nutritional status of adults was assessed based on Body Mass Index (BMI), which is a ratio of Weight (kg)/ height (mts)². The adults were categorized into different nutritional grades according to James et al¹⁸ classification and that of WHO Consultative group¹⁹ as given below:

BMI	Nutritional Grade	Classification
<16.0	III degree CED	James et al
16.0 – 17.0	II degree CED	
17.0 – 18.5	I degree CED	
18.5 – 20.0	Low Normal	
20.0 – 25.0	Normal	
25.0 – 30.0	Over weight	
≥ 30.0	Obesity	
18.5 – 22.9	Normal*	WHO Consultative Group
23.0 – 27.5	Overweight	
≥27.5	Obesity	

CED: Chronic Energy Deficiency

* For Asian Population¹⁹

Waist Circumference²⁰

To study the prevalence of abdominal obesity according to waist circumference and its correlates with diet related chronic diseases among adult men & women of ≥20 years, WHO recommended Asian cut-off levels of ≥90 cm for men and ≥80 cm for women, were used.

Waist to hip ratio (WHR)²⁰

To study the prevalence of abdominal obesity according to waist to hip ratio and its correlates with diet related chronic diseases among adult men & women of

≥20 years, WHO recommended Asian cut-off levels of ≥ 0.9 for men and ≥0.8 for women, were used.

3.8.1.3. Hypertension

The average of three measurements of blood pressure measured at 5 minutes interval, was considered in classifying the individuals according to degree of hypertension, based on JNC VII Criteria ²¹, as follows:

Category	Cut-off Levels of Blood Pressure (mm/Hg)
Normal	SBP: <120 and DBP: <80
Pre-hypertension	SBP: 120-139 and/or DBP: 80-89
Stage I Hypertension	SBP: 140-159 and/or DBP: 90-99
Stage II Hypertension	SBP: ≥160 and/or DBP: ≥100

3.9. Time Trends

The time trends for diet and nutritional status of tribal population at three time points viz., 1985-87 (base line survey), 1998-99 (First repeat survey) and 2007-09 (Second repeat survey) are presented.

4.0. INFORMED CONSENT

Oral Informed consent was obtained from the head of the selected HH to collect the socio-economic and demographic particulars, including land holding and agricultural produce and for carrying out 24 recall method of diet survey, while written informed consent was also obtained from the subjects selected for measurement of blood pressure, duly explaining the aims and objectives of the study. Those who were found hypertensive were referred to nearest health centre for further investigations and treatment.

5. RESULTS

5.1. Coverage

The study was carried out in all the NNMB States, excluding Uttar Pradesh. The coverage was about 96% (of the target) in all the States except in the State of West Bengal, where it was only 59%, which was due to frequent turn over of staff during the survey period. A total of 1032 villages were covered from 9 States. Household (HH) socioeconomic-demographic particulars were collected from 40,359 HHs. About 1,15,113 individuals were covered for anthropometry and clinical examination. Data on food and nutrient intake was collected from 41,507 individuals from 10,077 households. The details of sample covered are presented in **Table 1**.

5.2. Socio-Economic Profile

5.2.1. Religion

A majority of the households belonged to Hindu religion (93.9%), while the rest were either Christians (1.7%) or other religion (4.4%). The proportion of Christians was higher in the State of Orissa (6.5%) followed by Andhra Pradesh (3.4%) and West Bengal (3.3%) (**Table 2**).

5.2.2. Type of House

The type of house was considered as an index of economic status of the household. About 68% of the families were living in semi-*pucca* houses, about 27% in *kutcha* and the rest in *Pucca* (5.1%) houses. The proportion of families living in *pucca* houses was highest in Tamil Nadu (20.2%), followed by Kerala (10.4%) and Andhra Pradesh (8.4%), while it was negligible in the State of Maharashtra, Gujarat, Madhya Pradesh, and Orissa (0.3-0.5%). The proportion of *kutcha* houses was maximum in the States of Andhra Pradesh (42.6%) and Orissa (42.5%) and was very low in the States of Karnataka (3.4%), Maharashtra (6.1%) and Kerala (13.7%) (**Table 3**).

5.2.3. Type of Family

About 71% of the households were nuclear families, the proportion of which ranged from a low 60% in West Bengal to a high of 87% in Kerala. The rest were either joint families (16.4%) or extended nuclear families (12.5%). The proportion of Joint families was highest in the States of West Bengal and Orissa (23.1% each) (**Table 4**).

5.2.4. Literacy status of adult men

About 55% of adult men in the HHs surveyed were illiterate, the proportion of which ranged from a high 77.4% in West Bengal to a low 40-42% in the States of Gujarat and Kerala. Among the literates, about 15% had primary education; 16% had

secondary education; 10% had higher secondary education, while only about 2% had college education (**Table 5**).

5.2.5. Literacy status of adult women

About two third of the adult women (66.2%) in the HHs surveyed were illiterate, the proportion of which ranged from a high 85.5% in West Bengal, through 80% in Orissa, 78.5% in Madhya Pradesh and to a low 45% in Karnataka, 44% in Kerala and 43% in Gujarat. About 11% had primary education; 13% had secondary education; 8% had higher secondary education, while less than 1% had college education (**Table 6**).

5.2.6. Major Occupation of Head of HH

About two third of the HHs were engaged in labour (agriculture labour: 22.8%; other labour: 41.3%), while about 25% were involved in agriculture. Rest of them were engaged in either in service (3.8%), business (1.2%) or other occupations (4.1%). The proportion of labourers was higher in the State of Kerala (79.2%) and Tamil Nadu (78.7%) and relatively lower in the States of Maharashtra (47.9%), Andhra Pradesh (51.4%) and Gujarat (52.8%). The proportion of cultivators was highest In the State of Maharashtra (44.4%), followed by Andhra Pradesh (37.7%) and Gujarat (40.6%), with least in Kerala (5.4%) (**Table 7**).

5.2.7. Land Holdings

About 39% of HHs in general, did not possess any agricultural land, 55% had less than 5 acres, while the rest of them had more than 5 acres of land. The proportion of landless HHs was the highest in the State of Gujarat (56.2%), followed by Kerala (55.6%) and Maharashtra (43.5%) (**Table 8**).

5.2.8. Family size

The average family size was 4.6, which ranged from a low 3.6 in the State of Kerala to 5.2 in Maharashtra and Orissa (**Table 9**). The family size was ≤ 4 in about 53% of HHs. About 40% of the HHs had 5-7 members and 7% had more than 8 members.

5.2.9. Income status

The average monthly per capita income was Rs.569/- at the current rupee value (**Table 10**). Tamil Nadu had highest per capita monthly income of Rs. 928, while Orissa had the lowest income (Rs. 247). About 68% of HHs had monthly per capita income of $< \text{Rs.}600$. Only 32% of HHs had monthly per capita income of $\geq \text{Rs.}600$, the proportion of which was found to be highest in the State of Tamil Nadu (67.8%) and Karnataka (66.1%) and least in Orissa (4.1%).

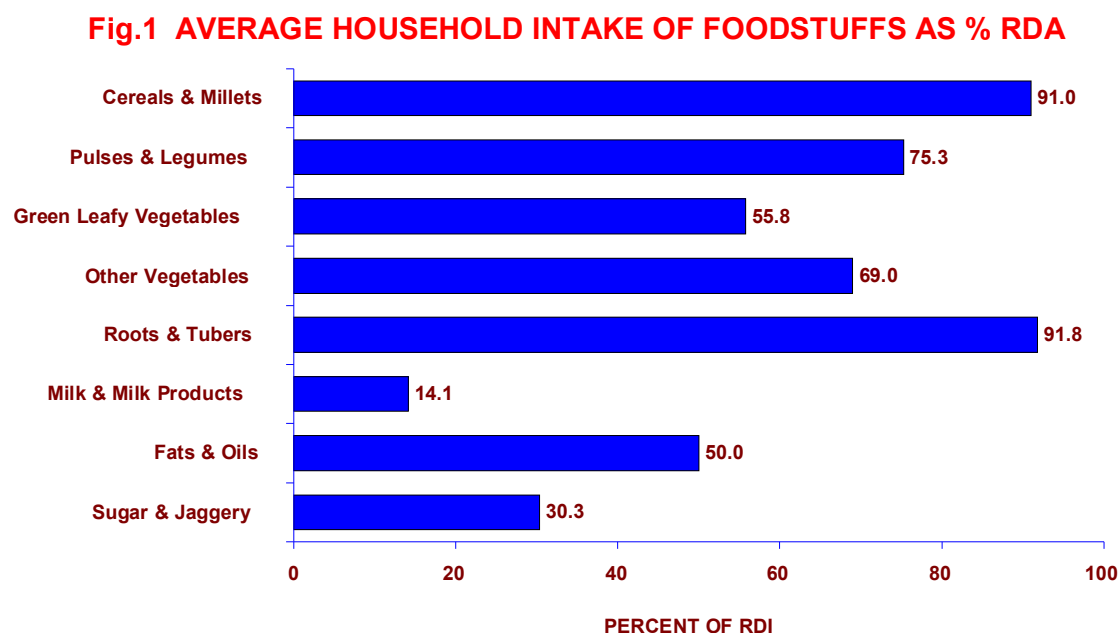
5.2.10. Physical facilities and Drinking water

In general, only about 14% of the HHs had sanitary latrine, the proportion of which was highest in Karnataka (51.6%) and Kerala (44.6%) and lowest (<5%) in Madhya Pradesh, Orissa, Tamil Nadu, Andhra Pradesh and Gujarat (**Table 11**). About half of HHs (51.9%) had separate kitchen. The proportion was highest in Karnataka (94.5%) and Kerala (88.7%) and lowest in Tamil Nadu (20.8%) and West Bengal (21.5%) (**Table 12**). About 99% of HHs in general was using firewood as cooking fuel, while the use of LPG (0.8%) and kerosene (0.4%) was observed to be negligible (**Table 13**). About 54% of HHs had electricity, the proportion of which ranged from a high 92% in Gujarat, 79% in Tamil Nadu to a low 4% in Orissa and 10% in West Bengal (**Table 14**). About 18% of the HHs had protected water supply (tap), while rest of HHs had either tube well (40.3%), open well (32.1%) or other water bodies (9.5%) as source of drinking water (**Table 15**).

5.3. Food and Nutrient Intakes of HHs

5.3.1. Food Consumption

The State-wise average consumption of foodstuffs (g/CU/day) is presented in **Table 16**. Percent frequency distribution of HHs according to average daily intake of foodstuffs as percent RDA is presented in **Table 17 & Fig.1**. Cereals and millets formed the bulk of the diets of the tribes surveyed in ITDA areas of all the States. However, in Kerala, Gujarat & West Bengal, the consumption of roots and tubers (Tapioca) in the diet was comparatively high. Similarly, the millet intakes were high in the States of Gujarat, Maharashtra and Madhya Pradesh.



5.3.1.1. Cereals and millets

Cereals and millets formed the bulk of the dietaries. The average intake of cereals and millets was 419 g/CU/day, which ranged from a low 330 g in Kerala to a high 610 g in West Bengal. The consumption of coarse grains like millets was observed mostly in the States of Gujarat (323 g), Maharashtra (109 g) and Madhya Pradesh (79 g), while it was negligible in other States.

The proportion of HHs consuming cereals & millets in amounts more than 70% of RDA, ranged from a low of 45% in Kerala to a maximum of 98% in the State of Orissa.

5.3.1.2. Pulses & legumes

The average consumption of pulses & legumes was about 30g/CU/day, which was lower than the suggested level of 40 g. The intakes were less than RDI in all the States, except in Gujarat (54 g) and Maharashtra (48 g). The consumption was lowest in West Bengal (10 g). The proportion of HHs consuming pulses & legumes $\geq 70\%$ of RDI was lowest in the state of West Bengal (13%), while it was 74% in the State of Maharashtra.

5.3.1.3. Green leafy vegetables

The average consumption of green leafy vegetables was 22 g/CU/day. The intake was below the suggested level of 40 g in all the States surveyed, except in West Bengal (78 g) and Orissa (65 g). The intake was < 10 g/CU/day in the States of Andhra Pradesh, Maharashtra and Gujarat. The proportion of HHs consuming GLV $< 50\%$ of RDI ranges between 45-95% in different States.

5.3.1.4. Other vegetables

Though the average consumption of other vegetables was 41 g which is less than suggested level of 60 g/CU/day, in all the States barring Gujarat (65 g) and ranged from a low of 23g in Maharashtra to a maximum of 65 g in Gujarat. The proportion of HHs consuming other vegetables $< 50\%$ of RDI ranged between 55-72% in different States.

5.3.1.5. Roots & Tubers

The average intake of roots & tubers was 46 g, which was more than the suggested level of 50g, and the intakes were higher in the States of West Bengal (86g), Gujarat (74 g) and Kerala (73 g). The intake was lowest in the State of Maharashtra (18 g), followed by Tamil Nadu (27 g) and Karnataka (30 g). The intake of roots & tubers, $< 50\%$ of RDI ranged from a low of 29% in West Bengal to a high of 78% in the State of Maharashtra.

5.3.1.6. Milk and milk products

The average consumption of milk & milk products was 21 ml/ CU/day which was lower than the suggested level of 150 ml of RDI in all the states. The consumption of milk & milk products was lowest (0.9 ml) in the State of Orissa, followed by West Bengal (1.8 ml) and Madhya Pradesh (7 ml). In all the States, in about 79-100% of the HHs, the intake of milk and milk products was <50% RDI.

5.3.1.7. Fats & Oils

The average consumption of visible fats & oils was 10 g, as against the suggested level of 20 g /CU/day. It ranged from a low of about 4 g in the State of Karnataka to a high of 15 g in Maharashtra. In Andhra Pradesh, Maharashtra and Gujarat, about 43-50% were consuming fats & oils ≥70% of RDI.

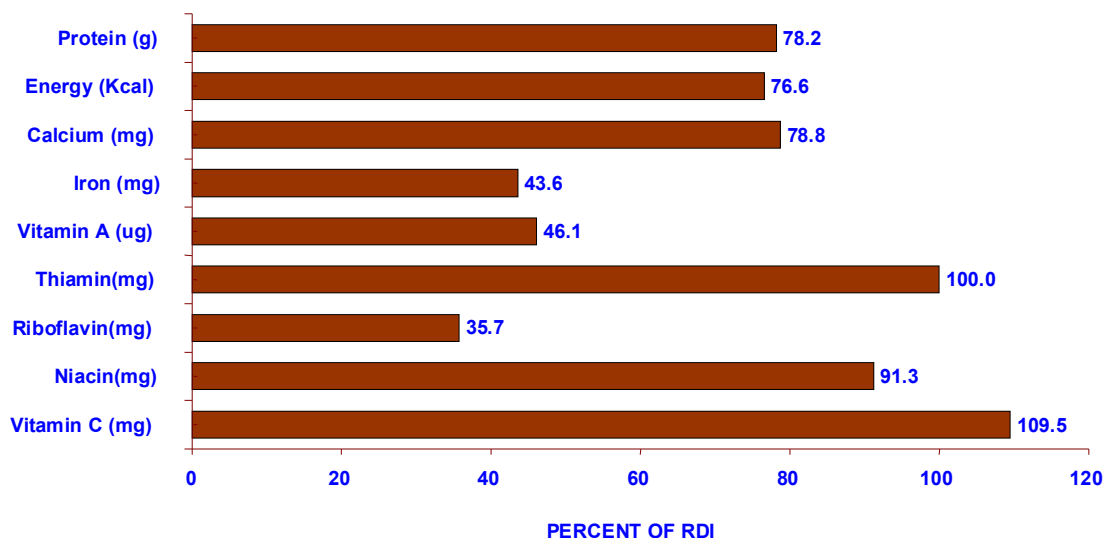
5.3.1.8. Sugar & Jaggery

The average consumption of sugar and jaggery was about 9 g/CU/day, which was less than the suggested level (30 g). Though the intake of sugar & jaggery was below the RDI in all the States, the intakes ranged from a low of about 3 g in Orissa to a high of 20 g in Maharashtra. In Tamil Nadu, Gujarat, Madhya Pradesh, Orissa and in West Bengal, in >90% of the HHs, the intake was <50% of RDI, while in other States, it ranged between 39% to 83%.

5.3.2. Nutrient Intakes

The mean and median intake of various nutrients (CU/day) presented in **Table 18**. Percent distribution of HHs according to median daily intake of nutrients as percent RDA is presented in **Table 19 & Fig.2**.

Fig. 2 MEDIAN HOUSEHOLD INTAKE OF NUTRIENTS AS % RDA



5.3.2.1. Protein

The median intake of protein was about 47 g/CU/day, which was less than RDA of 60 g in all the States, except in Gujarat (67.5 g). The proportion of HHs with consumption levels of $\geq 70\%$ of RDA ranged from a high of 87% in Gujarat to a low 36% in the States Karnataka and Tamil Nadu. More than 50% of the HHs were observed consuming proteins in amounts of $< 70\%$ of RDA in all the States except West Bengal, Maharashtra, Andhra Pradesh and Gujarat.

5.3.2.2. Energy

The median intake of energy was less than RDA of 2425 kcal in all the States except in West Bengal where it was comparable (2416). The proportion of HHs consuming $\geq 70\%$ of RDA was highest in West Bengal (84%) and least in Madhya Pradesh (31%).

5.3.2.3. Calcium

The Median daily intake of calcium was less than RDA of 400 mg in all the States, except in Orissa (450 mg). More than 50% of HHs were consuming $< 70\%$ of RDA in all the States, except in Orissa.

5.3.2.4. Iron

The median intake of iron was less than RDA of 28 mg in all the States (as per the revised iron values). The proportion of HHs with dietary intake of iron of $\geq 70\%$ of RDA was very low in all the States and ranged from a low 4-5% in Andhra Pradesh and Kerala to a maximum of 29% in Gujarat.

5.3.2.5. Vitamin A

Vitamin A intake was below the RDA (600 $\mu\text{g}/\text{CU}/\text{day}$) in all the States, except Orissa (777 μg). The proportion of HHs consuming $\geq 70\%$ of RDA was in general very low and accounted for less than 3-20% in all the States, except Orissa (43%).

5.3.2.6. Thiamine

The median intake of thiamine was \geq RDA of 1.2 mg /CU/day in Maharashtra (1.2 mg), Gujarat (1.9 mg) and West Bengal (1.5 mg). The proportion of HHs consuming $\geq 70\%$ of RDA was maximum in West Bengal (95%) and least in Andhra Pradesh (24%).

5.3.2.7. Riboflavin

The overall median intake of riboflavin was (0.5 mg/CU/day) low in all the states against the recommended levels of 1.4 mg. The proportion of HHs with consumption level of $\geq 70\%$ of RDA was negligible in all the States ($< 10\%$), except in Gujarat, where it was 21%.

5.3.2.8. Niacin

The median intake of niacin was below the RDI of 16 mg in all the States, except in West Bengal (25 mg), Orissa (17 mg) and Tamil Nadu (16 mg). More than 50% of HHs were consuming niacin in amounts of <70% RDA in the States of Madhya Pradesh (63%) and Andhra Pradesh (56%).

5.3.2.9. Vitamin C

The median intake of vitamin C was less than RDA of 40 mg/CU/day in all the States except in Orissa (94 mg), West Bengal (89 mg), Kerala (45 mg) and Gujarat (42 mg). The proportion of HHs with consumption level of $\geq 70\%$ of RDA ranged from a maximum of 65% in Orissa to a least of 17% in Maharashtra.

5.3.2.10. Free folic acid

The median intake of free folic acid was less than the RDA of 100 μg /CU/day in all the States. However, the proportion of HHs consuming $\geq 70\%$ RDA of free folic acid ranged from a low 7% in Tamil Nadu and Andhra Pradesh to high of 55% in Gujarat.

5.4. Food and Nutrient Intake of Individuals

The mean daily intake of foods and mean/median consumption of nutrients of individuals by age/sex/physiological groups is given in **Tables 20 to 45-A**.

5.4.1. Food Consumption

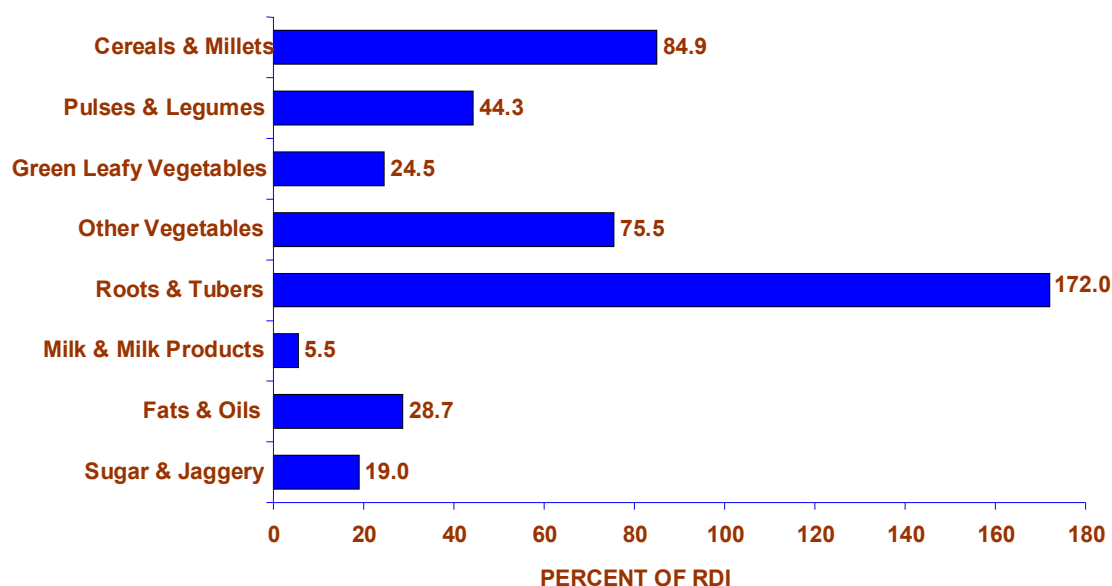
1-3 year Children

The average intake of cereals & millets was 149 g, against the suggested level of 175 g/day, which ranged from a high 192 g in Gujarat to a low 108 g in Kerala. The average intake of pulses & legumes (16 g) was much less than the suggested level of 35 g/day and was less than 50% of the suggested level in all the States, except Maharashtra (27 g) and Gujarat (25 g). The mean intake of roots and tubers was more than the suggested level of 10 g/day in all the States, except Maharashtra (6 g) and Tamil Nadu (9 g). The consumption of milk and milk products (17 g) and GLV (10 g) was grossly inadequate when compared to suggested levels. The intake of milk & milk products ranged from a low of <5 g/day in the States of Orissa, West Bengal and Madhya Pradesh to a maximum of 41g in Gujarat. The intake of GLV was about 31 g in Orissa and West Bengal, while in other States, it accounted for <8%. The average consumption of fats & Oils was very low (4 g/day) and the intakes in all the States were less than the suggested level of 15 g/day. The intake of sugar & Jaggery was about 6 g as against suggested level of 30 g/day and ranged from a low of about 1 g in West Bengal to a maximum of 12 g in Karnataka (**Table 20**).

The proportion of children consuming cereals & millets in amounts more than 70% of RDA, ranged from about 36% in Kerala to 82% in Gujarat. The proportion of

those consuming pulses & legumes in amounts <50% of RDA in various States was high and ranged from about 41-92%, with highest being in the States of Karnataka and West Bengal (87-92%) and least in the State of Maharashtra (41%). In general, the proportion of children consuming protective/income elastic foods such as GLV, milk & milk products, fats & oils and sugar & jaggery in amounts <50% of RDA was very high (>90%) (Table 20-A & Fig.3).

**Fig.3 AVERAGE INTAKE OF FOODSTUFFS AS %RDA
1-3 YEARS CHILDREN**



4-6 year Children

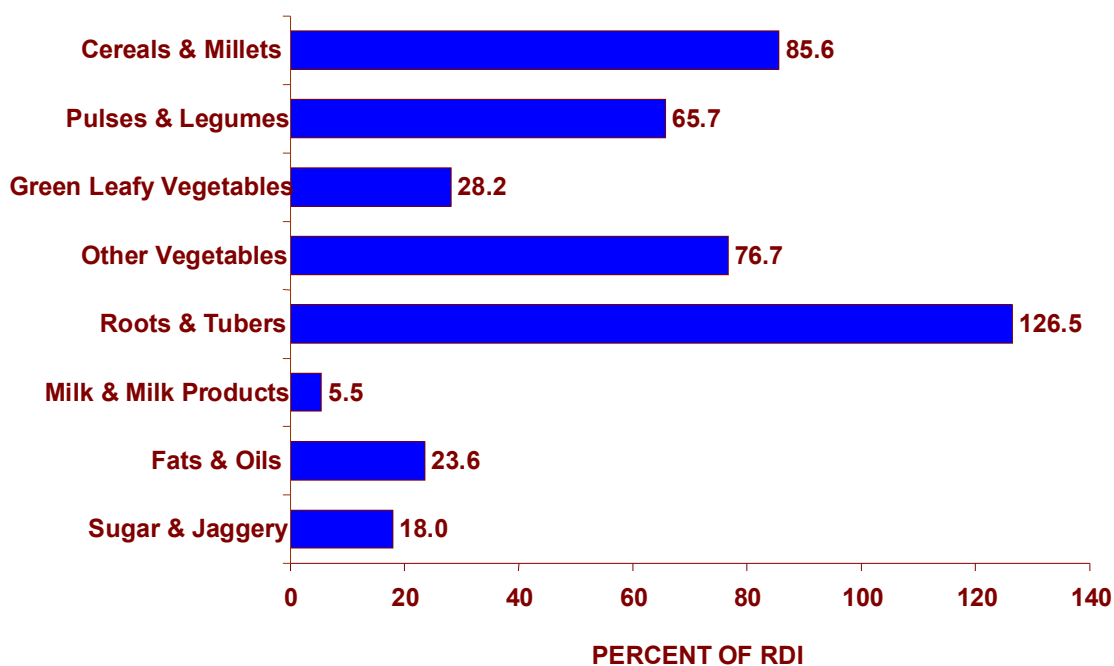
The mean intake of cereals & millets among 4-6 year children was 231 g against suggested level of 270 g/day, which ranged from a low 162 g in Kerala to a maximum of 313 g in West Bengal. The average consumption of protective and income elastic foods such as pulses & Legumes (23 g Vs 35 g), milk & Milk Products (14g Vs 250 g), Fats & Oils (6 g Vs 25 g), GLV (14 g Vs 50 g) and Sugar & Jaggery (7 g Vs 40 g) were grossly inadequate compared to the suggested levels (Table 21).

The proportion of children consuming cereals & millets in amounts more than 70% ranged from about 40 to 90% in all the States except Kerala, where, it was very low (27%). The proportion of those consuming pulses & legumes in amounts <50% of RDA in various States was high and ranged from about 40-85%, with highest being in the States of Karnataka and West Bengal (74-86%) and least in the State of Maharashtra (23%). In general, the proportion of children consuming protective/ income elastic foods such as GLV, milk & milk products, fats & oils and sugar & jaggery in amounts <50% of RDA was very high (>80-100%) (Table 21-A & Fig.4).

7-9 year Children

The mean intake of cereals & millets was 289 g, which ranged from a low 197 g/day in the State of Kerala to a high 382 g in West Bengal. The intake of pulses & Legumes was 27 g and ranged from a low 8 g in West Bengal to a high 48 g in Gujarat. The intake of other income elastic foods such as milk, fats & oils, GLV and sugar & jaggery were also low (**Table 22**).

Fig.4 AVERAGE INTAKE OF FOODSTUFFS AS % RDA AMONG 4-6 YEARS CHILDREN



10-12 Year boys

The mean intake of cereals & millets was 332 g, and was less than the suggested level of 420 g/day. In general, the intakes were less than RDI in all the States except West Bengal (481 g). The average intake of pulses & Legumes was 28 g and the intakes were less than the suggested level of 45g/day in all the States except Gujarat (49 g) and Maharashtra (45 g). The intake of pulse was very low in the State of West Bengal (9 g). Though the intake of roots and tubers was satisfactory, the consumption of Green Leafy Vegetables (barring West Bengal & Orissa) and fats & oils were much lower than the suggested levels, while that of other vegetables was lower (**Table 23**).

The proportion of children consuming cereals & millets in amounts more than 70% of RDI ranged from about 30 to 90% in all the States except Kerala, where, it was very low (16%). The proportion of those consuming pulses & legumes in amounts <50% of RDA in various States was high and ranged from about 40-85%,

with highest being in the States of Karnataka and West Bengal (74-85%) and least in the State of Maharashtra (21%). In general, the proportion of children consuming protective/ income elastic foods such as GLV, milk & milk products, fats & oils and sugar & jaggery in amounts <50% of RDA was very high (46-100%) (**Table 23-A**).

10-12 year Girls

The mean intake of cereals & millets was 323 g, and was less than the suggested level of 380 g/day. In general, the intakes were less than RDI in all the States except West Bengal (474 g). The average intake of pulses & legumes was less than the suggested level of 45 g/day in all the States and ranged from a low 7 g in west Bengal to 43 g in Maharashtra & Gujarat. As in case of boys, the intake of roots and tubers was satisfactory, while that of other vegetables, Green Leafy Vegetables (barring West Bengal & Orissa) and fats & oils were much lower than the suggested levels (**Table 24**).

The proportion of children consuming cereals & millets in amounts more than 70% ranged from about 40 to 90% in all the States except Kerala, where, it was very low (22%). The proportion of those consuming pulses & legumes in amounts <50% of RDA in various States was high and ranged from about 40-90%, with highest being in the States of Karnataka and West Bengal (78-90%) and least in the State of Maharashtra (25%). In general, the proportion of children consuming protective/ income elastic foods such as GLV, milk & milk products, fats & oils and sugar & jaggery in amounts <50% of RDA was very high (42-100%) (**Table 24-A**).

13-15 year Boys

The mean intake of cereals & millets was 387 g, which ranged from a low 268 g in Kerala to a high 600 g/day in West Bengal. The average daily intake of pulses & Legumes was 29 g, and ranged from a low 9 g in West Bengal to a maximum of about 50g in Maharashtra and Gujarat. The consumption of GLV showed a wide variation among different States with an average of 21 g and was found be maximum in the State of West Bengal (78 g) followed by Orissa (62 g) and least in Andhra Pradesh and Gujarat (3 g). The intake of other foods such as fats & oils and sugar & Jaggery was considerably low (**Table 25**).

13-15 year Girls

The mean intake of cereals & millets was 359 g, which ranged from a low 242 g in Kerala to a high 518 g/day in West Bengal. The average daily intake of pulses & Legumes was about 29 g, which ranged from a low 8 g in West Bengal to a maximum of 56 g in Gujarat followed by Maharashtra (47 g). The average consumption of GLV was 22 g and ranged from 69 g in West Bengal followed by 62 g in Orissa to a very low level of 6 g in Gujarat and Andhra Pradesh. The intake of

other foods such as fats & oils and sugar & Jaggery was considerably low (**Table 26**).

16-17 year Boys

The mean intake of cereals & millets was 440 g, with maximum consumption in the State of West Bengal (606 g) followed by Orissa (504g), Andhra Pradesh (499 g), Maharashtra (459 g), Tamil Nadu (411 g), Madhya Pradesh (410 g), Gujarat (386 g), Karnataka (385 g), and Kerala (330 g). The mean intake of pulse was 35 g which ranged from a high 54 g in Gujarat and 51 g in Maharashtra to a low 11 g in West Bengal. The intake of other foods such as GLV (barring Orissa & West Bengal), Milk & Milk Products, flesh foods, fats & oils and sugar & jaggery was low (**Table 27**).

16-17 year Girls

The mean consumption of cereals & millets was 384 g which ranged from a low 256 g/day in Kerala to a high 529 g in West Bengal. The mean intake of pulses & legumes was 28 g and ranged from a low 5 g/day in West Bengal to a high 50 g in Gujarat and 44 g in Maharashtra. The average consumption of other protective and income elastic foods such as, GLV (barring the States of Orissa & west Bengal), milk & milk products, fats & oils and Sugar & jaggery was in general low (**Table 28**).

Adult Males (≥18 years – sedentary)

The average intake of cereals & millets was 436 g, which was lower than the RDI of 460 g. The intakes were much above the RDA in the States of West Bengal (603 g) and Orissa (499 g). The average intake of pulses & legumes was 29 g/day and was much less than the RDI of 40 g/day. In general, the intakes were below the RDI in all the States except Maharashtra (54 g), Gujarat (52 g) and Tamil Nadu (42 g). Except for roots & tubers, the intake of all other foods was lower than the suggested levels. The extent of deficit was more in case of milk & milk products (84%), fats & oils (75%), and sugar & jaggery (66%) (**Table 29**).

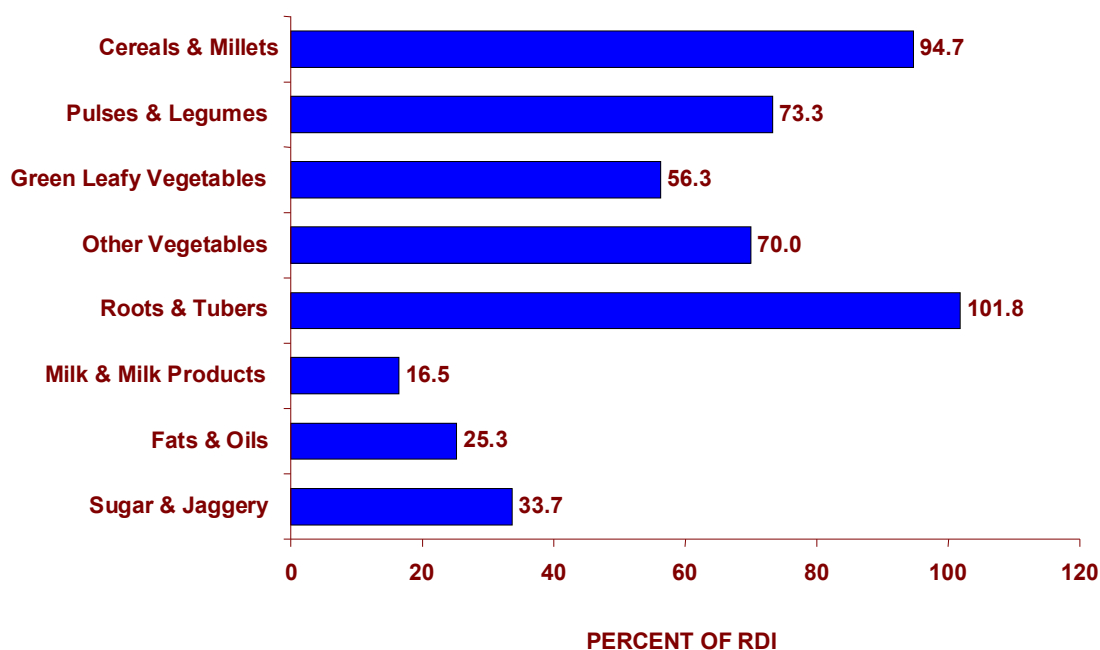
The proportion of adult men consuming cereals & millets in amounts more than 70% ranged from about 50 to 95% in various States. The proportion of those consuming pulses & legumes in amounts <50% of RDA in various States ranged between 14-80%, with highest being in the States of Karnataka (79%) and West Bengal (75%) and least in the State of Maharashtra (14%). In general, the proportion of men consuming protective/income elastic foods such as GLV, milk & milk products, fats & oils and sugar & jaggery in amounts <50% of RDA varied between States and ranged from about 25-99% (**Table 29-A & Fig.5**).

Adult Females (≥ 18 year – NPNL – Sedentary)

The average intake of cereals & millets was 378 g, which was lower than the RDI of 410 g. The mean daily intake of pulses & legumes was 22 g/day as against

RDI of 40 g and ranged from a low of 11g in West Bengal to a maximum of 56 g in the State of Gujarat. Barring other vegetables, the intake of all other food stuffs was below the recommended level. The extent of deficit compared to RDI was more with regard to milk & milk Products and fats & oils (about 80%), followed by sugar & jaggery (69%) (Table 30).

Fig.5 AVERAGE INTAKE OF FOODSTUFFS AS % RDA AMONG SEDENTARY MALES(>=18 YEARS)



The proportion of adult women consuming cereals & millets in amounts more than 70% ranged from about 46 to 96% in various States. The proportion of those consuming pulses & legumes in amounts <50% of RDA in various States ranged between 23-80%, with highest being in the States of Karnataka (78%) and West Bengal (76%) and least in the State of Maharashtra (23%). In general, the proportion of women consuming protective/income elastic foods such as GLV, milk & milk products, fats & oils and sugar & jaggery in amounts <50% of RDA varied between States and ranged from about 15-94% (Table 30-A & Fig.6).

Pregnant Women

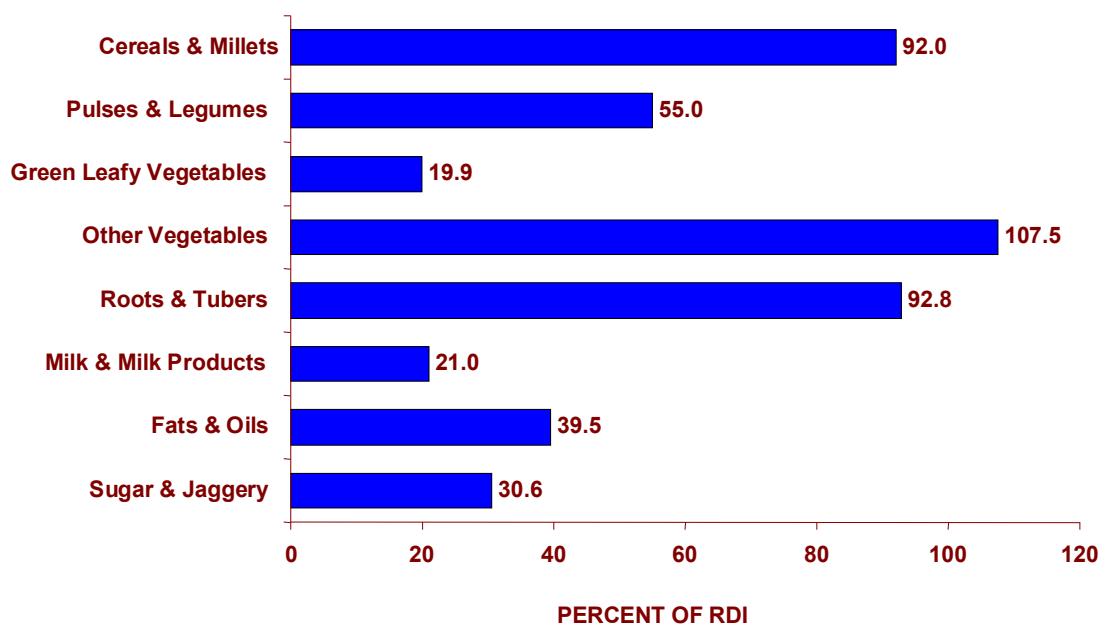
The mean intake of cereals & millets by pregnant women was 388 g, which was marginally higher than the figure observed among NPWL women (378 g). The average intake of all other foods was found to be more or less similar to that of NPWL women (Table 31).

Lactating Mothers

The average consumption of cereals & millets among lactating mothers was

436g, which was higher than that observed among NPNL women (378 g). The intake was maximum in West Bengal (525 g) and Orissa (502 g), while this was least in the State of Kerala (332 g). The average consumption of pulses & legumes was 27 g with the lowest intake of 8 g in West Bengal and highest 67 g in Maharashtra. The intake of protective foods such as milk & milk products, Green Leafy Vegetables etc. was in general low (**Table 32**).

Fig.6 AVERAGE INTAKE OF FOODSTUFFS AS % RDA AMONG SEDENTARY FEMALES - NPNL (>= 18 YEARS)



5.4.2. Nutrient Intakes

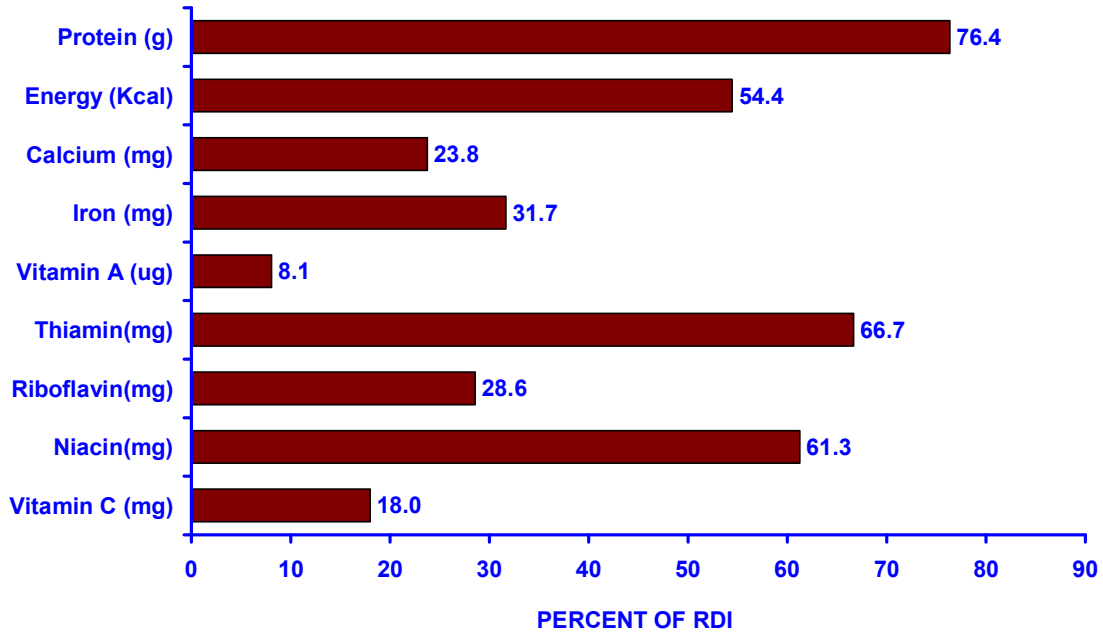
1-3 Year Children

In general, the median intakes of all the nutrients were less than RDA. The median intake of energy was 675 Kcal against RDA of 1240 kcal, and ranged from a low 541 Kcal in Kerala to a maximum of 891 Kcal in Gujarat. The intake of protein was 17 g as against RDA of 22 g and ranged from a low 12 g in Kerala to a maximum of 27 g in Gujarat (**Table 33**).

The proportion of children consuming energy in amounts less than 50% of RDA ranged from about a low 16% in the State of Gujarat to a maximum of about 61% in Kerala. Similarly, with respect to protein, the proportion ranged from a low of about 4% in Gujarat to a maximum of 46% in Kerala. The proportion of children consuming vitamins and minerals such as vitamin A, riboflavin, free folic acid, vitamin C, iron and calcium, <50% of RDA was in general very high and ranged from

a low 15% to a high of 99% and that of thiamine and niacin ranged from about 15% to 70%, with wide variations between the States (**Table 33-A & Fig.7**).

Fig.7 MEDIAN INTAKE OF NUTRIENTS AS % RDA AMONG 1-3YEARS CHILDREN

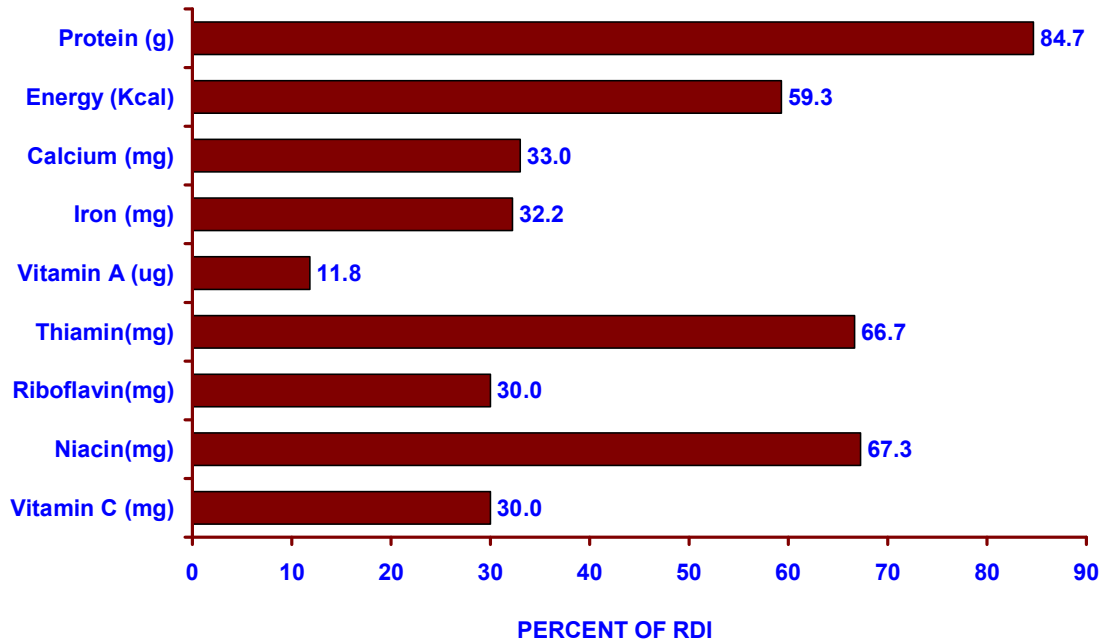


4-6 year children

The median intakes of all the nutrients were less than RDA. The median intake of energy was 1002 Kcal against RDA of 1690 kcal, and ranged from a low 827 Kcal in Kerala to a maximum of 1243 Kcal in the State of West Bengal. The intake of protein was 25 g as against RDA of 30 g and ranged from a low 19 g in Kerala to a maximum of 36 g in Gujarat (**Tables 34**).

In general, the proportion of children consuming energy in amounts less than 50% of RDA ranged from about a low of about 16% in the States of Gujarat, Andhra Pradesh and West Bengal to a maximum of about 53% in Kerala. Similarly, with respect to protein, the proportion ranged from a low of about <10% in Gujarat, Maharashtra, Andhra Pradesh, Orissa and West Bengal to a maximum of about 31% in the States of Karnataka and Kerala. The proportion of children consuming vitamins and minerals such as vitamin A, riboflavin, vitamin C, iron and calcium, <50% of RDA was in general very high and ranged from a low of about 40% to a high of 98% and that of thiamine, niacin, and free folic acid ranged from <10% to about 66%, with wide variations between the States (**Table 34-A & Fig.8**).

Fig.8 MEDIAN INTAKE OF NUTRIENTS AS % RDA AMONG 4-6 YEARS CHILDREN



7-9 years Children

The median intakes of all the nutrients were less than RDA. The median intake of energy was 1248 Kcal against RDA of 1950 kcal, and ranged from a low 1005 Kcal in Kerala to a maximum of 1476 Kcal in the State of West Bengal. The intake of protein was about 31 g as against RDA of 41 g and ranged from a low of 24g in Kerala to a maximum of 47 g in Gujarat (**Table 35**).

The proportion of children consuming energy in amounts less than 50% of RDA ranged from about a low of about 15% in the States of Maharashtra, Andhra Pradesh and Orissa to a maximum of about 44% in Kerala. Similarly, with respect to protein, the proportion ranged from a low of about 5% in the States of Gujarat & Maharashtra to a maximum of about 36% in the State of Kerala. The proportion of children consuming vitamins and minerals such as vitamin A, thiamine, riboflavin, vitamin C, free folic acid, iron and calcium, <50% RDA was in general high and ranged from <20% to a high of 98% and that of niacin ranged from about <5% to about 38%, with wide variations between the States (**Table 35-A**).

10-12 year Boys

The median intakes of all the nutrients in general were less than RDA. The median intake of energy was 1411 Kcal against RDA of 2190 kcal, and ranged from a low 1151 Kcal in Kerala to a maximum of 1768 Kcal in the State of West Bengal. The intake of protein was 35 g as against RDA of 54 g and ranged from a low 28 g in Kerala and Karnataka to a maximum of 48 g in Gujarat (**Table 36**).

In general, the proportion of children consuming energy in amounts less than 50% of RDA ranged from about a low of about 10% in the States of Maharashtra and Orissa to a maximum of about 44% in Kerala. Similarly, with respect to protein, the proportion ranged from a low of about 6% in the State of Maharashtra to a maximum of about 48% in the State of Kerala. The proportion of children consuming vitamins and minerals such as vitamin A, riboflavin, vitamin C, free folic acid, iron and calcium, <50% RDA was in general high and ranged from about 25% to a high of 98% and that of thiamine and niacin ranged from about <5% to about 56%, with wide variations between the States (**Table 36-A**).

10-12 year Girls

As in case of boys, the median intakes of all the nutrients among 10-12 year girls in general were less than RDA. The median intake of energy was 1363 Kcal against RDA of 1970 kcal, and ranged from a low 1165 kcal in Karnataka to a maximum of 1740 Kcal in the State of West Bengal. The intake of protein was 35 g as against RDA of 57 g and ranged from a low 26 g in Karnataka to a maximum of 48 g in Gujarat (**Table 37**).

The proportion of children consuming energy in amounts less than 50% of RDA ranged from about a low of <10% in the States of Orissa, Maharashtra and West Bengal to a maximum of about 31% in the States of Tamil Nadu and Kerala. Similarly, with respect to protein, the proportion ranged from a low of about 13% in the State of Gujarat to a maximum of about 62% in the State of Karnataka. The proportion of children consuming vitamins and minerals such as vitamin A, riboflavin, vitamin C, free folic acid, iron and calcium, <50% RDA was in general high and ranged from about 25% to a high of 99% and that of thiamine and niacin ranged from about <5% to about 59%, with wide variations between the States (**Table 37-A**).

13-15 Years Boys

The median intakes of all the nutrients in general were less than RDA. The median intake of energy was 1633 Kcal against RDA of 2450 kcal, and ranged from a low 1299 Kcal in Tamil Nadu to a maximum of 2188 Kcal in the State of West Bengal. The intake of protein was 40 g as against RDA of 70 g and ranged from a low 26 g in Kerala to a maximum of 51 g in Gujarat (**Table 38**).

The proportion of young adolescent boys consuming energy in amounts less than 50% of RDA ranged from about a low of <5% in the States of West Bengal and Orissa to a maximum of about 42% in the States of Tamil Nadu and Kerala. Similarly, with respect to protein, the proportion ranged from a low of about 20% in the States of Maharashtra, West Bengal and Gujarat to a maximum of about 66% in the State of Tamil Nadu. The proportion of adolescents consuming vitamins and

minerals such as vitamin A, riboflavin, vitamin C, free folic acid, iron and calcium, <50% of RDA was in general high and ranged from about 25% to a high of 99% and that of thiamine and niacin ranged from about <5% to about 68%, with wide variations between the States (**Table 38-A**).

13-15 Year Girls

As in case of boys, the median intakes of all the nutrients among 13-15 year girls in general were less than RDA. The median intake of energy was 1531 Kcal against RDA of 2060 kcal, and ranged from a low 1272 Kcal in Kerala to a maximum of 1927 Kcal in the State of West Bengal. The intake of protein was 37 g, as against RDA of 65 g and ranged from a low of about 29 g in Kerala and Tamil Nadu to a maximum of 54 g in Gujarat (**Table 39**).

The proportion of young adolescent girls consuming energy in amounts less than 50% of RDA ranged from about a low of about <10% in the States of Orissa, Maharashtra, West Bengal, Gujarat and Andhra Pradesh to a maximum of about 25% in the State of Kerala. Similarly, with respect to protein, the proportion ranged from a low of about 16% in the States of Gujarat and Maharashtra to a maximum of about 66% in the State of Tamil Nadu. The proportion of adolescents consuming vitamins and minerals such as vitamin A, riboflavin, vitamin C, free folic acid, iron and calcium, <50% of RDA was in general high and ranged from about 18% to a high of 96% and that of thiamine and niacin ranged from about <5% to about 59%, with wide variations between the States (**Table 39-A**).

16-17 year Boys

The median intakes of all the nutrients in general were less than RDA. The median intake of energy was 1822 Kcal against RDA of 2640 kcal, and ranged from a low 1576 Kcal in Kerala to a maximum of 2451 Kcal in the State of West Bengal. The intake of protein was 47 g as against RDA of 78 g and ranged from a low 35 g in Kerala to a maximum of about 53 g in the States of Maharashtra and Gujarat (**Tables 40**).

The proportion of older adolescent boys consuming energy in amounts less than 50% of RDA ranged from about a low of <6% in the States of Orissa and Maharashtra to a maximum of about 26% in the State of Kerala. Similarly, with respect to protein, the proportion ranged from a low of about 15% in the States of Gujarat and Maharashtra to a maximum of about 61% in the State of Kerala. The proportion of adolescents consuming vitamins and minerals such as vitamin A, riboflavin, vitamin C, free folic acid, iron and calcium, <50% of RDA was in general high and ranged from about 20% to a high of about 97% and that of thiamine and niacin ranged from about <5% to about 60%, with wide variations between the States

(Table 40-A).

16-17 year Girls

As in case of boys, except thiamine, the median intakes of all the other nutrients among 16-17 year girls in general were less than RDA. The median intake of energy was 1668 Kcal against RDA of 2060 kcal, and ranged from a low 1318 Kcal in Kerala to a maximum of 1891 Kcal in the State of West Bengal. The intake of protein was 40 g as against RDA of 63 g and ranged from a low 28 g in Kerala to a maximum of 53 g in Gujarat **(Table 41)**.

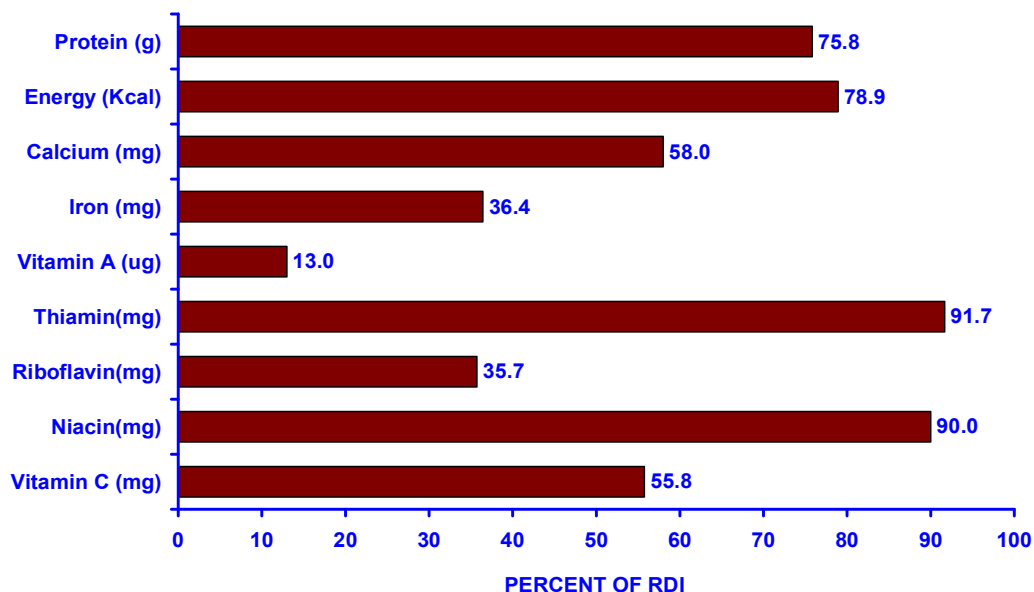
The proportion of young adolescent girls consuming energy in amounts less than 50% of RDA ranged from about a low of <10% in the State of Orissa, Maharashtra, Gujarat, West Bengal and Andhra Pradesh to a maximum of about 26% in the State of Kerala. Similarly, with respect to protein, the proportion ranged from a low of about 15% in the State of Gujarat, to a maximum of about 60% in the State of Kerala. The proportion of adolescents consuming vitamins and minerals such as vitamin A, riboflavin, vitamin C, free folic acid, iron and calcium, 50% of RDA was in general high and ranged from about 25% to a high of 96% and that of thiamine and niacin ranged from about <5% to about 58%, with wide variations between the States **(Table 41-A)**.

Adult Males (≥ 18 years - Sedentary)

The median intakes of all the nutrients in general were less than RDA. The median intake of energy was 1914 Kcal against RDA of 2425kcal, and ranged from a low 1606 Kcal in Madhya Pradesh to a maximum of 2210 Kcal in the State of West Bengal. The intake of protein was about 46 g as against RDA of 60g and ranged from a low 37 g in Karnataka to a maximum of 62 g in the State of Gujarat **(Table 42)**.

The proportion of adult males consuming energy in amounts less than 50% of RDA ranged from about a low of <10% in the States of Orissa, West Bengal, Maharashtra and Gujarat to a maximum of about 19% in the State of Kerala. Similarly, with respect to protein, the proportion ranged from a low of <10% in the States of Gujarat, Orissa, Maharashtra and West Bengal to a maximum of about 31% in the State of Karnataka. The proportion of individuals consuming vitamins and minerals such as vitamin A, riboflavin, vitamin C, free folic acid, iron and calcium <50% of RDA was in general high and ranged from about 22% to a high of about 90% and that of thiamine and niacin ranged from about <5% to about 39%, with wide variations between the States **(Table 42-A & Fig.9)**.

Fig. 9 MEDIAN INTAKE OF NUTRIENTS AS % RDA AMONG SEDENTARY MALES (>= 18 YEARS)



Adult Females (≥18 years - NPNL- Sedentary)

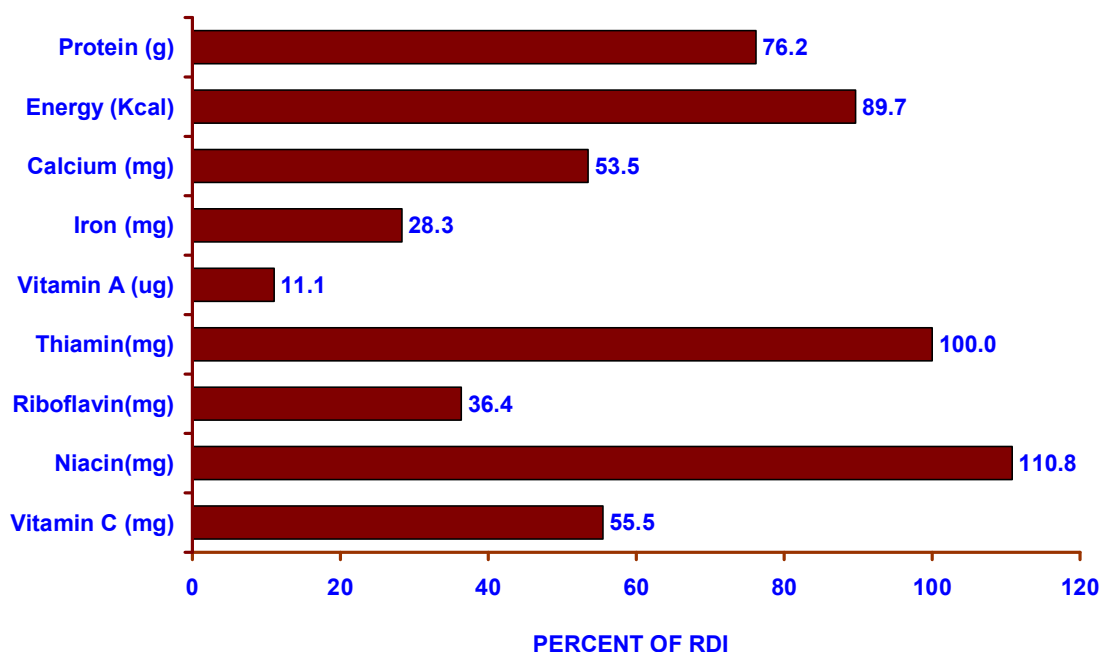
The median intakes of all the nutrients, barring thiamine and niacin, in general were less than the RDA. The median intake of energy was 1681 Kcal against RDA of 1875 kcal, and ranged from a low 1490 Kcal in Madhya Pradesh to a maximum of 2037 Kcal in the State of West Bengal. The intake of protein was 38 g as against RDA of 50 g and ranged from a low 34 g in Kerala to a maximum of 58 g in the State of Gujarat (**Table 43**).

The proportion of adult women consuming energy in amounts less than 50% of RDA was <10% in all the States except in Madhya Pradesh and Kerala (10-11%). With respect to protein, the proportion ranged from a low of about 1% in the State of Gujarat to a maximum of about 26% in the State of Kerala. The proportion of women consuming vitamins and minerals such as vitamin A, riboflavin, vitamin C, free folic acid, iron and calcium, <50% of RDA was in general high and ranged from about 29% to a high of 97% and that of thiamine and niacin ranged from about <5% to about 38%, with wide variations between the States (**Table 43-A & Fig.10**).

Pregnant Women

The median intakes of all the nutrients in general were comparable to NPNL women and lower than RDA. The median intake of energy was 1715 Kcal against RDA of 2175 kcal and ranged from a low 1333 Kcal in Kerala to a maximum of 2151 Kcal in the State of West Bengal. The intake of protein was about 39 g as against RDA of 65 g and ranged from a low 33 g in Kerala to a maximum of 55 g in the State of Gujarat (**Table 44**).

Fig.10 MEDIAN INTAKE OF NUTRIENTS AS % RDA AMONG SEDENTARY FEMALES - NPNL (>= 18 YEARS)



The proportion of pregnant women consuming energy in amounts less than 50% of RDA was nil in the States of Maharashtra, Madhya Pradesh, Orissa and West Bengal to a maximum of 20% in the State of Kerala. With respect to protein, the proportion ranged from nil in the State of Maharashtra to a maximum of about 50% in the State of Kerala. The proportion of pregnant women consuming vitamins and minerals such as vitamin A, riboflavin, vitamin C, iron and calcium, <50% of RDA was in general high and ranged from about 27% to a high of 100% and that of thiamine and niacin ranged from nil to about 43%, with wide variations between the States. In all the States none of the pregnant women were found consuming free folic acid in amounts of >50% of RDA (**Table 44-A**).

Lactating Mothers

The median intakes of all the other nutrients, barring thiamine and niacin, in general, were less than RDA. The median intake of energy was 1845 Kcal against RDA of 2275 kcal, and ranged from a low 1624 Kcal in Madhya Pradesh to a maximum of 2078 Kcal in the State of Andhra Pradesh. The intake of protein was 42 g as against RDA of 68 g and ranged from a low 36 g in Karnataka to a maximum of 55 g in the State of Gujarat (**Table 45**).

The proportion of lactating mothers consuming energy in amounts less than 50% of RDA ranged from nil in the States of Andhra Pradesh, Gujarat and Orissa to a maximum of 25% in the State of Madhya Pradesh. Similarly, with respect to

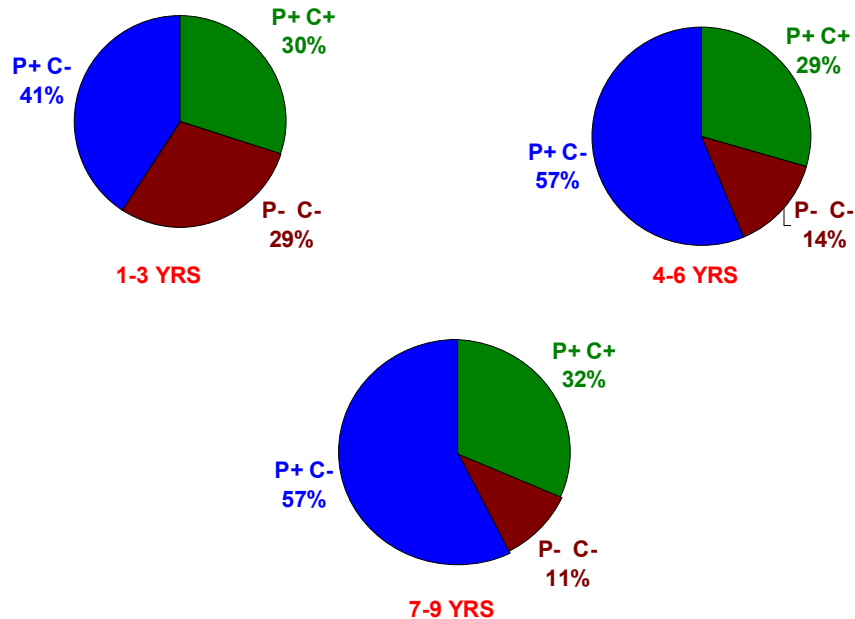
protein, the proportion ranged from <10% in the States of Orissa & Gujarat to a maximum of about 42% in the State of Karnataka. The proportion of women consuming vitamins and minerals such as vitamin A, riboflavin, vitamin C, free folic acid, iron and calcium, <50% of RDA was in general high and ranged from about 40% to a maximum of 100% and that of thiamine and niacin ranged from nil to about 50%, with wide variations between the States (Table 45-A).

5.4.3. Protein calorie adequacy status of individuals

1-3 year children

Only about a third (30.1%) of 1-3 year children were consuming adequate amount of proteins and calories, while in about 29%, the intake of both the nutrients were inadequate. About 41% of children were consuming adequate amounts of protein but inadequate calories. Thus, it was observed that the calorie inadequacy was a major problem, with over two thirds (69.9%) of the children not meeting the energy requirements (Table 46 & Fig.11). The proportion of children consuming inadequate amounts of protein and calories was highest in the State of Kerala (52.6%) and least in Gujarat (4%).

Fig. 11
PROTEIN AND CALORIE ADEQUACY STATUS AMONG CHILDREN



4-6 year children

About 29% of 4-6 year children were found to be consuming adequate amounts of protein and calories, the proportion of which ranged from a low in the State of Tamil Nadu (7.7%) to a high of about 55% in West Bengal. The overall proportion of children, who were consuming inadequate amounts of protein and calories, was about 14%. About 71% of children, in general, were consuming inadequate amounts of energy, with the highest proportion being in the State of Tamil Nadu (92.3%), and least in West Bengal (45.0%) (**Table 47 & Fig. 11**).

7-9 year children

About 32% of the children, in general, were consuming adequate amounts of calories and protein, which was lowest in Tamil Nadu (6.2%) and highest in West Bengal (51.7%). About 11% of the children were consuming inadequate amounts of both proteins and calories, ranging from a low 1.8% in Gujarat to maximum of 28.2% in the State of Kerala (**Table 48 & Fig.11**).

10-12 Year Boys

About 26% of children, in general were consuming adequate amounts of calories and proteins. The proportion was highest in the State of West Bengal (54.6%) and lowest in Tamil Nadu (5%) followed by Kerala (7.3%). About 14% of children were consuming inadequate amounts of both protein and calories, the proportion which ranged from low 3.5% Maharashtra followed by Gujarat (4.8%) to a high of 32.9% in the State of Kerala (**Table 49**).

10-12 Year Girls

As in the case of boys, about 33% of 10-12 year girls were consuming adequate amounts of calories and proteins, while in about 52% dietary intake of protein was adequate but that of calories was inadequate. About 15% of girls were consuming inadequate amounts of both calories and protein, with their proportion being highest in the State of Karnataka (39%) and least in Gujarat (3.2%) (**Table 50**).

13-15 Year Boys

About 31% of children were consuming adequate amounts of protein and calories, the proportion ranging from a high 70.9% in West Bengal to a low of 9.7% in Tamil Nadu. The proportion of children consuming inadequate amounts of both protein and calories was about 18%, the highest being in the State of Kerala (52.2%) and least in West Bengal (4.7%) (**Table 51**).

13-15 Year Girls

The proportion of 13-15 year girls consuming inadequate amounts of protein and calories was about 10%, which was relatively lower than boys (18%). Similarly, the proportion of girls consuming adequate amounts of proteins as well as

calories was higher (39%) as compared to boys (31%) (**Table 52**).

16-17 year boys

About a third of the boys (31.6%) were consuming inadequate amounts of both protein and calories. Overall calorie inadequacy was observed in 51% of boys, while 36.6% had protein inadequacy (**Table 53**).

16-17 year girls

About 58% of the girls were consuming adequate amounts of protein and calories, their proportion being high in Orissa (80.2%) and least in Kerala (25.4%). About 23% were consuming inadequate amounts of both protein and calories (**Table 54**).

Adult Males (>18 years - Sedentary)

About 64% of the adult men were consuming adequate quantities of both the proteins and calories. The proportion with calorie inadequacy was higher (35.4%) compared to protein inadequacy (20.7%). The inadequacy for both protein and calories was highest in Karnataka (35%) and least in Orissa (9.4%) (**Table 55 & Fig.12**).

Adult Females (≥18 years)

Non-pregnant non-lactating women (Sedentary)

About 74% of the adult females were consuming adequate amount of protein and calories, the proportion of which ranged from a high 89.5% in Orissa, followed by Gujarat (85.3%) and West Bengal (83.6%) to a low 60% in Kerala. About 14% were consuming inadequate amounts of protein and calories, the proportion of which was high in Kerala (23.5%) and least in Gujarat (2.9%) (**Table 56 & Fig.12**).

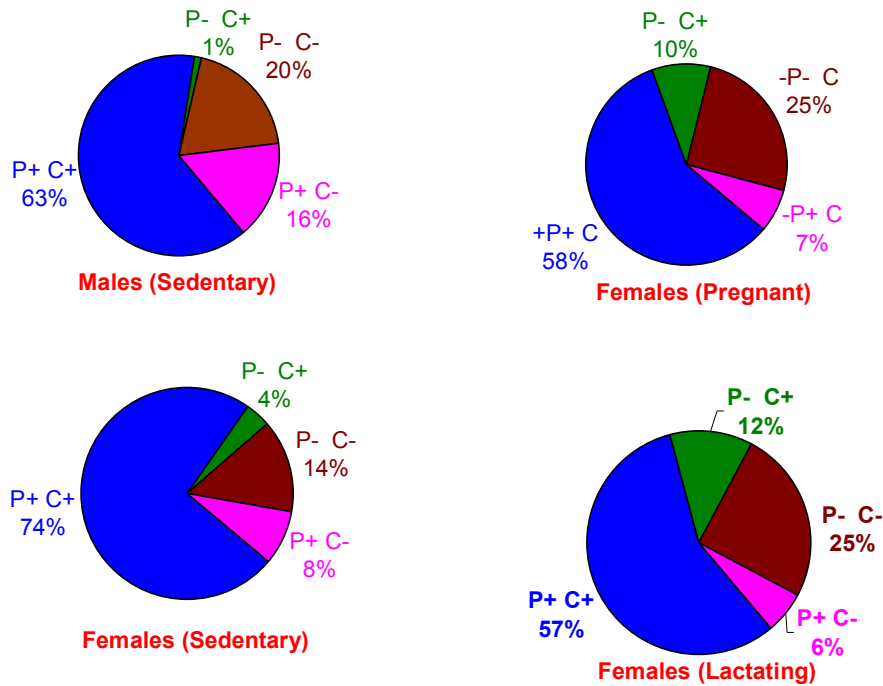
Pregnant Women

About 58% of the pregnant women were consuming adequate amounts of both the protein and calories, which ranged from a high 85.7% in Madhya Pradesh followed by 83.3% in Orissa and 80% in West Bengal to a low 25% in Kerala. In general, in about 25% the consumption of both the nutrients was inadequate, and their proportion ranged from a high 50% in the State of Kerala to none in the States of Maharashtra and Gujarat (**Table 57**).

Lactating Mothers

The proportion of lactating women (<12 months) consuming adequate amounts of both protein and calories was about 57%, their proportion being high in the State of Gujarat (77%) followed by Orissa (71.8%) and least in Madhya Pradesh (33.4%). About a fourth (25.1%) of women were consuming inadequate amounts both protein and calories, with their proportion ranging from a high 36.5% in Kerala to a low of 9.1% in Gujarat & Orissa (**Table 58 & Fig.12**).

Fig. 12 PROTEIN CALORIE ADEQUACY OF ADULTS



5.5. Nutritional Status

5.5.1 Clinical signs of Nutritional Deficiencies

Prevalence of clinical signs of nutritional deficiency according to age groups is presented in **Tables 59-66**.

Infants

The overall prevalence of marasmus was about 0.2%, which was about 0.8% in Andhra Pradesh, 0.5% in Tamil Nadu and 0.2% in the State of Orissa. None of the infants in the rest of the States exhibited clinical signs of nutritional deficiency (**Table 59**).

Preschool age Children (1-5 yrs)

The overall prevalence of marasmus was less than 0.1%, which was observed in the States of Andhra Pradesh, Maharashtra, Gujarat, Madhya Pradesh and Orissa (about 0.1% each). While none of the children had oedema, about 0.2 - 0.3% exhibited signs of hair changes such as sparseness and discolouration. About 0.2% of the children had night blindness, 0.4% had Bitot spots, while 0.9% had conjunctival xerosis (**Table 60**).

School age Boys

About 2.6% of 5-12 years boys had conjunctival xerosis, 1.9% had Bitot spots, while 0.3% had history of night blindness. The prevalence of angular stomatitis was about 1.2% while that of glossitis and phrynoderma was 0.3% each. About 1.7% had dental fluorosis and 13.4% had caries tooth. The prevalence of total goitre was 1.1%.

The prevalence of signs of vitamin A deficiency was found to be relatively higher in the States of Kerala and Madhya Pradesh, followed by Tamil Nadu, Andhra Pradesh, and West Bengal. The prevalence of Dental caries was much higher in the States of Tamil Nadu and Karnataka (about 30%), compared to others (**Table 61**).

School age Girls

About 1.6% of 5-12 years girls had conjunctival xerosis, 1.1% had Bitot spots, while 0.3% had history of night blindness. The prevalence of angular stomatitis was about 0.9%, phrynoderma was 0.4%, while that of glossitis was 0.3%. About 2% had dental fluorosis and 13.9% had caries tooth. The prevalence of total goitre was 1.4%. The prevalence of signs of vitamin A deficiency was found to be relatively higher in the States of Madhya Pradesh, followed by Kerala, Andhra Pradesh and Tamil Nadu. The prevalence of Dental caries was much higher in the States of Tamil Nadu (31.9%), Karnataka (30.5%), and Kerala (21.3%) compared to other States (**Table 62**).

Adolescent Boys

About 0.9% of 12-18 years boys had conjunctival xerosis, 0.7% had Bitot spots, while 0.1% had history of night blindness. The prevalence of angular stomatitis was about 0.8%, glossitis was 0.5%, while that of phrynoderma was 0.3%. About 2.3% had dental fluorosis and 7.9% had caries tooth. The prevalence of total goitre was 3%. The prevalence of Bitot spots was found to be relatively higher in the State of West Bengal (2.2%) and Tamil Nadu (1.5%). The prevalence of Dental caries was much higher in the States of Tamil Nadu (20.7%), Karnataka (14.2%) and Kerala (12.2%), compared to other States (**Table 63**).

Adolescent Girls

About 0.6% of 12-18 years girls had conjunctival xerosis and 0.4% had Bitot spots. The prevalence of angular stomatitis was about 1%, phrynoderma was 0.6%, while that of glossitis was 0.8%. About 2.2% had dental fluorosis and 8.1% had caries tooth. The prevalence of total goitre was 4.4%. The prevalence of Dental caries was much higher in the States of Tamil Nadu (21%) and Karnataka (14.4%), compared to other States (**Table 64**).

Adult Men and Women

The overall prevalence of clinical signs of vitamin A and B-complex deficiency was less than 1% among both adult men and women in all the States. About 6% of men and 11% of women had dental caries (**Tables 65 & 66**).

5.5.2. Anthropometry

5.5.2.1. Under 5 year Children

The percent distribution of children according to age group and sex by different grades of nutritional status based on height for age, weight for height and

low weight for age, adopting standard deviation (SD) classification using new WHO growth standards are presented in **Tables 67-80** .

5.5.2.1.1 Infants

The percent distribution of infants according to undernutrition by SD classification by age (completed months) pooled for the States is provided in **Table 67**, and by State-wise pooled is provided in **Table 68**.

Underweight

The overall prevalence of underweight (weight for age <Median–2SD) among infants was about 36%, which tended to increase with age from about 10% among less than one month old infants to about 30% among 1-6 months and about 35-53% among 7-11 months old infants (**Table 67**). The overall prevalence was maximum in the State of Gujarat (48.8%), followed by Orissa (45.1%), Maharashtra (43.1%), West Bengal (41.6%), Madhya Pradesh (32.9%), Andhra Pradesh (32.2%), Tamil Nadu (28.3%), Kerala (25.5%) with lowest in Karnataka (23.8%) (**Table 68**).

The overall prevalence of severe underweight (weight for age <Median – 3 SD) was about 15%, which tended to increase with age from about 8 to 12% in 1-3 months through about 13-17% in 4-9 months to about 21% in 10-11 month old infants. The prevalence of severe underweight ranged from 7-9% in the States of Karnataka, Kerala and Tamil Nadu, through 13-19% in Andhra Pradesh, Madhya Pradesh, West Bengal, Maharashtra & Orissa, to a high of about 29% in Gujarat.

Stunting

The overall prevalence of stunting (height for age <Median–2SD) among infants was about 35%, which tended to increase with age from a low 7% among less than one month old, through about 23-25% among 1-3 months, through 29-44% in 4-9 months to about 46-49% among 10-11 months old infants. The overall prevalence was maximum in the State of Kerala (50.7%), followed by Gujarat (45.7%), Maharashtra (44%), Orissa (41%), Andhra Pradesh (30.6%), Madhya Pradesh (28.4%), Karnataka (25.8%), with lowest of 22-23% in West Bengal and Tamil Nadu) (**Tables 67 & 68**).

About 16% of infants in general had severe stunting (height for age <Median–3 SD), the proportion of which tended to increase with age from about 10-11% in 1-3 months through about 14-21% in 4-9 months to about 24-25% in 10-11 months old infants. The prevalence ranged from a low 5% in the State of West Bengal through 10-20% in Tamil Nadu, Karnataka, Andhra Pradesh, Madhya Pradesh, Maharashtra and Orissa to a high of 29% in Gujarat and 32% in Kerala.

Wasting

The overall prevalence of wasting (weight for height <Median–2SD) among

infants was about 24%, which ranged from about 19 to 33% between ages of infancy (**Tables 67 & 68**). The overall prevalence of wasting was maximum in the State of Madhya Pradesh (35.9%) followed by West Bengal & Gujarat (about 32%), Orissa, Andhra Pradesh & Tamil Nadu (22- 23%), Maharashtra (20.6%), Kerala (15.5%) with lowest in Karnataka (14.2%) (**Tables 67 & 68**).

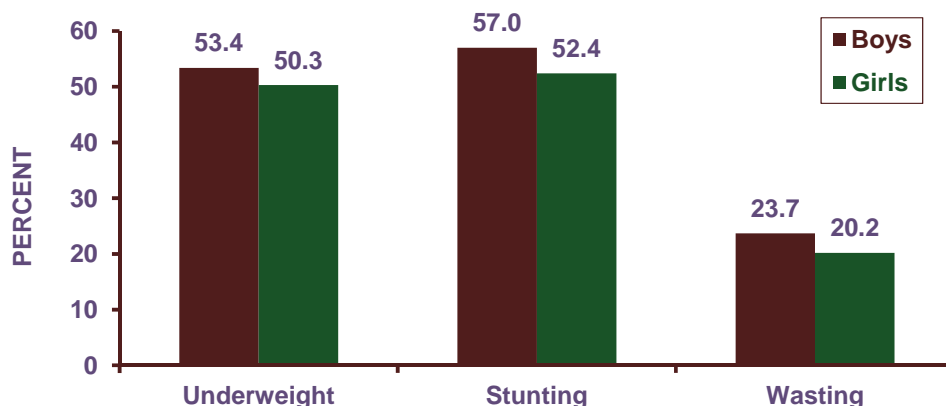
About 11% of infants in general had severe wasting (weight for height <Median–3 SD) indicative of severe acute malnutrition (SAM), the proportion of which was found to be relatively higher among younger age group of 1-4 months (13-19%), compared to older infants of 5-11 months (7-11%). The prevalence of SAM among infants ranged from a low 4% in the State of Karnataka, through 7-8% in the States of Kerala, Tamil Nadu, Andhra Pradesh and Maharashtra, 12-15% in Orissa, and West Bengal to a high of 19-21% in the States of Madhya Pradesh and Gujarat.

5.5.2.1.2. Preschool age Children

Underweight

The overall prevalence of underweight (weight for age <Median–2SD) among 1-5 year children was about 52%, which was almost similar in 1-3 (51.4%) and 3-5 (52.4%) year age groups, and was marginally higher among boys (53.4%) compared to girls (50.3%). The prevalence was higher in the State of Maharashtra (about 64%), followed by Orissa (58%), West Bengal, Madhya Pradesh and Andhra Pradesh (about 51-52%), Tamil Nadu and Gujarat (47% each) with lowest in Kerala and Karnataka (43-44%). The overall prevalence of underweight was higher among boys compared to girls in the States of Andhra Pradesh, Maharashtra, Madhya Pradesh, West Bengal, Gujarat, Orissa and Kerala (**Tables 69-70 & Fig. 13**), while it was higher among girls in the States of Tamil Nadu and Karnataka.

Fig. 13 PREVALENCE (%) OF UNDERNUTRITION AMONG PRE-SCHOOL CHILDREN ACCORDING TO SD CLASSIFICATION (WHO) BY GENDER



The overall prevalence of severe underweight (weight for age <Median-3SD) was about 20%. The prevalence was relatively higher in the 1-3 year age group (21.6%) compared to 3-5 year age group (18.3%), with no gender differentials. The prevalence was highest in the State of Maharashtra (28.8%), followed by Madhya Pradesh (22.6%), Orissa (21.5%), Gujarat (21%), West Bengal (20.3%), Andhra Pradesh (18.1%), Kerala (14.9%), Tamil Nadu (13.8%) and Karnataka (12.7%).

Stunting

The overall prevalence of stunting (height for age <Median-2SD) among 1-5 year children was about 55%, with a higher prevalence among 1-3 year children (57%) compared to 3-5 year age group (52%) and among boys (57%) compared to girls (52%). The prevalence was highest (64-65%) in the States of Madhya Pradesh & Orissa, followed by Maharashtra (61%), 54% each in Kerala & Gujarat, 52% in Andhra Pradesh, 46% each in the States of West Bengal & Tamil Nadu, with lowest of 39% in Karnataka (**Tables 71-72 & Fig. 13**).

The overall prevalence of severe stunting (height for age <Median-3SD) was about 26%, higher in the 1-3 year age group (29%) compared to 3-5 year age group (22%) and among boys (28%) compared to girls (23%). The prevalence of severe stunting was highest in the State of Madhya Pradesh (35%), followed by Orissa, Maharashtra & Gujarat (29-30%), Andhra Pradesh, Kerala & West Bengal (20-25%), Tamil Nadu (18%) and was lowest in Karnataka (15%).

Wasting

The overall prevalence of wasting (weight for height <Median-2SD) among 1-5 year children was about 22%, with a higher prevalence among 1-3 year children (24%) compared to 3-5 year children (20%) and among boys (24%) compared to girls (20%). The prevalence was maximum in the State of Maharashtra (29%), followed by West Bengal (27%), Gujarat, Karnataka, Madhya Pradesh & Orissa (20-24%), Tamil Nadu (19%) and Kerala (15%) (**Tables 73-74 & Fig. 13**).

The overall prevalence of severe wasting (weight for height <Median-3SD) was about 6%. The prevalence was higher in the 1-3 year age group (7%) compared to 3-5 year age group (4%), with no gender differentials. The prevalence was highest in the State of Gujarat (about 11%), followed by West Bengal, Maharashtra & Madhya Pradesh (about 7-8%), and Orissa, Karnataka, Andhra Pradesh, Tamil Nadu & Kerala (3-5%).

Nutritional Status of 1-5 year children by SD Classification, using NCHS Reference values

Distribution of Children according to Nutritional status by SD classification using NCHS reference values are provided in **Tables 75-80**, to facilitate comparison with that reported in earlier tribal survey reports.

5.5.2.2. Nutritional status of School Age Children and Adolescents based on BMI according to SD classification by age and gender

The distribution of children of 5-9, 10-13 and 14-17 years age group of boys and girls according to nutritional status based on age and sex specific BMI (WHO reference values) by SD classification are presented in **Tables 81-83**.

5-9 years Children

The overall prevalence of thinness (Age/sex specific BMI < -2SD) among 5-9 year children was about 37%, with 10% having severe thinness (Age/sex specific BMI < -3 SD) and 27% having moderate thinness (Age/sex specific BMI -2 SD to -3 SD). The overall prevalence of thinness was highest in the State of Maharashtra (about 55%) followed by 40-46% in the States of Karnataka, Gujarat & Tamil Nadu, 25-35% in Andhra Pradesh, Kerala, Orissa and West Bengal, with lowest of 23.3% in Madhya Pradesh. The overall prevalence of overweight (Age/sex specific BMI +1 SD to +2 SD) was 0.7% and that of obesity (Age/sex specific BMI \geq +2 SD) was 0.3% (**Table 81**).

The prevalence thinness was relatively higher among boys (38.3%) compared to girls (35.6%), while that of overweight/obesity was comparable (1.0% vs 0.9%).

10-13 years Children

The overall prevalence of thinness among 10-13 year children was about 42%, with 14% having severe thinness and 28% having moderate thinness. The prevalence was highest in the States of Maharashtra, Karnataka and Tamil Nadu (50-60%), followed by 28-42% in the States of Gujarat, Madhya Pradesh Kerala, Andhra Pradesh and Orissa, with lowest in West Bengal (21.4%). The overall prevalence of overweight was 1% and that of obesity was 0.2% (**Table 82**).

The prevalence thinness was relatively higher among boys (46%) compared to girls (39%), while that of overweight/obesity was comparable (1.2% vs 1.3%).

14-17 years Adolescents

The overall prevalence of thinness among 14-17 year adolescents was about 23%, with 7% having severe thinness and 16% having moderate thinness. The overall prevalence of thinness was highest in the State of Karnataka (44%) followed by Maharashtra (37%), Tamil Nadu (33%), Madhya Pradesh (21%), Kerala (20%), Andhra Pradesh and Gujarat (17% each), with lowest of about 11% in the States Orissa and West Bengal. The overall prevalence of overweight was 0.7% and that of obesity was 0.1% (**Table 83**).

The prevalence thinness was relatively higher among boys (30%) compared to girls (18%), while that of overweight/obesity was comparable (0.8%).

5.5.2.3. Adults

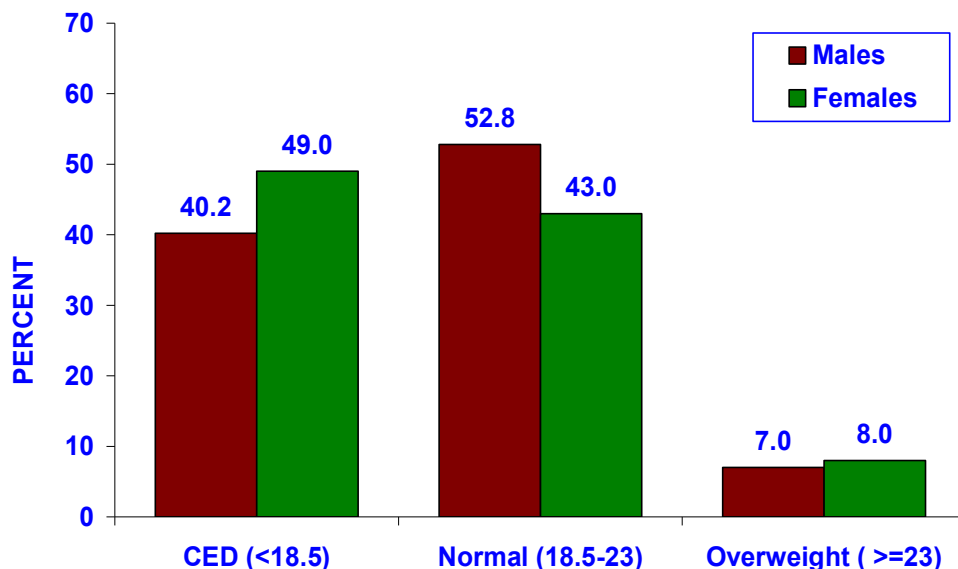
The percent distribution of adult men and women according to Body Mass Index (BMI) is given in **Tables 84-87 & Fig.12**.

Adult Men

It was observed that about 40% of adult men had chronic energy deficiency (CED; BMI<18.5), 57% were normal (BMI 18.5-25.0) and 2.6% were overweight/obese (**Table 84**). The prevalence of CED ranged from a low of about 30-35% in the States of Gujarat & Kerala, through about 38-45% in Andhra Pradesh, Orissa, Madhya Pradesh, Tamil Nadu, West Bengal & Karnataka, to a high of about 53% in Maharashtra. The prevalence of overweight/obesity was low of about 1% each in the States of Orissa & Madhya Pradesh, followed by 2-4% in the States of West Bengal, Maharashtra, Andhra Pradesh, Kerala, Karnataka & Tamil Nadu and a high of 5% in Gujarat.

Considering cut-off level of BMI of 23 suggested for Asians by WHO, the extent of overweight and obesity was about 7%. The prevalence ranged from a low 3-5% in the States of Orissa, Madhya Pradesh, West Bengal & Maharashtra, through 7-10% in the States of Andhra Pradesh, Karnataka, Kerala & Tamil Nadu to a high of about 14% in Gujarat (**Table 85 & Fig. 14**).

Fig. 14 DISTRIBUTION (%) OF ADULTS BY BMI GRADES



Adult Women

A relatively higher proportion of adult women were having CED (49%), while about 26% were normal and 3% were overweight/obese (**Table 86 & Fig.14**). The prevalence of CED was highest in the State of Maharashtra (63%) as in the case of men, followed by West Bengal, Orissa, Karnataka, Andhra Pradesh, Madhya Pradesh, Kerala & Tamil Nadu (44-56%), and was lowest (37%) in Gujarat. The prevalence of overweight/obesity was lower (1% each) in the States of Orissa & West Bengal, followed by 2-5% in the States of Madhya Pradesh, Maharashtra, Andhra Pradesh, Tamil Nadu, Karnataka & Gujarat and a high of about 6% in Kerala.

Considering cut-off level of BMI of 23 suggested for Asians by WHO, the extent of overweight and obesity was about 8%. The prevalence ranged from a low 3-5% in the States of Orissa, West Bengal, Madhya Pradesh & Maharashtra, through 7-10% in the States of Andhra Pradesh, Karnataka & Tamil Nadu, to a high of 12-14% in the States of Kerala & Gujarat (**Table 87 & Fig.14**).

5.5.3. Nutritional Status Vs Demographic and Socio-economic Variables

5.5.3.1. Preschool age Children

The associations of nutritional status of preschool age children with demographic and socio-economic variables are presented in **Table 88 (i, ii & iii)**.

The analysis revealed that the prevalence of underweight among 1-5 year children was significantly associated with the type of family, type of house, household monthly PCI, major occupation of the head of the HH, literacy status of parents, family size, source of drinking water, presence of sanitary latrine, electrification, type of cooking fuel and history of morbidity during the previous fortnight.

The prevalence of stunting was found to be significantly associated with the religion, type of house, household monthly PCI, major occupation of the head of the HH, literacy status of parents, family size, source of drinking water, electrification, presence of sanitary latrine and cooking fuel.

The prevalence of wasting was found to be significantly associated with the religion, literacy status of parents, family size, source of drinking water, electrification and history of morbidity during the previous fortnight.

5.5.3.2. Adult men & women

The associations of nutritional status of adult men and women based on BMI grades with demographic and socio-economic variables are presented in **Table 89 (i,ii &iii)**.

The analysis revealed that the nutritional status of adult men and women as indicated by BMI was found to be significantly associated with the religion, type of

family, type of house, HH land holding, HH monthly PCI, major occupation of the head of the HH, literacy status, family size, source of drinking water, electrification, type of cooking fuel, and presence of sanitary latrine. Significant association with history of morbidity during the previous fortnight was observed only among women.

5.6. Incidence of Morbidities

The incidence of morbidities such as fever, diarrhoea, dysentery and acute respiratory infections (ARI) during the preceding 15 days, according to physiological groups, age and gender pooled for the States are provided in **Tables 90-92**.

Infants

In general, about 10% of the infants were suffering from one or the other morbidities such as fever (6.2%), ARI (4%) and/or diarrhoea (1.4%). The prevalence was relatively lower (9%) among the female compared to male infants (11%).

Preschool Age Children

In general, about 11% of the preschool age children reportedly had one or the other morbidities. The most common morbidity was fever (8.5%), followed by ARI (3.4%) and Diarrhoea (1.2%). The prevalence of morbidities was similar among boys and girls.

School Age Children

About 7% of the school age children reportedly had morbidities such as fever (5.7%), acute respiratory infection (1.6%) and diarrhoea (0.5%). The pattern of morbidities was similar among boys and girls.

Adolescents

About 5% of the adolescents had morbidities such as fever (3.8%), ARI (0.8%) and diarrhoea (0.5%). No gender differences were observed in the prevalence of these morbidities.

Adults (≥ 18 year)

About 6% of the adults had morbidities, such as fever (4.9%), ARI (1.1%) or diarrhoea (0.6%) with the prevalence being similar in men and women.

Thus it was observed that the prevalence of various morbidities was relatively higher among younger age groups such as infants and preschool age, the most common being fever followed ARI and Diarrhoea.

5.7. Obesity and Diet related Chronic Diseases among ≥ 20 year adults

The mean anthropometric measurements, prevalence of obesity based on BMI, abdominal obesity based on waist circumference and hypertension among adult men and women of ≥ 20 years of age are presented in **Tables 93- 104**.

5.7.1 Mean Anthropometric Measurements

A total of 46000 adults of ≥ 20 years (men: 21069; women: 24931) were covered for the anthropometry viz., measurement of height, weight, waist and hip circumference pooled for the States is provided in **Table 93**.

The mean weight and height was 50.5 kg (± 7.82) and 161.4 cm (± 6.34) respectively for the men and 43.3 kg (± 7.40) and 150.8 cm (± 5.91) respectively for women. The mean BMI was 19.3 kg/m² (± 2.53) for men and 19.0 kg/m² (± 2.86) for women. The mean waist and hip circumference were 71.3 cm (± 7.56) and 80.2 cm (± 5.85) respectively for men, and 67.2 cm (± 8.01) and 80.0 cm (± 6.66) respectively for women.

5.7.2. Prevalence of Obesity

Prevalence of overweight and obesity (BMI ≥ 23) was observed to be about 8% and 9% among men and women respectively. Among men, the prevalence was highest in the State of Gujarat (15.1%), followed by about 10% in Tamil Nadu & Kerala, 7-9% in Karnataka, Maharashtra & Andhra Pradesh with a low of 3-5% in West Bengal, Orissa and Madhya Pradesh. Similarly, among women, the prevalence was maximum in the State of Gujarat and Kerala (14-15%), followed by Karnataka & Tamil Nadu (11-12%), Andhra Pradesh, Maharashtra, Madhya Pradesh & West Bengal (5-7%) with lowest in Orissa (3.5%) (**Tables 94**).

5.7.3. Prevalence of Abdominal obesity

5.7.3.1. Waist Circumference

The overall prevalence of abdominal obesity according to waist circumference was 2.4% among men and 7.6% in women (**Table 94**). The prevalence among men was about 3-4% in the States of Tamil Nadu, Karnataka and Maharashtra, followed by 1-2% in Kerala, West Bengal, Gujarat, Andhra Pradesh and Madhya Pradesh, with lowest of 0.8% in Orissa. Among women, the prevalence was about 11-12% in the States of Kerala & Karnataka, followed by 8-9% in Maharashtra, Madhya Pradesh & Gujarat, 5-6% in Tamil Nadu, West Bengal & Andhra Pradesh, with lowest of about 2 % in Orissa.

The percent prevalence of abdominal obesity according to waist circumference by age group and gender is presented in **Table 95**. The prevalence abdominal obesity according to waist circumference among men was $< 1\%$ in the age group of 20-30 years, while it was about 3-4% in the age group of 40 years and above. Among women, it was lower and about 4-6% in the younger adults (20-40 years) compared to their older counterparts (10-13%).

5.7.3.2. Waist to Hip Ratio

The overall prevalence of abdominal obesity according to waist to hip ratio was 38% among men and 73% in women (**Table 94**). Among men, the prevalence was highest in the State of Orissa (52%), followed by 40-42% in Karnataka, Kerala, & Madhya Pradesh, and 32-39% in Tamil Nadu, Andhra Pradesh, Gujarat, West Bengal and Maharashtra. Among women, the prevalence was maximum in the State of Gujarat (86%), followed by Madhya Pradesh, Karnataka, Andhra Pradesh, West Bengal, Orissa & Kerala (70-81%) and about 59% in Tamil Nadu and Maharashtra.

The percent prevalence of truncal obesity according to waist to hip ratio by age group and gender pooled for the States is presented in **Table 95**. The prevalence truncal obesity according to waist to hip ratio among men tended to increase with age from 22% in the age group of 20-30 years, through 36% in 30-40 years to a high of about 45-54% in the age group of 40 years and above. Among women, it ranged from about 64% in 20-30 years, through 71-77% in 30-50 years to about 80-84% in the age group of 50 years and above.

Thus, it was observed that the prevalence of truncal obesity was in general higher among women compared to men, older compared to younger age groups and by the criteria of waist to hip ratio compared to waist circumference.

5.7.4. Prevalence of Hypertension

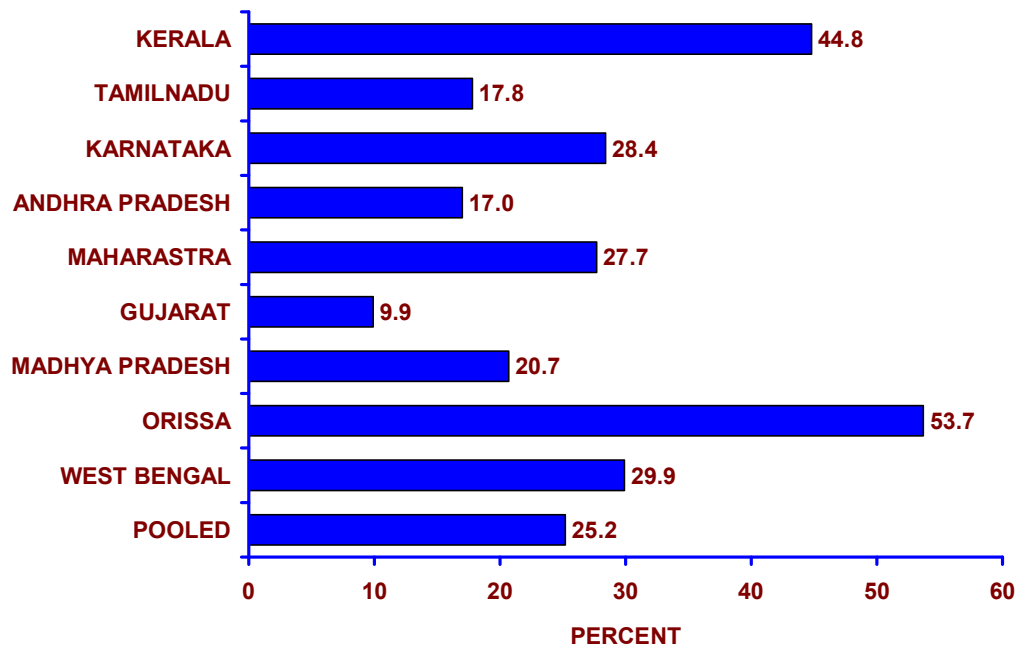
The mean \pm SD systolic and diastolic blood pressure of adult men and women (≥ 20 years) by States is provided in **Table 96**. The overall mean systolic blood pressure levels were about 125 mm of Hg (± 17.76) in men and 124 mm of Hg (± 19.04) in women, while that of diastolic was about 80 mm of Hg (± 11.57) in men and about 79 mm of Hg (± 11.42) among women. The mean systolic blood pressure among men and women was relatively higher in the States of Kerala and West Bengal, compared to the rest of the States. Similarly, the mean diastolic blood pressure among men and women was observed to be relatively higher in the States of Kerala and Orissa.

The percent prevalence of hypertension by JNC 7 criteria among men and women among different age groups pooled for the States is provided in **Tables 97 & 98**. The overall prevalence of hypertension (Stage I & stage II) among men was about 25%, with 17.5% having stage I and 7.7% having stage II hypertension. Among women, the prevalence of hypertension was about 23%, with 15.5% having stage I and 7.5% having stage II hypertension. About 42% of men and 39% women were observed to be in the phase of pre-hypertension, with prevalence being higher in younger age group, which tended decrease with increase in age. The overall prevalence of hypertension among men tended to increase with age from a low of

about 12% in <30 year age group through 35-45% in 50-70 year to about 50-61% in the age group of 70 years and above. Similar trends were observed among women also.

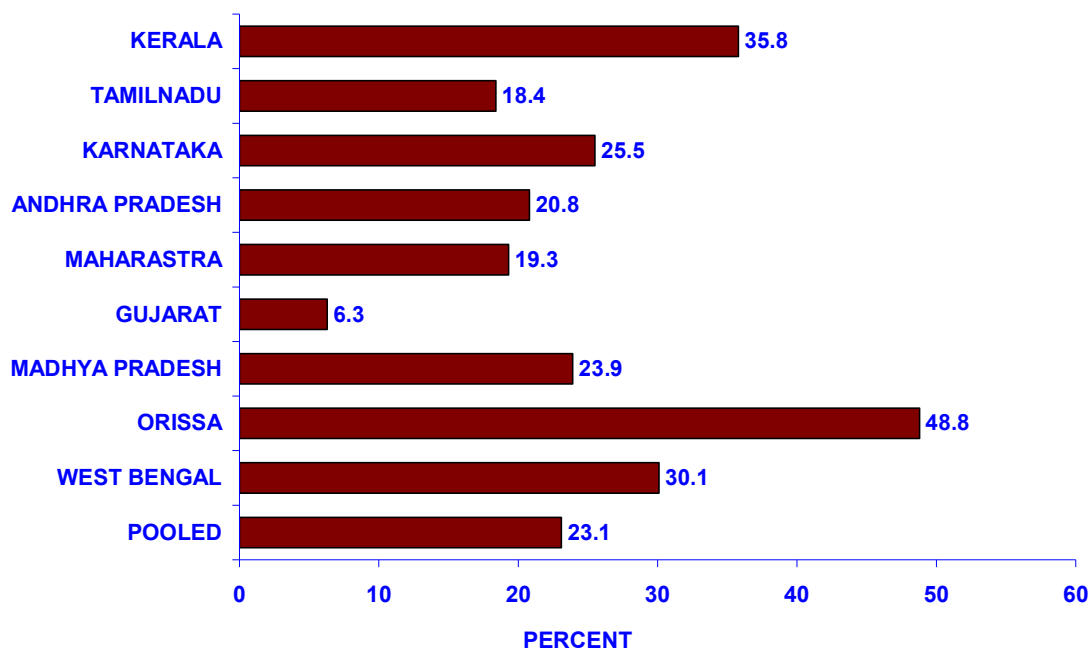
The percent prevalence of hypertension by stage among men and women by States is provided in **Tables 99 & 100 and Figs. 15-16**. The overall prevalence of hypertension (Stage I & stage II) among men was observed to be highest in the State of Orissa (about 54%), followed closely by Kerala (about 45%), through about 28-30% in the States of West Bengal, Karnataka & Maharashtra, 17-21% in Madhya Pradesh, Tamil Nadu & Andhra Pradesh, with lowest of about 10% in Gujarat. Similarly, among women, the prevalence was observed to be highest in the State of Orissa (49%), followed by Kerala (36%), through 25-30% in the States of West Bengal, Karnataka, & Madhya Pradesh, 18-21% in Andhra Pradesh, Maharashtra & Tamil Nadu, with lowest of about 6% in Gujarat.

Fig. 15 PREVALENCE (%) OF HYPERTENSION BY STATES - MALES



Thus, it was observed that the prevalence of hypertension was relatively higher among older adults, compared to young adults and in men compared to women. The prevalence was also highest in the States of Orissa and Kerala and significantly lower in Gujarat.

Fig. 16 PREVALENCE (%) OF HYPERTENSION BY STATES - FEMALES



5.7.4.1. Knowledge on Hypertension & Diabetes mellitus

Knowledge on Hypertension

The information on knowledge of tribal adult men and women (≥ 20 years) about hypertension and diabetes and associated risk behaviours, according to age group, pooled for the States is provided in **Tables 101 & 102**. About 44% of men and 38% of women were aware of hypertension, about 1.6% men and 2.3% women were known hypertensive, mostly in the age group of ≥ 60 years, while about 1-2% of men and women were on regular treatment for hypertension.

About a third of tribal adult men and women were aware of the signs and symptoms of hypertension. The most common symptom of hypertension, as Stated by the men and women were giddiness (22% & 26% respectively), followed by headache (about 9% each), palpitation (6% each) and nausea (3-4%) (**Table 103**).

Knowledge on Diabetes

About 38% men and 33% women were aware of diabetes mellitus, about <1% were known diabetics, while most of them were on treatment (**Tables 101 & 102**). Among men, less than 1% were known diabetics among 30-60 years, around 2% in 60-80 years and 3.5% in the age group of ≥ 80 years. In case of women, the proportion of known diabetics was <1% in all the age groups.

Only about 22% of adult men and 19% of women were aware of the signs and symptoms of diabetes. The most common sign/symptom of diabetes, as stated by

the men and women was delayed wound healing (10-13%), followed by tiredness (about 9%). The proportion of those who Stated other signs/symptoms such as loss of weight (4%), polyuria (2-3%), polydipsia (1%) and polyphagia (<1%) (**Table 104**).

5.7.4.2. Tobacco Use & Consumption of Alcoholic beverages

Use of Tobacco

About 36% men and 6% women were currently smokers. Among men, the proportion was highest in the age group of 40-60 years (43-44%) and lowest in 20-30 years (23%). Among women, the proportion was highest in the age group of 60-80 years (about 10-12%) and lowest in 20-30 years (about 3%). The proportion of those smoking ≥ 10 cigars/*beedi*/day was about 16% in men and <1% in women. The proportion of those smoking for ≥ 10 years was about 27% in men and 6% in women (**Tables 101 & 102**).

About 38% of men and 23% women were chewing tobacco. The proportion of tobacco chewers was higher in the age group of 60 years and above in men (40%) and in the age group of 80 years and above in women (52%). About 6% of men and 3% of women were chewing tobacco for ≥ 10 times a day. About 23% of men and 15% of women were chewing tobacco for ≥ 10 years. About 3% of men and 5% of women were snuffing tobacco.

Consumption of Alcoholic Beverages

About 59% of men and 14% of women were reportedly consuming alcoholic beverages and about 9% of men and 2% of women each, consumed alcohol, every day or 2-3 times a week (**Tables 101 & 102**).

5.7.5 Association of Hypertension with Waist Circumference, Waist to hip Ratio and Body Mass Index (BMI)

The association of any type of Hypertension (either stage I or II) with Waist Circumference, Waist to hip Ratio and Body Mass Index among adult men and women of ≥ 20 years for the States pooled is provided in **Tables 105-110**.

Among adult men, the prevalence of hypertension was significantly ($p < 0.001$) higher among those having abdominal obesity as indicated by higher waist circumference (49% vs 25%), higher waist-hip ratio (34% vs 20%) and those with overweight/obesity with BMI ≥ 23 (35% compared to 26% with BMI between 18.5-23.0 or 22% with BMI < 18.5).

Among adult women, the prevalence of hypertension was significantly ($p < 0.001$) higher among those having abdominal obesity as indicated by higher waist circumference (43% vs 21%), higher waist-hip ratio (25% vs 17%) and those with

overweight/obesity with BMI ≥ 23 (36% compared to 24% with BMI between 18.5-23.0 or 20% with BMI <18.5).

5.7.6. Association between chronic diseases such as Hypertension (stage I&II), Overweight/obesity and abdominal Obesity with Demographic & Socio-economic variables, Tobacco use and Alcohol consumption

The association between Hypertension, overweight/obesity based on BMI and abdominal obesity based on waist circumference & waist to hip ratio with demographic & socioeconomic variables and use of tobacco/alcoholic beverages among adult men and women of ≥ 20 years for the States pooled, is provided in **Tables 111 & 112**.

5.7.6.1. Hypertension

Hypertension was found to be significantly associated, in both men and women, with higher prevalence among Christians, artisans, having monthly per capita income of Rs. <300 , with family size of ≥ 8 , living in semi *pucca* house, illiterates (only in women) and those consuming tobacco and consuming alcoholic beverages.

5.7.6.2. Overweight/obesity

Overweight/obesity was found to be significantly associated, in both men and women, with higher prevalence among Christians, those engaged in business/service, having monthly per capita income of Rs. ≥ 900 , with family size of ≥ 4 (only in women), living in *pucca* house, literates, not consuming tobacco and alcoholic beverages.

5.7.6.3. Abdominal Obesity based on Waist Circumference

Abdominal obesity based on waist circumference was found to be significantly associated, in both men and women, with higher proportion having abdominal obesity among Christians (only in women), those engaged in business/service, having monthly per capita income of Rs. ≥ 900 , living in *pucca* house, literates and not using tobacco.

5.7.6.4. Abdominal obesity based on Waist to Hip Ratio

Abdominal obesity based on waist to hip ratio was found to be significantly associated, in both men and women, with higher proportion having abdominal obesity among Christians (in men only), those engaged in business/service (in men only), having monthly per capita income of Rs. ≥ 900 (in men only), family size of ≥ 8 , living in *pucca* house (in men), living in *kutchha* house (in women), literates (in men only) and those consuming tobacco (in men only) and alcoholic beverages.

5.8. Time Trends

The results of the current survey are compared with those reported in surveys

conducted during 1985-87 (baseline) and 1998-99 (1st Repeat survey), to study the time trends in terms of food and nutrient intakes and nutritional status. In the State of Madhya Pradesh, survey during the period 1985-87 was not carried out, and hence comparison was made between two study points only.

5.8.1. Trends in Food and Nutrient Intake of Households

Time trends in the average household intake of foods and nutrients (g/CU/day) by States between 1998-99 and 2007-08 are provided in **Tables 113 & 114**, as data for similar data was not collected during baseline (1985-87).

5.8.1.1. Trends in the Household Food Intake

On an average, the intake of cereals & millets decreased by about 50 g. The extent of decrease was maximum in State of Andhra Pradesh (by about 145 g), followed by West Bengal (99 g), Orissa (87 g) and Madhya Pradesh (81 g). There was an increase of about 24 g, in the State of Kerala. A marginal decrease of about 4-9 g was observed in the overall intake of other foods viz., GLV (9 g), other vegetable (6 g) and sugar & jaggery (4 g). The intake of roots & tubers (7 g), fruits (4 g), pulses & legumes and milk & milk products (3 g) increased marginally (**Table 113**).

5.8.1.2. Trends in the household Nutrient Intake

The average intake of energy decreased by about 150 kcal/CU/day. The extent of decrease was about 350 kcal in the States of West Bengal and Andhra Pradesh, about 300 kcal in Orissa and Madhya Pradesh and about 134 kcal in Maharashtra. In contrast, the intakes increased by about 100-180 kcal/day in the States of Tamil Nadu (183 kcal), Kerala (122 kcal) and Gujarat (93 kcal).

The average daily intake of proteins decreased by about 3 g/CU/day. Barring the State of Gujarat, where an increase of about 12g was observed, and Kerala where it remained similar, the intakes of protein decreased in all the remaining States. The average intake of vitamin A decreased by about 117 µg/CU/day. The decline was observed in all the States except Karnataka & Andhra Pradesh, where it remained almost similar.

5.8.2. Time Trends in Food and Nutrient Intake of Individuals

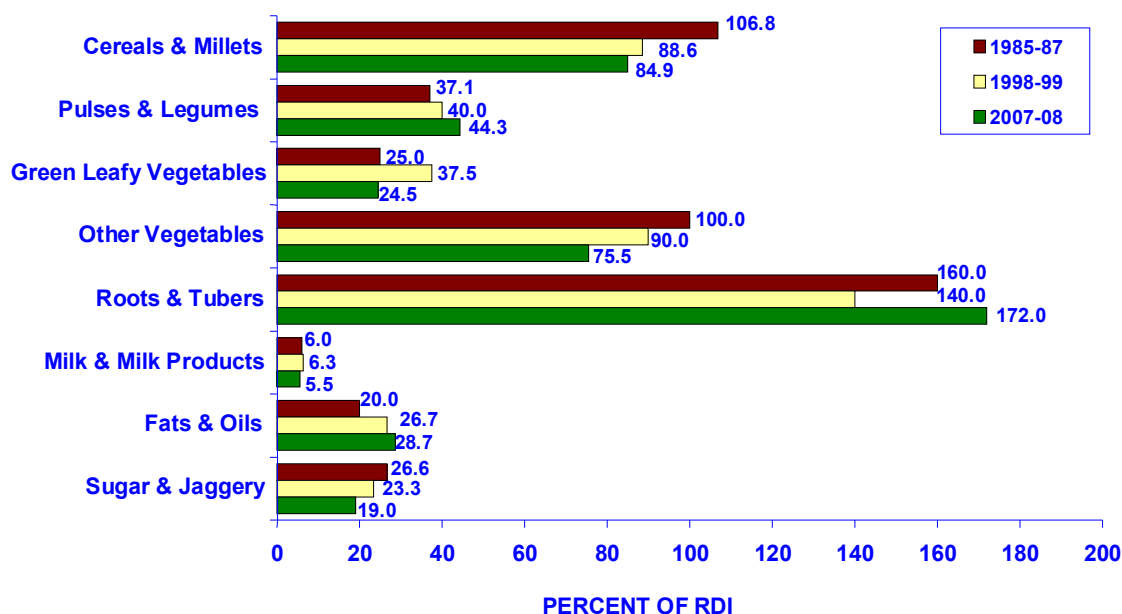
Time trends in the mean food intakes of individuals by age group and gender by States for the periods 1985-87, 1998-99 & 2007-08 are provided in **Tables 115-123**.

5.8.2.1. Food Intakes of Individuals

1-3 year children

In general, the mean intake of cereals & millets decreased from about 187 g in 1985-87 to 100 g in 1998-99 and then increased to 149 g/day in 2007-08. The mean intake of other vegetables decreased consistently from 20 g to about 15 g/day during the period. The consumption of all other foods remained essentially similar throughout the period (**Table 115 & Fig. 17**).

Fig.17 INTAKE OF FOODSTUFFS AMONG 1-3 YEARS CHILDREN - TIME TRENDS



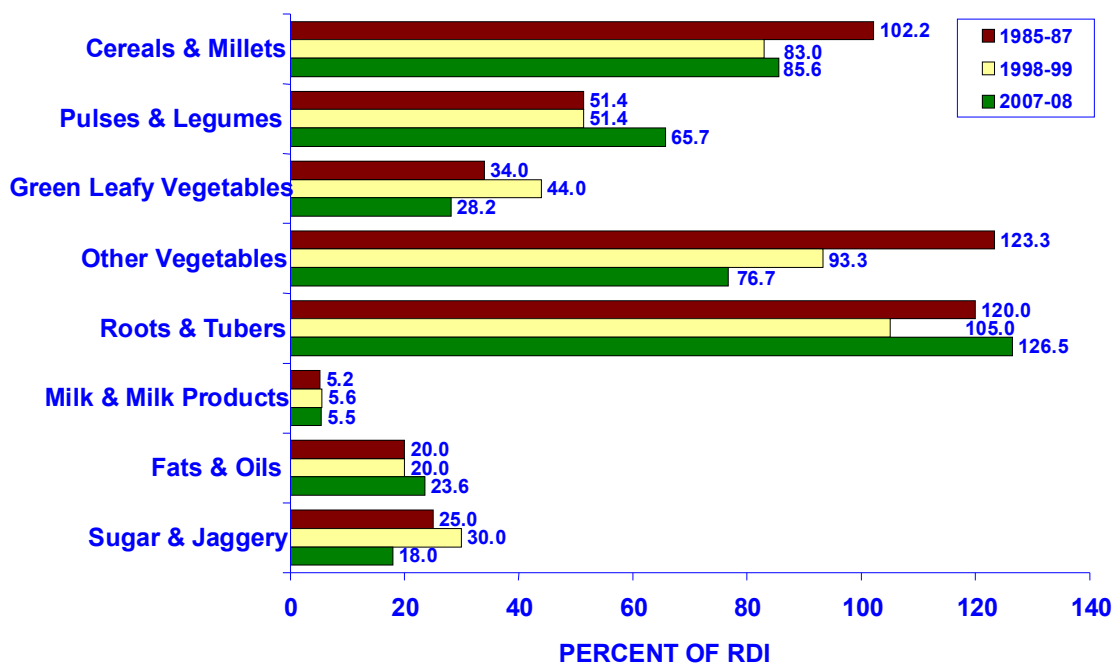
4-6 year children

The overall mean intake of cereals & millets decreased from about 276 g in 1985-87, to about 230 g in 1998-99 and remained same during 2007-08. Similar decreasing trends were observed with respect to consumption of other vegetables (from 37g to 23g) and sugar & jaggery (from 10 g to 7 g), while that of pulses & legumes increased marginally from 18 g in 1985-87 to about 23 g in 2007-08. The intake of all the other foods remained more or less similar, during the period (**Table 116 & Fig. 18**).

7-9 year children

The mean intake of cereals & millets decreased from about 334 g in 1985-87, to about 290 g during the periods 1998-99 and 2007-08. Similarly, the mean intake of other vegetables and roots & tubers decreased over the period. The intake of GLV increased from 19 g to 25 g but then decreased to 17 g by 2007-08. There was a marginal increase in the intake of milk (12 to 15g), while that of the remaining foods remained essentially similar during the period (**Table 117**).

Fig.18 INTAKE OF FOODSTUFFS AMONG 4-6 YEARS CHILDREN - TIME TRENDS



10-12 year Boys

In general, the overall mean intake of cereals & millets decreased from 408 g in 1985-87, through 345 g 1998-99 to about 331 g in 2007-08. Similar trends were observed with respect to consumption of other Vegetables, roots & tubers, sugar & jaggery and fruits, while that of pulses & legumes increased marginally from 23 g in 1985-87 to about 28 g in 2007-08. There was an increase in the intake of GLV from 15 g to 26 g followed by decrease to 21 g. The intake of milk increased marginally from 11 g to 16 g, while that of the rest remained essentially same during the period (Table 118).

10-12 year Girls

As in the case of boys, the overall mean intake of cereals & millets among girls decreased from about 373 g in 1985-87, through 339 g in 1998-99 to about 322 g in 2007-08. Similar decreasing trends were observed with respect to consumption of other Vegetables, roots & tubers and sugar & jaggery, while that of pulses & legumes increased marginally from 22 g in 1985-87 to about 28 g in 2007-08. The intake of GLV increased from 16 g to 27 g, but decreased to 19 g during 2007-08. There was an increase in the intake of milk (10 to 16g), while that of the rest remained essentially similar during the period (Table 119).

13-15 year Boys

The overall mean intake of cereals & millets, decreased from about 465 g in

1985-87, through 418 g 1998-99 to about 387 g in 2007-08. Similar decreasing trends were observed with respect to consumption of other Vegetables, roots & tubers and sugar & jaggery, while that of pulses & legumes (24 g to 29 g), GLV (16 g to 21 g) and milk (11 to 20 g) increased marginally, during the corresponding period. The intake of the remaining foods continued to be similar during the period (**Table 120**).

13-15 year Girls

The overall mean intake of cereals & millets among girls decreased from 463 g in 1985-87, to 227g in 1998-99 and then increased to 359 g in 2007-08. The intake other Vegetables, roots & tubers and sugar & jaggery also decreased over the period. The consumption of pulses & legumes increased marginally from 24 g in 1985-87 to about 29 g in 2007-08. The intake of GLV increased from 17 g to 27 g in 1998-99, but decreased to 22 g by 2007-08. There was an increase in the intake of milk (10 g to 16 g) and fats & oils (5 to 8 g), while that of the remaining foods remained essentially similar during the period (**Table 121**).

16 years and above males (sedentary)

In general, the average intake of cereals & millets (521 g to 439 g), other vegetables (59 g to 40 g), and roots & tubers (77 g to 49 g) declined over the period. The decline in the intakes of cereals & millets was considerable in the States of Tamil Nadu (by 220 g), Madhya Pradesh (by 148 g), Gujarat (by 134 g) and Karnataka (by 124 g). The consumption of GLV, milk & milk products, sugar & jaggery and condiments & spices tended to increase marginally during 1998-99, but decreased by 2007-08. The average intake of pulses, nuts & oil seeds, flesh foods, and fats & oils increased marginally, over the period (**Table 122 & Fig.19**).

16 years and above females (sedentary-NPNL)

In general, the average intake of cereals & millets, pulses, other vegetables, and sugar & jaggery decreased, while that of fruits, nuts & oil seeds, flesh foods, and fats & oils increased marginally. The extent of decline in the intakes of cereals & millets was about 110-120 g in the States of Madhya Pradesh and Gujarat, and about 80-85 g in Tamil Nadu and Andhra Pradesh. The intake of green leafy vegetables increased considerably in Tamil Nadu, Kerala, West Bengal and Orissa, while that of fruits increased in all the States except Maharashtra and Orissa. (**Table 123 & Fig.20**).

Thus, the data revealed that, among various age groups, there was in general a decline in the average intake of cereals & millets, other vegetables, roots & tubers, sugar & jaggery. While the consumption of pulses increased marginally, the intake of milk & milk products increased significantly during the period, though the overall intakes remained very much lower than the suggested levels.

Fig.19 INTAKE OF FOODSTUFFS AMONG SEDENTARY MALES (>=16 YEARS) - TIME TRENDS

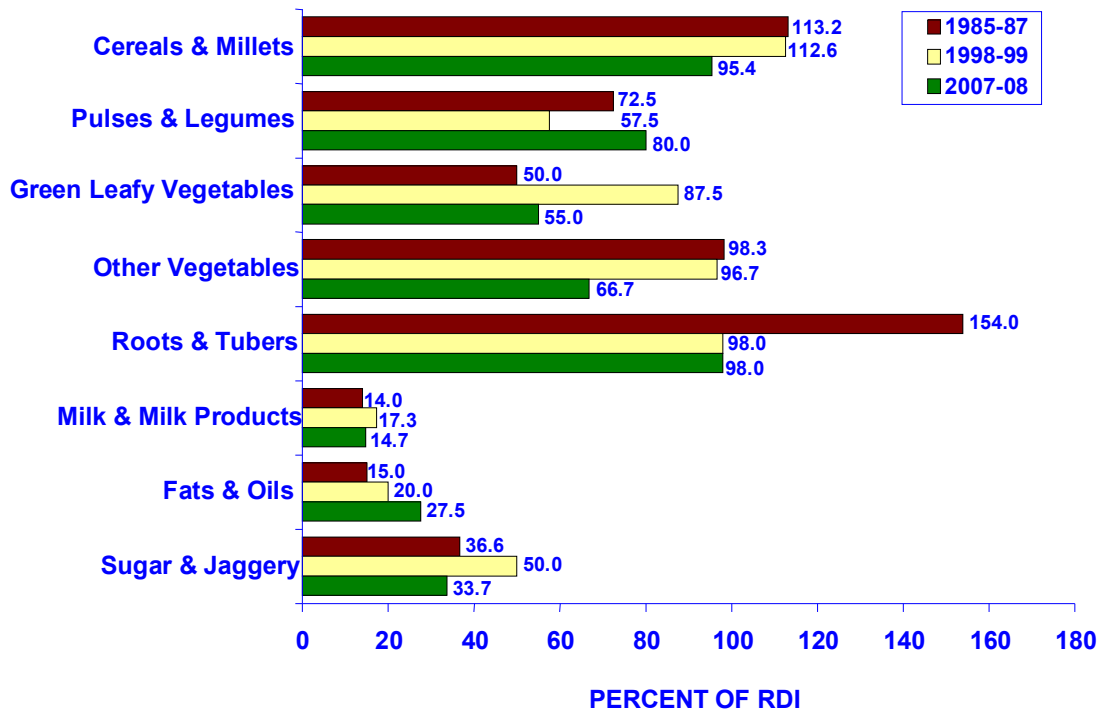
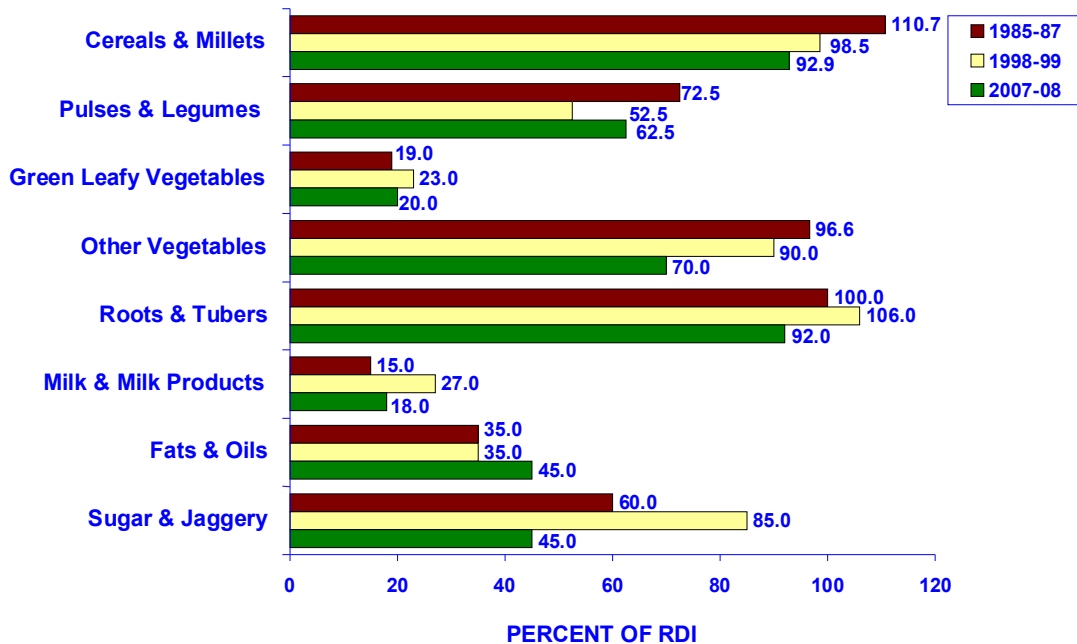


Fig.20 INTAKE OF FOODSTUFFS AMONG SEDENTARY FEMALES - NPNL (>= 16 YEARS) - TIME TRENDS



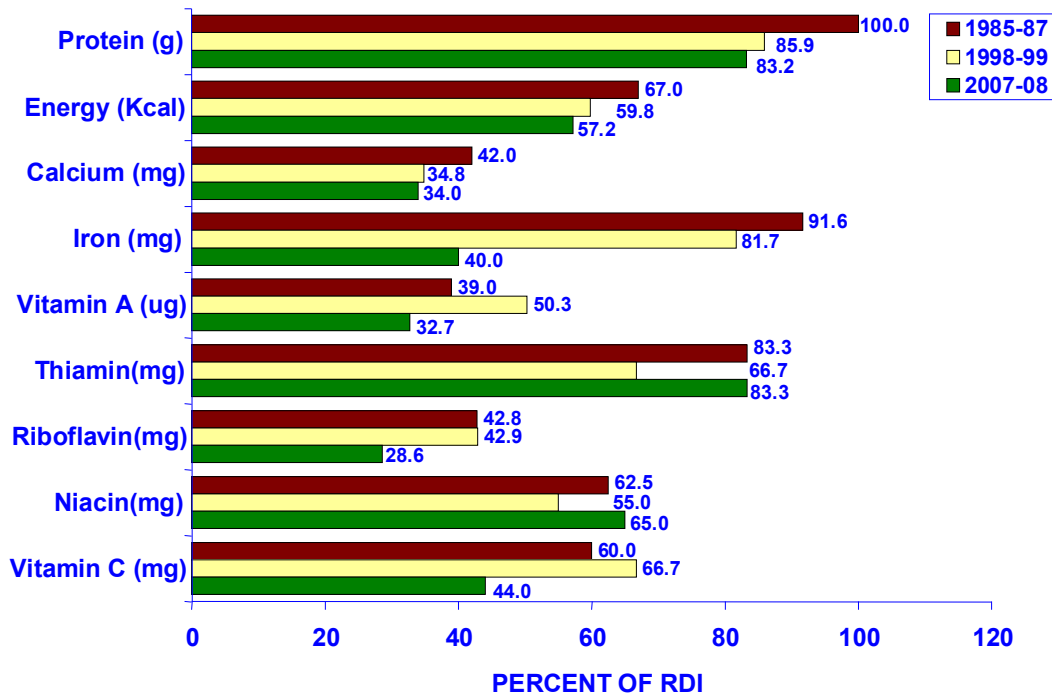
5.8.2.2. Time trends in Nutrient Intakes of Individuals

Time trends in the median nutrient intakes of individuals by age group and gender by States for the periods 1985-87, 1998-99 & 2007-08 are provided in **Tables 124-132**.

1-3 year Children

The average intake of nutrients such as energy, protein, calcium, iron, free folic acid and vitamin A decreased over the period. The extent of decrease in the intake of energy was about 123 kcal and that of protein was 4 g. The intake of vitamin A initially increased from 156 µg to 191 µg then decreased to 131 µg during 2007-08. The intake of vitamin C, thiamine, riboflavin, and niacin remained similar. However, the intake of all the nutrients remained lower than the recommended levels (**Table 124 & Fig. 21**).

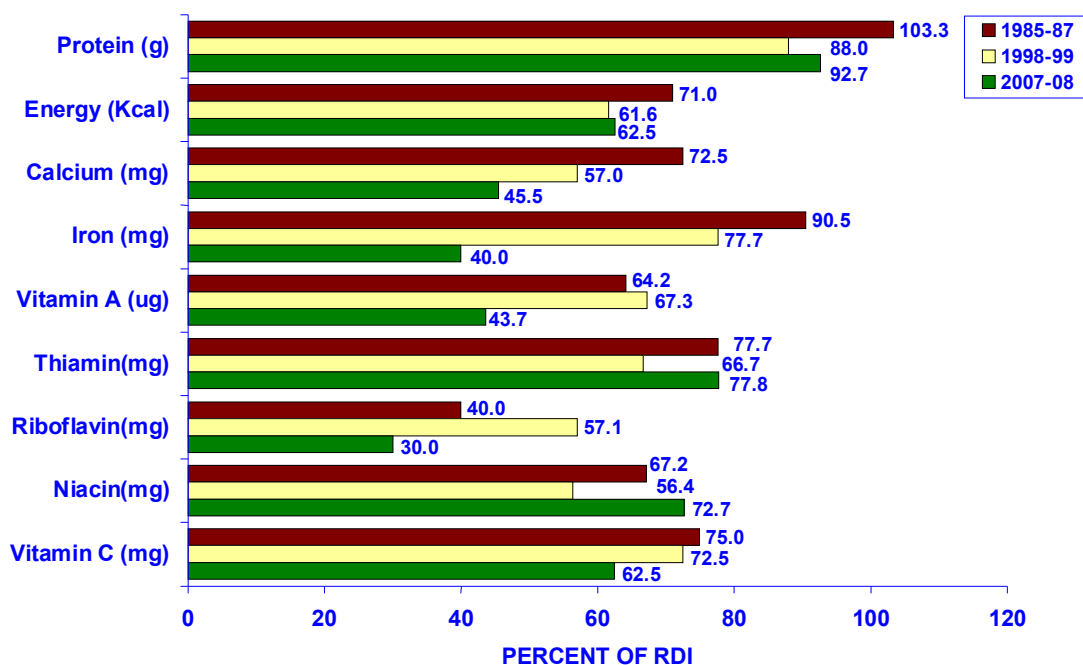
Fig.21 MEAN INTAKE OF NUTRIENTS AMONG 1-3 YEARS CHILDREN - TIME TRENDS



4-6 year children

The average daily intake of energy and protein declined by about 154 kcal & 3 g respectively from 1985-87 to 1998-99, and remained so, thereafter. The intake of micronutrients such as calcium, Iron, vitamin C and vitamin A continued to decline during the entire period. The intake of thiamine, riboflavin and niacin remained similar during the period. The intake of all nutrients remained lower than the RDA, over the period (**Table 125 & Fig.22**).

Fig.22 MEAN INTAKE OF NUTRIENTS AMONG 4-6 YEARS CHILDREN - TIME TRENDS



7-9 year children

The average daily intake of energy and protein declined by about 160 kcal & 4 g respectively from 1985-87 to 1998-99, and remained so, thereafter. The intake of micronutrients such as calcium and Iron continued to decline during the entire period. The vitamin A intake increased from 269 µg to 307 µg during 1998-99, and declined thereafter to about 219 µg. The intake of thiamine, riboflavin, niacin and vitamin C remained similar during the period. The intake of all nutrients remained lower than the RDA, over the period (Table 126).

10-12 year Boys

The average daily intake of energy and protein declined by about 206 kcal & 5 g respectively from 1985-87 to 1998-99, and remained so, thereafter. The intake of micronutrients such as calcium and Iron continued to decline during the entire period. The vitamin A intake tended to increase from 268 µg to 343 µg during 1998-99, and declined thereafter to about 241 µg during 2007-08. The intake of thiamine, riboflavin, vitamin C and niacin remained similar during the period. The intake of all nutrients remained lower than the RDA, over the period (Table 127).

10-12 year Girls

There was a decline in the intake of energy, protein, calcium, iron and vitamin A while that of other nutrients remained similar during the periods 1985-87 to 2007-

08. The extent of decline in energy intakes was about 123 kcal, while that of protein was marginal (about 2 g). The vitamin A intake tended to increase from 259 µg to 332 µg during 1998-99, and declined thereafter to about 239 µg during 2007-08. The intake of all nutrients remained lower than the RDA, over the period (**Table 128**).

13-15 year Boys

The intake of energy, protein, calcium, iron and vitamin C declined considerably during the periods 1985-87 to 2007-08. The extent of decline in energy intakes was about 245 kcal, while that of protein was 6 g. The intake of thiamine, riboflavin and niacin remained similar during the period. The intake of vitamin A increased from 267 µg to 393 µg during 1998-99, but decreased thereafter to 270 µg during 2007-08. The intake of all nutrients remained lower than the RDA, over the period (**Table 129**).

13-15 year Girls

There was a decline in the intake of energy, protein, calcium and iron throughout the period from 1985-87 to 2007-08. The intake of vitamin A increased from a low 199 µg in 1985-87 to 324 µg during 1998-99, and decreased to 294 µg in 2007-08. The extent of decline in energy intakes was about 350 kcal, while that of protein was 8 g. The intake of thiamine, riboflavin, niacin and vitamin C remained similar during the period. The intake of all nutrients remained lower than the RDA, except for thiamine and vitamin C (**Table 130**).

16 years and above (Sedentary men)

The consumption of energy, protein, calcium, iron, vitamin A, free folic acid and vitamin C decreased over the period 1985-87 to 2007-08, while that of thiamine and niacin increased marginally. The decline in the energy intakes was observed in all the States except West Bengal and Maharashtra. The intake of niacin increased in all the States, except in the State of Madhya Pradesh, Andhra Pradesh and Gujarat, while that of vitamin C in all the States decreased except Orissa and West Bengal (**Table 131 & Fig. 23**).

16 years and above (NPWL Women - Sedentary)

The average daily intake of all the nutrients, except thiamine, niacin, Free Folic acid and vitamin C declined over the period of time. The intake of energy declined by about 224 Kcal, protein by 7 g, calcium by 128 mg and vitamin A by 53 µg. The niacin intake increased in 5 out of 9 States viz., Kerala, Tamil Nadu, Karnataka, Orissa and West Bengal. The intake of vitamin C decreased in the States of Kerala (by about 32 mg) and Andhra Pradesh (by about 21 mg) while it increased in States of Orissa (by about 38 mg), West Bengal (by about 15 mg) and Tamil Nadu (by about 8 mg) (**Table 132 & Fig. 24**).

Fig. 23 MEAN INTAKE OF NUTRIENTS AMONG MALES (>=16 YEARS) - TIME TRENDS

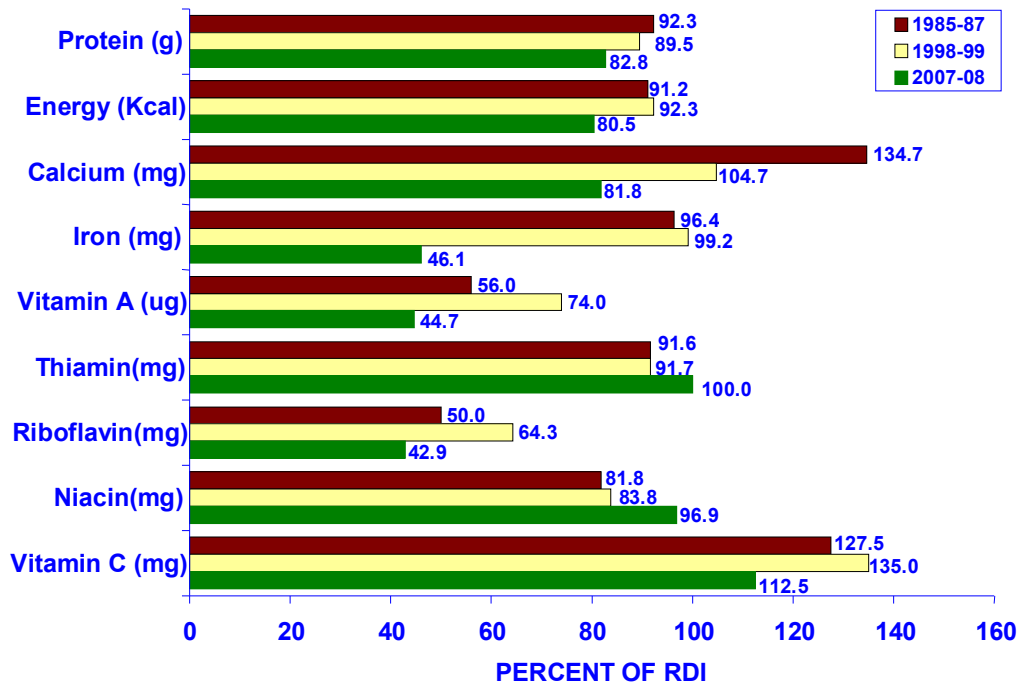
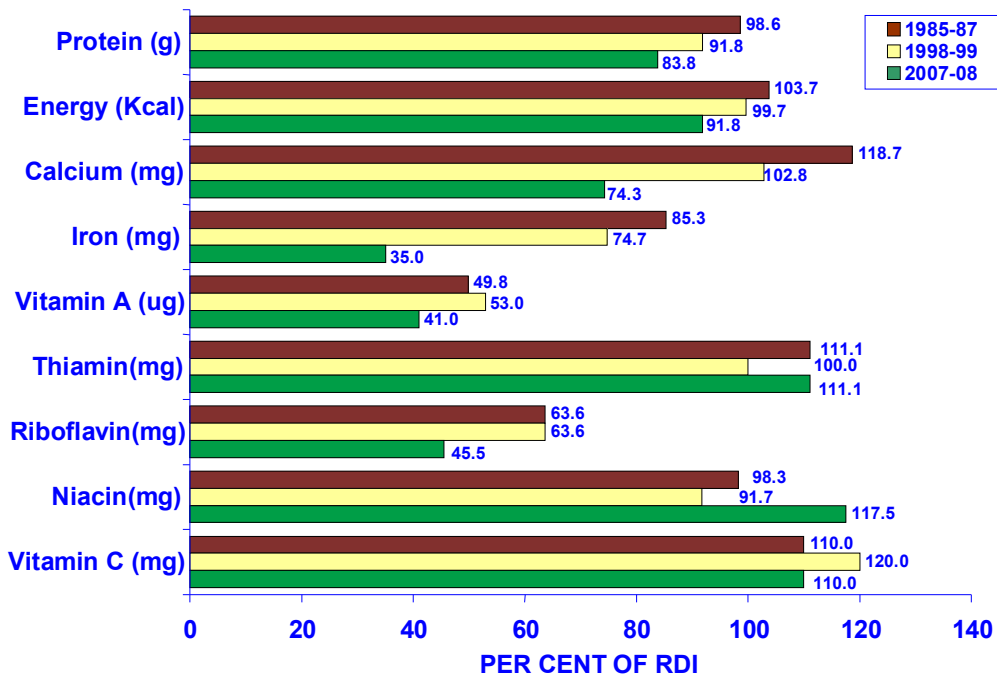


Fig. 24 MEAN INTAKE OF NUTRIENTS AMONG FEMALES- NPNL (>= 16 YEARS) : TIME TRENDS



5.8.2.3. Protein-calorie Adequacy Status of Individuals

The State wise protein-calorie adequacy status of individuals by age/sex group, based on 24 hour recall diet survey for the periods 1985-87, through 1998-99 to 2007-08 is presented in **Tables 133 to 143**. The State of Madhya Pradesh was not covered during the year 1985-87.

Age group 1-3 year children

The proportion of 1-3 year children with protein calorie adequacy (P+C+), in general, increased from 18% in 1985-87 to 30% in 1998-99 and remained so there after. The extent of increase was maximum in Gujarat (by 31%), followed by Andhra Pradesh and West Bengal (by 20%), Karnataka, Maharashtra and Orissa (by 10-15%) and Kerala (by 7%), in that order (**Table 133**).

Consequently, the proportion of those consuming inadequate proteins and calories (P-C-), in general, decreased from 58% to 29% during the corresponding period. The extent of decrease was maximum in the State of Orissa (by 56%), followed by Karnataka & Andhra Pradesh (by 40%), West Bengal (by 30%), Kerala (by 25%) and Tamil Nadu & Gujarat (by about 15 to 18%).

Age group 4-6 year Children

The proportion of 4-6 year children with protein calorie adequacy (P+C+), in general, increased from 16% in 1985-87 to 30% in 1998-99 and remained so there after. The extent of increase was maximum in West Bengal (by 37%), followed by Maharashtra, Andhra Pradesh and Gujarat (by about 25%), Tamil Nadu (by 15%) and Orissa, Kerala & Karnataka (by 7-10%) (**Table 134**).

Consequently, the proportion of those consuming inadequate proteins and calories (P-C-), in general, decreased from 52% to 14% during the corresponding period. The extent of decrease was maximum in Orissa (by 71%), followed by West Bengal, Kerala & Karnataka (by about 45-50%) and Gujarat, Andhra Pradesh, Madhya Pradesh & Tamil Nadu (by about 30%).

Age group 7-9 year Children

The proportion of 7-9 year children with protein calorie adequacy (P+C+), in general, increased from 14% in 1985-87 to 32-34% during 1998-99 and 2007-08. The extent of increase was maximum in West Bengal, Gujarat & Maharashtra (about 34%), followed by Andhra Pradesh (by 28%) and Orissa, Karnataka & Kerala (by 9-11%), while it decreased by about 12% in Madhya Pradesh and by 2% in Tamil Nadu (**Table 135**).

Consequently, the proportion of those consuming inadequate proteins and calories (P-C-), in general, decreased from 51% to 11% during the corresponding period. The extent of decrease was maximum in Orissa (by 65%), followed by Kerala

(by 60%), Karnataka & Maharashtra (by about 50-55%), West Bengal, Andhra Pradesh & Tamil Nadu (by 30-35%) and Gujarat (by 27%).

Age group 10-12 year Boys

The proportion of 10-12 year boys with protein calorie adequacy (P+C+), in general, increased from 15% in 1985-87 to 39% during 1998-99 and then decreased 26% in 2007-08. The extent of increase was maximum in Maharashtra (by about 32%), followed by West Bengal (by 28%), Gujarat, Andhra Pradesh & Karnataka (by about 16-17%), and Orissa, & Kerala (by 3-7%), while it decreased by 24% in Madhya Pradesh and by 8% in Tamil Nadu.

Consequently, the proportion of those consuming inadequate proteins and calories (P-C-), in general, decreased from 49% to 14% during the corresponding period. The extent of decrease was maximum in the States of Orissa & Kerala (by 59%), followed by Karnataka (by 52%), Tamil Nadu & Maharashtra (by about 40-45%), West Bengal (by 39%), Andhra Pradesh (by 27%) and Gujarat (by 24%) **(Table 136)**.

Age group 10-12 year Girls

The proportion of 10-12 year girls with protein calorie adequacy (P+C+), in general, increased from 15% in 1985-87 to 52% during 1998-99 and then decreased to 33% in 2007-08. The extent of increase was maximum in Maharashtra (by about 41%), followed by West Bengal (by 37%), Gujarat & Andhra Pradesh (by 26-28%), Orissa (by 17%), Karnataka (by 11%), Kerala (about 7%) and Tamil Nadu (by about 1%), while it decreased by about 39% in Madhya Pradesh **(Table 137)**.

Consequently, the proportion of those consuming inadequate proteins and calories (P-C-), in general, decreased from 60% to 15% during the corresponding period. The extent of decrease was maximum in the State of Orissa (by 76%), followed by Tamil Nadu, Maharashtra & Kerala (by about 54-58%), Karnataka (by 46%), West Bengal (by 44%), Andhra Pradesh (by 33%), Gujarat (by 29%) and Madhya Pradesh (by 2%).

Age group 13-15 year Boys

The proportion of 13-15 year boys with protein calorie adequacy (P+C+), in general, increased from 19% in 1985-87 to 46% during 1998-99 and then decreased to 31% in 2007-08. The extent of increase was maximum in Maharashtra (by about 36%), followed by West Bengal (by 33%), Andhra Pradesh (by 21%), Karnataka (by 19%) and Orissa (by 8%). While there was no change in the State of Gujarat, it decreased in the States of Madhya Pradesh (by 36%), Tamil Nadu (by 7%) and Kerala (by 4%) **(Table 138)**.

Consequently, the proportion of those consuming inadequate proteins and

calories (P-C-), in general, decreased from 57% to 18% during the corresponding period. The extent of decrease was maximum in the State of Orissa (by 61%), followed by Karnataka, West Bengal & Maharashtra (by about 50-55%), Andhra Pradesh, Kerala & Tamil Nadu (by about 35-40%), and Gujarat (by 20%). No change was observed in the State of Madhya Pradesh.

Age group 13-15 year Girls

The proportion of 13-15 year girls with protein calorie adequacy (P+C+), in general, increased from 27% in 1985-87 to 58% during 1998-99 and then decreased to 39% in 2007-08. The extent of increase was maximum in Maharashtra (by about 37%), followed by West Bengal & Orissa (by 31%), Karnataka & Gujarat (by 16-17%), Kerala (by 11%) and Orissa (by 8%), while decrease was observed in the States of Madhya Pradesh (by 46%), followed by Andhra Pradesh (by 8%) and Tamil Nadu (by 4%) (**Table 139**).

Consequently, the proportion of those consuming inadequate proteins and calories (P-C-), in general, decreased from 40% to 10% during the corresponding period. The extent of decrease was maximum in the State of Kerala (by 59%), followed by Orissa & Karnataka (by about 50%), Maharashtra & Tamil Nadu (by about 40%), Gujarat (by 23%), Andhra Pradesh (by 19%), West Bengal (by 15%) and Madhya Pradesh (by 4%).

Age group 16-17 year Boys

The proportion of 16-17 year boys with protein calorie adequacy (P+C+), in general, decreased from 64% in 1998-99 to 44% during 2007-08. The extent of decrease was maximum in Madhya Pradesh & Andhra Pradesh (by about 34%), followed by Gujarat & Tamil Nadu (by about 30%), West Bengal (by 27%), Maharashtra (by 16%), Orissa, Kerala & Karnataka (by about 12%) (**Table 140**).

The proportion of those consuming inadequate proteins and calories (P-C-), in general, increased from 25% in 1998-99 to 32% in 2007-08. The extent of increase was maximum in the State of Madhya Pradesh (by 29%), followed by Tamil Nadu (by 21%), Andhra Pradesh (by 19%), West Bengal (by 17%), Karnataka (by 14%), Maharashtra (by 10%) and Orissa (by 5%). The figures remained similar for the States of Kerala and Gujarat during the period.

Age group 16-17 year Girls

The proportion of 16-17 year girls with protein calorie adequacy (P+C+), in general, decreased from 76% in 1998-99 to 58% during 2007-08. The extent of decrease was maximum in the States of Karnataka, Madhya Pradesh & Tamil Nadu (by about 30-35%), followed by Andhra Pradesh & West Bengal (by 26-28%), Kerala & Maharashtra (by 14%) and Orissa (by 3%). There was an increase of about 7% in

the State of Gujarat (**Table 141**).

The proportion of those consuming inadequate proteins and calories (P-C-), in general, increased from 14% in 1998-99 to 23% in 2007-08. The extent of increase was maximum in the States of Tamil Nadu, Karnataka, Andhra Pradesh, Madhya Pradesh and West Bengal (by about 19-24%), followed by Kerala and Maharashtra (by 9%). There was a decrease of about 16% in Gujarat and 6% in Orissa.

Adult Men

The proportion of adult men with protein calorie adequacy (P+C+), in general, decreased from 74% in 1998-99 to 64% during 2007-08. The extent of decrease was maximum in the State of Madhya Pradesh (by 44%), followed by Karnataka & Tamil Nadu (by about 18-21%), Andhra Pradesh & Kerala (by 11%) and Maharashtra & Gujarat (by 3-6%), while it remained similar in the States of Orissa & West Bengal (**Table 142**).

The proportion of those consuming inadequate proteins and calories (P-C-), in general, increased from 12% in 1998-99 to 20% in 2007-08. The extent of increase was maximum in the States of Tamil Nadu & Karnataka (by about 18-19%), followed by Madhya Pradesh, West Bengal & Kerala (by about 9-11%), and Andhra Pradesh (by 7%). The figures remained similar in the States of Maharashtra, Orissa & Gujarat.

Adult Women

The proportion of adult women with protein calorie adequacy (P+C+), in general, decreased from 84% in 1998-99 to 74% during 2007-08. The extent of decrease was maximum in the State of Tamil Nadu and Madhya Pradesh (by about 20%), followed by Karnataka & Maharashtra (by 16%), Andhra Pradesh & Kerala (by 12-13%) and West Bengal & Orissa (by about 7-9%). There was an increase of about 4% in the State of Gujarat (**Table 143**).

The proportion of those consuming inadequate proteins and calories (P-C-), in general, increased from 7% in 1998-99 to 14% in 2007-08. The extent of increase was maximum in the State of Madhya Pradesh (by 16%), followed by Kerala (by 13%), Karnataka & Tamil Nadu (by about 10-11%), West Bengal (by 7%), and Andhra Pradesh, Maharashtra & Orissa (by about 3-5%). There was a decrease of about 4% in Gujarat.

5.8.3. Trends in the Nutritional Status

The trends in the nutritional status in terms of prevalence clinical signs of nutritional deficiencies, and anthropometry by age group and gender by States for the periods 1985-87, 1998-99 & 2007-08 are provided in **Tables 144-164**.

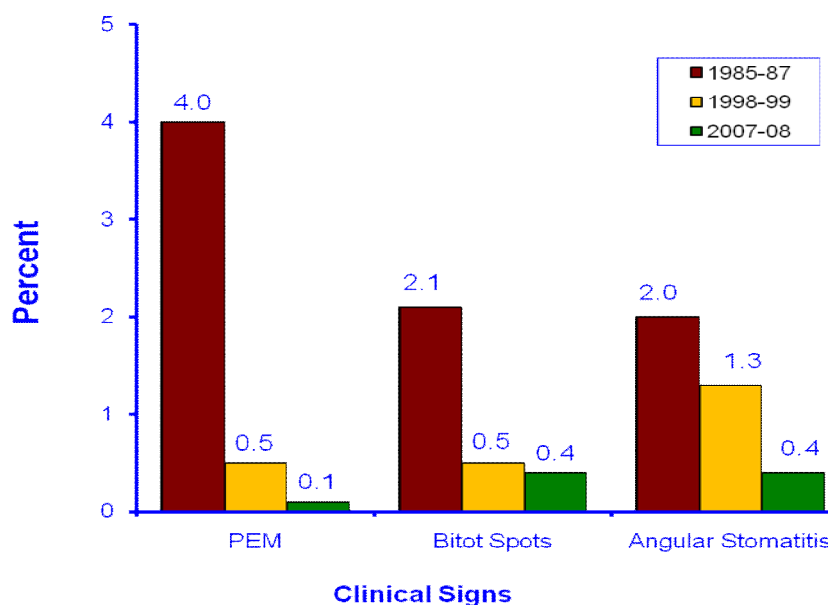
5.8.3.1. Prevalence of clinical signs of nutritional deficiencies

The prevalence of clinical signs of nutritional deficiencies by age group and gender are provided in **Tables 144-150**.

Preschool children

In general, there was decline in the prevalence of most of the clinical signs of nutritional deficiency, over the period. The prevalence of marasmus declined significantly from about 2.8% in 1985-87 to about 0.1% during 2007-08. The prevalence of Bitot spots, an objective sign of vitamin 'A' deficiency and that of angular stomatitis, declined significantly from about 2% in 1985-87 to 0.4% in 2007-08 (**Table 144 & Fig. 25**). The prevalence of Bitot spots ranged from a low of about 0.1% in Karnataka, Maharashtra, Gujarat and Orissa to a high of about 1.2% in Madhya Pradesh, and about 1% Andhra Pradesh and Kerala.

Fig. 25 PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS OF PRESCHOOL CHILDREN : TIME TRENDS



School age children (5-12 years)

Among boys, in general, the prevalence of various nutritional deficiency signs declined, over the period (**Table 145**). The prevalence of Bitot Spots declined from about 5.6% in 1985-87 to about 1.9% during 2007-08. Similarly, the prevalence of angular stomatitis decreased 6.4% to 1.2% during the corresponding period. The prevalence of rest of the clinical signs remained essentially similar.

In case of girls, except for dental caries, the prevalence of all the nutritional deficiency signs declined over the period. The prevalence of Bitot spots decreased

from 3% in 1985-87 to 1.1% in 2007-08. Similarly, the prevalence of angular stomatitis also decreased from 4% to 0.9% during the corresponding period (**Table 146**).

Adolescent Boys and Girls (12-17 years)

Among adolescent boys, the prevalence of various nutritional deficiency signs declined over the period, while that of dental caries and goitre remained same. The prevalence of Bitot Spots declined from 4.2% to 0.7%, angular stomatitis declined from 3.7% to 0.8%, while that of phrynoderma declined from 2.3% to 0.3% during the period (**Table 147**).

Among adolescent girls too, the prevalence of various nutritional deficiency signs declined over the period, while that of dental caries increased marginally. The prevalence of Bitot Spots declined from 1.8% to 0.4%, angular stomatitis declined from 2.9% to 1.0%, while that of phrynoderma declined from 1.9% to 0.6% during the period (**Table 148**).

Adult Men and Women (≥18 years)

In case of adult men, the prevalence of dental caries declined from 10.3% to 5.9%, dental fluorosis decreased from 7.5% to 0.9%, Bitot spots from 1.6% to 0.1% and phrynoderma from 0.9% to 0.1%, during the period. In case of women, the prevalence of dental caries decreased marginally from 12.7% to 10.7%, phrynoderma from 3.6% to 0.9% and that of angular stomatitis from 2.7% to 0.9% during the period (**Table 149-150**).

5.8.3.2. Anthropometry

The mean anthropometric measurements of height, weight, mid upper arm circumference (MUAC) and fat fold at triceps (FFT) are presented according to age and sex by State in **Annexure 1-18**. There was a marginal increase in various anthropometric measurements, especially among children of school age and adolescents in different States. The distance charts for heights, and weights are presented in **Figs. 26-34**. The measurements were lower than the mean NCHS standards in all the age and sex groups.

FIG. 26 DISTANCE CHARTS FOR HEIGHTS AND WEIGHTS OF MALES AND FEMALES - KERALA

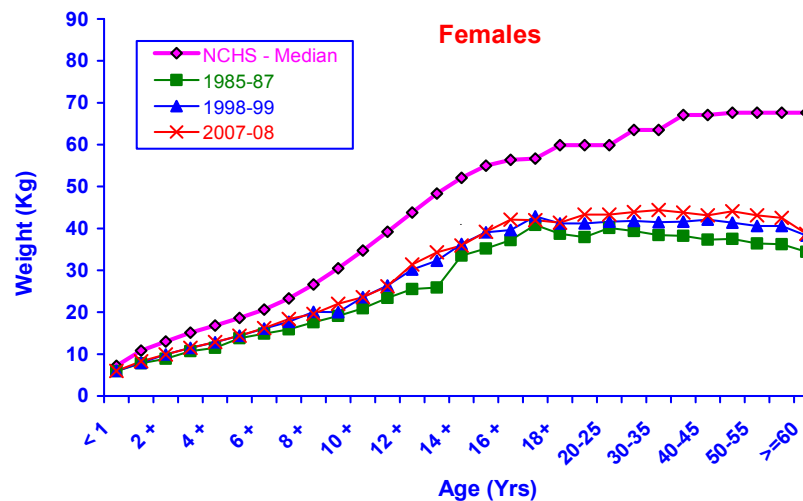
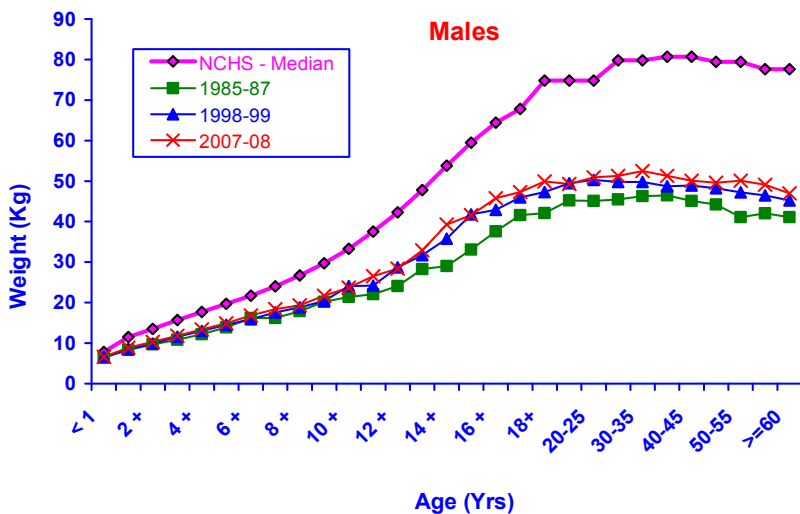
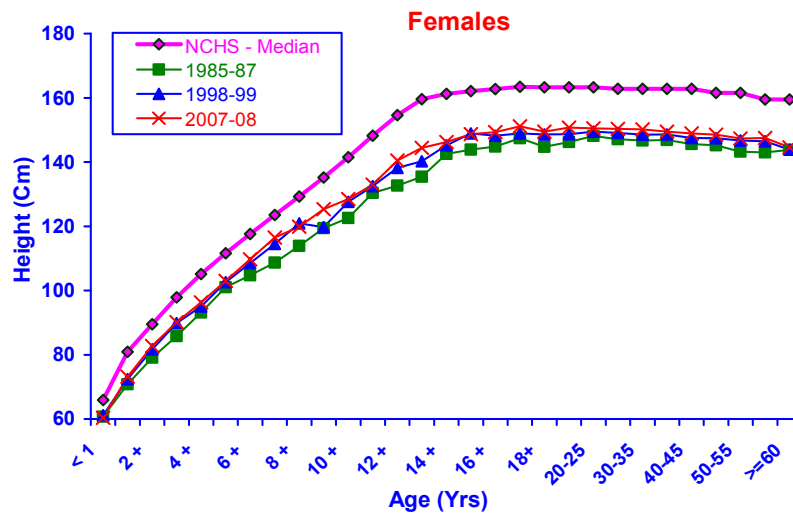
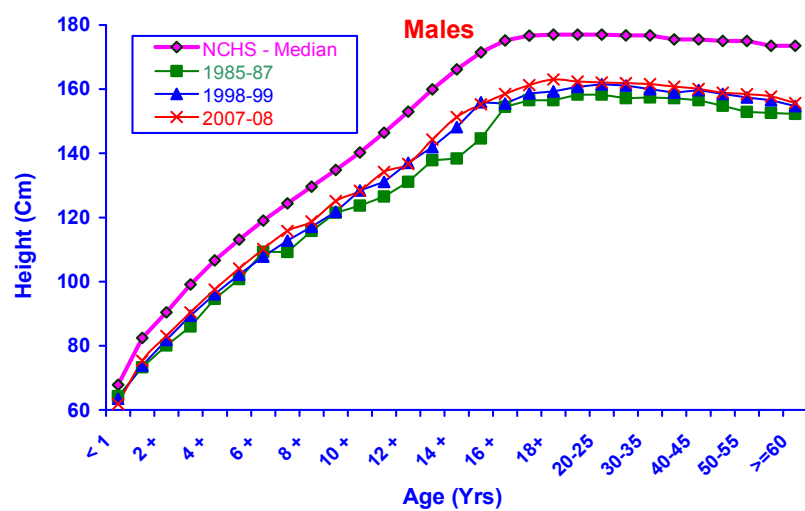


FIG. 27 DISTANCE CHARTS FOR HEIGHTS AND WEIGHTS OF MALES AND FEMALES - TAMIL NADU

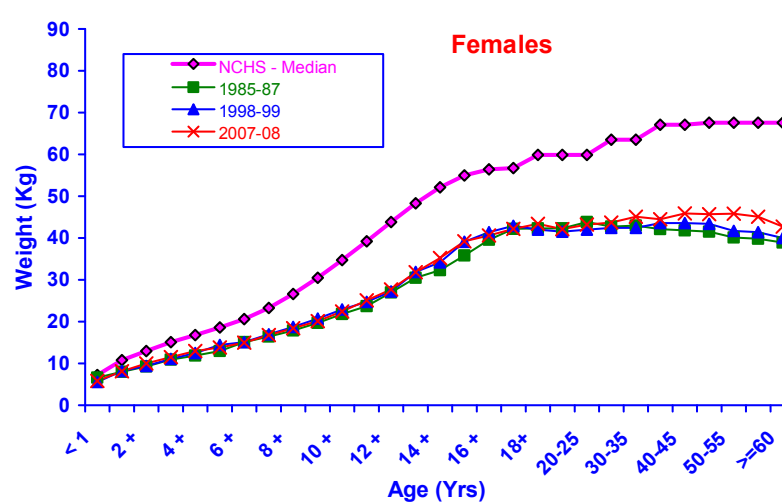
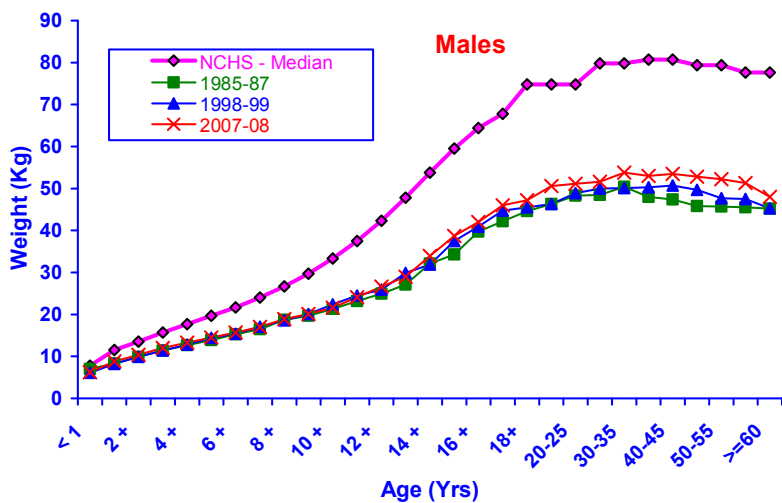
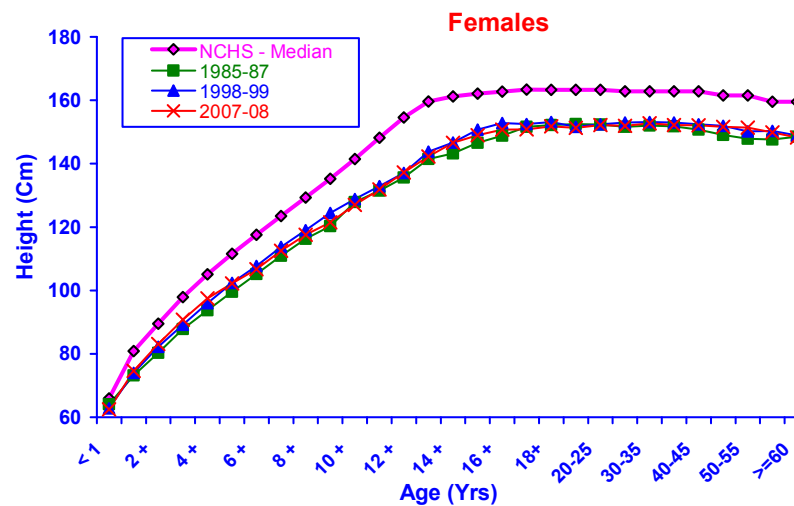
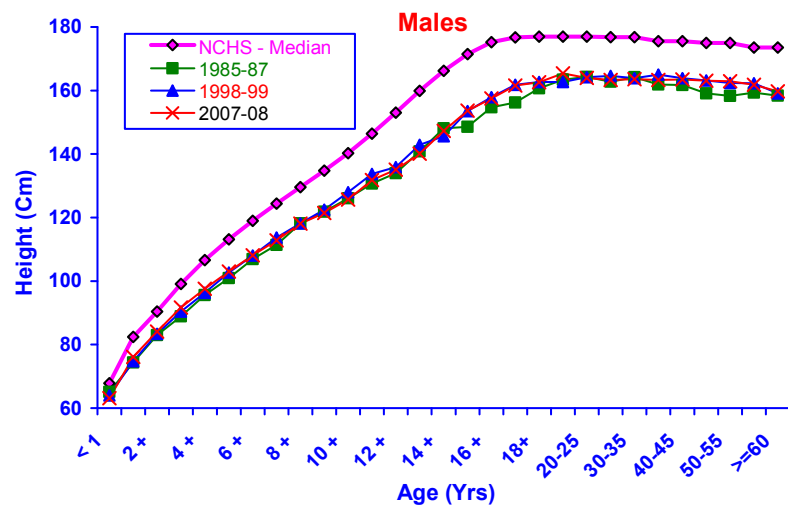


FIG. 28 DISTANCE CHARTS FOR HEIGHTS AND WEIGHTS OF MALES AND FEMALES - KARNATAKA

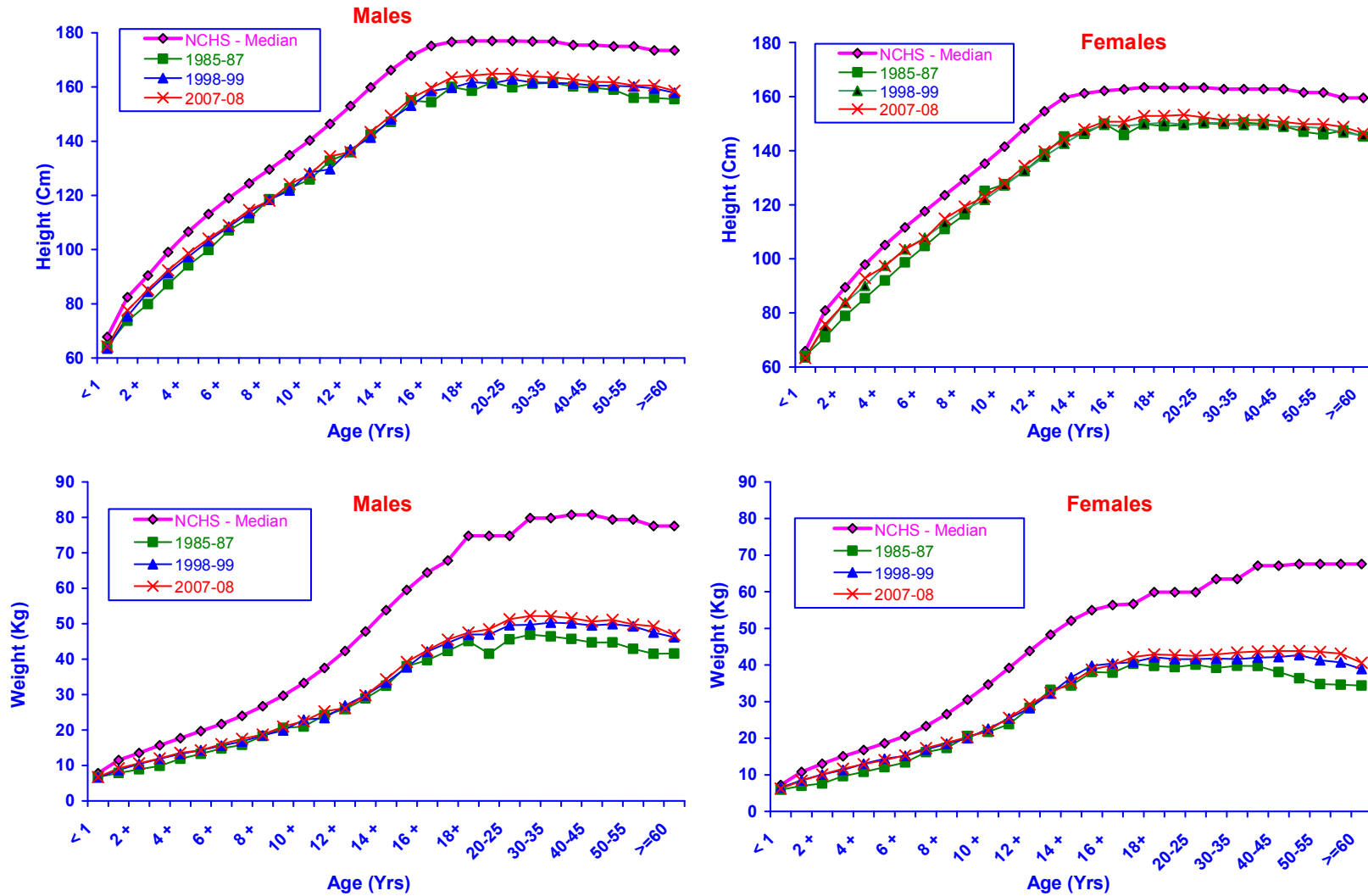


FIG. 29 DISTANCE CHARTS FOR HEIGHTS AND WEIGHTS OF MALES AND FEMALES - ANDHRA PRADESH

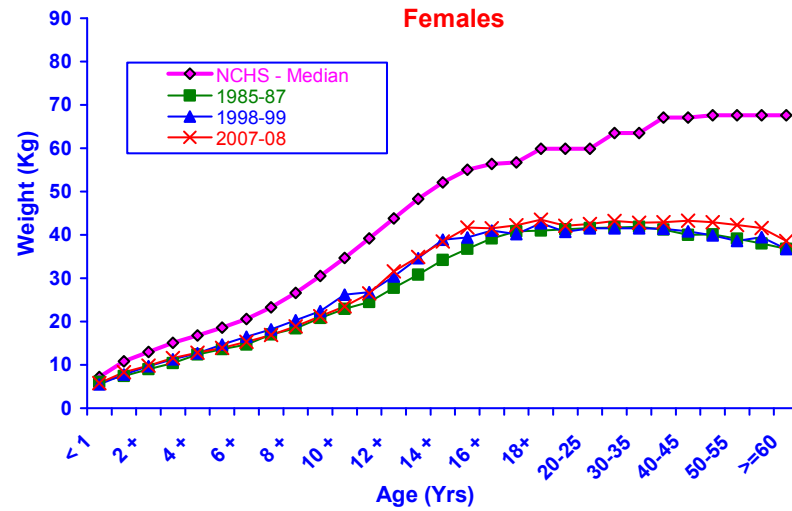
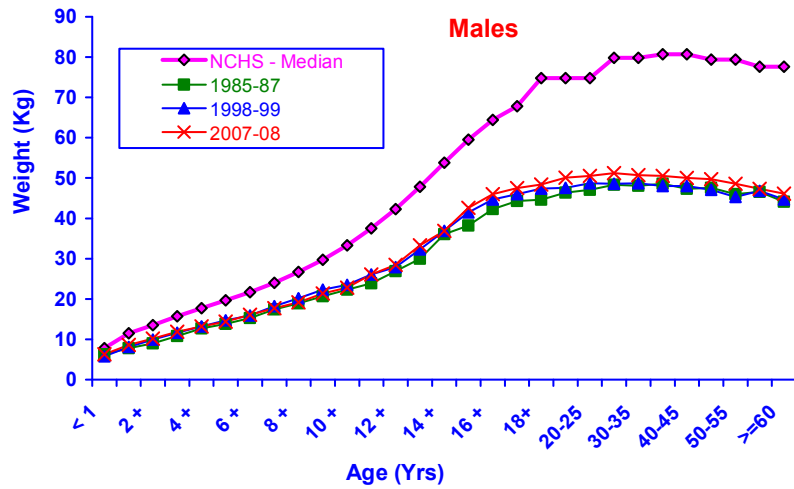
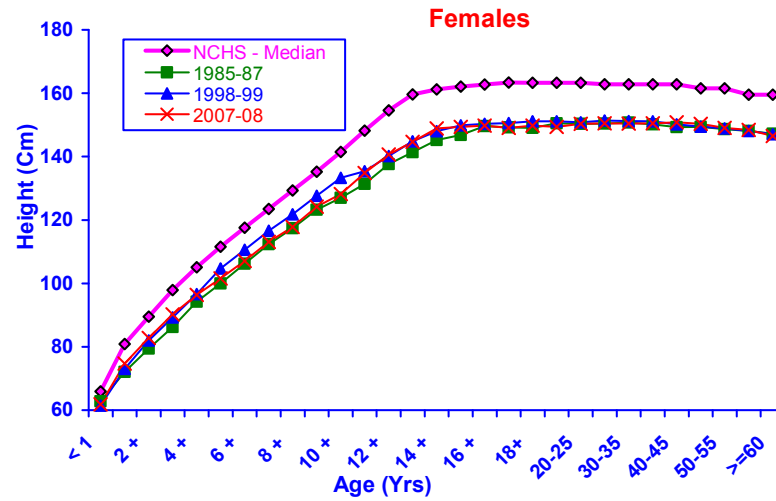
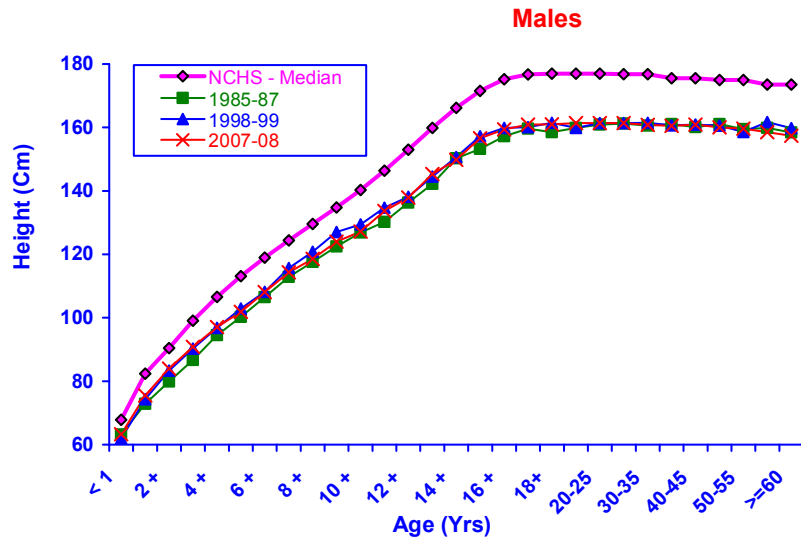


FIG. 30 DISTANCE CHARTS FOR HEIGHTS AND WEIGHTS OF MALES AND FEMALES - MAHARASHTRA

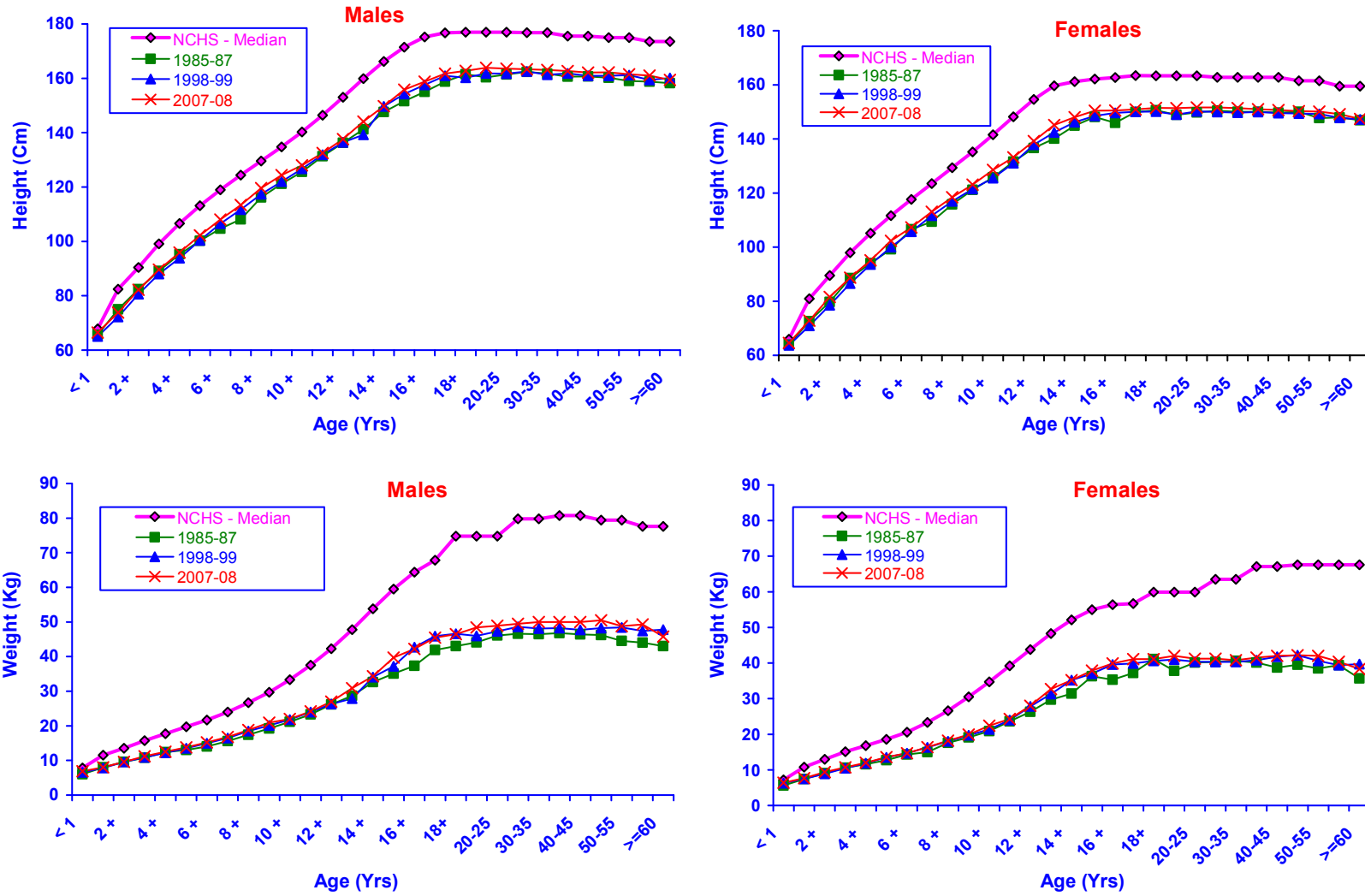


FIG. 31 DISTANCE CHARTS FOR HEIGHTS AND WEIGHTS OF MALES AND FEMALES - GUJARAT

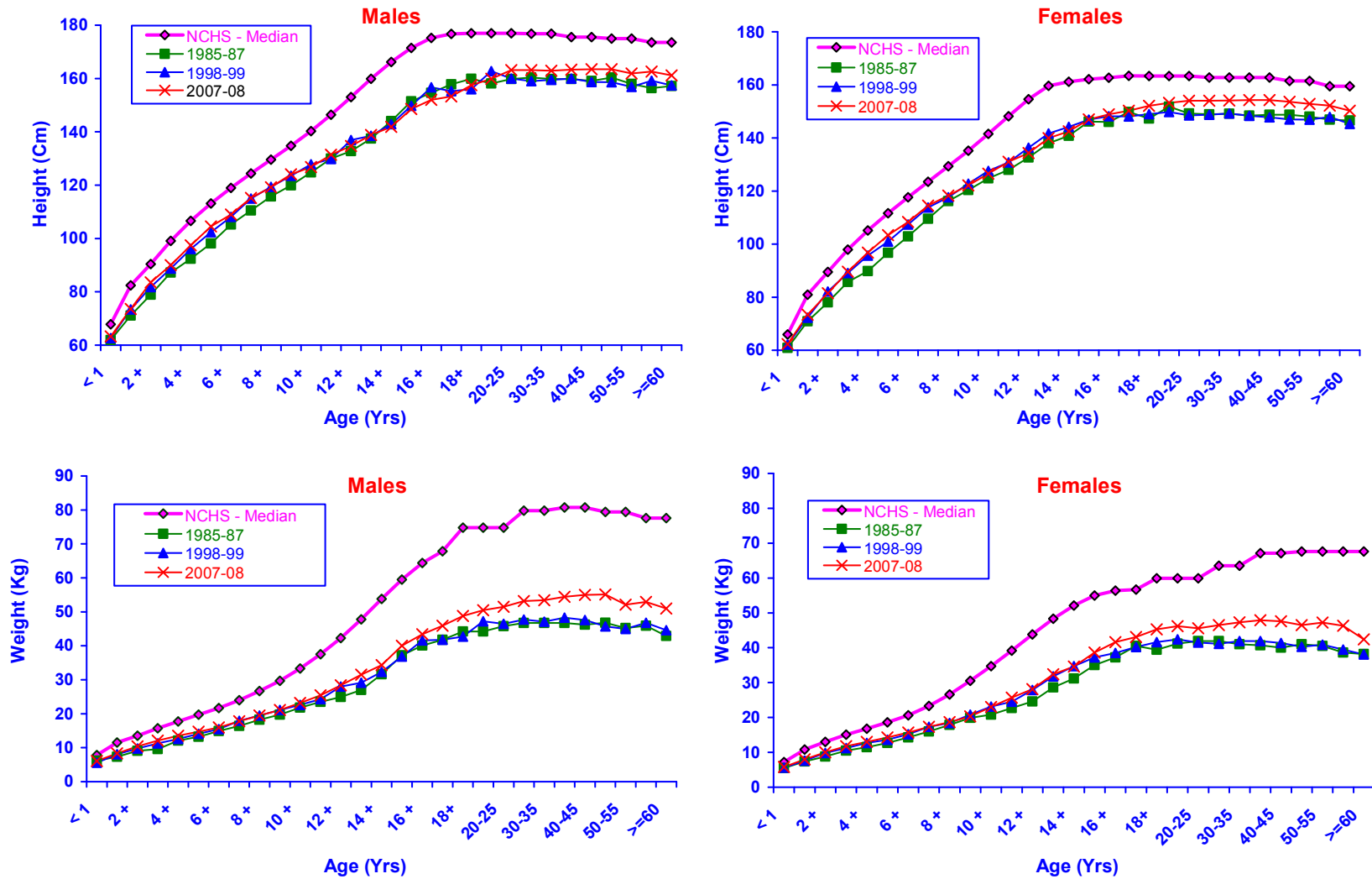


FIG. 32 DISTANCE CHARTS FOR HEIGHTS AND WEIGHTS OF MALES AND FEMALES - MADHYA PRADESH

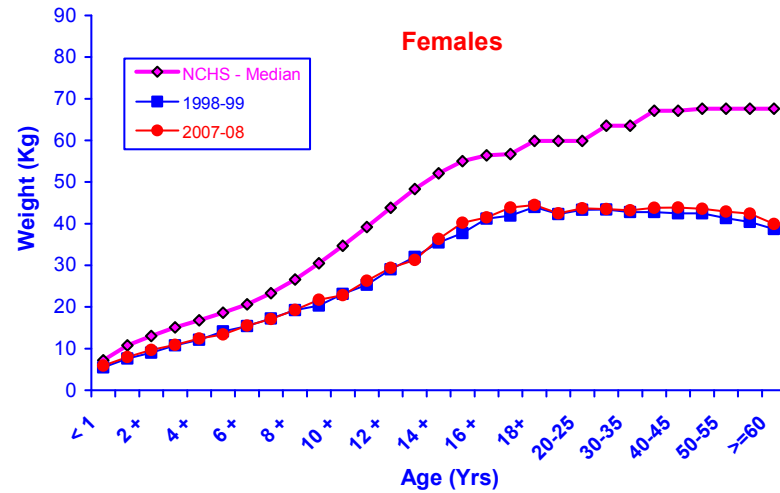
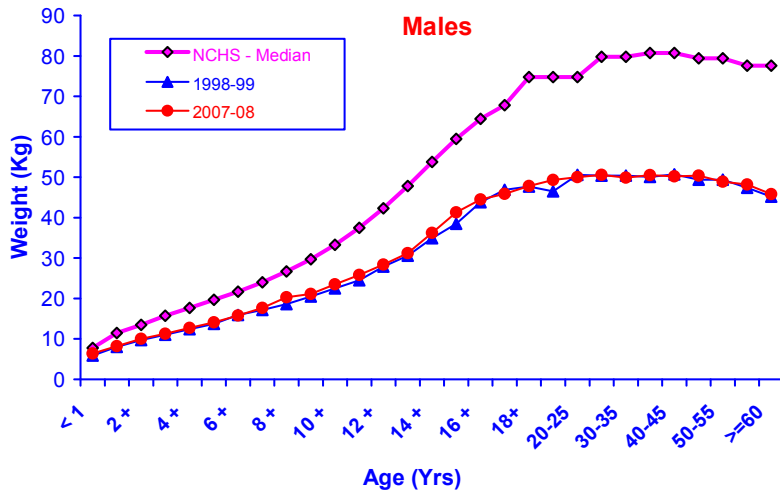
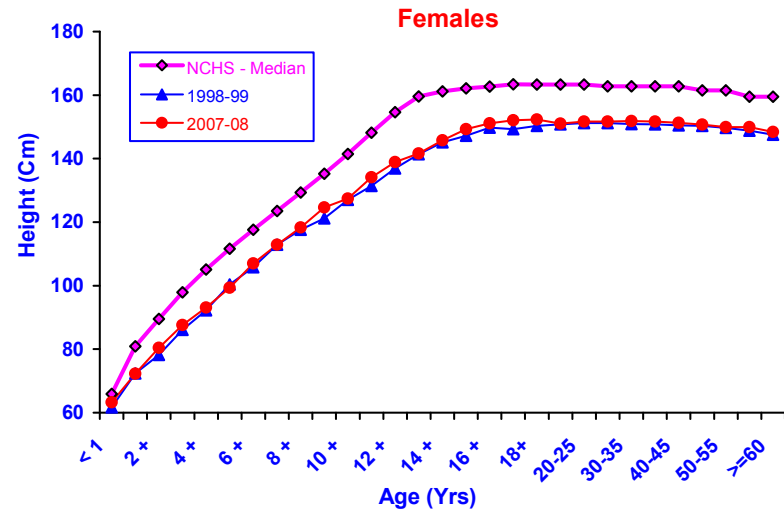
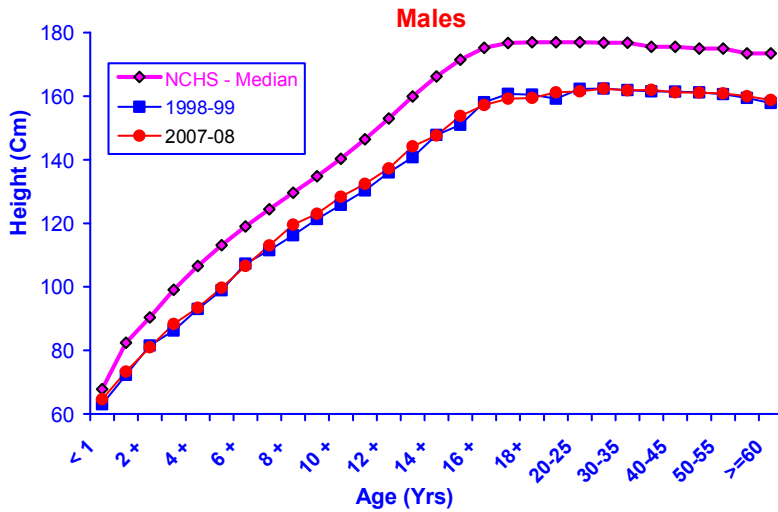


FIG. 33 DISTANCE CHARTS FOR HEIGHTS AND WEIGHTS OF MALES AND FEMALES - ORISSA

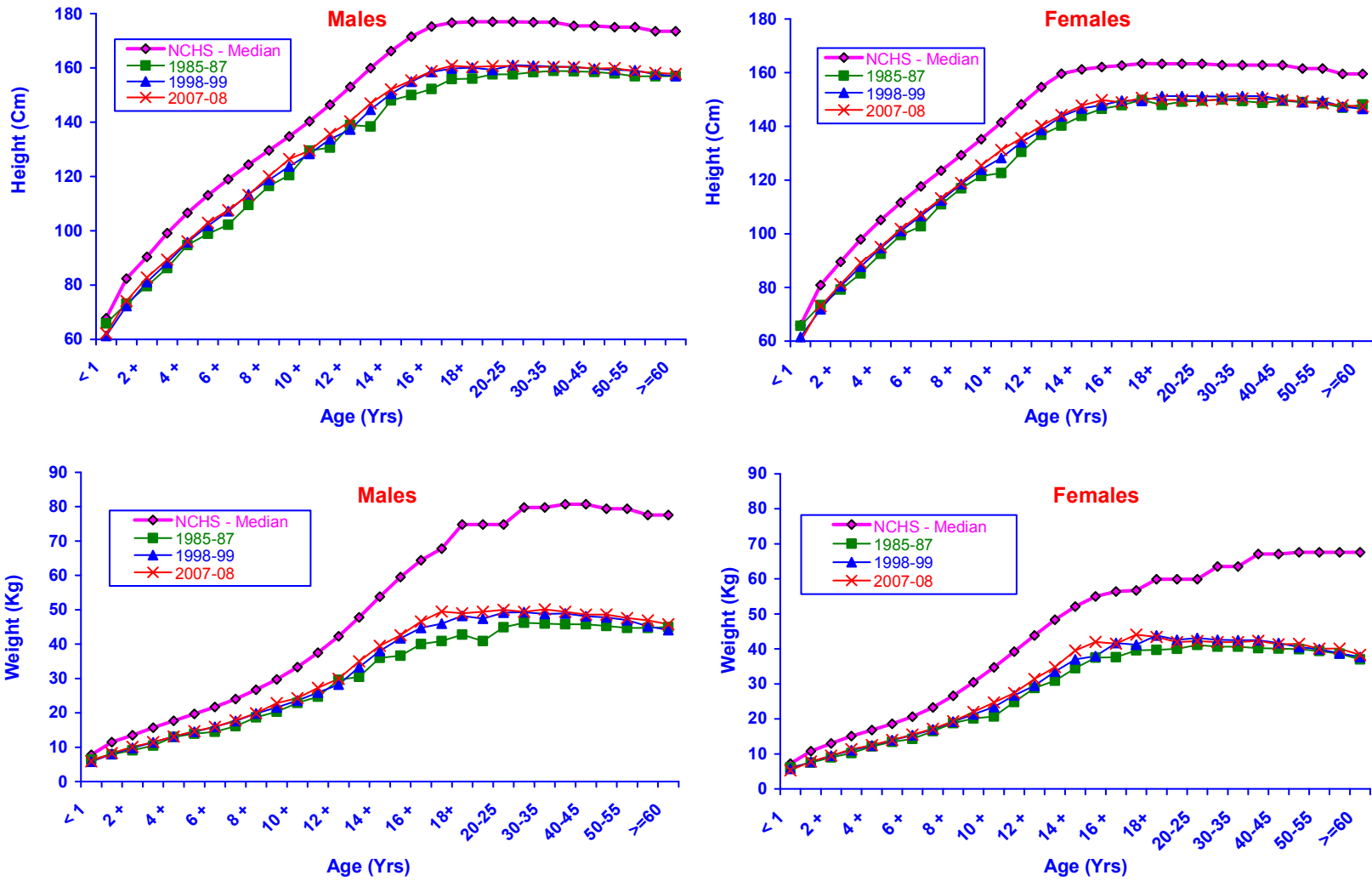
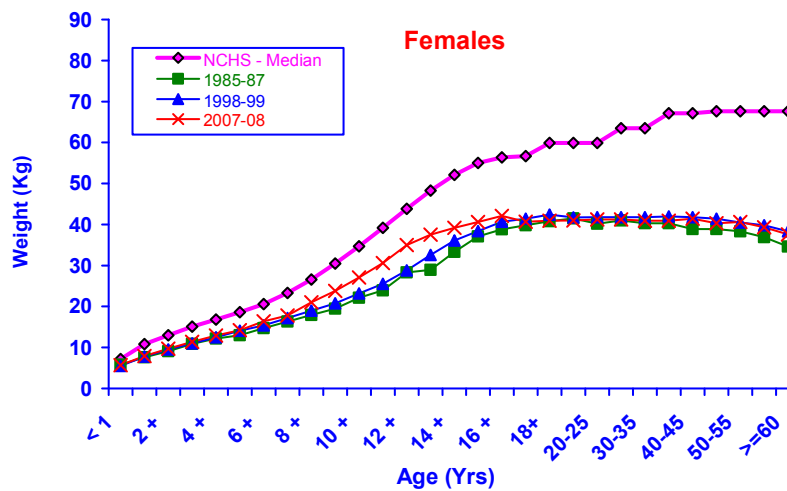
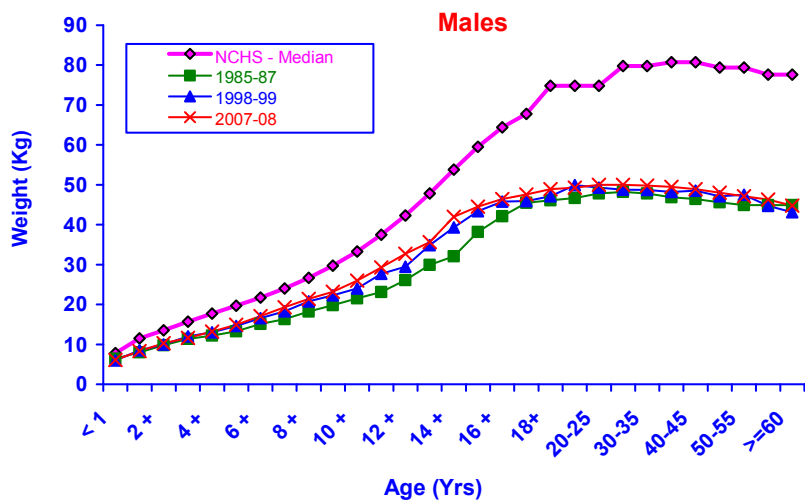
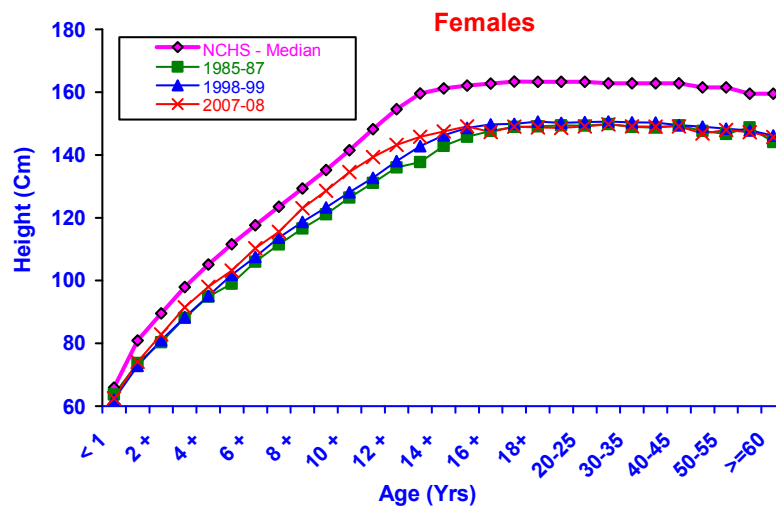
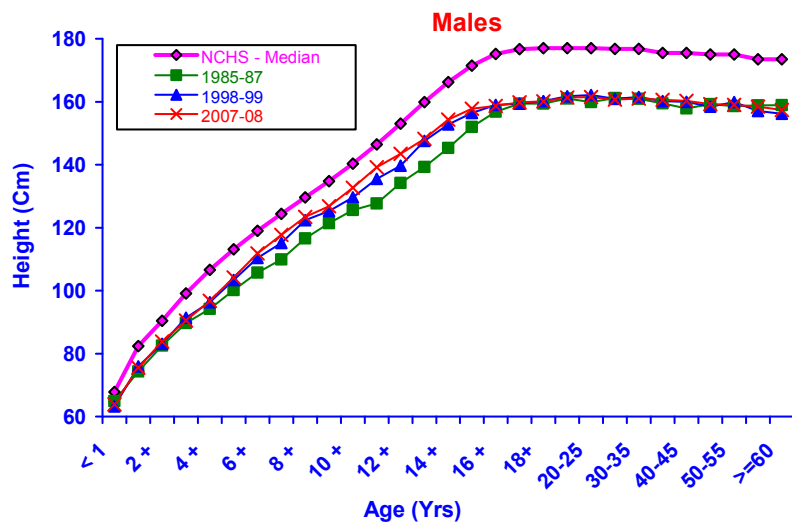


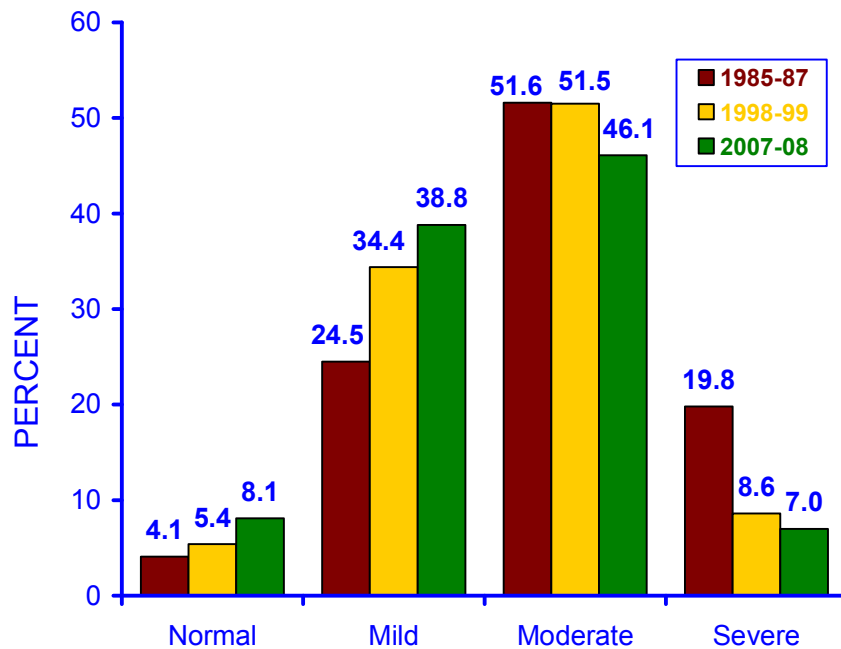
FIG. 34 DISTANCE CHARTS FOR HEIGHTS AND WEIGHTS OF MALES AND FEMALES - WEST BENGAL



Pre-school children
Gomez classification

The weights of pre-school children were expressed as percent of NCHS standards and categorized into different nutritional grades, based on Gomez classification (Tables 151-153 & Fig.35), for the period 1985-87 to 2007-08 to facilitate comparison with earlier data.

Fig. 35 DISTRIBUTION (%) OF CHILDREN (1-5 Yrs.) ACCORDING TO GOMEZ CLASSIFICATION : TIME TRENDS



The overall prevalence of severe undernutrition (<60% weight for age of NCHS) declined significantly from about 19% in 1985-1987 to about 7% in 2007-08, with concomitant increase in the prevalence of mild undernutrition (24.7% to 38%). There was an increase in the prevalence of normal from about 4% to 8% during the period. The reduction in the prevalence of severe undernutrition was observed in all the States and among both sexes and the reduction of severe undernutrition was relatively high in the States of Karnataka (from about 33% to 3%).

SD Classification

The prevalence of underweight, stunting and wasting during different time periods using WHO child growth standards for the periods 1998-99 to 2007-08 is

presented in **Tables 154-156**. It was observed that the prevalence of underweight (57% to 52%), stunting (58% to 56%) and wasting (23% to 22%) had declined significantly during the periods 1998-99 to 2007-08.

School age children and Adolescents

The prevalence of undernutrition, based on age/sex specific BMI centile (WHO reference values) by SD classification among 6-9, 10-13 & 14-17 year boys and girls are presented in **Tables 157-162**.

5-9 years Boys & Girls

Among the boys, in general, the prevalence of thinness (BMI<Median-2SD) remained same (about 38%), a significant increase was observed in the State of Maharashtra (by about 11%), and decrease in the States of Tamil Nadu (by about 8%) and Madhya Pradesh (by about 7%). The proportion of normal and overweight/obese children remained similar, over the period (**Table157**).

In contrary, among girls, the prevalence of thinness in general increased significantly (by about 5%), over the period, with concomitant decrease in the proportion of normal (by about 4%) (**Table 158**). The extent of increase in thinness was relatively higher in the State of Maharashtra (by about 15%), followed by Karnataka (by about 8%), Orissa (by about 6%), Kerala (by about 5% each) and Gujarat (by about 4%). The prevalence of overweight/obesity remained similar, over the period.

10-13 years Boys & Girls

There was marginal decrease (by about 2%) in the overall prevalence of thinness among boys. The extent of decline was relatively higher in the State of West Bengal (by about 10%) and Gujarat (by about 8%). However, an increase by about 7% in the prevalence of thinness was observed in the State of Karnataka. The overall prevalence of overweight/obesity, though low, doubled during the period (0.7 to 1.3%). The extent of increase was relatively higher in the State of Gujarat (1.1 to 3.5%) (**Table159**).

The nutritional status of girls remained essentially similar, during the period. However, there was considerable decrease in the prevalence of thinness in the State of West Bengal (by about 16%), and increase in the States of Karnataka (by about 11%) and Kerala (by about 8%) (**Table 160**).

14-17 years Boys & Girls

The overall prevalence of thinness among boys decreased, by about 10%. The extent of decline was relatively higher in the State of Gujarat (by about 27%), followed by Madhya Pradesh (by about 13%), and Orissa (by about 9%). In contrast,

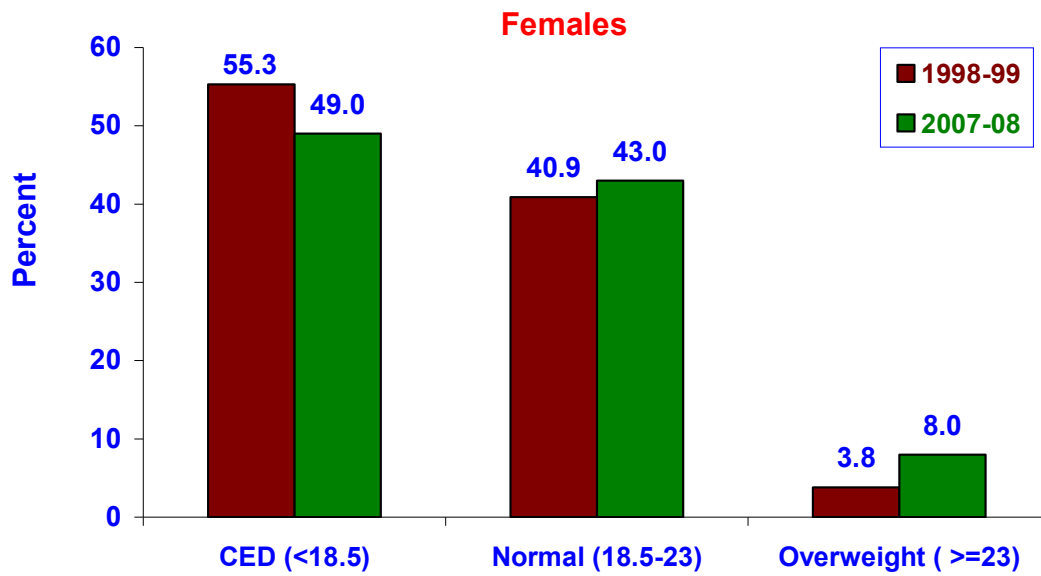
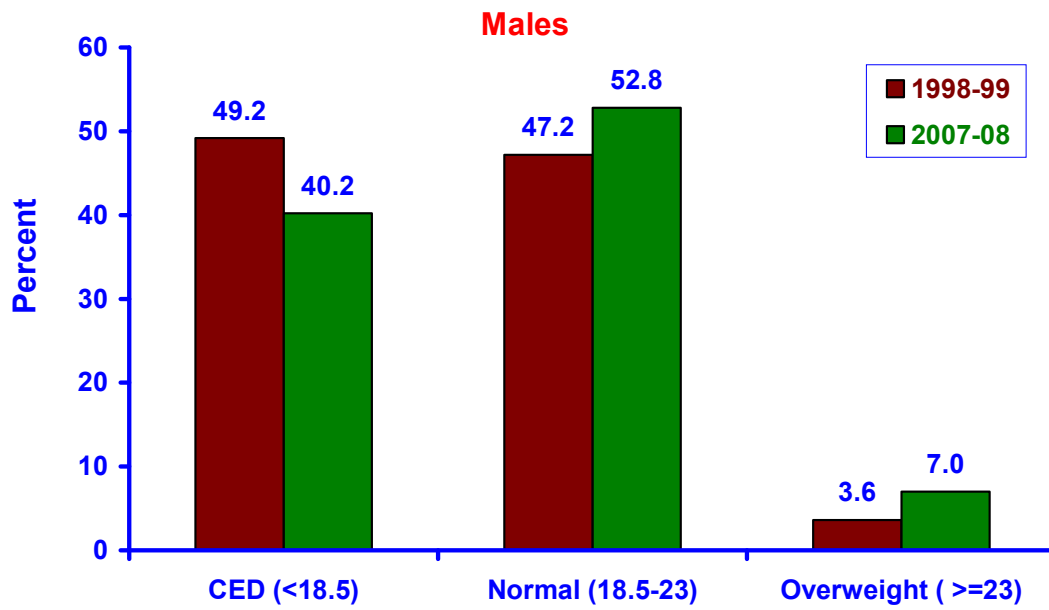
the prevalence increased in the State of Karnataka (by about 7%). The overall prevalence of overweight/ obesity, though low, doubled during the period (0.4 to 0.8%) **Table 161**).

Among girls, the prevalence of thinness decreased marginally (by about 2%), with concomitant increase of 'normal'. The decrease was considerable in the States of Gujarat and Orissa (by about 10%), followed by Madhya Pradesh (8%) and Andhra Pradesh (7%), with an increase of about 13% in the State of Karnataka. **(Table 162)**.

Adults

The prevalence of chronic energy deficiency (CED) among men declined from about 49% in 1998-99 to 40% in 2007-08, while among women, it declined from about 55% to 49% during the corresponding period **(Tables 163-164 & Fig. 36)**. The prevalence of overweight/obesity (BMI \geq 23) increased from 3.6% to 7% among men and from about 4% to 8% among women, during the same period.

Fig.36 DISTRIBUTION (%) OF ADULTS BY BMI GRADES AND YEARS



6. DISCUSSION

The second repeat survey was carried out by NNMB during 2007-08, in order to assess the current diet and nutritional status and time trends from 1985-87 in the dietary intakes and nutritional status of the tribal population in the ITDA areas of nine States. In view of the emerging problem of over-nutrition, assessment of prevalence of overweight and obesity and hypertension among adult men and women (≥ 20 years) was also carried out.

The study revealed that there was an improvement in some demographic variables such as proportion of kutchha houses had declined from 40% to 27%, pucca houses has increased from 0.8% to 5%, major occupation of head of HH (owner cultivators Men: 13% vs 25%), while proportion of land less HHs has slightly increased (35% vs 39%), over the periods from 1998-99³ to 2007-08. The average intake of foods and nutrients of the households as well as individuals were compared with the RDA as well as that reported during baseline and first repeat survey carried out during 1985-87 and 1998-99³ to study the time trends.

It was observed that, in general, the overall intake of various foods were less than RDI. The average intake of cereals and millets, green leafy vegetables and roots and tubers was more than RDI only in West Bengal and that of pulses were more than RDI only in Maharashtra and Gujarat. Similarly, the average intakes of all the nutrients, except for thiamine and vitamin C were less than RDA. Intakes of calcium, vitamin A, thiamine and vitamin C were above RDA in Orissa State as was observed in rural survey (2005-06)²².

Cereals and millets formed the bulk of the diets in all the States. The intake of protective / income elastic foods such as green leafy vegetables, milk and milk products and fats & oils were well below the recommended levels. The inadequacy was more among younger age groups.

The extent of dietary energy and proteins inadequacy was more pronounced, reiterating the fact that, it is essentially 'food gap'. The intakes of various micronutrients, specifically that of iron, vitamin A, riboflavin and folic acid was grossly inadequate, which is in consonance with inadequate intake of protective foods.

The average intake of all nutrients, barring thiamine, niacin and vitamin C declined over the period (1998-99)³ to 2007-08 in all the states, while in Gujarat, except for Vitamin A and riboflavin, all other nutrients have increased over the periods. The intake of most of the nutrients declined in Tamil Nadu, Karnataka, Andhra Pradesh and Maharashtra, Orissa and West Bengal during the same period³.

The proportion of tribals of different age groups consuming less than 70% of protein and energy was observed to be higher compared to their rural counterparts²². Only about 29-32% of children of different age groups and 63-74% among adult men and women were consuming diets that were adequate in both protein and energy. The proportion of individuals with protein-calorie adequacy decreased among all the age groups, over the period.

The prevalence of clinical forms of protein-energy malnutrition and vitamin deficiency signs like Bitot spots and angular stomatitis declined over the period (1998-99)³ to (2008-09). The distance charts revealed that there was marginal improvement in the weights and heights of individuals of different age groups and both the genders over the period, but continued to be lower than the median NCHS values.

Though the overall prevalence of underweight, stunting and wasting (WHO standards) among 1-5 year tribal children was higher (52%, 55% & 22% vs 43%, 49% & 19% respectively), compared to their rural counterparts, but was lower than the previous survey carried out in 1998-99³ (57%, 58% & 23% respectively).

Similarly the overall prevalence of severe underweight (weight for age <Median-3SD) had also declined from 23% in 1998-99³ to 20% in 2007-08, severe stunting decreased from 31% to 26%, while the prevalence of severe wasting, has declined marginally from 7% to 6% (NNMB 1998-99)³. Thus, it was concluded that the improvement in the nutritional status of preschool children was only marginal. The prevalence of under-nutrition was higher among 1-3 year children as compared to 3-5 year children as was observed in other studies²³.

The prevalence of chronic energy deficiency (BMI<18.5) had decreased by about 9% in adult men and by about 6% in adult women during 1998-99³ to 2007-08, while the prevalence of overweight/obesity (BMI \geq 23) had increased from 3.6% to 7% among men and 4% to 8% among women during the same period which is lower than the rural counterparts (men 17%, women 20%)²².

The marginal improvement in the nutritional status of the individuals, despite a decline in the food and nutrient intake, could be attributed to non-nutritional factors such as improvement in access to safe drinking water, better out-reach of health care services coupled with improvement in socio-economic conditions.

The prevalence of hypertension among adults tribal population, as per JNC VII Criteria was 25% among men and 23% among women, which was comparable to that reported for rural adults²². Study carried out among tribal population of aboriginal

Nicobarees during 2010 reported very high (50%) prevalence of hypertension²⁴. Prevalence of hypertension increases with age and was higher among elderly population as observed in other studies^{24,25}. Awareness of hypertension was however very low (8.4%) among adult tribal population which is similar with other studies^{25, 26}. It was also observed that the prevalence of hypertension was higher in the State of Kerala and Orissa as observed by other studies in Kerala²⁷⁻²⁹.

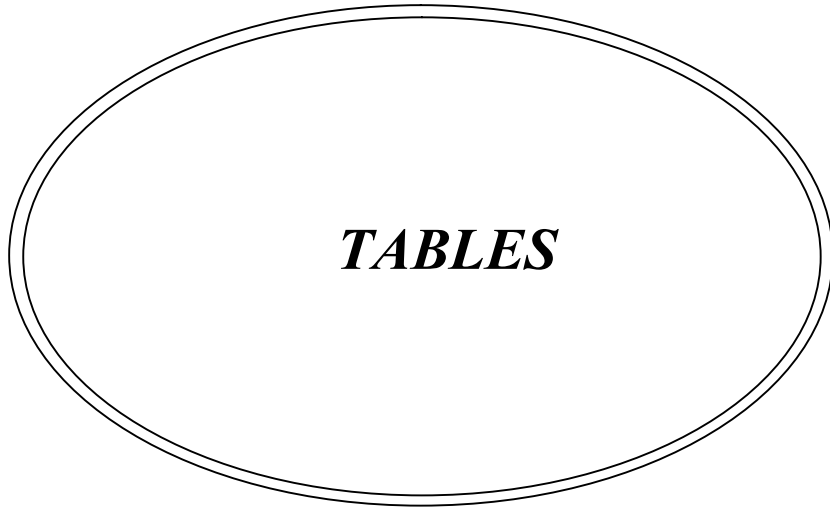
About 38% men and 33% women were aware of diabetes mellitus. Of them about <1% were known diabetics. About 68% of men and 33% of women were tobacco smokers and among men, the proportion ranged from about 55% in 20-30 year to 78% in 50-70 years age group. About 4-8% of adults also were using tobacco in the form of snuff, while 11-17% was tobacco chewers. The proportion of alcohol consumption was significantly higher among tribal men (59%) compared to women (14%). Daily consumption of alcohol was reported by about 13-15% men and women.

In conclusion, undernutrition is still an important public health problem in tribal children and needs urgent strengthening of nutrition intervention and other programmes focussed towards food and nutrient security among the population. Also prevalence of hypertension is increasing and is significantly higher among tribal adult population of Orissa and Kerala state and low level of awareness about the disease. So increasing awareness about the condition by health education and controlling further increase by early diagnosis and prompt treatment to prevent consequences due to hypertension such as cardiovascular diseases, peripheral vascular diseases, kidney diseases etc. IEC activities needed to be strengthened in these areas.

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TABLES

TABLE 1: STATE – WISE PARTICULARS OF SAMPLE COVERAGE

State	No. of Villages surveyed 2007-08	Diet Survey						Nutrition Assessment (No. of individuals)			Blood Pressure (≥20 years)
		No. of Households			No. of individuals			1985-1987	1998-1999	2007-08	2007-08
		1985-1987	1998-1999	2007-08	1985-1987	1998-1999	2007-08	1985-1987	1998-1999	2007-08	2007-08
Kerala	120	330	1140	1197	1156	3914	3798	2262	8598	10567	4193
Tamil Nadu	120	170	956	1162	656	3340	4055	2047	10647	12487	6507
Karnataka	120	270	801	1065	1096	3597	4515	3361	11283	11606	6487
Andhra Pradesh	120	900	739	1188	3620	2458	4385	11877	9371	14931	7480
Maharashtra	120	300	940	1175	1129	4046	5628	4833	9325	14659	4348
Gujarat	120	820	950	1197	3255	3489	5143	6872	9030	15496	6185
Madhya Pradesh	120	-	799	1186	-	4147	5692	-	11174	10769	4879
Orissa	120	400	1084	1195	1890	4690	5352	5656	14007	15377	2859
West Bengal	72	270	627	712	1222	2342	2939	4668	7450	9221	4472
Pooled	1032	3460	8036	10077	14324	32023	41507	41576 (13820)	90885 (30390)	115113 (40359)	47410

Figures in parenthesis indicate No. of Households Covered.

Table 2 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY RELIGION

State	N	Religion			
		Hindu	Muslim	Christian	Others
Kerala	4799	98.8	0	1.2	0.0
Tamil Nadu	4697	100.0	0	0.0	0.0
Karnataka	4331	100.0	0	0.0	0.0
Andhra Pradesh	4774	96.6	0	3.4	0.0
Maharashtra	4735	99.1	0	0.9	0.0
Gujarat	4799	100.0	0	0.0	0.0
Madhya Pradesh	4542	100.0	0	0.0	0.0
Orissa	4806	93.5	0	6.5	0.0
West Bengal	2876	35.3	0	3.3	61.4
Pooled	40359	93.9	0	1.7	4.4

Table 3 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY TYPE OF HOUSE

State	N	Type of House		
		Kutcha	Semi Pucca	Pucca
Kerala	4799	13.7	75.9	10.4
Tamil Nadu	4697	32.0	47.8	20.2
Karnataka	4331	3.4	94.0	2.6
Andhra Pradesh	4774	42.6	49.0	8.4
Maharashtra	4735	6.1	93.6	0.3
Gujarat	4799	39.6	60.0	0.4
Madhya Pradesh	4542	21.3	78.4	0.3
Orissa	4806	42.5	57.0	0.5
West Bengal	2876	39.3	59.5	1.2
Pooled	40359	26.5	68.4	5.1

Table 4 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY TYPE OF FAMILY

State	N	Type of Family		
		Nuclear	Joint	Extended
Kerala	4799	87.1	10.8	2.1
Tamil Nadu	4697	78.3	13.1	8.6
Karnataka	4331	75.5	16.4	8.1
Andhra Pradesh	4774	73.0	18.1	8.9
Maharashtra	4735	62.7	15.6	21.7
Gujarat	4799	69.0	14.0	17.0
Madhya Pradesh	4542	68.1	16.2	15.7
Orissa	4806	61.7	23.1	15.2
West Bengal	2876	60.2	23.1	16.7
Pooled	40359	71.1	16.4	12.5

Table 5 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY LITERACY STATUS OF MALE HEAD OF THE HOUSEHOLD

State	N	Literacy Status					
		Illiterate	Read & Write	1-4 std.	5-8 std.	9-12 std.	College
Kerala	4799	41.5	1.1	25.2	14.3	17.5	0.4
Tamil Nadu	4697	59.9	0.4	5.7	22.4	10.6	1.0
Karnataka	4331	43.5	2.3	16.9	24.1	11.0	2.2
Andhra Pradesh	4774	69.6	0.8	4.7	13.4	9.8	1.7
Maharashtra	4735	58.0	0.3	15.8	12.2	12.3	1.4
Gujarat	4799	39.8	9.1	35.3	11.9	3.1	0.8
Madhya Pradesh	4542	54.3	0.2	9.4	25.4	6.6	4.1
Orissa	4806	61.6	0.2	9.0	14.9	11.8	2.5
West Bengal	2876	77.4	2.0	4.6	6.6	8.8	0.6
Pooled	40359	55.4	1.8	14.5	16.4	10.3	1.6

Table 6 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY LITERACY STATUS OF ADULT WOMEN

State	N	Literacy Status					
		Illiterate	Read & Write	1-4 std.	5-8 std.	9-12 std.	College
Kerala	4798	44.1	0.7	19.2	13.2	21.9	0.9
Tamil Nadu	4694	70.4	0.1	4.0	17.3	7.5	0.7
Karnataka	4331	44.6	2.0	13.8	24.8	13.0	1.8
Andhra Pradesh	4774	78.3	0.2	4.3	9.6	6.2	1.4
Maharashtra	4735	77.4	0.2	7.3	9.1	5.6	0.4
Gujarat	4799	42.7	7.0	34.5	14.1	1.5	0.2
Madhya Pradesh	4542	78.5	0.2	4.2	14.3	2.2	0.6
Orissa	4806	80.1	0.1	4.2	8.3	6.2	1.1
West Bengal	2876	85.5	1.1	3.8	6.1	3.2	0.3
Pooled	40355	66.2	1.3	10.9	13.2	7.6	0.8

Table 7 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY MAJOR OCCUPATION OF THE HEAD OF HOUSEHOLD

State	n	Major Occupation							
		Landless Agri. Labourer	Other Labourer	Owner Cultivator	Owner + Tenant Cultivator	Artisans	Service	Business	Others
Kerala	4799	2.7	76.5	5.4	0.0	0.8	4.1	1.0	9.5
Tamil Nadu	4697	60.7	18.0	6.5	0.1	4.0	4.4	1.7	4.6
Karnataka	4331	3.3	65.4	14.8	0.1	2.3	6.3	2.1	5.7
Andhra Pradesh	4774	29.6	21.8	36.8	0.9	1.1	4.0	1.0	4.8
Maharashtra	4735	29.7	18.2	42.4	2.0	0.6	3.4	1.1	2.6
Gujarat	4799	44.8	8.0	40.3	0.3	0.0	2.7	0.1	3.8
Madhya Pradesh	4542	2.8	58.1	33.6	0.6	0.9	2.7	0.8	0.5
Orissa	4806	0.9	68.0	22.6	0.2	2.6	3.1	1.0	1.6
West Bengal	2876	32.3	39.8	17.0	1.2	0.2	3.5	2.5	3.5
Pooled	40359	22.8	41.3	24.8	0.6	1.4	3.8	1.2	4.1

Table 8 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY LAND OWNERSHIP

State	N	Land (Acres)				
		None	<5	5-10	10-20	≥ 20
Kerala	4797	55.6	44.1	0.3	0.0	0.0
Tamil Nadu	4693	38.1	59.5	2.2	0.2	0.0
Karnataka	4330	32.4	65.8	1.7	0.1	0.0
Andhra Pradesh	4773	24.0	56.5	15.7	3.4	0.4
Maharashtra	4734	43.5	43.6	10.3	2.2	0.4
Gujarat	4799	56.2	42.1	1.6	0.1	0.0
Madhya Pradesh	4542	39.3	50.3	8.2	1.9	0.3
Orissa	4805	22.1	72.7	4.2	0.9	0.1
West Bengal	2876	38.3	60.9	0.8	0.0	0.0
Pooled	40349	38.9	54.8	5.2	1.0	0.1

Table 9 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY FAMILY SIZE

State	N	Family Size			
		1-4	5-7	≥ 8	Average
Kerala	4799	77.6	21.7	0.7	3.6
Tamil Nadu	4697	66.2	32.1	1.7	3.9
Karnataka	4331	52.7	42.4	4.9	4.6
Andhra Pradesh	4774	61.9	34.3	3.8	4.2
Maharashtra	4735	38.0	49.4	12.6	5.2
Gujarat	4799	47.1	45.5	7.4	4.8
Madhya Pradesh	4541	43.1	46.6	10.3	4.9
Orissa	4806	38.6	48.5	12.9	5.2
West Bengal	2876	46.0	43.8	10.2	4.9
Pooled	40358	52.7	40.3	7.0	4.6

Table 10 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY MONTHLY PER CAPITA INCOME

State	N	Per Capita Income (Rs./Month)				
		< 300	300-600	600-900	≥ 900	Average
Kerala	4797	51.6	35.0	7.8	5.6	383
Tamil Nadu	4695	4.8	27.4	27.2	40.6	928
Karnataka	4331	5.2	28.7	28.0	38.1	918
Andhra Pradesh	4774	26.8	43.7	16.6	12.9	558
Maharashtra	4734	47.6	37.6	8.9	5.9	406
Gujarat	4799	17.8	51.8	19.1	11.3	545
Madhya Pradesh	4542	11.3	58.0	20.8	9.9	550
Orissa	4806	78.8	17.1	2.6	1.5	247
West Bengal	2876	28.5	28.7	16.3	26.5	669
Pooled	40354	30.8	36.8	16.2	16.2	569

Table 11 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY SANITARY LATRINE

State	N	Sanitary Latrine	
		Present	Absent
Kerala	4799	44.6	55.4
Tamil Nadu	4697	2.5	97.5
Karnataka	4331	51.6	48.4
Andhra Pradesh	4774	3.7	96.3
Maharashtra	4735	10.8	89.2
Gujarat	4799	5.0	95.0
Madhya Pradesh	4542	2.5	97.5
Orissa	4806	2.2	97.8
West Bengal	2876	6.1	93.9
Pooled	40359	14.4	85.6

Table 12 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY PRESENCE OF SEPARATE KITCHEN

State	N	Separate kitchen	
		Present	Absent
Kerala	4799	88.7	11.3
Tamil Nadu	4697	20.8	79.2
Karnataka	4331	94.5	5.5
Andhra Pradesh	4774	24.8	75.2
Maharashtra	4735	49.6	50.4
Gujarat	4799	56.4	43.6
Madhya Pradesh	4542	45.8	54.2
Orissa	4806	56.1	43.9
West Bengal	2876	21.5	78.5
Pooled	40359	51.9	48.1

Table 13 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY TYPE OF COOKING FUEL BEING USED

State	N	Type of cooking fuel			
		Fire wood	Kerosene	Bio-gas	LPG
Kerala	4799	99.2	0.2	0.0	0.6
Tamil Nadu	4697	98.4	0.4	0.0	1.2
Karnataka	4331	98.4	0.3	0.1	1.2
Andhra Pradesh	4774	97.8	0.4	0.0	1.8
Maharashtra	4735	97.8	0.7	0.1	1.4
Gujarat	4799	99.2	0.7	0.0	0.1
Madhya Pradesh	4542	99.8	0.1	0.0	0.1
Orissa	4806	99.6	0.4	0.0	0.0
West Bengal	2876	99.6	0.3	0.0	0.1
Pooled	40359	98.8	0.4	0.0	0.8

Table 14 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY ELECTRIFICATION OF HOUSE

State	N	Electrification	
		Yes	No
Kerala	4799	41.3	58.7
Tamil Nadu	4697	79.3	20.7
Karnataka	4331	71.1	28.9
Andhra Pradesh	4774	68.7	31.3
Maharashtra	4735	34.9	65.1
Gujarat	4799	92.4	7.6
Madhya Pradesh	4542	69.7	30.3
Orissa	4806	3.7	96.3
West Bengal	2876	10.2	89.8
Pooled	40359	54.0	46.0

Table 15 : PERCENT DISTRIBUTION OF HOUSEHOLDS BY SOURCE OF DRINKING WATER

State	N	Drinking water source				
		Open well	Tube well	Tap	Pond/ Tank	Stream/ River /Canal
Kerala	4799	51.0	0.9	17.4	15.4	15.3
Tamil Nadu	4697	19.1	8.7	68.4	1.6	2.2
Karnataka	4331	53.3	9.7	26.2	1.8	9.0
Andhra Pradesh	4774	22.3	63.4	5.5	2.3	6.5
Maharashtra	4735	41.3	34.1	22	0.8	1.8
Gujarat	4799	11.5	67.2	7.8	8.6	4.9
Madhya Pradesh	4542	30.0	63.1	4.8	0.1	2.0
Orissa	4806	29.5	61.4	1.5	1.5	6.1
West Bengal	2876	33.3	59.4	4.8	0.1	2.4
Pooled	40359	32.1	40.3	18.1	3.8	5.7

Table 16: AVERAGE HOUSEHOLD CONSUMPTION OF FOODSTUFFS (g/CU/DAY)

State		Cereals	Millets	Cereals & Millets	Pulses & Legum.	Green Leafy Veg.	Other Veg.	Roots & Tubers	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=1197)	Mean	329.7	0.2	329.9	19.4	13.0	45.1	73.0	29.4	30.0	3.6	12.3	8.7	10.4
	SD	117.2	4.7	116.9	28.5	39.2	86.0	106.3	48.7	51.3	23.6	39.3	10.2	7.0
Tamil Nadu (n=1162)	Mean	392.6	4.3	397.0	39.2	12.5	35.5	26.7	36.0	0.0	0.7	14.8	12.1	4.2
	SD	83.4	30.4	80.2	29.1	34.0	45.6	28.1	35.9	0.8	9.0	46.3	7.2	6.8
Karnataka (n=1065)	Mean	391.5	2.2	393.7	15.1	13.6	47.3	30.1	30.0	7.0	11.0	41.9	3.6	18.2
	SD	110.1	23.8	111.6	26.7	36.9	65.3	38.4	83.7	24.8	47.6	55.5	5.7	14.1
Andhra Pradesh (n=1188)	Mean	435.3	15.4	450.8	29.2	7.7	38.2	39.9	45.8	4.3	16.3	26.6	14.2	8.4
	SD	139.2	57.9	123.3	32.6	26.4	56.5	41.9	62.8	19.1	41.7	56.3	8.6	11.2
Maharashtra (n=1175)	Mean	290.2	109.4	399.6	48.3	8.0	22.9	18.0	8.7	2.1	2.1	16.4	15.0	20.0
	SD	168.2	158.3	99.5	30.8	25.5	41.0	26.5	32.8	12.4	13.3	33.6	8.4	13.8
Gujarat (n=1197)	Mean	100.3	322.5	426.1	53.5	7.6	65.4	73.7	10.9	0.3	9.7	62.8	14.2	8.0
	SD	157.7	211.4	119.1	64.6	36.9	86.8	80.7	28.0	6.1	38.3	70.1	7.3	11.0
Madhya Pradesh (n=1186)	Mean	298.3	79.4	378.3	26.5	16.6	30.0	34.5	7.9	0.9	1.1	7.2	6.6	4.9
	SD	161.1	141.7	90.5	22.4	34.3	48.0	39.4	15.6	10.3	11.6	23.8	5.5	5.9
Orissa (n=1195)	Mean	452.7	3.0	455.6	20.2	64.9	45.5	44.4	17.1	5.3	5.0	0.9	6.4	2.5
	SD	69.2	26.9	65.2	25.6	73.6	66.1	54.9	46.6	20.9	24.3	7.7	5.4	6.2
West Bengal (n=712)	Mean	609.7	0.8	610.4	10.1	77.7	44.0	86.1	11.1	13.0	6.2	1.8	7.7	3.7
	SD	213.7	14.3	212.7	15.9	108.7	70.0	77.9	42.6	34.8	24.8	19.7	10.6	17.2
Pooled (n=10077)	Mean	354.7	63.4	418.6	30.1	22.3	41.4	45.9	22.3	6.8	6.1	21.2	10.0	9.1
	SD	185.8	147.5	130.9	36.7	54.2	65.6	64.0	49.4	26.0	29.5	48.1	8.7	12.2
RDI				460	40	40	60	50	-	-	-	150	20	30

Table 17: DISTRIBUTION (%) OF HOUSEHOLDS ACCORDING TO DAILY INTAKE OF FOODSTUFFS AS PERCENT RDI

Percent of RDI		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=1197	n=1162	n=1065	n=1188	n=1175	n=1197	n=1186	n=1195	n=712	
Cereals & Millets	<50	17.7	1.3	4.9	1.7	3.1	3.4	3.4	.0	.8	4.2
	50-70	37.2	15.3	21.6	11.7	19.5	14.5	23.3	1.8	4.2	17.1
	≥70	45.1	83.4	73.5	86.6	77.4	82.1	73.4	98.2	94.9	78.7
Pulses	<50	64.2	28.5	74.0	49.5	16.7	46.2	37.0	57.8	77.5	48.7
	50-70	9.4	7.5	8.1	4.4	9.1	0.6	14.3	8.2	10.0	7.8
	≥70	26.4	64.0	17.9	46.1	74.2	53.2	48.7	34.0	12.5	43.5
Green Leafy-Veg	<50	85.4	85.2	83.7	91.2	90.8	95.1	78.9	45.3	54.8	80.0
	50-70	2.3	0.4	1.6	0.8	0.7	0.0	0.8	0.5	0.7	0.9
	≥70	12.3	14.4	14.7	8.1	8.5	4.9	20.3	54.2	44.5	19.2
Other-Veg	<50	62.2	57.6	57.7	59.9	71.5	54.8	66.7	58.2	62.4	61.2
	50-70	6.5	5.8	3.8	2.9	4.1	1.0	4.2	3.3	2.4	3.9
	≥70	31.3	36.7	38.4	37.1	24.4	44.2	29.1	38.5	35.3	35.0
Roots & Tubers	<50	38.2	65.5	67.1	46.5	78.0	42.6	55.5	53.4	29.2	53.7
	50-70	9.6	11.4	8.3	15.1	4.7	2.6	2.9	3.3	2.8	6.9
	≥70	52.2	23.1	24.6	38.5	17.4	54.8	41.7	43.3	68.0	39.4
Milk & Milk Prod.	<50	92.3	93.3	80.9	88.6	95.2	78.9	98.1	99.7	99.2	91.6
	50-70	2.7	2.5	10.5	3.8	2.6	2.8	0.8	0.1	0.4	2.9
	≥70	5.0	4.2	8.5	7.7	2.2	18.2	1.2	0.2	0.4	5.5
Fats & Oils	<50	71.2	44.6	91.5	35.5	25.4	27.8	80.8	79.8	80.9	58.4
	50-70	13.7	28.1	4.7	21.0	24.6	26.2	10.8	12.6	8.7	17.2
	≥70	15.1	27.4	3.8	43.4	50.0	45.9	8.4	7.5	10.4	24.4
Sugar & Jaggery	<50	83.1	93.3	53.3	82.6	38.8	94.0	95.6	94.0	96.8	80.9
	50-70	11.4	4.4	18.3	7.7	19.4	3.5	2.8	3.8	1.0	8.2
	≥70	5.5	2.3	28.4	9.7	41.8	2.5	1.6	2.3	2.2	10.8

Table 18: AVERAGE HOUSEHOLD CONSUMPTION OF NUTRIENTS (CU/DAY)

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=1197)	Mean	36.8	26.1	1639	225	8.7	61.8	0.9	0.4	13.9	25.8	43.4
	Median	40.5	30.0	1702	326	10.0	196.2	1.0	0.4	14.8	45.1	48.0
	SD	19.0	21.1	566	297	6.0	492.5	0.4	0.2	5.1	58.1	22.9
Tamil Nadu (n=1162)	Mean	38.8	15.7	1723	203	8.7	79.3	1.1	0.4	15.8	19.2	47.1
	Median	39.6	17.9	1743	265	11.5	133.3	1.1	0.5	16.0	33.4	47.2
	SD	9.8	10.3	328	188	12.6	271.1	0.9	0.2	9.4	48.4	15.3
Karnataka (n=1065)	Mean	37.2	21.5	1760	234	8.2	74.8	0.9	0.5	13.5	19.0	43.8
	Median	40.9	23.2	1802	336	10.0	267.9	0.9	0.5	13.9	30.6	48.3
	SD	17.7	11.7	492	373	6.0	655.0	0.4	0.2	5.1	39.0	22.4
Andhra Pradesh (n=1188)	Mean	45.7	19.5	1946	228	8.4	87.1	0.6	0.5	10.9	23.2	35.5
	Median	48.5	21.7	2002	311	9.6	197.8	0.7	0.6	11.3	34.0	39.5
	SD	16.5	11.6	478	277	4.8	363.8	0.3	0.2	3.3	37.0	18.7
Maharashtra (n=1175)	Mean	47.2	21.6	1801	192	13.0	64.7	1.1	0.6	11.3	7.9	40.1
	Median	48.9	23.3	1840	287	14.3	133.0	1.2	0.6	11.9	16.0	44.4
	SD	12.9	10.4	397	291	7.8	250.2	0.6	0.2	4.1	22.2	20.2
Gujarat (n=1197)	Mean	61.6	30.0	1988	266	15.6	132.1	1.9	0.7	13.3	30.6	73.8
	Median	67.5	31.1	2034	322	17.5	179.8	1.9	0.8	14.3	42.1	75.0
	SD	30.9	12.1	493	246	10.6	358.6	0.8	0.3	4.9	45.7	31.7
Madhya Pradesh (n=1186)	Mean	41.5	12.2	1533	161	10.4	64.0	0.9	0.5	9.9	15.8	36.7
	Median	42.7	13.3	1550	196	11.8	187.0	1.1	0.5	10.9	26.1	40.4
	SD	13.2	7.3	362	128	6.9	346.8	0.7	0.2	4.1	35.5	21.1
Orissa (n=1195)	Mean	40.8	9.8	1825	389	9.4	138.8	1.1	0.4	18.1	50.2	47.9
	Median	42.5	10.8	1840	450	11.8	777.4	1.1	0.5	17.1	93.6	52.1
	SD	10.6	6.4	285	372	10.3	1100.5	0.3	0.2	4.6	104.8	21.5
West Bengal (n=712)	Mean	50.2	10.6	2303	195	11.1	39.0	1.5	0.4	24.5	37.8	61.4
	Median	52.5	13.1	2416	365	13.6	499.7	1.5	0.5	25.4	88.7	64.3
	SD	17.8	11.9	786	397	10.9	1171.1	0.5	0.3	8.3	130.4	23.3
States Pooled (n=10077)	Mean	43.5	17.9	1805	223	9.9	78.7	1.0	0.5	13.4	22.0	46.1
	Median	46.9	20.8	1857	315	12.2	276.7	1.2	0.5	14.6	43.8	50.5
	SD	19.5	13.9	513	299	9.0	645.6	0.7	0.2	6.7	67.5	24.8
RDA		60		2425	400	28	600	1.2	1.4	16	40	100

Table 19 : DISTRIBUTION (%) OF HOUSEHOLDS ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDI		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=1197	n=1162	n=1065	n=1188	n=1175	n=1197	n=1186	n=1195	n=712	
Protein	<50	31.9	14.9	25.6	8.1	4.6	3.0	17.6	7.1	6.9	13.5
	50-70	28.8	48.7	38.8	30.3	26.8	10.5	33.7	48.4	23.3	32.4
	≥70	39.3	36.4	35.6	61.6	68.6	86.5	48.7	44.5	69.8	54.1
Energy	<50	18.4	4.3	9.2	2.9	3.4	3.6	16.7	1.1	2.9	7.1
	50-70	36.2	42.3	34.7	24.2	36.2	20.3	52.8	30.0	13.2	33.0
	≥70	45.4	53.4	56.1	73.0	60.4	76.1	30.5	68.9	83.8	59.8
Calcium	<50	43.5	48.7	40.5	40.9	53.1	23.6	64.0	26.9	52.2	43.3
	50-70	18.6	21.3	19.5	20.8	20.9	31.5	19.5	9.5	10.1	19.5
	≥70	37.8	29.9	40.0	38.3	26.0	44.9	16.5	63.5	37.6	37.2
Iron	<50	82.8	84.5	83.5	86.1	57.2	39.9	68.1	81.5	72.5	72.8
	50-70	11.9	7.6	10.3	9.8	22.6	30.7	18.5	10.0	16.2	15.3
	≥70	5.3	7.9	6.2	4.0	20.3	29.4	13.4	8.5	11.4	11.9
Vitamin-A	<50	89.3	93.7	84.0	87.2	92.3	96.1	85.2	55.6	78.8	84.9
	50-70	1.9	1.3	2.2	3.5	1.9	1.0	1.5	1.0	1.0	1.7
	≥70	8.8	5.0	13.8	9.3	5.8	2.9	13.2	43.4	20.2	13.3
Thiamin	<50	16.1	13.8	22.6	56.6	24.8	8.9	42.5	8.4	1.7	22.6
	50-70	26.5	9.9	24.7	19.8	13.4	5.8	6.8	6.8	3.5	13.3
	≥70	57.4	76.3	52.7	23.7	61.8	85.3	50.7	84.9	94.8	64.0
Riboflavin	<50	91.1	94.7	86.4	86.7	76.1	53.4	90.6	92.5	88.5	84.2
	50-70	6.0	3.5	8.9	9.3	14.9	26.1	7.2	5.2	6.0	9.9
	≥70	2.9	1.8	4.7	4.0	9.0	20.5	2.2	2.3	5.5	5.9
Niacin	<50	4.8	5.4	9.8	12.2	13.7	3.3	25.9	3.4	0.3	9.1
	50-70	21.6	15.6	21.7	43.9	36.0	23.6	37.2	12.6	1.7	24.8
	≥70	73.7	79.0	68.5	43.9	50.3	73.2	36.9	83.9	98.0	66.1
Vitamin-C	<50	38.2	52.2	53.1	43.6	75.4	33.3	62.9	26.9	27.1	46.6
	50-70	15.7	15.3	15.7	15.0	7.9	12.9	11.6	8.3	13.2	12.8
	≥70	46.1	32.5	31.3	41.4	16.7	53.8	25.5	64.8	59.7	40.7
Free folic acid	<50	64.2	58.9	63.3	76.9	66.9	21.7	69.2	55.1	28.4	57.2
	50-70	22.5	34.2	24.6	16.0	21.5	23.1	20.5	27.8	36.5	24.6
	≥70	13.3	7.0	12.1	7.2	11.6	55.2	10.3	17.2	35.1	18.1

Table 20: AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG 1-3 YEARS CHILDREN

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=230)	Mean	107.8	0.0	107.8	6.5	4.7	12.3	20.5	11.9	5.0	6.8	8.7	2.0	16.0	3.0	5.9
	SD	48.9	0.5	48.9	10.3	20.5	35.6	34.9	13.6	4.5	15.9	17.6	11.0	57.0	3.0	5.4
Tamil Nadu (n=333)	Mean	129.1	0.4	129.5	14.6	4.1	12.9	8.9	0.7	11.0	11.8	0.0	0.2	16.9	4.4	3.6
	SD	53.0	2.6	52.9	11.4	11.3	19.7	10.9	1.7	15.8	13.3	0.4	3.1	62.7	2.8	6.6
Karnataka (n=188)	Mean	130.3	0.7	131.0	6.2	4.7	13.0	11.0	10.8	3.4	15.8	3.0	3.0	30.8	1.6	11.6
	SD	55.6	5.8	55.7	10.9	15.0	25.9	17.0	9.1	3.0	52.8	10.9	16.6	56.7	2.5	11.8
Andhra Pradesh (n=293)	Mean	156.9	6.7	163.6	16.6	3.2	15.2	14.8	0.5	5.7	30.2	1.5	4.8	26.8	6.3	5.5
	SD	83.7	33.0	84.3	19.6	14.7	30.7	24.1	3.0	5.7	58.6	10.7	16.9	77.3	5.2	10.0
Maharashtra (n=447)	Mean	111.1	32.2	143.3	26.9	1.9	8.1	6.3	0.4	3.4	5.9	0.5	0.9	19.3	6.2	11.4
	SD	80.1	52.1	68.2	23.2	6.6	18.8	11.4	2.1	2.4	25.9	3.8	6.5	52.2	4.8	10.9
Gujarat (n=275)	Mean	43.8	144.4	191.8	25.3	1.8	30.6	32.9	0.5	5.1	2.8	0.0	0.8	41.1	6.0	5.7
	SD	76.7	114.3	89.4	31.8	9.9	48.3	41.5	0.4	3.6	9.2	0.0	6.5	46.7	3.9	7.5
Madhya Pradesh (n=443)	Mean	112.1	32.8	145.2	14.2	7.7	10.4	13.0	0.1	3.6	3.0	0.4	0.4	4.1	3.4	4.9
	SD	79.5	60.7	70.3	15.2	17.5	21.4	19.8	0.6	4.3	8.4	5.0	5.6	14.9	3.9	6.7
Orissa (n=391)	Mean	156.8	0.6	157.4	11.8	31.3	19.7	20.9	0.1	3.1	7.5	2.2	2.4	2.7	3.0	1.6
	SD	58.4	7.7	57.9	15.3	38.1	31.8	27.3	1.4	7.0	18.3	9.5	11.6	23.2	2.8	4.1
West Bengal (n=191)	Mean	170.8	0.3	171.0	4.5	31.3	19.7	42.2	0.1	2.4	7.9	5.1	2.8	3.6	3.1	1.4
	SD	84.4	3.5	84.5	7.9	50.6	34.3	44.6	0.3	2.1	35.0	16.2	11.7	28.6	3.0	5.1
Pooled (n=2791)	Mean	123.1	25.5	149.0	15.5	9.8	15.1	17.2	2.0	4.8	9.5	1.9	1.7	16.6	4.3	5.7
	SD	78.5	64.6	72.2	19.6	25.6	30.2	28.1	6.2	7.3	30.1	9.4	10.3	50.4	4.1	8.6
RDI			-	175	35	40	20	10	-	-	-	-	-	300	15	30

Table 20-A : DISTRIBUTION (%) OF 1-3 YEARS CHILDREN ACCORDING TO DAILY INTAKE OF FOODSTUFFS AS PERCENT RDI

Percent of RDI		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=230	n=333	n=188	n=293	n=447	n=275	n=443	n=391	n=191	
Cereals & Millets	<50	36.1	26.1	21.8	17.7	22.4	9.1	21.0	11.5	18.3	20.1
	50-70	27.8	22.2	29.3	16.7	18.1	9.5	18.3	12.5	12.0	18.0
	≥70	36.1	51.7	48.9	65.5	59.5	81.5	60.7	76.0	69.6	61.9
Pulses	<50	85.7	61.9	86.7	58.7	41.2	49.8	65.7	70.3	91.6	64.5
	50-70	8.7	20.4	4.3	8.9	11.0	7.6	14.2	10.5	4.7	10.9
	≥70	5.7	17.7	9.0	32.4	47.9	42.5	20.1	19.2	3.7	24.6
Green Leafy-Veg	<50	93.9	91.3	91.5	94.9	97.1	96.7	84.2	52.2	63.4	84.8
	50-70	1.7	2.4	2.1	1.7	0.9	0.7	2.9	4.1	3.1	2.2
	≥70	4.3	6.3	6.4	3.4	2.0	2.5	12.9	43.7	33.5	12.9
Other-Veg	<50	73.5	62.5	67.6	67.9	78.5	60.0	73.6	61.9	64.9	68.5
	50-70	4.3	6.0	3.7	4.1	2.2	0.4	2.0	1.5	0.5	2.7
	≥70	22.2	31.5	28.7	28.0	19.2	39.6	24.4	36.6	34.6	28.8
Roots & Tubers	<50	35.2	45.0	54.8	44.7	67.6	45.8	57.3	48.1	29.3	49.8
	50-70	8.7	12.0	10.1	6.5	8.3	0.7	4.3	1.8	0.5	5.9
	≥70	56.1	42.9	35.1	48.8	24.2	53.5	38.4	50.1	70.2	44.3
Milk & Milk Prod.	<50	96.1	97.3	97.3	94.2	96.0	96.0	99.8	99.7	98.4	97.3
	50-70	2.6	1.2	0.5	3.4	1.6	2.5	0.0	0.0	0.5	1.3
	≥70	1.3	1.5	2.1	2.4	2.5	1.5	0.2	0.3	1.0	1.4
Fats & Oils	<50	99.1	97.9	99.5	90.8	90.6	93.1	97.7	99.2	99.0	96.0
	50-70	0.4	2.1	0.0	6.1	6.7	6.2	1.8	0.8	0.0	3.0
	≥70	0.4	0.0	0.5	3.1	2.7	0.7	0.5	0.0	1.0	1.0
Sugar & Jaggery	<50	97.8	97.0	76.1	90.8	69.6	96.0	93.7	98.2	99.0	90.3
	50-70	1.7	2.1	10.1	3.1	15.2	2.5	2.0	1.5	0.0	4.6
	≥70	0.4	0.9	13.8	6.1	15.2	1.5	4.3	0.3	1.0	5.1

Table 21: AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG 4-6 YEARS CHILDREN

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=230)	Mean	161.3	0.3	161.6	14.1	7.5	20.7	34.3	18.7	7.7	14.0	13.3	1.3	10.0	4.1	8.6
	SD	56.3	3.6	56.0	15.8	22.8	35.0	53.3	16.6	4.9	30.3	24.7	8.8	38.4	3.5	5.4
Tamil Nadu (n=248)	Mean	196.5	2.7	199.2	23.3	6.1	28.4	12.1	1.0	15.7	17.5	0.0	0.5	9.9	6.0	3.9
	SD	59.8	25.8	64.8	15.1	16.5	27.7	13.7	2.4	18.0	16.9	0.0	5.7	31.9	3.8	5.0
Karnataka (n=210)	Mean	186.7	0.6	187.3	9.3	3.7	26.7	13.5	16.1	5.6	22.0	3.4	7.2	27.0	2.2	13.2
	SD	74.7	6.8	77.8	13.6	11.5	38.0	16.4	13.8	5.7	67.4	12.4	29.4	33.9	3.5	10.8
Andhra Pradesh (n=328)	Mean	248.5	11.0	259.5	23.0	5.5	23.8	20.1	2.4	7.8	32.3	1.6	9.5	20.9	8.5	8.0
	SD	97.4	39.2	95.3	22.0	18.0	41.0	24.5	28.0	5.0	52.5	8.5	23.1	46.0	5.3	12.1
Maharashtra (n=455)	Mean	172.6	66.4	239.1	38.2	4.4	11.6	9.4	0.4	5.3	7.8	1.0	0.8	11.3	9.2	16.2
	SD	112.2	97.3	86.2	27.6	14.0	25.1	14.2	2.3	2.4	34.9	6.1	5.7	24.4	5.2	12.4
Gujarat (n=330)	Mean	61.9	190.0	252.4	41.9	2.5	30.5	37.0	0.7	6.7	5.6	0.3	3.7	41.5	7.8	5.6
	SD	101.9	144.8	103.8	41.6	13.6	51.4	47.2	0.5	3.7	16.5	5.4	16.5	45.9	4.4	6.6
Madhya Pradesh (n=510)	Mean	163.5	51.3	215.1	21.0	9.6	18.2	23.6	0.1	5.5	5.4	0.5	0.7	5.5	4.5	4.8
	SD	106.9	85.6	83.2	18.8	21.2	31.3	27.0	0.7	3.1	13.4	7.2	8.0	18.4	3.9	6.1
Orissa (n=393)	Mean	230.0	1.7	231.7	15.6	39.8	28.8	26.5	0.1	4.8	11.0	3.2	3.4	0.8	4.0	1.7
	SD	54.5	13.4	52.3	19.5	47.3	43.5	34.7	0.8	11.9	28.2	13.6	15.8	5.6	3.4	4.4
West Bengal (n=258)	Mean	313.4	0.0	313.4	6.5	48.3	27.3	61.0	0.2	3.7	9.3	7.1	3.9	5.1	4.2	2.0
	SD	129.9	0.0	129.9	10.6	70.6	45.1	53.1	1.4	3.4	41.5	20.3	16.9	45.6	3.5	6.8
Pooled (n=2962)	Mean	189.1	41.9	231.2	23.0	14.1	23.0	25.3	3.1	6.6	12.7	2.8	3.2	13.7	5.9	7.2
	SD	113.5	93.3	93.6	25.7	34.8	38.4	36.4	12.6	8.2	36.0	12.5	15.5	35.1	4.8	9.7
RDI				270	35	50	30	20	-	-	-	-	-	250	25	40

Table 21-A : DISTRIBUTION (%) OF 4-6 YEARS CHILDREN ACCORDING TO DAILY INTAKE OF FOODSTUFFS AS PERCENT RDI

Percent of RDI		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=230	n=248	n=210	n=328	n=455	n=330	n=510	n=393	n=258	
Cereals & Millets	<50	34.8	13.7	25.2	7.6	10.8	7.0	16.3	2.8	4.7	12.5
	50-70	37.8	30.6	31.4	14.0	21.3	21.8	25.7	13.0	8.5	21.9
	≥70	27.4	55.6	43.3	78.4	67.9	71.2	58.0	84.2	86.8	65.6
Pulses	<50	63.5	40.3	74.3	46.0	22.9	32.1	46.5	60.8	85.7	49.3
	50-70	9.6	17.3	11.4	8.2	8.6	5.5	16.1	10.4	5.0	10.4
	≥70	27.0	42.3	14.3	45.7	68.6	62.4	37.5	28.8	9.3	40.3
Green Leafy-Veg	<50	90.4	89.5	94.8	93.0	93.8	96.7	82.9	49.4	59.7	82.7
	50-70	3.0	3.2	1.4	0.9	2.0	0.3	3.7	3.6	1.6	2.3
	≥70	6.5	7.3	3.8	6.1	4.2	3.0	13.3	47.1	38.8	15.0
Other Veg	<50	63.0	41.5	54.8	63.7	76.7	63.3	67.1	59.0	61.6	62.9
	50-70	7.8	6.9	4.3	1.8	2.2	1.5	3.9	1.8	3.1	3.4
	≥70	29.1	51.6	41.0	34.5	21.1	35.2	29.0	39.2	35.3	33.7
Roots & Tubers	<50	35.2	56.9	61.0	41.5	70.3	49.1	51.8	53.4	24.0	50.8
	50-70	12.2	16.9	8.1	15.5	8.4	1.5	1.6	2.8	1.2	6.9
	≥70	52.6	26.2	31.0	43.0	21.3	49.4	46.7	43.8	74.8	42.4
Milk & Milk Prod.	<50	97.0	98.0	99.0	97.0	98.9	90.9	99.6	100.0	98.4	97.8
	50-70	1.3	1.2	0.5	1.2	0.7	7.0	0.2	0.0	0.0	1.3
	≥70	1.7	0.8	0.5	1.8	0.4	2.1	0.2	0.0	1.6	.9
Fats & Oils	<50	96.5	94.4	99.0	82.3	78.7	84.5	96.3	97.7	96.5	91.0
	50-70	3.5	3.6	0.0	13.1	15.8	12.7	2.7	1.5	1.9	6.7
	≥70	0.0	2.0	1.0	4.6	5.5	2.7	1.0	0.8	1.6	2.3
Sugar & Jaggery	<50	98.7	99.6	86.2	89.3	67.5	99.4	96.9	99.2	98.4	91.9
	50-70	0.9	0.4	5.7	4.6	16.0	0.3	2.7	0.5	0.8	4.1
	≥70	0.4	0.0	8.1	6.1	16.5	0.3	0.4	0.3	0.8	4.0

Table 22 : AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG 7-9 YEARS CHILDREN

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=206)	Mean	196.7	0.0	196.7	18.4	8.8	24.2	36.9	23.3	10.1	23.1	20.5	1.6	8.7	5.0	9.3
	SD	69.6	0.0	69.4	23.0	27.3	42.1	55.0	22.0	5.6	36.6	35.4	7.8	29.9	3.7	6.0
Tamil Nadu (n=258)	Mean	242.1	1.6	243.7	28.1	5.8	30.7	14.2	1.0	18.0	19.0	0.0	1.1	13.3	6.6	3.6
	SD	68.6	11.9	67.5	16.9	17.2	30.0	15.6	2.5	18.6	19.9	0.0	8.9	37.8	3.8	5.4
Karnataka (n=197)	Mean	243.4	0.4	243.8	14.0	8.2	34.6	18.5	20.7	6.7	29.9	1.7	10.0	29.5	2.9	14.7
	SD	79.6	5.1	79.7	17.5	22.2	45.0	22.8	15.5	5.8	161.9	8.1	35.6	36.3	3.9	11.5
Andhra Pradesh (n=326)	Mean	311.1	9.3	320.4	23.0	6.4	27.1	22.6	0.8	9.6	36.7	1.6	10.3	17.2	9.9	7.4
	SD	117.4	33.4	111.7	23.9	19.4	41.4	26.1	4.1	8.4	61.8	9.0	24.7	39.3	6.6	11.3
Maharashtra (n=454)	Mean	218.3	91.1	309.4	39.9	6.2	17.5	12.4	0.6	6.3	5.2	1.6	1.6	11.6	11.3	17.7
	SD	132.4	133.3	100.3	31.2	20.4	38.7	21.9	2.3	3.0	22.9	8.3	11.0	23.4	7.2	14.4
Gujarat (n=382)	Mean	69.9	222.9	297.0	48.0	2.1	35.3	39.7	0.7	7.6	7.3	0.0	4.4	44.3	8.8	6.2
	SD	110.8	158.1	96.7	47.6	13.1	53.1	47.4	1.0	4.4	21.5	0.4	18.8	48.2	4.7	9.7
Madhya Pradesh (n=454)	Mean	199.8	67.1	267.1	25.8	11.4	23.3	31.7	0.0	6.7	5.8	0.4	1.0	7.1	5.2	4.7
	SD	121.4	112.7	92.3	21.3	26.0	36.9	36.8	0.6	6.0	14.2	4.6	10.5	22.5	5.1	5.3
Orissa (n=431)	Mean	303.9	3.6	307.5	14.9	48.5	34.1	29.0	0.2	4.3	11.4	2.8	4.4	0.2	3.9	1.4
	SD	68.4	28.4	63.6	17.7	52.7	49.0	36.3	1.9	5.8	30.9	13.3	20.1	2.2	3.3	4.1
West Bengal (n=207)	Mean	381.4	0.2	381.6	7.9	55.5	26.6	63.4	0.1	4.1	10.3	6.8	6.2	1.3	6.1	4.7
	SD	160.8	2.4	160.7	11.3	67.5	45.7	64.1	0.5	3.6	39.6	21.6	20.0	14.3	15.1	29.0
Pooled (n=2915)	Mean	232.9	55.6	289.1	26.6	16.5	27.7	28.5	3.4	7.8	14.5	3.0	4.1	14.5	7.0	7.6
	SD	136.6	117.0	104.6	29.5	37.6	43.4	39.8	10.5	8.5	53.4	14.2	18.6	33.5	7.0	13.0

Table 23: AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG 10-12 YEARS BOYS

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=82)	Mean	220.6	0.0	220.6	22.6	8.7	23.8	37.3	22.6	11.0	25.9	24.4	1.5	13.5	4.9	10.6
	SD	84.4	0.0	84.4	27.0	21.3	33.3	53.4	22.7	6.3	46.1	38.1	7.8	38.7	3.8	5.3
Tamil Nadu (n=120)	Mean	269.0	1.7	270.7	26.1	13.3	26.4	18.0	0.9	19.5	17.0	0.0	0.4	10.0	7.6	4.2
	SD	73.3	13.2	71.7	16.5	27.4	29.5	20.7	2.1	19.3	21.4	0.4	3.7	35.7	5.9	9.4
Karnataka (n=123)	Mean	283.8	0.0	283.8	18.9	6.1	36.0	23.4	19.5	6.3	20.8	5.4	10.5	28.2	5.0	14.7
	SD	108.3	0.0	108.3	21.7	16.8	38.7	34.7	15.5	4.6	52.6	20.9	46.1	35.4	7.8	8.8
Andhra Pradesh (n=120)	Mean	323.6	25.2	348.8	24.4	5.7	24.2	32.2	0.7	11.4	45.8	1.7	10.0	16.2	10.1	6.3
	SD	157.6	71.4	138.7	25.2	26.6	41.6	36.3	3.9	8.4	72.8	8.8	25.7	39.6	6.2	8.1
Maharashtra (n=172)	Mean	247.3	110.9	358.2	45.3	6.8	18.2	15.5	1.3	7.5	3.3	0.7	2.9	20.0	12.7	18.3
	SD	147.9	160.5	110.2	27.4	22.4	32.1	26.7	4.1	3.2	8.8	6.4	14.1	44.4	8.1	13.3
Gujarat (n=210)	Mean	91.3	218.2	315.2	48.5	4.1	38.7	43.9	0.8	9.0	7.8	0.2	8.2	44.8	9.5	6.3
	SD	130.1	165.9	94.9	51.1	20.1	56.4	52.6	0.6	6.7	25.6	3.5	27.2	53.7	5.5	4.5
Madhya Pradesh (n=263)	Mean	223.7	87.1	310.9	28.8	13.1	24.9	29.4	0.0	8.3	5.8	0.8	1.0	7.7	5.5	4.5
	SD	145.8	138.9	106.0	23.3	28.5	40.5	34.9	0.1	16.5	13.0	7.7	10.4	23.5	5.3	5.4
Orissa (n=209)	Mean	362.7	1.2	363.9	16.7	58.5	36.8	28.2	0.1	6.5	11.5	3.9	5.7	0.0	4.4	1.1
	SD	77.1	11.2	76.4	23.5	67.1	60.2	42.1	0.4	10.3	30.9	15.9	21.2	0.0	5.0	3.8
West Bengal (n=119)	Mean	481.1	0.0	481.1	8.8	75.2	40.8	71.4	0.4	4.5	10.0	6.8	5.7	1.9	5.0	2.1
	SD	203.3	0.0	203.3	12.9	91.4	58.5	70.0	2.7	3.2	42.5	25.0	23.4	18.4	4.4	3.8
Pooled (n=1418)	Mean	266.4	64.4	331.6	28.4	21.4	30.2	32.4	3.5	8.9	13.8	3.4	5.0	16.1	7.2	7.1
	SD	167.1	130.6	127.0	31.4	48.8	46.8	44.9	10.3	11.4	37.5	16.3	22.8	37.9	6.6	9.2
RDI				420	45	50	50	30	-	-		-	-	250	40	45

Table 23-A : DISTRIBUTION (%) OF 10-12 YEARS BOYS ACCORDING TO DAILY INTAKE OF FOODSTUFFS AS PERCENT RDI

Percent of RDI		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=82	n=120	n=123	n=120	n=172	n=210	n=263	n=209	n=119	
Cereals & Millets	<50	52.4	20.0	22.0	14.2	6.4	19.0	15.6	2.4	5.9	15.2
	50-70	31.7	46.7	35.8	21.7	25.6	21.9	31.2	10.0	9.2	25.1
	≥70	15.9	33.3	42.3	64.2	68.0	59.0	53.2	87.6	84.9	59.7
Pulses	<50	53.7	46.7	74.0	55.0	20.9	37.6	41.4	69.4	84.0	51.2
	50-70	25.6	15.8	9.8	8.3	12.2	4.3	19.0	10.0	9.2	12.3
	≥70	20.7	37.5	16.3	36.7	66.9	58.1	39.5	20.6	6.7	36.5
Green Leafy-Veg	<50	87.8	80.0	90.2	94.2	91.9	95.7	81.7	46.4	48.7	79.1
	50-70	2.4	1.7	2.4	0.0	1.7	0.5	0.8	1.0	1.7	1.2
	≥70	9.8	18.3	7.3	5.8	6.4	3.8	17.5	52.6	49.6	19.7
Other-Veg	<50	64.6	55.8	48.0	70.0	69.8	60.0	68.8	63.6	57.1	62.8
	50-70	12.2	5.0	6.5	4.2	9.3	1.9	3.4	2.9	5.0	4.9
	≥70	23.2	39.2	45.5	25.8	20.9	38.1	27.8	33.5	37.8	32.2
Roots & Tubers	<50	37.8	60.0	61.0	42.5	75.6	48.1	52.9	61.2	31.9	53.9
	50-70	13.4	15.0	11.4	13.3	5.8	2.9	1.9	2.9	1.7	6.2
	≥70	48.8	25.0	27.6	44.2	18.6	49.0	45.2	35.9	66.4	39.8
Milk & Milk Prod.	<50	97.6	96.7	98.4	98.3	95.9	90.0	99.2	100.0	99.2	97.1
	50-70	0.0	2.5	1.6	0.0	1.7	6.7	0.4	0.0	0.0	1.6
	≥70	2.4	0.8	0.0	1.7	2.3	3.3	0.4	0.0	0.8	1.3
Fats & Oils	<50	90.2	88.3	91.9	64.2	47.7	71.9	93.2	96.7	95.8	82.1
	50-70	8.5	7.5	4.1	15.8	25.6	21.4	4.9	2.4	2.5	10.6
	≥70	1.2	4.2	4.1	20.0	26.7	6.7	1.9	1.0	1.7	7.3
Sugar & Jaggery	<50	97.6	96.7	87.8	93.3	68.0	99.5	98.5	99.5	99.2	93.6
	50-70	2.4	0.8	9.8	5.8	14.5	0.0	1.5	0.5	0.8	3.7
	≥70	0.0	2.5	2.4	0.8	17.4	0.5	0.0	0.0	0.0	2.7

Table 24: AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG 10-12 YEARS GIRLS

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=74)	Mean	219.0	0.1	219.1	21.2	10.2	25.6	48.5	25.9	11.0	21.6	26.7	2.6	19.6	5.2	9.3
	SD	75.0	1.1	75.3	24.5	27.3	41.6	71.0	24.2	6.7	37.1	42.6	10.8	53.7	3.8	6.6
Tamil Nadu (n=99)	Mean	256.7	4.6	261.3	30.7	9.3	29.5	16.7	0.9	15.8	27.0	0.0	0.0	12.0	7.0	3.1
	SD	70.6	27.5	66.5	23.1	21.6	32.3	18.3	2.0	15.9	28.2	0.0	0.0	31.3	4.2	7.3
Karnataka (n=115)	Mean	258.6	0.0	258.6	15.6	9.5	26.6	18.3	19.2	6.8	14.9	3.2	13.3	23.0	3.0	13.8
	SD	90.8	0.0	90.8	21.6	23.5	33.8	22.8	14.6	6.9	35.8	12.7	47.4	41.7	2.8	12.1
Andhra Pradesh (n=124)	Mean	332.9	17.6	350.4	29.2	3.5	28.8	28.7	1.9	11.3	43.0	1.9	12.8	21.3	11.3	8.6
	SD	129.1	51.1	117.4	30.0	11.4	43.9	39.4	7.9	7.5	66.8	8.7	30.5	48.6	6.8	13.9
Maharashtra (n=188)	Mean	242.7	93.5	336.2	43.4	8.4	18.6	14.6	0.3	7.1	6.0	2.4	0.7	11.5	12.5	18.8
	SD	153.8	130.7	99.0	38.3	23.6	32.4	20.9	1.3	6.5	26.0	11.9	5.7	22.6	6.8	13.9
Gujarat (n=187)	Mean	75.8	239.4	318.6	43.0	1.9	41.1	49.5	0.7	8.3	9.7	0.0	7.0	52.3	9.5	6.4
	SD	116.6	171.8	101.2	41.8	11.3	57.7	54.1	0.5	4.6	27.6	0.0	26.3	60.0	5.1	4.4
Madhya Pradesh (n=251)	Mean	230.8	76.3	307.9	24.3	14.5	28.0	32.4	0.1	6.5	6.3	0.0	0.3	6.3	4.8	4.9
	SD	134.4	126.7	96.4	20.3	31.9	43.0	32.5	1.2	3.2	10.3	0.0	4.0	20.7	3.7	5.5
Orissa (n=182)	Mean	351.8	4.7	356.5	17.2	56.1	32.8	32.8	0.2	5.6	13.0	4.4	3.4	0.3	4.2	1.7
	SD	77.6	39.4	69.1	28.0	59.1	52.2	39.8	1.2	9.3	37.0	16.8	18.4	2.8	3.3	5.0
West Bengal (n=88)	Mean	474.3	0.1	474.4	7.2	63.4	39.3	61.8	0.2	4.0	4.3	9.2	4.2	0.2	5.4	2.8
	SD	206.8	1.0	206.8	10.8	71.8	59.3	62.0	0.5	2.9	13.3	24.4	18.3	1.7	10.4	9.6
States Pooled (n=1308)	Mean	257.0	65.0	322.6	27.6	18.8	29.9	32.4	3.6	8.0	14.2	3.5	4.5	16.5	7.2	7.8
	SD	159.2	128.9	118.0	31.4	41.0	45.7	43.0	10.8	7.9	34.9	16.1	22.1	39.3	6.3	10.7
RDI				380	45	50	50	30	-	-	-	-	-	250	35	45

Table 24-A : DISTRIBUTION (%) OF 10-12 YEARS GIRLS ACCORDING TO DAILY INTAKE OF FOODSTUFFS AS PERCENT RDI

Percent of RDI		States									Pooled n=1308
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=74	n=99	n=115	n=124	n=188	n=187	n=251	n=182	n=88	
Cereals & Millets	<50	37.8	19.2	19.1	8.1	7.4	11.2	8.8	.0	2.3	10.6
	50-70	40.5	28.3	38.3	15.3	16.5	18.7	26.7	6.6	8.0	20.9
	≥70	21.6	52.5	42.6	76.6	76.1	70.1	64.5	93.4	89.8	68.6
Pulses	<50	52.7	43.4	78.3	52.4	24.5	37.4	52.2	70.9	89.8	52.9
	50-70	21.6	12.1	12.2	8.9	16.5	6.4	16.7	11.0	6.8	12.5
	≥70	25.7	44.4	9.6	38.7	59.0	56.1	31.1	18.1	3.4	34.6
Green Leafy-Veg.	<50	87.8	83.8	85.2	92.7	89.9	97.3	81.3	41.8	50.0	79.2
	50-70	0.0	4.0	1.7	2.4	1.1	0.5	2.4	2.2	0.0	1.7
	≥70	12.2	12.1	13.0	4.8	9.0	2.1	16.3	56.0	50.0	19.1
Other-Veg	<50	68.9	52.5	59.1	61.3	71.8	59.4	64.5	59.9	58.0	62.3
	50-70	5.4	8.1	6.1	6.5	6.4	1.6	4.8	4.9	5.7	5.2
	≥70	25.7	39.4	34.8	32.3	21.8	39.0	30.7	35.2	36.4	32.5
Roots & Tubers	<50	36.5	65.7	64.3	44.4	73.4	41.2	45.8	53.8	34.1	51.9
	50-70	17.6	12.1	7.8	16.9	5.3	2.1	1.2	4.4	2.3	6.3
	≥70	45.9	22.2	27.8	38.7	21.3	56.7	53.0	41.8	63.6	41.8
Milk & Milk Prod.	<50	94.6	97.0	98.3	96.8	98.9	85.0	99.2	100.0	100.0	96.6
	50-70	1.4	3.0	0.0	0.8	1.1	8.6	0.4	0.0	0.0	1.8
	≥70	4.1	0.0	1.7	2.4	0.0	6.4	0.4	0.0	0.0	1.6
Fats & Oils	<50	91.9	86.9	99.1	58.1	50.0	71.7	94.0	97.8	94.3	81.4
	50-70	5.4	9.1	0.9	19.4	20.2	19.8	4.0	2.2	1.1	9.8
	≥70	2.7	4.0	0.0	22.6	29.8	8.6	2.0	0.0	4.5	8.8
Sugar & Jaggery	<50	98.6	98.0	86.1	91.9	62.8	98.9	99.6	98.9	97.7	91.9
	50-70	0.0	1.0	7.8	4.8	20.2	0.5	0.4	1.1	0.0	4.4
	≥70	1.4	1.0	6.1	3.2	17.0	0.5	0.0	0.0	2.3	3.7

Table 25 : AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG 13-15 YEARS BOYS

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=67)	Mean	268.1	0.1	268.2	13.7	4.7	40.4	54.8	30.8	9.7	22.6	26.4	1.9	14.3	5.4	9.7
	SD	116.0	1.1	116.2	23.6	15.4	80.7	77.2	27.9	6.4	33.6	42.6	7.7	56.1	4.7	6.0
Tamil Nadu (n=93)	Mean	312.4	3.0	315.4	32.6	9.6	30.0	16.3	3.1	15.5	27.4	0.1	0.0	11.4	8.9	4.1
	SD	103.0	26.1	97.8	25.3	25.0	31.5	17.9	8.4	12.4	32.2	0.7	0.0	29.0	10.5	5.8
Karnataka (n=143)	Mean	343.5	1.6	345.2	16.5	15.0	42.9	27.3	27.1	8.6	17.0	5.6	8.4	41.1	4.1	15.1
	SD	121.5	14.8	123.8	22.0	35.6	59.1	43.2	19.9	6.9	40.3	19.6	33.5	65.3	7.4	10.5
Andhra Pradesh (n=97)	Mean	391.9	28.1	420.0	26.2	3.4	24.5	33.7	0.6	13.9	40.3	4.9	9.9	14.6	12.9	7.3
	SD	197.1	92.3	177.9	27.7	12.7	40.3	40.5	1.4	8.9	64.5	23.4	29.1	29.3	7.2	9.1
Maharashtra (n=166)	Mean	315.0	103.3	418.3	50.0	8.5	21.3	19.0	0.6	8.6	8.6	2.2	1.9	14.5	15.0	19.7
	SD	175.7	163.3	134.6	36.0	31.1	38.2	27.3	2.5	4.0	27.9	10.7	14.7	42.4	9.2	13.8
Gujarat (n=187)	Mean	94.3	249.0	343.3	49.8	3.4	44.8	54.6	0.8	9.5	8.1	.4	7.4	56.2	10.5	6.7
	SD	132.5	168.7	85.2	49.6	19.7	63.3	57.1	0.5	4.2	18.7	5.4	28.7	68.1	6.6	4.7
Madhya Pradesh (n=189)	Mean	282.3	83.0	366.2	26.5	16.6	30.1	30.0	0.0	8.4	6.3	1.2	1.8	7.0	5.4	4.8
	SD	175.0	151.0	120.5	22.6	34.6	45.6	37.2	0.2	15.9	12.5	10.7	15.9	21.1	4.7	5.8
Orissa (n=159)	Mean	419.4	3.9	423.3	16.7	61.6	35.6	37.5	0.1	4.8	20.0	4.1	3.6	0.2	5.0	1.5
	SD	87.2	34.7	80.0	23.0	66.3	56.9	49.0	0.3	4.9	41.3	16.4	18.2	2.7	4.0	4.7
West Bengal (n=86)	Mean	600.3	0.0	600.3	9.1	78.2	34.8	76.7	0.1	5.1	9.3	12.0	6.2	3.3	7.6	2.8
	SD	219.1	0.0	219.1	13.5	93.2	51.0	61.8	0.4	3.7	43.0	34.4	31.4	22.1	11.5	8.5
Pooled (n=1187)	Mean	316.6	70.2	386.8	29.4	21.4	33.9	37.0	5.5	9.0	15.6	4.5	4.6	20.1	8.4	8.3
	SD	196.9	142.2	147.1	33.9	49.1	53.2	49.2	14.5	9.2	36.4	19.7	23.0	47.7	8.3	10.2

Table 26 : AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG 13-15 YEARS GIRLS

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=70)	Mean	242.1	0.0	242.1	19.3	14.9	25.7	52.1	35.8	12.1	23.7	29.6	0.0	10.8	6.1	11.2
	SD	96.2	0.0	96.2	25.1	38.9	57.7	68.3	28.1	8.0	38.5	45.2	0.0	29.3	4.8	9.1
Tamil Nadu (n=99)	Mean	310.8	0.7	311.5	28.2	9.7	31.6	19.8	1.1	16.1	23.3	0.0	3.3	10.2	8.9	3.1
	SD	81.5	5.2	81.7	23.9	23.4	41.1	19.2	2.2	12.6	21.2	0.4	24.7	32.6	5.4	6.0
Karnataka (n=135)	Mean	322.7	0.8	323.5	16.0	11.7	50.7	19.7	22.7	6.9	30.7	3.6	10.4	28.8	3.3	14.9
	SD	105.5	9.6	105.3	19.8	35.2	57.9	35.3	15.8	4.4	132.0	19.1	48.6	39.6	4.5	10.0
Andhra Pradesh (n=88)	Mean	357.9	18.2	376.1	28.5	6.0	27.6	30.4	0.3	12.1	53.2	3.0	17.0	17.5	11.8	6.1
	SD	150.5	64.6	143.9	28.2	21.2	40.1	25.6	0.9	7.8	77.7	16.4	38.2	31.2	8.8	7.6
Maharashtra (n=163)	Mean	270.6	103.7	374.3	46.6	8.2	16.2	14.9	0.9	7.8	4.7	1.8	2.7	13.6	12.8	18.5
	SD	155.4	165.4	119.6	29.0	26.3	31.7	21.6	3.6	3.4	17.5	12.8	16.2	27.4	8.1	17.1
Gujarat (n=156)	Mean	87.3	244.1	333.0	56.1	5.5	35.7	46.9	0.8	8.7	12.8	0.0	8.4	50.8	10.2	5.9
	SD	127.5	173.0	98.1	50.4	31.4	59.3	62.6	0.5	4.6	36.8	0.0	31.7	56.4	6.0	3.6
Madhya Pradesh (n=185)	Mean	256.4	73.0	329.4	22.8	18.3	24.8	33.0	0.0	7.9	7.5	1.7	0.0	5.8	5.4	5.4
	SD	143.4	137.8	88.4	21.0	35.6	43.6	37.0	0.2	11.9	13.2	12.8	0.0	14.3	5.1	5.6
Orissa (n=171)	Mean	422.2	1.5	423.7	15.5	62.3	36.7	40.8	0.5	5.6	12.9	5.9	4.9	0.3	5.2	1.9
	SD	77.4	13.4	74.1	22.5	61.1	56.1	47.9	3.2	6.9	32.8	21.5	22.3	2.7	5.5	4.7
West Bengal (n=76)	Mean	518.0	0.0	518.0	8.0	69.3	50.3	72.7	1.0	5.5	14.5	13.7	2.2	0.2	6.2	3.3
	SD	203.5	0.0	203.5	13.4	100.3	67.6	67.8	5.1	3.7	44.2	31.0	11.2	1.9	4.3	7.3
Pooled (n=1143)	Mean	297.0	61.7	359.0	28.6	22.4	32.4	34.4	5.4	8.7	17.7	4.8	5.2	16.1	7.7	8.0
	SD	171.0	134.6	126.2	32.4	49.8	51.7	47.1	13.9	8.3	57.8	20.5	26.8	35.1	6.8	10.6

Table 27 : AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG 16-17 YEARS BOYS

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=37)	Mean	329.9	0.1	330.0	17.8	11.3	25.8	52.0	30.1	14.1	25.0	27.9	1.9	30.0	6.9	10.2
	SD	141.8	0.7	141.9	25.7	28.1	48.0	54.9	28.5	9.3	34.4	54.6	8.1	74.6	7.1	6.0
Tamil Nadu (n=49)	Mean	402.4	8.7	411.0	49.1	12.5	30.7	25.6	1.9	14.9	35.4	0.0	2.0	6.2	10.5	5.1
	SD	129.0	60.6	114.9	25.7	31.2	46.0	21.5	4.8	9.0	35.3	0.0	13.9	20.6	6.7	12.3
Karnataka (n=66)	Mean	379.3	5.2	384.5	19.2	11.7	35.8	29.0	31.5	9.6	25.8	4.1	10.6	39.1	3.1	16.0
	SD	130.3	42.6	130.0	26.6	30.4	53.0	40.7	19.2	5.3	47.6	14.8	37.0	70.6	4.0	9.9
Andhra Pradesh (n=61)	Mean	483.9	14.9	498.8	28.9	9.1	26.8	42.9	2.2	14.6	47.8	2.8	20.6	20.7	15.6	6.3
	SD	187.4	57.5	177.7	31.2	25.6	47.5	41.0	6.8	8.9	62.9	13.4	45.5	47.0	13.0	9.7
Maharashtra (n=110)	Mean	326.4	133.0	459.4	50.6	9.1	20.6	17.6	0.5	9.9	8.2	4.3	3.0	18.6	17.1	18.9
	SD	222.6	197.8	156.6	36.5	26.9	36.0	26.2	2.0	4.3	28.0	19.3	14.8	50.4	10.7	12.6
Gujarat (n=134)	Mean	87.9	293.4	385.8	53.9	4.8	56.5	57.3	0.9	11.0	11.0	0.6	13.7	51.3	12.0	7.5
	SD	136.6	185.3	108.9	57.3	25.4	78.4	60.9	0.6	5.3	22.9	6.4	45.1	58.1	7.0	6.3
Madhya Pradesh (n=87)	Mean	327.6	79.6	410.3	22.1	21.3	30.9	31.4	1.0	7.4	8.9	0.6	2.4	9.3	5.6	5.1
	SD	182.3	150.9	112.8	19.4	42.3	50.3	37.9	9.3	3.9	14.2	5.4	18.5	30.5	4.6	5.2
Orissa (n=82)	Mean	496.4	7.4	503.8	24.5	61.7	42.4	48.7	1.4	6.1	9.1	7.1	5.4	0.4	6.1	2.0
	SD	85.3	61.2	76.5	33.4	71.6	63.3	53.7	6.8	7.0	24.6	21.1	24.2	3.3	7.1	4.8
West Bengal (n=49)	Mean	606.2	0.0	606.2	10.6	58.2	47.3	82.6	0.3	5.2	7.1	14.7	2.6	0.1	5.6	2.4
	SD	238.2	0.0	238.2	16.2	81.4	69.4	69.8	0.8	4.0	18.2	43.1	12.9	0.9	4.7	3.1
Pooled (n=675)	Mean	345.3	93.6	440.1	34.6	20.4	36.7	41.6	5.6	10.0	17.1	5.0	7.5	22.2	9.9	8.7
	SD	225.8	171.1	154.0	39.3	47.2	58.9	50.5	14.8	6.9	35.2	22.3	30.5	50.4	9.2	10.3

Table 28 : AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG 16-17 YEARS GIRLS

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=59)	Mean	255.5	0.0	255.5	16.4	12.6	40.1	39.4	34.0	14.3	16.2	20.1	4.6	13.9	6.1	10.4
	SD	78.4	0.0	78.4	22.1	30.8	58.8	52.2	24.8	13.7	30.7	36.3	26.7	46.5	5.9	8.8
Tamil Nadu (n=63)	Mean	348.9	4.0	352.9	35.5	14.6	26.7	18.3	3.2	15.1	29.5	0.0	3.6	16.1	9.6	5.3
	SD	90.4	32.1	84.4	27.5	29.3	34.6	18.2	14.6	10.0	25.7	0.0	28.5	46.3	4.8	7.9
Karnataka (n=95)	Mean	331.1	0.0	331.1	13.9	10.0	44.7	22.6	26.5	8.0	22.6	8.2	1.9	34.2	2.6	15.5
	SD	86.8	0.0	86.8	29.5	27.7	60.3	29.1	18.7	4.9	51.8	21.6	7.5	47.6	4.2	10.4
Andhra Pradesh (n=62)	Mean	404.7	13.8	418.4	25.0	8.4	40.9	36.4	0.5	17.9	36.2	11.4	15.3	22.5	12.3	6.3
	SD	155.7	48.3	142.4	33.3	27.8	53.3	33.8	1.8	13.9	50.7	36.9	34.3	46.7	7.8	7.2
Maharashtra (n=105)	Mean	277.6	107.6	385.2	44.2	7.8	17.0	19.4	1.1	9.1	10.6	1.8	2.4	12.7	14.9	20.3
	SD	175.1	171.8	127.0	29.8	28.0	31.2	25.9	4.3	3.7	35.3	10.4	12.3	24.4	7.8	12.4
Gujarat (n=108)	Mean	97.0	265.7	368.2	50.1	5.7	48.8	61.1	1.0	11.4	13.5	0.0	10.0	46.8	10.9	7.1
	SD	141.9	189.1	110.8	54.7	36.0	61.9	63.1	0.6	13.4	40.9	0.1	35.0	50.6	5.8	7.0
Madhya Pradesh (n=107)	Mean	257.7	114.1	371.9	23.8	16.3	37.9	30.6	0.1	7.6	9.0	0.6	1.5	11.4	6.3	4.8
	SD	171.1	172.1	101.6	22.3	33.2	52.5	40.7	0.6	3.5	16.0	5.8	15.1	31.0	8.3	6.0
Orissa (n=106)	Mean	467.9	8.3	476.2	16.4	56.5	44.3	38.1	0.1	7.5	19.3	1.0	6.0	0.2	5.1	1.8
	SD	62.2	36.9	61.2	20.2	67.7	58.9	48.1	0.3	9.7	43.3	4.8	25.8	1.7	3.8	4.9
West Bengal (n=36)	Mean	529.1	0.0	529.1	4.9	74.1	37.1	85.0	0.1	4.3	3.0	10.9	5.8	0.0	5.5	1.2
	SD	245.1	0.0	245.1	9.3	113.2	53.7	77.5	0.4	3.4	10.2	33.5	19.9	0.0	5.0	2.3
Pooled (n=741)	Mean	309.6	73.1	383.6	27.8	20.2	37.7	36.3	6.8	10.3	17.4	4.6	5.3	19.0	8.3	8.7
	SD	182.1	150.1	129.5	34.5	49.4	53.7	47.6	15.9	9.9	38.5	19.7	24.3	40.5	7.4	10.3

Table 29 : AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG ADULT MEN (≥18 YEARS - SEDENTARY)

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=230)	Mean	344.5	0.0	344.5	20.2	15.9	55.5	90.7	48.3	16.3	28.8	31.2	6.0	24.6	7.7	10.4
	SD	144.8	0.5	144.8	27.1	45.8	101.7	131.2	38.2	10.6	53.2	49.3	36.1	59.5	5.5	7.4
Tamil Nadu (n=160)	Mean	408.4	4.5	413.0	42.3	14.4	34.1	31.8	4.3	17.5	42.3	0.0	0.6	25.2	13.3	4.4
	SD	125.1	28.8	121.9	33.8	35.4	45.9	30.3	9.7	8.7	42.7	0.4	4.5	63.6	7.8	5.5
Karnataka (n=277)	Mean	397.8	2.2	400.1	11.3	11.6	39.8	29.6	34.8	9.8	23.8	8.8	17.9	46.6	3.3	15.7
	SD	149.4	19.8	146.9	20.8	31.5	61.5	39.0	21.9	6.4	45.0	26.9	74.7	55.5	4.7	11.8
Andhra Pradesh (n=184)	Mean	441.5	9.5	451.0	31.2	6.3	41.1	48.5	1.2	15.4	43.7	4.3	20.9	32.5	15.3	7.9
	SD	182.9	42.1	175.4	33.9	26.4	60.3	46.1	5.5	11.0	72.5	21.3	45.6	62.2	10.1	11.3
Maharashtra (n=215)	Mean	314.6	114.3	428.9	53.7	9.2	26.5	18.6	.9	9.6	11.9	3.4	3.5	17.2	17.5	20.9
	SD	187.1	173.0	148.2	38.0	32.2	44.1	26.4	3.0	4.0	50.5	20.0	17.7	33.0	10.0	14.1
Gujarat (n=133)	Mean	113.5	326.1	442.3	51.5	5.8	60.5	70.6	1.2	14.4	10.9	0.0	14.0	49.6	14.2	6.2
	SD	162.3	263.5	179.9	53.8	29.4	85.6	73.0	0.8	23.2	29.9	0.1	45.2	54.5	8.6	4.7
Madhya Pradesh (n=95)	Mean	323.9	77.5	401.4	30.2	15.6	23.8	41.4	0.0	8.0	7.7	0.0	0.3	10.1	6.9	6.4
	SD	171.8	140.3	107.4	28.7	31.7	42.5	44.2	0.4	4.6	12.0	0.0	3.1	29.1	6.1	6.6
Orissa (n=191)	Mean	498.2	0.8	499.0	22.6	58.6	56.4	55.9	0.2	6.8	19.9	5.0	8.3	0.7	7.5	4.1
	SD	88.2	11.2	87.1	26.9	68.0	65.3	63.7	0.5	8.2	41.8	20.5	35.5	7.5	6.8	8.5
West Bengal (n=142)	Mean	603.3	0.0	603.3	12.2	75.7	33.1	83.2	0.2	5.8	8.1	15.0	4.9	1.0	7.3	5.6
	SD	239.9	0.0	239.9	18.1	90.0	49.1	83.7	0.7	5.0	21.4	37.5	20.1	5.8	7.1	30.0
Pooled (n=1627)	Mean	387.4	48.3	435.9	29.3	22.5	42.0	50.9	13.6	11.7	23.2	8.8	9.3	24.7	10.1	10.1
	SD	199.1	139.8	167.5	35.2	51.8	67.2	73.0	25.6	10.8	48.2	29.0	42.5	50.7	8.9	14.1
RDI			-	460	40	40	60	50	-	-	-	-	-	150	40	30

Table 29-A : DISTRIBUTION (%) OF ADULT MEN (≥ 18 YEARS - SEDENTARY) ACCORDING TO DAILY INTAKE OF FOODSTUFFS AS PERCENT RDI

Percent of RDI		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=230	n=160	n=277	n=184	n=215	n=133	n=95	n=191	n=142	
Cereals & Millets	<50	20.9	8.1	9.7	12.0	7.4	10.5	4.2	1.0	2.1	9.2
	50-70	27.0	15.0	23.5	11.4	18.6	17.3	13.7	2.6	6.3	16.1
	≥70	52.2	76.9	66.8	76.6	74.0	72.2	82.1	96.3	91.5	74.7
Pulses	<50	60.4	26.9	78.7	46.2	13.5	40.6	27.4	51.3	75.4	49.1
	50-70	8.7	10.6	6.9	6.5	8.4	2.3	21.1	10.5	8.5	8.7
	≥70	30.9	62.5	14.4	47.3	78.1	57.1	51.6	38.2	16.2	42.2
Green Leafy-Veg	<50	86.1	81.3	86.3	94.0	89.8	95.5	78.9	47.6	48.6	79.6
	50-70	0.4	2.5	1.8	0.5	0.5	0.0	1.1	0.0	1.4	0.9
	≥70	13.5	16.3	11.9	5.4	9.8	4.5	20.0	52.4	50.0	19.5
Other-Veg	<50	57.8	58.1	61.0	59.8	68.8	56.4	74.7	48.7	63.4	60.4
	50-70	3.5	7.5	4.3	3.3	3.7	2.3	2.1	3.1	5.6	4.0
	≥70	38.7	34.4	34.7	37.0	27.4	41.4	23.2	48.2	31.0	35.6
Roots & Tubers	<50	34.8	55.0	66.8	39.7	79.5	39.8	47.4	43.5	29.6	50.4
	50-70	6.5	15.6	7.2	10.9	3.3	3.0	3.2	5.2	4.2	6.8
	≥70	58.7	29.4	26.0	49.5	17.2	57.1	49.5	51.3	66.2	42.8
Milk & Milk Prod.	<50	87.8	90.0	81.6	84.2	94.9	83.5	96.8	99.5	100.0	90.1
	50-70	3.5	2.5	9.7	7.6	2.3	3.0	2.1	0.5	0.0	4.0
	≥70	8.7	7.5	8.7	8.2	2.8	13.5	1.1	0.0	0.0	5.9
Fats & Oils	<50	70.9	41.3	91.3	38.0	24.7	37.6	82.1	77.0	76.8	60.8
	50-70	17.8	23.8	5.4	14.1	15.8	25.6	6.3	11.0	12.0	14.3
	≥70	11.3	35.0	3.2	47.8	59.5	36.8	11.6	12.0	11.3	25.0
Sugar & Jaggery	<50	81.3	94.4	61.0	85.3	36.7	98.5	94.7	90.6	97.2	78.4
	50-70	15.2	5.0	20.2	2.7	15.3	0.0	1.1	4.2	1.4	9.1
	≥70	3.5	0.6	18.8	12.0	47.9	1.5	4.2	5.2	1.4	12.5

Table 30 : AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG ADULT WOMEN (≥ 18 YEARS - NPNL – SEDENTARY)

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=1000)	Mean	297.6	0.0	297.6	16.8	10.6	47.0	68.7	42.2	16.2	27.4	31.7	3.9	12.7	8.2	9.8
	SD	113.9	0.5	113.9	24.5	33.5	80.8	99.2	36.1	11.0	49.6	51.5	29.0	38.9	9.9	6.6
Tamil Nadu (n=341)	Mean	369.3	2.2	371.5	36.6	12.5	36.2	28.7	3.7	14.4	35.0	0.1	0.6	18.1	11.5	4.7
	SD	87.0	22.2	87.9	28.6	31.9	44.8	31.4	10.5	8.5	31.6	0.8	5.7	41.3	8.2	6.3
Karnataka (n=999)	Mean	384.5	0.9	385.4	12.5	12.3	51.9	31.0	35.7	10.7	28.2	5.8	10.3	41.2	3.3	17.5
	SD	122.6	14.1	123.3	24.7	36.4	73.7	41.7	21.5	7.0	75.8	21.2	45.1	51.7	6.2	13.8
Andhra Pradesh (n=299)	Mean	376.5	7.4	384.0	25.4	9.2	33.6	34.9	1.2	11.9	42.6	5.8	13.4	31.1	12.5	8.3
	SD	144.5	39.6	140.0	29.0	31.7	52.7	37.9	6.5	7.6	61.9	22.8	32.1	61.4	8.3	11.4
Maharashtra (n=279)	Mean	270.7	75.6	346.3	42.8	7.9	22.3	23.6	1.0	8.2	9.8	2.2	2.3	15.7	14.8	21.9
	SD	151.5	127.6	118.4	29.8	25.7	37.3	32.0	3.4	3.3	44.7	12.9	13.5	40.2	8.4	13.9
Gujarat (n=170)	Mean	109.0	279.9	388.9	56.2	3.8	57.2	54.2	1.0	12.7	11.6	0.0	14.0	57.6	12.9	6.7
	SD	158.8	210.4	138.4	63.0	19.1	70.1	59.7	0.7	20.2	24.6	0.0	43.0	70.7	7.3	5.3
Madhya Pradesh (n=197)	Mean	300.2	58.3	358.5	27.8	13.6	30.2	34.6	0.0	7.7	10.8	1.4	0.3	6.5	6.4	6.0
	SD	161.0	118.9	116.3	24.5	27.4	48.3	40.7	0.1	3.5	20.0	19.0	4.0	17.9	5.1	6.6
Orissa (n=448)	Mean	439.5	2.1	441.6	20.7	57.3	48.4	46.0	0.4	5.8	18.7	3.8	6.8	0.7	6.1	3.1
	SD	88.2	20.9	85.1	24.5	65.5	62.8	52.7	4.5	7.1	56.9	18.1	30.6	6.2	4.9	7.2
West Bengal (n=330)	Mean	540.1	0.0	540.1	11.2	59.7	30.2	76.4	0.3	5.4	11.8	12.3	8.1	0.7	8.1	6.7
	SD	225.0	0.0	225.0	16.1	81.0	47.7	69.1	2.1	4.4	34.5	35.2	30.2	5.3	14.6	28.4
Pooled (n=4063)	Mean	356.5	20.9	377.5	22.0	19.9	43.0	46.4	19.7	11.2	24.5	11.3	6.7	21.0	7.9	10.7
	SD	160.3	85.4	143.5	30.1	47.1	66.6	66.0	28.5	9.6	55.7	33.3	32.7	45.4	9.2	13.8
RDI			-	410	40	100	40	50	•	*	-	-	--	100	20	35

**Table 30-A : DISTRIBUTION (%) OF ADULT WOMEN (≥18 YEARS – NPNL - SEDENTARY)
ACCORDING TO DAILY INTAKE OF FOODSTUFFS AS PERCENT RDI**

Percent of RDI		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=1000	n=341	n=999	n=299	n=279	n=170	n=197	n=448	n=330	
Cereals & Millets	<50	19.5	2.9	5.0	8.4	10.4	4.1	9.1	.4	3.9	8.6
	50-70	33.6	15.0	16.4	16.4	24.4	17.1	17.8	3.1	9.1	19.1
	≥70	46.9	82.1	78.6	75.3	65.2	78.8	73.1	96.4	87.0	72.3
Pulses	<50	68.0	32.6	78.1	51.5	22.9	42.4	35.5	54.0	75.8	59.6
	50-70	9.1	9.1	5.7	6.7	12.9	1.2	19.8	11.8	10.0	8.9
	≥70	22.9	58.4	16.2	41.8	64.2	56.5	44.7	34.2	14.2	31.5
Green Leafy-Veg	<50	93.3	88.9	90.1	93.0	93.5	97.1	86.3	51.8	60.6	84.7
	50-70	1.7	3.8	3.4	1.7	2.2	0.0	6.1	9.8	2.4	3.4
	≥70	5.0	7.3	6.5	5.4	4.3	2.9	7.6	38.4	37.0	11.9
Other-Veg	<50	51.5	49.3	54.3	59.5	68.1	50.6	61.9	50.7	63.6	55.1
	50-70	5.3	4.1	2.4	1.3	1.8	0.6	3.6	1.8	0.3	2.9
	≥70	43.2	46.6	43.3	39.1	30.1	48.8	34.5	47.5	36.1	42.0
Roots & Tubers	<50	40.8	63.0	67.0	52.8	69.9	45.9	54.3	48.7	28.2	52.7
	50-70	9.2	13.8	8.6	15.1	5.0	5.3	3.0	3.3	6.7	8.3
	≥70	50.0	23.2	24.4	32.1	25.1	48.8	42.6	48.0	65.2	39.0
Milk & Milk Prod.	<50	90.1	85.0	65.9	79.6	92.5	76.5	97.5	99.6	99.7	84.7
	50-70	2.2	5.9	15.1	6.0	4.7	3.5	0.5	0.2	0.3	5.7
	≥70	7.7	9.1	19.0	14.4	2.9	20.0	2.0	0.2	0.0	9.5
Fats & Oils	<50	73.6	51.0	93.3	45.2	31.9	39.4	85.8	84.2	84.5	72.8
	50-70	14.2	22.9	3.6	20.4	21.1	30.0	8.1	10.0	5.2	12.4
	≥70	12.2	26.1	3.1	34.4	47.0	30.6	6.1	5.8	10.3	14.8
Sugar & Jaggery	<50	77.3	88.0	32.9	74.2	14.7	78.2	82.2	85.5	90.3	65.0
	50-70	5.2	4.1	19.1	9.4	16.1	15.3	10.2	5.6	3.0	10.1
	≥70	17.5	7.9	47.9	16.4	69.2	6.5	7.6	8.9	6.7	24.9

Table 31 : AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG ADULT WOMEN (≥ 18 YEARS - PREGNANT – SEDENTARY)

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=20)	Mean	263.1	0.0	263.1	12.5	1.2	53.3	62.9	30.2	16.1	44.6	26.3	13.9	17.0	8.4	9.3
	SD	102.2	0.0	102.2	20.8	4.1	99.6	90.8	27.8	11.9	52.4	41.1	54.8	42.2	5.3	5.2
Tamil Nadu (n=36)	Mean	365.3	1.9	367.2	28.8	0.6	43.0	30.8	2.3	16.5	26.4	0.0	0.0	22.7	12.8	5.5
	SD	80.6	11.7	80.7	26.4	0.4	53.3	41.8	5.5	8.4	22.8	0.0	0.0	51.8	5.8	6.4
Karnataka (n=24)	Mean	334.9	0.0	334.9	8.0	6.5	32.7	28.7	32.1	9.4	15.4	20.7	10.5	48.5	4.0	13.7
	SD	105.0	0.0	105.0	14.0	22.9	48.7	36.2	19.7	5.1	26.4	53.0	41.0	55.8	4.1	10.5
Andhra Pradesh (n=14)	Mean	388.9	0.0	388.9	44.3	9.0	36.7	23.7	4.4	10.5	32.2	0.0	17.9	39.2	15.4	13.9
	SD	159.3	0.0	159.3	22.1	21.4	59.0	26.3	13.9	7.6	25.0	0.0	47.9	61.8	13.2	20.9
Maharashtra (n=7)	Mean	325.0	78.9	403.9	39.1	1.0	50.3	8.0	2.7	11.4	37.6	0.0	14.3	6.4	20.1	17.3
	SD	170.6	134.8	104.6	31.1	1.4	67.5	7.4	6.8	6.8	99.4	0.0	37.8	11.0	11.0	9.6
Gujarat (n=11)	Mean	154.6	222.7	377.3	52.2	0.4	62.9	49.5	1.1	9.9	21.5	0.0	10.8	82.6	13.0	5.9
	SD	175.3	167.0	92.8	57.3	0.7	79.1	63.8	0.9	5.4	29.8	0.0	35.9	121.8	7.2	4.6
Madhya Pradesh (n=7)	Mean	394.1	67.6	461.7	13.9	54.3	71.9	44.7	0.0	7.3	17.1	0.0	0.0	5.7	14.7	8.1
	SD	193.6	178.8	136.6	17.4	109.2	102.0	37.2	0.0	3.6	19.3	0.0	0.0	15.1	8.7	4.9
Orissa (n=24)	Mean	457.4	0.0	457.4	22.7	66.3	39.5	69.6	0.4	5.6	10.2	10.9	4.2	14.6	6.6	3.7
	SD	81.5	0.0	81.5	25.8	73.1	48.7	61.2	0.9	3.4	19.2	31.4	20.4	54.1	4.9	7.0
West Bengal (n=15)	Mean	545.7	0.0	545.7	4.1	31.8	54.2	78.2	0.2	5.8	23.4	8.6	0.0	0.0	5.5	2.2
	SD	167.6	0.0	167.6	8.7	58.0	67.0	51.0	0.7	3.4	64.4	15.4	0.0	0.0	4.1	2.7
Pooled (n=158)	Mean	365.8	22.4	388.2	23.1	17.7	45.7	45.2	9.9	11.1	24.5	8.9	7.0	26.7	9.9	8.1
	SD	153.5	84.7	132.2	29.1	47.5	65.5	56.2	18.8	8.2	39.8	29.7	32.2	58.5	8.0	9.9

Table 32 : AVERAGE INTAKE OF FOODSTUFFS (g/day) AMONG ADULT WOMEN (≥ 18 YEARS - LACTATING - SEDENTARY)

State		Cereals	Millets	Cereals & Millets	Pulses & Legumes	Green Leafy Veg.	Other Veg.	Roots & Tubers	Nuts & Oils	Condi. & Spices	Fruits	Fish	Other Flesh Foods	Milk & Milk Products	Fats & oils	Sugar & Jaggery
Kerala (n=52)	Mean	332.4	0.0	332.4	16.1	11.9	63.4	63.9	44.1	16.1	22.6	40.2	0.8	12.8	9.4	10.4
	SD	117.0	0.0	117.0	30.6	34.4	126.0	77.7	40.8	10.1	34.7	62.7	5.5	35.5	6.5	5.6
Tamil Nadu (n=116)	Mean	407.4	1.6	408.9	36.9	10.1	36.4	34.6	2.2	17.2	43.4	.3	0.5	13.1	11.8	5.1
	SD	84.7	11.8	86.1	25.8	27.6	50.2	31.9	5.6	9.6	42.8	3.0	5.5	36.0	6.1	5.7
Karnataka (n=52)	Mean	399.9	3.8	403.7	11.7	17.9	44.6	43.6	33.8	10.0	21.7	13.5	4.4	31.5	3.4	19.9
	SD	119.1	27.6	119.3	17.8	39.1	60.2	56.1	21.1	5.9	45.6	43.1	26.0	35.2	4.6	16.0
Andhra Pradesh (n=33)	Mean	468.7	11.5	480.2	24.9	13.2	50.7	43.7	0.6	16.0	52.5	6.4	7.8	32.6	15.8	7.0
	SD	174.3	45.9	171.6	30.2	36.1	61.8	47.0	1.5	14.9	69.9	35.5	32.0	98.2	7.7	8.0
Maharashtra (n=24)	Mean	331.5	69.8	401.3	66.5	0.3	17.0	8.5	2.3	9.3	5.5	1.5	0.0	10.1	16.3	23.0
	SD	163.7	128.4	148.0	48.9	0.8	33.0	14.2	9.8	3.4	11.5	7.1	0.0	19.8	14.0	23.0
Gujarat (n=22)	Mean	130.6	302.7	433.3	46.6	3.2	77.0	84.1	1.0	13.7	14.3	0.0	0.6	99.1	12.2	5.7
	SD	180.4	225.9	131.4	49.1	14.2	95.3	87.8	0.8	7.3	21.1	0.0	3.0	117.3	6.5	2.7
Madhya Pradesh (n=12)	Mean	328.4	17.9	346.3	36.0	6.8	44.5	38.7	0.0	8.7	9.2	0.0	6.9	3.7	9.4	9.9
	SD	140.2	62.1	120.3	34.4	14.2	58.4	41.1	0.0	4.1	12.9	0.0	24.0	9.8	5.4	9.2
Orissa (n=110)	Mean	495.9	6.3	502.1	24.2	64.8	41.0	42.2	0.1	7.5	17.7	4.5	5.7	1.3	5.7	2.1
	SD	81.5	60.3	76.9	27.9	75.3	66.4	53.2	0.3	11.4	40.4	21.8	29.8	6.5	5.0	6.9
West Bengal (n=41)	Mean	521.1	3.7	524.8	8.0	71.9	56.0	69.3	0.0	6.7	22.9	13.2	6.7	2.7	7.0	3.4
	SD	204.7	23.6	208.0	16.8	84.0	78.4	77.6	0.1	7.0	82.4	33.6	30.8	17.3	5.8	7.2
Pooled (n=462)	Mean	414.5	22.0	436.4	27.2	29.0	45.3	45.6	9.6	12.1	27.1	8.9	3.4	16.5	9.2	7.7
	SD	153.2	92.7	134.3	32.2	57.1	73.1	57.3	22.5	10.5	48.4	33.0	21.7	49.0	7.5	11.4

Table 33 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG 1-3 YEARS CHILDREN

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=230)	Mean	13.8	10.2	575	108	3.4	70.5	0.3	0.2	4.8	13.5	16.2
	Median	11.7	9.1	541	72	2.7	16.4	0.3	0.1	4.4	6.6	13.5
	SD	9.6	8.1	257	120	3.6	231.6	0.2	0.2	2.3	25.6	11.9
Tamil Nadu (n=333)	Mean	14.2	7.2	611	119	4.3	70.7	0.4	0.2	5.5	12.1	18.0
	Median	14.4	6.3	600	82	3.2	30.3	0.4	0.2	4.9	7.4	16.5
	SD	6.4	5.4	246	118	5.4	105.4	0.4	0.1	4.6	14.3	9.8
Karnataka (n=188)	Mean	14.6	9.5	657	129	3.6	108.2	0.3	0.2	4.5	10.3	16.5
	Median	12.9	8.3	623	102	2.9	36.5	0.3	0.2	4.2	6.4	15.0
	SD	7.9	6.8	285	107	3.8	247.2	0.2	0.1	2.0	15.8	10.2
Andhra Pradesh (n=293)	Mean	20.0	10.8	811	145	3.9	98.0	0.3	0.2	4.4	14.7	17.0
	Median	18.6	9.1	774	101	3.4	35.2	0.3	0.2	4.2	7.3	14.0
	SD	10.8	8.4	383	157	2.8	226.6	0.2	0.2	2.3	25.6	12.8
Maharashtra (n=447)	Mean	19.7	10.4	743	122	5.2	65.8	0.4	0.2	4.3	5.7	16.4
	Median	19.2	9.2	731	79	4.3	26.0	0.4	0.2	4.2	2.5	14.9
	SD	9.4	7.3	337	135	3.9	164.4	0.2	0.1	2.1	10.3	9.4
Gujarat (n=275)	Mean	29.2	15.2	935	162	7.1	75.3	0.9	0.3	6.0	17.0	33.3
	Median	27.3	14.2	891	135	6.4	63.6	0.9	0.3	5.8	11.3	32.2
	SD	13.3	6.9	352	101	4.2	78.5	0.5	0.1	2.6	20.6	18.0
Madhya Pradesh (n=443)	Mean	17.9	6.6	640	94	5.5	94.6	0.5	0.2	4.6	11.1	16.6
	Median	16.6	5.1	613	74	4.9	27.9	0.5	0.2	4.2	5.2	14.3
	SD	9.7	5.5	314	75	3.8	192.7	0.4	0.1	2.7	18.5	11.5
Orissa (n=391)	Mean	16.8	5.1	682	200	4.9	378.0	0.4	0.2	6.2	44.1	20.8
	Median	15.8	4.5	648	166	3.8	65.2	0.4	0.2	6.1	20.9	17.5
	SD	7.7	3.8	249	187	4.3	545.3	0.2	0.1	2.7	53.4	12.8
West Bengal (n=191)	Mean	16.8	6.1	753	154	4.4	192.3	0.5	0.2	7.6	33.9	20.0
	Median	16.4	4.4	751	85	3.7	13.9	0.5	0.2	7.4	16.9	18.6
	SD	8.5	5.1	346	180	3.6	487.4	0.2	0.1	3.6	52.2	11.5
States Pooled (n=2791)	Mean	18.3	8.8	709	136	4.8	130.9	0.5	0.2	5.2	17.6	19.2
	Median	16.8	7.1	675	95	3.8	32.3	0.4	0.2	4.9	7.2	16.3
	SD	10.3	7.1	326	138	4.2	307.6	0.3	0.1	3.0	31.9	13.0
RDA		22		1240	400	12	400	0.6	0.7	8	40	-

Table 33-A : DISTRIBUTION (%) OF 1-3 YEARS CHILDREN ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=230	n=333	n=188	n=293	n=447	n=275	n=443	n=391	n=191	
Protein	<50	46.1	33.9	38.3	19.1	19.2	4.0	25.5	19.9	26.7	24.6
	50-70	21.7	23.1	23.4	16.7	14.8	7.3	20.8	27.4	19.4	19.4
	≥70	32.2	42.9	38.3	64.2	66.0	88.7	53.7	52.7	53.9	56.0
Energy	<50	60.9	51.7	50.0	31.4	37.4	15.6	51.5	42.7	36.1	42.0
	50-70	26.1	33.0	27.7	29.0	27.5	30.5	27.5	35.3	26.7	29.6
	≥70	13.0	15.3	22.3	39.6	35.1	53.8	21.0	22.0	37.2	28.4
Calcium	<50	85.7	79.3	79.8	79.2	85.7	79.6	90.3	60.9	77.0	79.9
	50-70	7.4	14.4	11.7	10.2	3.8	9.8	7.0	16.1	5.8	9.5
	≥70	7.0	6.3	8.5	10.6	10.5	10.5	2.7	23.0	17.3	10.6
Iron	<50	91.3	81.1	87.8	83.6	68.2	46.9	60.9	77.5	80.6	73.5
	50-70	4.8	8.4	8.5	11.9	16.3	22.9	21.2	12.0	14.1	14.1
	≥70	3.9	10.5	3.7	4.4	15.4	30.2	17.8	10.5	5.2	12.4
Vitamin-A	<50	92.2	92.8	87.2	89.1	94.4	98.5	86.9	59.3	84.8	86.6
	50-70	3.5	2.1	2.7	3.8	2.5	0.0	2.7	3.3	0.0	2.4
	≥70	4.3	5.1	10.1	7.2	3.1	1.5	10.4	37.3	15.2	11.0
Thiamin	<50	64.3	47.1	67.6	68.6	48.3	14.5	43.8	38.9	30.4	46.3
	50-70	16.1	15.9	19.7	12.3	15.2	5.8	5.9	22.0	18.8	14.2
	≥70	19.6	36.9	12.8	19.1	36.5	79.6	50.3	39.1	50.8	39.5
Riboflavin	<50	91.7	93.4	89.4	80.9	81.7	58.2	87.4	91.0	91.1	84.9
	50-70	3.9	4.2	8.0	10.2	11.0	21.5	8.1	5.6	3.7	8.6
	≥70	4.3	2.4	2.7	8.9	7.4	20.4	4.5	3.3	5.2	6.5
Niacin	<50	41.3	36.6	46.3	47.4	46.8	22.2	47.6	23.0	17.8	37.5
	50-70	32.2	21.9	26.1	24.9	29.1	24.4	21.4	19.9	13.6	23.8
	≥70	26.5	41.4	27.7	27.6	24.2	53.5	30.9	57.0	68.6	38.6
Vitamin-C	<50	83.0	83.2	88.8	79.5	94.0	71.6	86.2	48.8	56.5	77.6
	50-70	7.0	5.4	5.3	7.5	3.8	9.5	4.3	7.7	13.6	6.6
	≥70	10.0	11.4	5.9	13.0	2.2	18.9	9.5	43.5	29.8	15.8
Free folic acid	<50	58.3	44.1	50.5	53.2	50.8	15.3	53.3	39.4	35.1	45.1
	50-70	17.8	21.0	29.8	21.2	23.5	10.5	16.7	21.0	27.2	20.5
	≥70	23.9	34.8	19.7	25.6	25.7	74.2	30.0	39.6	37.7	34.5

Table 34 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG 4-6 YEARS CHILDREN

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=230)	Mean	20.7	14.5	864	171	4.9	121.9	0.5	0.2	7.2	21.4	23.6
	Median	19.1	12.6	827	115	4.4	27.5	0.5	0.2	6.6	12.9	20.5
	SD	9.1	9.5	286	162	2.4	311.4	0.2	0.1	2.4	25.9	13.6
Tamil Nadu (n=248)	Mean	21.4	9.3	912	155	6.1	93.0	0.6	0.3	8.3	22.1	27.4
	Median	21.2	8.4	900	113	4.7	50.1	0.6	0.2	7.8	16.4	26.4
	SD	7.1	5.1	264	117	5.1	119.0	0.4	0.1	4.4	22.9	10.7
Karnataka (n=210)	Mean	21.4	12.8	914	169	5.2	120.3	0.4	0.3	6.8	13.3	24.4
	Median	19.8	10.9	899	133	4.3	42.2	0.4	0.2	6.4	9.6	23.1
	SD	11.0	8.5	353	161	4.5	317.7	0.3	0.2	3.1	13.6	13.4
Andhra Pradesh (n=328)	Mean	29.7	14.1	1204	183	5.5	148.4	0.4	0.4	6.8	21.7	25.9
	Median	28.2	12.1	1177	143	4.9	52.2	0.4	0.3	6.5	12.5	22.5
	SD	11.7	8.3	392	163	3.0	303.5	0.3	0.2	2.5	30.4	14.9
Maharashtra (n=455)	Mean	30.8	14.2	1153	159	8.5	94.4	0.7	0.4	7.2	9.2	27.0
	Median	29.5	13.2	1122	114	7.1	41.0	0.6	0.3	6.7	4.4	23.7
	SD	11.3	6.4	359	141	6.2	239.8	0.4	0.2	3.0	13.5	14.6
Gujarat (n=330)	Mean	41.3	18.4	1231	199	10.0	94.8	1.1	0.4	8.3	19.4	45.1
	Median	36.0	17.5	1120	161	8.9	76.7	1.1	0.4	7.9	13.1	40.1
	SD	18.3	7.4	410	124	5.8	121.7	0.6	0.2	3.4	24.3	21.9
Madhya Pradesh (n=510)	Mean	26.7	9.0	927	129	7.7	123.2	0.7	0.3	6.8	16.9	26.0
	Median	25.1	7.7	887	107	6.8	43.3	0.7	0.3	6.2	9.1	23.7
	SD	11.8	5.9	352	91	4.8	239.0	0.5	0.1	3.3	26.7	15.6
Orissa (n=393)	Mean	23.8	6.7	979	270	7.1	465.2	0.6	0.3	9.0	53.1	29.2
	Median	22.6	6.0	941	208	5.5	107.2	0.6	0.2	9.2	29.6	26.9
	SD	7.8	4.2	228	277	7.4	664.9	0.2	0.1	2.7	59.6	14.2
West Bengal (n=258)	Mean	28.3	7.7	1284	220	7.4	280.7	0.8	0.3	13.5	53.0	35.5
	Median	26.6	6.3	1243	114	5.9	24.0	0.8	0.2	13.0	25.0	32.6
	SD	11.5	5.9	485	244	6.5	654.5	0.3	0.2	5.4	73.2	16.4
States Pooled (n=2962)	Mean	27.8	11.7	1057	182	7.2	174.6	0.7	0.3	8.0	25.0	29.4
	Median	25.4	10.1	1002	132	5.8	47.3	0.6	0.3	7.4	12.0	26.0
	SD	13.0	7.7	383	177	5.6	396.7	0.4	0.2	3.9	40.0	16.7
RDA		30		1690	400	18	400	0.9	1.0	11	40	40

Table 34-A : DISTRIBUTION (%) OF 4-6 YEARS CHILDREN ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=230	n=248	n=210	n=328	n=455	n=330	n=510	n=393	n=258	
Protein	<50	30.4	17.3	31.0	7.0	4.4	2.4	15.9	7.6	9.7	12.3
	50-70	26.5	32.3	24.8	14.6	16.9	5.5	18.2	35.6	17.4	20.7
	≥70	43.0	50.4	44.3	78.4	78.7	92.1	65.9	56.7	72.9	66.9
Energy	<50	52.6	43.5	43.3	15.9	20.2	15.8	44.3	25.4	15.5	29.8
	50-70	32.2	47.6	39.0	36.3	35.2	38.8	33.7	58.0	27.5	38.9
	≥70	15.2	8.9	17.6	47.9	44.6	45.5	22.0	16.5	57.0	31.3
Calcium	<50	75.7	72.2	70.5	69.5	80.7	67.0	84.7	47.3	66.7	71.1
	50-70	7.0	18.1	15.7	17.4	8.4	14.2	10.4	17.0	8.5	12.8
	≥70	17.4	9.7	13.8	13.1	11.0	18.8	4.9	35.6	24.8	16.1
Iron	<50	92.6	80.2	91.9	89.0	64.8	51.5	69.4	85.0	79.8	76.2
	50-70	7.0	15.7	5.2	7.3	18.2	22.1	16.7	7.9	11.2	13.2
	≥70	0.4	4.0	2.9	3.7	16.9	26.4	13.9	7.1	8.9	10.6
Vitamin-A	<50	84.8	91.1	87.1	82.9	93.6	97.6	86.1	55.5	81.0	84.1
	50-70	4.8	2.8	3.3	7.6	1.1	.6	2.2	2.0	1.6	2.7
	≥70	10.4	6.0	9.5	9.5	5.3	1.8	11.8	42.5	17.4	13.2
Thiamin	<50	44.8	30.2	56.2	65.5	32.5	11.5	37.5	18.8	9.3	33.3
	50-70	36.1	35.1	30.0	20.1	24.2	9.4	9.4	43.3	22.1	24.1
	≥70	19.1	34.7	13.8	14.3	43.3	79.1	53.1	37.9	68.6	42.6
Riboflavin	<50	96.1	98.0	97.1	89.9	88.4	75.5	92.4	96.2	92.6	91.2
	50-70	3.0	0.8	1.9	7.9	8.4	20.9	7.1	2.8	3.1	6.8
	≥70	.9	1.2	1.0	2.1	3.3	3.6	0.6	1.0	4.3	2.0
Niacin	<50	25.2	22.6	38.6	34.1	31.0	19.7	44.5	13.0	4.7	27.1
	50-70	42.2	26.6	31.4	35.4	32.7	29.1	22.2	15.3	7.0	26.4
	≥70	32.6	50.8	30.0	30.5	36.3	51.2	33.3	71.8	88.4	46.5
Vitamin-C	<50	66.5	66.1	81.0	68.6	88.8	69.7	78.4	41.5	40.7	68.0
	50-70	10.0	12.5	9.5	8.5	3.3	12.4	7.1	7.1	16.3	8.9
	≥70	23.5	21.4	9.5	22.9	7.9	17.9	14.5	51.4	43.0	23.1
Free folic acid	<50	47.8	26.6	43.3	40.9	38.7	9.1	40.2	28.8	12.8	32.3
	50-70	26.5	28.6	29.5	25.3	24.4	11.2	20.2	27.5	22.1	23.4
	≥70	25.7	44.8	27.1	33.8	36.9	79.7	39.6	43.8	65.1	44.3

Table 35 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG 7-9 YEARS CHILDREN

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=206)	Mean	26.2	17.8	1045	218	6.4	135.6	0.6	0.3	9.0	28.1	29.2
	Median	23.6	16.2	1005	150	5.5	42.4	0.6	0.3	8.6	16.3	25.5
	SD	11.6	11.3	334	214	3.5	388.9	0.2	0.1	3.1	49.1	14.0
Tamil Nadu (n=258)	Mean	25.9	10.6	1098	183	7.8	95.5	0.7	0.3	10.0	21.2	33.2
	Median	26.6	9.3	1110	144	6.1	59.2	0.7	0.3	10.0	17.0	33.9
	SD	6.9	5.6	267	120	6.5	103.0	0.4	0.1	5.1	20.1	12.5
Karnataka (n=197)	Mean	27.1	16.0	1178	203	6.1	221.7	0.6	0.4	8.5	21.6	32.3
	Median	25.1	14.6	1155	159	5.0	52.5	0.5	0.3	7.8	14.2	30.7
	SD	12.2	9.2	386	165	4.1	1032.3	0.3	0.2	3.9	32.8	15.6
Andhra Pradesh (n=326)	Mean	33.7	15.4	1427	183	6.1	168.9	0.5	0.4	8.0	22.6	29.0
	Median	33.1	13.6	1415	156	5.4	54.6	0.4	0.4	7.9	13.7	24.8
	SD	12.6	9.0	440	123	3.1	332.1	0.2	0.2	2.9	27.0	15.5
Maharashtra (n=454)	Mean	38.1	17.6	1433	201	10.4	99.4	0.9	0.5	9.0	11.4	34.5
	Median	36.6	16.2	1405	140	9.1	47.8	0.7	0.4	8.5	5.3	29.8
	SD	13.7	8.6	416	185	6.1	187.7	0.5	0.2	3.4	17.1	18.3
Gujarat (n=382)	Mean	47.4	20.6	1419	212	11.8	110.9	1.3	0.5	9.6	23.1	52.6
	Median	47.0	20.7	1463	179	10.8	91.7	1.3	0.5	9.1	15.8	54.7
	SD	19.5	7.6	396	112	6.8	149.1	0.6	0.2	3.3	27.2	23.2
Madhya Pradesh (n=454)	Mean	33.4	10.9	1147	157	9.4	157.3	0.9	0.4	8.3	21.1	33.7
	Median	32.3	9.5	1122	128	8.3	54.2	0.8	0.4	7.6	12.6	31.7
	SD	13.9	7.2	372	102	5.9	304.6	0.6	0.2	3.9	28.5	18.8
Orissa (n=431)	Mean	29.1	7.0	1244	319	8.2	593.1	0.8	0.3	11.6	66.9	36.0
	Median	28.1	6.3	1242	276	6.5	202.9	0.8	0.3	12.3	36.0	33.1
	SD	8.2	4.2	254	269	8.2	791.7	0.2	0.1	3.4	70.1	15.0
West Bengal (n=207)	Mean	33.6	9.6	1545	242	8.5	346.2	1.0	0.3	16.1	56.2	41.7
	Median	31.6	6.4	1476	128	6.8	27.1	0.9	0.3	15.2	26.3	37.6
	SD	13.6	15.9	669	264	7.9	758.0	0.4	0.2	6.4	80.4	18.6
States Pooled (n=2915)	Mean	33.8	13.9	1292	214	8.7	218.7	0.8	0.4	9.8	29.8	36.2
	Median	30.9	11.8	1248	159	7.0	58.7	0.7	0.3	9.1	14.9	32.7
	SD	14.7	9.7	424	186	6.5	529.0	0.5	0.2	4.4	46.4	18.9
RDA		41		1950	400	26	600	1.0	1.2	13	40	60

Table 35-A : DISTRIBUTION (%) OF 7-9 YEARS CHILDREN ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=206	n=258	n=197	n=326	n=454	n=382	n=454	n=431	n=207	
Protein	<50	36.4	21.3	29.4	11.3	5.7	2.6	20.5	10.7	17.4	15.0
	50-70	33.0	41.5	38.6	23.9	19.4	14.1	20.3	42.9	20.3	27.1
	≥70	30.6	37.2	32.0	64.7	74.9	83.2	59.3	46.4	62.3	57.9
Energy	<50	44.2	26.0	31.5	14.4	12.3	19.4	36.6	15.1	18.4	22.8
	50-70	39.3	62.8	43.1	30.7	33.9	23.8	37.2	57.5	26.1	39.2
	≥70	16.5	11.2	25.4	54.9	53.7	56.8	26.2	27.4	55.6	37.9
Calcium	<50	67.5	62.0	64.0	69.3	72.9	59.2	75.3	35.7	67.6	63.3
	50-70	12.6	23.3	17.8	17.8	10.6	20.4	13.4	15.5	6.3	15.3
	≥70	19.9	14.7	18.3	12.9	16.5	20.4	11.2	48.7	26.1	21.4
Iron	<50	96.6	91.1	95.9	97.2	74.4	67.8	78.4	92.1	90.3	85.0
	50-70	1.9	5.4	2.0	1.5	15.6	16.5	13.9	3.7	4.8	8.6
	≥70	1.5	3.5	2.0	1.2	9.9	15.7	7.7	4.2	4.8	6.4
Vitamin-A	<50	92.2	96.1	87.3	89.0	94.5	97.6	87.0	51.7	79.7	85.2
	50-70	2.4	2.7	3.0	2.8	1.5	0.5	1.8	3.7	1.0	2.1
	≥70	5.3	1.2	9.6	8.3	4.0	1.8	11.2	44.5	19.3	12.6
Thiamin	<50	45.6	26.7	59.4	72.7	32.6	14.4	40.7	17.6	11.6	34.5
	50-70	30.1	28.3	21.3	16.0	17.8	8.9	7.0	29.5	17.9	18.5
	≥70	24.3	45.0	19.3	11.3	49.6	76.7	52.2	52.9	70.5	47.0
Riboflavin	<50	97.6	98.8	95.4	92.3	84.4	76.7	92.1	97.2	94.2	91.0
	50-70	1.5	0.4	3.0	6.7	10.6	17.0	6.4	2.1	2.4	6.4
	≥70	1.0	0.8	1.5	0.9	5.1	6.3	1.5	0.7	3.4	2.5
Niacin	<50	22.8	17.8	31.0	29.4	23.6	18.6	38.3	9.5	3.9	22.3
	50-70	35.9	24.8	35.0	40.5	35.9	33.2	26.4	14.4	8.7	28.4
	≥70	41.3	57.4	34.0	30.1	40.5	48.2	35.2	76.1	87.4	49.2
Vitamin-C	<50	60.7	64.7	69.0	65.3	83.5	61.8	68.7	32.9	41.1	61.6
	50-70	16.0	16.3	12.2	10.4	6.4	11.8	10.8	9.7	12.1	11.1
	≥70	23.3	19.0	18.8	24.2	10.1	26.4	20.5	57.3	46.9	27.3
Free folic acid	<50	61.2	38.0	48.2	65.0	51.1	19.1	48.9	38.3	24.6	43.7
	50-70	23.3	41.5	33.5	15.3	22.9	20.2	18.3	36.2	34.3	26.1
	≥70	15.5	20.5	18.3	19.6	26.0	60.7	32.8	25.5	41.1	30.2

Table 36 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG 10-12 YEARS BOYS

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=82)	Mean	29.5	17.7	1155	247	7.4	137.9	0.7	0.3	9.8	26.1	30.8
	Median	27.9	14.9	1151	181	6.5	48.0	0.7	0.3	9.6	16.6	29.6
	SD	12.3	11.7	369	175	4.0	241.2	0.3	0.1	3.4	30.2	12.5
Tamil Nadu (n=120)	Mean	27.6	11.8	1203	200	9.4	103.2	0.8	0.3	11.2	25.9	33.7
	Median	29.1	10.1	1228	151	6.8	57.3	0.8	0.3	11.5	15.5	34.4
	SD	7.7	8.3	301	146	11.5	136.1	0.7	0.2	7.7	35.6	13.0
Karnataka (n=123)	Mean	31.6	17.9	1346	239	6.9	148.7	0.7	0.4	9.6	20.3	35.7
	Median	28.3	15.7	1308	160	6.0	45.6	0.6	0.3	9.1	15.1	33.5
	SD	17.7	11.7	481	233	3.7	304.1	0.3	0.2	4.2	19.1	17.4
Andhra Pradesh (n=120)	Mean	36.9	15.5	1532	217	7.9	233.2	0.6	0.4	9.1	26.5	31.4
	Median	36.1	14.3	1453	159	6.6	65.2	0.5	0.4	8.7	16.3	28.2
	SD	15.0	8.1	544	225	6.7	470.4	0.4	0.2	4.1	29.3	16.8
Maharashtra (n=172)	Mean	44.1	20.9	1655	242	12.4	95.9	1.0	0.5	10.7	13.0	40.7
	Median	42.2	18.2	1603	159	10.1	55.6	0.9	0.5	10.1	6.8	35.4
	SD	13.8	10.9	448	214	7.7	131.2	0.5	0.2	3.8	17.5	19.1
Gujarat (n=210)	Mean	50.7	21.3	1508	222	12.9	136.5	1.3	0.6	10.5	25.0	53.8
	Median	47.7	20.3	1524	195	11.4	90.0	1.3	0.5	9.7	16.4	54.9
	SD	24.1	8.9	407	123	8.1	230.0	0.7	0.2	3.5	28.9	22.9
Madhya Pradesh (n=263)	Mean	38.1	12.1	1308	179	10.7	151.5	1.0	0.4	9.1	20.4	37.7
	Median	37.4	10.6	1274	147	9.4	61.3	0.9	0.4	8.3	11.8	36.3
	SD	15.1	7.6	413	149	7.3	315.2	0.7	0.2	4.1	28.6	21.4
Orissa (n=209)	Mean	34.0	7.8	1456	379	10.0	688.2	0.9	0.4	13.3	73.5	42.3
	Median	34.0	7.0	1416	360	7.6	141.6	0.9	0.3	13.6	33.2	38.1
	SD	8.8	5.4	288	281	10.2	913.7	0.3	0.2	3.7	86.4	19.6
West Bengal (n=119)	Mean	40.7	9.1	1897	295	9.4	360.3	1.2	0.4	20.2	71.1	52.8
	Median	38.2	7.0	1768	141	8.5	28.6	1.1	0.4	18.5	29.9	47.2
	SD	16.4	7.0	737	368	4.8	894.3	0.5	0.3	7.9	100.6	24.1
Pooled (n=1418)	Mean	38.3	14.7	1456	246	10.2	241.0	1.0	0.4	11.3	33.6	40.9
	Median	35.4	12.4	1411	171	8.3	62.7	0.8	0.4	10.4	15.5	37.1
	SD	17.1	10.0	485	226	8.0	536.8	0.6	0.2	5.6	54.7	21.0
RDA		54		2190	600	34	600	1.1	1.3	15	40	70

Table 36-A : DISTRIBUTION (%) OF 10-12 YEARS BOYS ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=82	n=120	n=123	n=120	n=172	n=210	n=263	n=209	n=119	
Protein	<50	47.6	38.3	43.1	30.0	5.8	12.4	25.9	21.1	19.3	24.3
	50-70	28.0	53.3	35.0	25.8	31.4	20.0	24.7	51.7	30.3	32.9
	≥70	24.4	8.3	22.0	44.2	62.8	67.6	49.4	27.3	50.4	42.8
Energy	<50	43.9	29.2	28.5	20.8	6.4	17.6	30.4	8.1	10.9	20.4
	50-70	46.3	60.8	43.9	34.2	34.9	33.8	42.6	56.9	24.4	42.1
	≥70	9.8	10.0	27.6	45.0	58.7	48.6	27.0	34.9	64.7	37.5
Calcium	<50	70.7	79.2	80.5	82.5	79.1	84.3	88.6	42.6	73.1	75.7
	50-70	13.4	14.2	4.9	9.2	5.8	9.5	6.8	20.1	6.7	10.1
	≥70	15.9	6.7	14.6	8.3	15.1	6.2	4.6	37.3	20.2	14.2
Iron	<50	96.3	90.8	98.4	96.7	79.7	77.6	85.9	91.4	91.6	88.2
	50-70	3.7	6.7	1.6	1.7	13.4	14.3	10.3	3.8	5.9	7.8
	≥70	0.0	2.5	0.0	1.7	7.0	8.1	3.8	4.8	2.5	4.0
Vitamin-A	<50	84.1	97.5	88.6	86.7	94.8	95.7	88.2	54.1	81.5	85.0
	50-70	7.3	0.0	3.3	0.8	2.3	0.0	3.0	3.3	0.0	2.1
	≥70	8.5	2.5	8.1	12.5	2.9	4.3	8.7	42.6	18.5	12.9
Thiamin	<50	31.7	24.2	39.0	55.8	23.3	15.7	36.1	11.0	5.9	26.0
	50-70	35.4	15.8	26.0	20.8	18.0	6.7	9.1	21.1	6.7	15.9
	≥70	32.9	60.0	35.0	23.3	58.7	77.6	54.8	67.9	87.4	58.1
Ribo-flavin	<50	96.3	98.3	89.4	86.7	75.6	70.5	89.0	89.5	88.2	85.7
	50-70	3.7	0.8	9.8	10.8	19.2	26.2	9.9	10.5	9.2	12.4
	≥70	0.0	0.8	0.8	2.5	5.2	3.3	1.1	0.0	2.5	1.9
Niacin	<50	29.3	22.5	37.4	40.0	19.2	19.0	42.6	6.7	2.5	24.5
	50-70	31.7	18.3	22.8	27.5	35.5	41.4	26.6	19.1	6.7	26.4
	≥70	39.0	59.2	39.8	32.5	45.3	39.5	30.8	74.2	90.8	49.1
Vitamin-C	<50	58.5	64.2	64.2	56.7	82.0	57.6	71.1	33.5	37.8	59.0
	50-70	13.4	15.8	14.6	8.3	4.1	11.4	11.0	10.0	9.2	10.6
	≥70	28.0	20.0	21.1	35.0	14.0	31.0	17.9	56.5	52.9	30.5
Free folic acid	<50	69.5	50.8	53.7	65.0	50.0	24.8	47.9	42.6	23.5	45.3
	50-70	19.5	39.2	31.7	22.5	22.1	18.1	25.1	31.6	29.4	26.2
	≥70	11.0	10.0	14.6	12.5	27.9	57.1	27.0	25.8	47.1	28.4

Table 37 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG 10-12 YEARS GIRLS

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=74)	Mean	30.9	19.9	1185	289	7.5	150.4	0.7	0.3	9.9	35.9	33.3
	Median	28.9	17.4	1181	186	6.1	44.8	0.6	0.3	9.2	17.0	31.3
	SD	12.8	12.6	359	274	5.6	371.1	0.2	0.2	3.2	49.7	15.6
Tamil Nadu (n=99)	Mean	27.3	10.7	1165	183	8.1	95.6	0.8	0.3	10.6	21.8	35.6
	Median	27.0	9.9	1170	147	6.5	59.3	0.8	0.3	11.1	16.3	35.8
	SD	8.5	5.1	301	102	5.5	105.2	0.3	0.1	3.5	18.0	13.5
Karnataka (n=115)	Mean	29.2	14.6	1204	199	6.3	170.5	0.6	0.3	8.7	19.5	31.3
	Median	25.6	13.9	1165	151	5.7	44.1	0.5	0.3	8.3	12.6	30.3
	SD	15.6	7.9	406	155	3.6	330.4	0.3	0.2	3.9	21.9	14.5
Andhra Pradesh (n=124)	Mean	38.5	17.6	1581	197	6.8	171.6	0.6	0.4	9.0	24.2	31.9
	Median	36.5	15.5	1599	173	6.2	61.8	0.5	0.4	8.5	16.9	30.1
	SD	15.2	10.0	496	118	3.5	335.3	0.3	0.2	3.1	20.7	14.0
Maharashtra (n=188)	Mean	41.3	18.8	1554	229	11.9	125.5	1.0	0.5	10.2	14.4	37.8
	Median	41.0	17.9	1556	153	10.4	48.7	0.9	0.5	9.6	6.3	34.0
	SD	14.2	7.8	433	212	7.7	243.1	0.5	0.2	3.9	24.3	18.7
Gujarat (n=187)	Mean	49.3	21.8	1505	227	12.7	122.4	1.4	0.6	10.5	26.1	55.4
	Median	47.8	21.1	1565	198	11.3	93.3	1.5	0.6	9.7	17.1	57.3
	SD	19.9	8.3	400	120	7.0	178.8	0.6	0.2	3.5	28.4	24.1
Madhya Pradesh (n=251)	Mean	35.8	10.5	1272	158	10.2	141.4	0.9	0.4	9.1	19.7	34.0
	Median	34.1	9.7	1256	137	8.8	57.6	0.8	0.4	8.3	13.7	30.7
	SD	13.5	6.1	383	92	6.5	247.0	0.6	0.2	3.9	22.4	19.1
Orissa (n=182)	Mean	34.0	7.7	1435	371	9.4	683.5	0.9	0.4	13.3	75.6	41.2
	Median	31.4	7.2	1359	337	7.9	276.8	0.8	0.4	13.6	54.0	37.7
	SD	10.6	4.3	264	314	6.9	874.6	0.3	0.2	3.9	76.9	17.1
West Bengal (n=88)	Mean	39.8	9.1	1852	319	9.5	501.4	1.2	0.4	19.8	82.0	49.6
	Median	38.3	6.8	1740	150	8.5	42.4	1.2	0.3	19.1	34.8	47.9
	SD	15.9	11.0	778	377	5.4	989.2	0.5	0.2	8.1	116.8	21.2
Pooled (n=1308)	Mean	37.3	14.4	1418	235	9.7	238.5	0.9	0.4	10.9	33.3	39.3
	Median	34.8	12.3	1363	173	7.9	62.4	0.8	0.4	9.9	15.9	35.6
	SD	15.9	9.3	463	215	6.5	514.8	0.5	0.2	5.0	53.0	20.0
RDA		57		1970	600	19	600	1.0	1.2	13	40	70

Table 37-A: DISTRIBUTION (%) OF 10-12 YEARS GIRLS ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=74	n=99	n=115	n=124	n=188	n=187	n=251	n=182	n=88	
Protein	<50	50.0	57.6	61.7	30.6	15.4	12.8	36.7	32.4	20.5	32.5
	50-70	23.0	36.4	20.9	25.8	33.5	21.4	26.7	48.9	36.4	30.6
	≥70	27.0	6.1	17.4	43.5	51.1	65.8	36.7	18.7	43.2	36.9
Energy	<50	31.1	31.3	29.6	10.5	8.5	12.8	22.3	2.2	8.0	15.9
	50-70	43.2	47.5	43.5	25.0	27.1	22.5	42.2	50.0	18.2	35.6
	≥70	25.7	21.2	27.0	64.5	64.4	64.7	35.5	47.8	73.9	48.5
Calcium	<50	67.6	85.9	80.9	86.3	82.4	82.9	91.6	42.9	68.2	77.4
	50-70	13.5	12.1	11.3	7.3	5.9	9.6	6.8	23.1	5.7	10.5
	≥70	18.9	2.0	7.8	6.5	11.7	7.5	1.6	34.1	26.1	12.1
Iron	<50	77.0	73.7	83.5	87.9	44.7	36.9	54.6	65.4	63.6	61.2
	50-70	17.6	14.1	13.0	6.5	26.6	26.2	19.1	22.0	21.6	19.6
	≥70	5.4	12.1	3.5	5.6	28.7	36.9	26.3	12.6	14.8	19.3
Vitamin-A	<50	90.5	96.0	83.5	89.5	91.5	97.3	88.0	50.5	76.1	84.3
	50-70	1.4	1.0	3.5	1.6	1.6	0.5	1.6	2.7	1.1	1.7
	≥70	8.1	3.0	13.0	8.9	6.9	2.1	10.4	46.7	22.7	14.0
Thiamin	<50	31.1	26.3	54.8	58.9	23.9	12.3	40.6	12.1	4.5	29.1
	50-70	39.2	22.2	23.5	21.0	15.4	9.1	8.8	18.1	10.2	16.4
	≥70	29.7	51.5	21.7	20.2	60.6	78.6	50.6	69.8	85.2	54.5
Riboflavin	<50	95.9	99.0	94.8	87.1	78.7	72.7	87.6	93.4	92.0	87.2
	50-70	2.7	1.0	5.2	12.1	13.8	18.2	9.2	4.9	4.5	9.2
	≥70	1.4	0.0	0.0	0.8	7.4	9.1	3.2	1.6	3.4	3.6
Niacin	<50	10.8	14.1	29.6	20.2	15.4	10.7	30.7	3.3	2.3	16.4
	50-70	39.2	22.2	33.0	34.7	26.1	28.3	26.7	12.1	2.3	24.8
	≥70	50.0	63.6	37.4	45.2	58.5	61.0	42.6	84.6	95.5	58.7
Vitamin-C	<50	51.4	57.6	67.0	57.3	81.9	52.9	66.5	29.1	31.8	56.9
	50-70	12.2	20.2	10.4	11.3	5.3	12.3	13.5	7.7	11.4	11.2
	≥70	36.5	22.2	22.6	31.5	12.8	34.8	19.9	63.2	56.8	32.0
Free folic acid	<50	59.5	48.5	69.6	64.5	52.7	24.6	56.6	44.5	26.1	49.2
	50-70	29.7	34.3	20.9	25.0	25.0	16.6	19.9	26.9	25.0	23.7
	≥70	10.8	17.2	9.6	10.5	22.3	58.8	23.5	28.6	48.9	27.1

Table 38 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG 13-15 YEARS BOYS

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=67)	Mean	31.3	21.8	1340	240	7.7	89.8	0.8	0.3	11.5	29.5	35.5
	Median	25.8	20.3	1318	192	6.8	47.0	0.7	0.3	10.5	18.2	33.1
	SD	14.6	14.5	476	212	4.3	160.8	0.3	0.2	4.8	30.0	17.1
Tamil Nadu (n=93)	Mean	32.2	13.7	1391	211	8.7	86.8	0.9	0.4	12.6	26.1	39.1
	Median	30.6	11.2	1299	166	6.8	62.4	0.9	0.3	12.2	14.5	38.7
	SD	10.2	12.1	394	152	5.2	106.3	0.4	0.2	4.5	29.5	12.7
Karnataka (n=143)	Mean	36.2	19.9	1575	272	8.4	211.2	0.8	0.4	12.1	30.3	41.9
	Median	33.0	17.2	1535	207	7.0	61.6	0.7	0.4	11.4	17.5	37.8
	SD	16.0	12.2	537	217	5.0	470.6	0.4	0.2	5.4	38.2	19.8
Andhra Pradesh (n=97)	Mean	43.1	18.8	1813	220	8.2	150.4	0.6	0.5	10.5	23.9	35.0
	Median	39.6	17.4	1752	185	6.9	65.0	0.5	0.5	9.9	16.7	32.1
	SD	17.5	10.2	665	159	4.9	290.6	0.4	0.2	4.3	25.7	17.1
Maharashtra (n=166)	Mean	50.4	22.7	1896	305	13.9	126.3	1.2	0.6	12.3	15.6	45.0
	Median	49.4	20.9	1850	199	12.0	61.1	1.1	0.6	11.3	8.2	39.6
	SD	18.4	11.2	563	303	7.9	236.6	0.7	0.3	5.5	27.5	24.3
Gujarat (n=187)	Mean	55.1	23.5	1641	244	14.1	123.0	1.5	0.6	11.7	28.5	59.6
	Median	50.6	22.9	1651	211	11.8	103.7	1.7	0.6	10.7	20.7	62.4
	SD	25.7	10.1	378	131	8.7	194.6	0.6	0.2	4.0	31.6	24.3
Madhya Pradesh (n=189)	Mean	42.2	12.1	1494	199	11.8	173.8	1.0	0.5	10.5	23.7	41.2
	Median	41.0	10.8	1506	160	9.8	65.8	0.9	0.4	9.6	14.6	36.7
	SD	15.5	7.0	465	159	7.4	333.1	0.7	0.2	4.7	34.5	24.2
Orissa (n=159)	Mean	38.2	8.9	1681	391	9.8	797.7	1.0	0.4	15.8	91.3	49.3
	Median	37.5	8.2	1705	355	8.3	277.3	1.0	0.4	16.1	60.1	46.3
	SD	9.7	4.6	297	273	6.3	989.7	0.3	0.2	4.2	98.9	18.3
West Bengal (n=86)	Mean	50.9	12.1	2341	362	12.1	673.0	1.5	0.5	25.0	89.7	64.4
	Median	47.6	8.8	2188	207	10.4	45.9	1.4	0.5	22.7	37.1	59.1
	SD	18.8	12.1	779	353	7.6	1157.6	0.5	0.3	8.6	127.0	23.9
States Pooled (n=1187)	Mean	43.4	17.1	1679	272	11.0	269.9	1.1	0.5	13.1	38.5	46.5
	Median	40.1	14.6	1633	196	9.0	71.7	0.9	0.5	11.8	18.2	42.2
	SD	19.0	11.5	558	233	7.2	597.0	0.6	0.2	6.3	63.1	23.1
RDA		70		2450	600	41	600	1.2	1.5	16	40	100

Table 38-A : DISTRIBUTION (%) OF 13-15 YEARS BOYS ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=67	n=93	n=143	n=97	n=166	n=187	n=189	n=159	n=86	
Protein	<50	62.7	65.6	58.7	34.0	18.1	20.9	33.9	40.9	18.6	36.6
	50-70	26.9	29.0	25.2	38.1	30.7	22.5	34.4	50.9	34.9	32.6
	≥70	10.4	5.4	16.1	27.8	51.2	56.7	31.7	8.2	46.5	30.8
Energy	<50	41.8	43.0	24.5	16.5	10.2	15.0	31.7	4.4	4.7	19.8
	50-70	38.8	37.6	42.0	30.9	27.1	42.8	40.2	46.5	16.3	37.1
	≥70	19.4	19.4	33.6	52.6	62.7	42.2	28.0	49.1	79.1	43.1
Calcium	<50	76.1	87.1	72.0	81.4	74.7	77.5	85.2	44.7	57.0	72.8
	50-70	4.5	3.2	11.9	9.3	7.8	16.0	9.0	13.8	10.5	10.4
	≥70	19.4	9.7	16.1	9.3	17.5	6.4	5.8	41.5	32.6	16.8
Iron	<50	98.5	93.5	97.2	94.8	78.9	88.8	88.4	95.6	94.2	91.1
	50-70	1.5	6.5	2.1	5.2	15.7	4.3	9.5	1.9	0.0	5.9
	≥70	0.0	0.0	0.7	0.0	5.4	7.0	2.1	2.5	5.8	3.0
Vitamin-A	<50	94.0	96.8	85.3	90.7	91.6	98.4	85.7	50.3	68.6	84.2
	50-70	1.5	.0	2.8	1.0	3.0	0.0	2.1	0.6	1.2	1.4
	≥70	4.5	3.2	11.9	8.2	5.4	1.6	12.2	49.1	30.2	14.3
Thiamin	<50	46.3	21.5	39.2	68.0	28.3	14.4	44.4	10.7	2.3	29.5
	50-70	23.9	28.0	23.8	13.4	13.3	5.9	5.3	16.4	4.7	13.6
	≥70	29.9	50.5	37.1	18.6	58.4	79.7	50.3	73.0	93.0	56.9
Ribo-flavin	<50	97.0	96.8	94.4	90.7	69.3	78.1	88.4	96.9	82.6	86.9
	50-70	1.5	3.2	4.9	9.3	24.7	15.5	10.1	1.3	7.0	9.9
	≥70	1.5	0.0	0.7	0.0	6.0	6.4	1.6	1.9	10.5	3.3
Niacin	<50	26.9	14.0	22.4	29.9	15.7	11.8	33.3	3.1	0.0	17.5
	50-70	29.9	24.7	26.6	32.0	34.3	46.5	28.0	11.9	2.3	27.8
	≥70	43.3	61.3	51.0	38.1	50.0	41.7	38.6	84.9	97.7	54.7
Vitamin-C	<50	55.2	61.3	55.9	55.7	77.1	48.1	68.3	25.2	26.7	53.7
	50-70	9.0	16.1	13.3	15.5	7.2	13.9	11.1	7.5	11.6	11.5
	≥70	35.8	22.6	30.8	28.9	15.7	38.0	20.6	67.3	61.6	34.8
Free folic acid	<50	82.1	82.8	76.9	81.4	68.1	34.2	66.7	62.3	33.7	63.4
	50-70	13.4	16.1	13.3	15.5	17.5	34.2	22.2	22.6	29.1	21.4
	≥70	4.5	1.1	9.8	3.1	14.5	31.6	11.1	15.1	37.2	15.2

Table 39 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG 13-15 YEARS GIRLS

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=70)	Mean	32.9	24.4	1307	287	8.2	194.7	0.7	0.3	10.8	38.7	34.2
	Median	28.6	22.5	1272	187	6.9	41.4	0.7	0.3	9.9	17.0	31.1
	SD	14.8	14.6	435	256	4.5	575.3	0.3	0.2	4.4	72.4	14.9
Tamil Nadu (n=99)	Mean	30.9	13.1	1357	198	9.2	102.7	0.9	0.4	12.8	25.3	37.5
	Median	29.6	11.2	1312	150	7.4	56.6	0.9	0.3	12.6	15.9	37.0
	SD	10.9	7.7	309	149	8.7	143.9	0.6	0.2	6.8	34.4	12.0
Karnataka (n=135)	Mean	33.6	16.9	1468	232	7.9	245.1	0.7	0.4	11.2	26.5	39.2
	Median	30.6	14.9	1440	169	6.6	44.0	0.7	0.3	10.6	14.3	36.4
	SD	18.7	9.7	487	201	5.0	874.2	0.3	0.2	4.5	39.3	18.4
Andhra Pradesh (n=88)	Mean	41.3	17.7	1667	220	7.7	290.4	0.6	0.5	9.8	29.9	33.8
	Median	38.7	15.9	1616	163	7.0	72.6	0.5	0.5	9.6	15.7	29.9
	SD	16.8	10.0	565	156	4.2	551.7	0.3	0.2	3.8	36.6	17.6
Maharashtra (n=163)	Mean	46.1	20.1	1703	267	12.8	99.8	1.1	0.6	11.3	14.2	41.2
	Median	43.4	17.7	1654	176	12.3	57.9	1.0	0.5	10.3	5.5	36.9
	SD	14.9	10.1	455	314	7.3	152.8	0.6	0.3	4.5	21.0	22.0
Gujarat (n=156)	Mean	54.5	23.0	1597	232	12.9	154.5	1.5	0.6	10.8	25.4	61.1
	Median	53.5	22.7	1626	208	11.9	110.9	1.6	0.6	10.2	16.9	62.5
	SD	24.1	8.7	399	136	7.3	241.7	0.7	0.2	3.7	26.8	26.0
Madhya Pradesh (n=185)	Mean	36.6	11.3	1357	182	9.6	225.2	0.9	0.4	9.2	27.7	35.2
	Median	34.6	9.7	1332	130	7.8	55.6	0.6	0.4	8.4	15.5	29.8
	SD	12.0	6.6	341	143	5.7	400.5	0.6	0.2	3.6	40.1	20.7
Orissa (n=171)	Mean	38.8	9.2	1690	411	9.2	776.2	1.0	0.4	15.8	93.3	48.6
	Median	37.3	8.0	1694	365	8.4	608.3	1.0	0.4	16.6	64.5	45.2
	SD	9.6	6.0	274	355	3.9	832.2	0.3	0.2	4.0	89.9	19.8
West Bengal (n=76)	Mean	43.8	10.4	2042	340	11.2	513.4	1.3	0.4	21.7	96.0	54.6
	Median	42.4	9.6	1927	165	9.2	45.2	1.3	0.4	20.9	39.3	50.6
	SD	15.5	5.7	738	353	8.7	1140.6	0.5	0.2	7.8	132.4	22.9
States Pooled (n=1143)	Mean	40.5	15.9	1568	262	10.1	294.2	1.0	0.5	12.2	40.3	43.4
	Median	37.3	13.7	1531	179	8.5	67.2	0.9	0.4	11.0	17.4	39.0
	SD	17.3	10.1	475	255	6.6	641.2	0.6	0.2	5.7	65.6	22.2
RDA		65		2060	600	28	600	1.0	1.2	14	40	100

Table 39-A : DISTRIBUTION (%) OF 13-15 YEARS GIRLS ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=70	n=99	n=135	n=88	n=163	n=156	n=185	n=171	n=76	
Protein	<50	60.0	65.7	55.6	30.7	16.0	16.0	41.6	25.1	28.9	35.2
	50-70	21.4	28.3	32.6	37.5	40.5	21.2	40.0	56.7	30.3	36.1
	≥70	18.6	6.1	11.9	31.8	43.6	62.8	18.4	18.1	40.8	28.7
Energy	<50	24.3	11.1	13.3	10.2	3.1	8.3	15.1	0.6	5.3	9.3
	50-70	44.3	52.5	37.8	30.7	29.4	23.1	49.2	19.9	11.8	33.2
	≥70	31.4	36.4	48.9	59.1	67.5	68.6	35.7	79.5	82.9	57.6
Calcium	<50	65.7	86.9	80.0	80.7	81.6	84.0	86.5	39.2	67.1	74.6
	50-70	8.6	8.1	7.4	9.1	6.7	12.2	7.0	21.6	3.9	10.1
	≥70	25.7	5.1	12.6	10.2	11.7	3.8	6.5	39.2	28.9	15.3
Iron	<50	92.9	90.9	92.6	94.3	63.8	69.9	81.6	92.4	80.3	82.8
	50-70	4.3	3.0	4.4	1.1	19.0	17.9	10.8	5.8	10.5	9.6
	≥70	2.9	6.1	3.0	4.5	17.2	12.2	7.6	1.8	9.2	7.6
Vitamin -A	<50	88.6	92.9	85.9	84.1	95.7	94.2	79.5	45.6	76.3	81.4
	50-70	2.9	3.0	3.0	2.3	1.2	1.3	4.9	1.8	5.3	2.7
	≥70	8.6	4.0	11.1	13.6	3.1	4.5	15.7	52.6	18.4	15.9
Thiamin	<50	30.0	13.1	29.6	59.1	24.5	12.8	45.4	8.8	3.9	25.2
	50-70	31.4	18.2	31.9	19.3	11.0	8.3	9.7	5.3	3.9	14.1
	≥70	38.6	68.7	38.5	21.6	64.4	78.8	44.9	86.0	92.1	60.7
Ribo-flavin	<50	95.7	94.9	91.1	84.1	69.9	69.2	89.2	89.5	86.8	84.3
	50-70	2.9	4.0	5.2	13.6	17.2	22.4	8.1	8.2	7.9	10.8
	≥70	1.4	1.0	3.7	2.3	12.9	8.3	2.7	2.3	5.3	4.9
Niacin	<50	14.3	7.1	13.3	26.1	14.1	13.5	24.3	0.6	1.3	13.0
	50-70	31.4	16.2	23.7	26.1	28.8	30.1	41.6	8.2	2.6	24.5
	≥70	54.3	76.8	63.0	47.7	57.1	56.4	34.1	91.2	96.1	62.5
Vitamin -C	<50	55.7	65.7	61.5	59.1	81.0	53.8	62.7	21.1	18.4	54.3
	50-70	7.1	14.1	14.8	12.5	4.9	12.8	12.4	9.9	11.8	11.1
	≥70	37.1	20.2	23.7	28.4	14.1	33.3	24.9	69.0	69.7	34.6
Free folic acid	<50	90.0	86.9	82.2	85.2	72.4	33.3	75.1	60.2	48.7	68.6
	50-70	5.7	13.1	10.4	9.1	17.8	30.1	16.8	25.7	30.3	18.6
	≥70	4.3	0.0	7.4	5.7	9.8	36.5	8.1	14.0	21.1	12.8

Table 40 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG 16-17 YEARS BOYS

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=37)	Mean	37.0	23.7	1584	272	9.1	202.0	0.9	0.4	14.6	37.4	50.9
	Median	35.1	21.1	1576	190	7.9	56.6	0.9	0.3	13.8	26.2	45.3
	SD	16.5	14.5	536	196	4.1	376.3	0.4	0.2	6.1	35.0	25.6
Tamil Nadu (n=49)	Mean	42.5	17.4	1798	259	15.8	85.0	1.4	0.5	18.8	26.3	47.5
	Median	40.9	13.6	1785	194	9.0	68.6	1.1	0.4	16.7	15.9	49.7
	SD	10.9	11.6	422	216	20.1	64.7	1.4	0.3	14.7	39.7	16.4
Karnataka (n=66)	Mean	39.4	20.6	1725	318	9.7	208.1	0.9	0.5	12.9	27.3	43.8
	Median	36.1	19.1	1635	198	7.9	49.7	0.8	0.4	12.3	14.9	36.1
	SD	16.0	9.7	526	337	5.2	457.4	0.5	0.2	4.8	30.3	20.9
Andhra Pradesh (n=61)	Mean	51.2	22.8	2151	246	8.5	198.2	0.7	0.6	12.0	33.6	42.9
	Median	48.8	18.3	2069	198	7.4	64.1	0.6	0.5	11.8	19.9	32.5
	SD	19.6	15.8	763	172	4.6	382.8	0.4	0.3	4.6	37.0	25.8
Maharashtra (n=110)	Mean	54.9	26.0	2066	351	16.0	168.4	1.4	0.7	13.9	18.6	50.8
	Median	52.9	25.2	2029	212	15.5	75.4	1.2	0.6	12.7	8.9	44.7
	SD	17.6	12.0	611	430	8.4	278.6	0.8	0.3	6.0	22.7	25.5
Gujarat (n=134)	Mean	65.2	26.6	1852	281	17.5	160.7	1.7	0.7	13.6	38.2	69.8
	Median	53.1	24.3	1753	246	15.7	112.1	1.7	0.7	13.0	26.4	67.6
	SD	36.6	11.1	485	120	11.4	308.7	0.7	0.3	4.6	37.5	31.2
Madhya Pradesh (n=87)	Mean	44.2	12.6	1635	211	12.5	254.4	1.1	0.5	11.4	30.4	40.8
	Median	43.3	11.2	1584	169	10.1	62.9	0.8	0.5	10.4	14.2	37.2
	SD	14.5	8.0	438	140	7.9	496.8	0.7	0.2	4.3	50.5	21.5
Orissa (n=82)	Mean	47.4	11.2	2015	474	11.9	677.3	1.2	0.5	19.2	74.3	54.2
	Median	45.8	9.4	1994	340	9.7	84.3	1.2	0.5	20.1	37.4	50.8
	SD	13.7	8.4	310	485	6.6	1060.7	0.5	0.2	5.0	89.1	19.8
West Bengal (n=49)	Mean	49.6	9.5	2337	270	10.1	328.6	1.5	0.5	25.2	83.2	63.7
	Median	49.8	8.9	2451	169	10.7	48.7	1.6	0.4	26.2	48.7	64.5
	SD	18.1	5.9	865	242	3.6	779.3	0.5	0.3	9.4	87.1	26.0
States Pooled (n=675)	Mean	50.6	19.8	1910	304	13.2	253.8	1.3	0.6	15.1	39.3	53.0
	Median	47.2	17.3	1822	213	10.8	74.6	1.1	0.5	13.4	19.9	48.3
	SD	23.4	12.6	589	304	9.8	557.0	0.8	0.3	7.6	54.5	26.7
RDA		78		2640	500	50	600	1.3	1.6	17	40	100

Table 40-A : DISTRIBUTION (%) OF 16-17 YEARS BOYS ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=107	n=148	n=201	n=149	n=273	n=290	n=272	n=253	n=125	
Protein	<50	60.7	55.4	57.2	29.5	15.4	14.5	41.2	25.7	28.8	33.2
	50-70	24.3	36.5	31.3	36.9	41.0	29.7	39.7	57.7	30.4	37.8
	≥70	15.0	8.1	11.4	33.6	43.6	55.9	19.1	16.6	40.8	29.0
Energy	<50	26.2	12.2	16.4	12.1	5.5	7.9	16.9	1.2	8.0	10.7
	50-70	45.8	51.4	38.8	24.2	29.3	37.6	50.7	21.7	13.6	35.1
	≥70	28.0	36.5	44.8	63.8	65.2	54.5	32.4	77.1	78.4	54.2
Calcium	<50	64.5	81.1	75.1	74.5	73.3	68.6	83.1	38.7	68.8	69.3
	50-70	9.3	10.1	8.0	11.4	11.4	17.6	7.0	19.0	4.0	11.7
	≥70	26.2	8.8	16.9	14.1	15.4	13.8	9.9	42.3	27.2	19.0
Iron	<50	95.3	89.9	95.0	96.6	74.4	77.9	84.6	92.9	88.0	86.6
	50-70	2.8	2.0	3.0	0.7	14.7	12.1	9.9	5.5	6.4	7.5
	≥70	1.9	8.1	2.0	2.7	11.0	10.0	5.5	1.6	5.6	5.9
Vitamin-A	<50	86.0	93.9	87.1	86.6	92.7	95.9	80.1	49.8	80.0	83.1
	50-70	5.6	3.4	2.5	2.0	2.2	0.7	3.7	1.2	4.0	2.5
	≥70	8.4	2.7	10.4	11.4	5.1	3.4	16.2	49.0	16.0	14.5
Thiamin	<50	28.0	13.5	28.9	60.4	22.7	11.4	45.2	7.9	4.8	24.3
	50-70	33.6	16.9	35.3	19.5	13.9	7.9	9.6	7.1	6.4	15.1
	≥70	38.3	69.6	35.8	20.1	63.4	80.7	45.2	85.0	88.8	60.6
Riboflavin	<50	95.3	95.3	91.0	84.6	71.1	72.4	90.8	90.9	89.6	85.0
	50-70	2.8	2.7	6.0	13.4	17.9	18.3	7.4	7.5	6.4	10.3
	≥70	1.9	2.0	3.0	2.0	11.0	9.3	1.8	1.6	4.0	4.7
Niacin	<50	15.0	6.1	14.9	25.5	13.6	11.0	24.3	0.4	2.4	12.8
	50-70	29.9	16.2	24.4	27.5	30.8	33.4	40.1	9.9	4.0	25.6
	≥70	55.1	77.7	60.7	47.0	55.7	55.5	35.7	89.7	93.6	61.6
Vitamin-C	<50	47.7	68.2	60.7	55.7	75.8	47.6	63.2	23.7	20.0	52.8
	50-70	12.1	12.2	13.4	11.4	6.2	12.8	11.4	9.5	12.8	11.0
	≥70	40.2	19.6	25.9	32.9	17.9	39.7	25.4	66.8	67.2	36.2
Free folic acid	<50	79.4	75.0	78.6	77.9	66.7	29.7	73.9	56.5	43.2	62.5
	50-70	11.2	21.6	12.9	12.1	18.7	31.4	17.3	27.7	29.6	21.1
	≥70	9.3	3.4	8.5	10.1	14.7	39.0	8.8	15.8	27.2	16.4

Table 41 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG 16-17 YEARS GIRLS

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=59)	Mean	31.5	23.8	1314	242	8.5	137.4	0.8	0.4	11.1	33.8	38.9
	Median	28.3	21.7	1318	164	7.4	53.1	0.7	0.3	10.9	21.5	41.2
	SD	16.0	14.7	403	223	7.6	244.7	0.3	0.2	3.6	38.2	15.0
Tamil Nadu (n=63)	Mean	35.7	15.5	1550	230	10.7	116.2	1.1	0.4	15.1	29.1	41.8
	Median	35.1	13.7	1542	172	7.8	63.7	1.0	0.4	13.8	17.5	42.4
	SD	11.9	10.0	337	147	13.5	186.2	1.0	0.2	10.3	31.2	13.2
Karnataka (n=95)	Mean	32.4	18.0	1496	226	7.8	184.1	0.8	0.4	12.2	24.0	41.8
	Median	30.7	16.8	1472	180	6.8	57.1	0.8	0.4	12.1	13.9	38.8
	SD	11.5	9.8	393	193	4.3	415.1	0.3	0.2	4.0	28.7	18.8
Andhra Pradesh (n=62)	Mean	47.3	19.2	1847	307	9.1	198.7	0.6	0.5	11.0	32.7	35.9
	Median	44.3	18.3	1878	235	7.7	93.2	0.5	0.5	10.9	21.6	33.1
	SD	20.2	9.8	564	217	4.6	355.8	0.3	0.2	4.2	29.6	16.6
Maharashtra (n=105)	Mean	46.4	22.4	1773	284	13.3	119.7	1.1	0.6	11.7	14.4	41.7
	Median	43.7	19.7	1739	189	10.6	60.5	0.9	0.5	10.6	7.6	36.3
	SD	16.2	10.8	520	284	7.9	225.7	0.7	0.3	5.1	22.2	23.1
Gujarat (n=108)	Mean	58.7	24.8	1748	257	15.2	158.3	1.6	0.7	12.2	30.9	63.3
	Median	52.5	23.4	1714	215	12.7	100.7	1.7	0.6	10.8	26.3	65.1
	SD	28.5	9.6	441	167	10.7	251.5	0.7	0.3	4.4	26.6	28.8
Madhya Pradesh (n=107)	Mean	42.6	13.9	1513	195	12.2	166.2	1.1	0.5	10.8	25.7	43.2
	Median	43.1	12.4	1520	164	10.7	68.6	1.0	0.5	9.8	15.6	40.6
	SD	14.4	9.5	407	117	7.2	274.3	0.7	0.2	4.5	32.3	22.5
Orissa (n=106)	Mean	42.5	9.5	1875	416	10.8	679.7	1.1	0.5	17.3	82.9	54.2
	Median	42.5	9.4	1872	370	9.8	118.1	1.2	0.4	18.3	49.2	51.2
	SD	9.4	4.3	236	331	5.8	951.8	0.3	0.2	4.3	106.0	20.0
West Bengal (n=36)	Mean	43.3	9.6	2059	322	9.2	444.9	1.3	0.5	22.2	75.4	59.4
	Median	41.3	7.7	1891	158	8.2	26.0	1.2	0.4	20.4	30.0	55.6
	SD	16.8	7.6	849	332	4.1	1009.9	0.6	0.3	9.3	125.2	28.2
States Pooled (n=741)	Mean	43.1	17.8	1675	274	11.2	243.9	1.1	0.5	13.2	36.7	47.0
	Median	40.4	15.2	1668	203	8.9	72.4	1.0	0.4	12.0	18.8	43.6
	SD	19.0	11.1	487	239	8.3	529.1	0.7	0.2	6.2	59.4	23.3
RDA		63		2060	500	30	600	1.0	1.2	14	40	100

Table 41-A : DISTRIBUTION (%) OF 16-17 YEAR GIRLS ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=166	n=211	n=296	n=211	n=378	n=398	n=379	n=359	n=161	
Protein	<50	60.2	49.3	55.4	27.0	16.4	13.8	35.4	20.9	28.0	31.1
	50-70	25.3	40.8	32.4	34.1	38.6	27.1	38.0	56.8	30.4	37.0
	≥70	14.5	10.0	12.2	38.9	45.0	59.0	26.6	22.3	41.6	31.9
Energy	<50	25.9	10.4	14.2	9.5	6.3	7.0	15.3	.8	8.1	9.9
	50-70	41.0	44.5	38.2	25.1	26.5	31.9	45.9	16.4	13.7	31.7
	≥70	33.1	45.0	47.6	65.4	67.2	61.1	38.8	82.7	78.3	58.5
Calcium	<50	66.9	77.7	72.6	67.8	71.4	66.8	81.3	37.6	67.1	67.2
	50-70	9.0	11.8	12.2	13.3	12.4	19.8	8.2	16.7	5.6	12.9
	≥70	24.1	10.4	15.2	19.0	16.1	13.3	10.6	45.7	27.3	19.9
Iron	<50	95.8	89.1	94.6	94.8	70.4	73.6	80.2	90.8	88.8	84.4
	50-70	1.8	1.9	3.4	2.8	16.7	15.6	13.5	7.5	6.2	9.2
	≥70	2.4	9.0	2.0	2.4	13.0	10.8	6.3	1.7	5.0	6.4
Vitamin-A	<50	87.3	93.8	87.2	87.2	93.1	95.5	81.5	51.5	78.9	83.5
	50-70	3.6	2.4	2.4	1.4	1.9	0.5	3.7	1.1	3.7	2.1
	≥70	9.0	3.8	10.5	11.4	5.0	4.0	14.8	47.4	17.4	14.3
Thiamin	<50	27.1	11.8	26.7	58.3	24.9	11.6	41.4	7.2	5.0	23.6
	50-70	31.9	16.6	32.8	19.9	13.5	7.3	9.8	6.1	6.2	14.7
	≥70	41.0	71.6	40.5	21.8	61.6	81.2	48.8	86.6	88.8	61.7
Riboflavin	<50	95.2	94.8	92.2	80.6	69.3	68.8	88.1	89.7	87.6	83.4
	50-70	1.8	2.4	4.7	17.5	17.7	20.4	9.2	8.4	7.5	11.1
	≥70	3.0	2.8	3.0	1.9	13.0	10.8	2.6	1.9	5.0	5.5
Niacin	<50	15.7	4.7	12.8	23.7	14.3	10.1	23.2	0.3	1.9	12.1
	50-70	29.5	16.1	23.3	25.1	30.4	31.9	36.9	9.2	3.7	24.5
	≥70	54.8	79.1	63.9	51.2	55.3	58.0	39.8	90.5	94.4	63.4
Vitamin-C	<50	47.0	64.9	60.1	52.6	77.8	45.5	62.5	24.2	24.2	52.4
	50-70	13.9	12.3	14.2	12.3	5.3	12.8	11.9	10.0	11.8	11.3
	≥70	39.2	22.7	25.7	35.1	16.9	41.7	25.6	65.7	64.0	36.3
Free folic acid	<50	80.1	75.4	79.1	78.7	66.9	30.7	70.4	53.8	44.1	62.4
	50-70	13.3	21.8	13.5	12.8	19.0	30.2	19.3	29.0	28.6	21.5
	≥70	6.6	2.8	7.4	8.5	14.0	39.2	10.3	17.3	27.3	16.1

Table 42 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG ADULT MEN (≥ 18 YEARS SEDENTARY)

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=230)	Mean	44.2	32.9	1831	368	11.1	203.4	1.1	0.5	15.4	56.6	52.4
	Median	40.0	30.1	1821	242	9.8	65.0	1.0	0.5	14.8	31.0	48.8
	SD	22.2	18.6	644	317	6.1	504.9	0.5	0.3	6.3	63.8	25.2
Tamil Nadu (n=160)	Mean	42.9	21.8	1843	315	14.9	155.2	1.4	0.5	19.1	40.6	49.6
	Median	42.3	18.4	1830	239	9.9	84.6	1.2	0.5	16.4	21.1	47.9
	SD	13.9	14.1	495	220	24.1	331.5	1.7	0.4	18.2	56.8	20.6
Karnataka (n=277)	Mean	42.6	23.9	1812	362	9.7	231.9	1.0	0.5	14.5	26.4	49.3
	Median	36.7	22.9	1757	235	8.2	71.1	0.9	0.5	13.4	17.7	44.2
	SD	25.0	11.6	625	598	6.4	511.7	0.5	0.3	6.9	30.3	24.4
Andhra Pradesh (n=184)	Mean	49.7	22.8	2027	328	9.4	149.3	0.7	0.6	11.2	37.1	42.3
	Median	49.4	20.5	2019	224	8.7	82.1	0.6	0.5	11.1	23.1	37.8
	SD	17.8	13.0	665	306	4.4	242.8	0.4	0.2	3.9	47.1	21.6
Maharashtra (n=215)	Mean	53.7	26.7	1993	343	15.9	164.9	1.3	0.7	13.2	16.8	49.1
	Median	51.4	24.7	1984	230	13.5	74.4	1.1	0.6	12.1	8.7	44.6
	SD	18.5	12.8	581	475	8.9	353.8	0.7	0.3	5.7	22.3	23.5
Gujarat (n=133)	Mean	67.8	30.7	2060	316	16.9	177.2	1.9	0.8	14.3	38.7	74.9
	Median	61.7	28.9	1849	241	14.2	116.5	1.8	0.7	13.1	28.2	68.7
	SD	31.8	13.6	727	300	10.2	336.4	1.0	0.3	5.8	39.8	40.1
Madhya Pradesh (n=95)	Mean	45.5	13.8	1652	197	12.8	176.2	1.1	0.5	11.9	23.8	41.3
	Median	44.4	12.2	1606	170	10.9	67.8	1.0	0.5	10.8	16.8	35.4
	SD	16.1	7.9	452	110	7.8	290.0	0.7	0.2	5.1	24.1	23.2
Orissa (n=191)	Mean	46.9	12.2	2035	397	12.2	742.8	1.2	0.5	19.3	94.4	56.9
	Median	45.0	10.2	2057	324	9.8	145.2	1.3	0.4	20.7	54.4	52.7
	SD	13.4	8.2	383	283	8.5	999.9	0.4	0.2	5.5	95.5	24.6
West Bengal (n=142)	Mean	51.8	11.9	2374	323	13.8	388.7	1.5	0.5	25.2	92.3	66.0
	Median	49.5	8.7	2210	202	10.5	52.1	1.5	0.5	23.5	50.6	62.0
	SD	19.1	8.4	864	309	17.2	859.6	0.5	0.3	9.2	104.4	26.5
States Pooled (n=1627)	Mean	48.7	22.7	1952	339	12.6	268.1	1.2	0.6	15.9	46.6	52.9
	Median	45.5	19.9	1914	232	10.2	78.0	1.1	0.5	14.4	22.3	48.8
	SD	21.7	14.6	640	384	11.6	585.8	0.8	0.3	9.1	65.1	27.1
RDA		60		2425	400	28	600	1.2	1.4	16	40	100

**Table 42-A : DISTRIBUTION (%) OF ADULT MEN (≥18 YEARS - SEDENTARY)
ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA**

Percent of RDA		States									Pooled n=1627
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=230	n=160	n=277	n=184	n=215	n=133	n=95	n=191	n=142	
Protein	<50	29.6	19.4	31.4	14.1	7.0	3.8	13.7	6.8	9.2	16.7
	50-70	22.6	30.0	28.2	19.0	21.9	18.8	29.5	29.8	28.2	25.2
	≥70	47.8	50.6	40.4	66.8	71.2	77.4	56.8	63.4	62.7	58.1
Energy	<50	18.7	10.0	14.1	13.6	7.4	9.8	14.7	2.1	4.9	10.9
	50-70	24.8	31.3	32.9	13.6	26.5	21.8	46.3	14.1	12.7	24.5
	≥70	56.5	58.8	53.1	72.8	66.0	68.4	38.9	83.8	82.4	64.7
Calcium	<50	39.6	37.5	42.6	42.9	43.3	26.3	58.9	31.4	49.3	40.7
	50-70	16.5	20.6	14.8	15.2	22.8	37.6	21.1	13.6	14.1	18.7
	≥70	43.9	41.9	42.6	41.8	34.0	36.1	20.0	55.0	36.6	40.6
Iron	<50	76.5	81.3	84.8	84.8	51.6	49.6	66.3	74.9	75.4	73.0
	50-70	14.3	8.1	8.7	12.0	20.5	20.3	11.6	14.1	13.4	13.5
	≥70	9.1	10.6	6.5	3.3	27.9	30.1	22.1	11.0	11.3	13.5
Vitamin-A	<50	90.0	91.9	85.2	91.3	88.8	96.2	86.3	58.1	78.9	84.9
	50-70	2.2	3.8	4.0	3.8	3.3	0.8	0.0	1.0	1.4	2.5
	≥70	7.8	4.4	10.8	4.9	7.9	3.0	13.7	40.8	19.7	12.5
Thiamin	<50	20.0	11.9	23.1	51.1	20.0	10.5	38.9	10.5	4.9	21.1
	50-70	15.2	7.5	22.7	19.6	12.6	4.5	9.5	6.8	2.8	12.6
	≥70	64.8	80.6	54.2	29.3	67.4	85.0	51.6	82.7	92.3	66.3
Ribo-flavin	<50	83.5	88.8	86.3	81.0	64.7	57.1	85.3	89.0	87.3	80.6
	50-70	10.9	5.6	8.3	15.8	16.3	19.5	9.5	6.3	7.0	10.9
	≥70	5.7	5.6	5.4	3.3	19.1	23.3	5.3	4.7	5.6	8.4
Niacin	<50	9.6	7.5	15.9	21.2	16.3	11.3	23.2	1.6	1.4	11.9
	50-70	16.1	13.8	17.7	31.5	25.6	24.8	32.6	11.5	2.8	19.1
	≥70	74.3	78.8	66.4	47.3	58.1	63.9	44.2	86.9	95.8	69.0
Vitamin-C	<50	34.3	46.9	58.5	43.5	75.3	39.8	58.9	22.0	23.2	45.6
	50-70	12.2	15.0	14.8	16.3	7.9	9.8	14.7	7.3	12.7	12.2
	≥70	53.5	38.1	26.7	40.2	16.7	50.4	26.3	70.7	64.1	42.2
Free folic acid	<50	53.0	52.5	59.9	67.9	60.0	29.3	66.3	41.4	28.2	52.1
	50-70	27.8	27.5	22.0	19.6	20.0	22.6	22.1	35.6	33.1	25.4
	≥70	19.1	20.0	18.1	12.5	20.0	48.1	11.6	23.0	38.7	22.5

Table 43 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG ADULT WOMEN (≥ 18 YEARS - NPNL - SEDENTARY)

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=1000)	Mean	38.0	29.8	1577	321	9.4	167.8	0.9	0.4	13.4	42.1	44.4
	Median	34.4	26.6	1526	221	8.2	56.4	0.8	0.4	12.6	25.2	39.8
	SD	18.5	19.9	545	295	5.5	417.5	0.3	0.2	4.9	50.1	21.7
Tamil Nadu (n=341)	Mean	37.4	17.7	1645	260	10.9	142.5	1.1	0.4	15.4	33.1	45.6
	Median	37.2	14.7	1645	200	8.4	73.8	1.0	0.4	15.1	18.8	45.9
	SD	10.2	12.0	367	192	13.4	332.7	1.0	0.2	10.5	48.3	15.1
Karnataka (n=999)	Mean	39.3	23.6	1768	314	9.7	258.4	0.9	0.5	14.2	29.6	49.2
	Median	35.7	21.4	1725	224	8.1	67.9	0.9	0.4	13.8	18.2	45.0
	SD	18.1	12.5	539	360	5.9	636.0	0.4	0.2	5.3	39.0	23.6
Andhra Pradesh (n=299)	Mean	41.7	19.1	1714	291	7.6	199.0	0.6	0.5	9.6	32.2	34.5
	Median	39.5	18.0	1644	214	6.8	80.1	0.5	0.5	8.9	19.8	29.6
	SD	16.8	10.5	552	244	3.9	405.5	0.3	0.2	3.5	38.1	18.3
Maharashtra (n=279)	Mean	42.1	22.0	1641	277	12.4	136.7	1.0	0.5	10.3	16.9	38.7
	Median	39.7	19.9	1569	169	10.3	54.0	0.8	0.5	9.4	10.9	34.5
	SD	15.0	11.8	497	307	7.7	320.5	0.6	0.3	4.3	19.5	19.8
Gujarat (n=170)	Mean	63.4	27.8	1879	311	15.9	154.3	1.6	0.7	13.3	33.6	68.4
	Median	58.1	27.0	1781	243	13.2	111.6	1.7	0.6	12.2	26.2	63.7
	SD	31.1	11.7	585	269	10.0	243.2	0.8	0.3	5.3	31.0	32.6
Madhya Pradesh (n=197)	Mean	40.5	12.1	1486	187	11.0	162.7	0.9	0.5	10.5	26.7	38.8
	Median	40.2	11.6	1490	151	9.4	62.3	0.8	0.4	9.8	17.8	34.0
	SD	13.9	6.2	450	130	6.2	270.6	0.6	0.2	4.3	31.6	20.6
Orissa (n=448)	Mean	41.4	10.2	1789	378	10.6	658.5	1.1	0.4	16.8	89.2	51.5
	Median	39.6	9.2	1792	321	8.9	110.8	1.1	0.4	17.4	45.0	47.0
	SD	11.5	6.0	333	321	7.2	979.8	0.3	0.2	4.9	98.2	22.7
West Bengal (n=330)	Mean	46.7	12.4	2155	277	11.7	296.0	1.4	0.4	22.4	76.0	59.1
	Median	44.7	8.6	2037	168	9.7	41.2	1.3	0.4	21.4	35.1	55.7
	SD	17.7	15.4	845	289	11.1	724.7	0.5	0.2	8.6	89.0	24.6
States Pooled (n=4063)	Mean	41.1	21.4	1723	305	10.3	251.8	1.0	0.5	14.2	42.7	47.3
	Median	38.1	18.1	1681	214	8.5	66.3	0.9	0.4	13.3	22.2	43.1
	SD	18.1	15.6	561	301	7.8	589.8	0.5	0.2	6.7	59.7	23.4
RDA		50		1875	400	30	600	0.9	1.1	12	40	100

Table 43-A : DISTRIBUTION (%) OF ADULT WOMEN (≥18 YEARS - NPWL -SEDENTARY) ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=1000	n=341	n=999	n=299	n=279	n=170	n=197	n=448	n=330	
Protein	<50	25.6	8.5	16.3	12.4	7.9	1.2	11.7	3.1	9.4	14.2
	50-70	25.7	33.7	31.2	27.1	26.9	14.1	26.9	25.0	18.5	26.8
	≥70	48.7	57.8	52.5	60.5	65.2	84.7	61.4	71.9	72.1	59.0
Energy	<50	10.2	2.3	3.6	8.0	4.3	2.4	11.2	0.4	4.8	5.6
	50-70	23.3	16.4	15.9	14.0	22.2	11.8	24.9	8.3	10.6	17.1
	≥70	66.5	81.2	80.5	77.9	73.5	85.9	64.0	91.3	84.5	77.4
Calcium	<50	44.4	49.9	42.0	45.8	58.8	30.0	64.5	36.4	62.4	46.3
	50-70	19.1	21.4	21.1	18.1	15.4	29.4	23.9	9.4	10.9	18.4
	≥70	36.5	28.7	36.8	36.1	25.8	40.6	11.7	54.2	26.7	35.3
Iron	<50	87.8	88.0	86.6	95.3	73.5	58.2	76.6	87.1	86.7	85.1
	50-70	9.4	5.0	9.1	3.0	16.1	22.4	14.2	7.8	6.1	9.3
	≥70	2.8	7.0	4.3	1.7	10.4	19.4	9.1	5.1	7.3	5.6
Vitamin-A	<50	91.4	93.8	86.2	88.0	90.0	96.5	86.8	58.5	83.0	85.7
	50-70	1.1	1.2	1.7	3.0	4.3	0.0	0.5	2.0	1.5	1.7
	≥70	7.5	5.0	12.1	9.0	5.7	3.5	12.7	39.5	15.5	12.7
Thiamin	<50	6.0	5.9	7.2	38.1	15.4	2.4	25.4	4.5	2.1	9.6
	50-70	20.2	7.9	16.2	31.1	18.3	10.0	17.8	6.9	4.8	15.6
	≥70	73.8	86.2	76.6	30.8	66.3	87.6	56.9	88.6	93.0	74.8
Riboflavin	<50	79.4	81.8	68.9	66.9	63.8	34.1	72.6	81.3	77.6	72.9
	50-70	14.7	13.8	20.8	23.7	19.0	30.6	19.8	14.3	15.5	18.0
	≥70	5.9	4.4	10.3	9.4	17.2	35.3	7.6	4.5	7.0	9.1
Niacin	<50	3.7	3.5	3.0	13.0	11.1	2.4	15.7	1.8	0.3	4.8
	50-70	9.0	5.0	8.9	28.8	29.7	13.5	18.3	3.3	3.0	11.1
	≥70	87.3	91.5	88.1	58.2	59.1	84.1	66.0	94.9	96.7	84.2
Vitamin-C	<50	39.8	53.7	54.0	50.2	70.3	40.6	59.4	28.1	28.5	46.1
	50-70	15.9	13.2	15.1	15.1	12.5	12.4	11.2	8.3	14.5	13.9
	≥70	44.3	33.1	30.9	34.8	17.2	47.1	29.4	63.6	57.0	40.1
Free folic acid	<50	68.6	61.6	61.4	84.3	79.6	30.6	72.6	56.7	41.5	63.2
	50-70	20.2	34.0	24.4	10.7	13.6	24.1	17.3	25.9	28.2	22.5
	≥70	11.2	4.4	14.2	5.0	6.8	45.3	10.2	17.4	30.3	14.2

Table 44 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG ADULT WOMEN (≥ 18 YEARS - PREGNANT - SEDENTARY)

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=20)	Mean	41.9	26.3	1440	297	10.4	71.8	0.8	0.4	12.2	38.7	40.5
	Median	32.7	28.2	1333	172	7.6	61.3	0.7	0.3	11.1	25.0	34.2
	SD	42.6	14.9	510	276	10.6	48.3	0.3	0.3	4.9	30.8	26.1
Tamil Nadu (n=36)	Mean	34.6	17.6	1610	196	7.4	70.3	0.9	0.4	13.3	22.2	39.3
	Median	35.0	17.9	1653	167	7.0	58.8	0.9	0.4	14.9	15.0	39.5
	SD	8.6	7.1	329	114	2.7	40.3	0.3	0.1	4.2	22.1	12.7
Karnataka (n=24)	Mean	41.3	22.4	1551	445	10.4	178.9	0.8	0.5	12.2	18.8	39.6
	Median	35.5	22.9	1575	226	8.1	72.7	0.9	0.5	10.8	11.1	37.6
	SD	21.8	9.6	457	418	6.2	410.4	0.4	0.2	6.5	20.0	15.7
Andhra Pradesh (n=14)	Mean	47.0	24.3	1838	282	8.4	118.3	0.8	0.6	11.2	32.9	39.2
	Median	41.3	19.3	1706	209	6.5	79.1	0.7	0.5	9.7	25.6	33.8
	SD	20.1	20.9	638	206	6.6	103.7	0.5	0.3	5.8	24.8	18.6
Maharashtra (n=7)	Mean	51.4	30.9	1896	281	17.7	383.0	1.4	0.8	13.7	19.9	60.3
	Median	49.6	32.8	1856	237	16.4	105.3	1.1	0.7	13.0	13.5	54.7
	SD	13.6	10.7	354	132	7.2	624.5	0.8	0.2	7.1	19.6	20.3
Gujarat (n=11)	Mean	57.3	31.5	1895	328	15.3	119.3	1.5	0.7	14.1	37.3	60.2
	Median	54.8	24.7	1947	281	17.5	99.8	1.6	0.7	14.5	22.9	58.9
	SD	15.5	18.8	458	174	7.4	56.8	0.7	0.3	4.8	34.1	18.0
Madhya Pradesh (n=7)	Mean	44.7	20.9	1954	239	10.1	425.9	1.0	0.6	11.4	59.1	42.1
	Median	41.8	24.2	1984	170	10.0	44.7	0.7	0.6	11.3	24.3	32.4
	SD	17.6	9.2	414	197	5.1	949.2	0.8	0.4	3.6	67.6	28.9
Orissa (n=24)	Mean	44.1	11.7	1891	471	12.9	678.9	1.2	0.5	18.5	101.1	47.8
	Median	42.2	10.4	1884	484	9.1	62.5	1.3	0.4	20.1	40.5	48.6
	SD	10.8	7.0	316	329	16.0	1038.8	0.3	0.2	5.3	116.5	14.8
West Bengal (n=15)	Mean	43.2	9.7	2105	222	9.3	158.7	1.4	0.4	22.4	38.1	54.4
	Median	41.9	7.8	2151	146	9.1	27.1	1.4	0.4	22.5	22.0	53.9
	SD	9.1	4.9	571	240	2.4	440.6	0.3	0.1	6.1	29.9	17.2
States Pooled (n=158)	Mean	42.7	20.1	1737	313	10.5	225.1	1.0	0.5	14.4	40.8	44.7
	Median	38.9	18.4	1715	204	8.2	66.7	1.0	0.4	13.9	22.1	41.5
	SD	20.8	13.1	481	278	8.7	544.6	0.5	0.2	6.2	58.5	19.1
RDA		65		2175	1000	38	600	1.1	1.3	14	40	400

Table 44-A : DISTRIBUTION (%) OF ADULT PREGNANT WOMEN (≥18 YEARS - SEDENTARY) ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled n=158
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=20	n=36	n=24	n=14	n=7	n=11	n=7	n=24	n=15	
Protein	<50	50.0	38.9	45.8	21.4	0.0	9.1	14.3	12.5	13.3	28.5
	50-70	30.0	47.2	25.0	28.6	42.9	9.1	57.1	58.3	53.3	39.9
	≥70	20.0	13.9	29.2	50.0	57.1	81.8	28.6	29.2	33.3	31.6
Energy	<50	20.0	11.1	16.7	14.3	0.0	9.1	0.0	0.0	0.0	9.5
	50-70	45.0	22.2	25.0	21.4	28.6	9.1	14.3	16.7	13.3	22.8
	≥70	35.0	66.7	58.3	64.3	71.4	81.8	85.7	83.3	86.7	67.7
Calcium	<50	85.0	100.0	62.5	78.6	85.7	90.9	85.7	58.3	86.7	81.0
	50-70	10.0	0.0	12.5	14.3	14.3	0.0	14.3	20.8	0.0	8.9
	≥70	5.0	0.0	25.0	7.1	0.0	9.1	0.0	20.8	13.3	10.1
Iron	<50	95.0	97.2	91.7	92.9	57.1	63.6	85.7	95.8	100.0	91.1
	50-70	0.0	2.8	4.2	0.0	28.6	27.3	14.3	0.0	0.0	5.1
	≥70	5.0	0.0	4.2	7.1	14.3	9.1	0.0	4.2	0.0	3.8
Vitamin-A	<50	100.0	100.0	95.8	92.9	71.4	100.0	85.7	70.8	86.7	91.1
	50-70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.6
	≥70	0.0	0.0	4.2	7.1	28.6	0.0	14.3	29.2	6.7	8.2
Thiamin	<50	10.0	19.4	33.3	42.9	14.3	9.1	28.6	4.2	0.0	17.7
	50-70	55.0	13.9	12.5	14.3	0.0	9.1	28.6	4.2	0.0	15.8
	≥70	35.0	66.7	54.2	42.9	85.7	81.8	42.9	91.7	100.0	66.5
Riboflavin	<50	90.0	97.2	75.0	71.4	28.6	27.3	57.1	87.5	100.0	79.7
	50-70	5.0	2.8	20.8	21.4	57.1	63.6	28.6	0.0	0.0	14.6
	≥70	5.0	0.0	4.2	7.1	14.3	9.1	14.3	12.5	0.0	5.7
Niacin	<50	10.0	8.3	29.2	28.6	14.3	9.1	14.3	.0	.0	12.0
	50-70	15.0	13.9	16.7	21.4	28.6	.0	14.3	8.3	.0	12.7
	≥70	75.0	77.8	54.2	50.0	57.1	90.9	71.4	91.7	100.0	75.3
Vitamin-C	<50	30.0	58.3	62.5	35.7	71.4	27.3	28.6	29.2	40.0	44.3
	50-70	25.0	13.9	16.7	21.4	.0	27.3	28.6	8.3	13.3	16.5
	≥70	45.0	27.8	20.8	42.9	28.6	45.5	42.9	62.5	46.7	39.2
Free folic acid	<50	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 45 : AVERAGE DAILY INTAKE OF NUTRIENTS AMONG ADULT WOMEN (≥ 18 YEARS - LACTATING - SEDENTARY)

State		Protein (g)	Total Fat (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit. A (µg)	Thiamin (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free folic acid (µg)
Kerala (n=52)	Mean	40.4	31.9	1708	311	10.9	213.6	1.0	0.4	15.2	49.3	44.5
	Median	40.8	30.7	1682	212	8.4	59.0	0.9	0.4	14.9	30.3	40.7
	SD	16.8	20.7	518	262	8.3	476.9	0.3	0.2	4.9	66.0	17.3
Tamil Nadu (n=116)	Mean	39.7	16.9	1780	236	9.1	122.0	1.1	0.4	15.7	41.3	47.7
	Median	39.5	15.2	1768	201	8.3	89.1	1.1	0.4	16.0	23.3	48.2
	SD	9.7	7.6	343	157	4.1	166.3	0.4	0.2	4.8	51.7	15.2
Karnataka (n=52)	Mean	40.1	22.6	1819	384	10.3	223.0	0.9	0.5	13.3	33.6	46.4
	Median	35.8	23.8	1802	230	8.2	72.8	0.9	0.4	12.7	22.1	43.0
	SD	13.9	9.7	481	374	6.0	367.9	0.4	0.2	4.9	38.5	18.3
Andhra Pradesh (n=33)	Mean	47.5	22.2	2069	283	9.5	217.2	0.7	0.5	12.0	48.5	42.6
	Median	45.7	20.8	2078	254	8.7	102.5	0.6	0.5	11.6	36.2	37.4
	SD	16.2	9.3	650	197	4.2	363.1	0.4	0.2	3.8	50.2	21.3
Maharashtra (n=24)	Mean	50.6	23.4	1917	256	12.1	70.6	1.1	0.5	12.0	11.0	43.2
	Median	49.6	20.4	1748	177	10.9	50.1	1.0	0.5	11.6	3.9	39.8
	SD	19.1	16.6	588	276	6.4	82.7	0.6	0.2	4.8	16.3	21.8
Gujarat (n=22)	Mean	60.5	28.9	2048	389	16.3	139.4	1.7	0.8	14.5	36.6	68.2
	Median	55.0	31.0	1826	274	15.3	146.5	1.8	0.8	13.0	31.7	68.9
	SD	21.3	11.7	579	272	9.2	74.9	0.9	0.3	5.6	28.2	32.3
Madhya Pradesh (n=12)	Mean	40.4	13.9	1520	181	9.9	166.5	0.9	0.4	10.4	35.3	33.4
	Median	42.1	15.5	1624	169	8.4	56.9	0.6	0.5	10.6	25.7	30.3
	SD	16.4	7.4	533	92	6.1	235.3	0.6	0.2	4.6	27.9	20.2
Orissa (n=110)	Mean	46.4	10.7	1998	472	11.7	754.3	1.2	0.5	18.3	97.5	57.8
	Median	43.8	10.0	1978	390	10.4	242.9	1.2	0.5	19.6	57.3	54.0
	SD	13.7	7.0	309	412	6.2	968.1	0.5	0.2	5.4	105.3	23.4
West Bengal (n=41)	Mean	44.6	11.5	2070	261	12.5	438.3	1.3	0.5	22.2	92.1	58.9
	Median	41.4	9.1	2045	194	10.0	51.6	1.3	0.5	21.6	71.3	52.8
	SD	17.1	10.1	731	216	9.2	760.4	0.5	0.2	8.2	97.2	26.8
States Pooled (n=462)	Mean	44.0	18.5	1888	330	10.9	328.4	1.1	0.5	15.9	57.8	50.6
	Median	42.1	15.1	1845	230	9.0	88.3	1.1	0.5	15.8	29.2	47.9
	SD	15.3	13.0	492	304	6.6	628.0	0.5	0.2	6.0	76.0	22.1
RDA		68		2275	1000	30	950	1.1	1.3	15	80	150

Table 45-A : DISTRIBUTION (%) OF ADULT LACTATING MOTHER (≥18 YEARS - SEDENTARY) ACCORDING TO DAILY INTAKE OF NUTRIENTS AS PERCENT RDA

Percent of RDA		States									Pooled
		Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	
		n=52	n=116	n=52	n=33	n=24	n=22	n=12	n=110	n=41	
Protein	<50	38.5	28.4	42.3	18.2	25.0	9.1	33.3	6.4	24.4	23.8
	50-70	28.8	56.0	26.9	42.4	25.0	13.6	41.7	60.9	29.3	43.5
	≥70	32.7	15.5	30.8	39.4	50.0	77.3	25.0	32.7	46.3	32.7
Energy	<50	13.5	3.4	9.6	0.0	4.2	0.0	25.0	0.0	9.8	5.2
	50-70	28.8	25.9	21.2	24.2	41.7	18.2	16.7	7.3	14.6	20.3
	≥70	57.7	70.7	69.2	75.8	54.2	81.8	58.3	92.7	75.6	74.5
Calcium	<50	82.7	93.1	76.9	93.9	91.7	77.3	100.0	70.0	82.9	83.1
	50-70	3.8	3.4	7.7	3.0	0.0	4.5	0.0	10.0	12.2	6.1
	≥70	13.5	3.4	15.4	3.0	8.3	18.2	0.0	20.0	4.9	10.8
Iron	<50	88.5	93.1	82.7	90.9	70.8	50.0	75.0	84.5	75.6	84.0
	50-70	3.8	4.3	15.4	9.1	20.8	31.8	25.0	7.3	14.6	10.2
	≥70	7.7	2.6	1.9	0.0	8.3	18.2	0.0	8.2	9.8	5.8
Vitamin-A	<50	86.5	95.7	84.6	90.9	100.0	100.0	91.7	54.5	70.7	81.4
	50-70	7.7	2.6	3.8	0.0	0.0	0.0	0.0	2.7	2.4	2.8
	≥70	5.8	1.7	11.5	9.1	0.0	0.0	8.3	42.7	26.8	15.8
Thiamin	<50	9.6	8.6	23.1	42.4	16.7	9.1	50.0	7.3	7.3	13.9
	50-70	9.6	12.1	15.4	24.2	25.0	9.1	8.3	3.6	2.4	10.6
	≥70	80.8	79.3	61.5	33.3	58.3	81.8	41.7	89.1	90.2	75.5
Riboflavin	<50	88.5	91.4	78.8	78.8	79.2	40.9	91.7	76.4	80.5	81.2
	50-70	9.6	7.8	13.5	18.2	16.7	31.8	8.3	21.8	14.6	14.9
	≥70	1.9	0.9	7.7	3.0	4.2	27.3	0.0	1.8	4.9	3.9
Niacin	<50	5.8	4.3	13.5	18.2	16.7	0.0	25.0	1.8	4.9	6.9
	50-70	7.7	13.8	15.4	18.2	16.7	27.3	25.0	10.0	2.4	12.8
	≥70	86.5	81.9	71.2	63.6	66.7	72.7	50.0	88.2	92.7	80.3
Vitamin-C	<50	63.5	69.0	73.1	54.5	95.8	68.2	66.7	40.9	39.0	59.7
	50-70	5.8	8.6	11.5	15.2	0.0	13.6	8.3	9.1	4.9	8.7
	≥70	30.8	22.4	15.4	30.3	4.2	18.2	25.0	50.0	56.1	31.6
Free folic acid	<50	92.3	97.4	92.3	87.9	87.5	54.5	100.0	80.0	78.0	87.2
	50-70	7.7	2.6	7.7	12.1	12.5	40.9	0.0	15.5	14.6	10.8
	≥70	0.0	0.0	0.0	0.0	0.0	4.5	0.0	4.5	7.3	1.9

Table 46 : DISTRIBUTION (%) OF 1-3 YEARS CHILDREN ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS

State	n	Protein Calorie Adequacy			Total
		P- C-	P+ C-	P+ C+	C-
Kerala	230	52.6	33.5	13.9	86.1
Tamil Nadu	333	38.4	43.6	18.0	82.0
Karnataka	188	44.1	33	22.9	77.1
Andhra Pradesh	293	23.2	35.5	41.3	58.7
Maharashtra	447	22.4	41.6	36.0	64.0
Gujarat	275	4.0	40.0	56.0	44.0
Madhya Pradesh	443	30.9	46.8	22.3	77.7
Orissa	391	26.6	48.8	24.6	75.4
West Bengal	191	30.9	30.4	38.7	61.3
Pooled	2791	29.1	40.8	30.1	69.9

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 47 : DISTRIBUTION (%) OF 4-6 YEARS CHILDREN ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS

State	n	Protein Calorie Adequacy			Total
		P- C-	P+ C-	P+ C+	C-
Kerala	230	34.8	51.3	13.9	86.1
Tamil Nadu	248	21.0	71.3	7.7	92.3
Karnataka	210	32.3	51.0	16.7	83.3
Andhra Pradesh	328	8.5	45.2	46.3	53.7
Maharashtra	455	5.7	52.5	41.8	58.2
Gujarat	330	3.3	52.8	43.9	56.1
Madhya Pradesh	510	17.5	62.9	19.6	80.4
Orissa	393	11.2	74.3	14.5	85.5
West Bengal	258	10.1	34.9	55.0	45.0
Pooled	2962	14.3	56.3	29.4	70.6

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 48 : DISTRIBUTION (%) OF 7-9 YEARS CHILDREN ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS

State	n	Protein Calorie Adequacy			Total
		P- C-	P+ C-	P+ C+	C-
Kerala	206	28.2	58.2	13.6	86.4
Tamil Nadu	258	16.7	77.1	6.2	93.8
Karnataka	197	21.8	57.9	20.3	79.7
Andhra Pradesh	326	8.9	43.9	47.2	52.8
Maharashtra	454	3.3	49.6	47.1	52.9
Gujarat	382	1.8	46.9	51.3	48.7
Madhya Pradesh	454	16.1	62.8	21.1	78.9
Orissa	431	6.7	76.1	17.2	82.8
West Bengal	207	13.0	35.3	51.7	48.3
Pooled	2915	11.1	57.2	31.7	68.3

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 49 : DISTRIBUTION (%) OF 10-12 YEARS BOYS ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS

State	n	Protein Calorie Adequacy			Total
		P- C-	P+ C-	P+ C+	C-
Kerala	82	32.9	59.8	7.3	92.7
Tamil Nadu	120	25.0	70.0	5.0	95.0
Karnataka	123	25.2	56.1	18.7	81.3
Andhra Pradesh	120	18.3	47.5	34.2	65.8
Maharashtra	172	3.5	54.1	42.4	57.6
Gujarat	210	4.8	61.4	33.8	66.2
Madhya Pradesh	263	16.3	67.7	16.0	84.0
Orissa	209	7.2	74.6	18.2	81.8
West Bengal	119	10.1	35.3	54.6	45.4
Pooled	1418	13.8	60.5	25.7	74.3

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 50 : DISTRIBUTION (%) OF 10-12 YEARS GIRLS ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS

State	n	Protein Calorie Adequacy			Total
		P- C-	P+ C-	P+ C+	C-
Kerala	74	29.7	58.1	12.2	87.8
Tamil Nadu	99	28.3	63.6	8.1	91.9
Karnataka	115	39.1	42.6	18.3	81.7
Andhra Pradesh	124	13.7	35.5	50.8	49.2
Maharashtra	188	6.9	44.7	48.4	51.6
Gujarat	187	3.2	49.7	47.1	52.9
Madhya Pradesh	251	17.5	63.8	18.7	81.3
Orissa	182	6.0	67.1	26.9	73.1
West Bengal	88	10.2	28.4	61.4	38.6
Pooled	1308	14.9	52.2	32.9	67.1

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 51 : DISTRIBUTION (%) OF 13-15 YEARS BOYS ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS

State	n	Protein Calorie Adequacy			Total
		P- C-	P+ C-	P+ C+	C-
Kerala	67	52.2	35.9	11.9	88.1
Tamil Nadu	93	35.5	54.8	9.7	90.3
Karnataka	143	31.5	42.6	25.9	74.1
Andhra Pradesh	97	17.5	38.2	44.3	55.7
Maharashtra	166	7.2	43.4	49.4	50.6
Gujarat	187	7.5	67.9	24.6	75.4
Madhya Pradesh	189	17.5	63.5	19.0	81.0
Orissa	159	10.7	62.3	27.0	73.0
West Bengal	86	4.7	24.4	70.9	29.1
Pooled	1187	17.7	51.6	30.7	69.3

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

**Table 52 : DISTRIBUTION (%) OF 13-15 YEARS GIRLS ACCORDING TO
PROTEIN - CALORIE ADEQUACY STATUS**

State	n	Protein Calorie Adequacy			Total
		P- C-	P+ C-	P+ C+	C-
Kerala	70	24.3	61.4	14.3	85.7
Tamil Nadu	99	15.2	67.6	17.2	82.8
Karnataka	135	25.2	47.4	27.4	72.6
Andhra Pradesh	88	6.8	45.5	47.7	52.3
Maharashtra	163	1.8	47.9	50.3	49.7
Gujarat	156	5.1	46.8	48.1	51.9
Madhya Pradesh	185	9.7	71.9	18.4	81.6
Orissa	171	1.8	40.3	57.9	42.1
West Bengal	76	6.6	27.6	65.8	34.2
Pooled	1143	9.5	51.5	39.0	61.0

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

**Table 53 : DISTRIBUTION (%) OF 16-17 YEARS BOYS ACCORDING TO
PROTEIN - CALORIE ADEQUACY STATUS**

State	n	Protein Calorie Adequacy				Total	
		P- C-	P- C+	P+ C-	P+ C+	C-	P-
Kerala	37	56.8	5.4	21.6	16.2	78.4	62.2
Tamil Nadu	49	49.0	6.1	14.3	30.6	63.3	55.1
Karnataka	66	59.1	6.1	4.5	30.3	63.6	65.2
Andhra Pradesh	61	23.0	9.8	6.6	60.6	29.6	32.8
Maharashtra	110	20.0	0.9	18.2	60.9	38.2	20.9
Gujarat	134	15.7	1.5	45.5	37.3	61.2	17.2
Madhya Pradesh	87	43.7	2.3	31.0	23.0	74.7	46.0
Orissa	82	25.6	12.2	2.4	59.8	28.0	37.8
West Bengal	49	26.5	8.2	2.0	63.3	28.5	34.7
Pooled	675	31.6	5.0	19.7	43.7	51.3	36.6

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 54 : DISTRIBUTION (%) OF 16-17 YEARS GIRLS ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS

State	n	Protein Calorie Adequacy				Total	
		P- C-	P- C+	P+ C-	P+ C+	C-	P-
Kerala	59	52.6	16.9	5.1	25.4	57.7	69.5
Tamil Nadu	63	30.2	12.7	4.8	52.3	35.0	42.9
Karnataka	95	42.1	17.9	4.2	35.8	46.3	60.0
Andhra Pradesh	62	22.6	3.2	8.1	66.1	30.7	25.8
Maharashtra	105	19.0	4.8	8.6	67.6	27.6	23.8
Gujarat	108	7.4	8.3	13.9	70.4	21.3	15.7
Madhya Pradesh	107	25.2	5.6	19.6	49.6	44.8	30.8
Orissa	106	3.8	16	0.0	80.2	3.8	19.8
West Bengal	36	22.2	13.9	0.0	63.9	22.2	36.1
Pooled	741	23.1	10.7	8.1	58.1	31.2	33.8

P+ : Protein adequacy
C+ : Calorie adequacy

P-: Protein inadequacy
C-: Calorie inadequacy

Table 55 : DISTRIBUTION (%) OF ADULT MEN (≥18 YEARS - SEDENTARY) ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS

State	n	Protein Calorie Adequacy				Total	
		P- C-	P- C+	P+ C-	P+ C+	C-	P-
Kerala	230	29.6	3.5	13.9	53.0	43.5	33.1
Tamil Nadu	160	23.1	0.6	18.1	58.2	41.2	23.7
Karnataka	277	35.0	1.8	11.9	51.3	46.9	36.8
Andhra Pradesh	184	15.2	0.0	12.0	72.8	27.2	15.2
Maharashtra	215	11.6	0.0	22.8	65.6	34.4	11.6
Gujarat	133	11.3	0.0	20.3	68.4	31.6	11.3
Madhya Pradesh	95	17.9	0.0	43.2	38.9	61.1	17.9
Orissa	191	9.4	0.5	6.8	83.3	16.2	9.9
West Bengal	142	11.3	0.7	6.3	81.7	17.6	12.0
Pooled	1627	19.7	1.0	15.7	63.6	35.4	20.7

P+ : Protein adequacy
C+ : Calorie adequacy

P-: Protein inadequacy
C-: Calorie inadequacy

**Table 56 : DISTRIBUTION (%) OF ADULT WOMEN (≥18 YEARS - NPNL - SEDENTARY)
ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS**

State	n	Protein Calorie Adequacy				Total	
		P- C-	P- C+	P+ C-	P+ C+	C-	P-
Kerala	1000	23.5	6.5	10.0	60.0	33.5	30.0
Tamil Nadu	341	11.4	3.5	7.3	77.8	18.7	14.9
Karnataka	999	15.5	5.8	4.0	74.7	19.5	21.3
Andhra Pradesh	299	13.4	1.7	8.7	76.2	22.1	15.1
Maharashtra	279	11.1	0.7	15.4	72.8	26.5	11.8
Gujarat	170	2.9	0.6	11.2	85.3	14.1	3.5
Madhya Pradesh	197	15.7	0.5	20.3	63.5	36.0	16.2
Orissa	448	3.8	1.8	4.9	89.5	8.7	5.6
West Bengal	330	10.0	0.9	5.5	83.6	15.5	10.9
Pooled	4063	14.4	3.8	8.2	73.6	22.6	18.2

P+ : Protein adequacy
C+ : Calorie adequacy

P-: Protein inadequacy
C-: Calorie inadequacy

**Table 57 : DISTRIBUTION (%) OF ADULT WOMEN (≥18 YEARS - PREGNANT -
SEDENTARY) ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS**

State	n	Protein Calorie Adequacy				Total	
		P- C-	P- C+	P+ C-	P+ C+	C-	P-
Kerala	20	50.0	10.0	15.0	25.0	65.0	60.0
Tamil Nadu	36	33.3	16.7	0.0	50.0	33.3	50.0
Karnataka	24	29.2	16.7	12.5	41.6	41.7	45.9
Andhra Pradesh	14	35.7	7.1	0.0	57.2	35.7	42.8
Maharashtra	7	0.0	0.0	28.6	71.4	28.6	0.0
Gujarat	11	0.0	9.1	18.2	72.7	18.2	9.1
Madhya Pradesh	7	14.3	0.0	0.0	85.7	14.3	14.3
Orissa	24	12.5	0.0	4.2	83.3	16.7	12.5
West Bengal	15	13.3	6.7	0.0	80.0	13.3	20.0
Pooled	158	25.3	9.5	7.0	58.2	32.3	34.8

P+ : Protein adequacy
C+ : Calorie adequacy

P-: Protein inadequacy
C-: Calorie inadequacy

Table 58 : DISTRIBUTION (%) OF ADULT WOMEN (≥18 YEARS - LACTATING - SEDENTARY) ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS

State	n	Protein Calorie Adequacy				Total	
		P- C-	P- C+	P+ C-	P+ C+	C-	P-
Kerala	52	36.5	9.6	9.6	44.3	46.1	46.1
Tamil Nadu	116	32.7	12.1	5.2	50.0	37.9	44.8
Karnataka	52	32.7	21.2	1.9	44.2	34.6	53.9
Andhra Pradesh	33	24.2	6.1	3.0	66.7	27.2	30.3
Maharashtra	24	29.2	0.0	16.7	54.1	45.9	29.2
Gujarat	22	9.1	0.0	13.6	77.3	22.7	9.1
Madhya Pradesh	12	33.3	8.3	25.0	33.4	58.3	41.6
Orissa	110	9.1	15.5	3.6	71.8	12.7	24.6
West Bengal	41	26.8	12.2	2.4	58.6	29.2	39.0
Pooled	462	25.1	11.9	6.1	56.9	31.2	37.0

P+ : Protein adequacy
C+ : Calorie adequacy

P-: Protein inadequacy
C-: Calorie inadequacy

Table – 59 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS - BOYS & GIRLS (INFANTS)

Nutritional Deficiency Signs	State									
	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Number	286	390	206	366	218	246	257	446	216	2631
NAD	100.0	99.5	100.0	99.2	100.0	100.0	100.0	99.8	100.0	99.8
Marasmus	0.0	0.5	0.0	0.8	0.0	0.0	0.0	0.2	0.0	0.2

Table – 60 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS FOR BOYS & GIRLS (1-5 YEARS) - STATEWISE

Nutritional deficiency signs	States									
	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	States Pooled
Number	1127	1356	890	1377	1751	1489	1164	1915	891	11960
NAD	94.4	93.2	92.1	91.7	94.2	98.7	93.0	98.4	90.3	94.5
Hair Sparse	0.0	0.1	0.1	0.3	0.2	0.0	0.1	0.1	0.9	0.2
Hair Discoloured	0.1	0.2	0.1	0.5	0.4	0.1	0.0	0.2	1.9	0.3
Hair Easily Plucked	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.3	0.0
Moon Face	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.1	0.1
Oedema	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Emaciation	0.0	0.0	0.1	0.1	0.7	0.0	0.0	0.2	0.1	0.2
Marasmus	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1
Night Blindness (XN)	0.1	0.0	0.0	0.5	0.2	0.0	0.4	0.0	0.1	0.2
Conjunctival Xerosis (XIA)	1.4	0.7	0.1	2.0	0.2	0.1	3.5	0.2	0.2	0.9
Bitot's Spots (XIB)	1.0	0.4	0.1	0.9	0.1	0.1	1.2	0.1	0.4	0.4
Angular Stomatitis	0.1	0.2	0.3	1.4	0.6	0.1	0.1	0.1	1.3	0.4
Glossitis	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.4	0.1
Phrynoderma	0.0	0.2	0.6	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Knock - Kness/ Bow legs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.1
Dental - Caries	4.0	4.8	6.0	2.8	0.6	0.4	2.0	0.8	3.5	2.4
Dental - Fluorosis	0.0	0.1	0.1	0.0	0.0	0.4	0.7	0.0	0.2	0.2
Thyroid Gland Palpable	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.1	0.1
Others	0.0	0.3	0.3	1.2	2.8	0.0	0.5	0.0	0.4	0.7

Table – 61 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS - BOYS (5-12 YEARS) - STATEWISE

Nutritional Deficiency Digns	States									
	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Mahara-shtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	States Pooled
Number	697	855	643	1199	1267	1784	861	1417	766	9489
NAD	73.2	62.0	69.7	75.0	80.4	92.4	78.3	86.5	71.8	79.1
Night Blindness (XN)	0.0	0.0	0.0	1.0	0.5	0.0	1.4	0.1	0.0	0.3
Conjunctival Xerosis (XIA)	4.6	2.7	0.3	7.0	0.6	0.1	9.2	0.8	1.3	2.6
Bitot's Spots (XIB)	4.6	3.2	0.2	2.2	2.0	0.0	4.3	0.8	3.3	1.9
Angular Stomatitis	0.0	2.3	0.6	2.9	1.3	0.0	0.3	0.2	4.6	1.2
Glossitis	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4	3.3	0.3
Phrynoderma	0.0	0.7	2.5	0.3	0.2	0.2	0.0	0.1	0.3	0.3
Knock - Kness/ Bow legs	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.4	0.1
Dental - Caries	22.0	30.3	27.4	11.8	11.7	3.9	7.5	12.0	11.6	13.4
Dental - Fluorosis	0.0	2.5	0.3	0.6	0.9	3.5	3.9	0.1	2.7	1.7
Thyroid Gland Palpable	0.0	0.6	0.6	2.2	1.9	0.2	0.2	0.0	0.4	0.7
Thyroid Gland Visible	0.0	0.1	0.0	2.6	0.2	0.0	0.1	0.0	0.1	0.4
Others	0.0	1.4	0.2	1.3	2.7	0.0	0.2	0.0	3.1	0.9

Table - 62 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS - GIRLS (5-12 YEARS) - STATEWISE

Nutritional Deficiency Signs	States									
	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	States Pooled
Number	624	856	655	1185	1263	1707	839	1442	755	9326
NAD	77.2	61.3	65.3	76.8	80.5	92.1	79.4	85.6	76.4	79.5
Hair Discoloured	0.2	0.2	0.2	0.3	0.0	0.0	0.0	0.2	0.8	0.2
Night Blindness (XN)	0.2	0.0	0.0	0.5	0.5	0.0	1.0	0.1	0.1	0.3
Conjunctival Xerosis (XIA)	1.3	1.8	0.2	4.4	0.1	0.1	7.5	0.3	0.7	1.6
Bitot's Spots (XIB)	1.3	1.6	0.2	1.1	1.2	0.2	3.1	0.3	2.1	1.1
Angular Stomatitis	0.3	1.3	0.3	1.8	1.0	0.0	1.0	0.3	3.2	0.9
Cheilosis	0.0	0.0	0.2	0.7	0.0	0.0	0.1	0.0	0.0	0.1
Glossitis	0.0	0.0	0.2	0.1	0.4	0.0	0.0	0.4	1.5	0.3
Phrynoderma	0.2	0.4	3.7	0.2	0.2	0.2	0.0	0.0	0.3	0.4
Knock - Kness/ Bow legs	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.9	0.1
Dental - Caries	21.3	31.9	30.5	11.5	11.2	4.0	8.9	12.8	11.4	13.9
Dental - Fluorosis	0.0	4.2	0.5	0.9	0.6	3.5	4.5	0.1	3.7	2.0
Thyroid Gland Palpable	0.0	0.6	1.1	1.9	2.9	0.5	0.2	0.2	0.7	1.0
Thyroid Gland Visible	0.0	0.0	0.2	2.2	0.5	0.0	0.0	0.0	0.0	0.4
Others	0.0	0.8	0.5	1.8	2.6	0.0	0.1	0.1	1.3	0.8

Table – 63 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS - BOYS (12-18 YEARS) - STATEWISE

Nutritional Deficiency Signs	States									
	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	States Pooled
Number	279	463	485	592	631	1242	345	665	403	5105
NAD	87.8	68.7	82.3	71.1	89.5	89.4	89.9	94.3	80.9	84.6
Night Blindness (XN)	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.2	0.1
Conjunctival Xerosis (XIA)	0.0	1.3	0.6	3.7	0.3	0.1	1.4	0.2	1.0	0.9
Bitot's Spots (XIB)	0.0	1.5	0.4	0.7	0.8	0.3	0.6	0.2	2.2	0.7
Keratomalacia (X3)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corneal Scar (XS)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Angular Stomatitis	0.0	1.3	0.0	1.9	0.5	0.0	0.3	0.2	4.2	0.8
Cheilosis	0.0	0.0	0.0	1.0	0.2	0.1	0.3	0.0	0.5	0.2
Glossitis	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.3	4.0	0.5
Phrynoderma	0.0	1.1	1.2	0.2	0.0	0.0	0.0	0.0	1.0	0.3
Dental - Caries	12.2	20.7	14.2	6.6	4.0	5.7	3.8	4.8	5.5	7.9
Dental - Fluorosis	0.0	4.1	0.8	0.3	0.2	5.3	4.3	0.2	2.2	2.3
Thyroid Gland Palpable	0.0	2.2	1.0	3.5	2.7	0.2	0.3	0.2	0.2	1.2
Thyroid Gland Visible	0.0	0.2	0.4	14.5	0.6	0.0	0.0	0.0	0.0	1.8
Others	0.0	2.2	0.0	1.0	1.7	0.0	0.0	0.0	1.0	0.6

Table – 64 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS - GIRLS (12-18 YEARS) - STATEWISE

Nutritional Deficiency Signs	States									
	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	States Pooled
Number	333	589	606	717	852	1275	408	809	488	6077
NAD	92.8	68.6	77.9	73.5	82.7	89.2	92.6	90.7	71.9	82.6
Night Blindness (XN)	0.0	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Conjunctival Xerosis (XIA)	0.0	0.7	0.2	3.5	0.0	0.2	0.7	0.1	0.2	0.6
Bitot's Spots (XIB)	0.0	1.2	0.2	0.7	0.6	0.0	0.2	0.1	1.4	0.4
Angular Stomatitis	0.3	2.7	0.0	2.1	0.1	0.0	0.7	0.5	4.1	1.0
Cheilosis	0.0	0.2	0.0	0.6	0.0	0.0	0.0	0.1	0.4	0.1
Glossitis	0.0	0.2	0.2	0.4	0.2	0.0	0.0	1.5	6.1	0.8
Phrynoderma	0.3	0.3	3.0	0.3	0.0	0.1	0.0	0.0	2.5	0.6
Gums-Spongy bleeding	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0
Knock - Kness/ Bow legs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Dental - Caries	5.1	20.7	14.4	5.9	7.3	5.5	1.5	6.6	7.2	8.1
Dental - Fluorosis	0.0	3.6	0.8	0.1	0.7	5.9	3.2	0.0	2.5	2.2
Thyroid Gland Palpable	1.5	2.9	3.1	5.2	5.4	0.7	1.0	0.7	2.7	2.6
Thyroid Gland Visible	0.3	1.0	0.5	10.2	2.3	0.0	0.2	0.2	0.2	1.8
Others	0.0	1.4	0.5	3.5	1.4	0.0	0.2	0.1	5.7	1.3

Table – 65 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS – ADULT MEN (≥ 18 YEARS) - STATEWISE

Nutritional Deficiency Signs	States									
	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	States Pooled
Number	2630	2963	3023	4097	3557	3232	3087	3708	2433	28730
NAD	98.8	74.5	88.6	78.3	98.2	92.0	94.6	95.7	88.5	89.7
Night Blindness (XN)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Conjunctival Xerosis (XIA)	0.0	0.1	0.0	1.0	0.0	0.2	0.0	0.0	0.0	0.2
Bitot's Spots (XIB)	0.0	0.2	0.0	0.3	0.0	0.1	0.0	0.0	0.3	0.1
Angular Stomatitis	0.1	0.3	0.7	0.2	0.0	0.0	1.2	0.1	0.4	0.3
Cheilosis	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0
Glossitis	0.0	0.1	0.5	1.7	0.0	0.0	0.2	0.1	4.4	0.7
Phrynoderma	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.1
Gums-Spongy bleeding	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Knock - Kness/ Bow legs	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Dental - Caries	0.8	22.9	9.4	6.6	0.3	4.7	1.1	3.7	4.0	5.9
Dental - Fluorosis	0.0	1.6	0.1	0.2	0.1	5.0	1.2	0.0	0.3	0.9
Thyroid Gland Palpable	0.0	0.1	0.0	1.5	0.1	0.1	0.1	0.0	0.1	0.3
Thyroid Gland Visible	0.1	0.1	0.1	10.0	0.0	0.0	0.2	0.1	0.1	1.5
Others	0.0	0.8	0.5	2.4	1.2	0.0	1.4	0.1	2.1	1.0

Table – 66 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS – ADULT WOMEN (≥ 18 YEARS) - STATEWISE

Nutritional deficiency signs	States									
	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Number	4591	5015	5098	5398	5120	4521	3808	4975	3269	41795
NAD	91.5	60.6	71.6	68.8	89.2	92.8	90.0	88.6	72.7	80.3
Hair Sparse	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0
Hair Discoloured	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Moon Face	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0
Oedema	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
Emaciation	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.1
Night Blindness (XN)	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.0
Conjunctival Xerosis (XIA)	0.0	0.2	0.0	1.0	0.0	0.1	0.0	0.0	0.1	0.2
Bitot's Spots (XIB)	0.0	0.2	0.0	0.2	0.1	0.1	0.0	0.0	0.2	0.1
Corneal Scar (XS)	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Angular Stomatitis	0.1	0.8	0.7	0.8	0.3	0.0	3.7	0.2	2.6	0.9
Cheilosis	0.0	0.0	0.0	0.4	0.0	0.0	0.3	0.0	0.0	0.1
Glossitis	0.0	0.1	0.4	0.6	0.3	0.0	0.7	0.3	4.7	0.6
Phrynoderma	1.4	0.5	3.7	0.1	0.1	0.0	0.0	0.1	2.7	0.9
Koilonychia	0.0	0.0	0.0	0.1	0.2	0.0	0.2	0.0	0.0	0.1
Dental - Caries	2.8	34.3	21.5	10.6	3.3	3.3	1.6	7.7	5.6	10.7
Dental - Fluorosis	0.0	1.9	0.2	0.4	0.1	4.4	1.6	0.1	0.9	1.0
Thyroid Gland Palpable	2.0	1.1	1.5	2.2	3.3	0.3	0.7	1.3	1.4	1.6
Thyroid Gland Visible	2.5	1.2	1.8	8.0	2.7	0.1	1.1	0.9	0.9	2.3
Others	0.0	2.1	1.9	13.0	0.8	0.0	1.3	1.0	13.0	3.5

Table 67 : PREVALENCE (%) OF UNDERNUTRITION AMONG 0-12 MONTHS CHILDREN ACCORDING TO SD CLASSIFICATION BY AGE (MONTHS) USING WHO STANDARDS

Age (Months)	n	Weight for Age				Height for Age				Weight for Height			
		<Median - 3SD	Median - 3SD to Median - 2SD	<Median - 2SD	≥Median - 2SD	<Median - 3SD	Median - 3SD to Median - 2SD	<Median - 2SD	≥Median - 2SD	<Median - 3SD	Median - 3SD to Median - 2SD	<Median - 2SD	≥Median - 2SD
		Severe Under-weight	Moderate Under-weight	Overall Under-weight	Normal	Severe stunting	Moderate stunting	Overall stunting	Normal	Severe wasting	Moderate wasting	Overall wasting	Normal
0	31	0.0	9.7	9.7	90.3	0.0	6.5	6.5	93.5	3.3	16.7	20.0	80.0
1	245	12.2	16.7	28.9	71.1	10.7	11.9	22.6	77.4	18.6	14.8	33.4	66.6
2	178	8.4	19.1	27.5	72.5	10.1	14.6	24.7	75.3	12.9	9.0	21.9	78.1
3	212	11.3	17.5	28.8	71.2	10.8	12.3	23.1	76.9	13.2	17.9	31.1	68.9
4	229	14.4	16.2	30.6	69.4	14.3	14.3	28.6	71.4	13.0	8.7	21.7	78.3
5	231	15.2	14.3	29.5	70.5	15.2	13.4	28.6	71.4	9.1	11.3	20.4	79.6
6	252	12.7	17.1	29.8	70.2	16.3	15.5	31.8	68.2	9.5	11.1	20.6	79.4
7	248	16.5	22.6	39.1	60.9	19.4	19.8	39.2	60.8	8.9	11.7	20.6	79.4
8	264	14.0	28.0	42.0	58	20.5	23.1	43.6	56.4	7.2	11.7	18.9	81.1
9	248	12.9	21.8	34.7	65.3	14.1	27.7	41.8	58.2	9.6	13.7	23.3	76.7
10	249	21.3	31.3	52.6	47.4	24.9	21.3	46.2	53.8	11.2	18.9	30.1	69.9
11	242	20.7	27.7	48.4	51.6	23.6	25.2	48.8	51.2	9.5	14.5	24.0	76.0
Pooled	2629	14.5	21.2	35.7	64.3	16.4	18.2	34.6	65.4	11.0	13.1	24.1	75.9

Table 68 : PREVALENCE (%) OF UNDERNUTRITION AMONG 0-12 MONTHS CHILDREN ACCORDING TO SD CLASSIFICATION BY STATES USING WHO STANDARDS

States	n	Weight for Age				Height for Age				Weight for Height			
		< Median - 3SD	Median - 3SD to Median - 2SD	< Median - 2SD	≥ Median - 2SD	<Median - 3SD	Median - 3SD to Median - 2SD	< Median - 2SD	≥ Median - 2SD	<Median - 3SD	Median - 3SD to Median - 2SD	<Median - 2SD	≥ Median - 2SD
		Severe Under - weight	Moderate Under - weight	Overall Under - weight	Normal	Severe stunting	Moderate stunting	Overall stunting	Normal	Severe wasting	Moderate wasting	Overall wasting	Normal
Kerala	286	9.1	16.4	25.5	74.5	32.2	18.5	50.7	49.3	7.0	8.5	15.5	84.5
Tamil Nadu	389	9.0	19.3	28.3	71.7	10.0	12.8	22.8	77.2	7.5	14.7	22.2	77.8
Karnataka	206	6.8	17.0	23.8	76.2	10.2	15.6	25.8	74.2	4.4	9.8	14.2	85.8
Andhra Pradesh	366	12.8	19.4	32.2	67.8	11.2	19.4	30.6	69.4	7.1	15.6	22.7	77.3
Maharashtra	218	16.5	26.6	43.1	56.9	17.9	26.1	44.0	56	7.8	12.8	20.6	79.4
Gujarat	246	28.9	19.9	48.8	51.2	29.4	16.3	45.7	54.3	21.2	11.0	32.2	67.8
Madhya Pradesh	256	14.1	18.8	32.9	67.1	13.6	14.8	28.4	71.6	18.8	17.2	36.0	64.0
Orissa	446	18.6	26.5	45.1	54.9	18.6	22.4	41.0	59	11.9	11.2	23.1	76.9
West Bengal	216	15.7	25.9	41.6	58.4	4.6	17.6	22.2	77.8	15.3	17.1	32.4	67.6
Pooled	2629	14.5	21.2	35.7	64.3	16.4	18.2	34.6	65.4	11.0	13.1	24.1	75.9

Table 69 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN BY AGE GROUP ACCORDING TO WEIGHT FOR AGE BY SD CLASSIFICATION USING WHO STANDARDS

State	Age (Years)	n	Weight for Age			
			< Median - 3SD	- 3SD to - 2SD	<- 2SD	≥ Median - 2SD
Kerala	1-3	597	17.4	24.6	42.0	58.0
	3-5	530	12.1	33.4	45.5	54.5
	Pooled	1127	14.9	28.7	43.6	56.4
Tamil Nadu	1-3	719	14.9	30.3	45.2	54.8
	3-5	637	12.6	36.9	49.5	50.5
	Pooled	1356	13.8	33.4	47.2	52.8
Karnataka	1-3	470	10.9	26.0	36.9	63.1
	3-5	420	14.8	34.3	49.1	50.9
	Pooled	890	12.7	29.9	42.6	57.4
Andhra Pradesh	1-3	696	19.0	32.2	51.2	48.8
	3-5	680	17.2	33.1	50.3	49.7
	Pooled	1376	18.1	32.6	50.7	49.3
Maharashtra	1-3	858	30.2	31.8	62.0	38.0
	3-5	893	27.4	37.8	65.2	34.8
	Pooled	1751	28.8	34.9	63.7	36.3
Gujarat	1-3	688	27.2	23.8	51.0	49.0
	3-5	801	15.6	27.6	43.2	56.8
	Pooled	1489	21.0	25.9	46.9	53.1
Madhya Pradesh	1-3	613	21.9	27.9	49.8	50.2
	3-5	548	23.4	31.9	55.3	44.7
	Pooled	1161	22.6	29.8	52.4	47.6
Orissa	1-3	974	23.8	35.2	59.0	41.0
	3-5	941	19.1	37.3	56.4	43.6
	Pooled	1915	21.5	36.2	57.7	42.3
West Bengal	1-3	442	22.9	32.1	55.0	45.0
	3-5	449	17.8	31.8	49.6	50.4
	Pooled	891	20.3	32.0	52.3	47.7
States Pooled	1-3	6057	21.6	29.8	51.4	48.6
	3-5	5899	18.3	34.1	52.4	47.6
	Pooled	11956	20.0	31.9	51.9	48.1

Table 70 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN BY GENDER ACCORDING TO WEIGHT FOR AGE BY SD CLASSIFICATION USING WHO STANDARDS

State	Sex	n	Weight for Age			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	Boys	570	13.5	30.7	44.2	55.8
	Girls	557	16.3	26.8	43.1	56.9
	Pooled	1127	14.9	28.7	43.6	56.4
Tamil Nadu	Boys	707	14.4	32.0	46.4	53.6
	Girls	649	13.1	35.0	48.1	51.9
	Pooled	1356	13.8	33.4	47.2	52.8
Karnataka	Boys	461	10.8	30.4	41.2	58.8
	Girls	429	14.7	29.4	44.1	55.9
	Pooled	890	12.7	29.9	42.6	57.4
Andhra Pradesh	Boys	705	18.3	34.6	52.9	47.1
	Girls	671	17.9	30.6	48.5	51.5
	Pooled	1376	18.1	32.6	50.7	49.3
Maharashtra	Boys	852	30.8	36.2	67.0	33.0
	Girls	899	26.9	33.7	60.6	39.4
	Pooled	1751	28.8	34.9	63.7	36.3
Gujarat	Boys	745	21.1	27.0	48.1	51.9
	Girls	744	20.8	24.7	45.5	54.5
	Pooled	1489	21.0	25.9	46.9	53.1
Madhya Pradesh	Boys	562	24.2	34.0	58.2	41.8
	Girls	599	21.0	25.9	46.9	53.1
	Pooled	1161	22.6	29.8	52.4	47.6
Orissa	Boys	966	21.7	36.9	58.6	41.4
	Girls	949	21.3	35.6	56.9	43.1
	Pooled	1915	21.5	36.2	57.7	42.3
West Bengal	Boys	437	22.0	33.2	55.2	44.8
	Girls	454	18.7	30.8	49.5	50.5
	Pooled	891	20.3	32.0	52.3	47.7
States Pooled	Boys	6005	20.3	33.1	53.4	46.6
	Girls	5951	19.6	30.7	50.3	49.7
	Pooled	11956	20.0	31.9	51.9	48.1

Table 71 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN BY AGE GROUP ACCORDING TO HEIGHT FOR AGE BY SD CLASSIFICATION USING WHO STANDARDS

State	Age (Years)	n	Height for Age			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	1-3	597	27.1	30.9	58.0	42.0
	3-5	530	17.4	31.3	48.7	51.3
	Pooled	1127	22.5	31.2	53.7	46.3
Tamil Nadu	1-3	719	18.8	28.0	46.8	53.2
	3-5	637	17.0	28.4	45.4	54.6
	Pooled	1356	17.9	28.2	46.1	53.9
Karnataka	1-3	470	15.3	24.1	39.4	60.6
	3-5	419	13.6	25.8	39.4	60.6
	Pooled	889	14.5	24.9	39.4	60.6
Andhra Pradesh	1-3	696	26.3	28.7	55.0	45.0
	3-5	681	22.8	26.3	49.1	50.9
	Pooled	1377	24.5	27.6	52.1	47.9
Maharashtra	1-3	858	34.0	31.5	65.5	34.5
	3-5	893	25.3	30.9	56.2	43.8
	Pooled	1751	29.6	31.1	60.7	39.3
Gujarat	1-3	687	38.1	20.3	58.4	41.6
	3-5	801	21.7	28.0	49.7	50.3
	Pooled	1488	29.3	24.5	53.8	46.2
Madhya Pradesh	1-3	613	35.1	26.1	61.2	38.8
	3-5	551	34.1	32.1	66.2	33.8
	Pooled	1164	34.6	29.0	63.6	36.4
Orissa	1-3	974	34.3	33.7	68.0	32.0
	3-5	941	25.5	35.6	61.1	38.9
	Pooled	1915	30.0	34.6	64.6	35.4
West Bengal	1-3	442	23.1	24.4	47.5	52.5
	3-5	449	17.6	26.8	44.4	55.6
	Pooled	891	20.3	25.6	45.9	54.1
States Pooled	1-3	6056	29.0	28.1	57.1	42.9
	3-5	5902	22.3	29.9	52.2	47.8
	Pooled	11958	25.7	29.0	54.7	45.3

Table 72 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN BY GENDER ACCORDING TO HEIGHT FOR AGE BY SD CLASSIFICATION USING WHO STANDARDS

State	Sex	n	Height for Age			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	Boys	570	23.9	32.1	56.0	44.0
	Girls	557	21.2	29.9	51.1	48.9
	Pooled	1127	22.5	31.2	53.7	46.3
Tamil Nadu	Boys	707	20.1	28.8	48.9	51.1
	Girls	649	15.6	27.4	43.0	57.0
	Pooled	1356	17.9	28.2	46.1	53.9
Karnataka	Boys	460	15.4	25.0	40.4	59.6
	Girls	429	13.5	24.8	38.3	61.7
	Pooled	889	14.5	24.9	39.4	60.6
Andhra Pradesh	Boys	706	27.5	26.2	53.7	46.3
	Girls	671	21.5	28.8	50.3	49.7
	Pooled	1377	24.5	27.6	52.1	47.9
Maharashtra	Boys	852	33.3	30.6	63.9	36.1
	Girls	899	26.0	31.6	57.6	42.4
	Pooled	1751	29.6	31.1	60.7	39.3
Gujarat	Boys	745	31.1	22.7	53.8	46.2
	Girls	743	27.5	26.1	53.6	46.4
	Pooled	1488	29.3	24.5	53.8	46.2
Madhya Pradesh	Boys	563	38.7	30.3	69.0	31.0
	Girls	601	30.8	27.5	58.3	41.7
	Pooled	1164	34.6	29.0	63.6	36.4
Orissa	Boys	966	31.9	34.1	66.0	34.0
	Girls	949	28.0	35.2	63.2	36.8
	Pooled	1915	30.0	34.6	64.6	35.4
West Bengal	Boys	437	23.6	27.0	50.6	49.4
	Girls	454	17.2	24.2	41.4	58.6
	Pooled	891	20.3	25.6	45.9	54.1
States Pooled	Boys	6006	28.1	28.9	57.0	43.0
	Girls	5952	23.3	29.1	52.4	47.6
	Pooled	11958	25.7	29.0	54.7	45.3

Table 73 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN BY AGE GROUP ACCORDING TO WEIGHT FOR HEIGHT BY SD CLASSIFICATION USING WHO STANDARDS

State	Age (Years)	n	Weight for Height			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	1-3	597	4.0	12.7	16.7	83.3
	3-5	530	1.7	12.3	14.0	86.0
	Pooled	1127	2.9	12.5	15.4	84.6
Tamil Nadu	1-3	719	4.2	15.9	20.1	79.9
	3-5	637	2.2	15.7	17.9	82.1
	Pooled	1356	3.2	15.8	19.0	81.0
Karnataka	1-3	470	4.7	15.5	20.2	79.8
	3-5	419	3.3	20.0	23.3	76.7
	Pooled	889	4.0	17.7	21.7	78.3
Andhra Pradesh	1-3	696	4.6	17.1	21.7	78.3
	3-5	681	2.8	13.8	16.6	83.4
	Pooled	1377	3.7	15.5	19.2	80.8
Maharashtra	1-3	858	7.9	22.1	30.0	70.0
	3-5	893	6.2	22.5	28.7	71.3
	Pooled	1751	7.0	22.3	29.3	70.7
Gujarat	1-3	687	13.7	15.3	29.0	71.0
	3-5	795	7.7	11.6	19.3	80.7
	Pooled	1482	10.5	13.3	23.8	76.2
Madhya Pradesh	1-3	613	8.8	15.0	23.8	76.2
	3-5	551	5.1	12.9	18.0	82.0
	Pooled	1164	7.0	14.0	21.0	79.0
Orissa	1-3	974	6.7	16.3	23.0	77.0
	3-5	941	3.2	13.4	16.6	83.4
	Pooled	1915	5.0	14.9	19.9	80.1
West Bengal	1-3	442	10.6	22.2	32.8	67.2
	3-5	444	4.5	17.1	21.6	78.4
	Pooled	886	7.6	19.6	27.2	72.8
States Pooled	1-3	6056	7.2	16.9	24.1	75.9
	3-5	5891	4.2	15.4	19.6	80.4
	Pooled	11947	5.7	16.2	21.9	78.1

Table 74 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN BY GENDER ACCORDING TO WEIGHT FOR HEIGHT BY SD CLASSIFICATION USING WHO STANDARDS

State	Sex	n	Weight for Height			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	Boys	570	3.0	13.3	16.3	83.7
	Girls	557	2.9	11.7	14.6	85.4
	Pooled	1127	2.9	12.5	15.4	84.6
Tamil Nadu	Boys	707	3.7	16.0	19.7	80.3
	Girls	649	2.8	15.6	18.4	81.6
	Pooled	1356	3.2	15.8	19.0	81.0
Karnataka	Boys	460	2.8	17.6	20.4	79.6
	Girls	429	5.4	17.7	23.1	76.9
	Pooled	889	4.0	17.7	21.7	78.3
Andhra Pradesh	Boys	706	4.7	16.9	21.6	78.4
	Girls	671	2.7	14.0	16.7	83.3
	Pooled	1377	3.7	15.5	19.2	80.8
Maharashtra	Boys	852	8.2	24.9	33.1	66.9
	Girls	899	5.9	19.9	25.8	74.2
	Pooled	1751	7.0	22.3	29.3	70.7
Gujarat	Boys	744	10.2	15.6	25.8	74.2
	Girls	738	10.7	11.0	21.7	78.3
	Pooled	1482	10.5	13.3	23.8	76.2
Madhya Pradesh	Boys	563	9.1	15.8	24.9	75.1
	Girls	601	5.2	12.3	17.5	82.5
	Pooled	1164	7.0	14.0	21.0	79.0
Orissa	Boys	966	4.8	16.0	20.8	79.2
	Girls	949	5.2	13.7	18.9	81.1
	Pooled	1915	5.0	14.9	19.9	80.1
West Bengal	Boys	435	8.7	20.9	29.6	70.4
	Girls	451	6.4	18.4	24.8	75.2
	Pooled	886	7.6	19.6	27.2	72.8
States Pooled	Boys	6003	6.2	17.5	23.7	76.3
	Girls	5944	5.3	14.9	20.2	79.8
	Pooled	11947	5.7	16.2	21.9	78.1

Table 75 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN BY AGE GROUP ACCORDING TO WEIGHT FOR AGE BY SD CLASSIFICATION USING NCHS REFERENCE VALUES

State	Age (Years)	n	Weight for Age			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	1-3	597	23.1	38.2	61.3	38.7
	3-5	530	16.0	43.6	59.6	40.4
	Pooled	1127	19.8	40.7	60.5	39.5
Tamil Nadu	1-3	719	20.2	44.2	64.4	35.6
	3-5	637	12.4	46.5	58.9	41.1
	Pooled	1356	16.5	45.3	61.8	38.2
Karnataka	1-3	470	16.4	37.9	54.3	45.7
	3-5	420	16.7	39.0	55.7	44.3
	Pooled	890	16.5	38.4	54.9	45.1
Andhra Pradesh	1-3	696	26.7	34.9	61.6	38.4
	3-5	680	18.7	38.7	57.4	42.6
	Pooled	1376	22.7	36.8	59.5	40.5
Maharashtra	1-3	858	41.4	36.4	77.8	22.2
	3-5	893	31.5	46.7	78.2	21.8
	Pooled	1751	36.3	41.6	77.9	22.1
Gujarat	1-3	688	35.0	28.6	63.6	36.4
	3-5	801	18.5	36.0	54.5	45.5
	Pooled	1489	26.1	32.6	58.7	41.3
Madhya Pradesh	1-3	613	33.9	36.4	70.3	29.7
	3-5	548	30.1	40.1	70.2	29.8
	Pooled	1161	32.1	38.2	70.3	29.7
Orissa	1-3	974	34.0	39.0	73.0	27.0
	3-5	941	20.8	45.8	66.6	33.4
	Pooled	1915	27.5	42.3	69.8	30.2
West Bengal	1-3	442	32.1	39.6	71.7	28.3
	3-5	449	20.0	41.6	61.6	38.4
	Pooled	891	26.0	40.6	66.6	33.4
States Pooled	1-3	6057	30.1	37.2	67.3	32.7
	3-5	5899	21.0	42.3	63.3	36.7
	Pooled	11956	25.6	39.7	65.3	34.7

Table 76 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN BY GENDER ACCORDING TO WEIGHT FOR AGE BY SD CLASSIFICATION USING NCHS REFERENCE VALUES

State	Sex	n	Weight for Age			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	Boys	570	17.2	43.0	60.2	39.8
	Girls	557	22.4	38.4	60.8	39.2
	Pooled	1127	19.8	40.6	60.4	39.6
Tamil Nadu	Boys	707	15.6	44.8	60.4	39.6
	Girls	649	17.6	45.7	63.3	36.7
	Pooled	1356	16.5	45.3	61.8	38.2
Karnataka	Boys	461	13.7	38.3	52.0	48.0
	Girls	429	19.6	38.5	58.1	41.9
	Pooled	890	16.5	38.5	55.0	45.0
Andhra Pradesh	Boys	705	23.1	36.7	59.8	40.2
	Girls	671	22.4	36.7	59.1	40.9
	Pooled	1376	22.7	36.8	59.5	40.5
Maharashtra	Boys	852	36.2	41.3	77.5	22.5
	Girls	899	36.5	41.9	78.4	21.6
	Pooled	1751	36.3	41.7	78.0	22.0
Gujarat	Boys	745	24.6	34.4	59.0	41.0
	Girls	744	27.7	30.7	58.4	41.6
	Pooled	1489	26.1	32.5	58.6	41.4
Madhya Pradesh	Boys	562	32.0	41.2	73.2	26.8
	Girls	599	32.2	35.5	67.7	32.3
	Pooled	1161	32.1	38.1	70.2	29.8
Orissa	Boys	966	25.4	44.7	70.1	29.9
	Girls	949	29.7	40.0	69.7	30.3
	Pooled	1915	27.5	42.4	69.9	30.1
West Bengal	Boys	437	27.9	39.1	67.0	33.0
	Girls	454	24.2	42.1	66.3	33.7
	Pooled	891	26.0	40.6	66.6	33.4
States Pooled	Boys	6005	24.5	40.6	65.1	34.9
	Girls	5951	26.8	38.8	65.6	34.4
	Pooled	11956	25.6	39.8	65.4	34.6

Table 77 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN BY AGE GROUP ACCORDING TO HEIGHT FOR AGE BY SD CLASSIFICATION USING NCHS REFERENCE VALUES

State	Age (Years)	n	Height for Age			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	1-3	597	28.5	27.1	55.6	44.4
	3-5	530	22.6	28.9	51.5	48.5
	Pooled	1127	25.7	28.0	53.7	46.3
Tamil Nadu	1-3	719	21.6	28.2	49.8	50.2
	3-5	637	16.6	27.8	44.4	55.6
	Pooled	1356	19.2	28.0	47.2	52.8
Karnataka	1-3	470	17.2	22.6	39.8	60.2
	3-5	419	14.1	23.4	37.5	62.5
	Pooled	889	15.7	22.9	38.6	61.4
Andhra Pradesh	1-3	696	26.0	25.6	51.6	48.4
	3-5	681	25.0	23.8	48.8	51.2
	Pooled	1377	25.5	24.7	50.2	49.8
Maharashtra	1-3	858	36.8	30.0	66.8	33.2
	3-5	893	30.3	30.5	60.8	39.2
	Pooled	1751	33.5	30.2	63.7	36.3
Gujarat	1-3	687	36.1	21.5	57.6	42.4
	3-5	801	23.5	29.6	53.1	46.9
	Pooled	1488	29.3	25.9	55.2	44.8
Madhya Pradesh	1-3	613	46.3	23.5	69.8	30.2
	3-5	551	42.3	30.1	72.4	27.6
	Pooled	1164	44.4	26.6	71.0	29.0
Orissa	1-3	974	34.4	28.3	62.7	37.3
	3-5	941	28.2	33.7	61.9	38.1
	Pooled	1915	31.3	31.0	62.3	37.7
West Bengal	1-3	442	24.4	27.8	52.2	47.8
	3-5	449	20.0	28.1	48.1	51.9
	Pooled	891	22.2	27.9	50.1	49.9
States Pooled	1-3	6056	31.0	26.4	57.4	42.6
	3-5	5902	25.4	28.9	54.3	45.7
	Pooled	11958	28.3	27.6	55.9	44.1

Table 78 : DISTRIBUTIONS (%) OF 1-5 YEARS CHILDREN BY GENDER ACCORDING TO HEIGHT FOR AGE BY SD CLASSIFICATION USING NCHS REFERENCE VALUES

State	Sex	n	Height for Age			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	Boys	570	23.9	30.3	54.2	45.8
	Girls	557	27.6	25.6	53.2	46.8
	Pooled	1127	25.6	28.0	53.6	46.4
Tamil Nadu	Boys	707	19.0	28.6	47.6	52.4
	Girls	649	19.6	27.3	46.9	53.1
	Pooled	1356	19.2	28.1	47.3	52.7
Karnataka	Boys	460	16.7	20.7	37.4	62.6
	Girls	429	14.7	25.3	40.0	60.0
	Pooled	889	15.7	23.0	38.7	61.3
Andhra Pradesh	Boys	706	26.6	25.2	51.8	48.2
	Girls	671	24.3	24.2	48.5	51.5
	Pooled	1377	25.5	24.7	50.2	49.8
Maharashtra	Boys	852	33.8	29.5	63.3	36.7
	Girls	899	33.3	30.9	64.2	35.8
	Pooled	1751	33.5	30.2	63.7	36.3
Gujarat	Boys	745	29.0	24.6	53.6	46.4
	Girls	743	29.6	27.1	56.7	43.3
	Pooled	1488	29.3	25.9	55.2	44.8
Madhya Pradesh	Boys	563	45.6	27.2	72.8	27.2
	Girls	601	43.3	26.0	69.3	30.7
	Pooled	1164	44.4	26.6	71.0	29.0
Orissa	Boys	966	32.3	29.5	61.8	38.2
	Girls	949	30.3	32.4	62.7	37.3
	Pooled	1915	31.3	31.0	62.3	37.7
West Bengal	Boys	437	24.5	29.5	54.0	46.0
	Girls	454	20.0	26.5	46.5	53.5
	Pooled	891	22.2	28.0	50.2	49.8
States Pooled	Boys	6006	28.6	27.5	56.1	43.9
	Girls	5952	28.0	27.8	55.8	44.2
	Pooled	11958	28.4	27.6	56.0	44.0

Table 79 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN BY AGE GROUP ACCORDING TO WEIGHT FOR HEIGHT BY SD CLASSIFICATION USING NCHS REFERENCE VALUES

State	Age (Years)	n	Weight for Height			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	1-3	597	1.7	13.7	15.4	84.6
	3-5	530	1.1	14.9	16.0	84.0
	Pooled	1127	1.4	14.3	15.7	84.3
Tamil Nadu	1-3	719	1.3	20.0	21.3	78.7
	3-5	637	0.8	19.2	20.0	80.0
	Pooled	1356	1.0	19.6	20.6	79.4
Karnataka	1-3	470	2.6	18.7	21.3	78.7
	3-5	419	1.7	23.9	25.6	74.4
	Pooled	889	2.1	21.1	23.2	76.8
Andhra Pradesh	1-3	696	1.4	19.5	20.9	79.1
	3-5	681	1.9	17.5	19.4	80.6
	Pooled	1377	1.7	18.5	20.2	79.8
Maharashtra	1-3	858	2.6	24.9	27.5	72.5
	3-5	893	3.4	28.8	32.2	67.8
	Pooled	1751	3.0	26.9	29.9	70.1
Gujarat	1-3	687	10.0	17.9	27.9	72.1
	3-5	801	5.1	15.6	20.7	79.3
	Pooled	1488	7.4	16.7	24.1	75.9
Madhya Pradesh	1-3	613	4.6	15.8	20.4	79.6
	3-5	551	3.6	16.5	20.1	79.9
	Pooled	1164	4.1	16.2	20.3	79.7
Orissa	1-3	974	3.1	17.1	20.2	79.8
	3-5	941	1.7	16.2	17.9	82.1
	Pooled	1915	2.4	16.7	19.1	80.9
West Bengal	1-3	442	3.4	27.4	30.8	69.2
	3-5	449	3.1	20.3	23.4	76.6
	Pooled	891	3.3	23.8	27.1	72.9
States Pooled	1-3	6056	3.4	19.4	22.8	77.2
	3-5	5902	2.6	19.2	21.8	78.2
	Pooled	11958	3.0	19.3	22.3	77.7

Table 80 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN ACCORDING WEIGHT FOR HEIGHT- STANDARD DEVIATION (SD) CLASSIFICATION USING NCHS REFERENCE VALUES

State	Sex	n	Weight for Height			
			< Median - 3SD	- 3SD to - 2SD	< - 2SD	≥ Median - 2SD
Kerala	Boys	570	1.2	13.9	15.1	84.9
	Girls	557	1.6	14.7	16.3	83.7
	Pooled	1127	1.4	14.3	15.7	84.3
Tamil Nadu	Boys	707	1.4	17.7	19.1	80.9
	Girls	649	0.6	21.7	22.3	77.7
	Pooled	1356	1.0	19.6	20.6	79.4
Karnataka	Boys	460	1.3	18.3	19.6	80.4
	Girls	429	3.0	24.2	27.2	72.8
	Pooled	889	2.1	21.1	23.2	76.8
Andhra Pradesh	Boys	706	1.7	18.1	19.8	80.2
	Girls	671	1.6	18.9	20.5	79.5
	Pooled	1377	1.7	18.5	20.2	79.8
Maharashtra	Boys	852	3.1	26.9	30.0	70.0
	Girls	899	2.9	26.9	29.8	70.2
	Pooled	1751	3.0	26.9	29.9	70.1
Gujarat	Boys	745	6.4	18.1	24.5	75.5
	Girls	743	8.3	15.2	23.5	76.5
	Pooled	1488	7.4	16.7	24.1	75.9
Madhya Pradesh	Boys	563	5.5	16.5	22.0	78.0
	Girls	601	2.8	15.8	18.6	81.4
	Pooled	1164	4.1	16.2	20.3	79.7
Orissa	Boys	966	2.6	15.7	18.3	81.7
	Girls	949	2.2	17.6	19.8	80.2
	Pooled	1915	2.4	16.7	19.1	80.9
West Bengal	Boys	437	3.4	21.7	25.1	74.9
	Girls	454	3.1	25.8	28.9	71.1
	Pooled	891	3.3	23.8	27.1	72.9
States Pooled	Boys	6006	3.0	18.6	21.6	78.4
	Girls	5952	3.0	20.0	23.0	77.0
	Pooled	11958	3.0	19.3	22.3	77.7

TABLE 81 : DISTRIBUTION (%) OF 5-9 YEARS CHILDREN ACCORDING TO AGE/GENDER SPECIFIC BMI CENTILES (USING WHO REFERENCE VALUES) - BY GENDER (STATES POOLED)

State	Gender	n	Nutritional Grades				
			< Median - 3SD	< - 3SD to - 2SD	- 2SD to +1SD	+1SD to +2SD	≥ Median +2SD
			Severe Thinness	Moderate Thinness	Normal	Overweight	Obese
Kerala	Boys	416	6.7	22.4	70.9	0.0	0.0
	Girls	381	3.1	23.6	72.4	0.8	0.0
	Pooled	797	5.0	23.0	71.6	0.4	0.0
Tamil Nadu	Boys	538	11.5	32.9	55.0	0.4	0.2
	Girls	541	6.3	30.3	63.0	0.2	0.2
	Pooled	1079	8.9	31.6	59.0	0.3	0.2
Karnataka	Boys	402	14.4	33.8	51.2	0.2	0.2
	Girls	393	9.2	35.1	55.2	0.3	0.3
	Pooled	795	11.8	34.5	53.2	0.3	0.3
Andhra Pradesh	Boys	810	8.4	28.5	62.7	0.2	0.1
	Girls	846	5.1	28.1	66.3	0.4	0.1
	Pooled	1656	6.7	28.3	64.6	0.3	0.1
Maharashtra	Boys	832	16.5	40.4	42.9	0.2	0.0
	Girls	803	12.8	39.5	47.3	0.4	0.0
	Pooled	1635	14.7	39.9	45.1	0.3	0.0
Gujarat	Boys	1130	22.5	22.1	53.0	1.9	0.5
	Girls	1085	13.6	28.1	55.9	2.3	0.1
	Pooled	2215	18.1	25.1	54.4	2.1	0.3
Madhya Pradesh	Boys	490	6.7	16.5	74.5	1.2	1.0
	Girls	502	5.0	18.5	74.7	0.4	1.4
	Pooled	992	5.8	17.5	74.6	0.8	1.2
Orissa	Boys	998	5.9	21.2	72.4	0.2	0.2
	Girls	1062	5.1	22.9	71.8	0.2	0.1
	Pooled	2060	5.5	22.1	72.1	0.2	0.1
West Bengal	Boys	496	4.4	21.4	73.0	0.8	0.4
	Girls	499	3.8	22.6	72.7	0.6	0.2
	Pooled	995	4.1	22.0	72.9	0.7	0.3
States Pooled	Boys	6112	11.8	26.5	60.7	0.7	0.3
	Girls	6112	7.8	27.8	63.5	0.7	0.2
	Pooled	12224	9.8	27.2	62.1	0.7	0.3

TABLE 82 : DISTRIBUTION (%) OF 10-13 YEARS CHILDREN ACCORDING TO AGE/GENDER SPECIFIC BMI CENTILES (USING WHO REFERENCE VALUES) - BY GENDER (STATES POOLED)

State	Gender	n	Nutritional Grades				
			< Median -3SD	< - 3SD to - 2SD	- 2SD to +1SD	+1SD to +2SD	≥ Median +2SD
			Severe Thinness	Moderate Thinness	Normal	Overweight	Obese
Kerala	Boys	236	8.9	31.4	58.9	0.4	0.4
	Girls	248	7.7	25.0	66.1	1.2	0.0
	Pooled	484	8.3	28.1	62.6	0.8	0.2
Tamil Nadu	Boys	436	21.6	38.5	39.4	0.2	0.2
	Girls	463	14.3	31.7	53.1	0.9	0.0
	Pooled	899	17.8	35.0	46.5	0.6	0.1
Karnataka	Boys	333	23.4	44.7	31.2	0.3	0.3
	Girls	398	14.8	37.2	48.0	0.0	0.0
	Pooled	731	18.7	40.6	40.4	0.1	0.1
Andhra Pradesh	Boys	535	14.8	26.2	57.9	1.1	0.0
	Girls	509	7.9	21.8	69.5	0.8	0.0
	Pooled	1044	11.4	24.0	63.6	1.0	0.0
Maharashtra	Boys	491	26.3	39.3	34.2	0.2	0.0
	Girls	607	19.3	36.1	44.5	0.0	0.2
	Pooled	1098	22.4	37.5	39.9	0.1	0.1
Gujarat	Boys	921	19.2	23.8	53.5	2.9	0.5
	Girls	905	17.1	24.4	55.6	2.1	0.8
	Pooled	1826	18.2	24.1	54.5	2.5	0.7
Madhya Pradesh	Boys	360	12.5	28.6	58.1	0.6	0.3
	Girls	341	11.7	26.7	60.7	0.9	0.0
	Pooled	701	12.1	27.7	59.3	0.7	0.1
Orissa	Boys	591	7.4	22.8	69.4	0.3	0.0
	Girls	622	6.8	20.1	72.3	0.8	0.0
	Pooled	1213	7.1	21.4	70.9	0.6	0.0
West Bengal	Boys	328	4.9	21.0	73.2	0.6	0.3
	Girls	326	1.5	15.3	79.4	3.1	0.6
	Pooled	654	3.2	18.2	76.3	1.8	0.5
States Pooled	Boys	4231	16.1	29.5	53.1	1.0	0.2
	Girls	4419	12.3	26.6	59.8	1.1	0.2
	Pooled	8650	14.2	28.0	56.5	1.1	0.2

TABLE 83 : DISTRIBUTION (%) OF 14-17 YEARS CHILDREN ACCORDING TO AGE/GENDER SPECIFIC BMI CENTILES (USING WHO REFERENCE VALUES) - BY GENDER (STATES POOLED)

State	Gender	n	Nutritional Grades				
			< Median - 3SD	< - 3SD to - 2SD	- 2SD to +1SD	+1SD to +2SD	≥ Median +2SD
			Severe Thinness	Moderate Thinness	Normal	Overweight	Obese
Kerala	Boys	169	7.7	16.0	75.1	1.2	0.0
	Girls	213	3.3	14.6	79.8	1.9	0.5
	Pooled	382	5.2	15.2	77.7	1.6	0.3
Tamil Nadu	Boys	257	18.3	28.8	52.9	0.0	0.0
	Girls	359	5.8	16.4	77.4	0.3	0.0
	Pooled	616	11.0	21.6	67.2	0.2	0.0
Karnataka	Boys	324	20.7	36.7	42.6	0.0	0.0
	Girls	396	7.8	24.7	66.7	0.8	0.0
	Pooled	720	13.6	30.1	55.8	0.4	0.0
Andhra Pradesh	Boys	353	7.6	18.7	73.7	0.0	0.0
	Girls	455	1.3	8.8	89.2	0.7	0.0
	Pooled	808	4.1	13.1	82.4	0.4	0.0
Maharashtra	Boys	404	19.6	30.0	50.5	0.0	0.0
	Girls	552	6.7	21.9	71.2	0.2	0.0
	Pooled	956	12.1	25.3	62.4	0.1	0.0
Gujarat	Boys	825	7.9	10.7	79.5	1.7	0.2
	Girls	855	5.6	10.1	83.7	0.6	0.0
	Pooled	1680	6.7	10.4	81.7	1.1	0.1
Madhya Pradesh	Boys	200	11.0	17.0	70.5	0.5	1.0
	Girls	271	4.8	10.3	84.5	0.0	0.4
	Pooled	471	7.4	13.2	78.6	0.2	0.6
Orissa	Boys	394	3.0	12.4	84.3	0.3	0.0
	Girls	500	1.0	6.4	90.8	1.8	0.0
	Pooled	894	1.9	9.1	87.9	1.1	0.0
West Bengal	Boys	242	4.1	7.9	86.4	1.7	0.0
	Girls	315	1.6	7.9	89.5	1.0	0.0
	Pooled	557	2.7	7.9	88.2	1.3	0.0
States Pooled	Boys	3168	10.8	18.8	69.5	0.7	0.1
	Girls	3916	4.4	13.3	81.5	0.7	0.1
	Pooled	7084	7.3	15.8	76.2	0.7	0.1

Table 84 : DISTRIBUTION (%) OF ADULT (≥ 18 YEARS) MEN ACCORDING TO BMI* CLASSIFICATION (WHO CUT-OFF)

States	n	BMI Grades									
		<16 (CED III)	16-17 (CED II)	17-18.5 (CED I)	CED <18.5	Low Wt. Normal 18.5-20.0	Normal 20-25	Normal (18.5-25.0)	Obesity I 25-30	Obesity II ≥ 30	Overweight / Obesity ≥25
Kerala	2630	3.6	7.4	22.9	33.9	28.8	34.7	63.5	2.4	0.2	2.6
Tamil Nadu	2963	4.1	9.0	26.2	39.3	25.8	30.7	56.5	4.0	0.2	4.2
Karnataka	3023	8.2	10.3	26.3	44.6	23.9	28.3	52.2	2.9	0.2	3.1
Andhra Pradesh	4097	5.1	8.0	25.3	38.4	27.8	31.4	59.2	2.2	0.2	2.4
Maharashtra	3557	10.9	13.9	27.8	52.6	24.6	20.7	45.3	1.9	0.2	2.1
Gujarat	3232	7.5	7.6	16.2	31.3	19.2	44.3	63.5	5.0	0.1	5.1
Madhya Pradesh	3087	5.0	9.3	24.5	38.8	32.2	28	60.2	0.8	0.2	1.0
Orissa	3708	4.8	7.9	25.7	38.6	31.3	29.4	60.7	0.8	0.0	0.8
West Bengal	2433	6.9	10.4	26.1	43.4	28.1	26.8	54.9	1.6	0.1	1.7
Pooled	28730	6.3	9.3	24.6	40.2	26.9	30.4	57.3	2.4	0.2	2.6

*BMI : Body Mass Index

Table 85 : DISTRIBUTION (%) OF ADULT (≥ 18 YEARS) MEN ACCORDING TO BMI* CLASSIFICATION (ASIAN CUT-OFF)

State	n	BMI Grades		
		Chronic energy Deficient (< 18.5)	Normal (18.5-23)	Over Weight/ Obesity (≥ 23)
Kerala	2630	33.9	57.4	8.7
Tamil Nadu	2963	39.3	50.9	9.8
Karnataka	3023	44.8	47.2	8.0
Andhra Pradesh	4097	38.4	55.1	6.5
Maharashtra	3557	52.6	42.0	5.4
Gujarat	3232	31.3	54.7	14.0
Madhya Pradesh	3087	38.8	57.7	3.5
Orissa	3708	38.6	58.0	3.4
West Bengal	2433	43.4	51.6	5.0
Pooled	28730	40.2	52.8	7.0

*BMI: Body Mass Index

Table 86 : DISTRIBUTION (%) OF ADULT (≥ 18 YEARS) WOMEN ACCORDING TO BMI* CLASSIFICATION (WHO CUT-OFF)

State	n	BMI Grades									
		<16 (CED III)	16-17 (CED II)	17-18.5 (CED I)	<18.5 CED	18.5-20.0 Low Wt. Normal	20-25 Normal	18.5-25.0 Normal	25-30 Obesity I	≥ 30 Obesity II	overweight / Obesity ≥ 25
Kerala	4591	10.0	11.9	22.3	44.2	20.5	29.2	49.7	5.4	0.7	6.1
Tamil Nadu	5015	7.7	10.8	25.5	44.1	22.9	29.0	51.9	3.9	0.3	4.2
Karnataka	5098	13.8	13.3	23.3	50.4	19.1	26.0	45.1	4.0	0.4	4.4
Andhra Pradesh	5398	9.9	12.5	26.5	48.9	23.4	24.9	48.3	2.7	0.2	2.9
Maharashtra	5120	17.9	17.5	27.1	62.5	18.6	17.1	35.7	1.6	0.1	1.7
Gujarat	4521	8.1	9.3	19.2	36.6	20.6	37.8	58.4	4.9	0.2	5.1
Madhya Pradesh	3808	7.4	11.0	27.5	45.9	25.5	27.0	52.5	1.4	0.2	1.6
Orissa	4975	10.2	12.2	29.9	52.3	24.7	22.0	46.7	0.9	0.1	1.0
West Bengal	3269	12.7	14.6	28.3	55.6	23.0	19.9	42.9	1.4	0.0	1.4
Pooled	41795	10.9	12.6	25.5	49.0	21.9	25.9	47.8	3.0	0.2	3.2

*BMI: Body Mass Index

Table 87 : DISTRIBUTION (%) OF ADULT (≥ 18 YEARS) WOMEN ACCORDING TO BMI* CLASSIFICATION (ASIAN CUT-OFF)

State	n	BMI Grades		
		Chronic energy Deficient (< 18.5)	Normal (18.5-23)	Over Weight/ Obesity (≥ 23)
Kerala	4591	44.2	43.5	12.3
Tamil Nadu	5015	44.0	45.9	10.1
Karnataka	5098	50.4	39.6	10.0
Andhra Pradesh	5398	48.9	44.1	7.0
Maharashtra	5120	62.5	32.7	4.8
Gujarat	4521	36.6	49.9	13.5
Madhya Pradesh	3808	45.9	49.3	4.8
Orissa	4975	52.3	44.1	3.6
West Benqal	3269	55.6	39.6	4.8
Pooled	41795	49.0	43.0	8.0

*BMI : Body Mass Index

Table 88(i) : Distribution (%) of 1-5 year children according to Nutritional Status (Standard Deviation Classification) by Socio-Economic and Demographic characteristics

Particulars	n	Wt. For Age			Ht. For Age			Wt. For Ht.		
		Under weight	Normal	χ^2	Stunting	Normal	χ^2	Wasting	Normal	χ^2
Religion										
Hindu	11195	51.8	48.2	1.9 NS	55.3	44.7	23.6 p<0.001	21.7	78.3	15.2 p<0.001
Christian	219	48.9	51.1		47.0	53.0		18.3	81.7	
Others	540	54.1	45.9		45.9	54.1		28.4	71.6	
Pooled	11954	51.9	48.1		54.7	45.3		21.9	78.1	
Type of Family										
Nuclear	7550	51.1	48.9	6.0 p<0.05	54.8	45.2	4.6 NS	21.8	78.2	4.4 NS
Extended Nuclear	2223	52.1	47.9		52.9	47.1		20.9	79.1	
Joint	2181	54.1	45.9		56.1	43.9		23.4	76.6	
Pooled	11954	51.9	48.1		54.7	45.3		21.9	78.1	
Type of House										
Kutchha	3286	52.9	47.1	8.7 p<0.05	56.3	43.7	16.0 p<0.001	21.9	78.1	3.4 NS
Semi Pucca	8119	51.8	48.2		54.6	45.4		22.1	77.9	
Pucca	549	46.1	53.9		47.2	52.8		18.8	81.2	
Pooled	11954	51.9	48.1		54.7	45.3		21.9	78.1	
Land Holding										
No land	4594	51.1	48.9	4.5 NS	55.4	44.6	3.2 NS	21.6	78.4	2.4 NS
Marginal Farmers	4966	52.6	47.4		54.4	45.6		22.6	77.4	
Small Farmers	1566	50.6	49.4		53.1	46.9		21.1	78.9	
Large Farmers	830	53.9	46.1		55.9	44.1		21.5	78.5	
Pooled	11956	51.9	48.1		54.7	45.3		21.9	78.1	
Per Capita Income (Rs./Month)										
<300	5220	56.0	44.0	86.3 p<0.001	59.9	40.1	137.4 p<0.001	22.0	78.0	2.1 NS
300-600	4324	50.5	49.5		53.4	46.6		22.5	77.5	
600-900	1406	47.4	52.6		47.9	52.1		21.0	79.0	
≥900	1006	42.3	57.7		43.4	56.6		20.9	79.1	
Pooled	11956	51.9	48.1		54.7	45.3		21.9	78.1	

Table 88 (ii): Distribution (%) of 1-5 year children according to Nutritional Status (Standard Deviation Classification) by Socio-Economic and Demographic characteristics

(Contd...)

Particulars	n	Wt. For Age			Ht. For Age			Wt. For Ht.		
		Under weight	Normal	χ^2	Stunting	Normal	χ^2	Wasting	Normal	χ^2
Occupation of HH										
Landless Agri. Labourer	2633	53.1	46.9	40.2 p<0.001	51.9	48.1	31.3 p<0.001	23.1	76.9	12.6 NS
Other Labourer	5172	51.9	48.1		56.4	43.6		21.1	78.9	
Owner Cultivator + Landlord	3135	53.0	47.0		56.0	44.0		22.7	77.3	
Tenant Cultivator	81	59.3	40.7		59.3	40.7		21.0	79.0	
Artisans	243	49.4	50.6		52.3	47.7		23.5	76.5	
Service	419	38.7	61.3		46.3	53.7		17.2	82.8	
Business	131	48.1	51.9		49.6	50.4		24.4	75.6	
Others	142	43.0	57.0		52.1	47.9		25.0	75.0	
Pooled	11956	51.9	48.1		54.7	45.3		21.9	78.1	
Literacy Status of Father										
Illiterate	5890	55.7	44.3	91.6 p<0.001	57.5	42.5	55.9 p<0.001	23.3	76.7	25.5 p<0.001
Read & Write	185	53.0	47.0		60.5	39.5		25.4	74.6	
1-4 std.	1779	51.9	48.1		55.3	44.7		23.0	77.0	
5-8 std.	2213	46.0	54.0		50.5	49.5		19.8	80.2	
9-12 std.	1640	47.9	52.1		50.2	49.8		19.4	80.6	
College	249	39.4	60.6		47.2	52.8		16.0	84.0	
Pooled	11956	51.9	48.1		54.7	45.3		21.9	78.1	
Literacy Status of Mother										
Illiterate	7597	55.0	45.0	112.5 p<0.001	57.4	42.6	89.6 p<0.001	22.8	77.2	14.3 p<0.05
Read & Write	91	46.2	53.8		50.5	49.5		24.4	75.6	
1-4 std.	1384	48.4	51.6		53.4	46.6		21.9	78.1	
5-8 std.	1756	49.3	50.7		51.7	48.3		20.6	79.4	
9-12 std.	1054	40.3	59.7		44.0	56.0		18.5	81.5	
College	67	28.4	71.6		34.3	65.7		14.9	85.1	
Pooled	11949	51.9	48.1		54.7	45.3		21.9	78.1	
Family Size										
1-4	3997	48.7	51.3	34.5 p<0.001	53.0	47.0	14.6 p<0.001	20.6	79.4	10.0 p<0.01
5-7	6265	52.5	47.5		54.8	45.2		22.2	77.8	
≥8	1692	56.9	43.1		58.5	41.5		24.3	75.7	
Pooled	11954	51.9	48.1		54.7	45.3		21.9	78.1	

Table 88 (iii) : Distribution (%) of 1-5 year children according to Nutritional Status (Standard Deviation Classification) by Socio-Economic and Demographic characteristics
(Contd...)

Particulars	n	Wt. For Age			Ht. For Age			Wt. For Ht.		
		Under weight	Normal	χ^2	Stunting	Normal	χ^2	Wasting	Normal	χ^2
Source of Drinking Water										
Open well	3773	51.9	48.1	40.7 p<0.001	53.0	47.0	37.5 p<0.001	22.9	77.1	21.3 p<0.001
Tube well	5106	54.4	45.6		57.7	42.3		22.6	77.4	
Tap	2018	49.2	50.8		50.5	49.5		21.0	79.0	
Others	1057	44.7	55.3		54.2	45.8		16.7	83.3	
Pooled	11954	51.9	48.1		54.7	45.3		21.9	78.1	
Electrification										
Present	6019	48.0	52.0	70.5 p<0.001	51.5	48.5	52.2 p<0.001	20.9	79.1	6.9 p<0.01
Absent	5935	55.7	44.3		58.0	42.0		22.9	77.1	
Pooled	11954	51.9	48.1		54.7	45.3		21.9	78.1	
Sanitary Latrine										
Present	1319	41.8	58.2	60.4 p<0.001	44.4	55.6	64.3 p<0.001	20.5	79.5	1.6 NS
Absent	10635	53.1	46.9		56.0	44.0		22.1	77.9	
Pooled	11954	51.9	48.1		54.7	45.3		21.9	78.1	
Cooking Fuel Type										
Fire wood	11806	52.0	48.0	11.2 p<0.05	54.8	45.2	7.9 p<0.05	22.0	78.0	1.2 NS
Kerosene	52	46.2	53.8		51.9	48.1		19.2	80.8	
LPG	96	35.4	64.6		40.6	59.4		17.7	82.3	
Pooled	11954	51.9	48.1		54.7	45.3		21.9	78.1	
Morbidity										
Absent	10588	51.2	48.8	16.4 p<0.001	54.7	45.3	0.03 NS	21.5	78.5	12.5 p<0.001
Present	1368	57.0	43.0		54.9	45.1		25.7	74.3	
Pooled	11956	51.9	48.1		54.7	45.3		21.9	78.1	

Table 89 (i) : Distribution (%) of Adults according to Nutritional Status (Standard Deviation Classification) by Socio-Economic and Demographic characteristics

Particulars	Men					Women				
	n	Chronic energy Deficient (< 18.5)	Normal (18.5-23)	Over Weight/ Obesity (≥ 23)	χ^2	n	Chronic energy Deficient (< 18.5)	Normal (18.5-23)	Over Weight/ Obesity (≥ 23)	χ^2
Religion										
Hindu	26725	40.3	52.5	7.2	40.6 p<0.001	39020	48.7	43.1	8.1	88.9 p<0.001
Christian	513	29.0	62.8	8.2		752	42.4	46.4	11.2	
Others	1492	42.2	53.1	4.7		2021	56.4	39.6	4.0	
Pooled	28730	40.2	52.8	7.0		41793	49.0	43.0	8.0	
Type of Family										
Nuclear	18445	39.2	53.7	7.1	25.5 p<0.001	26192	48.1	43.5	8.4	36.9 p<0.001
Extended Nuclear	4774	41.1	51.8	7.1		8512	51.6	41.3	7.1	
Joint	5511	42.8	50.3	6.9		7089	49.1	43.3	7.6	
Pooled	28730	40.2	52.8	7.0		41793	49.0	43.0	8.0	
Type of House										
Kutcha	7671	39.7	54.2	6.1	158.0 p<0.001	10678	49.7	43.5	6.8	197.2 p<0.001
Semi Pucca	19664	40.9	52.3	6.8		28837	49.4	42.8	7.9	
Pucca	1395	33.5	51.5	15.0		2278	40.8	44.2	15.1	
Pooled	28730	40.2	52.8	7.0		41793	49.0	43.0	8.0	
Land Holding										
No land	9599	38.8	53.3	7.9	30.8 p<0.001	15151	49.0	42.4	8.6	36.1 p<0.001
Marginal Farmers	12406	41.2	52.5	6.3		18244	48.9	43.0	8.1	
Small Farmers	4189	40.3	52.9	6.7		5360	48.5	44.9	6.5	
Large Farmers	2536	40.5	51.6	7.9		3040	50.4	43.0	6.6	
Pooled	28730	40.2	52.8	7.0		41795	49.0	43.0	8.0	
Per Capita Income (Rs./Month)										
<300	8578	43.1	52.2	4.6	232.0 p<0.001	13039	52.9	41.9	5.2	415.7 p<0.001
300-600	10467	40.0	53.4	6.6		15025	49.3	42.8	7.9	
600-900	4677	38.6	53.1	8.3		6749	47.3	43.6	9.1	
≥900	5008	37.0	52.0	11.0		6982	42.7	45.0	12.3	
Pooled	28730	40.2	52.8	7.0		41795	49.0	43.0	8.0	

Contd....

Table 89(ii) : Distribution (%) of Adults according to Nutritional Status (Standard Deviation Classification) by Socio-Economic and Demographic characteristics

(Contd...)

Particulars	Men				Women					
	n	Chronic energy Deficient (< 18.5)	Normal (18.5-23)	Over Weight/ Obesity (≥ 23)	χ^2	n	Chronic energy Deficient (< 18.5)	Normal (18.5-23)	Over Weight/ Obesity (≥ 23)	χ^2
Occupation										
Landless Agri. Labourer	6086	38.9	53.0	8.1	644.7 p<0.001	9386	47.9	43.8	8.4	474.9 p<0.001
Other Labourer	12507	41.0	54.2	4.8		13084	52.0	42.4	5.5	
Owner Cultivator + Landlord	7734	41.8	51.4	6.8		8853	50.3	43.3	6.5	
Tenant Cultivator	161	52.2	42.9	5.0		130	49.2	40.0	10.8	
Artisans	354	39.5	50.3	10.2		137	54.0	33.6	12.4	
Service	797	25.0	51.9	23.1		767	37.2	44.9	18.0	
Business	355	26.5	51.5	22.0		194	33.5	46.9	19.6	
Others	736	42.0	44.8	13.2		9244	45.8	42.9	11.3	
Pooled	28730	40.2	52.8	7.0		41795	49.0	43.0	8.0	
Literacy Status										
Illiterate	13805	44.8	49.9	5.3	351.0 p<0.001	27849	51.5	41.7	6.8	366.4 p<0.001
Read & Write	455	31.0	56.5	12.5		474	36.9	47.7	15.4	
1-4 std.	3822	37.3	54.7	8.0		4012	44.6	45.0	10.4	
5-8 std.	5532	35.7	56.8	7.5		5297	45.0	46.3	8.8	
9-12 std.	4190	36.5	53.6	9.9		3678	42.2	45.4	12.4	
College	926	31.3	58.2	10.5		485	45.6	46.0	8.5	
Pooled	28730	40.2	52.8	7.0	41795	49.0	43.0	8.0		
Family Size										
1-4	13302	38.9	53.9	7.2	22.1 p<0.001	19675	47.3	43.5	9.2	100.4 p<0.001
5-7	12509	41.0	52.0	7.0		18119	50.4	42.5	7.1	
≥8	2919	42.8	50.7	6.5		3999	51.0	43.2	5.8	
Pooled	28730	40.2	52.8	7.0		41793	49.0	43.0	8.0	

Contd....

Table 89 (iii) : Distribution (%) of Adults according to Nutritional Status (Standard Deviation Classification) by Socio-Economic and Demographic characteristics (Contd...)

Particulars	Men					Women				
	n	Chronic energy Deficient (< 18.5)	Normal (18.5-23)	Over Weight/ Obesity (≥ 23)	χ^2	n	Chronic energy Deficient (< 18.5)	Normal (18.5-23)	Over Weight/ Obesity (≥ 23)	χ^2
Source of Drinking Water										
Open well	9088	42.6	51.3	6.1	134.2 p<0.001	13828	51.5	41.4	7.1	217.1 p<0.001
Tube well	12042	40.1	53.3	6.6		16503	49.3	43.6	7.1	
Tap	4929	40.3	51.0	8.7		7796	47.6	42.8	9.6	
Others	2671	32.3	58.4	9.4		3666	41.2	46.8	11.9	
Pooled	28730	40.2	52.8	7.0		41793	49.0	43.0	8.0	
Electrification										
Present	15777	37.0	53.3	9.7	429.3 p<0.001	23015	44.4	44.9	10.6	706.1 p<0.001
Absent	12953	44.1	52.1	3.9		18778	54.6	40.7	4.7	
Pooled	28730	40.2	52.8	7.0		41793	49.0	43.0	8.0	
Sanitary Latrine										
Present	4015	36.0	52.9	11.2	133.2 p<0.001	6506	43.7	42.4	14.0	390.8 p<0.001
Absent	24715	40.9	52.7	6.4		35287	50.0	43.2	6.9	
Pooled	28730	40.2	52.8	7.0		41793	49.0	43.0	8.0	
Cooking Fuel Type										
Fire wood	28382	40.4	52.8	6.8	242.0 p<0.001	41240	49.2	43.1	7.7	284.7 p<0.001
Kerosene	106	34.0	55.7	10.4		161	47.2	38.5	14.3	
LPG	242	19.8	48.3	31.8		392	29.1	40.8	30.1	
Pooled	28730	40.2	52.8	7.0		41793	49.0	43.0	8.0	
Morbidity										
Absent	27106	40.0	52.9	7.1	9.2 NS	39125	48.8	43.2	8.0	10.0 p<0.001
Present	1624	43.8	49.8	6.5		2670	51.9	40.3	7.8	
Pooled	28730	40.2	52.8	7.0		41795	49.0	43.0	8.0	

Table 90 : Prevalence (%) of Morbidities (Previous Fortnight) according to Age Groups – Male

Morbidity	Age Groups				
	Infants (<1 yr.)	Pre School children (1-5 Yr)	School age children (5-12 Yr.)	Adolescents	Adults (≥ 18 Yrs)
n	1352	6007	9489	5105	28730
NAD	89.4	88.6	92.7	95.1	94.3
Fever	6.3	8.4	5.7	3.8	4.2
Diarrhoea	1.7	1.4	0.5	0.6	0.7
Dysentery	0.1	0.1	0.1	0.0	0.1
Acute Resp. Infection	4.6	3.2	1.7	0.9	1.2
Measles	0.1	0.1	0.0	0.1	0.0

Table 91 : Prevalence (%) of Morbidities (Previous Fortnight) according to Age Groups – Female

Morbidity	Age Groups				
	Infants (<1 yr.)	Pre School children (1-5 Yr)	School age children (5-12 Yr.)	Adolescents	Adults (≥ 18 Yrs)
n	1279	5953	9326	6077	41795
NAD	90.9	88.5	93.1	95.4	93.6
Fever	6.1	8.5	5.7	3.7	5.3
Diarrhoea	1.2	1.1	0.5	0.5	0.6
Dysentery	0.1	0.1	0.1	0.1	0.1
Acute Resp. Infection	3.4	3.5	1.4	0.7	1.0
Measles	0.2	0.1	0.1	0.0	0.0

Table 92 : Prevalence (%) of Morbidities (Previous Fortnight) according to Age Groups – Genders Pooled

Morbidity	Age Groups				
	Infants (<1 yr.)	Pre School children (1-5 Yr)	School age children (5-12 Yr.)	Adolescents	Adults (≥ 18 Yrs)
n	2631	11960	18815	11182	70525
NAD	90.1	88.6	92.9	95.3	93.9
Fever	6.2	8.5	5.7	3.8	4.9
Diarrhoea	1.4	1.2	0.5	0.5	0.6
Dysentery	0.1	0.1	0.1	0.0	0.1
Acute Resp. Infection	4.0	3.4	1.6	0.8	1.1
Measles	0.2	0.1	0.0	0.0	0.0

Table 93 : Mean Anthropometric measurements and Indices of Adult Men and Women (≥20 Years) by age group

Particulars		Age groups (Years)							Pooled
		20-30	30-40	40-50	50-60	60-70	70-80	≥ 80	
Men									
<i>n</i>		4809	5922	4761	3051	1869	573	84	21069
Weight (kg)	Mean	51.2	51.5	51.0	49.4	47.7	46.6	45.3	50.5
	<i>SD</i>	6.86	7.63	8.10	8.12	8.22	7.95	7.20	7.82
Height (cm)	Mean	162.6	162.1	161.5	160.4	159.3	157.7	156.0	161.4
	<i>SD</i>	6.28	6.06	6.23	6.25	6.43	6.44	5.71	6.34
BMI (kg/m ²)	Mean	19.3	19.6	19.5	19.2	18.7	18.7	18.6	19.3
	<i>SD</i>	2.21	2.51	2.58	2.66	2.70	2.83	2.77	2.53
Waist Circumference (cm)	Mean	69.3	71.4	72.2	72.5	71.6	71.8	71.9	71.3
	<i>SD</i>	6.26	7.25	7.79	8.10	8.53	8.86	9.48	7.56
Hip Circumference (cm)	Mean	80.0	80.6	80.5	80.1	79.4	79.5	78.6	80.2
	<i>SD</i>	5.57	5.83	5.87	5.95	6.10	6.26	5.90	5.85
Women									
<i>n</i>		6216	7375	5703	3313	1873	397	54	24931
Weight (kg)	Mean	43.1	43.7	44.0	43.2	40.9	39.1	38.3	43.3
	<i>SD</i>	6.70	7.17	7.72	8.10	7.38	7.38	7.26	7.40
Height (cm)	Mean	151.5	151.5	150.9	149.7	148.0	146.3	144.5	150.8
	<i>SD</i>	5.74	5.64	5.78	5.92	6.08	6.33	6.59	5.91
BMI (kg/m ²)	Mean	18.8	19.0	19.3	19.3	18.6	18.2	18.4	19.0
	<i>SD</i>	2.53	2.74	3.02	3.19	2.99	3.00	3.41	2.86
Waist Circumference (cm)	Mean	65.2	66.7	68.3	69.3	68.3	67.7	66.9	67.2
	<i>SD</i>	6.95	7.44	8.32	8.91	8.77	9.12	9.36	8.01
Hip Circumference (cm)	Mean	79.1	80.0	80.8	80.7	79.3	78.4	77.3	80.0
	<i>SD</i>	6.09	6.42	7.01	7.16	6.76	7.31	7.86	6.66

(Figures in parenthesis indicate SD)

Table 94 : DISTRIBUTION (%) OF ADULT MEN AND WOMEN (≥20 YEARS) ACCORDING TO PREVALENCE OF OBESITY

State	Men				Women			
	n	Overweight/ Obesity (BMI ≥ 23)*	Abdominal Adiposity		n	Overweight/ Obesity (BMI ≥ 23)*	Abdominal Adiposity	
			Waist Circ. (≥ 90 cm)*	Waist to hip ratio (≥ 0.9)*			Waist Circ. (≥ 80 cm)*	Waist to hip ratio (≥ 0.8)*
Kerala	1889	9.5	2.2	41.4	2300	14.2	12.4	70.9
Tamil Nadu	2580	10.3	4.3	34.0	3910	11.2	6.1	59.0
Karnataka	2516	8.5	3.7	42.4	2733	11.6	10.9	78.4
Andhra Pradesh	3393	7.1	1.6	32.0	4004	7.4	4.9	75.1
Maharashtra	2079	7.4	3.2	35.5	2233	6.9	9.5	58.8
Gujarat	2698	15.1	1.7	37.7	3444	14.7	7.7	86.4
Madhya Pradesh	2406	3.4	1.2	39.5	2458	5.2	9.2	81.0
Orissa	1443	3.5	.8	51.9	1415	3.5	1.9	73.3
West Bengal	2049	5.2	2.0	38.7	2409	4.9	5.6	75.0
Pooled	21053	8.1	2.4	38.3	24906	9.4	7.6	73.1

*: Based on WHO recommended cut-off levels for Asian population

**Table 95 : PREVALENCE (%) OF ABDOMINAL OBESITY* AMONG ADULTS
(≥20 YEARS) BY AGE GROUP AND GENDER: STATES POOLED**

Anthropometric Indicators	Age groups (Years)							Pooled
	20-30	30-40	40-50	50-60	60-70	70-80	≥ 80	
Men								
n	4815	5937	4771	3066	1872	578	85	21124
Waist circumference ≥ 90 cm	0.6	2.0	3.2	3.4	3.7	3.6	3.5	2.4
Waist Hip Ratio (WHR) ≥ 0.9	22.4	35.7	44.9	50.3	47.2	47.3	53.6	38.3
Women								
n	6232	7387	5716	3323	1879	401	54	24992
Waist circumference > 80 cm	3.7	5.8	10.0	12.6	10.4	10.5	11.1	7.6
Waist Hip Ratio (WHR) ≥ 0.8	64.2	70.5	76.6	81.8	82.2	83.5	79.6	72.9

*: Based on WHO recommended cut-off levels for Asian population

Table 96 : MEAN ± SD BLOOD PRESSURE (MM/HG) AMONG ADULT MEN AND WOMEN (≥20 YEARS) BY STATES

			Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Men	n		1891	2586	2551	3397	2089	2718	2414	1443	2053	21141
	Systolic	Mean	132.4	120.7	127.2	122.6	126.5	123.7	121.6	124.7	131.2	125.2
		SD	20.78	17.00	18.19	18.46	17.87	9.67	15.94	18.05	19.78	17.76
	Diastolic	Mean	85.6	77.5	82.4	76.0	79.7	76.8	79.1	88.2	79.1	79.8
SD		13.13	11.47	11.74	11.26	11.61	7.62	9.84	11.77	10.77	11.57	
Women	n		2302	3921	3936	4083	2259	3467	2465	1416	2419	26268
	Systolic	Mean	130.6	120.4	125.4	124.1	122.3	122.0	121.9	125.2	130.8	124.3
		SD	22.54	18.65	19.68	20.10	18.01	9.73	18.14	19.54	21.39	19.04
	Diastolic	Mean	81.7	78.0	80.9	77.0	75.2	75.3	78.9	87.3	78.4	78.6
SD		12.62	11.09	12.21	11.41	11.60	6.72	10.75	12.23	10.65	11.42	

Table 97 : DISTRIBUTION (%) OF ADULT MEN (≥20 YEARS) ACCORDING TO TYPE OF HYPERTENSION (JNC VII CRITERIA) BY AGE GROUP – STATES POOLED

Category	Cut Off levels of Blood Pressure (mmHg)	Age group (Years)							
		<30	30-40	40-50	50-60	60-70	70-80	≥ 80	Pooled
n		4816	5943	4774	3067	1875	580	85	21140
Normal	SBP < 120 and/or DBP < 80	40.4	34.8	31.0	26.4	21.9	20.4	12.9	32.4
Pre Hypertension	SBP :120-139 and/or DBP 80-89	47.3	46.0	42.4	37.0	33.0	26.9	25.9	42.4
Stage I Hypertension	SBP :140-159 and/or DBP 90-99	10.5	14.9	18.8	23.4	27.0	27.4	35.3	17.5
Stage II Hypertension	SBP ≥ 160 and/or DBP ≥ 100	1.8	4.3	7.8	13.2	18.1	25.3	25.9	7.7
Stage I + II Hypertension	SBP ≥ 140 and/or DBP ≥ 90	12.3	19.2	26.6	36.6	45.1	52.7	61.2	25.2

Table 98 : DISTRIBUTION (%) OF ADULT WOMEN (≥20 YEARS) ACCORDING TO TYPE OF HYPERTENSION (JNC VII CRITERIA) BY AGE GROUP – STATES POOLED

Category	Cut Off levels of Blood Pressure (mmHg)	Age group (Years)							
		<30	30-40	40-50	50-60	60-70	70-80	≥ 80	Pooled
n		6583	7743	6009	3479	1950	432	64	26260
Normal	SBP < 120 and/or DBP < 80	51.5	41.8	33.2	25.0	20.3	16.7	18.8	38.0
Pre Hypertension	SBP :120-139 and/or DBP 80-89	39.7	41.7	39.8	35.3	32.4	29.2	20.3	39.0
Stage I Hypertension	SBP :140-159 and/or DBP 90-99	7.5	13	18.2	24.6	26.4	25.2	32.8	15.5
Stage II Hypertension	SBP ≥ 160 and/or DBP ≥ 100	1.3	3.5	8.8	15.1	20.9	28.9	28.1	7.5
Stage I + II Hypertension	SBP ≥ 140 and/or DBP ≥ 90	8.8	16.5	27	39.7	47.3	54.1	60.9	23.0

**Table 99 : PREVALENCE (%) OF HYPERTENSION AMONG ADULT MEN (≥20 YEARS)
ACCORDING TO JNC VII CLASSIFICATION - BY STATES**

State	n	Normal	Hypertension			
			Pre HTN	Stage I	Stage II	Stage I + II
		SBP < 120 and/or DBP < 80	SBP :120-139 and/or DBP: 80-89	SBP :140-159 and/or DBP: 90-99	SBP ≥ 160 and/or DBP ≥ 100	SBP ≥ 140 and/or DBP ≥ 90
Kerala	1890	18.5	36.7	29.3	15.5	44.8
Tamil Nadu	2586	45.0	37.2	12.4	5.4	17.8
Karnataka	2551	28.4	43.2	18.9	9.5	28.4
Andhra Pradesh	3397	45.3	37.7	11.1	5.9	17.0
Maharashtra	2089	27.1	45.2	18.7	9.0	27.7
Gujarat	2717	30.1	60.0	9.6	0.3	9.9
Madhya Pradesh	2414	38.9	40.4	16.6	4.1	20.7
Orissa	1443	15.5	30.8	36.2	17.5	53.7
West Bengal	2053	24.9	45.2	19.6	10.3	29.9
Pooled	21140	32.3	42.5	17.5	7.7	25.2

**Table 100 : PREVALENCE (%) OF HYPERTENSION AMONG ADULT WOMEN (≥20 YEARS)
ACCORDING TO JNC VII CLASSIFICATION - BY STATES**

State	n	Normal	Hypertension			
			Pre HTN	Stage I	Stage II	Stage I + II
		SBP < 120 and/or DBP < 80	SBP :120-139 and/or DBP: 80-89	SBP :140-159 and/or DBP: 90-99	SBP ≥ 160 and/or DBP ≥ 100	SBP ≥ 140 and/or DBP ≥ 90
Kerala	2302	28.2	36.0	21.8	14.0	35.8
Tamil Nadu	3921	46.2	35.4	12.2	6.2	18.4
Karnataka	3935	36.3	38.2	16.1	9.4	25.5
Andhra Pradesh	4083	43.2	36.0	13.8	7.0	20.8
Maharashtra	2259	41.3	39.4	13.1	6.2	19.3
Gujarat	3461	39.1	54.6	6.1	0.2	6.3
Madhya Pradesh	2465	43.6	32.5	18.6	5.3	23.9
Orissa	1416	17.3	33.9	34.0	14.8	48.8
West Bengal	2418	29.3	40.6	19.5	10.6	30.1
Pooled	26260	37.9	39.0	15.6	7.5	23.1

Table 101 : Distribution (%) of Adult Men (≥20 Years) According to their Knowledge of Hypertension & Diabetes and consumption of Tobacco & Alcoholic Beverages: By Age Group - States Pooled

Variables	Age group (Years)							
	20-30	30-40	40-50	50-60	60-70	70-80	≥ 80	Pooled
n	4821	5950	4776	3072	1876	580	85	21160
Aware of hypertension	47.8	44.1	42.3	40.2	39.6	39.1	50.6	43.5
Previous history of hypertension	0.1	0.5	1.3	3.2	4.9	7.9	17.6	1.6
On treatment for hypertension	0.0	0.2	0.8	2.3	3.8	6.7	15.3	1.2
Aware of Diabetes Mellitus	43.4	39.2	36.8	34.3	33.8	32.2	38.8	38.2
Previous history of diabetes	0.0	0.2	0.5	0.9	1.5	1.9	3.5	0.5
On treatment for Diabetes	0.0	0.2	0.4	0.9	1.4	1.7	3.5	0.5
Smoke Tobacco	22.5	35.0	43.1	44.0	40.6	38.6	32.9	35.9
Smoking 10 Cigarettes/ Cigars, beedies /day	8.4	15.7	20.4	21.6	17.9	13.6	11.8	16.1
Duration of Smoking ≥ 10 years	7.4	23.7	36.1	39.6	37.2	36.7	27.1	26.7
Tobacco chewing	34.2	38.0	37.9	39.5	42.0	39.3	42.4	37.7
Use Tobacco chewing ≥ 10 times	4.0	6.4	6.9	8.0	8.3	7.8	2.4	6.4
Duration of Tobacco chewing ≥ 10 years	8.7	21.0	27.5	33.2	36.5	35.0	38.8	23.3
Snuff Tobacco	2.6	3.7	3.3	3.1	3.2	2.1	3.5	3.2
Snuff Tobacco ≥ 10 times	0.0	0.1	0.1	0.2	0.3	0.2	0.0	0.1
Duration of Tobacco Snuffing ≥ 10 years	0.7	1.7	1.8	2.3	2.1	1.2	2.4	1.6
Consume Alcoholic Beverages	47.3	61.8	65.4	64.0	59.3	53.4	36.5	59.1
Consume Alcoholic Beverages (daily)	5.3	8.9	11.5	11.2	9.4	6.7	7.1	9.0
Consume Alcoholic Beverages (2-3 times a week)	5.9	10.8	12.0	11.4	8.8	7.9	1.2	9.8
Consume Alcoholic Beverages (Weekly)	9.6	13.4	15.2	14.3	11.6	14.7	5.9	12.9

Table 102 : Distribution (%) of Adult Women (≥20 Years) According to their Knowledge of Hypertension & Diabetes and consumption of Tobacco & Alcoholic Beverages: States Pooled

Variables	Age group (Years)							Pooled
	20-30	30-40	40-50	50-60	60-70	70-80	≥ 80	
n	6592	7750	6016	3482	1953	433	64	26290
Aware of hypertension	42.6	38.5	37.4	32.9	30.1	32.8	34.4	37.8
Previous history of hypertension	0.4	0.9	2.8	4.9	6.7	8.5	9.4	2.3
On treatment for hypertension	0.2	0.5	2.1	4.0	5.5	6.9	9.4	1.7
Aware of Diabetes Mellitus	38.6	33.9	32.3	28.9	23.9	25.2	28.1	33.2
Previous history of diabetes	0.0	0.1	0.3	0.5	0.8	0.9	0.0	0.3
On treatment for Diabetes	0.0	0.1	0.2	0.5	0.7	0.7	0.0	0.2
Smoke Tobacco	2.8	5.6	8.1	8.8	9.6	12.2	4.7	6.3
Smoking ≥10 Cigarettes/ Cigars, beedies /day	0.2	0.2	0.4	21.6	0.8	1.8	1.6	0.3
Duration of Smoking ≥ 10 years	1.8	4.8	7.4	8.0	9.1	11.5	4.7	5.5
Tobacco chewing	11.5	20.8	28.2	32.7	34.2	39.0	51.6	23.1
Use Tobacco chewing ≥ 10 times	0.9	1.9	3.3	4.1	4.8	7.4	7.8	2.6
Duration of Tobacco chewing ≥ 10 years	4.4	11.7	18.9	24.8	28.5	33.3	48.4	14.9
Snuff Tobacco	2.8	4.6	5.6	5.5	5.3	4.4	3.1	4.6
Tobacco Snuffing ≥ 10 times	0.1	0.1	0.3	0.7	1.2	0.9	0.0	0.3
Duration of Tobacco Snuffing ≥ 10 years	0.9	2.5	4.0	3.8	4.2	2.8	0.0	2.7
Consume Alcoholic Beverages	6.9	12.5	16.6	21.2	19.8	17.6	9.4	13.8
Consume Alcoholic Beverages (daily)	0.9	1.7	2.1	2.8	2.5	2.3	3.1	1.8
Consume Alcoholic Beverages (2-3 times a week)	0.7	1.3	1.9	2.1	2.0	2.5	1.6	1.5
Consume Alcoholic Beverages (Weekly)	1.2	2.4	3.1	3.8	3.4	3.0	0.0	2.5

Table 103: Distribution (%) of Adults (≥ 20 years) According to their knowledge of symptoms of Hypertension : States Pooled

Variable	Men	Women
n	9195	9937
Do not Know	67.4	65.4
Head ache	8.5	8.5
Nausea/vomiting	3.0	3.8
Giddiness	21.8	25.9
Palpitation	6.2	5.9
Others	8.6	5.7

* Multiple responses

Table 104 : Distribution (%) of Adults (≥ 20 years) According to their Knowledge of symptoms of Diabetes : States Pooled

Variable	Men	Women
n	8091	8717
Do not know	78.3	80.8
Polydypsia	1.3	1.0
Polyphagia	0.9	0.7
Polyurea	3.1	1.9
Loss of weight	4.5	3.5
Tiredness	8.9	8.2
Delay in wound healing	12.5	10.3
Others	2.2	1.6

* Multiple responses

Table 105: Prevalence (%) of Hypertension among Adult Men (≥20 Years) by Waist Circumference: States Pooled

Category	Cut-off level (Cm)	n	Blood Pressure	
			Normal	Hyper-tension
Normal	<90	20607	75.3	24.7
Abdominal adiposity	≥ 90	501	51.1	48.9
Total		21108	74.7	25.3

$\chi^2 = 151.9 : p < 0.001$

OR= 2.9 (CI: 2.44 – 3.48)

Table 106: Prevalence (%) of Hypertension among Adult Women (≥20 Years) by Waist Circumference: States Pooled

Category	Cut-off level (Cm)	n	Blood Pressure	
			Normal	Hyper-tension
Normal	<80	23076	79.1	20.9
Abdominal adiposity	≥ 80	1891	57.3	42.7
Total		24967	77.5	22.5

$\chi^2 = 479.2$; $p < 0.001$

OR= 2.83 (CI: 2.57 – 3.11)

Table 107 : Prevalence (%) of Hypertension among Adult Men (≥20 Years) by Waist to Hip Ratio: States Pooled

Category	Cut-off level (Cm)	n	Blood Pressure	
			Normal	Hyper-tension
Normal	<0.9	15777	80.3	19.7
Abdominal adiposity	≥ 0.9	5331	65.8	34.2
Total		21108	74.7	25.3

$\chi^2 = 548$; $p < 0.001$

OR= 2.11 (CI:1.98 - 2.25)

Table 108 : Prevalence (%) of Hypertension among Adult Women (≥20 Years) by Waist to Hip Ratio : States Pooled

Category	Cut-off level (Cm)	n	Blood Pressure	
			Normal	Hyper-tension
Normal	<0.8	19346	83.4	16.6
Abdominal adiposity	≥ 0.8	5620	75.3	24.7
Total		24966	77.5	22.5

$\chi^2 = 182.3$: $p < 0.001$

OR= 1.65 (CI: 1.53 - 1.77)

Table 109 : Prevalence (%) of hypertension among Adult Men (≥20 Years) by BMI Nutritional Grades : States Pooled

Category	Cut-off level (Cm)	n	Blood Pressure	
			Normal	Hyper-tension
CED	<18.5	8475	78.0	22.0
Normal	18.5 -23.0	10902	73.8	26.2
Overweight & Obesity	≥ 23	1705	64.6	35.4
Total		21082	74.7	25.3

$\chi^2 = 130.7$; $p < 0.001$

Table 110 : Prevalence (%) of hypertension among Adult Women (≥20 Years) by BMI Nutritional Grades : States Pooled

Category	Cut-off level (Cm)	n	Blood Pressure	
			Normal	Hyper-tension
CED	<18.5	12838	80.5	19.5
Normal	18.5 -23.0	10890	75.7	24.3
Overweight & Obesity	≥ 23	2463	63.8	36.2
Total		26191	76.9	23.1

$\chi^2 = 340.9$; $p < 0.001$

Table 111: Association (%) of Hypertension/ Overweight/ Obesity and Abdominal Obesity with Household Socio-Economic Variables, Exercise, use of Tobacco/Alcohol among Adult Men (≥20 Years) : States Pooled

Socio Economic Particulars		Hypertension			Abdominal Adiposity				Overweight/ Obesity (BMI ≥ 23)		
					Waist Circumference (≥ 90 cm)		Waist to Hip Ratio(≥ 0.9)				
		n	%	χ ²	%	χ ²	%	χ ²	n	%	χ ²
Religion	Hindu	19581	24.5	86.5 p<0.001	2.4	3.8 NS	38.2	12.9 p<0.05	19544	8.2	18.7 p<0.001
	Christian	337	40.9		3.6		47.6		337	10.4	
	Others	1222	32.8		1.8		37.4		1221	5	
Occupation	Labourers	12704	25.1	128.0 p<0.001	1.5	347.3 p<0.001	36.2	127.4 p<0.001	12684	6.9	352.5 p<0.001
	Cultivators	6389	22.8		2.5		39		6382	7.4	
	Artisans+ Others	1113	38.2		5.1		46		1107	13	
	Service + Business	934	29.4		10.5		52.1		929	23.3	
PCI (Rs./ Month)	<300	5546	32.1	208.3 p<0.001	1.4	118.5 p<0.001	38.1	15.4 p<0.01	5547	5.5	153.4 p<0.001
	300-600	8010	21.7		1.8		37.2		7998	7.5	
	600-900	3669	22.1		2.9		38.1		3657	8.9	
	≥ 900	3915	25.7		4.5		40.9		3900	12.3	
Family Size	≤ 4	10301	25.7	8.0 p<0.05	2.2	5.03 NS	37.8	16.1 p<0.001	10294	8	0.35 NS
	5-7	8973	24.4		2.5		38		8948	8.2	
	≥ 8	1865	27		3		42.6		1859	7.9	
Type of House	Kutcha	5531	23.4	20.0 p<0.001	1.4	64.8 p<0.001	35.5	25.3 p<0.001	5532	7	118.3 p<0.001
	Semi Pucca	14478	26.2		2.5		39.1		14440	7.8	
	Pucca	1131	23		5.2		40.7		1130	16.5	
Literacy Status	Literate	9614	24.8	2.2 NS	3.3	60.8 p<0.001	39.4	9.4 p<0.01	9588	10.7	166.1 p<0.001
	Illiterate	11486	25.7		1.6		37.3		11474	5.8	
Consume Tobacco	Yes	14285	28.1	185.6 p<0.001	1.8	59.2 p<0.001	40	53.3 p<0.001	14270	6.2	211.8 p<0.001
	No	6855	19.4		3.5		34.7		6832	12	
Consume Alcohol	Yes	12489	28.3	151.7 p<0.001	2.3	0.9 NS	40.9	91.7 p<0.001	12474	7.3	28.2 p<0.001
	No	8651	20.8		2.5		34.4		8628	9.3	

Table 112: Association (%) of Hypertension/ Overweight/ Obesity and Abdominal Obesity with Household Socio-Economic Variables, Exercise, use of Tobacco/Alcohol among Adult Women (≥20 Years) : States Pooled

Socio Economic Particulars		Hypertension			Abdominal Adiposity				Overweight/ Obesity (BMI ≥ 23)		
					Waist Circumference (≥ 80 cm)		Waist to Hip Ratio (≥ 0.8)				
		n	%	χ ²	%	χ ²	%	χ ²	n	%	χ ²
Religion	Hindu	24421	22.5	79.0 p<0.001	7.6	23.1 p<0.001	72.8	3.5 NS	24384	9.7	63.1 p<0.001
	Christian	405	36.5		12.1		73.3		405	13.8	
	Others	1433	29.4		5.2		75.1		1431	3.8	
Occupation	Labourers	16254	22.2	210.3 p<0.001	6.2	252.9 p<0.001	71.4	47.2 p<0.001	16220	8.2	311.6 p<0.001
	Cultivators	6893	21.1		8		75.6		6890	8.6	
	Artisans+ Others	1638	37.2		11.3		75.3		1635	14	
	Service + Business	1475	25.7		17.1		74.8		1476	21.1	
PCI (Rs./ Month)	<300	6566	26.8	92.7 p<0.001	5.5	130.1 p<0.001	71.8	5.8 NS	6567	6.3	179.9 p<0.001
	300-600	9683	20.7		7		73.4		9673	8.9	
	600-900	4788	21.6		7.9		73.5		4775	10.2	
	≥ 900	5222	24.1		11.1		73.2		5206	13.5	
Family Size	≤ 4	13369	24.5	35.8 p<0.001	7.9	4.4 NS	72.5	18.3 p<0.001	13346	10.3	32.2 p<0.001
	5 - 7	10874	21.2		7.2		72.8		10859	8.6	
	≥ 8	2016	23.7		7.5		77.1		2015	7.3	
Type of House	Kutcha	6753	21.4	15.4 p<0.001	5.4	78.5 p<0.001	74.2	23.5 p<0.001	6745	8.1	109.4 p<0.001
	Semi Pucca	17870	23.7		8.1		72.9		17840	9.2	
	Pucca	1636	23.3		11		68.3		1635	16.5	
Literacy Status	Literate	11451	20.9	52.8 p<0.001	9.4	86.5 p<0.001	72.9	0.01 NS	11428	11.9	149.8 p<0.001
	Illiterate	14753	24.8		6.2		72.9		14737	7.5	
Physical Exercise	Yes	32	25	0.1 NS	21.9	9.3 p<0.05	81.3	1.1 NS	32	25	9.2 p<0.05
	No	26228	23.1		7.6		72.9		26189	9.4	
Consume Tobacco	Yes	8692	31.9	567.2 p<0.001	6	43.8 p<0.001	72.4	1.9 NS	8674	6.6	120.9 p<0.001
	No	17568	18.7		8.3		73.2		17547	10.8	
Consume Alcohol	Yes	3630	36	398.3 p<0.001	6.8	8.8 NS	81.9	170.2 p<0.001	3623	5.8	65.1 p<0.001
	No	22630	21		7.7		71.4		22598	10	

Table 113 : Average Household Consumption of Foodstuffs (g/CU/day) :Time Trends

Food-stuffs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled	RDI
Number of Individuals	1998-99	1140	956	801	739	940	950	799	1084	627	8036	
	2007-08	1197	1162	1065	1188	1175	1197	1186	1195	7112	10077	
Cereals & Millets	1998-99	306	453	414	596	441	420	459	543	709	469	460
	2007-08	330	397	394	451	400	426	378	456	610	419	
Pulses	1998-99	18	44	10	21	46	39	37	16	10	27	40
	2007-08	19	39	15	29	48	54	27	20	10	30	
Green Leafy vegetables	1998-99	13	12	17	8	5	4	17	99	113	31	40
	2007-08	13	12	14	8	8	8	17	65	78	22	
Other Vegetables	1998-99	56	38	50	40	30	55	41	54	50	47	60
	2007-08	45	36	47	38	23	65	30	46	44	41	
Roots & Tubers	1998-99	71	22	31	11	15	40	32	37	92	39	50
	2007-08	73	27	30	40	18	74	34	44	86	46	
Fruits	1998-99	24	21	22	23	11	12	8	34	3	18	-
	2007-08	29	36	30	46	9	11	8	17	11	22	
Milk & M-Products	1998-99	13	20	39	15	16	44	8	1	2	18	150
	2007-08	12	15	42	27	16	63	7	1	2	21	
Fats & Oils	1998-99	5	8	3	7	12	15	4	6	11	8	20
	2007-08	9	12	4	14	15	14	7	6	8	10	
Sugar & Jaggery	1998-99	18	11	24	9	26	21	4	2	1	13	30
	2007-08	10	4	18	8	20	8	5	3	4	9	

Table 114 : Average Household Intake of Nutrients (CU/day) : Time Trends

State	Year	N	Protein (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit.A (µg)	Thia-min (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free Folic Acid (µg)
Kerala	1998-99	1140	40.1	1580	421	10.0	209	0.7	0.6	9.4	46	41
	2007-08	1197	40.5	1702	326	10.0	196	1.0	0.4	14.8	45	48
Tamil Nadu	1998-99	956	46.2	1926	312	11.7	214	0.9	0.8	10.7	31	47
	2007-08	1162	39.6	1743	265	11.5	133	1.1	0.5	16.0	33	47
Karnataka	1998-99	801	43.2	1884	380	9.3	260	0.7	0.7	10.5	38	44
	2007-08	1065	40.9	1802	336	10.0	268	0.9	0.5	13.9	31	48
Andhra Pradesh	1998-99	739	54.6	2346	445	12.6	209	1.1	0.9	13.7	28	52
	2007-08	1188	48.5	2002	311	9.6	198	0.7	0.6	11.3	34	40
Maharashtra	1998-99	940	52.7	1974	354	16.5	159	1.4	0.8	12.8	18	57
	2007-08	1175	48.9	1840	287	14.3	133	1.2	0.6	11.9	16	44
Gujarat	1998-99	950	55.1	1941	316	15.6	239	1.7	0.8	12.0	31	69
	2007-08	1197	67.5	2034	322	17.5	180	1.9	0.8	14.3	42	75
Madhya Pradesh	1998-99	799	53.3	1838	247	14.7	238	1.5	0.8	14.3	30	59
	2007-08	1186	42.7	1550	196	11.8	187	1.1	0.5	10.9	26	40
Orissa	1998-99	1084	49.7	2138	573	14.8	1069	1.0	1.0	12.6	92	69
	2007-08	1195	42.5	1840	450	11.8	777	1.1	0.5	17.1	94	52
West Bengal	1998-99	627	62.9	2780	480	15.2	1015	1.0	1.1	17.2	102	79
	2007-08	712	52.5	2416	365	13.6	500	1.5	0.5	25.4	89	64
Pooled	1998-99	8036	50.1	2005	394	13.3	394	1.1	0.8	12.3	46	57
	2007-08	10077	46.9	1857	315	12.2	277	1.2	0.5	14.6	44	50
RDA			60	2425	400	28	600	1.2	1.4	16	40	100

Table 115 : Average intake of Foodstuffs (g/day) among 1-3 years children : Time Trends

Food-stuffs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled	RDI 1981
Number of Individuals	1985-87	101	64	116	354	139	260	-	155	130	1319	
	1998-99	352	329	247	223	440	383	380	360	184	2898	
	2007-08	230	333	188	293	447	275	443	391	191	2791	
Cereals & Millets	1985-87	111	219	150	208	199	223	-	171	212	187	175
	1998-99	82	143	143	250	151	122	193	178	249	100	
	2007-08	108	129	131	164	143	188	145	157	171	149	
Pulses & Legumes	1985-87	5	20	8	12	17	31	-	7	5	13	35
	1998-99	6	17	5	15	25	14	20	13	5	14	
	2007-08	6	15	6	17	27	25	14	12	4	15	
Green Leafy vegetables	1985-87	1	3	4	5	3	3	-	19	42	10	40
	1998-99	5	3	7	2	3	2	9	48	70	14	
	2007-08	5	4	5	3	2	2	8	31	31	10	
Other Vegetables	1985-87	14	28	10	20	9	19	-	34	30	20	20
	1998-99	18	20	15	19	12	17	17	26	23	18	
	2007-08	12	13	13	15	8	31	10	20	20	15	
Roots & Tubers	1985-87	29	4	10	13	12	14	-	8	40	16	10
	1998-99	19	8	15	5	6	12	17	16	54	15	
	2007-08	21	9	11	15	6	33	13	21	42	17	
Nuts & Oil Seeds	1985-87	10	*	3	*	*	0	0	*	0	2	-
	1998-99	10	0	12	0	1	0	0	0	0	2	
	2007-08	12	1	11	*	*	1	*	*	*	2	
Condiments & Spices	1985-87	6	9	5	8	8	4	-	3	2	6	-
	1998-99	5	7	6	9	4	5	3	3	3	5	
	2007-08	5	11	3	6	3	5	4	3	2	5	
Fruits	1985-87	6	12	3	23	14	3	-	17	3	10	-
	1998-99	10	7	7	12	9	6	5	22	2	9	
	2007-08	7	12	16	30	6	3	3	7	8	9	
Flesh Foods	1985-87	7	*	2	3	2	3	-	2	6	3	-
	1998-99	12	0	11	4	1	1	2	3	10	4	
	2007-08	11	*	6	6	1	1	1	5	8	4	
Milk & M-Products	1985-87	23	12	11	12	26	44	-	*	15	18	300
	1998-99	16	41	40	11	14	24	5	0	1	17	
	2007-08	16	17	31	27	19	41	4	3	4	17	
Fats & Oils	1985-87	3	4	*	4	4	3	-	3	4	3	15
	1998-99	2	4	1	6	5	4	2	5	6	4	
	2007-08	3	4	2	6	6	6	3	3	3	4	
Sugar & Jaggery	1985-87	5	14	15	6	13	12	-	*	2	8	30
	1998-99	11	7	16	7	17	12	3	3	0	9	
	2007-08	6	4	12	5	11	6	5	2	1	6	

* : Less than 1g; - : Data not available

Table 116 : Average intake of Foodstuffs (g/day) among 4-6 year children : Time Trends

Food-stuffs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled	RDI 1981
Number of Individuals	1985-87	93	65	132	360	99	308		142	120	1319	
	1998-99	259	245	219	133	412	345	456	312	163	2544	
	2007-08	230	248	210	328	455	330	510	393	258	2962	
Cereals & Millets	1985-87	185	323	232	324	282	283		263	317	276	270
	1998-99	139	215	198	292	241	173	258	238	388	230	
	2007-08	162	199	187	260	239	252	215	232	313	231	
Pulses & Legumes	1985-87	8	27	11	17	24	39		10	7	18	35
	1998-99	14	26	6	14	31	20	26	13	7	20	
	2007-08	14	23	9	23	38	42	21	16	6	23	
Green Leafy vegetables	1985-87	2	2	7	7	8	4		42	62	17	50
	1998-99	5	6	7	4	3	2	11	69	103	20	
	2007-08	8	6	4	5	4	2	10	40	48	14	
Other Vegetables	1985-87	26	60	16	59	17	37		38	41	37	30
	1998-99	29	28	25	25	19	28	23	40	26	27	
	2007-08	21	28	27	24	12	30	18	29	27	23	
Roots & Tubers	1985-87	67	7	19	21	18	15		7	38	24	20
	1998-99	31	12	21	6	11	20	23	19	68	22	
	2007-08	34	12	13	20	9	37	24	27	61	25	
Nuts & Oil Seeds	1985-87	13	*	3	*	1	-		*	-	2	-
	1998-99	16	1	19	-	-	-	0	1	-	3	
	2007-08	19	1	16	2	*	1	*	*	*	3	
Condiments & Spices	1985-87	10	11	7	13	9	5		8	2	8	-
	1998-99	9	9	10	12	5	7	3	4	5	6	
	2007-08	8	16	6	8	5	7	5	5	4	7	
Fruits	1985-87	8	16	7	29	33	3		45	5	18	-
	1998-99	18	11	12	9	12	7	7	17	4	11	
	2007-08	14	18	22	32	8	6	5	11	9	13	
Flesh Foods	1985-87	10	*	4	4	7	2		2	12	5	-
	1998-99	20	-	15	5	1	1	1	3	13	6	
	2007-08	14	*	10	12	2	4	1	6	11	6	
Milk & M-Products	1985-87	4	5	3	14	28	38		-	10	13	250
	1998-99	12	11	28	13	12	27	7	1	3	13	
	2007-08	10	10	27	21	11	41	6	1	5	14	
Fats & Oils	1985-87	6	7	2	7	6	5		3	3	5	25
	1998-99	3	5	1	5	8	7	3	5	9	5	
	2007-08	4	6	2	8	9	8	4	4	4	6	
Sugar & Jaggery	1985-87	5	20	16	6	21	12		*	2	10	40
	1998-99	16	9	17	6	21	16	3	2	1	11	
	2007-08	9	4	13	8	16	6	5	2	2	7	

* : Less than 1g

Table 117 : Average intake of Foodstuffs (g/day) among 7-9 years children : Time Trends

Food-stuffs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Number of Individuals	1985-87	69	48	115	278	103	248		154	94	1109
	1998-99	224	217	244	154	351	287	335	371	170	2353
	2007-08	206	258	197	326	454	382	454	431	207	2915
Cereals & Millets	1985-87	182	359	330	388	313	349		350	403	334
	1998-99	169	259	251	360	293	226	311	300	466	286
	2007-08	197	244	244	320	309	293	267	307	382	288
Pulses & Legumes	1985-87	8	30	13	22	28	46		8	10	21
	1998-99	15	28	6	13	30	23	26	12	6	19
	2007-08	18	28	14	23	40	48	26	15	8	27
Green leafy vegetables	1985-87	*	3	11	13	9	3		40	69	19
	1998-99	8	4	9	7	4	3	13	77	101	25
	2007-08	9	6	8	6	6	2	11	49	55	17
Other Vegetables	1985-87	49	48	19	48	19	47		41	42	39
	1998-99	30	34	35	29	20	37	33	40	43	33
	2007-08	24	31	35	27	17	35	23	34	27	28
Roots & Tubers	1985-87	109	8	18	44	25	17		10	48	35
	1998-99	37	12	22	7	11	20	27	21	79	24
	2007-08	37	14	19	23	12	40	32	29	63	29
Nuts & Oil Seeds	1985-87	23	*	3	1	*	-		*	-	3
	1998-99	17	1	21	-	1	-	0	1	-	4
	2007-08	23	1	21	1	1	1	*	*	*	3
Condiments & Spices	1985-87	11	11	11	16	11	6		5	3	9
	1998-99	9	10	11	13	7	8	4	5	5	7
	2007-08	10	18	7	10	6	8	7	4	4	8
Fruits	1985-87	4	16	12	32	12	5		17	3	13
	1998-99	18	11	18	14	12	5	9	25	4	13
	2007-08	23	19	30	37	5	7	6	11	10	15
Flesh Foods	1985-87	9	2	4	7	9	2		5	12	6
	1998-99	20	-	15	4	3	1	3	4	17	6
	2007-08	23	1	12	12	3	4	1	7	13	7
Milk & M-Products	1985-87	7	5	5	10	17	39		1	9	12
	1998-99	11	12	27	9	9	31	6	1	5	12
	2007-08	9	13	29	17	12	44	7	*	1	15
Fats & Oils	1985-87	2	6	*	7	9	4		2	4	4
	1998-99	3	5	2	4	16	9	3	4	10	6
	2007-08	5	7	3	10	11	9	5	4	6	7
Sugar & Jaggery	1985-87	3	20	13	6	16	14		-	3	9
	1998-99	15	9	18	8	22	17	4	2	1	11
	2007-08	9	4	15	7	18	6	5	1	5	8

*: Less than 1g

Table 118 : Average intake of Foodstuffs (g/day) among 10-12 Year Boys : Time Trends

Food-stuffs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled	RDI 1981
Number of Individuals	1985-87	26	32	46	124	72	177		84	63	624	
	1998-99	117	89	133	51	164	104	178	175	66	1077	
	2007-08	82	120	123	120	172	210	263	209	119	1418	
Cereals & Millets	1985-87	246	428	384	454	360	405		460	514	408	420
	1998-99	195	334	308	413	369	300	395	337	551	345	
	2007-08	221	271	284	349	358	309	311	364	481	331	
Pulses & Legumes	1985-87	6	25	17	21	31	58		9	10	23	45
	1998-99	14	32	7	14	36	25	32	13	7	21	
	2007-08	23	26	19	24	45	49	29	17	9	28	
Green leafy vegetables	1985-87	1	2	13	12	2	2		36	54	15	50
	1998-99	11	10	11	11	4	2	7	87	89	26	
	2007-08	9	13	6	6	7	4	13	59	75	21	
Other Vegetables	1985-87	34	55	16	65	19	43		52	61	43	50
	1998-99	31	29	41	35	22	49	38	31	44	34	
	2007-08	24	26	36	24	18	39	25	37	41	30	
Roots & Tubers	1985-87	117	8	18	32	28	18		18	59	36	30
	1998-99	52	12	19	8	16	29	27	17	84	27	
	2007-08	37	18	23	32	15	44	29	28	71	32	
Nuts & Oil Seeds	1985-87	21	*	3	3	*	*		*	*	3	-
	1998-99	22	-	28	1	1	-	0	-	-	6	
	2007-08	23	1	20	1	1	1	*	*	*	3	
Condiments & Spices	1985-87	15	13	7	18	14	6		5	3	10	-
	1998-99	9	13	13	20	8	9	4	6	5	9	
	2007-08	11	20	6	11	7	9	8	6	5	9	
Fruits	1985-87	2	19	12	57	19	4		36	7	20	-
	1998-99	22	13	17	14	9	3	10	46	3	17	
	2007-08	26	17	21	46	3	8	6	11	10	14	
Flesh Foods	1985-87	13	4	3	7	8	4		4	6	6	-
	1998-99	22	-	24	11	2	2	0	6	16	8	
	2007-08	26	*	16	12	4	8	2	10	13	8	
Milk & M-Products	1985-87	4	3	9	11	13	39		-	6	11	250
	1998-99	11	8	30	6	12	38	9	-	8	13	
	2007-08	14	10	28	16	20	45	8	*	2	16	
Fats & Oils	1985-87	1	8	*	9	13	6		2	4	6	40
	1998-99	3	6	2	4	9	11	3	4	9	5	
	2007-08	5	8	5	10	13	9	5	4	5	7	
Sugar & Jaggery	1985-87	4	25	13	7	17	14		*	2	10	45
	1998-99	16	11	19	9	22	19	5	1	1	12	
	2007-08	11	4	15	6	18	6	5	1	2	7	

* : Less than 1g

Table 119 : Average intake of Foodstuffs (g/day) among 10-12 Year Girls : Time Trends

Food-stuffs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled	RDI 1981
Number of Individuals	1985-87	41	28	40	105	23	102		72	37	448	
	1998-99	110	94	137	56	167	121	184	167	66	1102	
	2007-08	74	99	115	124	188	187	251	182	88	1308	
Cereals & Millets	1985-87	224	363	331	419	319	401		414	499	373	380
	1998-99	206	331	307	413	349	295	367	349	526	339	
	2007-08	219	261	259	350	336	315	307	356	474	322	
Pulses & Legumes	1985-87	7	22	16	31	28	57		6	7	22	45
	1998-99	17	33	7	13	33	27	29	13	11	21	
	2007-08	21	31	16	29	43	43	24	17	7	28	
Green leafy vegetables	1985-87	1	2	9	22	7	2		31	53	16	50
	1998-99	6	11	16	13	3	2	17	85	105	27	
	2007-08	10	9	9	4	8	2	14	56	63	19	
Other Vegetables	1985-87	31	22	25	55	11	43		68	52	39	50
	1998-99	31	30	37	29	22	45	42	39	64	37	
	2007-08	26	29	27	29	19	41	28	33	39	30	
Roots & Tubers	1985-87	128	6	21	52	15	15		9	56	37	30
	1998-99	43	13	30	5	24	24	22	28	70	28	
	2007-08	48	17	18	29	15	50	32	33	62	32	
Nuts & Oil Seeds	1985-87	19	*	1	*	*	-		*	-	3	-
	1998-99	20	-	31	-	1	-	0	-	-	6	
	2007-08	26	1	19	2	*	1	*	*	*	4	
Condiments & Spices	1985-87	14	13	7	17	9	7		4	3	9	-
	1998-99	11	11	14	24	6	9	4	6	6	9	
	2007-08	11	16	7	11	7	8	6	6	4	8	
Fruits	1985-87	6	7	14	37	21	7		12	4	14	-
	1998-99	21	17	19	18	8	9	4	23	3	13	
	2007-08	22	27	15	43	6	10	6	13	4	14	
Flesh Foods	1985-87	17	-	3	4	4	6		3	21	7	-
	1998-99	22	1	27	15	4	1	2	5	17	10	
	2007-08	30	*	17	15	3	7	*	8	13	8	
Milk & M-Products	1985-87	5	2	9	9	13	30		*	13	10	250
	1998-99	13	15	34	10	10	38	7	-	4	14	
	2007-08	20	12	23	21	11	52	6	*	*	16	
Fats & Oils	1985-87	2	3	*	12	3	6		2	4	4	35
	1998-99	4	10	4	4	9	8	3	5	10	6	
	2007-08	5	7	3	11	12	9	5	4	5	7	
Sugar & Jaggery	1985-87	4	15	14	6	22	14		*	2	10	45
	1998-99	18	13	25	5	26	19	3	2	1	13	
	2007-08	9	3	14	9	19	6	5	2	3	8	

* : Less than 1g

Table 120 : Average intake of Foodstuffs (g/day) among 13-15 year Boys : Time Trends

Food-stuffs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Number of Individuals	1985-87	26	18	30	96	48	107		68	24	417
	1998-99	97	91	114	42	88	77	137	123	50	819
	2007-08	67	93	143	97	166	187	189	159	86	1187
Cereals & Millets	1985-87	216	513	418	539	414	526		556	540	465
	1998-99	231	408	362	488	422	398	481	433	681	418
	2007-08	268	315	345	420	418	343	365	423	600	387
Pulses & Legumes	1985-87	9	52	13	21	33	49		7	9	24
	1998-99	13	39	6	15	39	40	35	12	9	23
	2007-08	14	33	16	26	50	50	26	17	9	29
Green leafy vegetables	1985-87	*	-	26	12	1	9		30	54	16
	1998-99	8	8	8	3	3	3	12	106	158	31
	2007-08	5	10	15	3	8	3	17	62	78	21
Other Vegetables	1985-87	60	40	47	94	24	61		82	57	59
	1998-99	55	32	54	42	18	40	39	41	61	42
	2007-08	40	30	43	25	21	45	30	36	35	34
Roots & Tubers	1985-87	257	12	24	32	25	16		9	20	48
	1998-99	56	15	24	11	15	45	27	26	77	31
	2007-08	55	16	27	34	19	55	30	38	77	37
Nuts & Oil Seeds	1985-87	19	-	3	1	*	1		*	-	3
	1998-99	30	1	27	-	1	-	0	-	-	7
	2007-08	31	3	27	1	1	1	*	*	*	6
Condiments & Spices	1985-87	12	16	9	19	11	8		5	2	10
	1998-99	12	15	13	17	9	15	5	5	7	10
	2007-08	10	16	9	14	9	9	8	5	5	9
Fruits	1985-87	1	16	10	50	15	13		8	1	15
	1998-99	25	20	19	20	5	16	10	40	1	18
	2007-08	23	27	17	40	9	8	6	20	9	16
Flesh Foods	1985-87	9	3	2	5	8	6		7	24	8
	1998-99	34	-	20	16	5	1	2	11	14	12
	2007-08	28	*	14	15	4	8	3	8	18	9
Milk & M-Products	1985-87	9	3	7	4	11	36		*	15	11
	1998-99	17	21	42	12	13	31	13	-	-	17
	2007-08	14	11	41	15	15	56	7	*	3	20
Fats & Oils	1985-87	2	7	*	8	10	9		2	3	5
	1998-99	5	7	2	6	10	11	4	5	10	6
	2007-08	5	9	4	13	15	10	5	5	8	8
Sugar & Jaggery	1985-87	3	21	25	6	17	17		*	*	11
	1998-99	17	11	20	15	23	22	5	2	1	12
	2007-08	10	4	15	7	20	7	5	1	3	8

* : Less than 1g

Table 121 : Average intake of Foodstuffs (g/day) among 13-15 year Girls: Time Trends

Food-stuffs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Number of Individuals	1985-87	35	28	27	94	39	115		52	37	427
	1998-99	103	68	128	55	111	88	146	130	48	877
	2007-08	70	99	135	88	163	156	185	171	76	1143
Cereals & Millets	1985-87	257	489	381	545	405	482		534	613	463
	1998-99	245	404	353	483	423	349	434	421	617	227
	2007-08	242	312	324	376	374	331	329	424	518	359
Pulses & Legumes	1985-87	6	33	22	23	22	61		8	14	24
	1998-99	12	35	10	12	41	33	36	13	8	23
	2007-08	19	28	16	29	47	56	23	16	8	29
Green leafy vegetables	1985-87	1	-	*	39	2	2		32	61	17
	1998-99	12	11	14	16	4	5	16	71	142	27
	2007-08	15	10	12	6	8	6	18	62	69	22
Other Vegetables	1985-87	53	27	28	62	16	54		70	51	46
	1998-99	60	35	41	28	20	57	37	44	66	42
	2007-08	26	32	51	28	16	36	25	37	50	32
Roots & Tubers	1985-87	223	10	74	36	37	13		17	78	59
	1998-99	57	16	21	11	21	36	26	33	81	32
	2007-08	52	20	20	30	15	47	33	41	73	34
Nuts & Oil Seeds	1985-87	20	*	8	2	*	-		*	*	4
	1998-99	27	4	26	1	-	-	0	-	-	7
	2007-08	36	1	23	*	1	1	*	*	1	5
Condiments & Spices	1985-87	13	16	8	25	17	7		5	3	12
	1998-99	15	16	12	27	8	11	5	6	6	10
	2007-08	12	16	7	12	8	9	8	6	6	9
Fruits	1985-87	2	22	20	58	-	7		6	9	16
	1998-99	20	20	19	16	6	6	4	13	3	12
	2007-08	24	23	31	53	5	13	7	13	15	18
Flesh Foods	1985-87	14	*	1	1	1	2		5	17	5
	1998-99	34	4	24	13	4	2	2	5	11	11
	2007-08	30	3	14	20	5	8	2	11	16	10
Milk & M-Products	1985-87	11	-	*	14	10	32		*	8	10
	1998-99	17	7	31	15	14	30	10	1	1	15
	2007-08	11	10	29	17	14	51	6	*	*	16
Fats & Oils	1985-87	2	3	*	11	6	7		2	5	5
	1998-99	4	6	2	5	11	11	4	5	9	6
	2007-08	6	9	3	12	13	10	5	5	6	8
Sugar & Jaggery	1985-87	4	23	21	13	15	14		*	3	12
	1998-99	16	9	18	7	22	19	4	3	2	12
	2007-08	11	3	15	6	18	6	5	2	3	8

* : Less than 1g

Table 122 : Average intake of Foodstuffs (g/day) among 16 years and above Men (Sedentary) : Time Trends

Food-stuffs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled	RDI 1981
Number of Individuals	1985-87	80	16	32	154	85	163		68	59	657	
	1998-99	179	111	323	80	133	132	68	237	130	1393	
	2007-08	267	149	128	245	325	205	165	273	118	1875	
Cereals & Millets	1985-87	359	640	544	507	438	541		556	585	521	460
	1998-99	341	519	467	611	496	481	548	593	755	519	
	2007-08	343	420	420	463	439	407	400	500	619	439	
Pulses & Legumes	1985-87	8	35	19	34	45	69		8	13	29	40
	1998-99	19	48	9	26	42	40	43	19	11	24	
	2007-08	20	44	9	31	53	55	26	23	10	32	
Green leafy vegetables	1985-87	0	0	28	10	7	11		32	70	20	40
	1998-99	8	14	18	6	3	7	27	86	120	35	
	2007-08	15	12	17	7	9	6	18	59	69	22	
Other Vegetables	1985-87	57	37	46	109	19	68		74	59	59	60
	1998-99	73	38	60	67	37	82	49	54	55	57	
	2007-08	51	30	46	37	25	55	22	52	37	40	
Roots & Tubers	1985-87	314	10	39	72	76	29		18	61	77	50
	1998-99	95	26	33	12	20	36	40	64	85	49	
	2007-08	85	27	31	47	18	62	34	54	85	49	
Nuts & Oil Seeds	1985-87	34	-	10	2	*	-		*	*	6	-
	1998-99	46	1	37	1	1	-	0	2	-	15	
	2007-08	46	3	38	1	1	1	1	1	0	10	
Condiments & Spices	1985-87	20	10	12	19	15	9		4	4	12	-
	1998-99	18	20	16	17	9	16	7	6	6	13	
	2007-08	16	16	10	15	10	13	8	7	5	11	
Fruits	1985-87	12	29	16	31	27	8		28	7	20	-
	1998-99	28	25	24	24	11	14	4	31	3	21	
	2007-08	28	38	18	45	11	13	7	17	8	21	
Flesh Foods	1985-87	29	-	3	10	16	5		8	11	10	-
	1998-99	48	3	26	10	7	4	2	10	23	18	
	2007-08	36	1	21	25	7	18	2	13	18	16	
Milk & M-Products	1985-87	17	-	46	16	18	56		*	16	21	150
	1998-99	23	27	51	20	15	47	7	2	5	25	
	2007-08	25	15	53	30	18	52	10	1	1	22	
Fats & Oils	1985-87	3	6	4	10	7	11		3	5	6	40
	1998-99	6	9	3	6	13	19	7	8	10	8	
	2007-08	8	12	3	15	17	13	6	7	7	11	
Sugar & Jaggery	1985-87	6	19	15	9	24	16		*	3	11	30
	1998-99	19	15	22	10	30	21	6	3	1	15	
	2007-08	10	5	19	8	20	7	5	3	3	10	

* : Less than 1g

**Table 123 : Average intake of Foodstuffs (g/day) among 16 years and above Women
(Sedentary- NPNL) : Time Trends**

Food-stuffs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled	RDI 1981
Number of Individuals	1985-87	164	48	56	184	148	237		206	115	1158	
	1998-99	474	113	279	40	91	120	28	137	72	1354	
	2007-08	1131	418	457	408	415	250	281	688	248	4296	
Cereals & Millets	1985-87	305	466	430	473	387	505		544	526	454	410
	1998-99	296	441	441	471	433	401	489	536	599	406	
	2007-08	296	380	395	397	360	392	366	457	549	381	
Pulses & Legumes	1985-87	10	24	19	29	56	70		8	14	29	40
	1998-99	15	43	12	17	48	32	38	18	12	21	
	2007-08	17	36	12	26	44	53	27	21	9	25	
Green leafy vegetables	1985-87	2	2	23	26	6	6		37	50	19	100
	1998-99	9	15	18	11	2	6	29	92	84	23	
	2007-08	11	10	10	9	7	5	15	59	53	20	
Other Vegetables	1985-87	66	54	35	92	20	75		67	57	58	60
	1998-99	57	47	57	38	44	57	63	46	62	54	
	2007-08	48	34	57	36	21	57	28	46	32	42	
Roots & Tubers	1985-87	205	8	31	31	19	28		21	61	50	50
	1998-99	86	24	29	12	20	31	37	42	90	52	
	2007-08	67	28	29	35	21	61	32	45	72	46	
Nuts & Oil Seeds	1985-87	31	-	9	1	*	*		*	-	5	-
	1998-99	39	1	38	-	2	-	0	3	-	22	
	2007-08	42	2	37	1	1	1	0	0	0	15	
Condiments & Spices	1985-87	19	15	11	17	12	8		4	3	11	-
	1998-99	16	18	16	17	10	13	6	6	6	14	
	2007-08	16	15	11	13	9	12	8	6	5	11	
Fruits	1985-87	8	13	11	25	25	7		22	2	14	-
	1998-99	27	23	24	20	15	10	8	18	7	21	
	2007-08	27	33	22	42	10	13	8	18	8	22	
Flesh Foods	1985-87	24	30	*	12	9	4		10	12	13	-
	1998-99	44	3	25	19	5	3	0	8	23	24	
	2007-08	35	1	16	20	4	13	2	10	17	17	
Milk & M-Products	1985-87	10	10	16	14	13	43		*	10	15	100
	1998-99	19	27	55	13	21	50	4	1	7	27	
	2007-08	13	15	42	30	14	57	8	1	0	18	
Fats & Oils	1985-87	2	6	12	10	7	12		5	5	7	20
	1998-99	5	8	3	5	13	16	8	7	11	7	
	2007-08	8	11	3	13	15	13	6	6	6	9	
Sugar & Jaggery	1985-87	5	18	20	9	22	18		*	3	12	20
	1998-99	18	14	23	9	32	22	5	2	4	17	
	2007-08	10	4	19	8	22	7	5	3	3	9	

*: Less than 1g

Table 124 : Average Intake of Nutrients (Per day) among 1-3 years children : Time Trends

State	Year	N	Protein (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit.A (µg)	Thia-min (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free Folic Acid (µg)
Kerala	1985-87	101	14.1	596	153	3.3	50	0.2	0.2	3.4	15	-
	1998-99	352	12.9	508	106	3.4	81	0.2	0.2	2.8	15	13
	2007-08	230	13.8	575	108	3.4	71	0.3	0.2	4.8	13	16
Tamil Nadu	1985-87	64	23.1	965	218	6.4	83	0.5	0.3	5.1	15	-
	1998-99	329	16.9	676	163	7.1	83	0.3	0.3	3.6	12	18
	2007-08	333	14.2	611	119	4.3	71	0.4	0.2	5.5	12	18
Karna-taka	1985-87	116	14.6	646	291	4.6	66	0.4	0.2	3.0	8	-
	1998-99	247	17.0	721	184	3.5	113	0.3	0.3	3.8	14	17
	2007-08	188	14.6	657	129	3.6	108	0.3	0.2	4.5	10	17
Andhra Pradesh	1985-87	354	23.1	923	211	6.3	176	0.5	0.3	5.7	17	-
	1998-99	223	25.5	1047	157	6.3	117	0.6	0.4	6.6	13	26
	2007-08	293	20.0	811	145	3.9	98	0.3	0.2	4.4	15	17
Mahara-shtra	1985-87	139	25.0	906	245	6.9	143	0.7	0.4	5.9	11	-
	1998-99	440	20.8	780	149	6.3	96	0.5	0.3	4.7	9	23
	2007-08	447	19.7	743	122	5.2	66	0.4	0.2	4.3	6	16
Gujarat	1985-87	260	37.9	1027	216	6.7	97	1.0	0.4	6.9	11	-
	1998-99	383	17.1	612	116	4.8	97	0.5	0.3	3.6	10	21
	2007-08	275	29.2	935	162	7.1	75	0.9	0.3	6.0	17	33
Madhya Pradesh	1998-99	380	24.6	808	122	7.0	124	0.7	0.4	6.2	15	28
	2007-08	443	17.9	639	93	5.5	95	0.5	0.2	4.6	11	17
Orissa	1985-87	155	16.2	701	138	5.1	248	0.2	0.2	4.3	27	-
	1998-99	360	20.6	787	243	7.0	562	0.4	0.4	4.9	45	32
	2007-08	391	16.8	682	200	4.9	378	0.4	0.2	6.2	44	21
West Bengal	1985-87	130	21.9	895	213	7.4	387	0.2	0.3	5.9	42	-
	1998-99	184	24.9	1043	268	7.5	629	0.4	0.5	6.7	61	39
	2007-08	191	16.8	753	154	4.4	192	0.5	0.2	7.6	34	20
Pooled	1985-97	1319	22.0	832	210	5.8	156	0.5	0.3	5.0	18	-
	1998-99	2898	19.7	750	167	5.5	191	0.4	0.3	4.6	19	23
	2007-08	2791	18.3	709	136	4.8	131	0.5	0.2	5.2	18	19
RDA	1990		22	1240	500	12	400	0.6	0.7	8	30	

Table 125 : Average Intake of Nutrients (Per day) among 4-6 years children : Time Trends

State	Year	N	Protein (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit.A (µg)	Thia-min (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free Folic Acid (µg)
Kerala	1985-87	93	21.2	958	189	5.4	68	0.4	0.3	5.4	28	-
	1998-99	259	22.2	842	228	5.6	98	0.4	0.3	4.8	24	21.0
	2007-08	230	20.7	864	171	4.9	122	0.5	0.2	7.2	21	23.6
Tamil Nadu	1985-87	65	32.8	1414	237	8.6	91	0.6	0.4	7.6	26	-
	1998-99	245	23.5	959	161	6.2	104	0.5	0.4	5.3	18	25.3
	2007-08	248	21.4	912	155	6.1	93	0.6	0.3	8.3	22	27.4
Karna-taka	1985-87	132	21.7	952	507	7.6	144	0.7	0.4	4.4	14	-
	1998-99	219	23.2	1001	233	5.1	133	0.4	0.4	5.3	20	23.5
	2007-08	210	21.4	914	169	5.2	120	0.4	0.3	6.8	13	24.4
Andhra Pradesh	1985-87	360	35.3	1390	331	9.9	253	0.7	0.5	8.8	32	-
	1998-99	133	28.5	1185	212	6.0	159	0.6	0.4	7.1	15	26.2
	2007-08	328	29.7	1204	183	5.5	148	0.4	0.4	6.8	22	25.9
Mahara-shtra	1985-87	99	37.0	1304	313	9.5	358	1.0	0.5	9.3	19	-
	1998-99	412	30.2	1147	208	9.5	129	0.8	0.5	7.1	12	33.2
	2007-08	455	30.8	1153	159	8.5	94	0.7	0.4	7.2	9	27.0
Gujarat	1985-87	308	44.4	1281	219	8.5	130	1.2	0.5	8.7	18	-
	1998-99	345	24.2	865	145	6.8	122	0.7	0.3	5.2	15	30.4
	2007-08	330	41.3	1231	199	10.0	95	1.1	0.4	8.3	19	45.1
Madhya Pradesh	1998-99	456	32.8	1073	158	9.7	164	1.0	0.5	8.6	20	37.5
	2007-08	510	26.7	927	129	7.7	123	0.7	0.3	6.8	17	26.0
Orissa	1985-87	142	24.9	1044	232	8.8	454	0.3	0.3	6.3	46	-
	1998-99	312	25.5	1010	323	8.7	693	0.5	0.5	6.1	62	42.8
	2007-08	393	23.8	979	270	7.1	465	0.6	0.3	9.0	53	29.2
West Bengal	1985-87	120	31.1	1266	293	10.7	560	0.4	0.4	8.4	57	-
	1998-99	163	37.2	1590	383	10.7	915	0.6	0.7	10.0	85	56.8
	2007-08	258	28.3	1283	219	7.4	281	0.8	0.3	13.5	53	35.5
Pooled	1985-87	1319	31.0	1201	290	8.6	257	0.7	0.4	7.4	30	-
	1998-99	2544	27.6	1047	216	7.9	250	0.6	0.4	6.6	27	33.2
	2007-08	2962	27.8	1057	182	7.2	175	0.7	0.3	8.0	25	29.4
RDA	1990		30	1690	400	18	400	0.9	1.0	11	40	

Table 126 : Average Intake of Nutrients (Per day) among 7-9 years children : Time Trends

State	Year	N	Protein (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit.A (µg)	Thia-min (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free Folic Acid (µg)
Kerala	1985-87	69	23.7	1010	245	6.0	58	0.4	0.4	5.7	41	-
	1998-99	224	24.0	923	251	6.3	131	0.4	0.4	5.3	27	24
	2007-08	206	26.2	1045	218	6.4	136	0.6	0.3	9.0	28	29.2
Tamil Nadu	1985-87	48	36.4	1523	340	10.2	104	0.8	0.5	8.2	23	-
	1998-99	217	27.1	1122	177	6.7	98	0.5	0.4	6.2	19	28
	2007-08	258	25.9	1098	183	7.8	95	0.7	0.3	10.0	21	33.2
Karna-taka	1985-87	115	30.0	1288	781	11.1	214	1.0	0.6	5.9	19	-
	1998-99	244	26.8	1182	247	6.0	166	0.4	0.5	6.4	25	29
	2007-08	197	27.1	1178	203	6.1	222	0.6	0.4	8.5	22	32.3
Andhra Pradesh	1985-87	278	42.1	1642	436	12.0	302	0.9	0.6	10.1	37	-
	1998-99	154	33.1	1413	238	17.1	133	0.7	0.5	8.3	19	33
	2007-08	326	33.7	1427	182	6.1	169	0.5	0.4	8.0	23	29.0
Mahara-shtra	1985-87	103	30.3	1404	372	10.6	266	1.0	0.6	9.3	19	-
	1998-99	351	34.7	1406	258	11.3	151	0.9	0.5	8.4	14	37
	2007-08	454	38.1	1433	200	10.4	99	0.9	0.5	9.0	11	34.5
Gujarat	1985-87	248	53.9	1539	241	10.4	134	1.5	0.6	11.0	22	-
	1998-99	287	30.8	1083	171	8.6	130	0.9	0.4	6.6	19	39
	2007-08	382	47.4	1419	212	11.8	111	1.3	0.5	9.6	23	52.6
Madhya Pradesh	1998-99	335	37.3	1265	181	10.7	197	1.1	0.6	10.1	24	43
	2007-08	454	33.4	1147	157	9.4	157	0.9	0.4	8.3	21	33.7
Orissa	1985-87	154	30.3	1325	220	7.7	446	0.4	0.4	7.9	43	-
	1998-99	371	29.1	1217	353	9.5	813	0.5	0.6	7.3	69	47
	2007-08	431	29.1	1244	319	8.2	593	0.8	0.3	11.6	67	36.0
West Bengal	1985-87	94	40.0	1591	332	13.0	628	0.6	0.6	11.2	64	-
	1998-99	170	44.2	1898	412	11.9	904	0.7	0.8	11.9	90	63
	2007-08	207	33.6	1545	242	8.5	346	1.0	0.3	16.1	56	41.7
Pooled	1985-87	1109	35.8	1415	371	10.4	269	0.8	0.5	8.7	34	-
	1998-99	2353	31.8	1257	252	9.0	307	0.7	0.5	7.8	3.3	38.4
	2007-08	2915	33.8	1292	214	8.7	219	0.8	0.4	9.8	30	36.2
RDA	1990		41	1950	400	26	600	1.0	1.2	13	40	

Table 127 : Average Intake of Nutrients (Per day) among 10-12 Year Boys : Time Trends

State	Year	N	Protein (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit.A (µg)	Thia-min (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free Folic Acid (µg)
Kerala	1985-87	26	27.2	1229	264	7.0	64	0.4	0.4	6.7	38	-
	1998-99	117	26.9	1062	294	7.2	154	0.5	0.4	6.2	33	27.0
	2007-08	82	29.5	1155	247	7.4	138	0.7	0.3	9.8	26	30.8
Tamil Nadu	1985-87	32	41.2	1789	465	11.7	105	0.9	0.5	9.5	26	-
	1998-99	89	33.4	1410	207	8.0	156	0.6	0.5	7.7	21	34
	2007-08	120	27.6	1203	200	9.4	103	0.8	0.3	11.2	26	33.7
Karna-taka	1985-87	46	34.0	1477	959	12.7	216	1.2	0.7	6.4	19	-
	1998-99	133	33.4	1426	314	7.3	184	0.5	0.6	8.0	29	33
	2007-08	123	31.6	1346	239	6.9	149	0.7	0.4	9.6	20	35.7
Andhra Pradesh	1985-87	124	46.3	1909	567	13.7	441	1.1	0.7	11.2	46	-
	1998-99	51	39.7	1641	331	10.8	217	0.9	0.6	10.0	24	41
	2007-08	120	36.9	1532	217	7.9	233	0.6	0.4	9.1	26	31.4
Mahara-shtra	1985-87	72	45.5	1644	373	12.2	226	1.3	0.6	10.8	17	-
	1998-99	164	44.1	1647	261	14.3	143	1.2	0.7	10.7	14	49
	2007-08	172	44.1	1655	242	12.4	96	1.0	0.5	10.7	13	40.7
Gujarat	1985-87	177	67.1	1797	300	12.8	144	1.7	0.7	12.8	23	-
	1998-99	104	39.5	1383	205	11.2	126	1.2	0.5	8.6	23	51
	2007-08	210	50.7	1508	222	12.9	137	1.3	0.6	10.5	25	53.8
Madhya Pradesh	1998-99	178	46.5	1580	200	13.5	151	1.4	0.7	12.8	22	51
	2007-08	263	38.1	1308	179	10.7	152	1.0	0.4	9.1	20	37.7
Orissa	1985-87	84	37.9	1731	223	11.5	442	0.5	0.5	10.2	51	-
	1998-99	175	32.3	1363	367	10.4	1055	0.6	0.7	8.4	76	50
	2007-08	209	34.0	1456	379	10.0	688	0.9	0.4	13.3	74	42.3
West Bengal	1985-87	63	46.0	1969	287	13.9	507	0.7	0.6	12.8	63	-
	1998-99	66	49.5	2184	400	11.8	804	0.8	0.8	13.6	84	62
	2007-08	119	40.7	1897	295	9.4	360	1.2	0.4	20.2	71	52.8
Pooled	1985-87	624	43.2	1693	430	12.0	268	1.0	0.6	10.1	35	-
	1998-99	1077	38.2	1487	280	10.7	343	0.9	0.6	9.5	36	44
	2007-08	1418	38.3	1455	246	10.2	241	1.0	0.4	11.3	34	40.9
RDA	1990		54	2190	600	34	600	1.1	1.3	15	40	

Table 128 : Average Intake of Nutrients (Per day) among 10-12 Year Girls : Time Trends

State	Year	N	Protein (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit.A (µg)	Thia-min (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free Folic Acid (µg)
Kerala	1985-87	41	25.9	1163	295	6.8	84	0.4	0.4	6.5	44	-
	1998-99	110	28.4	1109	296	7.2	113	0.5	0.4	6.3	29	27
	2007-08	74	30.9	1185	289	7.5	150	0.7	0.3	9.9	36	33.3
Tamil Nadu	1985-87	28	33.8	1446	483	10.4	82	0.9	0.5	7.2	12	-
	1998-99	94	33.9	1460	211	6.7	167	0.7	0.6	7.9	24	35
	2007-08	99	27.3	1165	183	8.1	96	0.8	0.3	10.6	22	35.6
Karna-taka	1985-87	40	30.0	1293	641	10.1	193	0.9	0.5	6.1	19	-
	1998-99	137	34.9	1498	362	8.1	244	0.5	0.6	8.2	32	35
	2007-08	115	29.2	1204	199	6.3	170	0.6	0.3	8.7	20	31.3
Andhra Pradesh	1985-87	105	45.0	1823	450	13.7	462	1.0	0.6	10.9	46	-
	1998-99	56	41.7	1648	348	11.2	243	0.9	0.6	10.4	26	42
	2007-08	124	38.5	1581	197	6.8	172	0.6	0.4	9.0	24	31.9
Mahara-shtra	1985-87	43	37.0	1389	340	10.1	246	1.0	0.5	8.8	15	-
	1998-99	167	41.2	1574	279	13.4	126	1.1	0.6	10.1	15	43
	2007-08	188	41.3	1554	229	11.9	126	1.0	.5	10.2	14	37.8
Gujarat	1985-87	102	61.8	1766	266	11.8	140	1.6	0.7	12.4	19	-
	1998-99	121	39.4	1350	200	19.9	168	1.2	0.5	8.3	22	51
	2007-08	187	49.3	1505	227	12.7	122	1.4	0.6	10.5	26	55.4
Madhya Pradesh	1998-99	184	43.0	1462	203	11.9	214	1.2	0.6	11.2	28	51
	2007-08	251	35.8	1272	158	10.2	141	0.9	0.4	9.1	20	34.0
Orissa	1985-87	72	33.7	1528	187	10.2	362	0.4	0.4	9.1	44	-
	1998-99	167	33.2	1406	396	10.5	877	0.6	0.7	8.4	74	52
	2007-08	182	34.0	1435	371	9.4	683	0.9	0.4	13.3	76	41.2
West Bengal	1985-87	37	47.5	1922	347	13.3	504	0.6	0.6	12.8	58	-
	1998-99	66	49.6	2118	426	13.1	953	0.8	0.9	13.4	98	17
	2007-08	88	39.8	1852	319	9.5	501	1.2	.4	19.8	82	49.6
Pooled	1985-87	468	39.3	1541	376	10.8	259	0.9	0.5	9.2	32	-
	1998-99	1102	37.9	1476	294	10.6	332	0.9	0.6	9.2	37	45
	2007-08	1308	37.3	1418	235	9.7	239	0.9	0.4	10.9	33	39.3
RDA	1990		57	1970	600	31	600	1.0	1.2	13.0	40	

Table 129 : Average Intake of Nutrients (Per day) among 13-15 Year Boys : Time Trends

State	Year	N	Protein (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit.A (µg)	Thia-min (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free Folic Acid (µg)
Kerala	1985-87	26	24.6	1325	293	6.8	61	0.5	0.5	6.2	80	-
	1998-99	97	32.0	1265	361	8.1	154	0.5	0.5	7.2	42	33
	2007-08	67	31.3	1340	240	7.7	90	0.8	0.3	11.5	29	35.5
Tamil Nadu	1985-87	18	51.5	2152	384	12.9	90	0.9	0.6	11.4	20	-
	1998-99	91	40.8	1718	277	10.1	160	0.8	0.7	9.5	25	41
	2007-08	93	32.2	1391	211	8.7	87	0.9	0.4	12.6	26	39.1
Karnataka	1985-87	30	36.1	1659	793	13.3	331	1.0	0.6	7.8	37	-
	1998-99	114	36.8	1625	310	7.7	172	0.6	0.6	9.0	52	38
	2007-08	143	36.2	1575	272	8.4	211	0.8	0.4	12.1	30	41.9
Andhra Pradesh	1985-87	96	53.5	2179	530	15.6	414	1.2	0.7	13.9	53	-
	1998-99	42	47.7	1942	277	11.6	125	1.1	0.7	12.3	24	48
	2007-08	97	43.1	1813	220	8.2	150	0.6	0.5	10.5	24	35.0
Maharashtra	1985-87	48	50.0	1789	382	13.3	171	1.4	0.7	12.5	16	-
	1998-99	88	49.0	1845	341	14.9	107	1.3	0.7	12.1	12	50
	2007-08	166	50.4	1896	305	13.9	126	1.2	0.6	12.3	16	45.0
Gujarat	1985-87	107	85.9	2232	331	14.2	236	2.1	0.8	14.8	31	-
	1998-99	77	55.8	1901	239	13.7	198	1.6	0.8	15.0	27	65
	2007-08	187	55.1	1641	244	14.1	123	1.5	0.6	11.7	28	59.6
Madhya Pradesh	1998-99	137	55.8	1901	239	15.3	198	1.6	0.8	15.0	26	62
	2007-08	189	42.2	1494	199	11.8	174	1.0	0.5	10.5	24	41.2
Orissa	1985-87	68	45.3	2031	255	13.1	333	0.6	0.5	11.9	47	-
	1998-99	123	41.0	1718	481	12.7	1560	0.7	0.8	10.6	91	62
	2007-08	159	38.2	1681	391	9.8	798	1.0	0.4	15.8	91	49.3
West Bengal	1985-87	24	48.6	2021	361	14.2	498	0.6	0.6	12.9	54	-
	1998-99	50	61.4	2670	577	17.1	1401	0.9	1.1	16.7	131	91
	2007-08	86	50.9	2341	362	12.1	673	1.5	0.5	25.0	90	64.4
Pooled	1985-87	417	49.4	1924	416	12.9	267	1.0	0.6	11.4	42	-
	1998-99	819	45.3	1774	338	12.1	393	1.0	0.7	11.3	43	52
	2007-08	1187	43.4	1679	272	11.0	270	1.1	0.5	13.1	38	46.5
RDA	1990		70	2450	600	41	600	1.2	1.5	16	40	

Table 130 : Average Intake of Nutrients (Per day) among 13-15 Years Girls : Time Trends

State	Year	N	Protein (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit.A (µg)	Thia-min (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free Folic Acid (µg)
Kerala	1985-87	35	29.2	1439	323	7.8	72	0.5	0.5	7.6	71	-
	1998-99	103	32.7	1279	360	8.5	192	0.6	0.5	7.6	43	36
	2007-08	70	32.9	1307	287	8.2	195	0.7	0.3	10.8	39	34
Tamil Nadu	1985-87	28	44.4	1974	343	11.7	82	0.8	0.5	10.4	18	-
	1998-99	68	42.1	1703	309	11.4	185	0.8	0.7	9.6	27	43
	2007-08	99	30.9	1357	198	9.2	103	0.9	0.4	12.8	25	37
Karnataka	1985-87	27	35.8	1570	916	12.2	188	1.2	0.6	6.9	22	-
	1998-99	128	37.2	1591	321	7.7	213	0.6	0.6	9.0	31	37
	2007-08	135	33.6	1468	231	7.9	245	0.7	0.4	11.2	26	39
Andhra Pradesh	1985-87	94	56.5	2294	614	18.8	76	1.3	0.8	13.9	63	-
	1998-99	55	45.6	1903	374	12.1	276	1.0	0.7	11.4	27	47.0
	2007-08	88	41.3	1667	220	7.7	290	0.6	0.5	9.8	30	34
Maharashtra	1985-87	39	44.0	1673	378	12.2	108	1.1	0.6	10.8	14	-
	1998-99	111	49.3	1854	353	15.6	121	1.4	0.7	11.6	14	53
	2007-08	163	46.1	1703	267	12.8	100	1.1	0.6	11.3	14	41
Gujarat	1985-87	115	78.4	2068	254	13.0	152	1.9	0.8	13.5	22	-
	1998-99	146	52	1730	228	12.3	211	1.5	0.8	13.8	26	61
	2007-08	156	54.5	1597	232	12.9	155	1.5	0.6	10.8	25	61
Madhya Pradesh	1998-99	146	52.0	1730	227	14.6	211	1.5	0.8	13.8	26	60
	2007-08	185	36.6	1357	182	9.6	225	0.9	0.4	9.2	28	35
Orissa	1985-87	52	43.1	1966	227	12.6	348	0.5	0.5	11.6	45	-
	1998-99	130	37.6	1649	395	10.9	684	0.7	0.7	9.6	66	51
	2007-08	171	38.8	1690	411	9.2	776	1.0	0.4	15.8	93	49
West Bengal	1985-87	37	54.8	2361	366	16.2	563	0.7	0.7	15.1	68	-
	1998-99	48	55.5	2425	527	15.7	1263	0.9	1.0	15.5	124	85
	2007-08	76	43.8	2042	340	11.2	513	1.3	0.4	21.7	96	55
Pooled	1985-87	427	48.3	1918	428	12.9	199	1.0	0.6	11.2	40	-
	1998-99	877	436	1693	329	11.9	324	1.0	0.7	10.7	39	51
	2007-08	1143	40.5	1568	262	10.1	294	1.0	0.5	12.2	40	43
RDA	1990		65	2060	600	28	600	1.0	1.2	14.0	40	

**Table 131 : Average Intake of Nutrients (Per day) among 16 Years and above Men (Sedentary)
: Time Trends**

State	Year	N	Protein (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit.A (µg)	Thia-min (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free Folic Acid (µg)
Kerala	1985-87	80	41.5	2058	516	10.9	105	0.7	0.7	10.4	98	-
	1998-99	179	45.6	1830	473	11.2	190	0.8	0.8	10.7	55	47
	2007-08	267	43.2	1797	355	10.8	203	1.0	0.5	15.3	54	52
Tamil Nadu	1985-87	16	55.4	2501	453	10.7	94	1.0	0.6	13.2	22	-
	1998-99	111	52.1	2206	307	11.1	240	0.9	0.8	12.3	34	51
	2007-08	149	42.4	1835	272	12.5	129	1.2	0.5	17.2	33	49
Karnataka	1985-87	32	51.0	2179	1086	17.5	419	1.4	0.9	10.8	42	-
	1998-99	323	47.8	2094	409	10.0	305	0.7	0.8	11.6	42	50
	2007-08	128	42.0	1894	349	10.4	285	1.0	0.5	16.4	33	48
Andhra Pradesh	1985-87	154	56.9	2220	610	16.4	322	1.2	0.8	14.0	58	-
	1998-99	80	55.8	2408	455	12.1	176	1.1	0.9	14.0	31	54
	2007-08	245	50.1	2058	307	9.2	161	0.7	0.6	11.4	36	42
Maharashtra	1985-87	85	55.0	1991	539	13.8	353	1.3	0.7	13.2	28	-
	1998-99	133	57.5	2178	369	18.2	141	1.6	0.9	14.3	20	61
	2007-08	325	54.1	2018	345	15.9	166	1.3	0.7	13.4	17	49
Gujarat	1985-87	163	84.8	2412	443	15.4	259	2.1	0.9	16.0	37	-
	1998-99	132	60.4	2193	327	16.7	257	1.8	0.9	14.7	40	76
	2007-08	205	67.6	1949	314	17.9	167	1.8	0.8	14.2	39	72
Madhya Pradesh	1998-99	68	60.4	2207	300	17.0	303	1.6	0.9	17.2	40	66
	2007-08	165	45.0	1612	203	13.1	202	1.1	0.5	11.7	25	40
Orissa	1985-87	68	45.2	2064	226	13.1	490	0.5	0.5	12.6	50	-
	1998-99	237	54.3	2379	491	14.9	938	1.0	1.0	14.4	87	69
	2007-08	273	47.1	2029	420	12.1	723	1.2	0.5	19.3	88	56
West Bengal	1985-87	59	53.0	2285	443	16.6	642	0.7	0.7	14.7	72	-
	1998-99	130	67.7	2941	517	16.0	1075	1.1	1.1	18.3	107	85
	2007-08	118	51.3	2414	285	12.3	286	1.5	0.5	25.8	92	65
Pooled	1985-87	657	55.4	2213	539	14.3	336	1.1	0.7	13.1	51	-
	1998-99	1393	54.0	2237	419	13.5	437	1.1	0.9	13.6	54	61
	2007-08	1875	49.7	1952	327	12.9	268	1.2	.6	15.5	45	53
RDA	1990		60	2425	400	28	600	1.2	1.4	16	40	

**Table 132 : Average Intake of Nutrients (Per day) among 16 Years and above Women (Sedentary)
: Time Trends**

State	Year	N	Protein (g)	Energy (Kcal)	Calcium (mg)	Iron (mg)	Vit.A (µg)	Thia-min (mg)	Ribo-flavin (mg)	Niacin (mg)	Vit.C (mg)	Free Folic Acid (µg)
Kerala	1985-87	164	37.2	1678	425	9.8	111	0.6	0.6	9.2	74	-
	1998-99	474	41.0	1598	468	10.3	179	0.7	0.6	9.5	51	40
	2007-08	1131	37.8	1567	316	9.4	167	0.9	0.4	13.4	42	45
Tamil Nadu	1985-87	48	48.9	1905	538	12.9	109	0.9	0.59	11.4	24	-
	1998-99	113	45.6	1908	314	10.2	233	0.9	0.8	10.6	35	48
	2007-08	418	37.3	1654	233	9.6	116	1.0	0.4	15.1	32	46
Karnataka	1985-87	56	39.4	1828	958	14.4	305	1.2	0.72	7.9	33	-
	1998-99	277	46.6	2021	418	10.0	296	0.7	0.8	11.1	41	49
	2007-08	457	39.1	1801	265	9.5	214	0.9	0.5	15.0	28	50
Andhra Pradesh	1985-87	184	52.6	2016	574	15.7	420	1.1	0.73	12.7	55	-
	1998-99	40	44.5	1859	363	9.8	198	0.9	0.7	11.1	28	42
	2007-08	408	43.2	1767	292	8.0	198	0.6	0.5	10.1	34	37
Maharashtra	1985-87	148	52.0	1774	357	13.3	320	1.3	0.68	12.5	19	-
	1998-99	91	51.1	2004	301	14.1	137	1.3	0.7	12.7	22	55
	2007-08	415	43.8	1695	278	12.7	133	1.0	0.5	10.8	16	43
Gujarat	1985-87	237	70.8	2275	339	14.7	201	2.0	0.85	15.3	34	-
	1998-99	120	50.9	1848	274	13.2	223	1.5	0.7	11.7	31	62
	2007-08	250	62.6	1884	309	16.4	140	1.7	0.7	13.5	34	64
Madhya Pradesh	1998-99	28	53.9	1986	263	14.7	318	1.4	0.8	14.8	45.3	66
	2007-08	281	42.2	1503	194	12.1	162	1.1	0.5	10.8	24	40
Orissa	1985-87	206	44.6	2042	264	13.1	458	0.5	0.51	11.9	52	-
	1998-99	137	49.0	2120	483	13.5	906	0.9	0.9	12.5	83	66
	2007-08	688	42.5	1839	402	10.9	678	1.1	0.5	17.2	90	58
West Bengal	1985-87	115	49.2	2053	344	14.2	471	0.7	0.60	13.6	59	-
	1998-99	72	55.4	2415	418	13.1	189	0.9	1.0	14.8	88	69
	2007-08	248	44.9	2126	227	10.4	161	1.4	0.4	22.8	74	63
Pooled	1985-87	1158	49.3	1946	475	13.6	299	1.0	0.7	11.8	44	-
	1998-99	1354	46.0	1873	408	11.3	318	0.9	0.7	11.0	48	50
	2007-08	4296	41.9	1722	297	10.5	246	1.0	.5	14.1	44	49
RDA	1990		50.0	1875	400	30	600	0.9	1.1	12.0	40	

Table 133: DISTRIBUTION (%) OF 1-3 YEARS CHILDREN ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS – Time Trends

State	Period of Survey	n	Protein Calorie Adequacy			
			P- C-	P- C+	P+ C-	P+ C+
Kerala	1985-87	101	77.2	3.0	13.8	6.0
	1998-99	352	57.1	0.0	33.5	9.4
	2007-08	230	52.6	-	33.5	13.9
Tamil Nadu	1985-87	64	51.6	1.6	23.4	23.4
	1998-99	329	26.1	0.0	52.6	21.3
	2007-08	333	38.4	-	43.6	18.0
Karnataka	1985-87	116	83.6	0.8	6.0	9.6
	1998-99	247	29.1	0.4	44.5	25.9
	2007-08	188	44.1	-	33	22.9
Andhra Pradesh	1985-87	354	59.1	-	20.6	20.6
	1998-99	223	13.9	0.0	27.4	58.7
	2007-08	293	23.2	-	35.5	41.3
Maharashtra	1985-87	139	47.5	-	31.6	20.9
	1998-99	440	21.6	0.2	41.1	37.0
	2007-08	447	22.4	-	41.6	36.0
Gujarat	1985-87	260	28.1	-	46.5	25.4
	1998-99	383	28.5	0.0	55.9	15.7
	2007-08	275	4.0	-	40.0	56.0
Madhya Pradesh	1985-87					
	1998-99	380	10.8	0.0	52.1	37.1
	2007-08	443	30.9	-	46.8	22.3
Orissa	1985-87	155	83.2	0.6	6.5	9.7
	1998-99	360	18.1	0.0	49.2	32.8
	2007-08	391	26.6		48.8	24.6
West Bengal	1985-87	130	63.0	-	18.5	18.5
	1998-99	184	16.3	0.0	25.0	58.7
	2007-08	191	30.9	-	30.4	38.7
Pooled	1985-87	1319	58.2	0.4	23.3	18.1
	1998-99	2898	25.2	0.1	44.1	30.6
	2007-08	2791	29.1	-	40.8	30.1

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 134: DISTRIBUTION (%) OF 4-6 YEARS CHILDREN ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS – Time Trends

State	Period of Survey	n	Protein Calorie Adequacy			
			P- C-	P- C+	P+ C-	P+ C+
Kerala	1985-87	93	83.9	1.1	9.7	5.3
	1998-99	259	35.1		56.0	8.9
	2007-08	230	34.8	-	51.3	13.9
Tamil Nadu	1985-87	65	47.7	-	29.2	23.1
	1998-99	245	20.4		55.5	24.1
	2007-08	248	21.0	-	71.3	7.7
Karnataka	1985-87	132	81.0	0.8	12.1	6.1
	1998-99	219	25.6		53.4	21.0
	2007-08	210	32.3	-	51.0	16.7
Andhra Pradesh	1985-87	360	41.7	0.3	37.8	20.2
	1998-99	133	13.5		31.6	54.9
	2007-08	328	8.5	-	45.2	46.3
Maharashtra	1985-87	99	33.3	-	48.5	18.2
	1998-99	412	7.0		52.2	40.8
	2007-08	455	5.7	-	52.5	41.8
Gujarat	1985-87	308	33.1	-	49.4	17.5
	1998-99	345	17.4	-	69.9	12.8
	2007-08	330	3.3	-	52.8	43.9
Madhya Pradesh	1985-87					
	1998-99	456	6.4	-	63.4	30.3
	2007-08	510	17.5	-	62.9	19.6
Orissa	1985-87	142	81.7	0.7	9.2	8.4
	1998-99	312	13.5		59.6	26.9
	2007-08	393	11.2	-	74.3	14.5
West Bengal	1985-87	120	54.2	-	27.5	18.3
	1998-99	163	1.8		18.4	79.8
	2007-08	258	10.1	-	34.9	55.0
Pooled	1985-87	1319	51.7	0.2	32.3	15.7
	1998-99	2544	14.9		55.1	30.1
	2007-08	2962	14.3	-	56.3	29.4

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 135: DISTRIBUTION (%) OF 7-9 YEARS CHILDREN ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS – Time Trends

State	Period of Survey	n	Protein Calorie Adequacy			
			P- C-	P- C+	P+ C-	P+ C+
Kerala	1985-87	69	88.4	-	8.7	2.9
	1998-99	224	51.3	0.0	41.1	7.6
	2007-08	206	28.2	-	58.2	13.6
Tamil Nadu	1985-87	48	47.7	-	43.8	8.3
	1998-99	217	31.3	0.0	47.9	20.7
	2007-08	258	16.7	-	77.1	6.2
Karnataka	1985-87	115	71.3	-	17.4	11.3
	1998-99	244	34.0	0.0	39.8	26.2
	2007-08	197	21.8	-	57.9	20.3
Andhra Pradesh	1985-87	278	41.0	-	39.6	19.4
	1998-99	154	9.7	0.6	30.5	59.1
	2007-08	326	8.9	-	43.9	47.2
Maharashtra	1985-87	103	54.4	0.9	31.1	13.6
	1998-99	351	12.5	0.0	43.9	43.6
	2007-08	454	3.3	-	49.6	47.1
Gujarat	1985-87	248	29.4	-	54.0	16.5
	1998-99	287	24.0	0.3	55.7	19.9
	2007-08	382	1.8	-	46.9	51.3
Madhya Pradesh	1985-87					
	1998-99	335	11.0	0.0	56.1	32.8
	2007-08	454	16.1	-	62.8	21.1
Orissa	1985-87	154	72.1	-	20.1	7.8
	1998-99	371	24.0	0.0	43.4	32.6
	2007-08	431	6.7	-	76.1	17.2
West Bengal	1985-87	94	47.9	-	34.0	18.1
	1998-99	170	2.4	0.0	14.7	82.9
	2007-08	207	13.0	-	35.3	51.7
Pooled	1985-87	1109	50.9	0.2	34.8	14.1
	1998-99	2353	22.3	0.1	43.7	34.0
	2007-08	2915	11.1	-	57.2	31.7

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 136: DISTRIBUTION (%) OF 10-12 YEARS BOYS ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS – Time Trends

State	Period of Survey	n	Protein Calorie Adequacy			
			P- C-	P- C+	P+ C-	P+ C+
Kerala	1985-87	26	92.4	-	3.8	3.8
	1998-99	117	59.8	1.7	27.4	11.1
	2007-08	82	32.9	-	59.8	7.3
Tamil Nadu	1985-87	32	62.5	-	25.0	12.5
	1998-99	89	32.6	0.0	30.3	37.1
	2007-08	120	25.0	-	70.0	5.0
Karnataka	1985-87	46	71.7	-	26.1	2.2
	1998-99	133	42.9	1.5	26.3	29.3
	2007-08	123	25.2	-	56.1	18.7
Andhra Pradesh	1985-87	124	45.2	-	37.9	16.9
	1998-99	51	13.7	0.0	17.6	68.6
	2007-08	120	18.3	-	47.5	34.2
Maharashtra	1985-87	72	48.6	-	41.7	9.7
	1998-99	164	15.9	0.0	30.5	53.7
	2007-08	172	3.5	-	54.1	42.4
Gujarat	1985-87	177	28.8	-	53.1	18.1
	1998-99	104	28.8	0.0	36.5	34.6
	2007-08	210	4.8	-	61.4	33.8
Madhya Pradesh	1985-87					
	1998-99	178	12.4	0.0	46.1	41.6
	2007-08	263	16.3	-	67.7	16.0
Orissa	1985-87	84	65.5	1.2	22.6	10.7
	1998-99	175	42.3	1.1	30.9	25.7
	2007-08	209	7.2	-	74.6	18.2
West Bengal	1985-87	63	49.2	-	23.8	27.0
	1998-99	66	6.1	0.0	12.1	81.8
	2007-08	119	10.1	-	35.3	54.6
Pooled	1985-87	624	48.9	0.2	36.2	14.7
	1998-99	1077	29.6	0.6	31.1	38.7
	2007-08	1418	13.8	-	60.5	25.7

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 137: DISTRIBUTION (%) OF 10-12 YEARS GIRLS ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS – Time Trends

State	Period of Survey	n	Protein Calorie Adequacy			
			P- C-	P- C+	P+ C-	P+ C+
Kerala	1985-87	41	87.8	-	7.3	4.9
	1998-99	110	63.6	1.8	16.4	18.2
	2007-08	74	29.7	-	58.1	12.2
Tamil Nadu	1985-87	28	82.1	-	10.7	7.2
	1998-99	94	36.2	7.4	11.7	44.7
	2007-08	99	28.3	-	63.6	8.1
Karnataka	1985-87	40	85.0	-	7.5	7.5
	1998-99	137	35.8	8.8	12.4	43.1
	2007-08	115	39.1	-	42.6	18.3
Andhra Pradesh	1985-87	105	46.7	1.0	29.5	22.8
	1998-99	56	14.3	5.4	7.1	73.2
	2007-08	124	13.7	-	35.5	50.8
Maharashtra	1985-87	43	62.8	2.3	27.9	7.0
	1998-99	167	23.4	1.2	9.6	65.9
	2007-08	188	6.9	-	44.7	48.4
Gujarat	1985-87	102	32.4	-	47.0	20.6
	1998-99	121	33.1	0.0	18.2	48.8
	2007-08	187	3.2	-	49.7	47.1
Madhya Pradesh	1985-87					
	1998-99	184	20.1	0.5	21.7	57.6
	2007-08	251	17.5	-	63.8	18.7
Orissa	1985-87	72	81.9	-	8.4	9.7
	1998-99	167	37.7	4.8	11.4	46.1
	2007-08	182	6.0	-	67.1	26.9
West Bengal	1985-87	37	54.1	-	21.6	24.3
	1998-99	66	4.5	4.5	1.5	89.4
	2007-08	88	10.2	-	28.4	61.4
Pooled	1985-87	468	60.1	0.4	24.3	15.2
	1998-99	1102	31.1	3.4	13.4	52.0
	2007-08	1308	14.9	-	52.2	32.9

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 138: DISTRIBUTION (%) OF 13-15 YEARS BOYS ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS – Time Trends

State	Period of Survey	n	Protein Calorie Adequacy			
			P- C-	P- C+	P+ C-	P+ C+
Kerala	1985-87	26	92.4	3.8	3.8	-
	1998-99	97	69.1	1.0	14.4	15.5
	2007-08	67	52.2	-	35.9	11.9
Tamil Nadu	1985-87	18	77.8	-	5.5	16.7
	1998-99	91	39.6	0.0	13.2	47.3
	2007-08	93	35.5	-	54.8	9.7
Karnataka	1985-87	30	83.3	-	10.0	6.7
	1998-99	114	54.4	8.8	11.4	25.4
	2007-08	143	31.5	-	42.6	25.9
Andhra Pradesh	1985-87	96	54.2	1.0	21.9	22.9
	1998-99	42	23.8	4.8	11.9	59.5
	2007-08	97	17.5	-	38.2	44.3
Maharashtra	1985-87	48	62.5	-	25.0	12.5
	1998-99	88	23.9	2.3	19.3	54.5
	2007-08	166	7.2	-	43.4	49.4
Gujarat	1985-87	107	28.0	-	48.6	23.4
	1998-99	77	29.9	0.0	20.8	49.4
	2007-08	187	7.5	-	67.9	24.6
Madhya Pradesh	1985-87					
	1998-99	137	16.8	2.2	26.3	54.7
	2007-08	189	17.5	-	63.5	19.0
Orissa	1985-87	68	72.1	-	8.8	19.1
	1998-99	123	39.0	2.4	9.8	48.8
	2007-08	159	10.7	-	62.3	27.0
West Bengal	1985-87	24	58.3	-	4.2	37.5
	1998-99	50	4.0	4.0	.0	92.0
	2007-08	86	4.7	-	24.4	70.9
Pooled	1985-87	417	57.3	0.5	23.3	19.2
	1998-99	819	35.7	2.8	15.3	46.3
	2007-08	1187	17.7	-	51.6	30.7

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

Table 139: DISTRIBUTION (%) OF 13-15 YEARS GIRLS ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS – Time Trends

State	Period of Survey	n	Protein Calorie Adequacy			
			P- C-	P- C+	P+ C-	P+ C+
Kerala	1985-87	35	83.0	2.8	11.4	2.8
	1998-99	103	51.5	8.7	14.6	25.2
	2007-08	70	24.3	-	61.4	14.3
Tamil Nadu	1985-87	28	53.6	-	25.0	21.4
	1998-99	68	23.5	5.9	8.8	61.8
	2007-08	99	15.2	-	67.6	17.2
Karnataka	1985-87	27	74.1	2.9	14.8	11.1
	1998-99	128	32.8	14.8	4.7	47.7
	2007-08	135	25.2	-	47.4	27.4
Andhra Pradesh	1985-87	94	25.5	1.1	33.0	40.4
	1998-99	55	9.1	7.3	3.6	80.0
	2007-08	88	6.8	-	45.5	47.7
Maharashtra	1985-87	39	43.6	-	43.6	12.8
	1998-99	111	10.8	7.2	9.0	73.0
	2007-08	163	1.8	-	47.9	50.3
Gujarat	1985-87	115	27.8	-	41.7	30.5
	1998-99	88	31.8	.0	12.5	55.7
	2007-08	156	5.1	-	46.8	48.1
Madhya Pradesh	1985-87					
	1998-99	146	14.4	6.8	13.7	65.1
	2007-08	185	9.7	-	71.9	18.4
Orissa	1985-87	52	51.9	-	21.2	26.9
	1998-99	130	26.9	16.2	3.8	53.1
	2007-08	171	1.8	-	40.3	57.9
West Bengal	1985-87	37	21.6	-	43.2	35.2
	1998-99	48	6.3	.0	.0	93.8
	2007-08	76	6.6	-	27.6	65.8
Pooled	1985-87	427	40.3	0.7	32.5	26.9
	1998-99	877	24.5	8.6	8.6	58.4
	2007-08	1143	9.5	-	51.5	39.0

P+ : Protein adequacy
C+ : Calorie adequacy

P- : Protein inadequacy
C- : Calorie inadequacy

**Table 140 : DISTRIBUTION (%) OF 16-17 YEARS BOYS ACCORDING TO
PROTEIN - CALORIE ADEQUACY STATUS**

State	Period of Survey	n	Protein Calorie Adequacy					
			P- C-	P- C+	P+ C-	P+ C+	C-	P-
Kerala	1998-99	90	56.6	6.7	8.9	27.8	65.5	63.3
	2007-08	37	56.8	5.4	21.6	16.2	78.4	62.2
Tamil Nadu	1998-99	68	27.9	1.5	7.4	63.2	35.3	29.4
	2007-08	49	49.0	6.1	14.3	30.6	63.3	55.1
Karnataka	1998-99	127	44.9	11.0	3.2	40.9	48.1	55.9
	2007-08	66	59.1	6.1	4.5	30.3	63.6	65.2
Andhra Pradesh	1998-99	73	4.1	1.4	1.4	93.1	5.5	5.5
	2007-08	61	23.0	9.8	6.6	60.6	29.6	32.8
Maharashtra	1998-99	93	9.7	4.3	8.6	77.4	18.3	14.0
	2007-08	110	20.0	0.9	18.2	60.9	38.2	20.9
Gujarat	1998-99	61	18.0	1.6	13.1	67.3	31.1	19.6
	2007-08	134	15.7	1.5	45.5	37.3	61.2	17.2
Madhya Pradesh	1998-99	92	15.2	7.7	19.7	57.4	34.9	22.9
	2007-08	87	43.7	2.3	31.0	23.0	74.7	46.0
Orissa	1998-99	129	20.9	5.4	1.6	72.1	22.5	26.3
	2007-08	82	25.6	12.2	2.4	59.8	28.0	37.8
West Bengal	1998-99	72	9.7	0.0	0.0	90.3	9.7	9.7
	2007-08	49	26.5	8.2	2.0	63.3	28.5	34.7
Pooled	1998-99	805	24.6	5.1	6.7	63.6	31.3	29.7
	2007-08	675	31.6	5.0	19.7	43.7	51.3	36.6

P+ : Protein adequacy
C+ : Calorie adequacy

P-: Protein inadequacy
C-: Calorie inadequacy

**Table 141 : DISTRIBUTION (%) OF 16-17 YEARS GIRLS ACCORDING TO
PROTEIN - CALORIE ADEQUACY STATUS**

State	Period of Survey	n	Protein Calorie Adequacy					
			P- C-	P- C+	P+ C-	P+ C+	C-	P-
Kerala	1998-99	97	44.3	4.1	12.4	39.2	56.7	48.4
	2007-08	59	52.6	16.9	5.1	25.4	57.7	69.5
Tamil Nadu	1998-99	83	6.0	3.6	3.6	86.8	9.6	9.6
	2007-08	63	30.2	12.7	4.8	52.3	35.0	42.9
Karnataka	1998-99	153	19.0	9.7	3.3	68.0	22.3	28.7
	2007-08	95	42.1	17.9	4.2	35.8	46.3	60.0
Andhra Pradesh	1998-99	87	2.3	5.7	0.0	92.0	2.3	8.0
	2007-08	62	22.6	3.2	8.1	66.1	30.7	25.8
Maharashtra	1998-99	78	10.3	3.8	3.8	82.1	14.1	14.1
	2007-08	105	19.0	4.8	8.6	67.6	27.6	23.8
Gujarat	1998-99	73	23.3	1.4	12.3	63.0	35.6	24.7
	2007-08	108	7.4	8.3	13.9	70.4	21.3	15.7
Madhya Pradesh	1998-99	114	6.1	2.6	8.8	82.5	14.9	8.7
	2007-08	107	25.2	5.6	19.6	49.6	44.8	30.8
Orissa	1998-99	128	10.2	5.5	0.8	83.5	11.0	15.7
	2007-08	106	3.8	16	0.0	80.2	3.8	19.8
West Bengal	1998-99	69	2.9	0.0	0.0	97.1	2.9	2.9
	2007-08	36	22.2	13.9	0.0	63.9	22.2	36.1
Pooled	1998-99	882	14.3	4.6	4.9	76.2	19.2	18.9
	2007-08	741	23.1	10.7	8.1	58.1	31.2	33.8

P+ : Protein adequacy
C+ : Calorie adequacy

P-: Protein inadequacy
C-: Calorie inadequacy

**Table 142: DISTRIBUTION (%) OF ADULT MEN (≥18 YEARS - SEDENTARY)
ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS**

State	Period of Survey	n	Protein Calorie Adequacy					
			P- C-	P- C+	P+ C-	P+ C+	C-	P-
Kerala	1998-99	117	20.5	0.9	14.5	64.1	35.0	21.4
	2007-08	230	29.6	3.5	13.9	53.0	43.5	33.1
Tamil Nadu	1998-99	71	4.2	0.0	16.9	78.9	21.1	4.2
	2007-08	160	23.1	0.6	18.1	58.2	41.2	23.7
Karnataka	1998-99	243	16.9	0.4	13.6	69.1	30.5	17.3
	2007-08	277	35.0	1.8	11.9	51.3	46.9	36.8
Andhra Pradesh	1998-99	62	8.1	0.0	8.1	83.8	16.2	8.1
	2007-08	184	15.2	0.0	12.0	72.8	27.2	15.2
Maharashtra	1998-99	86	10.5	0.0	17.4	72.1	27.9	10.5
	2007-08	215	11.6	0.0	22.8	65.6	34.4	11.6
Gujarat	1998-99	103	11.7	0.0	17.5	70.8	29.2	11.7
	2007-08	133	11.3	0.0	20.3	68.4	31.6	11.3
Madhya Pradesh	1998-99	46	6.5	0.0	10.9	82.6	17.4	6.5
	2007-08	95	17.9	0.0	43.2	38.9	61.1	17.9
Orissa	1998-99	153	9.2	0.0	8.5	82.3	17.7	9.2
	2007-08	191	9.4	0.5	6.8	83.3	16.2	9.9
West Bengal	1998-99	84	1.2	0.0	17.8	81.0	19.0	1.2
	2007-08	142	11.3	0.7	6.3	81.7	17.6	12.0
Pooled	1998-99	965	11.6	0.2	13.8	74.4	25.4	11.8
	2007-08	1627	19.7	1.0	15.7	63.6	35.4	20.7

P+ : Protein adequacy
C+ : Calorie adequacy

P-: Protein inadequacy
C-: Calorie inadequacy

Table 143 : DISTRIBUTION (%) OF ADULT WOMEN (≥18 YEARS - NPWL - SEDENTARY) ACCORDING TO PROTEIN - CALORIE ADEQUACY STATUS

State	Period of Survey	n	Protein Calorie Adequacy					
			P- C-	P- C+	P+ C-	P+ C+	C-	P-
Kerala	1998-99	426	11.0	6.3	11.0	71.7	22.0	17.3
	2007-08	1000	23.5	6.5	10.0	60.0	33.5	30.0
Tamil Nadu	1998-99	71	0.0	0.0	1.4	98.6	1.4	0.0
	2007-08	341	11.4	3.5	7.3	77.8	18.7	14.9
Karnataka	1998-99	258	6.2	0.4	2.7	90.7	8.9	6.6
	2007-08	999	15.5	5.8	4.0	74.7	19.5	21.3
Andhra Pradesh	1998-99	37	8.1	0.0	2.7	89.2	10.8	8.1
	2007-08	299	13.4	1.7	8.7	76.2	22.1	15.1
Maharashtra	1998-99	62	8.1	3.2	0.0	88.7	8.1	11.3
	2007-08	279	11.1	0.7	15.4	72.8	26.5	11.8
Gujarat	1998-99	111	7.2	0.0	11.7	81.1	18.9	7.2
	2007-08	170	2.9	0.6	11.2	85.3	14.1	3.5
Madhya Pradesh	1998-99	19	0.0	0.0	15.8	84.2	15.8	0.0
	2007-08	197	15.7	0.5	20.3	63.5	36.0	16.2
Orissa	1998-99	118	0.8	0.8	1.7	96.7	2.5	1.6
	2007-08	448	3.8	1.8	4.9	89.5	8.7	5.6
West Bengal	1998-99	60	3.3	0.0	3.3	93.4	6.6	3.3
	2007-08	330	10.0	0.9	5.5	83.6	15.5	10.9
Pooled	1998-99	1162	7.1	2.7	6.5	83.7	13.6	9.8
	2007-08	4063	14.4	3.8	8.2	73.6	22.6	18.2

P+ : Protein adequacy
C+ : Calorie adequacy

P-: Protein inadequacy
C-: Calorie inadequacy

TABLE 144 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS - PRESCHOOL CHILDREN : TIME TRENDS

Nutritional deficiency signs	Year	Kerala	Tamil Nadu	Kama-taka	Andhra Pradesh	Maha-rashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Number	1985-87	289	267	517	1770	686	840	-	618	657	5644
	1998-99	561	716	503	1207	734	1127	-	2050	297	6454
	2007-08	1126	1356	890	1370	1747	1489	1159	1915	890	11942
Oedema	1985-87	-	7.9	-	0.5	0.2	-	-	0.7	-	1.2
	1998-99	0.0	0.0	0.1	0.0	0.1	1.5	-	0.0	0.1	0.2
	2007-08	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Emaciation	1985-87	-	2.3	1.0	0.6	6.1	3.8	-	0.5	2.1	2.1
	1998-99	0.0	0.5	0.2	0.6	1.6	16.3	-	0.3	1.0	2.8
	2007-08	0.0	0.0	0.1	0.1	0.7	0.0	0.0	0.2	0.1	0.2
Marasmus	1985-87	2.4	-	0.6	0.2	14.0	4.3	-	0.3	0.6	2.8
	1998-99	0.0	0.7	0.2	0.7	1.7	16.2	-	0.2	1.2	0.3
	2007-08	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1
Bitot spots	1985-87	0.4	5.6	1.4	0.2	4.2	1.1	-	1.9	2.3	2.1
	1998-99	0.2	1.7	0.4	0.6	1.8	0.0	-	0.1	0.9	0.5
	2007-08	1.0	0.4	0.1	0.9	0.1	0.1	1.2	0.1	0.4	0.4
Angular stomatitis	1985-87	0.4	5.6	2.5	0.9	0.7	-	-	2.1	3.5	2.0
	1998-99	0.2	3.2	0.0	0.6	1.7	2.9	-	0.2	2.5	1.3
	2007-08	0.1	0.2	0.3	1.4	0.6	0.1	0.1	0.1	1.3	0.4

TABLE 144 (CONTD...) : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS - PRESCHOOL CHILDREN : TIME TRENDS

Nutritional deficiency signs	Year	Kerala	Tamil Nadu	Kama-taka	Andhra Pradesh	Maha-rashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Caries	1985-87	14.2	8.6	-	0.7	3.5	-	-	2.8	2.3	4.0
	1998-99	1.9	5.3	7.0	1.0	0.1	0.4	-	1.0	1.4	2.1
	2007-08	4.0	4.8	6.0	2.8	0.6	0.4	2.0	0.8	3.5	2.4
Mottled Enamel	1985-87	1.0	1.1	1.4	0.3	0.7	0.1	-	0.8	8.6	1.8
	1998-99	0.2	1.8	0.5	-	-	0.1	-	0.1	0.7	0.3
	2007-08	0.0	0.1	0.1	0.0	0.0	0.4	0.7	0.0	0.2	0.2
Goitre	1985-87	0.4	-	-	0.2	-	-	-	-	-	0.1
	1998-99	-	0.6	-	-	0.7	-	-	0.0	-	0.3
	2007-08	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Phryno-derma	1985-87	-	-	-	-	-	-	-	-	-	*
	1998-99	-	-	0.4	-	1.0	0.3	-	-	0.5	0.2
	2007-08	0.0	0.2	0.6	0.1	0.0	0.0	0.0	0.0	0.1	0.1

NAD: No abnormality detected

*: Less than 0.1 %

TABLE 145: PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS - BOYS (5-12 YEARS) : TIME TRENDS

Nutritional, deficiency signs	Year	Kerala	Tamil Nadu	Kama-taka	Andhra Pradesh	Maha-rashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Number	1985-87	168	164	385	1086	496	1066	-	565	436	4366
	1998-99	389	846	843	808	1115	868	-	1380	699	6948
	2007-08	697	855	643	1199	1267	1784	861	1417	766	9489
NAD	1985-87	28.6	36.0	76.2	77.4	48.8	78.4	-	71.9	38.1	56.9
	1998-99	80.7	45.0	47.0	83.2	69.1	95.2	-	88.8	63.9	72.4
	2007-08	73.2	62.0	69.7	75.0	80.4	92.4	78.3	86.5	71.8	79.1
Bitot spots	1985-87	4.2	6.7	3.9	0.7	13.7	5.3	-	3.0	7.1	5.6
	1998-99	1.0	6.6	0.4	1.2	4.7	0.2	-	0.7	2.0	2.2
	2007-08	4.6	3.2	0.2	2.2	2.0	0.0	4.3	0.8	3.3	1.9
Angular stomatitis	1985-87	16.1	8.5	6.5	3.9	0.6	0.0	-	6.0	9.2	6.4
	1998-99	0.5	10.0	0.1	1.5	4.1	0.8	-	0.9	3.0	2.7
	2007-08	0.0	2.3	0.6	2.9	1.3	0.0	0.3	0.2	4.6	1.2
Dental Caries	1985-87	42.3	26.8	3.4	3.9	8.1	0.7	-	11.7	8.5	13.2
	1998-99	15.9	32.7	43.7	9.3	5.4	2.3	-	7.8	7.6	14.7
	2007-08	22.0	30.3	27.4	11.8	11.7	3.9	7.5	12.0	11.6	13.4
Mottled Enamel	1985-87	3.0	9.2	7.3	2.3	3.6	6.2	-	4.1	2.5	4.8
	1998-99	0.3	7.1	2.1	0.5	3.9	0.2	-	0.1	8.6	2.7
	2007-08	0.0	2.5	0.3	0.6	0.9	3.5	3.9	0.1	2.7	1.7
Goitre	1985-87	0.6	0.6	-	0.6	1.2	1.0	-	-	-	0.5
	1998-99	-	7.1	0.5	0.2	4.1	-	-	-	1.0	1.7
	2007-08	0.0	0.4	0.3	2.4	1.1	0.1	0.2	0.0	0.3	0.6
Phryno-derma	1985-87	-	12.8	-	0.5	0.4	2.1	-	0.4	-	2.0
	1998-99	1.2	0.2	0.2	-	4.1	-	-	0.1	1.9	1.1
	2007-08	0.0	0.7	2.5	0.3	0.2	0.2	0.0	0.1	0.3	0.3

NAD: No abnormality detected

TABLE 146 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS - GIRLS (5-12 YEARS) : TIME TRENDS

Nutritional deficiency signs	Year	Kerala	Tamil Nadu	Kama - taka	Andhra Pradesh	Maha- rashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Number	1985-87	180	211	332	1141	450	857	-	440	464	4075
	1998-99	347	955	843	871	1103	876	-	1400	704	7101
	2007-08	624	856	655	1185	1263	1707	839	1442	755	9326
NAD	1985-87	33.9	37.4	84.6	76.6	55.8	86.7	-	79.3	53.9	63.5
	1998-99	85.6	48.6	53.4	87.1	75.6	95.0	-	91.2	70.7	76.2
	2007-08	77.2	61.3	65.3	76.8	80.5	92.1	79.4	85.6	76.4	79.5
Emaciation	1985-87	-	0.5	-	0.3	16.4	5.8	-	0.2	1.1	3.0
	1998-99	-	-	-	-	0.1	1.4	-	0.1	1.0	0.3
	2007-08	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Marasmus	1985-87	-	-	-	-	0.7	3.4	-	-	-	0.5
	1998-99	-	-	-	-	-	0.1	-	-	-	*
	2007-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Bitot spots	1985-87	2.2	3.3	1.2	0.4	9.6	2.6	-	2.1	2.8	3.0
	1998-99	1.2	5.9	0.1	0.6	2.7	0.3	-	0.1	1.0	1.5
	2007-08	1.3	1.6	0.2	1.1	1.2	.2	3.1	.3	2.1	1.1
Angular stomatitis	1985-87	9.4	10.0	3.6	2.4	0.2	0.1	-	3.0	4.3	4.1
	1998-99	-	5.2	0.1	1.4	3.1	1.6	-	0.5	2.7	1.9
	2007-08	0.3	1.3	0.3	1.8	1.0	0.0	1.0	0.3	3.2	0.9
Dental Caries	1985-87	41.1	27.0	1.2	4.0	6.0	0.1	-	9.3	7.5	12.0
	1998-99	12.7	31.1	40.9	7.5	4.1	0.9	-	7.1	6.3	13.4
	2007-08	21.3	31.9	30.5	11.5	11.2	4.0	8.9	12.8	11.4	13.9
Mottled Enamel	1985-87	1.7	12.8	5.4	1.1	2.4	2.7	-	2.3	1.7	3.8
	1998-99	0.3	6.6	1.2	1.0	2.4	0.7	-	0.1	8.2	2.5
	2007-08	0.0	4.2	0.5	0.9	0.6	3.5	4.5	0.1	3.7	2.0

TABLE 146 (CONTD...) : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS - GIRLS (5-12 YEARS) : TIME TRENDS

Nutritional deficiency signs	Year	Kerala	Tamil Nadu	Kama - taka	Andhra Pradesh	Maha-rashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Goitre	1985-87	0.6	0.5	-	0.5	0.2	0.7	-	0.2	0.2	0.4
	1998-99	-	12.0	0.4	0.1	3.4	-	-	-	1.3	2.7
	2007-08	0.0	0.3	0.6	2.1	1.7	0.2	0.1	0.1	0.3	0.7
Phryno-derma	1985-87	2.2	5.2	-	0.3	0.9	1.6	-	-	0.2	1.3
	1998-99	1.2	-	0.1	-	3.0	-	-	-	2.6	0.8
	2007-08	0.2	0.4	3.7	0.2	0.2	0.2	0.0	0.0	0.3	0.4

NAD: No abnormality detected

*: Less than 0.1 %

TABLE 147 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS – BOYS (12-17 YEARS) : TIME TRENDS

Nutritional deficiency signs	Year	Kerala	Tamil Nadu	Kama-taka	Andhra Pradesh	Maha-rashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Number	1985-87	122	139	182	717	348	606	-	443	400	2957
	1998-99	451	643	1002	565	597	535	-	911	537	5241
	2007-08	279	463	485	592	631	1242	345	665	403	5105
NAD	1985-87	38.5	40.3	84.1	78.7	66.1	86.1	-	82.4	59.8	67.0
	1998-99	89.6	54.7	67.2	74.9	91.9	98.5	-	95.6	75.6	80.1
	2007-08	87.8	68.7	82.3	71.1	89.5	89.4	89.9	94.3	80.9	84.6
Bitot spots	1985-87	1.6	4.3	2.2	0.8	13.2	2.2	-	5.0	4.3	4.2
	1998-99	0.7	8.7	0.1	0.7	1.3	-	-	0.1	2.2	1.6
	2007-08	0.0	1.5	0.4	0.7	0.8	0.3	0.6	0.2	2.2	0.7
Angular stomatitis	1985-87	7.4	7.2	2.2	2.9	-	-	-	3.0	7.0	3.7
	1998-99	0.7	7.6	0.3	1.2	1.3	0.4	-	0.8	1.9	1.7
	2007-08	0.0	1.3	0.0	1.9	0.5	0.0	0.3	0.2	4.2	0.8
Dental Caries	1985-87	19.7	17.3	1.1	2.9	1.2	0.2	-	7.2	0.8	6.3
	1998-99	7.8	24.0	25.9	5.1	0.8	0.9	-	2.4	2.4	10.0
	2007-08	12.2	20.7	14.2	6.6	4.0	5.7	3.8	4.8	5.5	7.9
Mottled Enamel	1985-87	1.6	10.8	7.1	3.9	1.7	3.0	-	0.7	-	3.6
	1998-99	-	4.0	0.4	1.9	1.7	0.2	-	0.1	5.4	1.6
	2007-08	0.0	4.1	0.8	0.3	0.2	5.3	4.3	0.2	2.2	2.3
Goitre	1985-87	0.8	-	-	2.2	2.9	1.3	-	-	1.0	1.0
	1998-99	0.2	7.8	-	1.5	0.6	-	-	0.1	1.0	1.4
	2007-08	0.0	1.2	0.7	9.0	1.7	0.1	0.1	0.1	0.1	1.5
Phryno-derma	1985-87	0.8	15.1	0.6	0.6	-	1.3	-	-	-	2.3
	1998-99	0.7	-	0.1	-	1.0	-	-	0.2	4.5	0.7
	2007-08	0.0	1.1	1.2	0.2	0.0	0.0	0.0	0.0	1.0	0.3

NAD: No abnormality detected

TABLE 148 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS – GIRLS (12-17 YEARS) : TIME TRENDS

Nutritional deficiency signs	Year	Kerala	Tamil Nadu	Kama-taka	Andhra Pradesh	Maha-rashtra	Gujarat	Madhya pradesh	Orissa	West Bengal	Pooled
Number	1985-87	207	182	256	788	303	510	-	447	451	3144
	1998-99	788	956	1345	813	759	795	-	1083	586	7125
	2007-08	333	589	606	717	852	1275	408	809	488	6077
NAD	1985-87	45.4	41.8	82.0	74.9	62.4	88.2	-	82.8	53.9	66.4
	1998-99	87.7	48.4	57.5	77.1	90.0	97.5	-	95.4	61.6	75.9
	2007-08	92.8	68.6	77.9	73.5	82.7	89.2	92.6	90.7	71.9	82.6
Bitot spots	1985-87	-	0.6	0.8	1.4	8.3	0.8	-	0.7	2.0	1.8
	1998-99	0.3	7.2	0.1	0.9	0.8	-	-	-	1.5	1.3
	2007-08	0.0	1.2	0.2	0.7	0.6	0.0	0.2	0.1	1.4	0.4
Angular stomatitis	1985-87	3.4	3.3	1.2	1.9	0.3	-	-	3.6	9.3	2.9
	1998-99	0.8	3.6	0.1	0.7	0.8	0.5	-	0.8	1.7	1.1
	2007-08	0.3	2.7	0.0	2.1	0.1	0.0	0.7	0.5	4.1	1.0
Dental Caries	1985-87	17.9	21.4	1.2	1.8	-	-	-	8.5	2.2	6.6
	1998-99	7.2	27.9	31.4	5.8	0.7	0.3	-	2.0	2.4	11.7
	2007-08	5.1	20.7	14.4	5.9	7.3	5.5	1.5	6.6	7.2	8.1
Mottled Enamel	1985-87	1.0	3.3	9.8	1.8	1.7	2.9	-	1.1	0.7	2.8
	1998-99	-	3.0	0.2	1.0	1.3	-	-	-	3.9	1.0
	2007-08	0.0	5.1	0.8	0.1	0.7	5.9	3.2	0.0	2.5	2.2
Goitre	1985-87	3.9	2.2	0.8	8.1	7.9	0.6	-	0.2	-	3.0
	1998-99	2.4	20.1	6.4	6.2	5.6	-	-	0.4	5.7	5.8
	2007-08	0.9	0.5	1.8	7.7	3.9	0.4	0.6	0.5	1.4	2.2
Phryno-derma	1985-87	1.9	11.0	-	0.5	0.7	0.4	-	0.5	-	1.9
	1998-99	2.8	0.4	-	-	0.1	0.1	-	0.5	20.1	2.1
	2007-08	0.3	0.3	3.0	0.3	0.0	0.1	0.0	0.0	2.5	0.6

NAD: No abnormality detected

TABLE 149 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS ≥ 18 YEARS MEN : TIME TRENDS

Nutritional deficiency signs	Year	Kerala	Tamil Nadu	Karnataka	Andhra Pradesh	Maharashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Number	1985-87	480	475	760	2830	1204	1342	-	1518	1051	9660
	1998-99	2131	2205	2527	2063	1704	1442	-	3101	1837	17010
	2007-08	2630	2963	3023	4097	3557	3232	3087	3708	2433	28730
NAD	1985-87	55.4	43.6	77.8	59.7	60.6	82.3	-	78.3	72.7	66.3
	1998-99	96.0	44.4	76.7	54.8	99.5	99.3	-	98.0	90.4	81.8
	2007-08	98.8	74.5	88.6	78.3	98.2	92.0	94.6	95.7	88.5	89.7
Emaciation	1985-87	-	-	-	-	-	-	-	-	-	-
	1998-99	-	-	0.1	-	-	-	-	-	0.4	0.1
	2007-08	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.1
Bitot spots	1985-87	0.4	0.8	0.5	1.8	5.3	0.2	-	1.7	1.9	1.6
	1998-99	0.1	3.0	-	0.8	0.1	0.1	-	-	0.4	0.6
	2007-08	0.0	0.2	0.0	0.3	0.0	0.1	0.0	0.0	0.3	0.1
Angular stomatitis	1985-87	2.3	1.1	0.5	1.1	0.1	0.1	-	1.1	1.8	1.0
	1998-99	0.2	1.9	0.2	0.7	0.1	0.1	-	0.4	0.6	0.5
	2007-08	0.1	0.3	0.7	0.2	0.0	0.0	1.2	0.1	0.4	0.3
Dental Caries	1985-87	10.4	35.2	10.3	15.5	1.2	0.8	-	4.7	4.2	10.3
	1998-99	3.4	49.5	7.8	10.4	-	0.1	-	1.3	2.1	9.7
	2007-08	0.8	22.9	9.4	6.6	0.3	4.7	1.1	3.7	4.0	5.9

TABLE 149 (CONTD...): PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS ≥ 18 YEARS MEN : TIME TRENDS

Nutritional deficiency signs	Year	Kerala	Tamil Nadu	Kama - taka	Andhra Pradesh	Maha- rashtra	Gujarat	Madhya Pradesh	Orissa	West Bengal	Pooled
Mottled Enamel	1985-87	0.4	2.3	18.6	20.0	0.3	4.3	-	11.3	2.9	7.5
	1998-99	-	1.0	-	0.7	-	-	-	-	0.5	0.3
	2007-08	0.0	1.6	0.1	0.2	0.1	5.0	1.2	0.0	0.3	0.9
Goitre	1985-87	0.6	0.2	-	1.5	0.9	0.8	-	-	0.3	0.5
	1998-99	-	1.8	0.3	0.7	0.3	-	-	-	0.7	0.4
	2007-08	0.1	0.1	0.1	5.7	0.0	0.1	0.1	0.0	0.1	0.9
Phryno- derma	1985-87	1.7	5.1	-	0.3	0.3	0.1	-	-	-	0.9
	1998-99	0.1	-	-	-	-	-	-	-	2.7	0.3
	2007-08	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.1

NAD: No abnormality detected

TABLE 150 : PERCENT PREVALENCE OF NUTRITIONAL DEFICIENCY SIGNS ≥ 18 YEAR WOMEN : TIME TRENDS

Nutritional deficiency signs	Year	Kerala	Tamil Nadu	Kama-taka	Andhra Pradesh	Maha-rashtra	Gujarat	Madhya pradesh	Orissa	West Bengal	Pooled
Number	1985-87	783	589	881	3355	1252	1594	-	1577	1128	11159
	1998-99	3416	3279	3437	2617	2415	2720	-	3748	2010	23642
	2007-08	4591	5015	5098	5398	5120	4521	3808	4975	3269	41795
NAD	1985-87	45.6	27.5	68.2	54.2	60.5	80.8	-	76.7	52.7	58.3
	1998-99	89.8	31.7	47.9	62.7	95.8	93.2	-	95.2	68.5	72.7
	2007-08	91.5	60.6	71.6	68.8	89.2	92.8	90.0	88.6	72.7	80.3
Bitot spots	1985-87	0.3	0.9	0.6	1.0	6.6	0.3	-	1.7	2.5	1.1
	1998-99	0.1	4.1	-	0.3	-	-	-	-	-	0.6
	2007-08	0.0	0.2	0.0	0.2	0.1	0.1	0.0	0.0	0.2	0.1
Angular stomatitis	1985-87	6.6	4.6	1.5	1.6	0.1	-	-	2.0	4.8	2.7
	1998-99	0.4	3.6	0.2	1.1	-	1.3	-	0.6	1.5	1.1
	2007-08	0.1	0.8	0.7	0.8	0.3	0.0	3.7	0.2	2.6	0.9
Dental Caries	1985-87	18.1	44.5	10.1	16.9	0.4	0.7	-	4.6	6.4	12.7
	1998-99	5.9	55.4	18.8	14.8	-	-	-	2.4	2.3	13.5
	2007-08	2.8	34.3	21.5	10.6	3.3	3.3	1.6	7.7	5.6	10.7
Mottled Enamel	1985-87	0.9	1.2	19.3	17.1	0.4	4.0	-	11.8	4.1	7.4
	1998-99	-	1.9	0.2	1.8	-	0.1	-	0.1	1.1	0.6
	2007-08	0.0	1.9	0.2	0.4	0.1	4.4	1.6	0.1	0.9	1.0
Goitre	1985-87	2.3	0.5	0.5	7.2	2.2	0.6	-	0.2	0.7	1.8
	1998-99	2.3	17.5	5.1	4.9	3.6	-	-	0.7	5.8	4.9
	2007-08	2.2	1.2	1.6	5.1	3.0	0.2	0.9	1.1	1.1	1.9
Phryno-derma	1985-87	4.2	22.1	-	0.4	0.6	1.3	-	-	0.1	3.6
	1998-99	2.6	0.1	-	-	-	0.3	-	0.3	20.0	2.2
	2007-08	1.4	0.5	3.7	0.1	0.1	0.0	0.0	0.1	2.7	0.9

NAD: No abnormality detected

**Table 151 : Distribution (%) of (1-5 year) Boys according to Weight for Age
- Gomez Classification : Time Trends**

State	Period	n	Weight for age %of NCHS				χ^2
			≥ 90	75-90	60-75	<60	
Kerala	1985-87	125	4.8	24.8	59.2	11.2	48.62 p<0.001
	1998-99	469	5.1	35.2	52.0	7.7	
	2007-08	570	8.4	46.7	42.1	2.8	
Tamil Nadu	1985-87	134	3.7	37.3	49.3	9.7	48.60 p<0.001
	1998-99	715	3.5	33.1	55.1	8.3	
	2007-08	707	6.9	45.7	44.0	3.4	
Karnataka	1985-87	268	3.4	16.0	48.9	31.7	292.66 p<0.001
	1998-99	546	5.7	46.9	44.9	2.6	
	2007-08	461	13.0	46.2	38.6	2.2	
Andhra Pradesh	1985-87	855	2.3	21.9	57.2	18.6	159.39 p<0.001
	1998-99	675	5.6	36.1	47.1	11.1	
	2007-08	706	10.1	37.8	48.2	4.0	
Maharashtra	1985-87	342	2.0	22.5	59.9	15.6	160.97 p<0.001
	1998-99	764	2.6	22.8	60.2	14.4	
	2007-08	852	2.0	29.8	55.4	12.8	
Gujarat	1985-87	410	2.4	19.5	53.5	24.6	152.60 p<0.001
	1998-99	728	4.1	30.1	55.5	10.3	
	2007-08	745	11.8	38.9	39.5	9.8	
Madhya Pradesh	1998-99	741	8.4	25.0	45.6	21.1	28.12 p<0.001
	2007-08	563	5.7	31.4	51.5	11.4	
Orissa	1985-87	274	5.5	28.1	38.3	28.1	113.05 p<0.001
	1998-99	1006	3.5	33.2	54.0	9.3	
	2007-08	966	5.8	35.6	51.7	6.9	
West Bengal	1985-87	338	3.6	27.5	55.6	13.3	31.41 p<0.001
	1998-99	432	7.6	39.4	46.1	6.9	
	2007-08	437	8.0	33.9	51.9	6.2	
Pooled	1985-87	2746	3.5	24.7	52.7	19.1	472.40 p<0.001
	1998-99	5335	4.4	33.7	52.6	9.3	
	2007-08	6007	7.6	38.0	47.5	7.0	

*shows values differ significantly at p<0.001

^a shows values differ significantly at p<0.05

Table 152 : Distribution (%) of (1-5 year) Girls According to Weight for Age - Gomez Classification : Time Trends

State	Period	n	Weight for age % of NCHS				χ^2
			≥ 90	75-90	60-75	<60	
Kerala	1985-87	162	5.5	21.6	53.7	19.2	60.14 p<0.001
	1998-99	399	7.3	42.9	43.6	6.3	
	2007-08	557	11.3	43.4	39.7	5.6	
Tamil Nadu	1985-87	128	5.5	32.0	53.9	8.6	32.08 p<0.001
	1998-99	649	5.2	33.1	54.9	6.8	
	2007-08	649	8.3	44.4	42.8	4.5	
Karnataka	1985-87	243	1.2	14.0	50.6	34.2	287.68 p<0.001
	1998-99	513	11.3	45.4	41.1	2.1	
	2007-08	429	11.9	45.7	39.2	3.3	
Andhra Pradesh	1985-87	904	4.3	26.6	49.9	19.2	125.91 p<0.001
	1998-99	637	8.0	36.6	46.5	8.9	
	2007-08	671	10.3	43.5	40.5	5.7	
Maharashtra	1985-87	343	2.3	24.8	58.0	14.9	20.37 p<0.01
	1998-99	694	3.2	24.2	57.3	15.3	
	2007-08	899	3.2	31.3	55.7	9.8	
Gujarat	1985-87	419	3.6	27.0	42.2	27.2	136.82 p<0.001
	1998-99	693	8.8	35.1	46.8	9.4	
	2007-08	744	15.7	39.0	35.5	9.8	
Madhya Pradesh	1998-99	773	7.9	26.6	45.7	19.8	37.57 p<0.001
	2007-08	601	7.5	37.3	46.1	9.2	
Orissa	1985-87	276	8.3	22.1	45.7	24.9	120.49 p<0.001
	1998-99	940	3.6	34.3	55.9	6.3	
	2007-08	949	5.9	37.9	49.1	7.1	
West Bengal	1985-87	314	6.4	26.1	52.5	15.0	41.66 p<0.001
	1998-99	456	7.9	37.5	49.3	5.3	
	2007-08	454	7.5	41.4	45.4	5.7	
Pooled	1985-87	2789	4.6	24.3	50.7	20.4	575.98 p<0.001
	1998-99	4981	6.5	35.2	50.4	7.8	
	2007-08	5953	8.7	39.7	44.6	7.1	

*shows values differ significantly at p<0.001

Table 153: Distribution (1-5 year) pre-school children According to weight for age: Gomez classification : Time Trends

State	Period	n	Weight for Age % of NCHS				χ^2
			≥ 90	75-90	60-75	<60	
Kerala	1985-87	287	5.2	23.0	56.1	15.7	98.90 p<0.001
	1998-99	868	6.1	38.7	48.2	7.0	
	2007-08	1127	9.8	45.1	40.9	4.2	
Tamil Nadu	1985-87	262	4.6	34.7	51.5	9.2	78.76 p<0.001
	1998-99	1364	4.3	33.1	55.0	7.6	
	2007-08	1356	7.6	45.1	43.4	3.9	
Karnataka	1985-87	511	2.3	15.1	49.7	32.9	568.66 p<0.001
	1998-99	1059	8.4	46.2	43.1	2.4	
	2007-08	890	12.5	46.0	38.9	2.7	
Andhra Pradesh	1985-87	1759	3.4	24.3	53.4	18.9	272.48 p<0.001
	1998-99	1312	6.8	36.4	46.8	10.1	
	2007-08	1377	10.2	40.6	44.4	4.8	
Maharashtra	1985-87	685	2.2	23.6	59.0	15.2	30.29 p<0.001
	1998-99	1458	2.9	23.5	58.8	14.8	
	2007-08	1751	2.6	30.6	55.6	11.3	
Gujarat	1985-87	892	3.0	23.3	47.8	25.9	291.73 p<0.001
	1998-99	1421	6.4	32.5	51.2	9.9	
	2007-08	1489	13.8	39.0	37.5	9.8	
Madhya Pradesh	1998-99	1514	8.1	25.8	45.6	20.4	62.96 p<0.001
	2007-08	1164	6.6	34.5	48.7	10.2	
Orissa	1985-87	550	6.9	25.1	42.0	26.1	218.96 p<0.001
	1998-99	1946	3.5	33.7	54.9	7.9	
	2007-08	1915	5.8	36.8	50.4	7.0	
West Bengal	1985-87	652	5.0	26.8	54.1	14.1	64.23 p<0.001
	1998-99	888	7.8	38.4	47.7	6.1	
	2007-08	891	7.7	37.7	48.6	5.9	
Pooled	1985-87	5598	4.1	24.5	51.6	19.8	1042.66 p<0.001
	1998-99	10316	5.4	34.4	51.6	8.6	
	2007-08	11960	8.1	38.8	46.0	7.0	

*shows values differ significantly at p<0.001

Table 154: DISTRIBUTION (%) OF 1-5 YEARS CHILDREN ACCORDING TO WEIGHT FOR AGE - SD CLASSIFICATION BY PERIOD OF SURVEY USING WHO STANDARDS: TIME TRENDS

State	Period	n	Wt for Age SD Classification (Year)					χ^2
			<-3SD	-3SD to -2SD	-2SD to -1SD	-1SD to Median	\geq Median	
Kerala	1998-99	868	12.7	30.8	34.6	17.5	4.4	6.2 (NS)
	2007-08	1127	14.9	28.7	37.7	14.9	3.8	
Tamil Nadu	1998-99	1364	23.3	36.9	28.6	9.4	1.8	61.9 (p<0.001)
	2007-08	1356	13.8	33.4	36.3	13.3	3.2	
Karnataka	1998-99	1059	11.4	35.9	35.5	14.3	2.9	11.4 (p<0.05)
	2007-08	890	12.7	29.9	35.8	17.2	4.4	
Andhra Pradesh	1998-99	1312	21.5	30.0	31.0	14.5	3.0	6.8 (NS)
	2007-08	1376	18.1	32.6	32.2	14.8	2.3	
Maharashtra	1998-99	1458	30.0	38.0	23.5	6.9	1.6	9.7 (p<0.05)
	2007-08	1751	28.8	34.9	27.7	7.5	1.1	
Gujarat	1998-99	1421	24.3	32.6	28.2	11.7	3.2	62.4 (p<0.001)
	2007-08	1489	21.0	25.9	27.3	18.1	7.7	
Madhya Pradesh	1998-99	1514	34.7	26.9	21.6	11.6	5.2	65.3 (p<0.001)
	2007-08	1161	22.6	29.8	32.2	11.4	4.0	
Orissa	1998-99	1946	21.3	39.4	31.1	7.6	0.6	15.7 (p<0.01)
	2007-08	1915	21.5	36.2	31.4	9.2	1.7	
West Bengal	1998-99	888	17.6	31.8	34.3	13.1	3.2	2.8 (NS)
	2007-08	891	20.3	32.0	33.1	11.7	2.9	
States Pooled	1998-99	11830	22.9	34.0	29.2	11.2	2.7	66.1 (p<0.001)
	2007-08	11956	20.0	31.9	32.1	12.7	3.3	

TABLE 155 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN ACCORDING TO HEIGHT FOR AGE - SD CLASSIFICATION BY PERIOD OF SURVEY USING WHO STANDARDS: TIME TRENDS

State	Period	n	Ht for Age SD Classification (Year)					χ^2
			<-3SD	-3SD to -2SD	-2SD to -1SD	-1SD to Median	≥ Median	
Kerala	1998-99	868	22.1	28.9	24.4	16.2	8.4	5.8 (NS)
	2007-08	1127	22.5	31.2	25.6	14.7	6.0	
Tamil Nadu	1998-99	1364	20.9	29.4	30.5	14.0	5.2	6.5 (NS)
	2007-08	1356	17.9	28.2	31.8	16.1	6.0	
Karnataka	1998-99	1059	18.8	27.6	33.4	15.0	5.2	38.3 (p<0.001)
	2007-08	889	14.5	24.9	30.3	18.3	12.0	
Andhra Pradesh	1998-99	1312	23.0	25.8	28.2	14.8	8.2	9.1 (NS)
	2007-08	1377	24.5	27.6	28.5	13.9	5.5	
Maharashtra	1998-99	1458	39.6	29.2	19.8	8.0	3.4	40.7 (p<0.001)
	2007-08	1751	29.6	31.1	24.1	9.7	5.5	
Gujarat	1998-99	1421	33.0	25.1	20.8	12.2	8.9	6.9 (NS)
	2007-08	1488	29.3	24.5	22.4	13.4	10.4	
Madhya Pradesh	1998-99	1514	46.0	20.7	17.2	8.1	8.0	66.4 (p<0.001)
	2007-08	1164	34.6	29.0	23.0	9.2	4.2	
Orissa	1998-99	1946	35.7	32.8	23.1	7.2	1.2	24.0 (p<0.001)
	2007-08	1915	30.0	34.6	25.1	7.6	2.7	
West Bengal	1998-99	888	25.2	24.5	25.8	14.4	10.1	12.7 (p<0.05)
	2007-08	891	20.3	25.6	31.0	15.5	7.6	
States Pooled	1998-99	11830	30.8	27.3	24.3	11.6	6.0	77.0 (p<0.001)
	2007-08	11958	25.7	29.0	26.5	12.5	6.3	

TABLE 156 : DISTRIBUTION (%) OF 1-5 YEARS CHILDREN ACCORDING TO WEIGHT FOR HEIGHT-SD CLASSIFICATION BY PERIOD OF SURVEY USING WHO STANDARDS: TIME TRENDS

State	Period	n	Wt for Ht SD Classification					χ^2
			<-3SD	-3SD to -2SD	-2SD to -1SD	-1SD to Median	\geq Median	
Kerala	1998-99	868	4.5	11.3	33.9	33.0	17.3	4.9 (NS)
	2007-08	1127	2.9	12.5	32.1	34.0	18.5	
Tamil Nadu	1998-99	1364	7.3	23.5	37.3	23.5	8.4	65.6 (p<0.001)
	2007-08	1356	3.2	15.8	38.3	30.2	12.5	
Karnataka	1998-99	1059	3.2	15.6	36.3	30.5	14.4	3.1 (NS)
	2007-08	889	4.0	17.7	35.9	29.2	13.2	
Andhra Pradesh	1998-99	1312	9.8	16.6	31.0	27.8	14.8	43.7 (p<0.001)
	2007-08	1377	3.7	15.5	35.6	30.1	15.1	
Maharashtra	1998-99	1458	6.5	18.1	36.9	28.5	10.0	25.2 (p<0.001)
	2007-08	1751	7.0	22.3	39.6	24.6	6.5	
Gujarat	1998-99	1421	10.6	18.2	29.7	24.8	16.7	59.2 (p<0.001)
	2007-08	1488	10.5	13.3	23.7	25.0	27.5	
Madhya Pradesh	1998-99	1514	9.7	14.0	28.4	27.0	20.9	11.7 (p<0.05)
	2007-08	1164	7.0	14.0	25.6	30.2	23.2	
Orissa	1998-99	1946	3.9	11.9	34.2	35.5	14.5	13.8 (p<0.001)
	2007-08	1915	5.0	14.9	33.7	31.5	14.9	
West Bengal	1998-99	888	3.4	16.7	37.6	32.7	9.6	22.7 (p<0.001)
	2007-08	891	7.6	19.6	37.3	26.5	9.0	
States Pooled	1998-99	11830	6.7	16.2	33.7	29.2	14.2	17.7 (p<0.001)
	2007-08	11958	5.7	16.2	33.6	28.9	15.6	

*shows values differ significantly at p<0.001

^a shows values differ significantly at p<0.05

Table 157 : Statewise Distribution (%) of 5-9 years Boys according to Nutritional status using age/Sex specific BMI centiles (WHO Reference Values) : Time Trends

State	Period of Survey	n	BMI			χ^2
			<Median -2SD	>Median -2SD to Median +1SD	\geq Median +1SD	
			Thinness	Normal	Obese	
Kerala	1998-99	212	34.0	65.1	0.9	5.7
	2007-08	416	29.1	70.9	0.0	NS
Tamil Nadu	1998-99	536	51.7	47.9	0.4	5.8
	2007-08	538	44.4	55.0	0.6	NS
Karnataka	1998-99	560	50.7	48.8	0.5	0.6
	2007-08	402	48.3	51.2	0.5	NS
Andhra Pradesh	1998-99	522	34.1	65.1	0.8	1.9
	2007-08	810	36.9	62.7	0.4	NS
Maharashtra	1998-99	696	46.0	54.0	0.0	20.1
	2007-08	832	56.9	42.9	0.2	p<0.01
Gujarat	1998-99	488	41.4	57.2	1.4	3.37
	2007-08	1130	44.6	53.0	2.4	NS
Madhya Pradesh	1998-99	664	30.4	67.5	2.1	7.27
	2007-08	490	23.3	74.5	2.2	p<0.05
Orissa	1998-99	976	23.7	76.1	0.2	3.9
	2007-08	998	27.2	72.4	0.4	NS
West Bengal	1998-99	487	29.0	69.8	1.2	1.2
	2007-08	496	25.8	73.0	1.2	NS
Pooled	1998-99	5141	37.1	62.1	0.8	2.98
	2007-08	6112	38.3	60.7	0.9	NS

Table 158 : Statewise Distribution (%) of 5-9 years Girls according to Nutritional status using age/Sex specific BMI centiles (WHO Reference Values) : Time Trends

State	Period of Survey	n	BMI			χ^2
			<Median -2SD	>Median -2SD to Median +1SD	≥ Median +1SD	
			Thinness	Normal	Obese	
Kerala	1998-99	201	22.4	76.1	1.5	1.88
	2007-08	381	26.8	72.4	0.8	NS
Tamil Nadu	1998-99	604	37.7	61.9	0.3	0.17
	2007-08	541	36.6	63.0	0.4	NS
Karnataka	1998-99	547	36.4	63.6	0.0	9.1
	2007-08	393	44.3	55.2	0.5	p<0.01
Andhra Pradesh	1998-99	578	29.6	69.4	1.0	3.62
	2007-08	846	33.2	66.3	0.5	NS
Maharashtra	1998-99	731	37.3	62.5	0.1	36.0
	2007-08	803	52.3	47.3	0.4	p<0.001
Gujarat	1998-99	523	37.7	60.4	1.9	3.1
	2007-08	1085	41.8	55.9	2.4	NS
Madhya Pradesh	1998-99	725	25.1	72.4	2.5	1.16
	2007-08	502	23.5	74.7	1.8	NS
Orissa	1998-99	992	22.0	77.9	0.1	10.8
	2007-08	1062	28.0	71.8	0.3	p<0.01
West Bengal	1998-99	464	31.7	67.5	0.9	3.2
	2007-08	499	26.5	72.7	0.8	NS
Pooled	1998-99	5365	30.9	68.2	0.8	28.3
	2007-08	6112	35.6	63.5	0.9	p<0.001

Table 159 : Statewise Distribution (%) of 10-13 years Boys according to Nutritional status using age/Sex specific BMI centiles (WHO Reference Values) : Time Trends

State	Period of Survey	n	BMI			χ^2
			<Median -2SD	>Median -2SD to Median +1SD	\geq Median +1SD	
			Thinness	Normal	Obese	
Kerala	1998-99	218	38.5	59.6	1.8	0.93
	2007-08	236	40.3	58.9	0.8	NS
Tamil Nadu	1998-99	373	63.0	37.0	0.0	2.3
	2007-08	436	60.1	39.4	0.5	NS
Karnataka	1998-99	520	60.8	38.5	0.8	4.81
	2007-08	333	68.2	31.2	0.6	NS
Andhra Pradesh	1998-99	301	44.9	54.8	0.3	2.5
	2007-08	535	40.9	57.9	1.1	NS
Maharashtra	1998-99	446	65.2	34.8	0.0	0.9
	2007-08	491	65.6	34.2	0.2	NS
Gujarat	1998-99	364	50.8	48.1	1.1	10.3
	2007-08	921	43.0	53.5	3.5	p<0.01
Madhya Pradesh	1998-99	533	42.2	55.9	1.9	1.8
	2007-08	360	41.1	58.1	0.8	NS
Orissa	1998-99	592	30.2	69.6	0.2	0.34
	2007-08	591	30.3	69.4	0.3	NS
West Bengal	1998-99	283	36.0	62.9	1.1	7.5
	2007-08	328	25.9	73.2	0.9	p<0.05
Pooled	1998-99	3630	48.3	51.0	0.7	9.35
	2007-08	4231	45.7	53.1	1.3	p<0.01

Table 160 : Statewise Distribution (%) of 10-13 years Girls according to Nutritional status using age/Sex specific BMI centiles (WHO Reference Values) : Time Trends

State	Period of Survey	n	BMI			χ^2
			<Median -2SD	>Median -2SD to Median +1SD	\geq Median +1SD	
			Thinness	Normal	Obese	
Kerala	1998-99	209	24.9	74.2	1.0	3.47
	2007-08	248	32.7	66.1	1.2	NS
Tamil Nadu	1998-99	455	50.1	49.2	0.7	1.6
	2007-08	463	46.0	53.1	0.9	NS
Karnataka	1998-99	572	40.9	58.6	0.5	13.3
	2007-08	398	52.0	48.0	0.0	p<0.01
Andhra Pradesh	1998-99	332	27.7	71.7	0.6	0.49
	2007-08	509	29.7	69.5	0.8	NS
Maharashtra	1998-99	468	53.8	45.9	0.2	0.27
	2007-08	607	55.4	44.5	0.2	NS
Gujarat	1998-99	365	38.1	60.8	1.1	5.5
	2007-08	905	41.5	55.6	2.9	p<0.05
Madhya Pradesh	1998-99	508	34.8	63.8	1.4	1.5
	2007-08	341	38.4	60.7	0.9	NS
Orissa	1998-99	619	28.6	71.2	0.2	3.0
	2007-08	622	26.8	72.3	0.8	NS
West Bengal	1998-99	306	33.3	66.3	0.3	29.6
	2007-08	326	16.9	79.4	3.7	p<0.001
Pooled	1998-99	3834	37.9	61.5	0.6	11.1
	2007-08	4419	38.9	59.8	1.3	p<0.01

Table 161 : Statewise Distribution (%) of 14-17 years Boys according to Nutritional status using age/Sex specific BMI centiles (WHO Reference Values) : Time Trends

State	Period of Survey	n	BMI			χ^2
			<Median -2SD	>Median -2SD to Median +1SD	≥ Median +1SD	
			Thinness	Normal	Obese	
Kerala	1998-99	169	30.2	69.8	0.0	3.7
	2007-08	169	23.7	75.1	1.2	NS
Tamil Nadu	1998-99	271	59.4	40.2	0.4	9.3
	2007-08	257	47.1	52.9	0.0	p<0.01
Karnataka	1998-99	433	49.9	50.1	0.0	4.2
	2007-08	324	57.4	42.6	0.0	p<0.05
Andhra Pradesh	1998-99	239	30.5	69.5	0.0	1.24
	2007-08	353	26.3	73.7	0.0	NS
Maharashtra	1998-99	254	48.4	50.8	0.8	3.2
	2007-08	404	49.5	50.5	0.0	NS
Gujarat	1998-99	218	46.3	52.3	1.4	72.3
	2007-08	825	18.5	79.5	1.9	p<0.001
Madhya Pradesh	1998-99	282	40.8	59.2	0.0	11.9
	2007-08	200	28.0	70.5	1.5	p<0.001
Orissa	1998-99	391	25.3	73.7	1.0	13.9
	2007-08	394	15.5	84.3	0.3	p<0.001
West Bengal	1998-99	201	19.9	80.1	0.0	8.3
	2007-08	242	12.0	86.4	1.7	p<0.01
Pooled	1998-99	2458	39.8	59.8	0.4	66.2
	2007-08	3168	29.6	69.5	0.8	p<0.001

Table 162 : State-wise Distribution (%) of 14-17 years Girls according to Nutritional status using age/Sex specific BMI centiles (WHO Reference Values) : Time Trends

State	Period of Survey	n	BMI			χ^2
			<Median -2SD	>Median -2SD to Median +1SD	\geq Median +1SD	
			Thinness	Normal	Obese	
Kerala	1998-99	245	13.9	85.3	0.8	3.3
	2007-08	213	17.8	79.8	2.3	NS
Tamil Nadu	1998-99	310	23.2	76.5	0.3	0.01
	2007-08	359	22.3	77.4	0.3	NS
Karnataka	1998-99	555	19.1	80.0	0.9	22.6
	2007-08	396	32.6	66.7	0.8	p<0.001
Andhra Pradesh	1998-99	290	16.9	83.1	0.0	9.1
	2007-08	455	10.1	89.2	0.7	p<0.01
Maharashtra	1998-99	308	28.6	70.8	0.6	1.2
	2007-08	552	28.6	71.2	0.2	NS
Gujarat	1998-99	247	25.9	73.7	0.4	13.7
	2007-08	855	15.7	83.7	0.6	p<0.01
Madhya Pradesh	1998-99	314	23.2	75.8	1.0	7.0
	2007-08	271	15.1	84.5	0.4	p<0.05
Orissa	1998-99	378	16.9	82.8	0.3	23.0
	2007-08	500	7.4	90.8	1.8	p<0.001
West Bengal	1998-99	220	12.7	86.8	0.5	1.76
	2007-08	315	9.5	89.5	1.0	NS
Pooled	1998-99	2867	20.2	79.3	0.6	7.7
	2007-08	3916	17.7	81.5	0.8	p<0.05

Table 163 : DISTRIBUTION (%) OF ADULT (≥ 18 YEARS) MEN ACCORDING TO BMI* CLASSIFICATION: Time Trends

State	Period	n	BMI Grades		
			Chronic energy Deficient (< 18.5)	Normal (18.5-23)	Over Weight (≥ 23)
Kerala	1998-99	2291	39.2	56.7	4.1
	2007-08	2630	33.9	57.4	8.7
Tamil Nadu	1998-99	2381	58.0	39.0	3.0
	2007-08	2963	39.3	50.9	9.8
Karnataka	1998-99	2828	47.1	47.7	5.2
	2007-08	3023	44.8	47.2	8.0
Andhra Pradesh	1998-99	2236	52.4	45.9	1.7
	2007-08	4097	38.4	55.1	6.5
Maharashtra	1998-99	1873	57.5	39.8	2.7
	2007-08	3557	52.6	42.0	5.4
Gujarat	1998-99	1584	53.9	42.1	4.0
	2007-08	3232	31.3	54.7	14.0
Madhya Pradesh	1998-99	2788	47.2	45.9	6.9
	2007-08	3087	38.8	57.7	3.5
Orissa	1998-99	3337	43.6	54.4	2.0
	2007-08	3708	38.6	58.0	3.4
West Bengal	1998-99	2016	50.5	47.8	1.7
	2007-08	2433	43.4	51.6	5.0
Pooled	1998-99	21334	49.2	47.2	3.6
	2007-08	28730	40.2	52.8	7.0

*BMI: Body Mass Index

Table 164 : DISTRIBUTION (%) OF ADULT (≥ 18 YEARS) WOMEN ACCORDING TO BMI* CLASSIFICATION: Time Trends

State	Period	n	BMI Grades		
			Chronic energy Deficient (< 18.5)	Normal (18.5-23)	Over Weight (≥ 23)
Kerala	1998-99	3833	50.4	43.8	5.8
	2007-08	4591	44.2	43.5	12.3
Tamil Nadu	1998-99	3709	59.2	37.3	3.5
	2007-08	5015	44.0	45.9	10.1
Karnataka	1998-99	3919	53.4	40.3	6.4
	2007-08	5098	50.5	39.6	10.0
Andhra Pradesh	1998-99	2979	62.3	35.3	2.3
	2007-08	5398	48.9	44.1	7.0
Maharashtra	1998-99	2647	62.3	35.2	2.5
	2007-08	5120	62.6	32.7	4.8
Gujarat	1998-99	3108	50.5	44.2	5.3
	2007-08	4521	36.6	49.9	13.5
Madhya Pradesh	1998-99	3209	49.8	46.7	3.5
	2007-08	3808	45.9	49.3	4.8
Orissa	1998-99	4132	51.5	46.7	1.8
	2007-08	4975	52.3	44.1	3.6
West Bengal	1998-99	2224	64.6	33.0	2.4
	2007-08	3269	55.6	39.6	4.8
Pooled	1998-99	29760	55.3	40.9	3.8
	2007-08	41795	49.0	43.0	8.0

*BMI : Body Mass Index

TABLE AN 1 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : KERALA

SEX : MEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	16	102	146	64.3	63.5	61.8	6.4	6.6	6.6	12.4	13.5	13.0	5.9	9.7	9.0
1+	31	146	158	73.3	73.8	75.3	8.3	8.5	8.9	13.3	14.0	13.7	5.9	9.4	8.0
2+	37	127	150	80.1	81.8	83.1	9.7	9.9	10.3	13.7	14.3	13.9	6.3	9.1	8.4
3+	29	124	160	86.0	89.4	90.4	10.8	11.6	11.8	13.9	14.6	14.2	6.2	9.1	7.8
4+	28	72	102	94.6	96.1	97.5	12.2	13.0	13.4	14.2	15.0	14.6	5.6	8.8	7.5
5+	39	84	155	100.8	102.2	104.1	13.9	14.5	14.9	14.2	14.9	14.5	5.3	7.8	6.5
6+	23	50	112	109.3	107.8	110.2	16.2	15.9	16.8	14.4	15.2	14.8	4.5	7.5	5.8
7+	28	45	114	109.2	112.8	115.8	16.2	17.6	18.4	14.7	15.5	15.3	4.4	6.8	5.6
8+	28	77	107	115.8	117.1	118.8	17.9	18.8	19.3	15.4	15.8	15.4	4.6	6.6	5.5
9+	18	37	83	121.5	121.8	125.1	20.2	20.4	21.7	16.4	16.4	16.0	4.5	6.5	5.6
10+	22	63	70	123.7	128.4	128.3	21.4	24.1	23.7	16.1	17.0	16.6	4.1	7.0	5.9
11+	7	33	56	126.5	131.1	134.2	22.1	24.2	26.5	16.3	17.3	17.3	4.5	6.5	5.9
12+	28	77	67	131.1	137.0	136.7	24.1	28.7	28.4	16.7	18.7	17.9	4.7	7.1	6.3
13+	13	45	43	137.8	141.9	144.3	28.3	31.7	32.9	18.3	19.5	18.6	3.9	7.4	6.8
14+	15	40	46	138.4	148.2	151.3	29.0	35.8	39.3	18.9	20.2	20.5	4.3	6.9	6.5
15+	11	51	46	144.6	155.9	155.3	33.1	41.8	41.6	19.1	21.8	21.4	4.5	6.7	6.1
16+	11	45	46	154.5	155.5	158.5	37.6	42.9	45.8	19.1	22.4	22.9	5.0	7.1	6.8
17+	5	33	31	156.5	158.7	161.3	41.6	46.0	47.3	22.4	23.3	23.2	4.8	6.7	6.7
18+	14	48	64	156.5	159.3	163.0	42.1	47.3	49.9	21.6	23.7	23.7	4.9	6.8	6.3
19+	11	52	42	158.3	160.7	162.4	45.2	49.5	49.3	22.7	24.4	23.7	4.7	6.7	6.4
20-25	58	286	300	158.3	161.5	162.1	45.1	50.3	50.9	22.8	25.1	24.5	4.4	6.5	6.4
25-30	81	378	356	157.2	161.1	161.9	45.5	49.8	51.3	23.1	25.2	24.8	4.4	6.1	6.0
30-35	66	260	254	157.4	160.0	161.6	46.3	49.8	52.5	23.1	25.1	25.1	4.7	6.5	6.3
35-40	66	271	383	157.2	158.9	160.8	46.5	48.7	51.3	23.6	25.0	24.8	4.6	6.3	6.1
40-45	47	186	207	156.5	159.7	160.1	45.1	48.9	50.1	23.1	24.7	24.4	4.6	6.5	5.8
45-50	50	249	250	154.8	158.5	158.9	44.2	48.2	49.6	23.3	24.5	24.3	4.8	6.7	6.2
50-55	23	154	161	152.9	157.4	158.4	41.1	47.2	50.1	22.3	24.4	24.3	4.7	6.5	6.6
55-60	29	151	207	152.6	156.5	157.7	42.0	46.5	49.1	22.3	23.7	23.8	4.2	6.9	6.5
>60	71	256	406	152.3	154.7	155.7	41.1	45.2	47.0	21.8	23.3	22.9	4.9	7.3	7.0

TABLE AN 2 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE: KERALA

SEX: WOMEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	19	106	140	60.7	61.2	60.4	5.9	6.0	6.0	12.8	13.5	12.6	6.0	9.9	8.7
1+	37	132	150	70.8	72.4	73.2	7.8	7.9	8.3	12.9	13.8	13.4	6.4	9.7	8.5
2+	44	97	139	79.1	81.7	82.7	8.9	9.9	9.9	13.4	14.2	13.8	6.7	9.7	8.6
3+	47	97	156	85.8	89.8	90.1	10.7	11.5	11.5	14.0	14.7	14.0	6.0	9.6	8.7
4+	34	73	112	93.1	95.0	96.3	11.5	12.8	12.9	13.8	14.8	14.4	5.8	9.2	8.2
5+	31	70	116	101.0	102.6	103.0	13.8	14.4	14.4	14.8	15.0	14.3	5.2	8.7	7.4
6+	20	63	111	104.7	108.5	109.7	14.9	16.1	16.2	14.4	15.4	14.8	5.2	8.3	6.8
7+	30	50	99	108.7	114.5	116.5	15.9	17.7	18.4	14.9	15.7	15.3	5.3	7.5	6.9
8+	29	49	94	113.9	120.9	119.9	17.6	20.1	19.6	15.5	16.3	15.7	5.1	7.3	6.9
9+	26	32	76	119.4	119.7	125.3	19.1	20.0	22.0	15.4	16.1	16.3	4.8	8.5	7.5
10+	20	50	71	122.6	127.6	128.5	20.9	23.6	23.6	15.8	17.2	16.8	5.0	8.8	7.3
11+	19	33	57	130.4	132.5	133.0	23.4	26.4	26.2	16.4	18.0	17.3	6.3	8.9	8.2
12+	24	75	65	132.7	138.2	140.5	25.5	30.2	31.4	17.6	19.0	18.7	5.6	9.4	8.6
13+	17	51	55	135.4	140.2	144.4	25.9	32.3	34.3	17.1	19.5	19.6	5.4	9.7	9.5
14+	17	60	60	142.5	145.2	146.2	33.5	36.3	35.9	19.5	20.9	20.1	5.8	10.6	9.5
15+	15	54	47	143.9	148.9	148.7	35.2	39.1	39.2	20.2	21.7	20.8	7.3	11.0	11.0
16+	22	62	48	144.8	148.2	149.3	37.2	39.6	42.1	20.5	21.7	22.0	7.4	11.0	12.3
17+	19	69	58	147.4	148.9	151.1	40.8	42.9	42.0	21.8	23.1	22.1	8.9	11.7	11.9
18+	30	113	92	144.7	148.6	149.5	38.7	41.2	41.4	21.2	22.4	21.7	7.4	11.2	10.9
19+	19	87	83	146.2	148.7	150.7	37.9	41.2	43.3	20.9	22.2	22.2	7.2	11.3	10.5
20-25	160	774	745	148.1	149.5	150.5	40.1	41.6	43.3	21.6	22.4	22.3	6.6	10.3	10.6
25-30	155	649	710	147.1	149.1	150.3	39.4	41.8	43.9	21.9	22.7	22.7	6.8	10.3	10.6
30-35	124	430	527	146.7	148.5	150.2	38.4	41.5	44.4	21.7	22.9	23.2	6.4	10.5	11.3
35-40	120	408	606	146.9	148.6	149.5	38.2	41.6	43.8	21.5	23.1	22.9	6.1	10.5	10.9
40-45	47	304	343	145.6	147.5	148.9	37.3	42.1	43.1	21.7	23.3	22.9	6.0	11.1	11.3
45-50	69	347	457	145.2	147.4	148.5	37.5	41.4	44.1	21.3	23.1	23.3	6.2	11.2	12.0
50-55	39	200	250	143.2	146.7	147.3	36.4	40.6	43.1	21.1	22.9	23.1	6.8	10.7	11.8
55-60	31	165	202	143.0	146.5	147.5	36.2	40.6	42.5	20.8	22.8	22.9	6.7	10.4	12.4
>60	75	356	576	143.8	143.9	144.6	34.4	38.3	38.7	21.2	22.3	21.7	5.6	10.3	10.4

TABLE AN 3 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : TAMIL NADU

SEX : MEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	14	213	223	65.1	64.0	63.1	7.0	6.1	6.2	11.8	12.4	12.7	8.0	6.8	7.9
1+	35	195	187	74.4	74.8	76.1	8.3	8.2	8.8	12.0	12.9	13.6	7.2	6.5	7.5
2+	35	170	182	83.0	83.4	84.1	9.9	9.9	10.4	12.9	13.3	13.8	7.9	6.6	8.0
3+	28	179	183	88.9	90.4	91.7	11.4	11.4	12.0	13.6	13.7	14.1	8.3	6.7	7.9
4+	36	171	155	95.6	96.3	97.6	12.7	12.8	13.3	13.8	14.0	14.5	7.5	6.5	7.6
5+	38	154	101	100.9	102.7	103.0	13.9	14.4	14.5	13.6	14.2	14.4	6.9	6.1	6.8
6+	14	154	119	106.9	108.0	108.1	15.3	15.4	15.7	14.3	14.0	14.6	6.4	5.6	7.9
7+	24	126	135	111.4	113.7	112.8	16.5	17.1	17.0	14.1	14.4	14.8	5.8	5.3	7.5
8+	26	124	145	118.2	118.2	118.1	18.7	18.6	18.9	14.7	14.8	15.1	4.8	5.3	8.0
9+	17	111	125	121.8	122.5	121.4	19.7	20.1	20.1	14.7	15.2	15.6	4.9	5.2	7.9
10+	24	104	142	126.1	128.0	125.7	21.3	22.4	21.6	15.3	15.8	16.0	5.3	5.2	7.6
11+	20	73	88	130.7	133.7	131.8	23.2	24.5	24.1	16.0	16.2	16.6	5.5	5.3	6.8
12+	17	111	111	134.0	135.9	135.1	24.9	25.9	26.6	16.2	16.7	17.2	5.2	5.0	6.5
13+	22	85	95	140.8	142.9	140.1	27.1	29.9	29.0	16.8	17.8	17.8	5.4	5.4	6.0
14+	7	67	82	148.1	145.6	147.3	32.1	31.9	33.9	17.6	18.0	19.1	5.4	5.3	5.7
15+	21	89	66	148.6	153.5	153.7	34.3	37.5	38.7	18.6	19.5	20.5	5.2	5.4	5.8
16+	20	50	51	154.7	157.9	157.5	39.7	40.9	42.0	20.4	20.5	21.4	6.2	5.5	5.7
17+	12	65	58	156.2	161.8	161.6	42.2	44.7	46.0	20.5	21.8	22.8	5.3	5.6	5.8
18+	18	63	70	160.7	162.7	162.6	44.6	45.5	47.2	21.6	22.2	23.2	5.4	5.3	6.5
19+	11	48	51	163.4	162.7	165.4	46.3	46.3	50.6	21.7	22.4	24.2	5.9	5.3	6.0
20-25	64	276	303	164.3	164.2	164.0	48.3	48.9	51.1	22.7	23.4	24.7	5.4	5.1	6.7
25-30	79	373	435	162.8	164.6	163.3	48.5	50.0	51.6	23.4	24.0	25.0	4.7	5.4	6.4
30-35	49	310	299	164.2	163.9	163.6	50.4	50.1	53.8	23.9	24.0	25.7	5.6	5.4	6.9
35-40	80	372	400	161.9	165.0	163.3	48.0	50.3	53.0	23.1	23.7	25.4	5.0	5.3	6.8
40-45	49	214	294	161.7	163.9	163.5	47.4	50.7	53.5	22.9	24.1	25.3	5.1	5.7	6.3
45-50	41	247	357	159.1	163.2	163.1	45.8	49.7	52.8	22.3	23.6	25.3	5.2	5.7	6.5
50-55	30	106	172	158.3	162.4	162.9	45.7	47.7	52.2	22.2	22.8	24.7	6.1	5.7	6.4
55-60	44	142	225	159.3	162.3	161.8	45.5	47.5	51.3	21.9	22.7	24.5	5.6	5.5	6.5
>60	47	230	357	158.4	159.1	159.7	45.2	45.3	48.0	21.5	21.9	23.3	6.2	5.8	7.3

TABLE AN 4 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS
STATE : TAMIL NADU **SEX : WOMEN**

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	15	1822	167	64.1	62.8	62.5	6.6	5.6	5.8	12.1	12.2	12.5	8.3	6.7	7.7
1+	26	167	178	73.2	74.0	74.6	8.0	8.2	8.1	12.2	12.6	13.0	8.4	6.4	7.6
2+	34	178	172	80.3	82.2	83.1	9.3	9.4	10.0	12.4	13.2	13.7	8.1	6.8	8.4
3+	39	160	168	87.8	89.2	90.8	10.9	11.1	11.5	13.3	13.7	14.1	8.6	7.1	8.5
4+	29	144	131	93.7	96.0	97.5	11.9	12.5	13.0	13.4	13.8	14.3	7.5	6.6	8.3
5+	32	140	92	99.6	102.4	102.2	13.0	14.4	13.8	13.7	14.2	14.4	7.3	6.5	7.8
6+	31	155	119	105.2	107.7	106.7	15.1	15.1	15.0	13.9	14.2	14.6	6.9	6.0	7.3
7+	38	160	132	110.9	113.7	112.5	16.4	17.0	16.8	14.4	14.6	15.1	6.4	5.8	7.0
8+	28	143	153	116.3	119.0	117.6	17.9	18.7	18.4	14.8	15.1	15.3	5.7	5.8	7.0
9+	24	118	127	120.3	124.4	121.5	19.7	20.7	20.1	15.4	15.5	15.8	6.3	5.8	6.9
10+	29	145	141	127.9	128.8	127.0	21.8	22.9	22.4	15.7	16.2	16.4	5.4	5.9	7.0
11+	29	94	92	131.5	132.9	131.9	23.7	24.7	25.1	16.5	16.6	17.2	5.6	6.1	7.7
12+	27	115	123	135.6	137.1	137.2	27.0	27.2	27.7	17.5	17.5	17.9	6.9	6.2	8.1
13+	25	101	107	141.5	143.8	142.3	30.5	31.9	31.8	18.0	18.7	19.1	7.3	6.5	8.6
14+	14	88	80	143.2	146.7	146.6	32.3	34.2	35.2	18.6	19.3	19.9	8.1	6.8	9.0
15+	23	77	100	146.6	150.7	149.0	35.8	39.1	39.2	19.4	20.6	21.4	9.1	7.7	10.9
16+	18	76	94	148.8	152.8	150.7	39.6	41.4	40.6	20.6	21.5	21.7	9.7	7.9	11.4
17+	19	69	85	151.6	152.5	150.8	42.2	42.9	42.2	21.7	21.5	22.5	9.2	8.1	11.6
18+	16	124	110	152.2	153.1	151.8	42.3	42.0	43.4	21.7	21.2	22.6	9.3	7.7	10.9
19+	15	99	144	152.5	151.6	151.3	42.3	41.5	42.1	21.2	21.2	22.2	10.3	7.2	10.4
20-25	99	694	798	152.3	152.4	152.2	43.8	42.0	43.2	21.6	21.3	22.4	9.6	7.2	9.8
25-30	137	745	822	151.6	153.0	151.9	42.7	42.4	43.7	21.8	21.4	22.8	9.0	6.9	10.4
30-35	79	476	531	152.0	153.1	152.7	43.0	42.4	45.1	21.7	21.7	23.3	9.0	7.2	11.3
35-40	84	447	652	151.8	153.0	152.2	42.1	43.6	44.5	21.7	22.1	23.3	8.3	7.8	11.2
40-45	37	280	497	150.7	152.4	152.1	41.8	43.6	45.9	21.5	22.2	23.7	9.8	8.1	12.2
45-50	47	249	504	149.1	151.9	151.6	41.5	43.4	45.7	21.9	22.3	23.6	9.9	8.1	12.4
50-55	24	178	307	147.9	150.2	151.4	40.1	41.7	45.8	22.0	22.0	23.7	8.9	8.2	12.8
55-60	44	160	221	147.6	150.3	149.9	39.8	41.4	45.1	21.8	22.0	23.6	10.0	7.9	12.6
>60	63	257	429	148.5	148.9	148.3	38.9	40.0	42.7	21.0	21.2	22.9	8.7	7.5	11.3

TABLE AN 5 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : KARNATAKA

SEX : MEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	25	114	110	64.3	63.5	64.3	6.7	6.6	6.7	12.6	13.4	13.2	8.4	7.0	9.6
1+	44	133	122	73.7	75.4	77.6	7.9	8.7	9.2	12.9	13.5	13.9	7.0	6.9	9.1
2+	76	148	116	79.9	84.4	85.2	8.9	10.4	10.6	13.2	14.1	14.2	7.5	7.2	9.1
3+	70	139	117	87.2	91.3	92.3	9.9	11.9	12.0	13.2	14.2	14.4	6.6	7.1	8.8
4+	74	126	106	94.2	97.3	98.6	11.9	13.3	13.6	13.8	14.4	14.7	6.9	6.9	8.7
5+	73	111	74	99.9	103.2	104.1	13.3	14.3	14.3	14.4	14.4	14.5	6.4	6.5	7.5
6+	64	105	101	107.1	108.4	109.0	14.8	15.6	16.0	14.5	14.5	14.6	5.1	6.3	7.0
7+	59	128	104	111.6	113.6	114.6	15.8	16.8	17.5	14.6	14.6	15.1	5.2	6.2	6.6
8+	71	127	94	118.6	118.4	118.1	18.3	18.5	18.7	15.2	15.0	15.3	4.8	6.1	6.3
9+	37	120	98	122.6	121.8	124.1	20.6	19.9	21.0	15.5	15.4	16.0	5.1	6.3	6.7
10+	51	127	95	125.9	128.5	127.8	21.0	22.9	22.5	16.0	16.0	16.2	5.0	6.3	6.4
11+	24	125	77	132.8	129.7	134.4	24.2	23.4	25.3	16.9	16.3	16.7	4.9	6.3	6.8
12+	52	151	92	135.9	137.0	136.0	25.9	26.9	26.2	17.4	17.4	17.1	5.4	6.5	7.0
13+	23	117	69	142.4	141.3	143.4	28.9	29.8	29.8	18.3	18.2	18.0	5.0	6.8	7.2
14+	20	134	93	147.1	148.1	149.4	32.5	33.4	34.3	19.1	19.1	19.1	5.1	6.6	7.0
15+	16	97	85	155.0	153.1	155.8	38.0	37.7	39.2	20.5	20.3	20.3	4.8	7.2	7.1
16+	14	112	84	154.4	158.5	159.6	39.7	42.1	42.5	21.1	21.5	21.6	6.2	6.8	7.0
17+	9	90	62	160.0	159.7	163.5	42.3	44.6	45.5	22.4	22.5	22.2	5.6	6.6	7.2
18+	21	134	76	158.6	161.8	164.2	45.1	47.0	47.5	22.5	23.4	23.3	5.1	6.8	7.2
19+	4	61	64	161.7	161.4	164.9	41.5	47.0	48.4	23.3	23.4	23.6	3.5	6.5	7.4
20-25	80	375	323	159.9	162.8	164.9	45.6	49.6	51.3	23.2	24.5	24.5	4.9	6.8	7.5
25-30	128	370	361	161.2	161.7	163.9	46.9	49.7	52.2	23.8	25.0	25.3	4.3	7.0	7.3
30-35	124	317	311	161.5	161.5	163.6	46.4	50.3	52.1	23.8	25.0	25.2	4.2	7.1	7.4
35-40	112	369	350	160.2	161.3	162.8	45.7	50.1	51.6	24.5	24.9	25.3	4.8	6.7	7.3
40-45	69	252	297	159.7	160.5	161.9	44.7	49.5	50.6	23.2	24.8	25.0	4.2	7.2	6.8
45-50	82	292	321	159.0	160.4	161.8	44.7	49.9	51.1	23.5	24.8	24.8	4.7	7.0	7.3
50-55	64	146	211	156.0	160.2	160.6	42.9	49.3	49.8	22.4	24.5	24.6	4.8	7.1	7.2
55-60	46	158	206	156.0	159.5	160.6	41.5	47.5	49.3	23.0	24.2	24.5	4.4	7.0	7.4
>60	70	354	503	155.5	157.9	158.6	41.6	46.2	46.8	21.0	23.3	23.2	6.3	7.1	7.3

TABLE AN 6 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE:KARNATAKA

SEX :WOMEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	42	113	96	64.2	63.6	63.3	5.9	6.5	6.2	11.8	13.1	12.9	7.6	7.2	9.8
1+	54	114	96	71.0	74.7	75.8	7.0	8.5	8.4	12.3	13.5	13.5	6.8	7.3	9.1
2+	51	148	136	78.9	83.8	83.8	7.6	10.1	10.1	13.0	13.9	13.9	7.8	7.4	9.9
3+	79	134	86	85.4	90.0	92.9	9.6	11.3	11.7	13.4	14.1	14.2	7.5	7.5	9.3
4+	54	117	111	92.0	97.5	97.3	10.8	13.0	12.9	13.7	14.4	14.6	7.0	7.4	9.3
5+	59	122	85	98.7	103.5	103.5	12.1	14.4	14.0	13.9	14.6	14.7	6.8	7.1	8.5
6+	56	94	107	104.7	107.8	107.5	13.4	15.2	15.3	14.4	14.5	14.6	6.1	6.8	8.1
7+	53	109	72	111.0	113.2	114.9	16.2	16.9	17.3	15.8	14.8	15.1	5.6	7.0	7.6
8+	52	123	95	116.4	118.2	119.3	17.3	18.5	18.8	15.0	15.3	15.5	6.0	6.8	7.7
9+	34	131	108	125.1	121.9	123.0	20.6	20.0	20.3	16.5	15.7	15.9	5.8	7.0	8.0
10+	44	136	109	127.6	127.2	127.9	21.7	22.6	22.1	16.7	16.3	16.2	6.0	7.4	7.8
11+	28	128	79	132.4	132.4	134.3	23.8	25.4	25.6	17.6	17.2	17.2	6.0	7.8	8.7
12+	45	159	111	138.8	137.8	139.7	28.3	28.2	29.2	18.3	17.9	18.2	6.9	8.3	9.1
13+	29	149	99	145.2	142.6	144.2	33.2	32.2	32.4	19.5	19.1	18.8	7.3	8.8	9.8
14+	22	144	92	146.2	147.0	147.9	34.4	36.6	35.2	20.2	20.4	19.6	7.5	9.6	10.6
15+	20	118	92	150.0	149.6	150.7	38.1	39.8	38.7	22.2	21.3	20.7	8.4	11.0	11.8
16+	22	177	102	145.8	149.1	150.7	37.9	40.4	40.0	21.1	21.9	21.4	9.4	11.3	12.7
17+	19	116	110	149.8	149.8	152.8	40.3	40.8	42.2	21.8	22.2	22.4	8.2	11.1	13.7
18+	43	205	173	149.1	150.4	152.8	39.7	42.1	42.9	21.4	22.5	22.5	8.6	11.3	13.7
19+	15	100	113	149.5	149.7	153.2	39.4	41.6	42.7	21.5	22.2	22.2	8.3	11.0	12.3
20-25	190	653	778	150.1	150.3	152.3	40.1	41.6	42.5	22.0	22.2	22.3	7.6	10.1	12.5
25-30	208	647	782	149.8	150.2	151.3	39.2	41.8	42.9	21.5	22.5	22.7	7.7	9.6	12.2
30-35	128	477	571	150.4	149.5	151.3	39.8	41.6	43.4	22.1	22.7	23.1	8.0	9.7	12.1
35-40	117	501	659	149.9	149.6	151.3	39.7	42.0	43.7	22.1	23.0	23.1	7.6	9.9	12.6
40-45	74	266	465	149.1	148.9	150.6	38.1	42.2	43.8	21.5	23.1	23.2	6.6	10.3	13.0
45-50	79	311	454	147.0	148.8	149.8	36.4	42.7	43.8	21.4	23.4	23.4	7.8	10.6	13.1
50-55	46	194	342	146.0	148.3	149.8	34.8	41.3	43.6	20.5	23.0	23.4	6.9	10.2	13.1
55-60	30	200	251	147.4	146.7	148.8	34.6	40.7	43.1	20.2	23.1	23.4	6.9	10.2	13.3
>60	48	365	510	145.2	145.5	146.4	34.4	38.9	40.6	20.4	22.3	22.4	7.1	9.4	11.5

TABLE AN 7 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : ANDHRA PRADESH

SEX : MEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	109	166	176	63.2	61.9	63.3	6.3	5.8	6.3	12.4	12.4	12.6	9.2	9.2	8.3
1+	213	184	185	72.9	74.3	75.5	7.8	8.1	8.6	12.7	13.0	13.5	8.3	8.4	7.6
2+	195	154	169	79.9	83.3	84.0	9.0	9.9	10.2	13.1	13.5	13.7	8.5	8.8	7.7
3+	227	187	164	86.7	90.3	90.8	10.8	11.6	11.9	13.6	13.7	14.0	8.1	8.4	7.6
4+	220	150	188	94.5	96.8	97.1	12.7	13.2	13.2	14.0	13.8	14.0	7.5	7.5	7.0
5+	218	170	173	100.3	102.9	101.9	13.8	14.7	14.4	13.9	13.9	14.3	6.6	7.2	6.5
6+	185	149	184	106.5	108.2	108.1	15.3	15.9	16.1	14.6	14.2	14.5	6.1	7.1	5.9
7+	157	147	168	112.9	115.7	114.3	17.4	18.2	17.7	14.8	14.6	14.8	5.7	6.7	5.3
8+	155	92	227	117.6	120.8	118.6	18.9	20.2	19.2	15.3	15.2	15.1	5.6	6.9	5.3
9+	119	102	151	122.5	127.0	124.0	20.7	22.3	21.4	15.4	15.5	15.8	5.2	6.8	5.2
10+	150	84	168	126.9	129.4	127.2	22.3	23.5	22.8	16.5	16.0	16.1	5.8	6.8	5.4
11+	94	64	128	130.2	134.7	133.7	23.9	26.1	26.1	17.1	16.5	17.1	6.0	7.1	5.6
12+	132	108	122	126.3	138.1	137.9	26.9	27.9	28.5	17.6	17.4	17.5	5.5	6.8	5.6
13+	93	45	117	142.2	144.5	145.3	30.0	32.3	33.3	18.7	18.2	18.8	5.4	7.3	6.0
14+	105	70	102	150.3	150.7	149.8	36.1	36.9	36.9	20.2	19.9	19.8	5.7	7.6	5.7
15+	58	57	84	153.2	157.2	156.6	38.2	41.5	42.6	20.9	21.0	21.8	6.5	7.6	5.9
16+	81	79	93	157.2	159.9	159.4	42.3	44.7	46.0	22.3	22.2	22.6	6.0	7.6	6.1
17+	36	33	74	159.6	160.1	160.9	44.3	46.0	47.5	22.7	22.5	23.1	6.2	8.0	6.3
18+	91	71	141	158.5	161.5	161.0	44.6	47.4	48.4	23.0	23.0	23.6	6.2	7.9	6.2
19+	23	34	76	159.9	159.9	161.4	46.4	47.6	50.1	24.0	23.5	23.9	6.1	8.0	6.2
20-25	340	253	525	160.9	161.4	161.4	47.1	48.7	50.5	24.3	23.8	24.4	6.8	7.7	6.0
25-30	493	382	616	161.2	161.4	161.4	48.3	48.6	51.2	24.7	23.9	24.6	6.4	7.6	6.3
30-35	397	379	531	160.6	161.5	160.8	48.1	48.7	50.7	24.9	24.0	24.7	6.7	7.6	6.5
35-40	418	295	534	161.1	160.7	160.5	48.6	48.0	50.5	24.9	23.9	24.6	6.4	7.6	6.6
40-45	314	275	375	160.1	160.9	160.9	47.3	48.0	50.0	24.6	23.7	24.1	6.1	7.3	6.3
45-50	321	205	417	161.1	160.6	160.0	47.6	47.1	49.7	24.4	23.4	24.3	6.9	7.4	6.8
50-55	201	131	290	159.5	158.6	159.6	46.0	45.3	48.6	24.0	22.9	23.7	6.6	7.5	6.8
55-60	124	84	180	159.9	161.7	158.5	46.6	46.8	47.3	24.0	22.8	23.4	6.7	7.2	6.8
>60	312	127	412	158.4	159.8	157.4	44.1	44.7	46.1	23.0	22.3	22.7	6.9	7.5	6.7

TABLE AN 8 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE:ANDHRA PRADESH

SEX : WOMEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	119	156	190	62.8	61.4	61.8	6.1	5.5	5.8	12.2	11.9	12.3	9.3	9.2	8.0
1+	212	146	171	72.1	73.0	74.7	7.4	7.8	8.3	12.6	12.7	13.2	8.4	8.5	7.6
2+	200	151	171	79.4	82.0	82.8	9.0	9.7	9.8	13.0	13.3	13.6	8.7	9.1	8.2
3+	216	192	186	86.2	89.3	90.2	10.4	11.3	11.6	13.5	13.6	14.0	8.7	8.8	8.3
4+	217	148	143	94.2	96.6	96.4	12.4	12.7	12.8	14.2	13.8	14.2	8.5	8.1	7.6
5+	217	157	153	100.0	104.7	101.6	13.6	14.7	13.9	14.2	14.1	14.3	7.8	7.6	7.3
6+	172	144	220	106.2	110.6	107.1	14.7	16.5	15.3	14.4	14.5	14.5	6.9	7.6	6.8
7+	205	156	197	112.4	116.6	113.1	17.0	18.2	16.9	14.8	14.8	14.9	6.3	7.1	6.3
8+	184	146	221	117.4	121.8	117.8	18.4	20.3	18.9	15.7	15.5	15.3	6.5	7.3	6.6
9+	115	97	147	123.2	127.6	124.2	20.8	22.4	21.2	16.4	16.0	16.0	6.4	7.4	6.5
10+	140	103	130	127.0	133.3	128.2	22.9	26.2	23.5	16.7	17.1	16.6	6.6	7.8	6.7
11+	96	68	117	131.4	135.4	134.8	24.5	26.8	26.5	17.2	17.5	17.7	6.4	7.9	6.9
12+	128	88	147	137.6	140.2	140.7	27.8	30.4	31.6	18.2	18.3	19.1	6.8	8.3	8.5
13+	88	73	115	141.4	144.8	144.7	30.8	34.6	34.9	18.7	19.6	20.5	8.0	9.8	9.7
14+	86	104	94	145.2	148.0	148.9	34.2	38.9	38.5	20.6	21.2	21.1	9.6	10.8	10.1
15+	77	56	123	146.8	149.9	149.4	36.8	39.4	41.7	21.3	21.4	22.3	9.3	10.7	11.5
16+	74	88	138	149.6	150.3	149.8	39.2	41.0	41.5	22.3	22.0	22.2	9.6	10.9	11.0
17+	51	42	100	149.2	150.6	149.1	40.8	40.2	42.2	22.9	21.9	22.6	10.4	10.3	11.4
18+	114	125	178	149.1	151.1	149.8	41.0	42.7	43.5	22.9	22.3	23.0	10.9	10.7	11.0
19+	26	52	137	150.5	151.1	149.4	41.3	40.7	42.1	22.7	21.9	22.3	10.4	9.8	10.2
20-25	563	607	866	150.3	150.8	150.3	41.6	41.5	42.5	22.7	22.0	22.3	10.3	9.6	9.5
25-30	645	609	905	150.4	151.4	150.5	41.7	41.5	43.2	22.7	22.0	22.7	9.5	9.5	9.5
30-35	480	416	704	150.7	151.2	150.4	41.9	41.5	42.8	22.8	22.2	22.7	9.8	9.3	9.5
35-40	462	336	568	150.2	151.1	150.5	41.2	41.4	42.9	23.1	22.2	22.8	9.8	9.5	9.6
40-45	301	226	453	149.3	150.2	150.8	40.0	40.8	43.3	22.8	22.3	22.6	9.3	9.3	9.6
45-50	273	213	522	149.4	149.5	150.3	40.1	39.9	42.9	22.8	22.0	22.7	10.0	9.4	10.0
50-55	210	192	300	148.7	148.9	149.1	39.1	38.6	42.3	22.6	21.4	22.8	9.9	8.5	10.2
55-60	174	68	250	148.1	148.1	148.4	38.0	39.5	41.6	21.9	22.1	22.6	8.9	9.1	9.8
>60	381	135	515	147.2	147.1	146.5	36.8	36.7	38.6	21.7	20.9	21.5	8.6	8.4	8.7

TABLE AN 9 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : MAHARASHTRA

SEX : MEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	58	85	120	65.6	65.0	66.5	6.0	6.6	6.9	11.2	12.2	12.4	7.5	7.5	8.3
1+	108	200	197	75.0	72.2	73.8	8.0	7.8	8.0	11.6	12.7	12.3	7.0	7.7	7.4
2+	89	180	211	82.4	80.6	82.2	9.6	9.6	9.6	12.1	13.0	12.9	7.5	8.3	8.1
3+	101	207	226	89.1	88.0	89.6	10.8	10.9	11.2	12.4	13.4	13.3	7.4	7.8	8.1
4+	43	177	218	95.3	93.8	95.9	12.4	12.2	12.5	12.8	13.5	13.4	7.1	7.1	7.4
5+	50	186	245	100.2	100.4	102.2	13.0	13.5	13.8	12.8	13.6	13.4	6.4	6.5	6.7
6+	58	194	231	104.7	106.5	108.0	14.0	15.0	15.2	12.8	13.7	13.6	5.7	5.8	6.1
7+	63	160	198	108.1	111.7	113.4	15.6	16.5	16.8	13.2	14.1	14.0	5.6	5.3	5.8
8+	82	166	188	116.2	117.4	119.6	17.4	18.5	18.8	13.4	14.4	14.4	5.0	4.9	5.6
9+	71	137	141	121.2	122.0	124.4	19.2	20.1	20.9	13.8	15.0	15.1	5.4	5.0	5.5
10+	89	155	154	125.6	126.7	128.0	21.2	21.8	22.0	14.5	15.5	15.3	5.1	5.1	5.7
11+	76	117	110	131.3	131.9	132.5	23.3	24.0	24.2	15.0	16.1	16.0	5.2	5.3	5.7
12+	89	111	119	136.3	136.4	137.6	26.2	26.3	27.0	15.7	16.7	16.7	5.5	5.0	6.1
13+	55	63	108	141.2	139.2	144.1	28.7	27.9	30.9	16.4	17.0	17.4	5.4	5.0	6.0
14+	48	69	105	147.6	149.7	149.8	32.6	34.1	34.3	17.6	18.4	18.6	5.0	4.9	5.9
15+	47	56	95	151.6	154.2	155.8	35.1	37.2	39.7	18.5	19.0	20.0	5.3	4.7	5.9
16+	29	69	110	155.0	157.6	158.8	37.3	42.7	42.2	19.1	21.0	20.9	4.9	4.8	6.1
17+	40	60	94	158.8	160.9	161.7	41.9	45.9	45.5	20.0	22.0	22.1	5.2	5.1	5.9
18+	25	83	111	161.5	160.2	162.8	43.0	46.6	46.5	21.0	22.4	22.4	5.1	5.1	6.0
19+	20	38	82	160.4	161.8	163.9	44.1	46.0	48.4	21.6	22.4	22.7	5.4	4.8	6.1
20-25	236	242	492	161.4	161.7	163.6	46.1	47.3	48.9	22.1	22.8	23.3	5.0	4.4	5.9
25-30	217	284	453	162.4	162.5	163.3	46.6	48.6	49.5	22.7	23.4	23.6	4.9	4.5	6.1
30-35	112	318	416	161.7	161.3	163.1	46.5	48.1	50.0	22.4	23.5	23.7	5.1	4.6	6.5
35-40	132	313	425	160.6	161.8	162.7	46.8	48.2	50.0	22.7	23.2	23.8	5.1	4.6	6.5
40-45	65	235	346	160.7	160.9	162.1	46.4	47.7	50.0	22.7	23.3	23.8	5.9	4.7	6.7
45-50	163	154	331	160.2	160.9	162.2	46.2	48.2	50.5	22.3	23.4	23.7	5.5	4.8	7.2
50-55	80	59	269	159.0	161.2	161.5	44.5	48.4	48.8	21.5	22.7	23.2	5.2	4.5	6.9
55-60	93	73	211	158.8	159.4	161.0	44.0	47.4	49.3	21.3	22.9	23.3	5.8	4.9	7.4
>60	123	74	421	158.2	160.1	159.4	43.0	47.8	45.8	20.6	22.4	21.9	5.5	5.2	6.9

TABLE AN 10 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : MAHARASHTRA

SEX : WOMEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	44	86	98	63.9	63.7	64.6	5.6	6.3	6.4	11.1	12.1	12.1	7.5	8.0	8.1
1+	79	165	227	72.6	70.9	72.8	7.4	7.5	7.7	11.3	12.2	12.3	7.0	7.8	7.9
2+	84	164	223	79.7	78.5	81.6	9.1	8.9	9.4	11.9	12.7	12.9	7.9	7.8	8.7
3+	118	179	240	88.5	86.5	88.7	10.6	10.5	10.7	12.4	13.2	13.2	8.0	8.3	8.6
4+	62	186	209	94.1	93.6	95.1	11.6	11.9	12.0	12.5	13.4	13.4	1.5	7.7	8.3
5+	53	164	210	99.2	100.0	102.3	12.7	13.5	13.6	12.7	13.8	13.7	6.7	7.0	7.6
6+	51	172	195	106.6	105.7	107.3	14.3	14.7	14.7	12.7	13.9	13.7	6.0	6.3	6.7
7+	63	152	187	109.4	111.6	113.1	15.0	16.3	16.4	13.1	14.3	14.0	6.1	5.9	6.4
8+	63	211	194	115.8	116.9	118.4	17.6	18.0	18.2	13.9	14.5	14.6	6.0	5.6	6.5
9+	71	155	170	121.2	121.5	123.1	19.1	19.7	19.9	14.1	15.1	15.1	5.9	5.8	6.8
10+	70	136	193	125.7	125.5	128.5	20.9	21.4	22.4	14.8	15.7	15.7	6.2	6.0	7.0
11+	74	113	114	131.6	131.0	133.2	23.6	24.0	24.3	15.4	16.4	16.3	6.0	6.2	7.2
12+	38	127	152	136.6	137.8	139.2	26.3	27.8	28.0	16.4	17.3	17.3	6.2	6.4	7.4
13+	41	92	148	140.1	142.4	145.1	29.7	31.3	32.7	17.0	18.4	18.6	6.8	6.8	8.5
14+	33	101	120	144.9	146.2	148.0	31.4	35.2	35.2	17.6	19.6	19.3	6.8	7.6	8.9
15+	36	82	146	148.1	148.5	150.4	36.3	37.0	37.9	18.7	20.4	20.3	7.4	7.9	10.3
16+	39	86	170	145.9	149.6	150.5	35.3	39.6	39.9	19.4	21.0	21.1	8.6	8.5	10.9
17+	44	39	116	149.9	150.0	150.9	37.2	39.9	41.1	19.2	21.1	21.4	8.3	8.7	11.5
18+	26	67	175	150.6	150.1	151.5	41.1	40.6	41.1	21.2	21.0	21.4	11.3	8.0	10.8
19+	16	42	143	148.9	149.0	151.4	37.8	41.0	42.0	19.8	21.2	21.5	8.6	8.3	10.4
20-25	320	559	863	149.8	150.2	151.6	40.1	40.4	41.2	20.4	21.1	21.1	8.8	7.4	9.5
25-30	200	564	746	150.4	149.9	151.6	40.3	40.3	41.2	20.5	21.4	21.2	8.0	7.5	9.5
30-35	130	562	656	150.0	149.7	151.4	40.6	40.3	40.8	20.8	21.6	21.3	8.7	7.9	9.7
35-40	135	318	598	150.0	149.9	151.0	40.1	40.8	41.5	20.7	21.9	21.8	8.5	8.2	10.7
40-45	92	178	542	149.7	149.5	150.7	38.7	41.8	42.0	21.7	22.4	21.8	8.7	8.9	10.9
45-50	122	135	419	150.0	149.4	150.3	39.5	42.2	42.2	20.7	22.4	22.2	8.6	8.9	12.0
50-55	90	75	274	147.7	149.2	150.1	38.5	40.6	42.0	20.3	22.0	22.2	8.3	8.9	11.9
55-60	79	78	196	147.9	147.8	149.1	39.4	39.4	40.4	21.1	21.8	21.6	10.1	8.9	11.4
>60	107	69	508	146.9	147.2	147.4	35.7	39.7	38.3	19.7	21.4	20.9	8.1	7.9	10.3

TABLE AN 11 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : GUJARAT

SEX : MEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	47	177	125	61.9	62.6	63.3	6.2	5.6	6.1	12.0	13.3	12.6	-	10.0	7.4
1+	88	219	142	71.1	73.4	73.6	7.3	8.1	8.3	12.0	13.8	13.3	-	9.1	7.4
2+	92	196	204	78.9	81.8	83.5	9.1	9.8	10.4	12.5	14.4	13.5	-	9.6	7.5
3+	111	175	207	87.2	88.7	90.0	9.6	11.3	12.1	12.7	14.8	13.9	-	9.4	7.4
4+	112	138	192	92.4	96.1	97.4	12.1	12.6	13.5	13.6	14.9	14.3	-	9.1	7.3
5+	127	209	184	98.1	102.4	104.5	13.2	14.1	14.7	13.9	15.1	14.7	-	8.3	7.1
6+	139	140	293	105.2	108.1	109.0	14.9	15.5	16.0	14.2	15.2	15.1	-	7.5	6.7
7+	200	133	301	110.5	115.0	115.2	16.4	17.9	17.8	14.9	15.9	16.0	-	7.1	6.7
8+	172	103	288	115.8	119.4	119.2	18.2	19.5	19.5	15.2	16.2	16.4	-	6.7	6.7
9+	113	94	214	119.9	123.5	124.1	19.7	21.1	21.1	15.9	16.9	16.3	-	6.7	6.7
10+	175	115	306	124.8	127.8	126.8	21.8	22.6	23.2	16.6	17.0	17.0	-	6.7	7.0
11+	135	74	198	130.0	129.8	131.4	23.5	24.3	25.4	16.8	17.9	17.3	-	6.8	6.8
12+	94	95	252	132.8	136.9	134.7	24.9	28.0	28.4	17.5	18.8	17.7	-	6.9	6.8
13+	100	80	165	137.5	138.5	138.8	27.0	29.1	31.5	18.1	19.2	18.1	-	7.0	6.8
14+	116	56	202	144.0	142.9	141.9	31.6	32.3	34.3	18.9	19.0	18.8	-	7.0	7.0
15+	88	88	236	151.4	149.8	148.6	37.2	36.8	40.0	20.4	21.2	19.5	-	7.0	7.1
16+	55	28	206	154.6	156.7	152.0	40.1	41.6	43.4	21.3	22.4	20.4	-	7.3	7.1
17+	44	46	181	157.8	155.3	153.3	41.8	41.8	45.9	21.8	23.2	20.8	-	6.9	7.1
18+	35	46	232	159.9	156.0	157.5	44.2	42.7	48.8	23.0	23.2	21.6	-	7.3	7.4
19+	15	17	209	158.1	162.8	159.9	44.2	47.2	50.5	22.5	23.5	21.9	-	6.8	7.3
20-25	217	259	314	159.8	160.0	163.2	45.8	46.5	51.5	23.6	24.3	22.4	-	6.4	7.3
25-30	238	217	390	160.4	159.0	163.2	46.7	47.7	53.2	23.6	24.6	22.9	-	6.8	7.3
30-35	183	261	399	159.8	159.5	162.9	46.7	47.1	53.4	23.6	24.9	23.0	-	6.7	7.4
35-40	182	202	424	159.8	160.0	163.3	46.7	48.3	54.4	23.2	25.0	23.1	-	7.1	7.6
40-45	137	201	318	159.1	158.7	163.5	46.2	47.6	55.0	22.8	24.7	23.4	-	7.0	8.0
45-50	96	85	291	160.4	158.6	163.5	46.8	45.7	55.1	23.8	24.1	23.2	-	7.3	7.7
50-55	91	154	221	158.0	156.9	161.9	45.2	45.0	52.1	22.9	23.9	22.7	-	6.9	7.7
55-60	86	55	153	156.4	159.2	162.6	45.9	46.8	52.9	22.9	24.2	22.5	-	7.4	7.7
>60	163	87	281	157.2	157.4	161.2	42.9	44.6	51.0	21.7	22.8	22.0	-	6.8	7.5

TABLE AN 12 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : GUJARAT

SEX : WOMEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	36	196	121	60.9	62.2	62.3	5.5	5.6	5.8	11.6	13.1	12.1	-	9.9	7.7
1+	89	174	191	70.9	72.3	73.4	7.4	7.6	8.0	11.9	13.6	13.2	-	9.3	7.4
2+	105	173	151	78.0	82.1	81.5	8.8	9.8	10.0	12.2	14.2	13.5	-	9.9	7.7
3+	124	189	209	85.7	89.1	89.6	10.5	11.2	11.8	13.0	14.8	14.2	-	9.9	7.6
4+	97	157	193	89.8	95.7	96.8	11.5	12.7	13.0	13.8	14.7	14.3	-	9.1	7.4
5+	119	162	187	96.7	101.0	103.4	12.7	13.6	14.3	13.8	15.0	14.8	-	8.9	7.2
6+	136	157	324	102.9	107.4	108.3	14.3	15.2	15.7	14.0	15.2	15.0	-	7.9	7.0
7+	155	140	246	109.5	113.8	114.5	16.0	17.3	17.3	14.8	15.9	15.8	-	8.0	7.1
8+	138	123	239	116.2	117.6	118.3	17.9	18.4	18.7	15.2	16.1	16.1	-	7.5	6.7
9+	112	89	226	120.4	122.8	122.1	19.9	20.8	20.3	16.2	16.8	16.6	-	7.8	6.9
10+	102	124	280	124.8	127.6	126.5	20.8	23.1	23.0	16.1	17.6	16.9	-	8.2	7.2
11+	89	81	205	128.0	130.8	131.0	22.7	24.5	25.7	17.0	18.2	17.6	-	8.5	7.2
12+	79	84	247	132.6	136.3	134.3	24.6	27.9	28.1	17.6	18.9	17.8	-	8.7	7.1
13+	87	76	173	138.0	141.7	139.9	28.6	31.8	32.4	18.3	20.1	18.4	-	9.1	7.7
14+	82	66	236	140.8	144.2	142.5	31.2	34.7	34.6	18.9	21.2	19.0	-	10.0	7.8
15+	48	91	200	146.2	146.9	147.0	35.0	37.2	38.6	20.1	22.1	19.7	-	10.7	8.3
16+	50	42	221	146.0	148.2	148.9	37.2	38.5	41.6	21.6	22.7	20.3	-	11.7	8.3
17+	30	48	198	149.8	148.1	150.3	40.5	40.2	43.1	22.6	22.9	20.5	-	11.2	8.1
18+	44	86	225	147.3	149.0	152.1	39.4	41.6	45.3	22.0	23.5	21.2	-	11.5	8.6
19+	12	53	248	151.8	149.8	153.2	41.2	42.4	46.2	22.8	23.2	21.2	-	11.0	8.2
20-25	280	647	533	149.2	148.5	154.0	41.9	41.5	45.6	22.1	23.3	21.5	-	10.2	9.2
25-30	306	569	751	148.9	148.7	154.0	41.9	41.1	46.5	22.4	23.5	21.8	-	10.4	9.0
30-35	268	554	691	149.1	149.2	154.1	41.0	41.9	47.3	22.0	23.9	22.1	-	10.9	9.2
35-40	207	327	572	148.4	148.3	154.3	40.7	41.9	47.9	22.6	24.0	22.1	-	11.3	9.4
40-45	121	263	450	148.7	147.8	154.3	40.0	41.4	47.6	21.9	24.0	22.1	-	10.9	9.3
45-50	113	140	343	148.7	147.0	153.6	41.0	40.3	46.5	22.2	23.4	21.9	-	10.6	9.2
50-55	132	261	245	148.0	146.9	152.8	40.5	40.9	47.2	22.0	23.8	21.9	-	10.6	9.3
55-60	90	57	172	146.9	147.9	152.2	38.6	39.5	46.3	21.3	22.7	21.9	-	10.0	9.5
>60	145	151	291	146.6	145.3	150.3	38.2	38.1	42.4	21.0	22.2	21.0	-	9.4	8.5

TABLE AN 13 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : MADHYA PRADESH

SEX : MEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	-	163	121	-	63.0	64.6	-	5.9	6.4	-	12.8	12.8	-	6.4	7.7
1+	-	189	144	-	72.3	73.3	-	8.0	8.2	-	13.3	13.3	-	6.2	7.4
2+	-	139	151	-	81.5	81.0	-	9.7	10.0	-	13.6	13.9	-	6.2	7.5
3+	-	209	150	-	86.2	88.3	-	11.0	11.3	-	14.2	14.1	-	6.5	7.3
4+	-	204	118	-	93.0	93.4	-	12.4	12.7	-	14.3	14.4	-	6.0	6.8
5+	-	241	180	-	98.9	99.7	-	13.7	14.1	-	14.6	14.4	-	6.0	6.5
6+	-	186	138	-	107.3	106.6	-	15.9	15.8	-	14.8	14.7	-	5.1	5.9
7+	-	144	119	-	111.5	113.0	-	17.2	17.7	-	15.2	15.0	-	5.0	5.6
8+	-	163	126	-	116.2	119.6	-	18.6	20.3	-	15.5	15.6	-	5.0	5.3
9+	-	100	83	-	121.3	123.0	-	20.5	21.1	-	16.0	15.8	-	4.9	5.2
10+	-	182	142	-	125.8	128.3	-	22.5	23.5	-	16.4	16.5	-	5.0	5.5
11+	-	95	73	-	130.3	132.4	-	24.5	25.8	-	16.7	17.1	-	5.1	5.4
12+	-	167	102	-	136.0	137.3	-	27.9	28.4	-	17.8	17.5	-	5.4	5.6
13+	-	89	43	-	140.8	144.2	-	30.6	31.2	-	18.5	18.5	-	5.0	5.6
14+	-	90	60	-	147.8	147.6	-	34.9	36.2	-	19.5	19.7	-	5.2	5.6
15+	-	85	56	-	151.0	153.8	-	38.5	41.3	-	20.7	20.7	-	5.3	6.1
16+	-	75	40	-	158.1	157.2	-	43.8	44.5	-	22.3	21.7	-	5.5	6.2
17+	-	32	44	-	160.7	159.2	-	46.9	45.9	-	23.3	22.0	-	5.6	6.0
18+	-	89	86	-	160.5	159.4	-	47.7	47.8	-	23.0	23.3	-	5.7	6.0
19+	-	43	37	-	159.2	161.2	-	46.5	49.3	-	23.7	23.0	-	6.3	6.1
20-25	-	296	319	-	162.3	161.5	-	50.6	50.0	-	24.1	23.7	-	5.7	5.7
25-30	-	412	463	-	162.4	162.4	-	50.4	50.6	-	24.5	24.0	-	5.4	5.7
30-35	-	430	395	-	161.9	161.8	-	50.4	49.9	-	24.6	24.0	-	5.3	5.7
35-40	-	374	425	-	161.5	162.0	-	50.1	50.5	-	24.6	24.0	-	5.3	5.6
40-45	-	236	283	-	161.4	161.2	-	50.7	50.2	-	24.5	24.1	-	5.7	5.9
45-50	-	283	307	-	161.2	161.1	-	49.4	50.4	-	24.2	24.1	-	5.4	5.9
50-55	-	144	204	-	160.6	160.9	-	49.4	48.9	-	24.2	23.5	-	5.3	5.8
55-60	-	182	236	-	159.4	160.0	-	47.4	48.2	-	23.6	23.3	-	4.9	5.9
>60	-	299	332	-	157.8	158.8	-	45.2	45.8	-	22.9	22.3	-	4.8	5.6

TABLE AN 14 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : MADHYA PRADESH

SEX : WOMEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	-	165	136	-	61.7	63.3	-	5.5	5.9	-	12.6	12.8	-	6.5	7.6
1+	-	188	163	-	72.4	72.3	-	7.6	8.0	-	13.1	13.1	-	6.3	7.1
2+	-	159	155	-	78.2	80.4	-	9.0	9.7	-	13.5	13.7	-	6.4	7.6
3+	-	226	172	-	86.1	87.6	-	10.8	10.9	-	14.0	14.0	-	6.6	7.6
4+	-	200	111	-	92.2	93.1	-	12.1	12.4	-	14.5	12.8	-	6.4	7.3
5+	-	208	154	-	100.4	99.3	-	14.1	13.4	-	14.8	14.4	-	5.8	6.8
6+	-	199	142	-	105.8	107.0	-	15.4	15.5	-	14.8	14.8	-	5.7	6.2
7+	-	161	119	-	112.9	112.9	-	17.2	17.1	-	15.2	15.0	-	5.2	5.8
8+	-	190	134	-	117.6	118.3	-	19.2	19.3	-	15.7	15.6	-	5.2	5.6
9+	-	106	86	-	121.2	124.6	-	20.3	21.7	-	16.1	16.4	-	5.3	5.8
10+	-	198	128	-	127.0	127.4	-	23.1	22.8	-	16.8	16.7	-	5.5	5.8
11+	-	77	76	-	131.4	134.1	-	25.3	26.3	-	17.3	17.5	-	5.2	6.0
12+	-	149	84	-	136.9	138.9	-	29.0	29.4	-	18.6	18.5	-	5.6	6.4
13+	-	84	53	-	141.4	141.6	-	32.0	31.3	-	19.4	18.8	-	6.0	6.7
14+	-	104	65	-	145.1	145.8	-	35.5	36.3	-	20.4	20.3	-	6.5	7.5
15+	-	78	72	-	147.2	149.3	-	37.7	40.2	-	21.2	21.4	-	6.5	7.9
16+	-	88	78	-	149.8	151.1	-	41.2	41.5	-	22.0	21.6	-	7.3	7.9
17+	-	44	56	-	149.3	152.1	-	41.9	43.9	-	22.4	22.6	-	7.6	8.8
18+	-	107	78	-	150.3	152.3	-	44.0	44.5	-	22.6	22.8	-	7.5	8.9
19+	-	64	36	-	150.8	151.0	-	42.3	42.5	-	22.5	22.2	-	7.3	7.9
20-25	-	419	595	-	151.2	151.7	-	43.3	43.7	-	22.5	22.1	-	6.9	7.2
25-30	-	534	528	-	151.2	151.7	-	43.4	43.5	-	22.8	22.3	-	6.6	7.1
30-35	-	537	513	-	150.9	151.8	-	42.8	43.2	-	22.8	22.3	-	6.7	7.1
35-40	-	357	440	-	150.8	151.7	-	42.8	43.8	-	22.9	22.7	-	7.1	7.6
40-45	-	263	364	-	150.5	151.3	-	42.5	43.9	-	22.8	22.7	-	6.7	7.7
45-50	-	259	355	-	150.3	150.7	-	42.5	43.6	-	22.9	22.8	-	7.2	7.7
50-55	-	173	276	-	149.7	149.9	-	41.3	42.9	-	22.4	22.6	-	6.5	7.7
55-60	-	158	281	-	148.8	149.9	-	40.4	42.4	-	22.4	22.3	-	6.5	7.5
>60	-	338	342	-	147.5	148.4	-	38.7	39.9	-	21.7	21.6	-	5.8	6.9

TABLE AN 15 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS
STATE : ORISSA

SEX : MEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	38	215	217	65.9	61.3	62.2	6.4	5.8	5.9	12.6	12.2	11.8	7.1	3.4	6.5
1+	68	246	247	73.2	72.3	74.1	7.9	8.0	8.3	12.4	12.9	12.3	6.7	3.6	6.2
2+	72	251	237	79.6	81.1	82.8	9.1	9.8	10.1	12.5	13.3	12.9	6.6	3.9	6.7
3+	69	265	251	86.3	88.2	89.4	10.5	11.4	11.5	13.3	13.5	13.1	6.5	4.1	6.6
4+	65	244	231	94.8	95.8	96.1	13.0	13.1	13.1	13.7	13.8	13.4	6.9	4.1	6.4
5+	78	224	245	98.9	101.8	102.9	13.9	14.5	14.7	13.9	13.9	13.6	6.5	4.2	5.9
6+	70	214	259	102.2	107.2	107.6	14.5	15.9	15.9	13.9	14.2	13.8	6.9	4.1	5.3
7+	59	230	214	109.5	113.4	113.2	16.1	17.6	17.8	14.0	14.6	14.2	6.4	4.1	5.1
8+	80	230	224	116.5	118.7	120.1	18.7	19.8	19.9	14.9	15.1	14.6	5.9	4.4	4.7
9+	57	174	155	120.5	123.7	126.4	20.3	21.6	22.8	15.2	15.5	15.6	7.4	4.3	5.0
10+	96	208	205	129.5	128.3	129.5	22.9	23.6	24.3	16.4	16.1	15.9	6.3	4.4	5.0
11+	57	100	115	130.6	133.7	135.6	24.7	25.9	27.3	16.3	16.7	16.7	5.9	4.5	5.2
12+	45	159	158	139.0	137.3	140.3	29.6	28.2	29.9	17.8	17.3	17.3	6.6	4.6	5.1
13+	48	125	113	138.4	144.6	146.9	30.5	33.3	35.0	17.9	18.6	18.8	6.6	4.8	5.4
14+	50	118	82	148.0	150.5	152.1	36.0	38.0	39.5	19.9	20.1	20.2	6.7	5.4	5.5
15+	59	127	127	150.0	154.9	155.4	36.6	41.7	42.6	19.9	21.0	21.1	6.9	5.3	5.8
16+	46	84	99	152.2	158.5	158.8	40.0	44.7	46.6	21.5	21.8	22.2	7.2	5.5	6.1
17+	15	62	86	155.9	159.8	160.8	40.9	46.0	49.5	21.0	22.5	23.4	6.1	5.6	6.3
18+	76	99	118	156.0	160.1	160.3	42.8	48.2	49.0	21.6	23.4	23.2	6.9	5.8	6.0
19+	16	41	43	157.6	159.3	160.6	40.9	47.4	49.4	20.7	23.0	23.7	7.1	5.6	5.7
20-25	218	406	426	157.6	161.0	160.7	44.9	49.2	50.0	22.5	23.8	23.8	8.0	5.8	5.9
25-30	185	472	461	158.4	160.8	160.3	46.2	49.3	49.4	23.2	24.0	23.8	7.1	5.8	5.8
30-35	174	605	566	158.9	160.5	160.4	46.0	48.8	50.1	22.9	23.8	24.0	7.9	5.7	6.1
35-40	191	461	527	158.7	160.3	160.3	45.8	48.9	49.4	23.1	23.9	23.8	7.1	5.8	6.0
40-45	144	341	430	158.5	159.7	159.8	45.8	48.1	48.6	23.1	23.6	23.4	7.2	5.7	5.7
45-50	173	245	338	157.9	159.2	159.9	45.3	47.8	48.6	22.8	23.4	23.4	7.1	5.7	6.0
50-55	154	281	259	156.9	159.1	158.7	44.7	47.0	47.6	22.5	23.1	23.0	7.0	5.7	6.1
55-60	82	208	234	156.9	157.6	158.2	44.7	45.2	46.9	22.4	22.4	22.7	7.6	5.6	6.2
>60	93	178	306	157.0	157.0	157.8	45.0	44.1	45.8	22.1	21.9	22.1	7.3	5.5	6.3

TABLE AN 16 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : ORISSA

SEX : WOMEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	35	223	229	65.7	61.5	59.8	6.1	5.7	5.3	12.4	12.1	11.3	6.5	3.3	6.2
1+	54	212	247	73.4	71.9	73.0	7.5	7.7	7.8	12.7	12.7	12.1	6.6	3.5	6.2
2+	69	228	243	79.2	80.5	81.2	9.0	9.5	9.5	12.6	13.2	12.6	6.4	3.8	6.8
3+	84	264	228	85.2	87.8	89.1	10.2	11.0	11.3	13.3	13.5	13.1	6.9	4.1	7.2
4+	69	236	231	92.5	94.7	95.1	12.1	12.4	12.5	13.4	13.7	13.3	6.9	4.2	7.0
5+	59	257	221	99.5	101.0	101.8	13.4	13.9	14.0	13.6	13.9	13.4	6.7	4.2	6.3
6+	61	197	199	102.8	106.6	107.3	14.3	15.3	15.5	13.5	14.2	13.9	6.7	4.1	5.9
7+	64	243	269	111.0	112.4	113.2	16.5	17.0	17.2	14.2	14.6	14.3	5.9	4.2	5.6
8+	56	220	270	116.9	118.5	118.9	18.8	19.2	19.3	15.4	15.1	14.9	5.7	4.3	5.5
9+	47	185	170	121.5	123.9	125.4	20.1	21.3	22.0	15.5	15.9	15.7	6.1	4.4	5.9
10+	66	165	181	122.6	128.2	131.2	20.7	23.4	24.7	15.5	16.4	16.4	6.4	4.6	6.0
11+	38	133	132	130.5	134.1	135.6	24.8	26.7	27.4	16.3	17.2	17.2	6.6	4.7	6.3
12+	48	185	168	136.8	138.7	140.2	28.8	29.5	31.4	17.9	18.0	18.4	7.2	5.1	7.1
13+	42	136	141	140.3	143.7	144.2	30.9	33.5	34.8	18.2	19.2	19.5	6.7	5.5	8.4
14+	35	105	100	143.9	146.7	147.7	34.5	37.0	39.5	19.7	20.1	21.2	7.7	5.9	9.7
15+	46	99	162	146.5	147.9	149.8	37.5	37.9	42.0	20.4	20.6	21.7	7.4	6.2	10.8
16+	50	106	138	147.9	149.6	148.9	37.6	41.7	41.5	20.4	21.8	22.0	7.4	6.6	10.8
17+	28	68	100	149.8	149.5	150.6	39.6	41.2	44.1	21.0	21.9	22.5	8.5	6.8	11.7
18+	58	114	172	148.0	151.3	149.9	39.7	43.8	43.4	21.2	22.5	22.3	7.7	6.8	11.0
19+	21	67	88	149.2	151.3	149.9	40.0	42.6	41.9	21.8	21.5	21.8	7.9	6.6	9.5
20-25	285	758	807	149.6	151.2	149.6	41.1	43.1	42.2	21.6	22.0	21.7	8.2	6.5	9.1
25-30	206	757	808	150.0	151.1	150.1	40.6	42.6	41.9	20.8	22.0	21.7	8.1	6.4	8.5
30-35	239	694	773	149.4	151.3	150.4	40.6	42.5	41.9	21.5	22.0	21.9	7.8	6.3	8.6
35-40	194	426	611	148.8	151.3	150.4	40.2	42.5	42.3	21.4	22.1	22.1	7.8	6.4	9.3
40-45	150	316	460	149.5	150.0	149.8	40.1	41.7	41.3	21.3	22.1	21.8	7.7	6.5	9.0
45-50	140	366	376	149.0	149.0	149.3	39.9	40.5	41.4	21.8	21.8	21.8	7.4	6.2	9.1
50-55	98	235	303	148.6	149.5	148.5	39.4	39.9	40.1	21.1	21.3	21.6	7.0	5.9	8.9
55-60	76	179	240	146.9	147.3	147.9	38.6	38.7	40.1	21.1	21.1	21.4	7.7	5.8	8.9
>60	132	220	337	148.1	146.5	147.3	37.0	37.7	38.3	20.1	20.5	20.7	7.2	5.6	7.8

TABLE AN 17 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : WEST BENGAL

SEX : MEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	48	85	114	64.9	63.2	63.9	6.4	6.0	6.1	12.8	12.8	12.7	7.1	7.7	8.1
1+	90	82	126	74.3	75.9	75.5	8.0	8.5	8.3	13.1	13.1	13.2	6.6	6.9	7.2
2+	84	123	90	82.5	83.1	83.8	9.8	10.0	10.3	13.9	13.5	13.5	7.5	7.3	7.5
3+	89	125	110	89.7	91.4	90.5	11.4	12.0	11.6	14.1	14.1	13.8	6.8	7.3	7.4
4+	75	102	111	94.2	96.3	96.8	12.2	13.0	13.2	14.1	14.1	14.0	6.3	6.9	6.8
5+	65	154	148	100.2	103.4	104.2	13.3	14.6	14.9	14.2	14.3	14.3	6.0	5.7	5.9
6+	82	110	163	105.7	110.4	111.8	15.1	16.6	17.1	14.7	14.6	14.5	5.2	5.3	5.2
7+	71	91	100	109.9	115.1	117.7	16.3	18.3	19.3	14.7	15.1	15.1	5.1	5.0	4.8
8+	83	130	111	116.6	122.4	123.4	18.2	20.8	21.4	15.3	15.7	15.7	5.0	4.7	5.0
9+	34	88	77	121.4	125.3	126.8	19.8	22.3	23.2	15.3	16.2	16.1	4.6	4.8	4.9
10+	81	85	109	125.6	129.6	132.7	21.5	24.0	26.0	16.1	16.7	16.7	4.7	5.0	5.0
11+	60	41	58	127.7	135.5	139.2	23.1	27.7	29.3	16.7	17.7	17.8	5.0	5.1	5.3
12+	90	104	98	134.2	139.7	143.5	26.1	29.5	32.7	17.6	18.1	18.7	4.7	5.0	5.3
13+	27	53	63	139.3	147.6	148.2	29.9	34.9	35.6	18.0	19.5	19.2	4.9	5.1	5.4
14+	47	39	66	145.3	152.8	154.3	32.1	39.3	42.0	19.3	21.0	21.5	5.2	5.2	6.1
15+	36	72	59	132.0	156.4	157.8	38.2	43.4	44.5	20.8	22.1	22.0	5.2	5.8	5.8
16+	50	60	67	156.8	159.0	158.7	42.1	45.8	46.4	21.7	22.7	22.7	4.9	5.5	6.1
17+	21	30	50	159.4	159.4	159.8	45.5	45.9	47.6	22.9	22.5	23.1	5.3	5.2	5.7
18+	59	82	86	159.4	160.2	160.1	46.1	47.1	48.9	22.9	23.3	23.5	5.3	5.7	5.7
19+	9	36	27	161.0	161.7	161.3	46.7	49.9	49.3	23.5	23.9	23.4	5.1	5.9	5.6
20-25	164	250	305	159.9	162.1	161.5	47.8	49.3	50.0	23.9	24.2	24.0	5.1	5.5	5.8
25-30	206	288	290	161.2	160.9	160.7	48.2	48.8	50.0	24.1	24.3	24.1	4.9	5.6	5.8
30-35	157	254	347	160.9	161.5	161.0	47.8	48.7	49.8	24.2	24.3	24.2	4.9	5.4	5.8
35-40	172	263	329	159.5	160.2	160.6	46.9	48.2	49.5	24.3	24.4	23.8	4.9	5.7	6.0
40-45	85	181	259	157.9	160.0	160.3	46.4	48.5	48.9	23.8	24.4	23.6	5.2	5.6	6.1
45-50	89	198	209	159.2	158.4	159.2	45.6	47.1	48.0	23.7	24.2	23.5	4.9	5.9	6.1
50-55	70	133	194	158.6	159.9	159.0	44.9	47.5	47.1	23.4	23.9	23.0	5.2	6.1	6.0
55-60	44	118	141	158.8	157.1	158.4	44.9	44.7	46.3	23.8	23.1	22.9	5.2	5.9	6.1
>60	139	213	246	158.9	156.2	157.4	44.9	43.1	44.8	23.0	22.2	22.2	5.8	5.9	6.1

TABLE AN 18 : MEAN ANTHROPOMETRIC MEASUREMENTS : TIME TRENDS

STATE : WEST BENGAL

SEX : WOMEN

Age (Yrs)	Number			Height (cm)			Weight (kg)			Arm circumference (cm)			Fat fold at Triceps (mm)		
	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08	1985-87	1998-99	2007-08
0+	46	104	102	63.7	62.1	62.5	5.8	5.5	5.7	12.4	12.2	12.4	8.9	7.8	8.1
1+	78	125	118	73.7	72.8	74.1	7.6	7.8	7.9	12.6	13.0	12.8	6.5	6.9	7.2
2+	73	100	108	80.3	81.0	82.8	9.1	9.5	9.7	13.3	13.5	13.4	7.2	7.2	8.2
3+	85	136	118	88.1	88.3	91.5	10.9	11.0	11.4	14.1	13.9	13.9	7.3	7.9	8.1
4+	76	95	110	94.9	95.1	98.0	12.2	12.5	12.9	14.2	14.1	14.0	6.6	6.8	7.1
5+	75	135	149	99.0	101.8	103.2	13.0	14.1	14.2	14.4	14.3	14.2	6.2	6.3	6.3
6+	91	123	140	106.0	107.5	110.3	14.7	15.4	16.4	14.3	14.5	14.6	5.6	5.5	5.8
7+	51	108	116	111.5	113.7	115.5	16.3	17.2	17.8	14.9	14.9	15.1	5.3	5.4	5.7
8+	94	104	111	116.6	118.7	123.0	17.9	19.0	21.0	15.5	15.3	16.0	5.3	5.4	5.8
9+	42	80	86	121.1	123.3	128.6	19.5	20.8	23.8	15.7	15.8	16.8	5.2	5.5	6.1
10+	79	99	92	126.4	128.1	134.6	22.1	23.2	27.1	16.6	16.6	17.4	5.2	5.7	6.4
11+	29	55	61	131.1	132.7	139.3	23.9	25.5	30.6	17.7	17.2	18.4	5.6	6.0	6.7
12+	67	101	104	136.0	138.0	143.2	28.3	28.8	35.0	18.5	18.2	19.9	5.9	6.9	8.4
13+	29	51	69	137.7	142.8	145.8	28.9	32.6	37.5	18.7	19.2	20.9	6.4	8.0	9.3
14+	54	67	99	142.9	146.3	147.5	33.3	36.1	39.2	19.8	20.4	21.5	6.9	8.5	9.8
15+	41	56	105	145.8	148.6	149.1	37.1	38.4	40.6	21.3	21.2	22.1	7.9	9.6	9.9
16+	58	58	61	147.6	149.7	147.3	38.8	40.7	42.1	21.9	21.8	22.6	8.2	10.5	11.5
17+	23	39	50	148.9	149.9	149.0	39.8	41.4	40.7	21.8	22.2	22.1	8.3	10.2	10.1
18+	68	74	85	149.1	150.6	148.8	40.8	42.4	40.9	22.1	22.3	22.0	8.3	9.9	9.7
19+	5	41	77	149.4	150.2	148.6	41.5	41.7	41.0	22.6	21.9	21.9	8.7	8.7	9.0
20-25	274	354	487	149.3	150.5	149.1	40.2	41.8	41.2	22.0	22.1	22.1	7.6	8.8	9.1
25-30	234	387	544	149.8	150.6	149.7	41.0	41.8	41.2	22.5	22.2	22.1	7.5	8.6	8.7
30-35	155	257	454	148.9	150.4	149.1	40.3	41.8	40.9	22.4	22.4	22.4	7.2	8.5	9.0
35-40	126	234	394	148.7	150.3	149.0	40.3	42.0	40.9	22.5	22.6	22.4	7.8	8.7	9.3
40-45	93	202	293	149.4	149.5	149.1	38.9	41.8	41.4	22.1	22.7	22.4	7.4	8.1	9.4
45-50	86	209	248	147.6	149.0	146.8	38.9	41.4	40.3	22.3	22.6	22.4	7.3	8.1	9.6
50-55	98	126	254	146.7	148.4	148.0	38.3	40.5	40.6	22.2	22.4	22.2	7.8	8.7	9.6
55-60	55	117	173	148.8	147.8	147.2	36.9	39.8	39.3	21.5	22.2	21.9	6.9	7.3	9.0
≥ 60	108	223	260	144.1	146.2	145.7	34.6	38.3	37.6	20.8	21.6	20.9	6.8	7.4	7.8

