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# **RESEARCH ARTICLE**

# DIETARY INTAKE OF SELECTED ADULT WOMEN

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### ABSTRACT

A study was conducted to assess the dietary intake of 300 women of Nanded district of Marathawada region of Maharashtra state. Socio-economic status was assessed pre tested questionnaire. Dietary intake was assessed by 24 hour recall method. Nutrient intake was calculated on the basis of food intake. Percent adequacy of food and nutrient intake was calculating using RDA. The study revealed that majority of women were joint families in (52.33 percent). More percent of families were Published online 30th January, 2019 vegetarian 64.33 percent. Maximum women were belonging to income group 10,000-15,000/- per month. The mean food intake of i.e. cereals, pulses, green leafy vegetables, root and tubers, other vegetables, fruits, milk and milk products, fats and oil and sugar and jaggary was ranged between 277.58±25.80 to 290.64±63.00, 38.29±9.97 to 41.22±9.12, 20.15±13.2 to 30.85±13.27, 21.47±8.09 to 22.52±9.33, 39.38±15.13 to 40.86±14.04, 2.46±8.48 to 11.16±14.64, 57.5±14.87 to 68.87±17.82, 17.26±2.74 to 20.33±1.21 and 20.00±00 to 20.45±1.43 respectively. Fruits intake was very low than the other food groups. Percent adequacy was more in cereals and sugar and jaggary (77.10 to 88.73 and 80.00 to 81.92 percent). Whereas minimum percent adequacy was noted for fruits 2.46 and 3.10 percent among both the group. Whereas mean intake of different nutrients were energy (1975.23±222.18 to 2053.11±164.27), protein (44.99±4.89 to 46.84±6.70), fat (24.26±8.87 to 35.30±11.65), β-carotene (1422.85±637.59 to 1553.13±931.03), ascorbic acid (36.97±6.02 to 39.10±6.93), calcium (390.79±83.07 to 441.22±61.93) and iron (19.78±2.06 to 21.34±61.96) respectively. Percent adequacy for iron, fat, ascorbic acid and energy showed in the ranged of 89.97

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# **INTRODUCTION**

Women invariably perform the duties of both employees and the housewives. This dual role entails heavy mental and physical effort which often leads to complete exhaustion of women due to over work. Good health is a requirement throughout life and vital to women in terms of their daily activities. To overcome these problems daily diet of the women should be nutritious. But health is a crucial area where no due attention has been paid for women. Nutritional surveys indicate large gaps in nutritional requirements and consumption among females as compared to males. A majority of rural and tribal women suffer from anaemia which leads to low birth weight among babies (Jhamtani, 1995). The food requirement of the people varies greatly depending on various factors. Apart from non-occupational activities like walking, dressing, eating, etc., the energy requirement changes depending upon the various activities that one has to perform in his or her daily occupation such as agricultural activities, stone cutting, loading, etc. (Bhoyar, 2014).

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Health is fundamental to human progress. Women's health status affects their productivity and thereby their roles in society and their own development. Nutrition is closely interlinked with health. Low nutritional status of woman makes her more prone to several diseases. It has notifying significance in case of women, because they have to bear and rear children. Hence the present study was conducted to know the dietary intake women with following specific objectives.

- To assess the socio-economic status of selected women.
- To study the dietary intake of the selected women.
- To know percent adequacy of food and nutrient.

### **MATERIALS AND METHODS**

to 99.76 percent. Lowest percent adequacy was reported by  $\beta$ -carotene that is 30.13 to 31.85 percent.

Diet survey was carried out for all selected 300 households. The information regarding food consumption pattern of selected subject was obtained by personal interview method. The 24-hour recall method was used to assess the food and nutrient intake of the selected subjects. The intake of the food in cooked form was converted into raw food ingredients and the nutrient value of the raw foods was determined intake of the subject per day following the nutritive value of Indian

**INTERNATIONAL JOURNAL OF CURRENT RESEARCH**  foods. The mean nutrient intake of subjects was compared with Recommended Dietary Allowances of ICMR (2000) to the percent adequacy of food and nutrient also.

### **RESULTS AND DISCUSSION**

The collected data on socio-economic background of the selected women in rural and urban area of Nanded city is given in Table1.Total 300 women were selected by purposively random sampling method, out of the total sample they were divided into two groups 150 women in each group i.e. rural and urban.

Pulses consumption was almost same in both area i.e. 39.9 and 39.66 gm/day. The consumption of green leafy, root and tubers, other vegetables, fruits and milk, fats and oil and sugar and jiggery for rural and urban area was 20.15 and 29.33gm, 21.75 and 22.32gm, 39.72 and 40.04gm, 11.16 and 2.46 gm and 57.5 and 33.2gm, 11.26 and 20.33 and 20.00 and 20.48 respectively. When compared with RDA it was found that all the recorded per day mean food intake was far below than recommended dietary allowances by ICMR. When seen critically difference in amount of consumption of all types of food was negligible among both areas except for fruit. However, when compared with RDA inadequate consumption

Table 1. Socio-economic background of selected household women (n=300)

Sr. 1	No.	Particulars	Number	Percentage
1.		Age (Years)		
	Ι	20-40	137	45.66
	II	40 & above	163	54.33
2.		Area		
	Ι	Urban	150	50.00
	II	Rural	150	50.00
3.		Type of family		
	Ι	Nuclear	143	47.66
	II	Joint & Extended	157	52.33
4.		Food habit		
	Ι	Vegetarian	193	64.33
	II	Non-vegetarian	107	35.66
5.		Literacy level of selectedsubject		
	Ι	School	121	40.33
	II	College education	179	59.66
6.		Family income (Monthly)		
	Ι	Rs. 5000-10,000	98	32.66
	II	Rs. 10,000-15,000	104	34.66
	III	Rs. >15,000	98	32.66

Table 2. Mean food intake of selected women of urban and rural areas (n=300)

Particulars	Cereals (gm)	Pulses (gm)	Gr. Leafy veg. (gm)	Roots & tubers (gm)	Other veg. (gm)	Fruits (gm)	Milk (gm)	Fats & oil (gm)	Sugar & jaggery (gm)
Rural	290.64±21.63	39.19±10.97	20.15±13.12	21.75±9.55	39.72±17.36	11.16±14.64	57.5±15.87	17.26±2.74	$20.00 \pm 00$
Urban	$277.58 \pm 25.80$	39.66±9.47	29.33±12.54	22.32±8.19	40.04±13.05	$2.46 \pm 8.48$	$66.0{\pm}18.90$	20.33±1.21	20.48±1.42
RDA	360	75	100	100	100	100	300	30	25
't' value	1.69NS	0.34NS	0.21NS	0.27NS	0.42NS	6.13**	1.15NS	2.48NS	2.53*
Rural Vs. Urban									

Table 3. Percent adequacy of food intake of selected women as per area (n=300)

Particulars	Cereals (gm)	Pulses (gm)	Gr. Leafy veg. (gm)	Roots & tubers (gm)	Other veg. (gm)	Fruits (gm)	Milk (gm)	Fats & oil (gm)	Sugar &jaggery (gm)
Rural	80.73	52.25	28.15	21.75	39.72	3.10	52.90	57.55	80.00
Urban	77.10	25.88	29.33	22.32	40.04	2.46	63.03	67.77	81.92

The result showed that 163 (54.33%) women were in-between age group of 40 to 60 years, however 137 (45.66%) were from age group of 20 to 40 years. 157 (52.33%) of the selected women belonging to the joint family whereas 143 (47.66%) were belonging to nuclear family. Further it was noticed that 193 (64.33%) were vegetarian while 107 (35.66%) were nonvegetarian. It was found that around 60 percent (179), 59.66% of women were college educated and 121 (40.31%) were school educated. A relatively very high percent 34.66 of women were belonging to monthly family income of Rs. 10,000 -15,000/- and the remaining 32.66 percent each belonging to monthly family income of 5000-10,000/- and Rs.>15,000/-. The mean food intake of selected women of rural and urban area is presented in Table 2. It was observed from the table that the cereals consumption of rural and urban women was 290.64 and 277.58gm per day respectively, which was found to be far below than ICMR recommended value.

of all types of foods was noticed which may directly have influenced on anthropometric measurements of selected women. Nutrient intake of selected women as per area is presented in Table 4. Nutrient intake was calculated on the basis of food intake. Intake of nutrients i.e. energy, fat, vitamin-c and calcium was reported more in urban areas. Whereas  $\beta$ -carotene intake was more in rural areas women. Intake of protein and iron was found to be almost same in rural and urban women. Except fat other nutrient intake was found to low when compared with RDA. However, iron intake was almost equal to RDA. Statistically significant different was noted for nutrient like iron. Urban women recorded significant higher values for intake of all nutrients except for iron. The percent adequacy of nutrient intake of selected women as per area is presented in Table 5. Among rural and urban areas, the percent adequacy of nutrient intake was more in urban women as compared to rural women.

Particulars	Energy (Kcal.)	Protein (g/100 g)	Fat (g/100 g)	β-Carotene (mg/100gm)	Ascorbic Acid (mg/100g)	Calcium (mg/100 g)	Iron (mg/100 g)
Rural	1998.99±102.86	45.37±5.12	26.94±3.58	1529.09±661.31	36.97±6.02	399.58±168.51	20.25±2.18
Urban	2045.08±169.71	46.82±4.27	35.30±11.65	1446.31±802.27	39.10±6.93	431.81±89.98	20.95±2.17
RDA	2230	55	25	4800	40	600	21
ʻt' value Rural Vs. Urban	0.02NS	0.04NS	0.23NS	0.16NS	0.02NS	0.02NS	4.00**

Table 4. Nutrient intake of selected women of urban and rural areas (n=300)

Table 5. Percent adequacy of selected women in rural and urban area in Nanded city (n=300)

Particulars	Energy (Kcal.)	Protein (g/100 g)	Fat (g/100 g)	β-Carotene (mg/100gm)	Ascorbic Acid (mg/100g)	Calcium (mg/100 g)	Iron (mg/100 g)
Rural	89.87	82.25	95.94	31.85	92.43	66.58	96.47
Urban	91.91	85.14	99.43	30.13	97.76	71.96	99.76

Iron, fat, ascorbic acid and energy showed percent adequacy in the ranged of 89.97 to 99.76 percent. Which was followed by protein 82.25 to 85.74 percent and calcium 6.58 to 71.96 percent. Lowest percent adequacy was reported by  $\beta$ -carotene that is 30-13 to 31.85 percent.

#### Conclusion

The study concluded that majority of women were joint families in (52.33 percent). More percent of families were vegetarian 64.33 percent. Maximum women were belonging to income group 10,000-15,000/- per month. The mean food intake of i.e. cereals, pulses, green leafy vegetables, root and tubers, other vegetables, fruits, milk and milk products, fats and oil and sugar and jaggary was ranged between 277.58 $\pm$ 25.80 to 290.64 $\pm$ 63.00, 38.29 $\pm$ 9.97 to 41.22 $\pm$ 9.12, 20.15 $\pm$ 13.2 to 30.85 $\pm$ 13.27, 21.47 $\pm$ 8.09 to 22.52 $\pm$ 9.33, 39.38 $\pm$ 15.13 to 40.86 $\pm$ 14.04, 2.46 $\pm$ 8.48 to 11.16 $\pm$ 14.64, 57.5 $\pm$ 14.87 to 68.87 $\pm$ 17.82, 17.26 $\pm$ 2.74 to 20.33 $\pm$ 1.21 and 20.00 $\pm$ 00 to 20.45 $\pm$ 1.43 respectively. Fruits intake was very low than the other food groups. Percent adequacy was more in cereals and sugar and jaggary (77.10 to 88.73 and 80.00 to 81.92 percent).

Whereas minimum percent adequacy was noted for fruits 2.46 and 3.10 percent among both the group. Whereas mean intake of different nutrients were energy (1975.23 $\pm$ 222.18 to 2053.11 $\pm$ 164.27), protein (44.99 $\pm$ 4.89 to 46.84 $\pm$ 6.70), fat (24.26 $\pm$ 8.87 to 35.30 $\pm$ 11.65),  $\beta$ -carotene (1422.85 $\pm$ 637.59 to 1553.13 $\pm$ 931.03), ascorbic acid (36.97 $\pm$ 6.02 to 39.10 $\pm$ 6.93), calcium (390.79 $\pm$ 83.07 to 441.22 $\pm$ 61.93) and iron (19.78 $\pm$ 2.06 to 21.34 $\pm$ 61.96) respectively. Percent adequacy for iron, fat, ascorbic acid and energy showed in the ranged of 89.97 to 99.76 percent. Lowest percent adequacy was reported by  $\beta$ -carotene that is 30.13 to 31.85 percent.

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