Department of Food Science & Nutrition

S.N.D.T. Women's University, Mumbai

Studies on Food Consumption, Anthropometry & Physical Activity

➡ Women in Reproductive Age

➡ Young Adult Women

➡ School Children

➡ Young Children

Consumption Pattern & Anthropometric Measurements Of Adult Women From Low Socio-economic Group In Mumbai (2014)

➡ *Study Sample:* Seven hundred women(21- 45yrs), recruited from 7 slums in 3 suburbs – Dahisar, Borivali and Santacruz

➡ *Variables Studied:*

- Anthropometric Measurements – Height, Weight,

  Waist &Hip circumference , Skinfold Thickness at

  4 sites (triceps, biceps, subscapular ,supraileac)

- Dietary Consumption Pattern using FFQ (200

  items)

Nutritional Status Of Women

Category	% women
Underweight	8.6
Normal	24.0
Pre obese	16.7
Obese grade I	35.3
Obese grade II	15.4

BMI Categories for Asians (WHO, 2008)

Age and BMI (% Women)

	Underweight	Normal	Pre obese	Obese
21-29 yrs	16.2	32.4	17.0	34.4
30-39 yrs	5.6	19.7	17.3	57.4
> 40 yrs	2.9	19.4	15.4	62.3

X^2= 65.72, P= 0.000

Waist Circumference, W/H Ratio and Body Fat Percentage
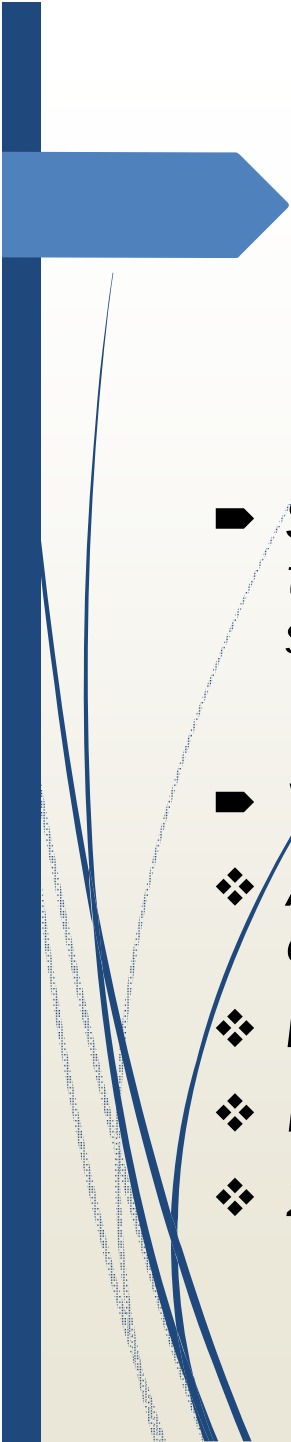
Waist Circumference	Percent Women
Desirable (≤ 80 cm)	56.3
At Risk (> 80 cm)	43.7

W/H Ratio	Percent Women
Desirable (≤ 0.8)	62.1
At Risk (> 0.8)	37.9

Body Fat % (Katch and McArdle, 1973)	
Normal	2.4
Above Normal	97.6

Mean Frequency of Consumption of Energy Dense Foods, Vegetables and Fruits per week

High Sugar Items	16.9 ± 9.4
High Fat Items	4.1 ± 4.4
High Protein and High Fat Items	5.7 ± 5.0
High Fat and High Carbohydrates Items	22.7 ± 11.4
High Protein, Fats and Carbohydrates Items	2.12 ± 2.5
Biscuits	9.6 ± 7.5
Green Leafy Vegetables	3.6 ± 1.9
Other vegetables (> 5gms TDF)	2.8 ± 2.2
Fruits	6.8 ± 6.6

Consumption Pattern, Anthropometric Parameters and B.P. Urban Women from Low and Lower Middle Income Group
(Ongoing Study)

➡ *Study Sample- Twelve hundred women (18-45 yrs) belonging to Low and Lower middle income group residing in various slums across Mumbai City and Suburbs*

➡ *Variable studied-*

❖ *Anthropometric Measurements – Height, Weight, Waist &Hip circumference*

❖ *Blood Pressure*

❖ *Dietary Intake using Food Frequency Questionnaire*

❖ *24- Recall (In subsample)*
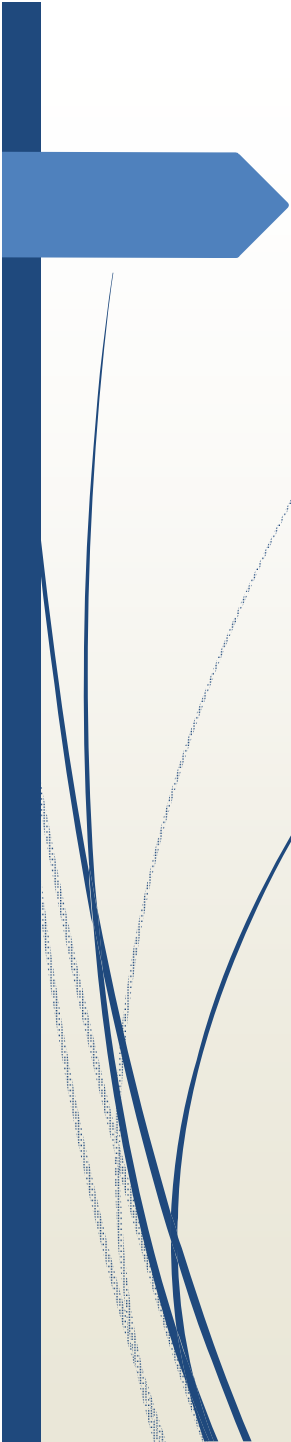
Age and Blood Pressure

➡ Mean Age (yrs) - 32.98 ± 7.29

Age (yrs)	Normotensive	Prehypertensive	Stage I Hypertensive	Stage II Hypertensive
	Percent Women			
18-25	71.74	23.91	3.26	1.09
26-35	47.21	36.50	13.42	2.86
36-45	13.9	39.78	23.57	11.05
Total	43.86	35.36	15.25	5.53

X^2= 205.746, P= 0.000

Study on Young Adult Females (2010)

- *Study Sample:* Eight hundred girls (16- 20 yrs) recruited from 7 colleges in Mumbai.

- Variable studied-

➢ Physical Activity Pattern

➢ Anthropometric measurements

➢ Blood Pressure

- Salient Findings-

Blood Pressure Category	Percent Females
Low	22.3
Normal	54.6
Prehypertensive	19.9
Hypertensive	2.2

Nutritional Status of Girls	Percent Female
Underweight	36.8
Normal	44.0
Preobese	8.9
Obese	10.3

Waist to Hip Ratio	Percent Female
≤ 0.8	55.1
> 0.8	44.9

Physical Activity

Mean Percentage of total MET minutes spent on different activities

- Sitting, talking in College   : 38.8
- Sleeping   : 21.7
- Watching TV   : 10.0
- Moderate intensity activity   : 5.5
- Other sedentary activity   : 24.0

Nutritional Status and Physical Activity

BMI Category	Mean MET minutes/ week	
	Watching TV	Exercising
Underweight	155 ± 302	167 ± 378
Normal	102 ± 143	367 ± 562
Overweight and Obese	136 ± 246	96 ± 309

Blood Pressure and Physical Activity

BP Category	Mean MET minutes/ day	
	Watching TV	Exercising
Low	125 ± 230	191 ± 393
Normal	118 ± 191	280 ± 506
Prehypertensive	152 ± 308	194 ± 440
Stage I Hypertensive	198 ± 414	205 ± 528

Thank You!