

# Assessment of Visible Fat Consumption Among Urban Population in 7 Metro Cities in India: National Nutrition Monitoring Bureau Urban Nutrition Surveys (2015-16)



Division of Public Health Nutrition  
**ICMR-National Institute of Nutrition**  
Indian Council of Medical Research  
Hyderabad  
And  
Prepared For



**International Life Sciences Institute India**  
**2019**

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# **Assessment of Visible Fat Consumption Among Urban Population in 7 Metro Cities in India: National Nutrition Monitoring Bureau Urban Nutrition Surveys (2015-16)**

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**Developed under the Financial Support of ILSI India, New Delhi**



**International Life Sciences Institute India  
2019**

## ACKNOWLEDGEMENTS

We are grateful to Late Dr Panandiker, Chairman and Dr Rekha Sinha, Executive Director, ILSI-India for their financial support in preparation of this report by using NNMB urban dietary consumption data.

We are thankful to Dr. R Hemalatha, Director and Mr. T Longvah, former Director-In-charge, ICMR-NIN, for their constant support and guidance in the preparation of this report.

We are extremely thankful for all the Officer-in-Charges of 16 NNMB state units for their help in execution of the NNMB urban Nutrition study.

We also thank all the NNMB Project staff for their commitment and sincere efforts in collection of the NNMB dietary consumption data. Our thanks are due to the NIN-NNMB CRL Scientific and Technical staff for their constant efforts in scrutiny, data entry, analysis and preparation of draft tables and report.

We thank Dr K Mallikarjuna Rao, Consultant, Mrs Ranjita Bhargavi, RA (Nutritionist) and Ms. D. Sarala, Mr. Sriram, Ms. Induja, Ms. Hariprada, Mr Nagesh and Mr Yaqub, Data Entry Operators, for carrying out the data entry.

Last but not the least; we are extremely grateful to the community for their unstinting cooperation in data collection, without which the study would not have been completed successfully.

Hyderabad  
30 November 2019

## AUTHORS

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## 1. INTRODUCTION

Urbanization, globalization, changing economy and market forces have resulted in radical shift in dietary consumption pattern in India. Consumption of fast foods has become almost a global phenomenon. Most of the studies have shown that the intakes of total fat and saturated fat in our diets are high. The increasing trends of fat intake have been reported for men and women from both urban and rural settings. The sources of fats have not been separately reported in most of the available studies.

In a few, it was specified that fat intake was high due to increased consumption of out-of-home foods, processed and fried foods etc. However, data on actual visible fat intake obtained from the consumption of different foods such as snacks/bakery items/sweets etc., is not available.

The present study was planned to assess the extent of visible fat (added fat) obtained from each food item consumed by different individuals living in urban metro cities in India.

## 2. OBJECTIVES

1. To assess the mean consumption levels of visible fat (g/day) among various age, gender, physiological, and physical activity groups among urban population (NNMB 2015-16) in 7 metro cities in India,
2. To assess the mean visible fat consumption levels in different socio-economic population groups, and
3. To assess the mean visible fat consumption levels from different recipes.

## 3. METHODOLOGY

For the study, the dietary data schedules pertaining to the urban population of 7 metro cities of India, collected by National Nutrition Monitoring Bureau (NNMB) from 16 major states during 2015-16, were obtained. This dietary data was re-coded recipe wise, the data was re-entered into MS Excel and the master dietary consumption database for all the 7 metro cities of India was prepared. Information on socio-economic and demographic particulars of the individuals, food consumption, including fat intake was included in the data base. Using this data, the nutritive value of different recipes and foods were calculated using Nutritive Value of Indian Foods (NVIF) and Indian Food Composition Tables (IFCT).

As per the protocol, the city wise and pooled mean consumption of visible fat was analysed. The

associations between the mean visible fat consumption and the socio-economic and demographic status of the population were analysed. The variables included for this analysis were **gender**, **age** (0-4, 5-11, 12-17, 18-35, 36-59 and >60 years), **community** (Scheduled caste, Scheduled tribes, Other Backward class and Other caste), **education** (illiterate, primary school, middle school, high school complete and college and above), **occupation** (labour including agriculture and other labour, professional, service, business, dependents and other occupations), **type of activity** (sedentary and moderate), **standard of living** (low, medium and high income groups) and **type of diet** (vegetarians and non-vegetarians).

Also, the recipe wise intake of visible fat from

various sources including homemade, packed foods, sweet based preparations, bakery foods, snacks and namkeens, fast foods was computed.

The quantity of fat consumption levels were assessed from the following foods:

1. Regular Home Based Preparations

2. Packaged Foods
3. Sweet Based Preparations
4. Bakery and Biscuits
5. Milk and Milk Products

For the purpose of statistical analysis, SPSS Windows version 19.0 was used.

## 4. RESULTS

### 4.1 Coverage Particulars

The data on dietary consumption was collected for 5,127 urban individuals from 1,293 HHs in 7 metropolitan cities of India and the data for visible (added) fat consumption level was computed.

### 4.2 Mean Intake of Visible Fat According to the Socio-Economic and Demographic Particulars

#### Particulars

The Mean Intake of visible fat according to the socio-economic and demographic particulars of urban population is presented in Table 1.

#### 4.2.1 Visible Fat Consumption by Metro-Cities

In general, the average daily intake of visible fat among urban population of 7 metro cities was 33g/day, which was higher than the recommended

levels of ICMR (20g/person/day). However, the consumption levels were significantly higher in Delhi (44.4g) and Ahmedabad (43.9g) and lowest was reported in Hyderabad (25.1g)

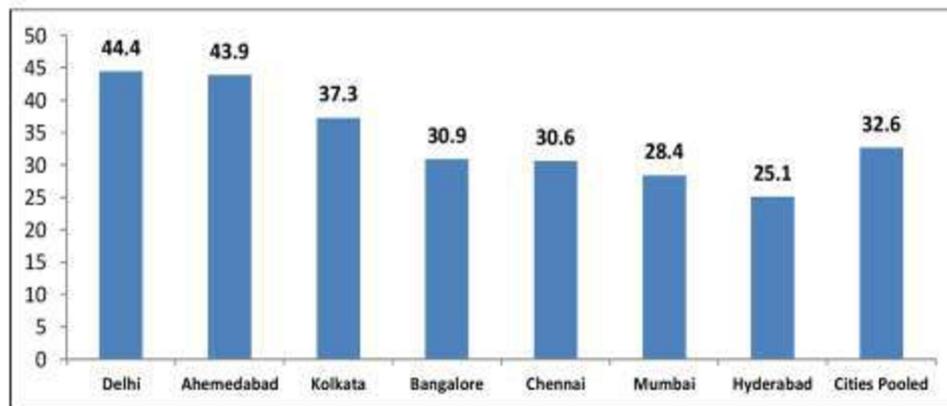
#### 4.2.2 Percent of Energy through Visible Fat Consumption

Overall, 18% of the total energy intake was obtained from visible fats. However, maximum energy was derived through fats in the cities like Delhi (44.4%), Ahmedabad (43.9%) and lowest observed in the cities such as Hyderabad (25.1%) and Mumbai (28.4%) Fig.1.

#### 4.2.3 Visible Fat Consumption by Gender

In general, the average consumption of visible fat was marginally higher among men (34.1g) than that of women (31.1g). Similar trends were observed in all the metro cities.

**Fig.1: Average Consumption of Visible Fat (g/day) among the Urban Population in 7 Metro Cities of India**



#### **4.2.4 Visible Fat consumption by Age Groups**

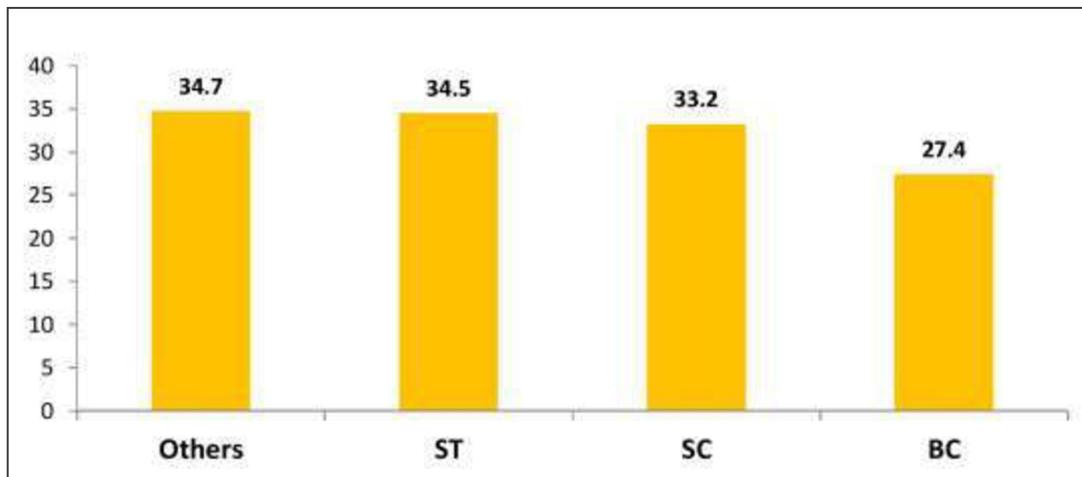
The consumption of visible fat varied differently among different age groups. In general, adults and elderly people consumed more visible fat than other age groups. The highest intake of visible fat was observed in the age group of 36-59 years (36.1g), followed by age group of 18-35 yrs (34.8g) and adolescents (32.8g). The intake of visible fat was lowest in under five year children (15.7g). High intake of visible fat was observed among the elderly population of Mumbai (44.4g)

and Ahmedabad (42.5g). The added fat intake was highest among adolescents of Ahmedabad (44.1g) and Kolkata (41.4g).

#### **4.2.5 Visible Fat Consumption by Community**

In general, the intake of visible fat was highest in the population belonging to 'other forward communities' (34.7g) and surprisingly by urban/migrated scheduled tribes (34.5g) and scheduled caste (33.2g) and lowest intake of visible fat was observed among backward communities (27.4g) **Fig.2.**

**Fig 2: Average Intake of Visible Fat (g/day) by Community**

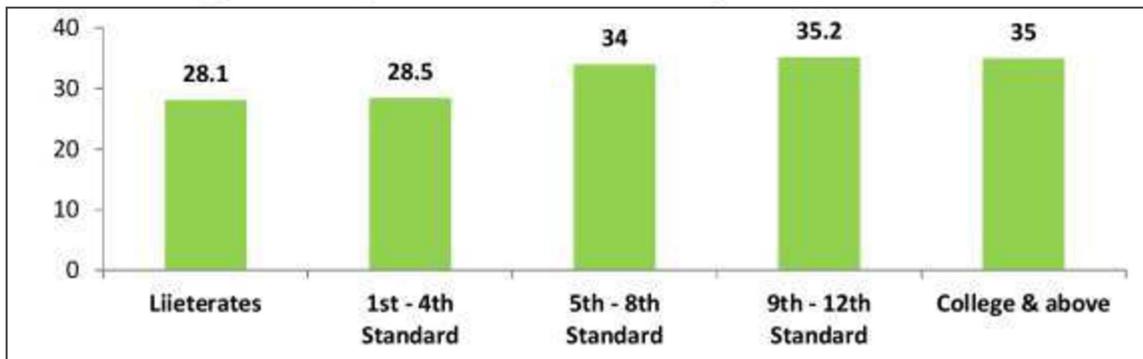


#### **4.2.6 Visible Fat Consumption by Literacy Status**

The overall consumption of visible fat was higher in the literate population than the illiterates. The intake of visible fat was higher among those who were educated beyond 10<sup>th</sup> class (35.2g-35.0g)

compared to less educated. The fat intake among literate was high in Delhi, Ahmedabad and Kolkata (**Fig 3**).

**Fig 3: Average Intake of Visible Fat by Level of Education**

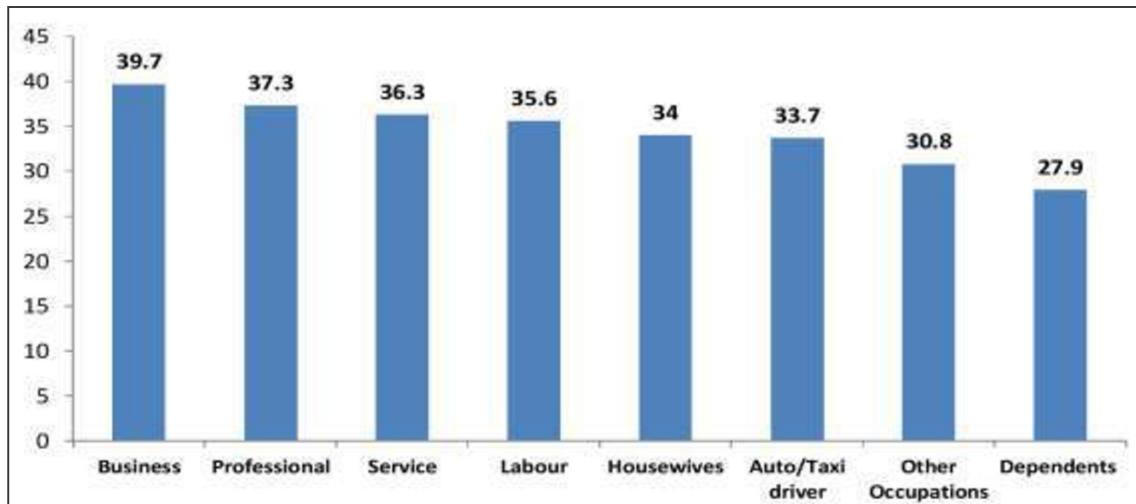


#### 4.2.7 Visible Fat Consumption by Physical Activity

The consumption of visible fat was considerably higher among those who were engaged in the

occupation involving moderate activity (34g) than those who were engaged in occupations involving sedentary activity (31.8g). However, the consumption of visible fat was very high (68.8g) among heavy workers.

Fig 4: Average Intake of Visible Fat (g/day) by Occupation



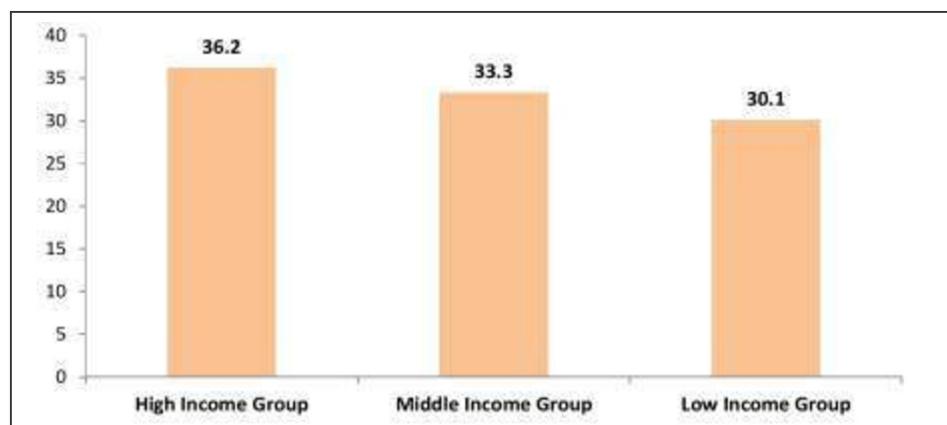
#### 4.2.8 Visible Fat Consumption by Occupation

The intake of visible fat was found to be higher among individuals engaged in business (39.7g), professionals (37.3g) and service men (36.3g) and low among housewives (34g/day). It was 35.6g and 33.7g among heavy workers (drivers) and laborers respectively. The average consumption of fat was 28g/day for the dependents (non-earning members of the family such as elderly, students and children) (Fig 4).

#### 4.2.9 Visible Fat Consumption by Income

Clear income gradient was observed in consumption of visible fats among urban population. The highest consumption of visible fat was observed among high income group (36.2g), followed by middle income (33.3g) and lower income groups (30.1g). The consumption of visible fat was higher among the high income population from Delhi (54.1g), Ahmedabad (50.9g) and Kolkata (46.1g) Fig 5.

Fig 5: Average Intake of Visible Fat (g/day) by Income Groups



#### 4.2.10 Visible Fat Consumption by Type of Diet

Contrary to our belief, vegetarians (40.7g) consumed more quantity of visible fat than the non-vegetarians (30.2) in these metro-cities. The vegetarian population of Ahmedabad and Delhi (46.1g) consumed higher amounts of visible fat (46-48g/day) compared to non-vegetarians residents of Delhi (44.9g) and Ahmedabad (40.6g).

#### 4.3 Distribution of the Individuals Consuming Different Recipes

The frequency (%) of consumption of different recipes among urban population is presented in **Table 2**.

In general, cereals and millet based recipes were consumed by almost all urban population (100%) followed by milk based (98%), pulse based (62%) and vegetable (54%) based recipes. Only one third

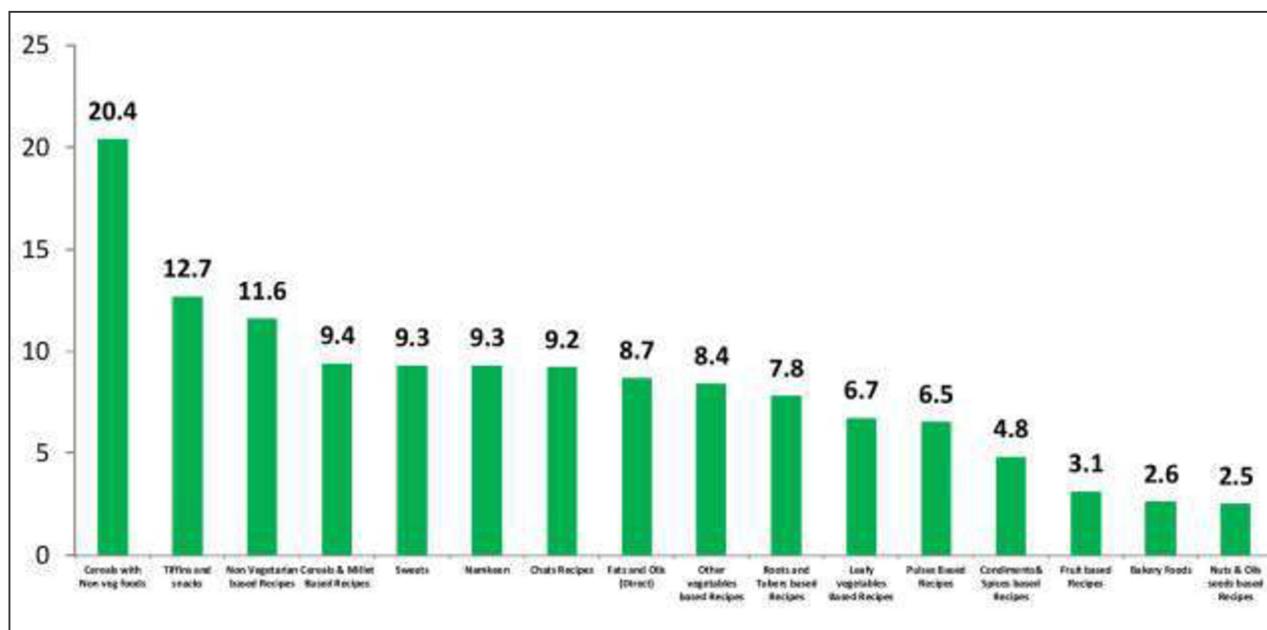
of urban population consumed fruit based recipes (43%), biscuits (38%) and non-vegetarian recipes (36%) and one fourth consumed snacks (29%) and bakery foods and savories (22% each). GLV based recipes were consumed by 16% and chaat based recipes by 10%.

#### 4.4 Average Intake of Visible Fat through Different Recipes

The average intake of visible fat consumed through different recipes is presented in **Table 3 and Fig 6**.

The added fat derived from Cereals, Flesh Food based recipes (20.4g) (Chicken Biryani, Mutton Biryani etc.) was maximum, followed by Breakfast, Snacks (12.7g) items and Non-Vegetarian recipes (11.6g). Cereals, Sweets, and Namkeen based recipes were contributing about 10g of added fat daily.

**Fig 6: Average Intake of Visible Fat through Different Recipe Groups**



#### 4.5 Recipe Wise Intake of Visible Fat

A recipe based added fat consumption is provided in **Table 4.1–4.9**.

Among the Cereal and Millet based Recipes, Rice and Chapatti/Roti were consumed by majority of

urban population. The intake of visible fat was high from the recipes like Dal Fry + Rice, Stuffed Paratha, Chuduva, Bisbelibath, Pulihora etc. Mutton Biryani has been providing very high amount of added fat than that of the Chicken Biryani or other Cereal and

Non-Vegetarian recipes. Red Gram Dal and Lentil Dal were used more by the population. The intake of visible fat was more with deep fried and seasoned items. High amount of fat was used in preparation of Cabbage and Fenugreek recipes.

The consumption of Potato was highest among urban population as compared to other Roots and Tubers. The deep fried items with potato as well as other roots and tubers have been contributing to high added fat as compared to others. Among the recipes of Nuts and Oil Seeds, Coconut use was found to be higher and this is providing high amounts of fat. Almost all the recipes with Non-Vegetarian preparations were contributing high amounts of visible fat. Consumption of Fish, Chicken, Egg and Mutton was high among urban population. These recipes have been providing more than 10g/day/person. Among the Chaat based

Recipes, Manchurian and Noodles have been contributing high amount of fats and oils. Among Breakfast items, high amount of fat was being used in the preparation of Butter Dosa, Puri and Vada. Among the Bakery Items, the intake of fat was very high through Pizzas, Burgers and Sandwiches. For preparation of Namkeens, such as Pakoda and Mirchi Bajji, high amount of fat was used.

While interpreting the results, caution may be exercised as added fat consumption levels were reported based on data obtained from various sources such as self-reporting and labels. Actual consumption levels may vary. Some of the processed Sweet Snack Foods produced from unorganized sectors were not included in the total quantity of fat consumed as its consumption data could not be obtained.

## 5. SUMMARY

1. In general, the average daily intake of visible fat among urban population in 7 metro cities was 33g/day, which was higher than the recommended levels of ICMR (20g/CU/day). Overall, 18% of the total energy intake was obtained from visible fats.
  2. The consumption of visible fat varied among different age groups. In general, adults and elderly people were consuming more visible fat than of the other age groups.
  3. The intake of visible fat was highest in the urban population belonging to 'other forward communities' (34.7g) and surprisingly by scheduled tribes (34.5g), who migrated to urban towns.
  4. The overall consumption of visible fat was higher in the literate population than the illiterates.
  5. The intake of visible fat was found to be higher among individuals engaged in business (39.7g), professionals (37.3g) and service men (36.3g) and low among housewives (34g/day).
  6. The highest consumption of visible fat was observed among high income group (36.2g), followed by middle income (33.3g) and lower income groups (30.1g).
  7. Contrary to our belief, Vegetarians (40.7g) consumed more quantity of visible fat than the Non-Vegetarians (30.2) in these metro-cities.
  8. About one third of urban population consumed fruit based recipes (43%), biscuits (38%) and non-vegetarian recipes (36%) and one fourth consumed snacks (29%) and bakery foods and savories (22% each).
  9. The intake of visible fat was high from the recipes like Dal Fry + Rice, Stuffed Paratha, Chuduva, Bisbelibath, Pulihora, etc.
- The data may be interpreted with caution as it is based on reported data, label and other sources.

**Table 1: Average Daily Consumption of Visible Fat (g/day) by Socio-Economic and Demographic Particulars in Different Metropolitan Cities of India**

|  | Ahmadabad   | Bangalore   | Chennai     | Delhi       | Hyderabad   | Kolkata     | Mumbai      | Cities Pooled |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|
| <b>Number of Individuals</b>                             | 665         | 708         | 654         | 727         | 1059        | 722         | 592         | 5127          |
| <b>Average (mean) Visible Fat Intake Per Day (g/day)</b> | <b>43.9</b> | <b>30.9</b> | <b>30.6</b> | <b>44.4</b> | <b>25.1</b> | <b>37.3</b> | <b>28.4</b> | <b>32.6</b>   |
| <b>% of Energy from Visible Fat</b>                      | <b>21.6</b> | <b>13.2</b> | <b>14.7</b> | <b>24.7</b> | <b>18.0</b> | <b>16.2</b> | <b>14.5</b> | <b>17.7</b>   |
| <b>Gender</b>  | Male        | 45.9        | 31.7        | 31.9        | 46.6        | 25.0        | 38.6        | 30.6          |
|  | Female      | 41.8        | 30.1        | 29.2        | 42.2        | 25.1        | 35.9        | 26.4          |
| <b>Age Group</b>   | 0-4 Yrs     | 17.6        | 17.1        | 16.9        | 26.0        | 14.4        | 13.9        | 10.3          |
|  | 5-11 Yrs    | 31.9        | 29.8        | 28.3        | 33.1        | 23.6        | 28.6        | 21.4          |
|  | 12-17 Yrs   | 44.1        | 30.6        | 33.2        | 39.1        | 25.9        | 41.4        | 27.1          |
|  | 18-35 Yrs   | 48.6        | 32.4        | 31.8        | 50.2        | 26.5        | 37.6        | 30.8          |
|  | 36-59 Yrs   | 48.3        | 34.7        | 32.6        | 49.1        | 26.7        | 41.8        | 30.5          |
|  | ≥ 60 Yrs    | 42.5        | 30.0        | 27.7        | 44.4        | 26.4        | 35.0        | 30.8          |
| <b>Community</b>   | ST          | 75.4        | 18.8        | -           | 54.6        | 17.1        | 41.4        | 28.9          |
|  | SC          | 49.9        | 27.5        | 31.2        | 43.5        | 25.3        | 38.7        | 25.9          |
|  | BC          | 43.1        | 33.8        | 29.7        | 39.5        | 25.9        | 28.2        | 26.1          |
|  | Others      | 43.5        | 34.8        | 31.3        | 48.1        | 24.4        | 37.9        | 30.2          |
|  |             |             |             |             |             |             |             | 34.7          |

(Contd...)

**Table 1: Average Daily Consumption of Visible Fat (g/day) by Socio-Economic and Demographic Particulars in Different Metropolitan Cities of India**

|                           | Ahmadabad                                   | Bangalore | Chennai | Delhi | Hyderabad | Kolkata | Mumbai | Cities Pooled |
|---------------------------|---|-----------|---------|-------|-----------|---------|--------|---------------|
| <b>Educational Status</b> | Illiterate                                  | 38.8      | 24.9    | 26.2  | 43.2      | 24.7    | 34.9   | 25.6          |
|                           | Read & Wright                               | 32.2      |         | 21.7  | 44.1      |         | 37.7   |               |
|                           | 1 <sup>st</sup> – 4 <sup>th</sup> Standard  | 35.2      | 35.1    | 25.2  | 38.4      | 25.2    | 29.5   | 23.3          |
|                           | 5 <sup>th</sup> – 8 <sup>th</sup> Standard  | 48.5      | 31.3    | 30.5  | 44.7      | 25.9    | 38.4   | 28.4          |
|                           | 9 <sup>th</sup> – 12 <sup>th</sup> Standard | 50.8      | 33.5    | 33.6  | 52.2      | 25.7    | 40.8   | 31.5          |
|                           | College                                     | 47.3      | 39.6    | 32.2  | 48.1      | 28.7    | 42.4   | 30.8          |
| <b>Occupation</b>         | < 6 Yr Children                             | 20.6      | 18.8    | 17.8  | 26.7      | 16.1    | 14.4   | 10.3          |
|                           | Labour                                      | 52.2      | 32.8    | 31.8  | 56.6      | 20.7    | 36.2   | 34.3          |
|                           | Cultivators                                 | 59.0      | 16.3    | -     | 41.7      | 49.3    | -      | 29.3          |
|                           | Artisan                                     | 57.6      | 32.2    | 41.3  | 44.2      | 21.8    | 36.2   | -             |
|                           | Service                                     | 46.6      | 36.8    | 33.7  | 56.2      | 27.1    | 41.9   | 32.8          |
|                           | Professional                                | 62.7      |         | 31.4  | 35.6      | 28.7    | 46.5   | 8.6           |
| <b>Type of Activity</b>   | Business                                    | 60.4      | 43.7    | 31.3  | 51.5      | 31.1    | 44.3   | 39.5          |
|                           | Auto/Taxi driver                            | 40.1      | 34.9    | 32.3  | 59.5      | 26.1    | 36.9   | 33.0          |
|                           | Housewife                                   | 47.6      | 32.9    | 31.3  | 47.2      | 27.3    | 38.3   | 29.4          |
|                           | Other Occupations                           | 46.7      | 33.7    | 31.2  | 40.4      | 25.5    | 36.7   | 31.2          |
|                           | Dependents<br>(Students, Children, Elderly) | 36.6      | 25.9    | 27.9  | 39.4      | 22.7    | 33.2   | 23.5          |
|                           | Sedentary                                   | 44.4      | 31.3    | 30.2  | 44.6      | 25.3    | 37.0   | 26.9          |
| <b>Income Groups</b>      | Moderate                                    | 54.1      | 31.5    | 33.0  | 56.5      | 24.2    | 38.4   | 34.9          |
|                           | Low Income                                  | 41.7      | 29.6    | 29.4  | 41.7      | 24.5    | 35.1   | 25.5          |
| <b>Type of Diet</b>       | Middle Income                               | 48.2      | 28.4    | 28.9  | 51.9      | 24.1    | 36.3   | 32.2          |
|                           | High Income                                 | 50.9      | 36.8    | 33.1  | 54.1      | 27.1    | 46.1   | 33.0          |
|                           | Vegetarian                                  | 47.5      | 34.2    | 35.5  | 46.1      | 27.5    | 32.6   | 27.3          |
|                           | Non-Vegetarian                              | 40.6      | 32.8    | 30.1  | 44.9      | 25.2    | 37.1   | 28.8          |

Table 2: Frequency (%) Distribution of Individuals Consuming Different Recipes (Groups) in Metropolitan Cities

| Groups of Recipes                 | Ahmedabad | Bangalore | Chennai | Delhi | Hyderabad | Kolkata | Mumbai | pooled |
|-----------------------------------|-----------|-----------|---------|-------|-----------|---------|--------|--------|
|                                   | N         | %         | N       | %     | N         | %       | N      | %      |
| Cereals & Millet Based Recipes    | 646       | 97.1      | 693     | 97.9  | 647       | 98.6    | 727    | 100.0  |
| Cereals with Flesh Foods          | 6         | 0.9       | 25      | 3.5   | 41        | 6.3     | 6      | 0.8    |
| Pulse Based Recipes               | 299       | 45.0      | 423     | 59.7  | 372       | 56.7    | 478    | 65.7   |
| Leafy Vegetables Based Recipes    | 121       | 18.2      | 86      | 12.1  | 109       | 16.6    | 32     | 4.4    |
| Roots and Tubers Based Recipes    | 179       | 26.9      | 83      | 11.7  | 191       | 29.1    | 208    | 28.6   |
| Other Vegetables Based Recipes    | 349       | 52.5      | 270     | 38.1  | 357       | 54.4    | 394    | 54.2   |
| Salads                            | -         | -         | 14      | 2.0   | -         | -       | 207    | 28.5   |
| Nuts & Oils Seeds Based Recipes   | 31        | 4.7       | 135     | 19.1  | 155       | 23.6    | 10     | 1.4    |
| Condiments & Spices Based Recipes | 13        | 2.0       | 14      | 2.0   | 15        | 2.3     | -      | -      |
| Fruits Based Recipes              | 154       | 23.2      | 193     | 27.3  | 454       | 69.2    | 327    | 45.0   |
| Soups                             | -         | -         | 5       | 0.7   | 18        | 2.7     | -      | -      |
| Flesh Food Based Recipes          | 82        | 12.3      | 198     | 28.0  | 337       | 51.4    | 73     | 10.0   |
| Milk Based Recipes                | 645       | 97.0      | 609     | 86.0  | 644       | 98.2    | 727    | 100.0  |
| Processed Fruit Juices            | -         | -         | 2       | 0.3   | 4         | 0.6     | 6      | 0.8    |
| Carbonated Beverages              | -         | -         | 32      | 4.5   | 236       | 36.0    | 16     | 2.2    |
| Biscuits                          | 66        | 9.9       | 174     | 24.6  | 15        | 2.3     | 272    | 37.4   |
| Infant Food                       | -         | -         | 1       | 0.1   | 43        | 6.6     | 8      | 1.1    |
| Chaat Foods                       | 45        | 6.8       | 40      | 5.6   | -         | -       | 49     | 6.7    |
| Tiffins and Snacks                | 115       | 17.3      | 221     | 31.2  | 540       | 82.3    | 18     | 2.5    |
| Bakery Foods                      | 84        | 12.6      | 77      | 10.9  | 70        | 10.7    | 338    | 46.5   |
| Sweets                            | 93        | 14.0      | 69      | 9.7   | 37        | 5.6     | 29     | 4.0    |
| Namkeen                           | 131       | 19.7      | 117     | 16.5  | 170       | 25.9    | 141    | 19.4   |
| Chocolates                        | 3         | 0.5       | 32      | 4.5   | 22        | 3.4     | 28     | 3.9    |
| Glucose Powder                    | -         | -         | 13      | 1.8   | 36        | 5.5     | -      | -      |
| Fats and Oils                     | 37        | 5.6       | 16      | 2.3   | 3         | 0.5     | 9      | 1.2    |

**Table 3: Average Consumption of Visible Fat from Different Recipes in Metropolitan Cities (g/day)**

| <b>Recipe Groups</b>              | <b>Ahmadabad</b> | <b>Bangalore</b> | <b>Chennai</b> | <b>Delhi</b> | <b>Hyderabad</b> | <b>Kolkata</b> | <b>Mumbai</b> | <b>Cities Pooled</b> |
|-----------------------------------|------------------|------------------|----------------|--------------|------------------|----------------|---------------|----------------------|
| Cereals & Millet Based Recipes    | 7.7              | 12.4             | 8.6            | 13.8         | 8.6              | 10.0           | 6.9           | 9.4                  |
| Cereals with Non Veg Foods        | 26.2             | 20.1             | 15.6           | 33.4         | 17.2             | 27.5           | 17.9          | 20.4                 |
| Pulses based Recipes              | 7.6              | 5.6              | 5.2            | 13.0         | 6.0              | 3.8            | 6.3           | 6.5                  |
| Leafy Vegetables Based Recipes    | 10.3             | 8.3              | 3.4            | 5.4          | 6.1              | 6.2            | 8.8           | 6.7                  |
| Roots and Tubers Based Recipes    | 9.6              | 8.5              | 5.6            | 13.5         | 7.0              | 6.1            | 10.0          | 7.8                  |
| Other Vegetables Based Recipes    | 11.6             | 6.3              | 6.4            | 13.1         | 6.9              | 7.8            | 9.2           | 8.4                  |
| Nuts & Oils Seeds Based Recipes   | 5.6              | 2.7              | 1.3            | -            | 3.3              | 16.9           | -             | 2.5                  |
| Condiments & Spices Based Recipes | 8.9              | 1.3              | 4.0            | -            | 1.5              | 0.7            | -             | 4.8                  |
| Non Vegetarian Based Recipes      | 17.7             | 9.8              | 9.4            | 17.0         | 7.8              | 14             | 15.2          | 11.6                 |
| Chats Recipes                     | 3.7              | 11.4             | -              | 12.2         | 4.7              | 9.5            | -             | 9.2                  |
| Tiffins and Snacks                | 19.4             | 15.4             | 8.4            | 14.1         | 13.4             | 17.0           | 18.2          | 12.7                 |
| Sweets                            | 18.1             | 3.8              | 8.2            | 7.9          | 8.3              | 4.2            | 11.8          | 9.3                  |
| Namkeen                           | 12.4             | 8.9              | 8.1            | 5.6          | 11.6             | 7.8            | -             | 9.3                  |
| Bakery Foods                      | -                | 1.9              | 3.3            | 1.6          | 2.8              | 10.2           | -             | 2.6                  |
| Fats and Oils (Direct)            | 11.9             | 11.1             | 3.0            | 27.0         | 6.3              | 4.5            | 2.3           | 8.7                  |

(Cities Pooled)

**Table 4: Average Intake of Visible Fat from Different Recipes (g/day)**

| Name of the Recipe                            | No. of Individuals Consumed the Recipe | Per Capita Consumption of the Recipe (g) | Average Quantity of Visible Fat Consumed from the Recipe (g) |
|---|--|--|--|
| <b>4.1 Cereals &amp; Millet Based Recipes</b> |  |  |  |
| Wheat Bread (White)                           | 56                                     | 30.3                                     | 5.7  |
| Bisibele Bath                                 | 7                                      | 189.9                                    | 13.2   |
| Coconut Rice                                  | 14                                     | 102.5                                    | 6.3  |
| Curd Rice                                     | 38                                     | 122.9                                    | 3.5  |
| Fenugreek Leaves Rice                         | 4                                      | 321.2                                    | 12.0   |
| Fried Rice                                    | 165                                    | 122.1                                    | 10.4   |
| Ghee Rice                                     | 19                                     | 96.6                                     | 6.6  |
| Jeera Rice                                    | 72                                     | 86.6                                     | 5.7  |
| Kichidi /Pongal/ Pulagam                      | 519                                    | 108.0                                    | 8.0  |
| Lemon Rice                                    | 74                                     | 141.5                                    | 11.6   |
| Mango Rice (Pulihora)                         | 13                                     | 129.2                                    | 15.8   |
| Masala Rice                                   | 50                                     | 145.3                                    | 13.1   |
| Mint Rice                                     | 3                                      | 235.0                                    | 10.3   |
| Rice Bath/Rice Bath                           | 3923                                   | 429.0                                    | 2.3  |
| Dal Fry + Rice                                | 4                                      | 120.2                                    | 25.2   |
| Rice Dosa                                     | 36                                     | 207.2                                    | 11.0   |
| Rice Porridge/Gruel                           | 27                                     | 120.2                                    | 1.0  |
| Tamarind Pulihora Rice                        | 89                                     | 140.3                                    | 12.2   |
| Tomato Rice                                   | 56                                     | 196.7                                    | 12.2   |
| Vegetable Biryani                             | 140                                    | 219.5                                    | 12.9   |
| Rice Puttu                                    | 5                                      | 43.8                                     | 5.1  |
| Rice Flakes Poha/Upma                         | 86                                     | 132.7                                    | 11.6   |
| Rice Flakes with Milk and Sugar               | 22                                     | 96.0                                     | 1.0  |
| Rice Flakes Chudva (Deep Fried)               | 32                                     | 85.5                                     | 11.9   |
| Rice Flakes Chudva                            | 42                                     | 55.1                                     | 13.7   |
| Puffed Rice Upma/Uggani                       | 72                                     | 62.0                                     | 7.3  |
| Puffed Rice Chudva                            | 26                                     | 49.8                                     | 6.5  |
| Puffed Rice                                   | 365                                    | 42.7                                     | 4.4  |
| Broken Wheat Upma                             | 42                                     | 51.6                                     | 7.2  |

Contd.

|  |      |       |      |
|--|------|-------|------|
| Wheat Chapati                            | 2393 | 131.4 | 9.9  |
| Wheat Dhal Bati                          | 8    | 120.7 | 8.2  |
| Nan Roti                                 | 12   | 35.4  | 3.9  |
| Parota                                   | 458  | 112.2 | 10.1 |
| Phulkha/Roti                             | 847  | 107.6 | 5.6  |
| Rumali Roti                              | 2    | 45.0  | 0.1  |
| Stuffed Parota                           | 49   | 155.9 | 17.4 |
| Wheat Porridge/Gruel                     | 17   | 158.4 | 14.8 |
| Wheat Flakes                             | 3    | 68.3  | 1.0  |
| Wheat Dosa                               | 5    | 129.0 | 8.0  |
| Semolina Upma                            | 139  | 123.8 | 10.9 |
| Vermicelli Upma                          | 18   | 118.4 | 9.7  |
| Other Preparation with Jowar             | 31   | 69.5  | 2.6  |
| Ragi Chapathi                            | 49   | 121.5 | 7.5  |
| Ragi Dosa                                | 2    | 156.5 | 2.5  |
| Ragi Java/Porridge/Sari/Kodu             | 32   | 48.3  | 2.1  |
| Oats with Milk                           | 10   | 39.9  | 1.2  |
| Oats Upma                                | 8    | 51.7  | 0.6  |
| Corn Boiled                              | 19   | 48.3  | 0.4  |
| Maize Roti                               | 7    | 192.7 | 5.6  |
| Maize Upma                               | 9    | 161.0 | 16.3 |
| Bajra Roti                               | 38   | 144.4 | 10.3 |
| Other Preparation with Bajra             | 1    | 55.0  | 7.0  |
| Sago Kichidi                             | 5    | 110.5 | 11.9 |
| Sago Upma                                | 4    | 39.5  | 2.9  |
| Other Preparation with Sago              | 4    | 20.0  | 25.0 |
| Other Preparation with Cereals           | 10   | 70.8  | 20.7 |
| <b>4.2 Cereals With Non Veg Based</b>    |      |       |      |
| Chicken Biryani                          | 101  | 280.2 | 17.9 |
| Egg Rice                                 | 24   | 105.3 | 13.8 |
| Mutton Biryani                           | 46   | 329.0 | 26.1 |
| Prawns Biryani                           | 8    | 153.5 | 16.3 |
| <b>4.3 Pulse Based Recipes</b>           |      |       |      |
| Bengal Gram Whole Dhal Curry (Gravy)     | 110  | 113.8 | 9.9  |
| Bengal Gram Whole Dhal Boiled & Seasoned | 19   | 39.0  | 0.8  |
| Bengal Gram Whole Dhal Deep Fry          | 10   | 78.9  | 11.8 |

Contd.

|  |     |       |      |
|--|-----|-------|------|
| Bengal Gram Whole Dhal Sprouts         | 3   | 48.2  | 1.9  |
| Bengal Gram Whole Dhal Sambar Type     | 19  | 147.9 | 5.8  |
| Bengal Gram Whole Dhal with Vegetables | 4   | 171.9 | 9.1  |
| Bengal Gram Whole Dhal Chutney         | 26  | 28.3  | 2.4  |
| Black Gram Dhal with Vegetables        | 17  | 66.1  | 9.7  |
| Black Gram Dhal Chutney                | 4   | 53.6  | 1.2  |
| Black Gram Dhal with Vegetables        | 12  | 85.0  | 14.6 |
| Black Gram Dhal Chutney                | 8   | 80.2  | 4.1  |
| Black Gram Dhal with Vegetables        | 4   | 32.5  | 0.3  |
| Cow Pea Dhal Chutney                   | 13  | 87.5  | 9.0  |
| Cow Pea Dhal Sambar Type               | 29  | 139.9 | 5.1  |
| Field Bean Curry(Gravy)                | 17  | 94.9  | 7.2  |
| Field Bean Sambar Type                 | 13  | 175.0 | 6.8  |
| Green Gram Whole Curry (Gravy)         | 26  | 73.7  | 7.3  |
| Green Gram Whole Sambar Type           | 9   | 77.0  | 3.0  |
| Green Gram Whole with Vegetables       | 4   | 210.2 | 7.4  |
| Green Gram Dhal Curry(Gravy)           | 256 | 59.5  | 6.5  |
| Green Gram Dhal Boiled & Seasoned      | 9   | 43.1  | 2.4  |
| Green Gram Dhal Deep Fry               | 6   | 141.2 | 16.4 |
| Green Gram Dhal Sambar Type            | 43  | 83.5  | 5.7  |
| Green Gram Dhal Green Leafy Dhal       | 4   | 32.9  | 2.0  |
| Green Gram Dhal with Vegetables        | 18  | 84.8  | 2.9  |
| Horse Gram Whole Curry ( Gravy)        | 8   | 82.0  | 6.6  |
| Horse Gram Whole Sambar Type           | 5   | 137.9 | 10.4 |
| Horse Gram Whole Chutney               | 5   | 17.4  | 0.6  |
| Lentil Dhal Curry ( Gravy)             | 407 | 51.1  | 5.5  |

Contd.

|                                 |     |       |      |
|---------------------------------|-----|-------|------|
| Lentil Dhal Sambar Type         | 17  | 91.8  | 6.9  |
| Lentil Dhal Green Leafy Dhal    | 39  | 50.3  | 4.1  |
| Lentil Dhal with Vegetables     | 9   | 148.6 | 7.6  |
| Moth Beans Curry (Gravy)        | 12  | 55.4  | 2.4  |
| Moth Beans Sambar Type          | 4   | 221.7 | 15.3 |
| Peas Green Curry (Gravy)        | 56  | 73.2  | 6.2  |
| Peas Green Deep Fry             | 12  | 56.2  | 11.9 |
| Peas Green Sambar type          | 9   | 87.4  | 3.9  |
| Rajmah, Curry (Gravy)           | 45  | 121.1 | 13.8 |
| Rajmah with Vegetables          | 2   | 229.1 | 9.6  |
| Red Gram Dhal Curry (gravy)     | 730 | 53.9  | 5.7  |
| Red Gram Dhal Boiled & Deasoned | 55  | 24.5  | 3.1  |
| Red Gram Dhal Deep Fry          | 42  | 55.4  | 6.0  |
| Red Gram Dhal Sprouts           | 8   | 22.3  | 1.9  |
| Red Gram Dhal Sambar Type       | 795 | 102.7 | 5.3  |
| Red Gram Dhal Green Leafy Dhal  | 66  | 88.8  | 4.4  |
| Red Gram Dhal with Vegetables   | 94  | 70.2  | 4.6  |
| Red Gram Dhal, Chutney          | 6   | 17.0  | 1.0  |
| Soya Bean Curry (Gravy)         | 67  | 74.3  | 8.4  |
| Soya Bean Chutney               | 1   | 30.0  | 6.9  |
| Soya Bean Meal Maker            | 9   | 56.4  | 6.5  |
| Other Dhals Curry (Gravy)       | 143 | 68.6  | 10.4 |
| Other Dhals Sambar Type         | 13  | 77.8  | 4.0  |
| Other Dhals Leafy Dhal          | 1   | 200.0 | 5.6  |
| Other Dhals with Vegetables     | 3   | 266.6 | 7.4  |
| Other Dhals Chutney             | 5   | 92.0  | 4.6  |
| Other Dhals Chutney Powder Dry  | 7   | 5.9   | 3.0  |
| Other Dhals Curry (Gravy)       | 22  | 113.0 | 7.3  |
| Other Dhals Boiled & Seasoned   | 6   | 13.7  | 0.8  |
| Other Specify Deep Fry          | 7   | 26.9  | 9.0  |
| Other Specify Sambar Type       | 9   | 34.4  | 1.8  |
| Other Specify with Vegetables   | 5   | 103.0 | 5.4  |
| Bengal Gram Dhal Curry (Gravy)  | 140 | 92.8  | 12.5 |
| Bengal Gram Dhal Sambar Type    | 10  | 20.5  | 4.9  |
| Bengal Gram Dhal Leafy Dhal     | 13  | 26.8  | 4.8  |

Contd.

|   |     |       |      |
|---|-----|-------|------|
| Bengal Gram Dhal with Vegetables              | 30  | 158.7 | 17.6 |
| Bengal Gram Dhal Chutney                      | 2   | 31.5  | 0.5  |
| Bengal Gram Dhal Chutney Powder Dry           | 14  | 11.0  | 4.4  |
| Bengal Gram Roasted with Vegetables           | 4   | 115.6 | 19.4 |
| Bengal Gram Roasted Chutney                   | 18  | 23.7  | 0.9  |
| <b>4.4 Leafy Vegetables Based Recipes</b>     |     |       |      |
| Amaranth Curry/Fry                            | 105 | 105.5 | 6.5  |
| Cabbage Curry/Fry                             | 210 | 124.9 | 7.3  |
| Colocasia Leaves Curry/Fry                    | 12  | 108.8 | 9.4  |
| Coriander Leaves Curry/Fry                    | 46  | 26.1  | 2.1  |
| Curry Leaves Chutney                          | 6   | 52.0  | 1.2  |
| Drum Stick Leaves Curry/Fry                   | 25  | 128.7 | 7.2  |
| Drum Stick Leaves Chutney                     | 5   | 117.7 | 11.4 |
| Fenugreek Leaves Curry/Fry                    | 109 | 151.2 | 7.6  |
| Gogu Leaves Curry/Fry                         | 14  | 40.4  | 2.2  |
| Gogu Leaves Chutney                           | 45  | 27.5  | 3.2  |
| Mint Leaves Curry/Fry                         | 7   | 48.4  | 14.7 |
| Mint Leaves Chutney                           | 33  | 18.9  | 2.3  |
| Radish Leaves Curry                           | 7   | 138.9 | 13.3 |
| Soya Curry/Fry                                | 5   | 33.8  | 19.0 |
| Soya Boiled& Seasoned                         | 4   | 39.8  | 6.1  |
| Spinach Curry/Fry                             | 93  | 170.1 | 7.7  |
| Spinach Boiled& Seasoned                      | 2   | 104.5 | 12.7 |
| Tamarind Leaves Curry/Fry                     | 3   | 84.8  | 6.3  |
| Mixed Green Leafy Vegetable Curry/Fry         | 36  | 167.4 | 6.0  |
| Mixed Green Leafy Vegetable Boiled & Seasoned | 3   | 352.5 | 5.4  |
| Others Specify Chutney                        | 1   | 140.0 | 11.2 |
| Knol-Khol Leaves Curry/Fry                    | 6   | 102.3 | 5.0  |
| Mayalu Leaves Curry/Fry                       | 6   | 80.4  | 7.8  |
| Shepu Leaves Curry/Fry                        | 5   | 127.0 | 12.9 |
| Others Leafy Vegetable Curry/Fry              | 44  | 119.9 | 4.9  |
| Others Leafy Vegetable Chutney                | 5   | 37.5  | 0.6  |
| <b>4.5 Roots and Tubers Based Recipes</b>     |     |       |      |
| Beet Root Curry                               | 29  | 105.7 | 6.5  |

Contd.

|                                    |     |       |      |
|------------------------------------|-----|-------|------|
| Beet Root Boiled & Seasoned        | 3   | 74.2  | 2.6  |
| Beet Root Fry                      | 15  | 79.9  | 3.3  |
| Carrot Curry                       | 41  | 108.8 | 6.1  |
| Carrot Boiled & Seasoned           | 2   | 44.2  | 1.6  |
| Carrot Fry                         | 4   | 142.4 | 3.3  |
| Carrot Chutney                     | 4   | 68.8  | 1.6  |
| Carrot Masala Curry                | 4   | 202.0 | 3.8  |
| Colocasia Curry                    | 26  | 73.0  | 10.3 |
| Colocasia Boiled & Seasoned        | 13  | 16.5  | 2.4  |
| Colocasia Fry                      | 13  | 112.7 | 8.1  |
| Onion Fry                          | 5   | 43.6  | 8.1  |
| Onion Curry                        | 13  | 132.6 | 13.6 |
| Onion Chutney                      | 44  | 70.3  | 3.4  |
| Potato Curry                       | 842 | 110.1 | 8.6  |
| Potato Boiled & Seasoned           | 244 | 76.3  | 4.9  |
| Potato Fry                         | 325 | 88.6  | 8.4  |
| Potato Chutney                     | 9   | 46.7  | 4.9  |
| Potato Masala Curry                | 13  | 71.4  | 3.7  |
| Radish Curry                       | 18  | 101.7 | 13.2 |
| Radish Boiled & Seasoned           | 13  | 125.9 | 2.3  |
| Radish Fry                         | 12  | 105.5 | 14.4 |
| Sweet Potato Curry                 | 4   | 101.2 | 9.6  |
| Sweet Potato Boiled & Seasoned     | 9   | 109.8 | 5.8  |
| Sweet Potato Fry                   | 3   | 77.2  | 1.9  |
| Yam Curry                          | 4   | 95.0  | 3.8  |
| Yam Boiled & Seasoned              | 3   | 74.2  | 1.8  |
| Yam Fry                            | 19  | 91.2  | 8.8  |
| Mixed Roots Fry                    | 5   | 29.6  | 9.0  |
| Curry with Other Roots             | 4   | 73.0  | 11.2 |
| <b>4.6 Other Vegetable Recipes</b> |     |       |      |
| Beans Curry                        | 82  | 93.5  | 5.4  |
| Beans Boiled & seasoned            | 3   | 132.1 | 1.7  |
| Beans Fry                          | 31  | 94.9  | 6.9  |
| Bitter Gourd Curry                 | 122 | 104.5 | 10.1 |
| Bitter Gourd Boiled & Seasoned     | 12  | 43.9  | 1.7  |
| Bitter Gourd Fry                   | 21  | 57.8  | 12.7 |
| Bitter Gourd Chutney               | 3   | 3.3   | 0.3  |

Contd.

|                                |     |       |      |
|--------------------------------|-----|-------|------|
| Bitter Gourd Masala Curry      | 2   | 137.2 | 21.0 |
| Bottle Gourd Curry             | 193 | 133.0 | 9.7  |
| Bottle Gourd Fry               | 12  | 154.3 | 10.1 |
| Bottle Gourd Masala Curry      | 2   | 281.0 | 7.3  |
| Brinjal Curry                  | 259 | 110.6 | 10.6 |
| Brinjal Boiled & Seasoned      | 78  | 77.8  | 11.8 |
| Brinjal Chutney                | 5   | 38.4  | 1.4  |
| Brinjal Masala Curry           | 11  | 91.7  | 7.6  |
| Broad Beans Curry              | 42  | 102.0 | 7.1  |
| Broad Beans Fry                | 6   | 61.3  | 13.3 |
| Cauliflower Curry              | 155 | 160.9 | 9.4  |
| Cauliflower Fry                | 23  | 153.3 | 11.8 |
| Cauliflower Masala curry       | 7   | 55.9  | 0.9  |
| Cucumber Curry                 | 49  | 102.9 | 4.2  |
| Cucumber Chutney               | 14  | 60.1  | 2.5  |
| Cluster Beans Curry            | 93  | 76.9  | 7.9  |
| Drum Stick Curry               | 26  | 106.2 | 9.6  |
| Drum Stick Boiled & Seasoned   | 3   | 152.3 | 14.0 |
| Drum Stick Fry                 | 4   | 99.6  | 1.5  |
| Drum Stick Chutney             | 4   | 172.4 | 15.1 |
| Field Beans Curry              | 11  | 101.0 | 6.5  |
| French Beans Curry             | 20  | 115.8 | 9.9  |
| Giant Chilles Curry            | 62  | 99.0  | 7.1  |
| Giant Chilles Fry              | 4   | 70.0  | 1.7  |
| Green Chillies Curry           | 9   | 33.8  | 19.0 |
| Green Chillies Fry             | 19  | 12.5  | 9.2  |
| Green Chillies Chutney         | 24  | 17.5  | 1.2  |
| Jack Fruit Curry               | 9   | 154.9 | 6.1  |
| Kankoda Fry                    | 4   | 57.0  | 3.2  |
| Kovai Curry                    | 67  | 109.8 | 8.2  |
| Kovai Boiled & Seasoned        | 2   | 138.0 | 5.3  |
| Kovai Fry                      | 39  | 93.2  | 9.3  |
| Kovai Chutney                  | 4   | 8.5   | 0.9  |
| Ladies Finger Curry            | 221 | 116.2 | 7.6  |
| Ladies Finger Boiled& Seasoned | 18  | 103.8 | 3.5  |
| Ladies Finger Fry              | 107 | 111.6 | 12.3 |
| Mango Green Curry              | 13  | 84.8  | 6.4  |
| Mango Green Chutney/Pickle     | 279 | 5.1   | 1.4  |

Contd.

|                                    |     |       |      |
|------------------------------------|-----|-------|------|
| Papaya Green Curry                 | 14  | 104.4 | 7.3  |
| Parwar Curry                       | 19  | 110.2 | 7.3  |
| Parwar Fry                         | 46  | 65.8  | 11.1 |
| Plantain Curry                     | 24  | 157.3 | 11.6 |
| Plantain Boiled & Seasoned         | 2   | 176.2 | 4.9  |
| Plantain Fry                       | 26  | 91.6  | 8.7  |
| Plantain Chutney                   | 6   | 173.5 | 13.0 |
| Pumpkin Curry                      | 41  | 149.5 | 7.5  |
| Pumpkin Boiled & Seasoned          | 3   | 44.3  | 0.9  |
| Pumpkin Fry                        | 9   | 71.6  | 6.9  |
| Ridge Gourd Curry                  | 156 | 120.9 | 8.4  |
| Ridge Gourd Fry                    | 3   | 111.0 | 7.9  |
| Snake Gourd Curry                  | 6   | 93.4  | 3.4  |
| Snake Gourd Fry                    | 3   | 123.7 | 14.6 |
| Tomato Green Curry                 | 127 | 76.5  | 7.2  |
| Tomato Green Boiled & Seasoned     | 16  | 31.9  | 2.0  |
| Tomato Green Chutney               | 251 | 68.8  | 5.2  |
| Mixed Vegetables Curry             | 642 | 153.2 | 9.7  |
| Mixed Vegetables Boiled & Seasoned | 6   | 84.0  | 2.4  |
| Mixed Vegetables Fry               | 34  | 136.8 | 12.2 |
| Mixed Vegetables Chutney           | 14  | 6.2   | 0.5  |
| Mixed Vegetables Masala Curry      | 16  | 108.0 | 4.1  |
| Others Vegetable Curry             | 16  | 117.3 | 10.3 |
| Others Vegetable Fry               | 2   | 86.4  | 9.0  |
| Others Vegetable Chutney           | 12  | 18.8  | 2.2  |
| Cho-Cho Marrow Curry               | 6   | 95.9  | 1.7  |
| Cow Pea Pods Curry                 | 9   | 83.5  | 8.2  |
| Ghosala Curry                      | 7   | 208.8 | 5.7  |
| Kankoda Curry                      | 4   | 126.7 | 10.9 |
| Kheksa Fry                         | 9   | 38.9  | 6.5  |
| Knol-khol Curry                    | 3   | 93.6  | 4.0  |
| Leeks Curry                        | 11  | 27.9  | 4.9  |
| Lokoochraw Masala Curry            | 13  | 43.2  | 1.5  |
| Mushrooms Curry                    | 5   | 24.3  | 3.0  |
| Mushrooms Fry                      | 6   | 135.8 | 16.1 |
| Plantain Stem Fry                  | 10  | 40.6  | 10.8 |

Contd.

|  |     |       |      |
|--|-----|-------|------|
| Sundakai Curry                                 | 5   | 23.5  | 11.3 |
| Sundakai Fry                                   | 5   | 11.0  | 3.0  |
| Tinda Curry                                    | 22  | 146.6 | 13.1 |
| Tinda Fry                                      | 3   | 92.8  | 6.5  |
| Vegetable Marrow Curry                         | 25  | 247.8 | 13.5 |
| Vegetable Marrow Fry                           | 3   | 90.0  | 6.5  |
| <b>4.7 Nuts and Oil Seed Based Recipes</b>     |     |       |      |
| Groundnuts Roasted                             | 4   | 85.8  | 8.5  |
| Coconut Deep Fry                               | 2   | 75.0  | 25.0 |
| Coconut Chutney                                | 284 | 35.9  | 2.0  |
| Groundnut Chutney                              | 185 | 33.7  | 2.5  |
| <b>4.8 Condiments and Spices Based Recipes</b> |     |       |      |
| Chillies Green                                 | 5   | 4.0   | 0.5  |
| Chilies Dry Deep Fry                           | 4   | 17.5  | 3.3  |
| Chilies Dry Chutney Powder Dry                 | 10  | 6.6   | 0.1  |
| Garlic Chutney                                 | 13  | 59.6  | 8.5  |
| Ginger Chutney                                 | 20  | 4.7   | 1.9  |
| Other Nuts and Oil Seeds Chutney               | 4   | 20.2  | 2.3  |
| Other Nuts and Oil Seeds Chutney Powder Dry    | 4   | 5.0   | 5.0  |
| <b>4.9 Fruit Based Recipes</b>                 |     |       |      |
| Mango Ripe Chutney/Pickle                      | 75  | 4.9   | 2.1  |
| Tomato Ripe Chutney Powder                     | 13  | 57.8  | 1.9  |
| Tomato Ripe Chutney                            | 106 | 63.4  | 5.2  |
| Tomato Ripe Rasam                              | 174 | 40.3  | 3.5  |
| Tamarind Chutney/Pickle                        | 16  | 12.2  | 1.9  |
| Tamarind Rasam                                 | 285 | 26.8  | 2.6  |
| Ambada Chutney/Pickle                          | 4   | 3.8   | 0.1  |
| Peach Chutney/Pickle                           | 29  | 15.6  | 1.4  |
| Peach Salted                                   | 12  | 60.8  | 2.0  |
| <b>4.10 Non Veg Based Recipes</b>              |     |       |      |
| Fish Curry Gravy                               | 471 | 155.6 | 15.0 |
| Fish Fry/Deep Fry/ Snack                       | 95  | 102.2 | 18.0 |
| Fish Chutney/Pickle                            | 4   | 45.7  | 3.9  |
| Fish with Dhal                                 | 5   | 81.9  | 7.9  |
| Fish with Vegetable                            | 96  | 221.6 | 20.1 |

Contd.

|                                   |     |       |      |
|-----------------------------------|-----|-------|------|
| Salted Fish Curry Gravy           | 5   | 192.2 | 22.2 |
| Salted Fish Fry/Deep Fry/ Snack   | 4   | 144.7 | 15.0 |
| Prawn Curry Gravy                 | 18  | 123.3 | 14.2 |
| Prawn Fry/Deep Fry/ Snack         | 18  | 125.8 | 11.8 |
| Prawn Chutney/Pickle              | 12  | 182.6 | 9.0  |
| Prawn with Green Leafy Vegetable  | 4   | 423.5 | 6.5  |
| Prawn with Vegetable              | 16  | 159.8 | 5.9  |
| Crab/Prawn with Vegetable         | 4   | 155.6 | 7.2  |
| Other Fish Curry Gravy            | 16  | 102.2 | 11.4 |
| Other Fish Fry/Deep Fry/ Snack    | 10  | 122.9 | 17.1 |
| Other Fish Chutney/Pickle         | 7   | 90.5  | 3.2  |
| Beef Curry Gravy                  | 53  | 92.6  | 10.0 |
| Beef Fry/Deep Fry/ Snack          | 11  | 20.6  | 6.5  |
| Beef with Vegetable               | 17  | 155.1 | 10.3 |
| Duck Curry Gravy                  | 291 | 152.5 | 9.1  |
| Duck Boiled & Seasoned            | 203 | 180.1 | 3.9  |
| Duck Fry/Deep Fry/ Snack          | 69  | 101.1 | 8.3  |
| Egg with Dhal                     | 4   | 33.7  | 5.1  |
| Egg with Green Leafy Vegetable    | 4   | 51.3  | 7.6  |
| Egg with Vegetable                | 35  | 110.8 | 7.8  |
| Egg Omlette                       | 244 | 97.4  | 7.9  |
| Egg Fry (Scrambled)               | 61  | 119.1 | 7.5  |
| Chicken Curry                     | 389 | 48.6  | 10.7 |
| Chicken Boiled & Seasoned         | 2   | 45.4  | 23.8 |
| Chicken Fry/Deep Fry/ Snack       | 65  | 171.8 | 9.3  |
| Chicken Chutney/Pickle            | 4   | 256.2 | 23.5 |
| Chicken with Vegetable            | 5   | 98.1  | 7.5  |
| Goat Meat Curry Gravy             | 245 | 248.4 | 10.6 |
| Goat Meat Boiled & Seasoned       | 5   | 87.1  | 5.3  |
| Goat Meat Fry/Deep Fry/ Snack     | 16  | 88.2  | 8.4  |
| Goat Meat with Dal                | 7   | 189.4 | 5.1  |
| Liver Sheep ,Curry Gravy          | 9   | 48.9  | 1.2  |
| Snail, Curry Gravy                | 2   | 51.6  | 4.5  |
| Snail with Vegetable              | 2   | 103.3 | 4.5  |
| Other Non-Veg Curry Gravy         | 10  | 83.5  | 5.9  |
| Other Non-Veg Fry/Deep Fry/ Snack | 4   | 229.0 | 7.5  |

Contd.

|                               |    |       |      |
|-------------------------------|----|-------|------|
| Other Non-Veg Chutney/Pickle  | 7  | 125.1 | 6.8  |
| Other Non-Veg, with Vegetable | 4  | 90.1  | 6.3  |
| Other Non-Veg Curry Gravy     | 19 | 175.5 | 27.4 |

#### **4.11 Chaat Based Recipes**

|                            |     |       |      |
|----------------------------|-----|-------|------|
| Bhel Puri                  | 3   | 50.0  | 2.5  |
| Cutlet Non-Veg             | 16  | 33.1  | 1.8  |
| Kachori                    | 85  | 30.2  | 6.3  |
| Panipuri/Pushka            | 52  | 38.9  | 3.4  |
| Pav Bajji                  | 16  | 82.1  | 9.2  |
| Ragada/Cutlet/Samosa/Chat  | 11  | 98.2  | 4.3  |
| Samosa Big                 | 92  | 37.6  | 3.5  |
| Samosa Small               | 8   | 60.3  | 4.4  |
| Veg Manchuria              | 2   | 150.0 | 23.1 |
| Veg Noodles/Foodiles       | 178 | 80.1  | 14.4 |
| Instant Noodles (Homemade) | 44  | 66.1  | 14.8 |

#### **4.12 Tiffin's and Namkeen Based**

|                  |     |       |      |
|------------------|-----|-------|------|
| Butter Dosa      | 7   | 165.2 | 11.2 |
| Bonda            | 19  | 22.4  | 13.8 |
| Dahi Vada        | 2   |       | 0.3  |
| Dhokla           | 22  | 111.9 | 9.4  |
| Dosa             | 590 | 98.4  | 8.9  |
| Idly             | 560 | 87.0  | 3.0  |
| Chocolate Flakes | 7   | 104.6 | 2.5  |
| Macaroni/Pasta   | 16  | 198.4 | 9.3  |
| Mal Puri         | 5   | 26.0  | 0.1  |
| Masala Dosa      | 10  | 91.8  | 0.8  |
| Mysore Bajji     | 13  | 73.9  | 15.5 |
| Onion Dosa       | 4   | 120.5 | 7.5  |
| Pesarattu        | 14  | 91.3  | 2.6  |
| Puri             | 302 | 70.4  | 26.1 |
| Rawa Dosa        | 6   | 59.1  | 10.0 |
| Rawa Idly        | 5   | 155.9 | 3.9  |
| Set Dosa         | 4   | 37.5  | 1.1  |
| Uttappam         | 3   | 85.0  | 5.5  |
| Vada             | 65  | 61.4  | 18.8 |
| Veg. Kofta       | 11  | 117.9 | 8.0  |
| Wheat Dosa       | 4   | 39.0  | 5.0  |
| Upma             | 117 | 84.0  | 7.0  |
| Other Tiffins    | 33  | 37.6  | 6.1  |

**4.13 Bakery Based Recipes**

|                          |     |       |      |
|--------------------------|-----|-------|------|
| Black Forest Cake/Pastry | 9   | 5.9   | 0.6  |
| Brown/Wheat Bread        | 234 | 25.0  | 2.0  |
| Burger- Non Veg          | 10  | 40.1  | 3.4  |
| Burger-Veg               | 4   | 25.0  | 0.9  |
| Butter Biscuits          | 16  | 19.0  | 5.7  |
| Cake with Fruits         | 5   | 55.4  | 2.7  |
| Chocalate Cake/Pastry    | 8   | 50.0  | 8.9  |
| Cholepaneer Puff         | 4   | 9.5   | 0.2  |
| Cream Doughnuts          | 2   | 40.0  | 2.6  |
| Cup Cake                 | 24  | 20.6  | 2.2  |
| Dilkush                  | 2   | 10.0  | 2.0  |
| Dilpasand                | 4   | 35.0  | 6.2  |
| Egg Puff                 | 18  | 26.1  | 6.1  |
| Fruit Cake Cake/Pastry   | 3   | 5.0   | 0.4  |
| Jeera Khari              | 1   | 130.0 | 11.2 |
| Masala Khari             | 2   | 30.0  | 2.6  |
| Milk Bread               | 106 | 29.3  | 2.8  |
| Non Veg Sandwich         | 4   | 60.8  | 10.0 |
| Osmania Biscuits         | 15  | 18.3  | 3.1  |
| Pizza-Non Veg            | 5   | 211.4 | 50.0 |
| Pizza-Veg                | 9   | 117.3 | 41.8 |
| Plain Khari              | 4   | 49.0  | 45.1 |
| Plum Cake                | 4   | 25.0  | 1.4  |
| Sandwich Bread           | 24  | 50.3  | 8.2  |
| Toast/Rusk               | 514 | 11.6  | 1.3  |
| Veg. Hot Dog             | 2   | 118.0 | 0.7  |
| Veg. Sandwich            | 12  | 120.0 | 38.2 |
| Veg. Puff                | 1   | 21.0  | 10.1 |
| Sauce All Varieties      | 12  | 5.8   | 0.2  |
| Bun / Butter Bun         | 97  | 36.9  | 5.0  |

**4.14 Sweets Recipes**

|                        |    |       |      |
|------------------------|----|-------|------|
| Badhusha               | 9  | 36.1  | 1.8  |
| Besan Laddu            | 11 | 36.1  | 12.6 |
| Boondhi Laddu          | 15 | 27.9  | 9.2  |
| Carrot Halwa           | 9  | 112.7 | 5.1  |
| Coconut Laddu          | 9  | 50.2  | 2.5  |
| Groundnut Chikki/Barfi | 6  | 50.0  | 0.9  |

Contd.

|  |     |       |      |
|--|-----|-------|------|
| Holigae (Bobattu)  | 15  | 95.8  | 5.6  |
| Jalabi/Jelabi  | 7   | 74.3  | 9.8  |
| Kajubarfee   | 3   | 36.7  | 0.1  |
| Kheer (Dhal)   | 6   | 159.4 | 1.3  |
| Kheer/Payasam/Wheat<br>Flour(Sago,Vermicelli, Rice,<br>Semolina) | 70  | 140.5 | 17.6 |
| Sweets with Mango/Apple  | 4   | 9.0   | 0.1  |
| Mysorepak  | 8   | 34.8  | 2.0  |
| Payasam-Poppy Seed   | 5   | 249.8 | 5.5  |
| Peda   | 9   | 2.9   | 0.1  |
| Rasmalai   | 4   | 87.5  | 4.5  |
| Sheermall-Wheat Based Sweet                                      | 7   | 76.2  | 10.3 |
| Sonpapidi  | 5   | 38.6  | 8.6  |
| Suji , Vermicelli-Halwa/Kesari                                   | 25  | 78.9  | 6.7  |
| Til laddu  | 2   | 188.0 | 65.0 |
| Other sweets   | 168 | 34.6  | 8.8  |

#### **4.15 Namkeen based Recipes**

|  |     |      |      |
|--|-----|------|------|
| Bhoondhi   | 34  | 46.4 | 5.9  |
| Chagodi-Small/Kodbela  | 4   | 15.0 | 7.9  |
| Chakka/Vadappa   | 12  | 11.7 | 2.7  |
| Chakli-Murukulu  | 40  | 18.0 | 5.0  |
| Chips-(Banana/Potato All Varieties)                          | 105 | 36.7 | 10.1 |
| Chips-(Kurkure/Lays/Bingo...etc)                             | 179 | 18.4 | 12.2 |
| Mixture  | 213 | 22.1 | 6.0  |
| Mirchibajji/Madurvada/Gobibajji/<br>Golibajji/Plantain Bajji | 109 | 61.0 | 22.3 |
| Namkeen  | 74  | 39.6 | 5.4  |
| Pakodi (All Varieties)                                       | 81  | 68.2 | 24.2 |
| Pop Corn (All Varieties)                                     | 13  | 21.2 | 9.6  |
| Sev  | 16  | 75.9 | 8.4  |
| Papad/Vadiyalu in Oil  | 348 | 18.1 | 14.6 |
| Others Namkeen   | 23  | 42.5 | 5.7  |

Contd.

**4.16 Fats and Oils(Directly Added to the Meal)**

|                |    |      |      |
|----------------|----|------|------|
| Butter         | 82 | 9.3  | 9.3  |
| Ghee (Cow)     | 48 | 7.9  | 7.9  |
| Ghee (Buffalo) | 24 | 7.6  | 7.6  |
| Groundnut Oil  | 1  | 5.0  | 5.0  |
| Sunflower Oil  | 3  | 17.3 | 17.3 |
| Mustard Oil    | 9  | 3.0  | 3.0  |

**GLOSSARY**

|                        |   |
|------------------------|---|
| NNMB                   | : National Nutrition Monitoring Bureau  |
| ICMR                   | : Indian Council of Medical Research  |
| ILSI                   | : International Life Sciences Institute   |
| NIN                    | : National Institute of Nutrition   |
| Visible Fat            | : Added Fat   |
| Visible Fat            | : Fat/Oil used during the process of cooking/preparation/eating.  |
| HH                     | : House Hold  |
| SC                     | : Scheduled Caste   |
| ST                     | : Scheduled Tribe   |
| BC                     | : Backward Classes  |
| OC                     | : Other Caste (Forward Caste)   |
| Artisan                | : Skilled workers   |
| Other Occupations      | : Priest, Pensioners, Beedi Workers, etc.   |
| Dependents             | : Students, Children, Elderly (non earning people)  |
| Sedentary Activity     | : A sedentary activity is defined as one which involves sitting, a certain amount of walking and standing is often necessary in carrying out job duties (White Collar duties involving less physical activity). |
| Moderate Activity      | : A moderate activity is defined as one which involves reasonable or limited activity without extreme or excessive, or intense moments.   |
| Infant Foods           | : Commercial Baby Foods   |
| Breakfast/Tiffin Items | : Chaat Items/Foods are defined as savoury snacks, typically served at road-side outlets or from food stalls or food carts.   |
| Chaat Items            | : The Breakfast/Tiffin Foods are eaten primarily as the first meal of the day. (Examples: Idli, Dosa, Pongal, Kichidi, Vada, Bajji, Upma, Puri, Parata, Chapati etc...)   |
| Namkeen                | : Namkeen is the food which will give the savory flavor. Namkeen is used as a generic term to describe savory snack foods. (Chakodi, Boondi, Chakli/Muruku, Mixture, Sev, Pakodi)                               |
| Appadam                | : Papad   |
| Dilkush                | : Bread with Sweet Stuffing   |
| Dilpasand              | : Bread with Dry Fruits and Sweet Stuffing  |



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