

**FOOD CONSUMPTION PATTERN: A COMPARISON BETWEEN RURAL  
AND URBAN AREA IN SOUTH GUJARAT**

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**ABSTRACT**

Food is essential part of life and day to day need. It is basic need of human being. A country can be divided into rural and urban, and based on the orientation of rural and urban the living practices and lifestyle differs more or less extent. Being basic need food consumption is an important aspect on day to day life and how consumers of rural and urban differ? The present study aims to investigate the food consumption pattern in south Gujarat, to fulfill the objectives, the structured questionnaire was used. The data collected from the Surat and Valsad district of south Gujarat. The quota sampling technique was used and 100 respondents were surveyed. Out of 100 respondents surveyed 63 percent were male and 37 percent were female. Out of surveyed 100 respondents 29 percent were studied up to SSC/ITI level. Out of 100 respondents 31 percent were students whereas 29 percent were engaged in private job. Majority of respondents (65 percent) have monthly income below Rs 25000/- . The study found that food consumption pattern is independent of Gender. The significant difference found between rural and urban in case of consumption pattern for Beverages, Refreshments and fresh juice, pulses and green vegetables in the study area.

**Keywords:** Food Consumption Pattern, Rural and Urban India, Food consumption practices

**I. INTRODUCTION**

The real India lives in villages'. India consists of about 650,000 villages with around 70 percent population of the country. According to the Census of India 2011, the definition of urban area is as follows:-

1. All places with a municipality corporation, cantonment board or notified town area committee, etc
2. All other places which satisfy the following criteria:
  - a. A minimum population of 5,000;
  - b. At least 75 percent of the male main working population engaged in non-agricultural pursuits; and
  - c. A density of population of at least 400 persons per sq. km.

And those places which do not satisfy the above criteria come under the rural area.

Empirical results show wide disparities in levels of living in terms of economic and social indicators in rural and urban India. (Basanta K Pradhan, 2000) Despite of developments, there is a wide gap between rural and urban India with respect to technology, living condition, economic empowerment etc. (Pathak, 2012)

As table-1 shows Rural Urban Population in India with comparison between census 2001 and censuses 2011. There is decrease in the share of rural population whereas increase in the urban population from 2001 to 2011.

### **Consumption**

In common parlance, the term “consumption” refers to the act of using up the resources, whereas in economics it means the use of goods and services by households which are not intended to be an investment of some sort i.e. the goods or services are not used with an intention of being sold in future. (Sonika Gupta, 2016). As per FAO “The food consumption refers to the amount of food available for human consumption as estimated by the FAO Food Balance Sheets. However the actual food consumption may be lower than the quantity shown as food availability depending on the magnitude of wastage and losses of food in the household, e.g. during storage, in preparation and cooking, as plate-waste or quantities fed to domestic animals and pets, thrown or given away.” Consumption patterns provide the structure for everyday material life, and this structure creates economic distance across classes. (Geetha, 2011)

As table-2 shows there has been a decline in the proportion of expenditure on food items in both urban and rural areas. The proportion of expenditure on non-food items has increased over a time period.

The table-3 shows the comparison of household consumption of various food items which shows urban has more consumption across all the food items. The urban has around 33 percent higher consumption compare to rural.

### ***Scope of the study***

India is divided under rural and urban area. The gap between rural and urban become little thinner on certain aspect while it gets widen on certain aspects over a time. These Rural urban disparities in development influence migration pattern in Indian cities. There is different pace of development between rural and urban area. Opportunities in urban areas for employment, hospitals education and services etc have been attracting rural youth to urban areas. Food being the foremost basic need gets priority in the patterns of expenditure of

people, the majority of share in expenditure of an average Indian occupied by food expenditure. The present study focuses on the comparison between rural and urban area for food consumption in South Gujarat.

## II. LITERATURE REVIEW

Nisar Ahmad et.al (2015) found that rural and urban households have different food consumption patterns. However, households in the low level income group spend a larger fraction of their income on wheat, pulses and vegetables while high income groups on rice, meat and fish, milk and milk products both in rural and urban areas.

Pravisha Pandey (2013) reported that consumption of leafy vegetables was 5-10 days in a month for both rural and urban population. Further found that low cost, easily available and staple foods consumed by rural people frequently. They added that mustered oil used in rural area and in urban area refined or soybean oil used generally. Cereals consumption was quite similar for both rural and urban which includes rice and wheat mainly. Consumption of pulses included red gram and green gram dhal had taking by rural population by 15-20 days in a month, while in urban population it was 10-15 days in a month. Only seasonal and low cost fruits were consumed by rural population while all type of fruits was consumed by urban population.

Tao Sun and Guohua Wu (2004) reported considerable differences in the consumption pattern of urban and rural Chinese. Further they found that every aspects of the marketing mix differs- rural consumers are more price conscious, less attached to branded goods, have low exposure to media promotion and make their purchases in very different retail environments.

Iza Cristina et.al (2014) found their study found that the adolescent students living in rural areas had a higher prevalence of low consumption of natural fruit juices while those who resides in urban area has a higher prevalence of daily consumption of soda drinks. The consumption of fruits and vegetables were same for both rural and urban.

Safia Begum (2010) reported that wheat flour, rice, milk, sugar, edible oil and tea are positively correlated with household size. Manash Kashyap and Bhattacharjee (2011) found that for food choice rural and urban differs for rice selection and for salt, edible oil and tea no differences found for choice set for rural and urban.

### III. RESEARCH METHODOLOGY

The present study aims to investigate the food consumption practices in south Gujarat, The objectives of the present study are to study food consumption pattern and practices and also to do comparison between rural and urban area for food consumption. To fulfill the objectives, the descriptive research design was employed. The cross sectional data were collected from the respondents of south Gujarat. The structured questionnaire was used to collect data which contains questions related to demographic profile of respondent such as gender, age, education, occupation etc. and research questions related food consumption practices. The food consumption pattern five point rating scale was used (1- Every day, 2-Every Next Day, 3-Twice in Week, 4-Weekly, 5-Fortnightly). The data collected from the Surat and Valsad district of south Gujarat. The quota sampling technique was used in present study in which 50 respondents from urban area and 50 respondents from rural area were selected. The collected data were tabulated and analyzed with the help of computer software. The descriptive statistics chi- square test and t-test are used to analysis the data.

### IV. DATA AND EMPIRICAL RESULTS

The table-4 describe about demographic profile of respondents. Out of 100 respondents surveyed 63 percent were male and 37 percent were female. Out of surveyed 100 respondents 29 percent were studied up to SSC/ITI level followed by 27 percent studied up to HSC/Diploma level, whereas 20 percent respondents were studied up to primary level and under graduate level each. Out of 100 respondents 31 percent were students whereas 29 percent were engaged in private job. Out of 100 respondents 70 percent were married whereas 30 percent were unmarried. Majority of respondents (65 percent) have monthly income below Rs 25000/- followed by 26 percent having monthly income between Rs 25001/- - Rs.50000/-. As decided in methodology 50 respondents from rural area and 50 respondents were from urban area. The average age found was 34.16 years for collected data. The average age of urban respondents was 29.04 years whereas in case of rural it was 39.28 years.

Respondents were asked to file response based on their food consumption pattern for various broad food items and as table-5 shoes 91 respondents take cereals and cereal substitute on everyday followed by 6 every next day. Out of 100 respondents 56 takes pulses & their products on everyday followed by 25 every next day and 16 twice in week. In case of milk and milk products 90 respondents consume on everyday basis followed by 5 every next day. In case of

fruits 40 respondents takes on everyday basis followed by 31 on every next day basis. Out of 100 respondents 44 were not consuming Egg, Fish & Meat, so out of remaining 56 respondents, 25 consumes on twice in week basis followed by 15 on weekly basis. 62 respondents take green vegetables on everyday followed by 20 on every next day basis. For beverages and refreshments it was found that 12 respondents do not consume them and 20 respondents consume on every day, weekly and fortnightly basis each. For processed food it was found that 25 respondents not taken, out of 75 respondents 26 consume it on twice in week basis followed by 22 respondents on fortnightly basis. 24 respondents were not consuming Ready to Eat/Cook foods followed by 23 respondents on twice in week basis, whereas 21 on weekly basis an 19 on fortnightly. 29 respondents were take them on fortnightly followed by 21 on every day basis, 16 on weekly basis 15 twice in week and 8 were not consuming fresh juice.

#### **Gender and food consumption pattern**

To check out the association between gender of respondents and food consumption pattern Chi-square tests were used. For testing Chi-Square following null hypothesis were constructed.

H<sub>A0</sub>= Food consumption pattern is independent of Gender

H<sub>A1</sub>= Food consumption pattern is dependent of Gender

As shown in table-6-, the chi square test found insignificant for consumption pattern for broad food varieties which imply that food consumption pattern is independent of Gender in the study area. The study results contradicts with findings of Subramanian and Deaton (1990) "gender plays a role in consumption pattern", Deshmukh-Taskar (2007) and Gupta (2014).

#### **Rural urban consumption practices**

To check out the difference between Place of residence (Rural or Urban) and food consumption pattern for broad food categories T-test was used. For testing T-Test following null hypothesis were constructed.

H<sub>A0</sub>= There is no difference between rural and urban for Food consumption pattern for broad food categories

H<sub>A1</sub>= There is difference between rural and urban for Food consumption pattern for broad food categories

As shown in table-7, the T- test found significant at 5 % significant level for Beverages, Refreshments and fresh juice which shows there is difference between rural and urban area for consumption pattern of Beverages,

Refreshments and fresh juice. The T- test found significant at 1 % significant level for pulses and green vegetables which shows there is difference between rural and urban area for consumption pattern of pulses and green vegetables. The results are in line with (Oldiges, 2012) for cereals and also with findings of (Pravisha Pandey, 2016) in case of cereals, pulses and vegetables. In nut shell, for consumption comparison between rural and urban, mix results were obtained in some categories (pulses and their products, green vegetables, beverages and refreshment and fresh juice ) the significant difference was found whereas no significant differences were found in some categories ( cereals and its substitutes, milk and milk products, fruits, fish, egg & meat, processed fruits and ready to eat/cook foods)

The respondents were asked to response on the food consumption practices on the entire day cycle on five point of rating scale. The result were presented on table-8 and as it depicts 50 respondents always takes morning breakfast followed by 36 on sometimes and 12 rarely. In case of size of breakfast it was found majority (66 percent) takes medium size breakfast. In case of lunch majority of responses take medium size of lunch (55) followed by heavy (33) and very heavy (4). For dinner it was found that majority of respondents eat medium size of dinner (46) followed by heavy dinner (22) , light dinner (17) and very heavy (15). 51 respondents rarely eat between meals followed by 21 on sometimes basis. In case of water consumption it was found that 40 respondents drink 3-5 liter water in a day followed by 1-3 liter by 25 respondents and 5-7 liter by 23 respondents.

### **Rural urban consumption practices**

To check out the difference between Place of residence (Rural or Urban) and food consumption practices T-test was used. For testing T-Test following null hypothesis were constructed.

H<sub>0</sub>= There is no difference between rural and urban for Food consumption practices

H<sub>1</sub>= There is difference between rural and urban for Food consumption practices

As shown in table-9, the T- test found significant at 5 % significant level for dinner and water which shows there was significant difference found for size of lunch taken and water consumption between rural and urban in study area. However there were no significant difference found between rural and urban for

morning breakfast frequency, size of breakfast consumed, lunch size, eating between meals.

## V. CONCLUSION and MANAGERIAL IMPLICATIONS

Food is an essential part of day to day life. The present study aims to investigate the food consumption practices in South Gujarat. The study found that respondents consume Cereals and cereal substitute, Pulses & their products, Milk and Milk Products and Fruits on daily basis by enlarge. The significant difference found between rural and urban in case of consumption pattern for Beverages, Refreshments and fresh juice pulses and green vegetables in the study area. For consumption practices it was found that 50 respondents always take morning breakfast with medium size breakfast (66). In case of lunch respondents eat medium size of lunch (55) followed by heavy (33) and very heavy size (4) where as in case of dinner respondents eat medium size of dinner (46) followed by heavy dinner (22) and light dinner (17). 51 respondents rarely eat between meals followed by 21 on sometimes basis. There was significant difference found for size of lunch and water consumption between rural and urban in the study area. In case of processed foods and Ready to Eat/Cook foods there was no significant difference found among rural and urban consumers. The study found that food consumption pattern is independent of gender in the study area. The study may helpful to market players who want to tap rural area in understanding consumption practices and patterns. The study may also make base for differences in consumption pattern and practise among rural and urban area so appropriate segmentation, targeting and position strategies can be designed.

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## List of Tables

**Table: 1 Rural Urban Population**

Parameters	Rural		Urban	
	2001	2011	2001	2011
Population	742490639	833748852	286119689	377106125
Percentage	72.18	68.86	27.82	31.14

[http://www.dataforall.org/dashboard/censusinfoindia\\_pca/](http://www.dataforall.org/dashboard/censusinfoindia_pca/)

**Table:2 Comparison between Rural Urban Expenditure (in percentage)**

Rounds	Ref Period	Urban (in %)		Rural (In %)	
		Food Total	Non Food Total	Food Total	Non Food Total
55 <sup>th</sup>	July 1999 – June 2000	48.1	51.9	59.4	40.6
61 <sup>st</sup>	July 2004 – June 2005	42.5	57.5	55	45
66 <sup>th</sup>	July 2009 – June 2010	40.7	59.3	53.6	46.4
68 <sup>th</sup>	July 2011 – June 2012	38.5	61.5	48.6	51.4

Source: NSSO reports

**Table: 3 Household Consumption of Various food items**

Item	Rural	Urban
Cereals and cereal substitute	154	175
Pulses & their products	42	54
Milk and Milk Products	115	184
Edible Oil	53	70
Egg, Fish & Meat	68	96
Vegetables	95	122
Fruits	41	90
Sugar, Salt and Spices	76	94
Beverages, Refreshments & Proc Foods	113	236
<b>Food total</b>	<b>756</b>	<b>1121</b>

Source : NSS 68th Round Report : Household Consumption of Various Goods and Services in India, 2011-12 Break- up of MPCE by 20 broad item groups.

MPCE (Monthly Per Capita Expenditure)

**Table: 4 Demographic profile of Respondents**

Gender of Respondents			Place of Respondents		
	Frequency	Percent		Frequency	Percent
Male	63	63.0	Rural	50	50.0
Female	37	37.0	Urban	50	50.0
Total	100	100.0	Total	100	100.0
Education of Respondents			Occupation of Respondents		
	Frequency	Percent		Frequency	Percent
Illiterate	1	1.0	Agriculture and Allied	17	17.0
Primary	20	20.0	Private Job	29	29.0
HSC/ITI	29	29.0	Govt Job	6	6.0
HSC/Diploma	27	27.0	Business	17	17.0
Under Graduate	20	20.0	Students	31	31.0
Post Graduate	3	3.0	Total	100	100.0
Total	100	100.0			
Marital Status of Respondents			Monthly income		
	Frequency	Percent		Frequency	Percent
Married	70	70.0	Below Rs.25000	65	65.0
Unmarried	30	30.0	Rs.25001-50000	26	26.0
Total	100	100.0	Rs.50001-75000	4	4.0
			Rs.75001-100000	5	5.0
			Total	100	100.0
Age of Respondents					
Average Age of respondents			34.16 Years		
Average Age of Rural respondents			39.28 Years		
Average Age of Urban respondents			29.04 Years		

**Table:5 Food Consumption pattern**

Sr. no	Parameters	Every day	Every Next Day	Twice in Week	Wee kly	Fortni ghtly	Not taken
1	Cereals and cereal substitute	91	6	2	1	0	
2	Pulses & their products	56	25	16	3	0	
3	Milk and Milk Products	90	5	3	2	0	
4	Fruits	40	31	13	10	5	1
5	Egg, Fish & Meat	4	4	25	15	8	44
6	Green Vegetables	62	20	5	9	4	
7	Beverages, Refreshments	20	11	17	20	20	12
8	Processed Foods	11	4	26	12	22	25
9	Ready to Eat/Cook foods	7	6	23	21	19	24
10	Fresh Juice	21	11	15	16	29	8

**Table :6 Gender and food consumption pattern**

S.N	Parameters	Df	Pearson Chi Square Value	Asymp. Sig. (2-sided)	Comment on Ho
1	Cereals and cereal substitute	3	1.880	0.598	Accepted
2	Pulses & their products	3	0.347	0.951	Accepted
3	Milk and Milk Products	3	5.954	0.114	Accepted
4	Fruits	4	4.926	0.295	Accepted
5	Egg, Fish & Meat	4	0.793	0.939	Accepted
6	Green Vegetables	4	2.954	0.566	Accepted
7	Beverages, Refreshments	4	3.481	0.481	Accepted
8	Processed Foods	4	2.900	0.575	Accepted
9	Ready to Eat/Cook foods	4	2.015	0.733	Accepted
10	Fresh Juice	4	6.508	0.164	Accepted

\*Significant at 5% level

\*\* Significant at 10% level

**Table 7 Rural urban consumption practices**

		Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Cereals and cereal substitute	Equal variances assumed	2.100	.150	-.645	98	.521
	Equal variances not assumed			-.645	73.594	.521
Pulses & their products	Equal variances assumed	19.601	.000	-3.729	98	.000**
	Equal variances not assumed			-3.729	77.726	.000**
Milk and Milk Products	Equal variances assumed	.707	.403	.525	98	.601
	Equal variances not assumed			.525	98.000	.601
Fruits	Equal variances assumed	3.558	.062	-1.198	97	.234
	Equal variances not assumed			-1.196	94.544	.235
Egg, Fish and Meat	Equal variances assumed	.832	.366	-1.747	54	.086
	Equal variances not assumed			-1.715	11.103	.114
Green Vegetables	Equal variances assumed	38.355	.000	4.035	97	.000**

	Equal variances not assumed			4.063	67.615	.000**
Beverages, Refreshments	Equal variances assumed	1.720	.193	-2.051	86	.043*
	Equal variances not assumed			-2.073	85.601	.041*
Processed foods	Equal variances assumed	.002	.966	-.519	73	.605
	Equal variances not assumed			-.520	62.524	.605
Ready to Eat/Cook foods	Equal variances assumed	2.672	.106	-.308	74	.759
	Equal variances not assumed			-.321	70.160	.749
Fresh Juice	Equal variances assumed	2.125	.148	-3.104	90	.003*
	Equal variances not assumed			-3.124	89.882	.002*

\*Significant at 5% level

\*\* Significant at 1 % level

**Table 8 Food Consumption practices**

1	Morning Breakfast (BF)	Always (50)	Often (1)	Sometimes (36)	Rarely (12)	Never (1)
2	Size of Breakfast	Very Heavy (8)	Heavy (14)	Medium (66)	Light (7)	Rarely eat BF (5)
3	Lunch	Very Heavy (4)	Heavy (33)	Medium (55)	Light (3)	Rarely eat Lunch (5)
4	Dinner	Very Heavy (15)	Heavy (22)	Medium (46)	Light (17)	Rarely eat Dinner (0)
5	How often do you eat between meals or after dinner/Lunch?	Always (6)	Often (4)	Sometimes (21)	Rarely (51)	Never (18)
6.	How much water do you drink each day?	Less Than 1 lit (3)	1-3 Lit (25)	3-5 lit (40)	5-7 Lit (23)	>7 lit (9)

**Table 9 Rural urban consumption practices**

Independent Samples Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Morning Breakfast (BF)	Equal variances not assumed	5.054	.027	.250	98	.803
	Equal variances			.250	95.20	.803

	not assumed					
Size of Breakfast	Equal variances not assumed	20.131	.000	-1.417	97	.160
	Equal variances not assumed			-1.425	75.17	.158
Lunch	Equal variances not assumed	4.849	.030	0.000	98	1.000
	Equal variances not assumed			0.000	85.97	1.000
Dinner	Equal variances not assumed	11.372	.001	-2.523	98	.013*
	Equal variances not assumed			-2.523	90.82	.013*
How often do you eat between meals or after dinner/Lunch?	Equal variances not assumed	2.093	.151	-.892	98	.375
	Equal variances not assumed			-.892	96.65	.375
Water	Equal variances assumed	7.144	.009	3.202	98	.002*
	Equal variances not assumed			3.202	89.79	.002*

\*Significant at 5% level

\*\* Significant at 1% level

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