

# A study on the extent of food availability and accessibility to the elderly living Below Poverty Line (BPL) in Thiruvananthapuram, Kerala, India

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## Abstract

Most of the studies on ageing in Kerala, India were centered on the health aspects, old age homes, socio-economic problems and quality of life of the elderly. But studies on the extent of food availability and accessibility of the elderly living Below Poverty Line (BPL) in Kerala, India have not been undertaken till date. The present study aims at examining the food availability and accessibility of the elderly living Below Poverty Line. The study is conducted not only to access their food availability and accessibility but also to see how they consume with their own income, pension or family income, or to see how much they depend on their children, relatives or others and to analyze whether their income is sufficient or not to meet their requirements.

**Keywords:** Ageing, Food availability, Food accessibility, Below Poverty Line (BPL), Elderly

## Introduction

The status of a population of a country depends upon how the public views them and how they are portrayed to the main frame of the society. Population refers to the people of all the ages, irrespective of their caste, colour, creed, gender or location. Education, urbanization, industrialization and globalization had contributed a great deal in shaping the attitude of the society towards a particular group of the population. Thus the contemporary social status of the elderly people depends on how the people think and perceive about them.

India has a rich culture and tradition of honouring and giving respect to the elderly people. It is clearly evident from the status and position that they enjoyed in the joint family system. On the other side, the disintegration of the joint family system, changing the level of literacy and migration of the youth has a negative impact on the status of the elderly in India, especially in a state like Kerala, where the Human Development Indices are on par with the international standards.

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Gerontology has become a growing and demanding area of research in Kerala, due to the growing elderly population and the high life expectancy. Many studies on elderly have been carried out so far on their quality of life, physical well-being, problems faced by them, retirement and related concerns, the attitude of the caretakers and nutritional and health status. But it is seen that there is a big vacuum on the data related to food availability and accessibility among the ageing population.

Food security occurs when “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preference for an active and healthy life (FAO, 2010).” Food security has now become a growing concern among the researchers and policymakers. Developed countries have already reacted to this call and were making numerous efforts to shorten the problem related to food security. Perhaps, it is a broader concept that needs to be addressed at higher levels and needs timely changes in the interventions and strategies adopted. Food security not only means availability of the required amount of food for a particular population or a country, but it also means the ways and measure for its availability as well (Heidemann et al, 2008). Food security arises from food insecurity and is mainly due to the lack of socio, cultural and economic access to food over a period of time. It can also be due to the poor purchasing power of the people. Food insecurity for a prolonged period of time can lead to severe malnutrition, hunger, poverty and even mortality.

The reason why food insecurity has become a challenge among countries like India is that of its immediate impact on its vulnerable population, especially the rural and tribal population and children, women and the elderly. Henceforth, the ample disposal of food, the openness to sufficient food which is referred to as the accessibility and its deployment is of greater importance.

According to population census 2011, there are nearly 104 million elderly persons (aged 60 years or above) in India; 53 million females and 51 million males. A report released by the United Nations Population Fund and Help Age India suggests that the number of elderly persons is expected to grow to 173

million by 2026, as rural and urban areas, 71% of the elderly population resides in rural areas while for females it was 29%. State-wise data on elderly population divulge that Kerala has a maximum proportion of elderly people in its population (12.6 per cent) followed by Goa (1.2 per cent) and Tamil Nadu (10.4 per cent) as per population census 2011 (Jones and Bartlett, 2016).

Eating and nutrition are essential to sustain life and promote wellness. Nutritional health and the ageing process have a synergistic relationship throughout the life cycle. Nutrition can influence how a person ages; in turn, the process of ageing affects nutrition (Jones and Bartlett, 2016). Lack of food is a major cause of poor health; priority for the elderly in these circumstances receiving nutritional supplements is highly desirable. Most of the studies on ageing in Kerala were centred on the health aspects, old age homes, socioeconomic problems, consumption pattern of elderly. The present study explores the extent of food availability and accessibility of the elderly living Below Poverty Line. The objectives of the present study were:

- To find out the socioeconomic profile & family background of the samples.
- To access the food habits, dietary practices & food consumption pattern of the samples.
- To understand the extent of food availability & accessibility of the samples.

## Subjects and Methods

The present study was carried out in the State of Kerala, India. Thiruvananthapuram, earlier known as 'Trivandrum' the capital of Kerala was selected as the area for this study. The State of Kerala is divided into fourteen districts and each district is divided into taluks according to the population. The administrative setup is based on the three-tier system- Panchayats at the Village level, Panchayat Samithi at the Block level and Zilla Parishad at the district level. A taluk is a local self-government just below the district level. Among the six taluks in the district, four taluks were the representation of rural areas is high and the percentage of elderly population living below is high were randomly selected as the area for the study. The data regarding the same was obtained from the Thiruvananthapuram Corporation office. Thus Varkala, Chirayinkeezhyu, Nedumangadu and Neyyattinkarataluks were taken for conducting the study.

Below Poverty Line (BPL) is an economic benchmark developed by the Government of India, to identify the people and households that need special assistance and support from the government for meeting their needs. It is determined by using a set of parameters formulated by the Planning Commission of the Country. Kerala is one among those States in India, which has developed its own benchmarks for assessing the BPL category of population.

The details' regarding the samples are collected from various reports available in the Panchayat like Below Poverty Line list and voters list. Further, the elderly population was divided into three age groups like 60-70, 71-80, and 81 and above. Based on the proportion of the elderly population in each of the above categories, the samples were selected proportionately as 35% from 60-70 years of age group, 29% from 70-80 years of age; and 36% from 80 years and above age category. Thus the sample used in this study comprises of 100 elderly people living below the poverty line. The systematic sampling method was used for drawing the samples.

An interview schedule was designed for the collection of information on the extent of food availability and accessibility of

elderly living Below Poverty Line. It consists of questions related to socio-economic background, dietary pattern, details regarding their consumption pattern, food availability and accessibility, purchasing habit and monthly purchasing pattern was also taken into consideration. A food frequency questionnaire was also designed to examine the regular dietary pattern and nutrient intake of the samples. A pilot study was carried out among 20 elderly people in order to check the feasibility of the tools prepared. Necessary modifications were made to the light of the results of the study and the tool was finalized accordingly. Both primary and secondary data were collected for the present study. Primary data was collected through the interview method and secondary data was collected from references, official reports, websites etc. The collected data was statistically analyzed and interpreted using appropriate graphs and diagrams.

## Result and Discussions

Variables like the age of the sample, gender, marital status, and family composition, number of family members, educational qualification, employment status, and monthly income are included under socioeconomic status.

**Table 1: Distribution of the samples based on their Socio-economic variables**

Sl No	Variables	% (n=100)
1	<b>Age category</b>	
	60-69	35
	70-79	29
	80+	36
2	<b>Gender</b>	
	Male	41
	Female	59
3	<b>Marital status</b>	
	Single	5
	Married	54
	Widowed	41
4	<b>Type of family</b>	
	Joint family	35
	Nuclear family	65
5	<b>No of family members:</b>	
	Two	5
	Above	95
6	<b>Education qualification</b>	
	Below SSLC	84
	SSLC	16
7	<b>Employment status</b>	
	Retired	81
	Presently working	19
8	<b>Monthly income</b>	
	<Rs 2000	100
9	<b>Income from other sources</b>	
	Agriculture	11
	Poultry	15

It was found that 36 % of the samples belonged to the age group of 80 years and above. Thirty-five percent of the sample belongs to the age group of 60-69 years, and twenty-nine percent of the samples belonged to the age group of 70-79 years of age. Fifty-nine percent of the samples were females and 41% were males.

Among all the states in India, Kerala achieved a tremendous demographic transition well recognized all over the world. Kerala continues to be the only state where females outnumber males per 1000 males. Ageing in Kerala is disproportionately a

female phenomenon and this gender dimension of ageing is a significant aspect (Anderson et al., 2011).

Regarding the marital status, it was found that 54 % of the samples were married; 41 % were widowed and 5 % were single or unmarried. Sixty-five percent of the samples belong to nuclear families and 35 % were from joint families. Urbanization may be the reason for a higher percentage in this category (Conklin et al. 2014).

Majority of 95 % of the samples have only three members in their families. Regarding the educational qualification of the samples, majority had not completed their tenth standards (84 %), while remaining 16 % studied up to SSLC. About 81 % of them were presently not working and 19 % of them were still engaged in some sort of activities like agriculture or daily labourers. It was found that no samples had a monthly income of more than Rs 2000. Ninety-nine percent of the samples were receiving a pension from the Government, which is the main source of their livelihood. It was found that the income was the main determinant of nutritional adequacy probably to a quantitative effect. 99% receives an alternate income in the form of pension.

**Dietary Pattern of the samples**

Dietary patterns are defined as the quantities, proportions, variety or combinations of different foods and beverages in diets, and the frequency with which they are habitually consumed (https://health.gov/dietaryguidelines/2015/). Elderly people in developing countries are vulnerable to health-related predicaments associated with near to the low-income society, poor eating pattern, undernutrition, overnutrition, chronic illness and diseases (WHO,2009). Poverty remains a major contributory factor to many of the dietary related disorders among the elderly. Regarding the food habits, the majority of 90 % of the samples were non-vegetarians. It was observed that evening snacks is the most frequently skipped meal in a day (94 %), followed by breakfast by 49 % and 40 % by dinner. When asked about the reason for such a trend among them, it was reported that the skipping of meals is mainly due to poverty and lack of affordability and of the food materials. The study also revealed the fact that the incorporation of a balanced diet in the menu was low and the meals of the selected samples was found to be very poor. Almost all the samples were taking only Cereals for their main meals- breakfast, lunch and dinner. The consumption of pulses, and vegetables were very low. Consumption of fruits was found to be completely nil among the samples in all the three meals. This clearly shows the low consumption power of the samples and this may be due to their poor financial status.

**Table 2: Distribution of the samples based on their consumption pattern**

Sl. No.	Food stuffs	Daily	Weekly	Fortnightly	Monthly	Rarely	Never
1	Cereals	100	0	0	0	0	0
2	Pulses	0	12	15	5	68	0
3	Vegetables	0	43	23	0	21	13
4	fruits	-	-	-	-	27	73
5	Milk	9	69	6	-	5	11
6	Egg	-	-	-	-	16	84
7	Fish	13	68	2	0	7	10
8	Flesh foods	-	-	-	1	7	92
9	Fats and oils	9	-	7	-	73	11
10	Sugar and jaggery	-	-	-	-	74	26

**Consumption pattern of the samples**

It was clearly understood that the consumption of fruits, eggs and flesh foods were never consumed by the samples.

In case of pulses, fats and oils and sugars they are sparingly used and rarely consumed. Vegetables, fish and milk were being consumed weekly and cereals are perhaps the staple food of the samples throughout the meals on all seasons.

**Purchasing pattern of the samples**

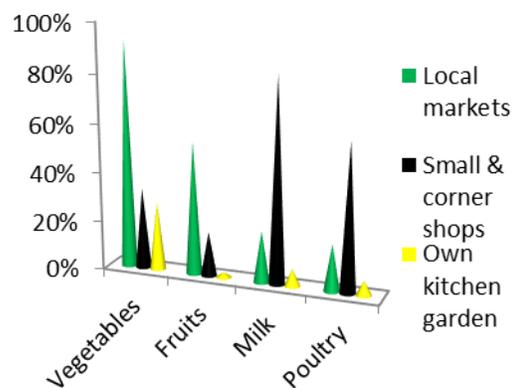


Figure 1: Accessibility of purchase of perishable food stuffs

It includes data on the source of purchase, accessibility of purchase for perishable and nonperishable foodstuffs etc. Ninety-nine percent of the sample dependent on the Public Distribution System for purchasing their food materials. Almost all the samples do local purchase from local vendors for their food materials.

It was found that majority of the samples depend on the local markets for the purchase of vegetables and fruits. Whereas 33 % and 18 % of the people buy fruits and vegetables from small grocery shops whereas 28 % of people have their own kitchen gardens for growing vegetables.

It is understood that, milk and fish were bought on a daily basis by most of the respondents. Other commodities like cereals, vegetables, meat, along with fish and milk are bought weekly by the samples. Monthly purchase is done on fats and oils, along with cereals and pulses. Pulses are rarely bought by many of the samples, on the other hand, fruits and meat are the

two major goods which are never purchased by a major group. Thus it is clear that cereals, vegetables and milk are purchased quite often by the majority of the sample, whereas meat and pulses are rarely purchased.

Jones and Bartlett (2016) Economic status of elderly, Handbook of Aging and the Social Science 5<sup>th</sup> edition. pp 352.

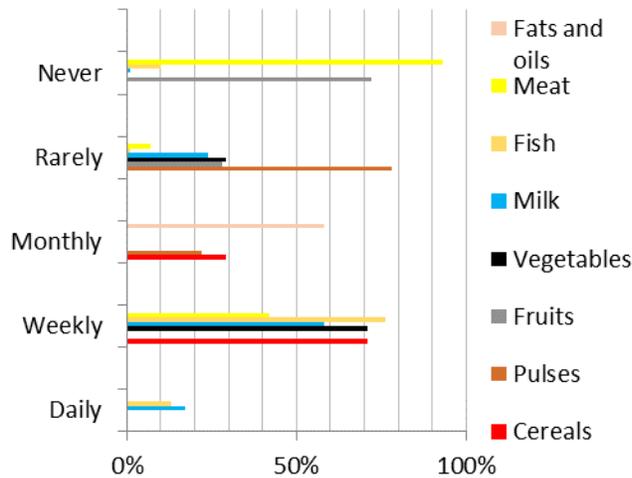


Figure 2: Frequency of purchase of food items by the samples

### Conclusion:

To conclude, those who are living in poverty or close to it, minorities, unemployed and disabled continue to be at greatest risk for experiencing food insecurity. The findings also replicate what is now a well-known pattern; food insecurity tends to be more of a problem among the “youngest old” and declines fairly regularly as age increases. Majority of the people were food insecure, mainly due to their financial crisis faced by them and for many of them, Cereals, especially rice is their staple food as it is cheap and easily available. Another important point noted from the study is the socioeconomic status of the samples on their food availability and accessibility, as it is clearly seen the majority of the people depend on the Government-funded Public Distribution Systems and Supply-co for their food, since it is the cheapest option available to the majority of the samples. The quality of the foods in these shops needs to be addressed urgently, since it is a matter of real concern, as the majority of the population is dependent on this system. The findings of the study will definitely be an eye opener for the policymakers at the State level and also for the voluntary agencies who work for the upliftment of the aged population.

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