



ISSN: 2395-7476  
IJHS 2016; 2(2): 353-355  
© 2016 IJHS  
www.homesciencejournal.com  
Received: 24-03-2016  
Accepted: 25-04-2016

#### Paul Virginia

Associate Professor, Department of Foods and Nutrition, Ethelind School of Home Science, Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad, Uttar-Pradesh-229001, India

#### Singh Pallavi

Research Scholar, Department of Foods and Nutrition, Ethelind School of Home Science, Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad, Uttar-Pradesh-229001, India

#### Shamim Neda

Research Scholar, Department of Foods and Nutrition, Ethelind School of Home Science, Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad, Uttar-Pradesh-229001, India

#### Correspondence

##### Paul Virginia

Associate Professor, Department of Foods and Nutrition, Ethelind School of Home Science, Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad, Uttar-Pradesh-229001, India

## Assessment of household food insecurity among the rural population of Allahabad District

Paul Virginia, Singh Pallavi and Shamim Neda

#### Abstract

Food security remains a problem for most of the rural population in India. The State of Food Insecurity in the World (2012) estimates that India is home to more than 217 million undernourished people. The Global Hunger Index (GHI) for India in the year 2010 was 24.1, which placed it in the “alarming category”. Various studies have been conducted to assess food insecurity at the global level; however, the literature is limited as far as India is concerned. Lack of sufficient studies on the burden of the problem poses a hurdle in formulating strategies to combating this epochal issue. Taking all this into consideration this present study was conducted to assess the household food insecurity among the rural population of Allahabad district. The data were collected through semi-structured questionnaire among 600 households from the villages belongs to Jasra and Chaka block of Allahabad district. The results of the study shows that 26.6% mildly insecure about worry about food while 63.3% households mildly insecure regarding eating their preferred food. 60% households were moderately insecure regarding variety of food and 33.3% moderately insecure regarding consumption of undesirable food due to unavailability. 36.6% households feel severely insecure regarding consumption of less amount of food and fewer meals in a day. Selected households were severely insecure regarding no availability of food in the household (31.6%) followed by go to sleep hungry (40%) and go a whole day and night without eating (31.6%). So there is a need to formulate the strategies to combat this level food insecurity at household level by strengthening the Public Distribution System and through nutritional awareness regarding indigenous food processing practices which represents local solutions to the food security in food shortage and stressed condition like drought.

**Keywords:** Food insecurity, public distribution system, indigenous food, global hunger index

#### 1. Introduction

The food insecurity is a gigantic problem in front of the world population. In spite of the reaching horizon of economic development, people are struggling for the survival of their daily life as at least 25,000 die people every day due lack of proper diets. Poverty is the main cause of food insecurity and hunger. Poor people in the world do not have sufficient land to grow, or to purchase enough food (FAO, 2006) [4]. India ranks 94th in the Global Hunger Index of 119 countries and there is paradoxical situation in endemic mass-hunger coexisting with the mounting food grain stocks. The stocks available with the Food Corporation of India (FCI) stand at an all-time high of 62 million tonnes against an annual requirement of around 20 million tonnes for ensuring food security. Still, about 200 million people are underfed and 50 million on the brink of starvation, resulting in starvation deaths. The paradox lies in the inherent flaws in the existing policy and implementation bottlenecks (Goyal, 2002) [5]. Various studies have been conducted to assess food insecurity at the global level; however, the literature is limited as far as India is concerned. Lack of sufficient studies on the burden of the problem poses a hurdle in formulating strategies to combating this epochal issue. Strengthening Public Distribution System and through creating awareness regarding indigenous food processing practices which represents valuable source of local solutions to the food insecurity in terms of accessibility by the rural population, particularly during seasonal food shortage or major stress periods such as droughts.

#### 2. Objective

To assess the household food insecurity among the rural population of Allahabad District.

### 3. Materials and Methods

This study was a cross sectional and descriptive study and 600 households belonging to lower strata were selected as unit of the study. The 3 villages of Chaka (Dandupur, Dhanuha, Sarangapur) and Jasra block (Semara, Kanjasa, Dalbabari) from Allahabad district were selected as area of the study and 100 households belonging to lower strata were randomly selected from each village as unit of study. The predesigned and pretested pro forma was used to elicit desired information, which was based on HFIAS, developed by the FANTA project Coates *et al.*, (2007) [1]. Information pertaining to household food insecurity questionnaire was used to assess the extent and spectrum of food insecurity. These questions represent apparently universal domains of the households and populations along a continuum of severity from food secure to severely food insecure. The head of household/any responsible member were specifically interviewed about: (a) Anxiety and uncertainty about the household food supply, (b) insufficient quality (includes variety and preferences of the type of food) and (c) insufficient food intake and its physical consequences and also perception and recall of instance of reduced food intake or starvations over the past 4 weeks. Based on the score, the households were classified into four categories (viz., Food secure, mildly food insecure, moderately food insecure, and

severely food insecure).

### 4. Variable Description

- **Food secure:** A household was labeled ‘food secure’ when the members ‘rarely’, in the past four weeks, worried about not having food.
- **Mildly food-insecure:** The members of the household worried about not having enough food sometimes or often, and/or were unable to eat preferred foods, and/or ate a more monotonous diet than desired, and/or ate some foods considered undesirable but only rarely.
- **Moderately food-insecure:** The household members sacrificed quality more frequently by eating a monotonous diet or undesirable foods sometimes or often, and/or had started to cut back on quantity by reducing the size of meals or number of meals, rarely or sometimes.
- **Severely food-insecure:** The individuals in the household had to cut back on meal-size or number of meals often, and/or experienced any of the three most severe conditions (running out of food, going to bed hungry, or going a whole day and night without eating).

### 5. Result and Discussion

**Table 1:** Anxiety and uncertainty about the Household Food Security

Question		Food Secure (%)	Mildly Insecure (%)
1	In the past four weeks, did you worry that your household would not have enough food?	110 (18.33%)	490 (81.6%)

Table- 1 shows the responses of the respondents regarding the first question of HFIAS which represents the anxiety and uncertainty about the household food security among households. The data revealed that 18.33% households were

food secure while 81.6% were mildly food insecure. The data concluded that most of the selected households experienced anxiety and uncertainty about their household food security (Chinnakali *et al.*, 2014) [2].

**Table 2:** Insufficient quality (Includes variety and preference of the type of food)

Question		Mildly Insecure (%)	Moderately Insecure (%)
2	In the past four weeks, were you or any household members not able to eat the kinds of foods you/they preferred because of a lack of resources?	600 (100%)	
3	In the past four weeks, did you or any household members have to eat a limited variety of foods due to a lack of resources?	100 (16.6)	500 (83.3%)
4	In the past four weeks, did you or any household members have to eat some foods that you/they really did not want to eat because of a lack of resources to obtain other types of food?	120 (20)	480 (79.9%)

Table-2 shows the responses of the respondents regarding the second, third and fourth question of HFIAS which represents household food insecurity regarding insufficient quality of food which includes variety and preferences of type of food. The data shows that in context of availability of preferred food, 100% households were mildly insecure while in terms of unavailability of limited variety of food 16.6% households were mildly insecure and 83.3% household experienced

moderate food insecurity. While concerning forced consumption of food which is not preferred by households about 20% were mildly insecure but 79.9% were often experienced moderate food insecurity. The data indicate that the high level of persistent household food insecurity forced households for the consumption of insufficient quality of food regarding either variety or their preferences (Chatterjee *et al.*, 2012) [3]

**Table 3:** Insufficient food intake and its consequences

Question		Moderately Insecure (%)	Severely Insecure (%)
5	In the past four weeks, did you or any household members have to eat a smaller meal than you/they felt you/they needed because there was not enough food?	380 (63.2%)	220 (36.6%)
6	In the past four weeks, did you or any household members have to eat fewer meals in a day because there was not enough food?	380 (63.33%)	220 (36.6%)
7	In the past four weeks, was there ever no food of any kind to eat in your household because of lack of resources to get food?	-----	180 (30%)
8	In the past four weeks, did you or any household members go to sleep at night hungry because there was not enough food?	-----	120 (20%)
9	In the past four weeks, did you or any household members go a whole day and night without eating anything because there was not enough food?	-----	80 (13.3%)

Table-3 shows the responses of the respondents regarding the 5-9 questions of HFIAS which represents the household food insecurity regarding insufficient food intake and its consequences. The data revealed that in context with consumption of smaller meals by one of the household member, about 63.2% households were moderately food insecure while 36.6% were severely food insecure. In context with availability of fewer meals due to shortage of food, 63.33% households were moderately insecure while 36.6% were severely insecure. A severe food insecurity was found among the selected households as 30% households sometimes have no food of any kind to eat due to lack of resources to get food, 20% were go to sleep at night hungry because there was no food and 13.3% households reported that one of their household member go a whole day and night without eating anything because there was not enough food. The data indicates alarming situation of household food insecurity among the rural population of Allahabad District belonging to the lower strata as there are many households who are severely insecure in terms of continuous availability of food (Gopichandran *et al.*, 2010)<sup>[6]</sup>

## 6. Conclusion

In conclusion, the present study revealed high level of food insecurity at household level in the selected area. Only 18.3 % households were food secure and remaining were often experienced food insecurity either in context with insufficient quality of food or insufficient intake of food as majority of households belongs to backward and scheduled castes and landless or marginal category of farmers. This study shows less food availability due to incompetent Public distribution System and poor affordability due to unavailability of subsidies on food items and low income that leads to improper accessibility, stability and absorption of food.

## 7. Recommendations

It is necessary that the Government supplements the provision of food security (through a universal or targeted approach) with a mix of short- and long-term policies. The short-term policies could include improving the poor environmental conditions, ensuring ample employment opportunities, strengthening the public food distribution system and promoting the concept of home gardening and indigenous food processing practices, a local solution to household food insecurity. Long-term intervention should focus more on intersectional coordination, involvement of non-governmental organizations, and ensuring women's empowerment.

## 8. References

1. Coates J, Swindale A, Bilinsky P. Household Food Insecurity Access Scale (HFIAS) for Measurement of Food Access: Indicator Guide. Version 3. Washington, DC: Food and Nutrition Technical Assistance (FANTA) Project, 2007, 1-29.
2. Chinnakali P, Upadhyay R, Shokeen D, Singh K, Kaur M, Arvind S *et al.* Prevalence of Household-level Food Insecurity and Its Determinants in an Urban Resettlement Colony in North India. *J Health Popul Nutr.* 2014; 32(2):227-236.
3. Chatterjee N, Fernandes G, Hernandez M. Food insecurity in urban household in Mumbai India. *Food Sec Springer Sci.* 2012; 4:619-32.
4. FAO The State of Food Insecurity in the World 2006 Eradicating World Hunger -taking stock ten years after the World Food Summit, 2006. <http://www.fao.org>
5. Goyal P. Food Security in India, the Hindu, 2002.

6. Gopichandran V, Claudius P, Baby LS, Felinda A, Mohan VR. Household food security in urban Tamil Nadu: A survey in Vellore. *Natl Med J India.* 2010; 23:278-80.