DOES PARTICIPATION IN A SOCIAL SECURITY SCHEME IMPROVE HOUSEHOLD DIETARY DIVERSITY?

Olajumoke M. Adenuga, Raphael O. Babatunde and Adewale H. Adenuga*

Department of Agricultural Economics and Farm Management, University of Ilorin, Ilorin, Nigeria

Abstract: Social protection in the form of cash transfer is emerging as a policy objective to solve the problem of poverty and food insecurity in developing countries. However, the extent to which this is feasible is yet to be empirically examined. This study was therefore carried out to assess the effect of the Ekiti State Social Security Scheme (ESSSS) on the dietary diversity of beneficiary households in Ekiti State, Nigeria. The study employed a three-stage random sampling technique to collect data from 200 respondents using a structured questionnaire. Descriptive statistics, Household Dietary Diversity Score (HDDS) in terciles and the Poisson Maximum Likelihood Estimator were the main analytical tools employed for the study. The result of the Poisson maximum likelihood estimator at p ≤ 0.05 showed that access to the Ekiti State Social Security Scheme (ESSSS), years of education and total monthly income were found to significantly influence household dietary diversity. The study concluded that the Ekiti State Social Security Scheme (ESSSS) has a positive effect on household dietary diversity of beneficiaries. It was recommended that the government should endeavour to increase the number of beneficiaries of the programme and organize nutrition-oriented programmes for the elderly people to improve the food substitution knowledge of the households.

Key words: household dietary diversity, social protection, Ekiti State, Poisson maximum likelihood estimator.

Introduction

Food is one of the most basic needs for human survival according to Food and Agricultural Organization (FAO, 2002). There are more than 925 million people suffering from chronic food hunger globally (FAO, 2010). Sub-Saharan Africa (SSA) has a bigger share of those facing hunger i.e. from 168 million in 2000 to more than 239 million by 2010 (FAO, 2010). Food security is a situation that exists

*Corresponding author: e-mail: adenugahenry@gmail.com
when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (Lemke et al, 2002). Food insecurity, on the other hand, refers to limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways (Tollens, 2000).

It is quite possible for a person to meet his or her energy requirements but to be prevented from leading an active, healthy life due to deficiencies of other nutrients, specifically protein and micronutrients such as iron, vitamin A, and iodine (Welch, 2004). A number of studies have documented that improved diet quality is associated with improved birth weight and child nutritional status and with reduced mortality (Ruel et al., 2003). Further, it is increasingly recognized that inadequate diet quality rather than insufficient energy consumption is fast becoming the main issue of concern especially in developing countries (Ruel et al., 2003; Graham et al., 2004). For these reasons, it is critically important that indicators of the nutritional quality of the food people eat are included in any analysis of food security. Besides, research from both developed and developing countries has consistently shown that diet diversity is a good indicator of nutrient adequacy, that is, of a diet that meets requirements for protein, energy, and all essential nutrients (Ruel, 2002). Dietary diversity indicators based on food groups predict nutrient adequacy better than those based on individual foods (Ruel, 2002). Information on specific foods is often of interest to policymakers aiming to improve food security in a particular population or region. For instance, knowledge of the amounts consumed of individual foods rich in particular nutrients may serve as the basis for policies aimed at reducing nutrient deficiencies.

Social protection is an important dimension in the reduction of poverty and enhancing food security (Babatunde et al, 2014). Shepherd et al. (2004) defined social protection as an approach towards thinking about the processes, policies and interventions which respond to the economic, social, political and security risks and constraints poor and vulnerable people face, and which will make them less insecure and less poor, and more able to participate in economic growth. Nigeria currently spends about 1.7% of total government expenditure (0.6% of GDP) on social protection. This is less than other sub-Saharan African countries spend and much less than the cost of a basic social protection package (3.9% of GDP on average for West Africa, as estimated by the ILO in 2008). Approximately two-thirds of social protection expenditure is spent on civil servant schemes. More resources need to be mobilised if the government of Nigeria wants to expand coverage to tackle the high rates of poverty and vulnerability in the country (Hagen-Zanker and Tavakoli, 2012). Social protection programmes are expected to improve household food security, build household assets, build community assets, increase agricultural production, and improve infrastructure. Social protection programmes are described as ‘social
assistance’ when resources, either cash (e.g. cash transfer) or in-kind (e.g. food transfers), are transferred to vulnerable individuals or households (Holmes et al., 2012).

The Ekiti State Social Security Scheme is a form of cash transfer programme that was formally flagged off for all the elderly of 65 years and above in all the 16 Local Government Areas of the State with the commencement of the payment of the monthly stipends to the beneficiaries on the 25th of October, 2011. The old people in Ekiti, in excess of 20,000, who have been duly registered, stay in their homes, and are paid by local government officials (Ekiti State Gov., 2012). The objective of the programme is to address adult poverty and food security challenges in the state. Every aged person without a pension, and without support from either accomplished children or relations, is registered, and paid the sum of five thousand naira (₦5,000) ($US1 = ₦180) monthly. Payment of the stipend is made regularly on the 25th of the month when all workers are paid.

Few empirical studies have been carried out to study the effect of cash transfer programmes on beneficiaries’ welfare in Nigeria (Holmes et al., 2012; Hagen-Zanker and Tavakoli, 2012). The studies simply assume and assert that dependency exist, and perhaps explain why it could occur in theory, or offer one or two anecdotes rather than any empirical evidence. Not many studies (if any) have been carried out to assess the Ekiti State Social Security Scheme (ESSSS) vis-a-vis dietary diversity of the beneficiaries. Hence, this study was carried out to:

(i) empirically evaluate the effect of the Ekiti State Social Security Scheme (ESSSS) on the dietary diversity of the beneficiaries and

(ii) assess the determinants of dietary diversity among beneficiaries and non-beneficiaries in the study area.

**Material and Methods**

**Study Area**

The study was carried out in Ekiti State, Nigeria. The state is located between longitudes 4° 45' and 5° 45' East of the Greenwich Meridian and latitudes 70° 15' and 80° 5' North of the Equator. Ekiti State has 16 Local Government Areas. The population of the state is about 2.4 million and covers a total land area of 543,500 sq km. It is predominantly agrarian with a population density of about 375 people per square kilometer. Although some parts of the state are fairly urbanized, the greater majority of the population still lives in rural areas. Agriculture is the main occupation of the people and it is the major source of income for many in the State. Agriculture provides income and employment for more than 75% of the population of the State (National Bureau of Statistics, 2011).
Study Population

The population of the study consists of all older persons resident in Ekiti State. Older persons are defined as persons aged 65 years and above and there are about 120,000 older persons in the State representing 5% of the State’s total population (NPC, 2006).

Sources of Data/Method of Data Collection

Primary data was used in this study and it was collected by the use of questionnaire. Data was collected on the socioeconomic characteristics and diet of the respondents. Specifically, food data was collected on all foods consumed by households, including their food purchases, foods consumed from their own farms or gardens, and foods received in kind.

Sampling Technique

A three-stage random sampling technique was employed in selecting respondents for the study. The first stage involved a random selection of 5 local government areas from the 16 local government areas in the state. Given that the program cut across the state, at least one local government area was selected from each of the three senatorial districts with two from Ekiti South, two from Ekiti Central and one from Ekiti North which happens to be the smallest of the three. The second stage involved a random selection of 2 villages from each of the selected local government areas. For the program participants, 10 households each were randomly selected from the lists of beneficiaries for each selected village obtained from the program administrators in the State secretariat. The sampling frame used was the list of registered beneficiaries of the programme in the state. To select the sample for the non-beneficiaries, a three-stage random sampling technique was also employed as was the case for the beneficiaries. Ten control households (who met beneficiary selection criteria but did not participate in the programs) were randomly selected from the villages. A total number of 200 questionnaires were therefore administered out of which 175 (82 beneficiaries and 93 non-beneficiaries) contained adequate information used for analysis.

Analytical Techniques

Dietary Assessment

A 24-hour dietary recall was conducted to obtain information on ‘food intake’. Respondents were asked to recall all food items eaten and beverages taken in the previous twenty-four hours prior to the interview. In line with Swindale and
Billinsky (2006), the set of 12 food groups which captures all possible food groups households consumed was used in classification based on FAO food composition table for Africa.

A scale of twelve food groups was used in assessing the dietary diversity of households. Using information collected from the 24-hour dietary recall, the Dietary Diversity Score (DDS) for individuals was derived using the FAO guidelines for measuring household and individual dietary diversity (FAO, 2010). A point was awarded to each food group consumed over the reference period, and the sums of all points were calculated for the dietary diversity score for each individual. Dietary diversity terciles were derived from the 12 food groups and divided into: low, medium, and high dietary diversity terciles. Individual DDS was used based on its position on the scale.

T-test Analysis

T-test analysis was used to compare the results from the analysis. The $t$ statistic was to test whether the means of the dietary diversity scores for the beneficiaries and non-beneficiaries are statistically different. The following set of 12 food groups was used to calculate the Household Dietary Diversity Score (HDDS); Cereals, Fish and seafood, Root and tubers, Pulses/legumes/nuts, Vegetables, Milk and milk products, Fruits, Oil/fats and palm oil, Meat and poultry offal, Sugar/honey, Eggs, Miscellaneous.

Poisson Maximum Likehood Estimator

In view of the fact that the Dietary Diversity Score is count data rather than continuous variables, a linear regression may not be appropriate in estimating its determinants. While the log transformation for y Poisson can give something reasonably close to the normal distribution, it is not as desirable, just as it is better to use logit or probit rather than OLS given binary data (Cameron and Trivedi, 1998; 2009). In this case, therefore, a Poisson Regression is a more appropriate model to use. The Poisson maximum likehood estimator expressed in equation (i) was used to analyse the household dietary diversity of respondents and it required that the data be Poission distributed with density function of PRM as given by Wooldridge (2002): The analysis was done with the aid of STATA 12.0.

$$F \left[ y_i/x_i \right] = \frac{e^{\lambda_i(x)}}{\Gamma (1 + y_i) \lambda_i(x)^y}$$

where $\lambda_i = \exp (\alpha + X' \beta)$

$y_i = 0,1$;

$i =$ the number/count of food items eaten by the household;

$X =$ a vector of prediction variables;
Following Wooldridge (2002), the expected number of the events, $y_i$, was:
\[ E(y_i/x_i) = \text{var}[y_i/x_i] = \lambda = \exp(\alpha + X'\beta); \text{ for } i = 1, 2, \ldots, n. \]

Factors determining the Household Dietary Diversity

Based on Equation (i), the explicit functional form of the model estimated to examine the determinants of dietary diversity was specified as:
\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \beta_8X_8 + e \]
where:
- $Y$ = Count of diverse food group eaten in household in the past 24 hours (HDDS);
- $X_1$ = Participation in social security scheme (1= yes, 0 = no);
- $X_2$ = Age of household head (years);
- $X_3$ = Gender of household head (1, if male and 0, if female);
- $X_4$ = Marital status of household (married =1, single, divorced, widow = 0);
- $X_5$ = Educational level of household head (years);
- $X_6$ = Dependency ratio (ratio of total household size to employed members);
- $X_7$ = Household size (number);
- $X_8$ = Total monthly household income (naira);
- $e$ = Error term;
- $\alpha$ = Constant;
- $\beta$ = Parameter to be estimated.

Results and Discussion

Socioeconomic Characteristics of the Beneficiaries and Non-beneficiaries of the (ESSSS) Scheme

The socioeconomic characteristics of the respondents are shown in Table 1. The modal age of the beneficiaries is 85–94 years, while that of the non-beneficiaries is 65–74 years. The average age of the beneficiaries is 80.6 years while that of the non-beneficiaries is 72.96 years. This is an indication that the older and more indigent people benefited more from the programme.

For both groups, only one-third of the respondents were male. This is an indication that women are a more vulnerable group in the study area. More than 60% of the respondents in both groups have no formal education and the highest level of education attained is primary education. The mean household size was 3 for the beneficiaries and 5 for the non-beneficiaries and the modal household size for both groups was 1–5 persons per household. The household size for the beneficiaries ranged from 1 to 7 while that for the non-beneficiaries ranged from 1 to 8. The relatively small household size for both groups may be due to the fact that for most of the households, their children have left home in search of greener pastures so that the aged parents are left with only one or two of their
grandchildren to assist them in their home chores and on the farm. None of the beneficiaries earn less than ₦5,000 monthly while about 50% of the non-beneficiaries earn less than ₦5,000. This may be due to the fact that all the beneficiaries receive the monthly stipend (cash transfer) of ₦5,000 each. About 18% of the beneficiaries claimed their only source of income was ₦5,000 they receive from the government monthly. The monthly income for the beneficiaries ranged from ₦5,000 to ₦21,000, while that of the non-beneficiaries ranged from ₦2,000 to ₦18,000. The average monthly income for the beneficiaries was ₦12,091.17 while that of non-beneficiaries was ₦6,852.27.

Table 1. Distribution of respondents according to socioeconomic characteristics.

| Characteristics          | Beneficiaries (n=82) | Non-beneficiaries (n=93) | Pooled (n=175) |
|--------------------------|----------------------|--------------------------|----------------|
|                          | Frequency            | Percentage               | Frequency      | Percentage   | Frequency      | Percentage   |
| Age in Years             |                      |                          |                |              |                |              |
| 65-74                    | 24                   | 29.3                     | 63             | 67.7         | 87             | 49.71        |
| 75-84                    | 17                   | 20.7                     | 17             | 18.3         | 34             | 18.86        |
| 85-94                    | 41                   | 50.0                     | 13             | 14.0         | 54             | 31.43        |
| Gender                   |                      |                          |                |              |                |              |
| Male                     | 29                   | 35.4                     | 32             | 34.4         | 60             | 34.29        |
| Female                   | 53                   | 64.6                     | 61             | 65.6         | 115            | 65.71        |
| Marital Status           |                      |                          |                |              |                |              |
| Married                  | 35                   | 42.7                     | 51             | 54.8         | 86             | 49.14        |
| Divorced                 | 5                    | 6.1                      | 7              | 7.5          | 12             | 6.86         |
| Widowed                  | 42                   | 51.2                     | 35             | 37.6         | 77             | 44.00        |
| Education                |                      |                          |                |              |                |              |
| No Education             | 63                   | 76.8                     | 79             | 84.9         | 142            | 81.14        |
| Quranic Education        | 4                    | 4.9                      | 8              | 8.6          | 12             | 6.86         |
| Primary Education        | 15                   | 18.3                     | 6              | 6.5          | 21             | 12.00        |
| Household Size           |                      |                          |                |              |                |              |
| 1-5                      | 71                   | 86.6                     | 74             | 79.6         | 139            | 79.43        |
| 6-10                     | 11                   | 13.4                     | 19             | 20.4         | 36             | 20.57        |
| Monthly Income (₦'000)   |                      |                          |                |              |                |              |
| < 5                      | -                    | -                        | 46             | 49.5         | 46             | 26.29        |
| 5-10                     | 38                   | 46.3                     | 27             | 29.0         | 65             | 37.14        |
| 11-20                    | 35                   | 42.7                     | 20             | 21.5         | 55             | 31.43        |
| >20                      | 9                    | 11                       | 0              | 0            | 9              | 5.14         |
| Dependency Ratio         |                      |                          |                |              |                |              |
| No dependents            | 36                   | 43.9                     | 58             | 62.4         | 66             | 37.71        |
| 1                        | 15                   | 18.3                     | 10             | 10.8         | 20             | 11.43        |
| 2                        | 20                   | 25.4                     | 18             | 19.4         | 44             | 25.14        |
| >2                       | 11                   | 13.4                     | 7              | 7.5          | 45             | 25.72        |
This is an indication that the government cash transfer scheme has a multiplier effect on the total income of the beneficiaries. On the average, the cash transfer makes up 41% of the total household income of the scheme’s beneficiaries. Income from remittances, that is, income from children, friends and relatives amounted to 18.7% for beneficiaries and to 45.5% for non-beneficiaries. The dependency ratio of household, defined as the total household size divided by the number of individuals working to support the household may affect their food security status. This is expected to decrease the food security status of households as it increases. As shown in Table 1, it can be deduced that the scheme beneficiaries had more dependants than the non-beneficiaries. On the average, the beneficiaries have three dependants while the non-beneficiaries had two dependants. However, the income earned by the working members of the household must be taken into consideration since it is possible for all the members of a household to be working but their income altogether may be small. The majority of beneficiaries (51.2%) were widowed, whereas for the non-beneficiaries only about 38% were widowed. This is a justification to the fact that the programme is targeted at the very indigent and vulnerable people in the state. Adamachak et al. (1991) and Wilson et al. (1991) found similar results in Zimbabwe while Nyanguru (2003) also found similar results in Lesotho.

![Bar chart showing percentage of average income by income type.](image-url)
Analysis of Dietary Diversity among Respondents

Household Dietary Diversity (HDD) was used as a proxy to measure the nutritional quality of food consumed by the beneficiary and non-beneficiary households. It was measured by summing the number of food groups consumed over a 24-hour reference period. Long reference periods were deliberately avoided as these could result in less accurate information due to imperfect recall of food groups eaten by the households.

Table 2. Distribution of food groups eaten by the households per day.

| Food group               | Beneficiaries | Non-beneficiaries |
|--------------------------|---------------|-------------------|
|                          | Frequency     | Percentage        | Frequency | Percentage |
| Cereals                  | 70            | 85.4              | 71        | 76.3       |
| Fish and sea food        | 65            | 79.3              | 42        | 45.2       |
| Root and tubers          | 72            | 87.8              | 78        | 83.9       |
| Pulses/legumes/nut       | 47            | 57.3              | 27        | 29.0       |
| Vegetables               | 67            | 81.7              | 33        | 35.48      |
| Milk and milk products   | 5             | 6.1               | 0         | 0          |
| Fruit                    | 37            | 32.9              | 14        | 15.1       |
| Oil/fat and palm oil     | 65            | 79.3              | 68        | 73.1       |
| Meat and poultry offal   | 12            | 14.6              | 0         | 0          |
| Sugar/honey              | 13            | 15.5              | 4         | 4.3        |
| Eggs                     | 13            | 15.9              | 5         | 5.3        |
| Miscellaneous            | 5             | 6.1               | 7         | 7.5        |

The most commonly eaten foods by both beneficiaries and non-beneficiaries in the study area were root and tubers (87% and 84% respectively). This may be in view of the fact that pounded yam is a traditional food in the study area. None of the non-beneficiaries of the scheme ate meat; however, about 15% of the beneficiaries claimed they ate meat. Just like meat, none of the respondents took milk. More than half of the beneficiaries (68%) had 3–4 meals per day and the average number of meals per day was 3. However, for the non-beneficiaries, only about 43% had 3–4 meals per day and the average number of meals per day was 2.5. The majority of the non-beneficiaries noted that while it would have been desirable for them to have at least 4 meals per day including the three main meals and snacks in between, they were not able to have these due to limited funds. While about 35% of the beneficiaries claimed they took snacks in between meals, only 16% of the non-beneficiaries indicated taking snacks in between meals.
Dietary diversity within 24 hours

Table 3 shows the Household Dietary Diversity Score (HDDS) in terciles. When the HDDS results were divided into terciles, the lowest HDDS being represented by 1–4 food groups and the highest HDDS by 9 or more food groups, the majority of the respondents for both the beneficiaries and non-beneficiaries were in the medium food groups. However, while only about 6% of the beneficiaries are in the lower HDDS group, as much as 22% of the non-beneficiaries belong to the low food groups. While about 21% of the beneficiaries belong to the high food groups, only 5% of the non-beneficiaries belong to the high food groups. The results of the paired t-test for the difference in means of dietary diversity scores are given in Table 4. The results show that the mean differences for the low and high food groups are statistically significant at $P \leq 0.05$ level of significance.

### Table 3. Distribution of Household Dietary Diversity Score (HDDS) in terciles.

| Tercile                        | Beneficiaries | Non-beneficiaries |
|--------------------------------|---------------|-------------------|
|                                | Frequency     | Percentage        | Frequency     | Percentage        |
| Low HDDS (1–4 food groups)     | 5             | 6.10              | 21            | 22.58             |
| Medium HDDS (5–8 food groups)  | 60            | 73.17             | 67            | 72.04             |
| High HDDS (9–12 food groups)   | 17            | 20.73             | 5             | 5.38              |
| Total                          | 82            | 100               | 93            | 100               |

### Table 4. Results of paired t-test for the different terciles.

| Terciles                        | Beneficiaries | Non-beneficiaries | P-value |
|---------------------------------|---------------|-------------------|--------|
| Low HDDS (1–4 food groups)      | 3.01 (0.3162) | 2.12 (0.2182)     | 0.047* |
| Medium HDDS (5–8 food groups)   | 6.48 (0.1282) | 6.21 (0.1635)     | 0.205  |
| High HDDS (9–12 food groups)    | 10.88 (0.2249)| 9.20 (0.2183)     | 0.0009 *|

* A significance level of $P \leq 0.05$, Robust standard error of mean in parenthesis.

Determinants of Dietary Diversity

The Poisson regression model was employed to assess the determinants of dietary diversity among the respondents in the study area and the results are given in Table 5. Before fitting the model, the hypothesized explanatory variables were tested for the multicolinearity. The multicolinearity of the independent variables ranged between 0.0 and 0.7 and hence, there was no multicolinearity
Does participation in a social security scheme improve household dietary diversity?

problem among all the hypothesized variables included in the model. Factors that were found to have a statistically significant association with a high dietary diversity score were participation in the scheme, years of schooling and total monthly income for the household.

Table 5. Determinants of dietary diversity of respondents.

| Variables                      | Coefficient | Standard Error | P-values |
|-------------------------------|-------------|----------------|----------|
| Constant                      | 1.7273      | 0.3732         | 0.000    |
| Participation in scheme       | 0.3806      | 0.8640         | 0.000*** |
| Age                           | -0.0030     | 0.0042         | 0.482    |
| Gender                        | 0.0778      | 0.0802         | 0.332    |
| Marital status                | 0.1782      | 0.3802         | 0.639    |
| Educational level             | 0.0414      | 0.0234         | 0.076*   |
| Dependency ratio              | -0.0077     | 0.0327         | 0.814    |
| Household size                | 0.0288      | 0.0283         | 0.309    |
| Total monthly income          | 0.0001      | 0.0001         | 0.0306*  |

***significance at 1%; **significance at 5%; * significance at 10%.

Participation in the social security scheme had a positive and significant effect on the dietary diversity of the respondents. This variable was significant at p ≤ 0.05% probability level. This implies that the beneficiary households are more likely to have a higher dietary diversity compared to the non-beneficiary households. This is due to the fact that households benefiting from the scheme have a higher income resulting from the cash transfer to purchase more diverse food items they do not produce compared to the non-beneficiary households.

The educational level of the household head was found to be positively related to dietary diversity and significant at the 10% probability level. This implies that households whose heads have a higher level of education consume more diverse food than households with a lower level of education. This result is consistent with that of Irala-Estévez et al. (2000), who found consistent differences in relation to the consumption of fruit and vegetables among elderly people of different level of education in their meta-analysis on eleven studies conducted in seven European countries from 1985 to 1999. The household total monthly income was significant at p ≤ 0.05 probability level and had a positive relationship with dietary diversity. This implies that increased household income is associated with improved household food diet quality. Hoddinot and Yohannes (2002) and Hatloy et al. (2000) also found similar results in their separate studies.
Conclusions

From the results of the study, it can be concluded that a well planned and executed social security scheme coupled with good education and steady source of income can significantly lead to an improvement in household dietary diversity for aged persons. It is therefore recommended that the scheme should be scaled out in the entire state, thereby increasing the number of ‘beneficiaries’. It is also recommended that nutrition-oriented programmes should be organized in an attempt to improve the food substitution knowledge of households. The elderly people should also be encouraged to increase diversity of dietary intake focusing on a variety of recommended food groups including vitamin A-rich foods, fruits and vegetables. It is also recommended that adult education programmes should be put in place to educate the elderly people in the state as such will assist them in making informed decisions with respect to their choice of food.

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DA LI UČEŠĆE U PROGRAMU SOCIJALNOG OSIGURANJA POBOLJŠAVA RAZNOVRSNOST ISHRANE U DOMAĆINSTVU?

Olajumoke M. Adenuga, Raphael O. Babatunde and Adewale H. Adenuga*

Odsek za agroekonomiju i farm menadžment,
Univerzitet u Ilorinu, Ilorin, Nigerija

Rezime

Socijalna zaštita u obliku prenosa gotovine se javlja kao cilj politike za rešavanje problema siromaštva i prehrambene nesigurnosti u zemljama u razvoju. Međutim, u kojoj meri je to izvodljivo tek treba empirijski ispitati. Ovo istraživanje je sprovedeno kako bi se procenio uticaj Programa socijalnog osiguranja države Ekiti (PSSDE) (eng. Ekiti State Social Security Scheme (ESSSS)) na raznovrsnost ishrane u korisničkim domaćinstvima u državi Ekiti, u Nigeriji. U istraživanju je korišćena tehnika trofaznog/troetapnog slučajnog uzorkovanja za prikupljanje podataka od 200 ispitanika pomoću struktuiranog upitnika. Deskriptivna statistika, ocena raznovrsnosti ishrane u domaćinstvu (RDRD) (eng. Household Dietary Diversity Score (HDDS)) u tercilima i Poissonova ocena maksimalne verovatnoće bili su glavni analitički alati za ovu istraživanje. Rezultat dobijen Poissonovom ocenom maksimalne verovatnoće pri p ≤ 0,05 pokazao je da pristup Programu socijalnog osiguranja države Ekiti (PSSDE), godine obrazovanja i ukupno mesečno primanje domaćinstva značajno utiču na raznovrsnost ishrane u domaćinstvu. Istraživanjem se zaključuje da Program socijalnog osiguranja države Ekiti (PSSDE) ima pozitivan uticaj na raznovrsnost ishrane u domaćinstvima korisnika. Preporučeno je da vlada treba da nastoji da poveća broj korisnika ovog programa i da organizuje programe, koji su orijentisani ka ishrani za starije ljude, kako bi se poboljšalo znanje o supstituciji hrane u domaćinstvima.

Ključne reči: raznovrsnost ishrane u domaćinstvu, socijalna zaštita, država Ekiti, Poissonova ocena maksimalne verovatnoće.

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Autor za kontakt: e-mail: adenugahenry@gmail.com