Exploring the Factors Behind Limited Dietary Diversity in Rural Households of Ogun State, Nigeria

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Abstract

Lack of dietary diversity is a challenge for rural communities in Nigeria whose diets are by default defined on starchy staples with inadequate animal products, fresh fruits and vegetables. The study therefore examined the determinants of rural household dietary diversity in Ogun State, Nigeria, using primary data collected from 320 households, with 9 questionnaires later discarded due to inconsistent responses. The data was analyzed using the Household Dietary Diversity Score (HDDS) and Multinomial Logistic Regression (MLR) model. The HDDS showed that majority of the respondents (61.5%) has low dietary diversity, 25.5% of the respondent's household fall under medium dietary scores, while 13% the household have high dietary diversity scores. The MLR revealed that household with higher income is likely to have high diversity in their diets at 1% significant level. The MLR also indicated a positive significant relationship of 10% between sex and low dietary diversity, while education level was positively related to high dietary diversity at 5% significant level. Likewise, the result of the MLR revealed a negative significant correlation between household size and low dietary diversity at 5%. The study recommended that poor rural household should adjust their food combination towards rice, cocoyam, melon, cowpea, garri (Cassava flour), fish and palm oil which constitute the least-cost food items for the rural household.

Keywords: Dietary diversity; Rural households; Household Dietary Diversity Score (HDDS); Multinomial Logistic Regression (MLR); Food security; Ogun State; Nigeria

JEL Classification Codes: Q18, I32, O13, Q56

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1 Introduction

Dietary diversity refers to the variety of foods consumed from different food groups (Bolo, 2024). This diversity is essential for ensuring adequate intake of vital nutrients that support both physical and mental health (Bikila *et al.*, 2023). Since no single food can provide all necessary nutrients, incorporating a wider range of food groups into the daily diet increases the chances of fulfilling nutrient needs (Labadarios *et al*., 2011). A well-rounded, diverse diet helps prevent both nutrient deficiencies and excesses, thereby lowering malnutrition rates in populations (Mukhtar, 2022). Hoddinott and Yohannes (2002) define dietary diversity as the count of different foods or food groups consumed by a household during a specific timeframe, regardless of how often they are eaten. In this study, dietary diversity is measured by the number of food groups consumed within a 24-hour period.

Household dietary diversity is significantly affected by food accessibility. Momodu et al. (2011) report that approximately 61 percent of the population in Nigeria suffers from malnutrition. Additionally, the FAO (2011) highlighted the alarming number of people worldwide who have limited access to nutritious foods, particularly those rich in essential micronutrients like fruits, vegetables, meat, fish, dairy, and bio-fortified staples. This lack of access contributes to deficiencies in crucial micronutrients such as vitamin A, iron, and zinc, adversely impacting the survival, health, development, and well-being of billions. Research indicates that a greater variety of food groups in daily diets increases the likelihood of meeting nutritional needs, whereas diets that are primarily based on starchy foods, like maize and bread, are closely linked to food insecurity (Kennedy, 2009).

Data on individual or household dietary diversity can serve as a straightforward yet effective indicator of various factors impacting nutrition within specific populations. Access to food for individuals and households is influenced by demographic and socio-economic factors, which contribute to differences in diet quality (Bernal *et al*., 2003). Additionally, studies have found an inverse relationship between dietary diversity and chronic non-communicable diseases, while a positive correlation exists between dietary diversity and favorable nutritional status. It is therefore not surprising that most dietary guidelines recommend consuming a wide variety of foods across different food groups (Jeanene *et al*., 2006), as this diversity is linked to improved outcomes such as nutrient adequacy, better anthropometric measurements, and higher hemoglobin levels (Swindale and Bilinsky, 2005).

Ruel (2002) highlighted that a lack of dietary diversity poses a significant challenge for rural communities in developing countries, where diets often rely heavily on starchy staples with insufficient amounts of animal products, fruits, and vegetables. This underscores the importance of addressing dietary diversity and food insecurity in rural areas as a means of tackling broader food insecurity issues. In many developing nations, including Nigeria, dietary diversity has emerged as a key policy concern, receiving considerable attention and resources over the years. This focus stems from the belief that a nation's health, productivity, and overall well-being depend on the quality and quantity of food consumed by its citizens. Gaining a comprehensive understanding of household dietary diversity is crucial for effective policy-making and planning.

It is against this background that this study intends to examine the determinants of rural household dietary diversity in Ogun State, Nigeria. Thus, this will provide qualitative and quantitative data that that could be used by, concerned stakeholders, policy makers, and program planners working on livelihood, agriculture, health, and nutrition. In view of the above, this study intends to answer the following research questions: what are the dietary diversity statuses of the rural household in

the study area? what are the factors determining the rural household dietary diversity in the study area?

The remainder of this study is organized as follows. Section 2 reviews the literature on dietary diversity. Section 3 describes the methodology. Section 4 presents and discusses the estimated results. Section 5 concludes.

2 Literature Review

Dietary diversity is widely recognized as a key indicator of dietary quality and nutrient adequacy, particularly in low- and middle-income countries. The Household Dietary Diversity Score (HDDS) is a commonly used metric that reflects the number of different food groups consumed by a household over a reference period, usually ranging from 24 hours to seven days (FAO, 2011). Higher HDDS values are generally associated with better household food access, socio-economic status, and nutritional outcomes. This literature review critically examines empirical studies related to dietary diversity among rural households in sub-Saharan Africa, Nigeria included, focusing on three thematic areas: measurement approaches, socio-economic determinants, and nutritional outcomes. The section concludes by identifying existing research gaps and the rationale for the present study.

Studies employ various tools to measure dietary diversity, most notably the HDDS and individual dietary diversity scores (IDDS). These measures often involve a simple count of different food groups consumed within a reference period. Drewnowski *et al.* (1997) and Krebs-Smith et al. (1987) highlighted that while earlier dietary diversity indices in developed countries focused on food item counts and serving sizes in line with dietary guidelines, more recent applications in low-income settings tend to emphasize food group diversity as a proxy for nutritional adequacy.

Sanusi (2010), for instance, employed DDS across six Nigerian states and categorized dietary scores into low (1–4), medium (5–9), and high (10–14) to assess household-level dietary patterns. Similarly, Magaji et al. (2020) used HDDS to evaluate dietary diversity among rural households in Panshekara, Kano State, establishing a mean HDDS of 1.7, which is below acceptable thresholds, indicating poor dietary quality in the community. However, studies vary in their reference periods and scoring thresholds, limiting cross-study comparability. Few studies explicitly justify their selection of cutoff points, which weakens methodological robustness.

Multiple studies have found significant associations between dietary diversity and socio-economic characteristics such as income, education, agricultural practices, and gender roles. Taruvinga et al. (2013) reported that access to irrigation schemes, education, income, and livestock ownership positively influenced dietary diversity in South Africa's Amatole and Nyandeni districts. Their logistic regression results emphasized the value of home gardens and small-scale farming in improving dietary outcomes.

Similarly, Otekunrin *et al.* (2022) identified maternal age, food expenditure, and proximity to agricultural land as significant determinants of child dietary diversity in cassava-growing households in Ogun and Oyo states, Nigeria. Notably, the study found that 48.6% of sampled children met the minimum dietary diversity threshold of four food groups, with an average DDS of 3.28. Magaji *et al.* (2020) also found a strong correlation between household expenditure patterns and dietary diversity. Approximately 83.4% of total household expenditure was spent on food, with cereals and root crops dominating diets. However, food groups like meat, fish, and milk were seldom consumed due to cost or availability, pointing to a diet heavily reliant on starchy staples.

While these studies consistently highlight the influence of income and agricultural engagement, few critically assess how structural barriers such as market access, infrastructure, or food policy mediate these relationships. This presents an opportunity for future research to adopt a more systems-level approach.

The nutritional implications of low dietary diversity are well documented. In the reviewed studies, diets are commonly dominated by grains, roots, and legumes, with limited consumption of animal-source foods, fruits, and vegetables. For example, in the South African study by Taruvinga et al. (2013), commonly consumed food groups included sugar (16%), oils (12%), and grains (11%), while nutrient-dense foods like milk (6%) and vegetables (5%) were rarely consumed. This pattern was echoed by Sanusi (2010), whose findings showed high reliance on cereals (92%) and roots/tubers (59%), with relatively lower intake of vegetables (48%) and meats (33%).

These findings are indicative of "hidden hunger," where caloric needs may be met, but micronutrient deficiencies persist due to limited dietary diversity. However, existing literature provides limited analysis of how dietary diversity directly translates into nutritional outcomes such as stunting, wasting, or anemia in rural populations. Only a few studies, such as that by Otekunrin *et al*. (2022), partially address this linkage, especially for under-five children, but even these tend to stop short of biochemical or anthropometric validation.

The reviewed literature spans various geographical contexts, from rural South Africa to multiple states in Nigeria, including both South-West (Ogun, Oyo) and North-Central (Kwara) regions. However, many studies fail to account for regional socio-cultural and agro-ecological differences that influence food availability and preferences. Sanusi (2010) did report statistically significant differences in DDS across Nigerian states, with Akwa Ibom and Osun recording higher scores than Kaduna or Borno, but offered limited discussion of the contextual drivers behind these variations. Without contextualizing findings within local food systems, agricultural cycles, or cultural dietary norms, the generalizability and policy relevance of such studies remain limited. More comparative studies are needed that explore how local environments shape dietary diversity outcomes.

Although there is a wealth of research on dietary diversity in sub-Saharan Africa, major gaps remain, including a lack of critical synthesis across studies, shallow analysis of how socio-economic factors influence diets, weak connections between diet and health outcomes, minimal attention to policy relevance, and insufficient consideration of cultural and environmental differences. Therefore, this study aims to address these gaps by systematically investigating the dietary diversity status and its determinants among rural households within a clearly defined geographical context, with an emphasis on linking dietary patterns to socio-economic realities. By focusing on rural households, the study contributes to a nuanced understanding of the structural and behavioral dimensions of food choice and nutrition in low-income settings.

3 Methodology

3.1 Sampling Techniques

The study was conducted in Ogun State, located in South-West Nigeria, which spans an area of 16,743.2 km² and consists of twenty local government areas. Ogun State is divided into four political zones: Egba, Yewa, Ijebu, and Remo. To ensure a balanced representation of data throughout the state, a multistage sampling technique was employed. In the first stage, two local government areas were purposively selected from each division: Abeokuta North and Odeda from the Egba division, Ijebu East and Odogbolu from the Ijebu division, Remo North and Sagamu from the Remo division, and Imeko Afon and Yewa North from the Yewa division, resulting in a total of eight local government areas selected for the study.

The second stage involved the purposeful selection of two communities from each of the eight chosen local government areas, resulting in a total of 16 communities selected based on their population and size. In the third and final stage, twenty respondents were chosen from each of these 16 communities. This led to the administration of 320 questionnaires across randomly selected households, of which 9 were discarded due to inconsistencies in the provided information. Table 1 outlines the respondent selection process in the study area.

Table 1: Sampling Procedure and Sample Size

Division	Number of selected. Local Government Area	Selected Locality	No of Household Selected
Ijebu	Ijebu East	Mokoloki	20
		Igbodu	20
	Odogbolu	Ala	20
		Okelamuren	20
Egba	Abeokuta North	Olorunda	20
		Igboro Ake	20
	Odeda	Olodo	20
		Idera	20
Yewa	Imeko Afon	Alakuta	20
		Afintedo	20
	Yewa North	Sawonjo	20
		Igan ikoto	20
Remo	Remo North	Nloku Nraye	20
		Ipara	20
	Sagamu	Ewujomo	20
		Odelemo	20
		Total	320

Source: Field Survey, 2024

3.2 Model Specification

3.2.1 Dietary Diversity of the Rural Household in the Study Area

The Household Dietary Diversity Score (HDDS) was utilized to assess the dietary diversity of households. This diversity was measured by counting the number of different foods or food groups consumed over a specified reference period. The HDDS, which ranges from 0 to 12, categorizes households into high dietary diversity (8-12), medium dietary diversity (4-7), and low dietary diversity (0-3), following FAO guidelines from 2008. To calculate the HDDS for the sample population, the total HDDS of all households was divided by the number of households surveyed. The HDDS included twelve (12) food groups: cereals, vegetables, fruits, meat, eggs, fish and seafood, legumes, milk and dairy products, oils and fats, sugar/honey, condiments, and beverages, as outlined by FAO in 2007. These food groups were used to evaluate the quality of food intake among households, considering the locally consumed foods in each group to measure dietary diversity in the study area.

3.2.2 Determinants of Rural Household Dietary Diversity

The multinomial logistic regression model was employed to identify the factors influencing household dietary diversity. Three (3) mutually exclusive strata were established for independent analysis: Stratum A for Low Dietary Diversity (LDD), Stratum B for Medium Dietary Diversity (MDD), and Stratum C for High Dietary Diversity (HDD). These dietary diversity categories served as the dependent variable. Medium Dietary Diversity (MDD) was designated as the baseline group, assigned a dummy value of 1, while Low Dietary Diversity (LDD) was given a value of 0

and High Dietary Diversity (HDD) a value of 2. The logistic regression model utilized can be represented as follows (Gujarat, 1992):

$$logit\ (P_i) = ln\left(\frac{P_i}{1-P_i}\right) = \alpha + \beta_1 X_1 + \cdots + \beta_n X_n + \mu_t$$

Where:

$ln\left(\frac{P_i}{1-P_i}\right)$	=	logit for dietary diversity categories
P_i	=	Medium Dietary Diversity (MDD)
$1-P_i$	=	Low or High Dietary Diversity (LDD or HDD)
β	=	coefficient
X	=	covariates
μ_t	=	error term

The probability that a household is classified in one dietary diversity category compared to the other is restricted to lie between zero and one ($0 \leq Pi \leq 1$). Pi represents the probability of a household to be classified in the MDD category and (1 – Pi) represents the probability of a household to be either classified in the LDD category or the HDD category. Thus far, the model was therefore used to assess the odds of: LDD versus MDD; and HDD versus MDD. By fitting the variables into the model, X_i is the set of explanatory variables which are:

χ_1	=	Age of respondent (Years);
χ_2	=	Farm income of a household per annum (₦)
χ_3	=	Farm size of a household (ha);
χ_4	=	Household size of a respondent;
χ_5	=	Working experience (years);
χ_6	=	Level of education of a farmer (years);
χ_7	=	Distance to market (km);
χ_8	=	Sex of respondent (1 for; male, 0 for female);
χ_9	=	Household production enterprise (1 if farm enterprises alone, otherwise 0);
χ_{10}	=	Dependency ratio (the proportion of household members that are not working to that member of household that are working)
χ_{11}	=	No of visit of extension agents
χ_{12}	=	Source of labour (1 if hired labour, otherwise 0)

4 Results and Discussions

4.1 Dominance Analysis of Socioeconomic Characteristics of Respondents

In Table 2, the data provides valuable insights into the characteristics of the respondents interviewed, prompting further consideration. The average age of the respondents is 48 years, with 63.8% falling between the ages of 46 and 55. This suggests a mature group likely equipped with established perspectives on dietary practices. A significant portion of the respondents, 89.3%, are female, which may influence household dynamics and decision-making, particularly regarding nutrition and food choices. Additionally, about 90.4% of respondents are married, indicating that marital status may play a crucial role in their views and decision-making processes related to household dietary diversity. The educational background of the respondents, while primarily at the primary level, points to potential areas for development in nutrition education.

Regarding household dynamics, the average household size is 7 members, with 71% of respondents living in households of 7 to 9 members. This relatively large family context suggests interdependencies and shared resources within these households. Household income is also a critical factor; the average reported income is approximately ₦33,453.42, with 39.6% of respondents earning between ₦80,000 and ₦100,000. This income level can significantly impact their purchasing power and access to diverse foods, influencing their dietary diversity.

Farming is the primary occupation for 77.1% of the respondents, who have an average of 16 years of experience in this field. This extensive experience likely enhances their farming practices, contributing to their expertise and potentially improving productivity and sustainable agricultural methods. A notable trend is their membership in cooperative societies, with 71.8% of respondents belonging to one or more. These cooperatives serve as collaborative platforms where individuals pool their resources and knowledge, fostering a strong sense of community and shared goals.

The study also highlights their agricultural activities, with respondents managing an average of 3.1 hectares of farmland. Notably, 63% of respondents cultivate more than 2 hectares, indicating a diversification strategy that may help mitigate risks associated with crop failures or other agricultural challenges.

In summary, Table 2 presents a detailed profile of the respondents, highlighting their age, education level, marital status, cooperative society membership, farming experience, household size, and land management practices. These factors collectively contribute to a deeper understanding of the context in which the respondents operate, shedding light on the influences that shape their perspectives and decisions regarding dietary diversity.

Table 2: Socio Economic Characteristics of Respondents

Characteristics	Dominant Indicators	Mean Value
Age	63.8% between 46–55	48
Sex	89.3% female	-
Marital status	90.4% married	-
Education	56.4% had primary education	-
Household size	71% between 7-9 member	7 people
Household income	39.6% between ₦80.000 to ₦ 100,000	₦33,453.42
Primary occupation	77.1% were farmers	-
Membership of cooperative societies	71.8% were members	-
Farm size	63% above 2 hectares	3.1 ha
Years of experience in farming	63.2% between 11-20 years	16 years

Source: Field Survey, 2024

4.2 Household Dietary Diversity

The 24-hour recall period was used to measure household dietary diversity, serving as a proxy for diet quality. Data was collected by asking respondents a series of yes or no questions about food consumption. Each food group was scored as 1 if the household consumed it within the previous 24 hours and 0 if not. The total score for each household indicated their dietary diversity level. Households with scores of 1-3 points were classified as having low dietary diversity, those with 4-7 points as having medium dietary diversity, and those with scores of 8-12 points as having high dietary diversity. The average household dietary diversity for the study population was determined by dividing the total dietary diversity scores by the number of households. This assessment included 12 specific food groups, as outlined below, to evaluate dietary diversity.

1) Cereals	2) Root and tubers	3) Vegetables
4) Fruits	5) Meat, poultry, offal	6) Eggs
7) Fish and seafood	8) Pulses, legumes & nuts	9) Milk and milk products
10) Oil/fats	11) Sugar/honey	12) Miscellaneous

Table 3: Household Dietary Diversity Score

Dietary Diversity Score	Frequency	Percentage	Mean Dietary Diversity Score
Low (0-3 groups of food)	191	61.4	2.66
Medium (4-7 groups of food)	79	25.4	3.79
High (8-12 groups of food)	41	13.2	6.15
	311	100	

Source: Field Survey, 2024

The percentage distribution of the dietary diversity scores among the respondents is presented in Table 3. The result shows that majority of the respondents (61.4%) had low dietary diversity, 25.4% of the respondent's household fell under medium dietary scores, while 13.2 % which stood for 41 respondent's household had high dietary diversity scores. The mean distribution of the dietary diversity scores among the revealed that the respondents with low dietary diversity had mean dietary diversity score of 2.66, those with medium dietary diversity had mean score of 3.79 while those with high dietary diversity had mean score of 6.15. The implication is that more than half of the population of household studied consumed less than four food groups so they have less or poor dietary diversity, which is one of the major contributors of stunted growth in children. This result is in line with the conclusion of low dietary diversity of rural by Taruvinga et. al., (2013). According to USAID (2015), HDDS gives an indication of food groups consumed by households in the last 24hrs. As a result, it should not be used as a nutrition indicator but rather an indication of food access.

4.3 Determinants of Household Dietary Diversity of the Respondents

This section outlines the factors influencing dietary diversity among rural households, as shown in Table 4. A multinomial logistic regression model was employed to analyze these determinants, using three dietary diversity categories low (LDD), medium (MDD), and high (HDD)—as the dependent variables. Medium Dietary Diversity (MDD) served as the reference category with a dummy value of 1. The model demonstrated a higher pseudo-R-squared value (0.280, 0.457, 0.347), indicating a good fit and suggesting that a significant portion of the variance in the dependent variable is accounted for by the model. Additionally, the chi-square statistic of 65.57, significant at the 1% level, further supports the model's adequacy.

The model results indicate a positive relationship between household income and high dietary diversity. This suggests that households with higher incomes are more likely to transition from a

medium to a high dietary diversity level. The implication is that increased income enables households to afford a wider variety of foods, reflecting their enhanced purchasing power. This finding aligns with the perspectives of several researchers who argue that the demand for fruits and vegetables, which contribute to dietary quality, tends to rise with income (Regmi, 2001; Pollack, 2001; Thiele and Weiss, 2003; Colen, 2028). Conversely, low-income households often prioritize basic energy needs over diverse food options, as fruits and vegetables can be more expensive sources of energy (Ruel et al., 2004).

The results indicate a significant negative correlation between household size and low dietary diversity, suggesting that as household size increases, there is a tendency for dietary diversity to decline, particularly moving from a medium to a low dietary diversity level. This trend may be attributed to several factors. Firstly, larger households often face greater challenges in resource allocation. With more mouths to feed, families may prioritize staple foods that are less expensive and more filling over a diverse range of nutritious options. This shift can lead to a reliance on cheaper, calorie-dense foods that lack essential vitamins and minerals, resulting in lower overall dietary diversity. Secondly, increased household size can strain financial resources. Larger families might allocate a larger portion of their budget to meeting basic caloric needs, leaving less available for purchasing a variety of fruits, vegetables, and proteins, which are typically more costly.

Consequently, this can perpetuate a cycle where dietary diversity suffers as the focus shifts to quantity over quality. Moreover, the time and effort required for meal preparation can also impact dietary diversity. In larger households, individuals may have less time to prepare varied meals, leading to repetitive meal patterns that further decrease dietary variety. Overall, the negative correlation between household size and dietary diversity underscores the importance of considering household dynamics when evaluating dietary patterns. Addressing these challenges through targeted interventions, such as nutrition education and financial support, could help promote better dietary diversity in larger households.

The model also indicates a positive significant relationship of 10% between sex and low dietary diversity. The observed results suggest that, with regards to the base category, male have a higher probability of attaining a low dietary diversity than their female counterparts. These findings are consistent with earlier research by Taruvinga et al. (2013), which indicated that women are more likely than men to achieve a higher level of dietary diversity. As a result, female-headed households typically spend more on high-quality, expensive, and protein-rich foods. Since women are usually responsible for food preparation, their knowledge of the nutritional value of different foods likely impacts their food choices and their ability to allocate household budgets toward these higher-quality options.

The study found that education level positively correlates with high dietary diversity and negatively correlates with low dietary diversity at a 5% significance level. Specifically, the relationship between dietary diversity and education level in low dietary diversity (LDD) and high dietary diversity (HDD) categories was less than one for the medium dietary diversity (MDD) category. An increase of 1% in education level resulted in an 11% decrease in dietary diversity for LDD households, while the same increase led to an 11% increase for HDD households. These results suggest that more educated respondents are more likely to achieve high dietary diversity, whereas education level does not significantly impact dietary diversity in LDD households.

Nevertheless, education emerges as a crucial factor that fosters dietary diversity behavior among rural households. It enhances respondents' awareness and understanding of the various nutritional and health benefits associated with diverse diets. This observation aligns with the findings of

Hoddinott and Yohannes (2002) and Taruvinga et al. (2013), which indicate that households with greater educational exposure are more likely to achieve high dietary diversity.

Table 4: Multinomial Logit Regression Results of the Determinants of Dietary Diversity

Variables	Diversity Score (Low Dietary)		Diversity Score (High Dietary)	
	Coefficient	Std Error	Coefficient	Std Error
Constant	2.927	4.131	6.451	9.761
Age	0.024	0.035	0.009	0.090
Farm income	0.560	1.003	4.325***	2.666
Farm size	-0.220	0.150	0.079	0.302
Household size	-2.326**	0.820	-0.439	1.988
Farming experience (years)	0.154	0.606	1.485	1.829
Co-operative membership	0.070	0.882	-0.842	1.696
Level of education (years)	-0.963*	0.710	2.139**	1.484
Distance to market (km)	-0.241	0.215	0.620	0.785
Sex of respondent	1.576*	0.731	1.732	1.795
Diversification index	8.217	2.467	-1089.753	0.000
Household production enterprise	-0.250	0.156	3.374	1.911
Dependency ratio	0.095	0.117	-0.429	0.632
Access to extension agent	0.784	0.986	-1.375	2.225
Source of labor	0.787	0.644	-3.231	1.942

ase Category = Medium Dietary Diversity (MDD)
Number of observations = 311
LR chi^2 (28) = 65.570***
Pseudo R-Square = 0.280, 0.457 and 0.34

Source: Field Survey 2024
NB: *** significant at 1%, ** significant at 5%, and *significant at 10%

5 Concluding Remarks

Based on the evidence provided in this study, respondents with high income were likely to have diversity in their diets. The study confirmed a positive relationship between sex and low dietary diversity among rural household. Since education level is one of the essentials factors that encourage more dietary diversity, this study concluded that majority of the household had low dietary diversity which could be attributed to eating mostly carbohydrate source at the expense of other classes of food, this could lead to a serious health problem especially in the young growing children and pregnant women. In summary, the study identified household income, household size, educational level and sex of the respondent as the determining factor for dietary diversity of the household in the study area.

There is need for the rural household to boost their businesses, most especially the farmers so as to enhance their productivity and their income, because study showed that income is positively related with higher dietary diversity. Furthermore, it is pertinent to mobilize effort toward ensuring that rural household has adequate education about nutrition as the study revealed positive relationship between education and higher dietary diversity. Rural education should be put in place by health professional and nutrition counseling expert to broaden the understanding of rural people on right dietary combination that will be of benefit to their health and growth. Finally, with the majority of the respondents' household having low dietary diversity, poor rural household may be

move to at least medium dietary diversity by merely adjusting their food combination toward rice, cocoyam, melon, cowpea, garri, fish and palm oil which constitute the least-cost food items for the rural household**.**

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