

Impact of Village Savings and Loans Associations on the Nutritional Status of Under-Five Children: A Case Study in the Sissala West District of Upper West Region

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Abstract: This study examined the impact of Village Savings and Loans Associations introduced by PLAN Ghana in the Sissala West District on the nutritional status of under-five children in the area. The study was carried out in six randomly selected communities (Silbelle, Buoti, Kandia, Zini, Nimoro and Buo), within which this Savings Programme is in operation. The focus areas of the study were; how food is accessed in the study area, contribution of women to household nutrition, nutrition situation in the VSLA households since the inception of the programme, factors that affect nutritional status and also to ascertain the knowledge, beliefs and practices of beneficiary communities on food production, preparations and consumption. Data collected was both quantitative and qualitative and was obtained using semi-structured interview and anthropometry measurement. The result suggested that the institution of Village Savings and Loans Associations has resulted in better nutrition and health of children in the beneficiaries' households. It is recommended that the NGO (PLAN GHANA) should expand the coverage of the programme to more communities in the district. The recommendations also implored policy makers to design favourable policies on microfinance programmes in general.

Key words: Nutrition, health, Africa, food insecurity

INTRODUCTION

The nutritional status of households in Africa has been influenced adversely by poverty which could largely be attributed to the fact that women are less empowered. Women play a central role in household food security and for that matter the nutritional well being of households. According to the Food and Agricultural Organization of the United Nations (FAO), as of 1992, there were 799 million food insecure people in developing countries, which was due to poverty. Also, it is shown that about 1.4 billion people were estimated to be poor in the world in 2008 (Ravallion and Chen, 2008) and according to FAO (2004) the most important cause of hunger is poverty. Recently, an estimate released in October, 2010 by FAO says that 925 million people are undernourished which is found to be endemic among those with only a few dollars a day to spend. These findings show that poverty is a threat to the nutritional wellbeing of households and needs to be addressed. Several interventions have been put in place to break the poverty-nexus and one good example of these interventions is supporting women with microfinances. As a result of this microfinance has become one of the hottest topics towards poverty alleviation in developing economics over the past twenty (20) years, (Bremen, 2010).

In 2007, more than hundred million of the world's poorest families received a micro loan (Daley-Harris,

2009). Microfinance encompasses the provision of financial services including loans and savings. The premise of microfinance lies in its ability to empower people to work out of the poverty trap. Numerous studies have found substantial impacts of participation in microfinance programs (e.g., VSLA), specifically in the area of eradicating poverty (Bremen, 2010). About 18.2% Ghanaians are caught within the extreme poverty line (GLSS, 2005) and are not left out of the numerous challenges that confront household food and nutrition security. Besides this the GLSS report in 2005 also revealed that about 79% of the people in the Upper West Region is within the extreme poverty line, which is three times more than the national averages. In view of this, PLAN Ghana International have decided to introduce the VSLA model in 2007 aimed at women empowerment to arrest poverty which is a major set-back in achieving household nutritional wellbeing.

Moreover, research has shown that about 70% of the woman's income is spent on acquiring household food; this brings to the light the need for women empowerment. It is in view of this that CARE international in Niger introduced the VSLA model in 1991. VSLA are self-managed groups that do not receive any external capital and provide people with a safe place to save their money, access small loans and obtain emergency insurance. VSLA can dramatically raise the self respect of individual members and help build up

social capital within communities, particularly among women.

Besides this, nutritional wellbeing is an issue of global concern as such all sectors are putting up concerted efforts to work against all militating factors. The issue of food insecurity has been one of the most important matters emerging from the world food conferences such as, (WHO, 1978; FAO, 1992; FAO, 1996). These conferences continue to acknowledge the fact that food insecurity has not been so much due to failures in food production but largely due to structural problems relating to poverty. Undoubtedly, women are the cornerstone of household nutritional wellbeing (Oniang and Mukudi, 2002). As such, activities and strategies that aim at elevating households' nutritional status must bring to the fore, the consideration of women. Many believed that women should be the first in line when we invest our money as they contribute 40-60% of household income. This among many is the reason for which PLAN Ghana instituted the CARE model of VSLA in the Sissala West district to empower women economically and aimed at; education, health and nutrition and women empowerment. Therefore, this study seeks to assess the impact of the VSLA on the nutritional status of children. This would be done by comparing the nutritional status of children in VSLA and non-VSLA households. The research findings will serve as a useful tool in policy making and implementation.

MATERIALS AND METHODS

The research was carried out in the Sissala West District of the Upper West Region of Ghana (Sissala West District Assemble, 2006). The district has a projected population of about 51, 015 (Sisala West District Assemble, 2006), with Gwollu the capital. The district is bordered to the north by neighboring Burkina Faso, to the east by Sissala East District, to the west by Lambusie District and to the south by Wa East District. It lies approximately between longitude 213°W to 236°W and Latitude 10°N to 11°N and covers a total land area of 411, 289 km² which is about 25% of the total land mass of the Upper West Region. The Sissala West district is located in the Guinea Savanna Vegetation belt with two main seasons; dry and rainy seasons and has 1100 mm as the mean annual rainfall. Farming is the major occupation of the people in this district.

NGOs operating in this area include; PLAN GHANA, ACTION AID, SILDEP and RAAP. The Village Savings and Loans Association (VSLA) programme was instituted by PLAN Ghana international aimed at poverty alleviation in the area.

Multi-stage sampling (stratified and simple random sampling methods) and purposive non random sampling was used for the selection of 180 study subjects). The study design employed was cross-sectional study design, with mothers of selected VSLA and non-VSLA households making the study population. The main tools used in gathering data during the study

were Questionnaires and the Infantometer. The methods used during the research were; Semi-structured interviews and Key informant interviews. Data collected were processed and analyzed manually and by epi-info statistical package in order to draw valid and prudent conclusions. Charts and tables were used to present the data for easy interpretation. Ethical issues were considered in this research by embarking on pre-visits to the selected communities, District Health Administration and PLAN Ghana to get the needed permission for a smooth conduct of the study.

Measures: The main dependent variable for the analysis was height-for-age (Stunting) while the main explanatory variables for the analysis were food acquisition behaviours and demographic characteristics of the households.

The Height-for-age Z-score of <-3 indicates severe stunting while height-for-age Z-score of <-2 to -3 indicates moderate stunting. Children with height-for-age Z-score of >-2 indicates that they are normal. Two measurements were taken and the average was recorded as the composite height.

RESULTS

Socio-demographic characteristics: All the respondents were mothers of households interviewed. The ages of these mothers ranged from 15 to 44 years. The three main religions, namely; Islam, Christianity and African Traditional Religion (ATR) were identified in the area. About 74.4% of the 180 respondents were found to be Muslims, 15.0% practiced ATR and 10.6% were Christians. Three ethnic groups were identified among respondents during the study, namely; Sissala, Dagaaba and Moshi. Out of the total number of participants, 88.3% were Sissalas, 10% were Dagaabas and 1.7% were Moshis. The research revealed that majority of the respondents did not have any form of formal education. The situation in the two groups of households interviewed did not show much difference, as it was realized that 12.8 and 12.2% of respondents were educated in the VSLA and non-VSLA groups respectively. Farming was found to be the major occupation among respondents of the two categories. The results displayed showed that farm production is the main source of food for both the VSLA and non-VSLA households (Table 1).

The food security situation in the study area as revealed by the research was found to be poor. The study however showed that non-VSLA households were worse hit by food shortages compared with their VSLA counterparts (Fig. 1).

Roles of women: The results of the research showed that respondents of both VSLA and Non-VSLA households do play similar roles in ensuring adequate household nutrition. The categories of roles spelt out in

Table 1: Major source of household food

Source of food	VSLA household (%)	Non-VSLA household (%)
Farm production	98.9	98.9
Purchase from market	1.1	1.1
Total	100	100

Source: Field Survey-June, 2011

Table 2: Rates of exclusive breast-feeding

Response	VSLA household (%)	Non-VSLA household (%)
Practice exclusive breast-feeding	82.2	64.4
Do not practiced exclusive breast-feeding	17.8	35.6
Total	100	100

Majority (82.2 and 64.4%) of the respondents in the VSLA and non-VSLA households respectively practiced exclusive breast-feeding

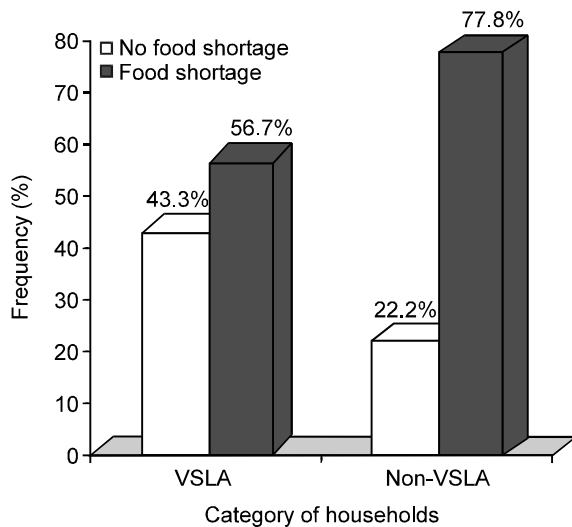


Fig. 1: Household Food security situation. Source: Field Survey-June, 2011

the research were, provision of fuel, buying of soup ingredients and milling of grains. Out of the 180 respondents, 100% responded "YES" implying they do carry out these roles.

Impact of VSLA on household nutrition: Among the respondents sampled in the VSLA category on whether or not their food intake pattern had changed due to their participation in the VSLA programme, it was revealed that all of them had an improvement in their food intake pattern but the situation was different in the case of the non-VSLA households (Fig. 2).

Respondents were questioned, whether there had been any changes in their income levels over the past 4 years. It came to the fore that more of the respondents under the VSLA programme had increments in their income levels than their colleagues in the non-VSLA category (Fig. 3).

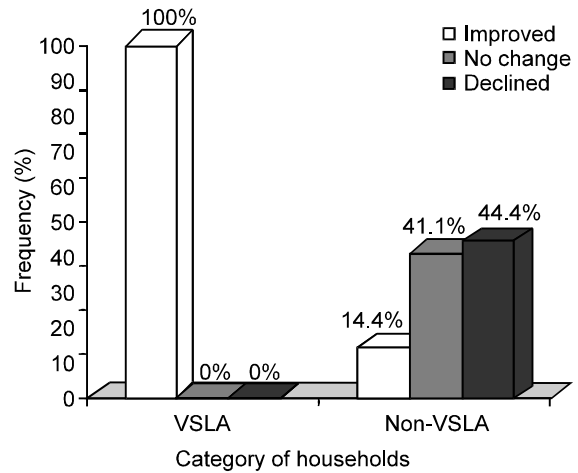


Fig. 2: Household food intake pattern. Source: Field Survey-June, 2011

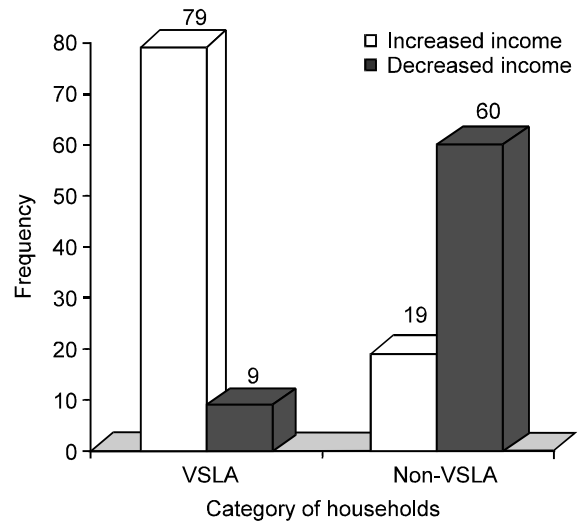


Fig. 3: Changes in household income level. Source: Field Survey-June, 2011

It was discovered that 59.4% of the mothers interviewed said they decide what is eaten in their households, while 25% indicated that men determined what is eaten and 15.6% attested that both the man and the woman decide on what should be eaten (Fig. 4).

Regarding iodated salt usage, 51.7% of the respondents confirmed using iodated salt while 48.3% said they do not use iodated salt. However more women under the VSLA patronized the usage of iodized salt than those under the non-VSLA category. It was realized that, 60 out of the 90 women interviewed under VSLA said they used iodized salt in cooking and 30 said they do not. For those women captured under the non-VSLA category, only 33 said they have being using iodized salt any time they were cooking and 57 of them said they do not (Fig. 5).

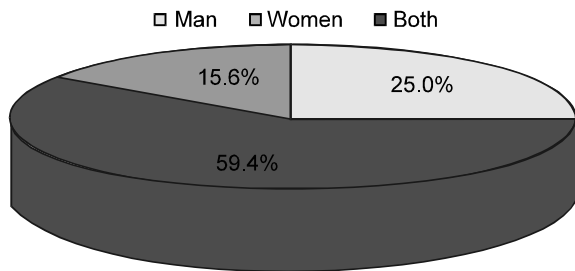


Fig. 4: Who determines what is eaten in the family. Source: Field Survey-June, 2011

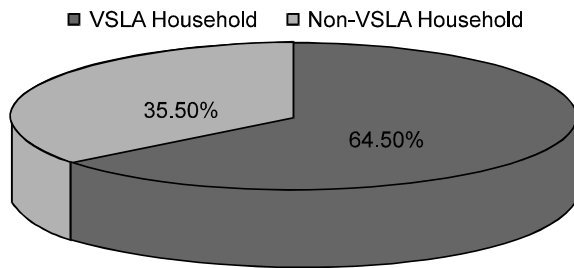


Fig. 5: Proportion of mothers who used iodized salt. Source: Field Survey-June, 2011

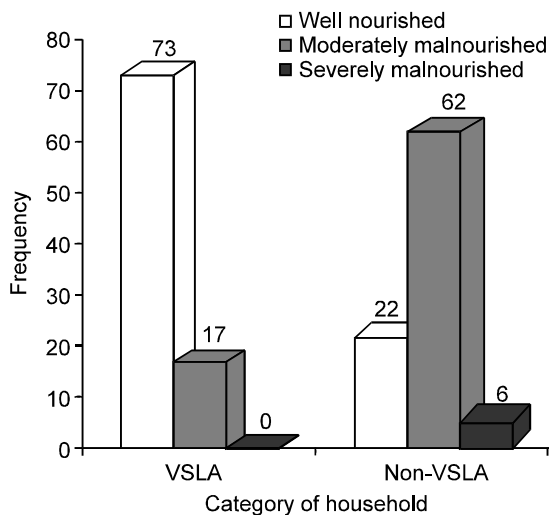


Fig. 6: Nutritional Status of children in the two categories of household. Source: Field Survey-June, 2011

The percentage of children who were well nourished was found to be 52.8% and those moderately malnourished stood at 43.9%, while those severely malnourished were found to be 3.3%. However, 81.1% of the children in households benefiting from the VSLA programme were found to be well nourished and 18.9% were moderately malnourished and no child was found to be severely malnourished. In the case of Non-VSLA households, 24.4% were found to be well nourished

while 68.9% of the children were found to be moderately malnourished and 6.7% were severely malnourished (Fig. 6).

DISCUSSION

Socio-demographic characteristics: With regards to education, the research findings revealed that illiteracy rate among women is high in the study area as 75% of the 180 respondents had no form of formal education with only 25% attaining some form of formal education. However, illiteracy rates among the two categories of households was found to be virtually the same, as 12.8 and 12.2% of the respondents were seen to have had some formal education in the VSLA and non-VSLA households, respectively.

Food access: Food access is one of the key determinants of food security ("access by all people at all times to enough food for an active healthy life (World Bank, 1986).

This research revealed that the major source of food in the study area is the farm. Out of the 180 households enrolled in the study, 96.1% of them engaged in farming as their means of livelihood. There were no differences regarding the major source of food for both VSLA and non-VSLA households. The results showed that 98.9% of VSLA respondents access their food from farm production while 1.1% acquire their food through purchases from market. The situation is the same for the non-VSLA respondents.

This current research conducted in the Sissala West District revealed that the food security situation in the area is poor. Out of the 180 households enrolled in the research, only 33.9% had food throughout the year while 66.1% experienced food shortages in one way or the other during the year. This is in conformity with the findings of Quaye (2008) which posited that food is not available to farmers in Northern Ghana throughout the year.

Analyzing the food security situation, it occurred that Non-VSLA households were hardest hit by food shortages compared with their VSLA counterparts, as 43.3% of the respondents who were beneficiaries of the VSLA programme had food throughout the year, while 22.2% of those who were non-beneficiaries of the VSLA programme had food throughout the year. The difference in the food security situation among the two groups of households could be due to the fact that those of the VSLA category had access to funds from the savings associations which might have boosted their farm production and strengthen their purchasing power.

Impact of VSLA on household nutrition: The results showed that the VSLA programme has a great positive impact on the nutrition of households. Of the 90 mothers interviewed under VSLA, all attested that since the

introduction of the savings programme four years ago, it has resulted in improved food intake in their households. This was not the same for the non-VSLA households, as it was shown in the results that 14.4% said they had an improvement in their food intake pattern over the past four years, while 44.4% indicated they have experienced no changes on their food intake and 41.1% said they rather suffered some decline in their food intake pattern. The findings of this research resonate with the assertions of Barnes (2002) and Pronyk *et al.* (2007), since all the 90 women interviewed in the study disclosed that the VSLA had positive impacts on the nutrition of their households and attributed this immense improvement to access to funds.

Barnes (2002) found that participation in microfinance programme (Zambuko Trust Fund) in Zimbabwe has a positive impact on the frequency with which food is consumed in extremely poor households as well as on the quality of foods specifically the consumption of high protein foods (meat, milk, egg, fish, chicken etc). This could be attributed to the fact that clients of the microfinance programme had access to funds which increased their income. Similarly, Pronyk *et al.* (2007) brought to light that households of microfinance clients, particularly those of female clients, had resulted in better nutrition and health status compared to non client households.

The findings of this research is in consonance with the assertions of Barnes (2002) and Pronyk *et al.* (2007), since all the 90 women interviewed in the study disclosed that the VSLA had positive impacts on the nutrition of their households and attributed this immense improvement to access to funds.

About 90% of the 180 households interviewed said there had been changes in their income levels over the past four years and only 10% said they experienced no changes in their income levels. 89.8 and 24.1% of the VSLA and non-VSLA households, respectively said they experienced incremental changes.

According to Horwitz (1995) poverty breeds malnutrition and malnutrition in turn increases poverty; a vicious cycle. This implies that an improvement in ones financial situation could result in an improvement in their nutritional status.

Based on this, one could say that the nutritional status of children from VSLA households stand the chance of being better than their non-VSLA counterparts since more of the VSLA households enjoyed increments in their income levels. This claim is in conformity with the statement by Lant Pritchett and Summers (1996), that wealthier is healthier and therefore the more income the mother earns the healthier her child would be.

Consumption of iodated salt: Sixty six point seven percent of the respondents in the VSLA households

used iodated salt in cooking while 33.7% of the non-VSLA household respondents used iodated salt in cooking. This high patronage by the VSLA households in the usage of iodated salt as against their non-VSLA counterparts could be as a result of the education that they received among their peers during their meetings and also due to their accessibility to funds from the association's pool of funds.

Practices of Exclusive breast-feeding: Exclusive breast-feeding during first six months of life after birth is very crucial in achieving a sound nutritional status of a child. In view of this the research did not leave out breast-feeding practices. Demand breast-feeding also contributes immensely to the nutritional wellbeing of children. As such information was sought on whether the respondents practiced demand breast-feeding or not. On this, the results showed that, there was no much difference in the two groups of households on the practice of demand breast-feeding, as all the respondents in the VSLA and 94.4% of respondents of the non-VSLA households asserted they practice demand breast-feeding. The findings also showed that 82.2% of mothers of VSLA households interviewed practiced exclusive breast-feeding while 64.4% of the mothers in non-VSLA households practiced exclusive breast-feeding.

Who determines what to eat: The research findings illustrate that majority of women decide what households eat in the study area. As revealed by the research, 59.4% of the respondents in both the VSLA and non-VSLA households confirmed that they decide what is eaten in their families, while 25% of them said that what is eaten in their households was based on the decision of the man and 15.6% indicated that what their households ate was usually upon the consensus of both the man and the woman.

Nutritional status of under-five children: Kyle *et al.* (2002) stated that anthropometric measures are highly reliable for measuring the nutritional status when compared with more complicated methodologies (hydrodensitometry, dilution techniques, measuring K-40 by whole body counting and electronic bioimpedance), the use of which is limited by complexity and cost in population studies. It was in the light of the above statement that this research sought to employ the use of anthropometry to validate the research findings. The results of the study verified the nutritional status of the children in the two groups of households (VSLA and non-VSLA) under (3) categories; well nourished, moderately malnourished and severely malnourished using the height-for-age (stunting).

Generally, it was noticed from the results that 52.8% of the 180 children were well nourished and 43.9% were

found to be moderately malnourished while 3.3% were severely malnourished.

Children of VSLA households were found to have better nutritional status than their colleagues in the other divide, since 81.1% of the children in VSLA households were found to be well nourished while only 24.4% of those in the non-VSLA households were well nourished. About 18.9% of the children under the VSLA were moderately malnourished with no child being severely malnourished. In the case of the non-VSLA households 68.9% of the children were moderately malnourished and 6.7% were severely malnourished. These findings are in conformity to that of Pronyk *et al.* (2007) who argued that microfinance clients particularly those of females have better nutritional status compared to non clients households.

It was also realized that, the children in the VSLA category performed better nutritionally than their colleagues in the non-VSLA category under the three milestones (0-6, 7-24 and 25-59 months) considered. The results showed that, of the children under the VSLA category, 2 were well nourished and no child was malnourished within the 0-6 age range, 36 were well nourished and 7 malnourished within the 7-24 age range, while 35 were well nourished and 10 malnourished within the 25-59 age range. In the case of the children under the non-VSLA category, 1 was found to be well nourished and 5 malnourished within the 0-6 age range, 8 were well nourished and 33 malnourished within the 7-24 age range, while 13 were well nourished and 30 malnourished within the 25-59 age range.

It would therefore be fair to conclude that because the VSLA households had access to funds and other opportunities including education on health issues, their children had better nutritional status than those in the non VSLA category given that, factors such as; illiteracy, cultural beliefs, water and sanitation were found to equally affect both groups.

Conclusion and recommendation: In conclusion, the introduction of the CARE model of the VSLA programme in the Sissala West district by PLAN GHANA (NGO) have proven to be of enormous benefit to women and their households nutritionally, especially that of under-five children. The nutritional status of under-five children in the VSLA households is found to be better than their non-VSLA colleagues in this research which, could be attributed to improve food intake, income level, exclusive breast-feeding practice and the use of iodized salt.

Therefore the results of this research could serve as a useful tool for government and NGOs to undertake village savings and loans programmes, since that will help address the nutritional problems of poor households in Ghana.

Based on the findings from this study the following recommendations could be of help to relevant stake holders:

- a) The programme should be scaled-up to cover more communities in the Sissala West District
- b) Other NGOs such as, ACTION AID international, WORLD VISION, FINCA international and OXFAM international should join PLAN GHANA international to extend the coverage of this programme so that all the districts in the country could be covered
- c) All rural women should be encouraged to take part in one micro-finance programme or the other, if not the Village Savings and Loans Association
- d) Government should also put in place favourable microfinance policies that will be beneficial to women and their households

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