



## **Analysis of Rural-Urban Migration among Farmers for Primary Health Care Beneficiary Households of Benue East, Nigeria**

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### **ABSTRACT**

The study analysed rural-urban migration among farmers for primary healthcare assessment in Benue East, Nigeria. Data were collected from 140 sampled beneficiaries and 100 non-beneficiaries, making a total 240 respondents using stratified random sampling technique. Primary data were collected using questionnaires for this study. The result shows that the total mean-man hour loss by family migrants between the ages of 1-20, 21-40 and 41-60 were 23hours, 20hours, 26hours, 22hours and 21hours respectively for beneficiaries of Primary Healthcare Programme, while lost to non-beneficiary respondents were 52hours, 62hours, 54hours, 34hours, 55hours and 49hours respectively. Measured on a 5-point Likert Scale with (1=strongly disagree, 2=disagree, 3=neutral opinion, 4=agree and 5=strongly agree) the beneficiaries and non-beneficiaries viewed rural-urban migration as affecting both hired and family labour supply to farm in the study area with an average perception index of 3.93 and 3.80 for hired labour and 3.74 and 3.80 for family labour supply, respectively. There is the need to establish primary health care centres in every local government areas in the State to avert some health challenges faced by the indigenes of those communities. The health facilities in rural areas should be upgraded to standard to discourage people from travelling to urban centres for medical services which erodes supply from labour..

**Key Words:** Primary healthcare, rural-urban migrations, beneficiaries, non-beneficiaries, mean man hours, hired labour supply, family labour supply.

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### **INTRODUCTION**

Absence of basic healthcare facilities could encourage migration of individuals to urban areas where these facilities are present, thereby lowering the labour force and production capacity of rural areas (Udu and Agu 1997). According to Udu and Agu (1997), urban Nigeria has twenty times more doctors and over five times more nurses and midwives than the rural areas. Many remote regions and districts do not have a single doctor, nurse or midwife to provide assistance to those that need it most. This has resulted in innovative ways of delivering healthcare to rural dwellers, including over the phone medical consultations, travel grants, as well as mobile preventative and treatment programs.

Additionally, there have been efforts to attract health professionals to these isolated locations, by increasing the number of medical students from rural areas and improving financial incentives for rural practice. Other health care services/factors that have encouraged rural-urban drift include substandard health facilities, shortage of drugs, few nurses and doctors, quack doctors and nurses and lack of primary healthcare centre in the rural areas (Pitblado, 2005).

Okpara (1983) revealed that migrants involved in rural-urban migration are always many compared to those engaged in urban-rural migration. Rural-urban migration negatively impacts on the quality of rural life, especially when such migrants carry away their needed productivity into the city (Adewale 2005). Migration of young adult from the rural to urban areas places a greater burden on the farmers, he further stated. This is attributed to the fact that farmers spend more time to cover the same area of land than when he or she had the assistance of the migrant, thereby depriving himself of leisure time and involvement in many social activities. Specifically, this study sought to:

- i) examine migration characteristics among farm families and its effects on rural-urban drift;
- ii) Assess farmer's perception on the effect of migration on labour supply to farms.

**Hypothesis:**

**H<sub>01</sub>:** Use of primary healthcare services has no significant effect on rural-urban migration in communities benefiting from primary health care.

**METHODOLOGY****Study area**

The study was conducted in Benue State of Nigeria located in the North-Central part of Nigeria. Its geographic coordinates are Latitude 6° 25' and 8° 8' North and longitudes 7° 47' and 10° 0' East. Benue State has a population of 4,780,389 (National Population Census, NPC, 2006) and occupies a landmass of 35,518km<sup>2</sup>, comprising 23 Local Government Areas divided into three agricultural zones. The climate is tropical, manifesting two distinct seasons. The rainy season is from April to October and the dry season is from November to March. Annual rainfall varies from 1750mm in the Southern part to 1250mm in the North. Benue State is the Food Basket of Nigeria because of the abundance of its agricultural resources, with 80% of the population deriving their livelihood from agriculture. Crops produced are cassava, yams, rice, beniseed and maize. Others include sweet potato, millet, soya beans, sugar cane, oil palm, mango, citrus and bananas.

Furthermore, primary healthcare system in these areas employs the concept of village health committees usually composed of local residents chosen without regard to political affiliations, sex, age or religion. These committees are expected to actively participate in planning, organizing and managing the primary healthcare system in the villages.

**Population and sampling technique**

The population for the study is 12,767 beneficiaries and 9,315 non-beneficiaries of primary healthcares in Vandeikya and Kwande Local Government Areas. The beneficiaries and non-beneficiaries of primary healthcare programmes were selected by means of stratified random sampling using Benue State Primary Healthcare Programme list of household communities that have benefited and those that have not benefited. Due to the enormity of this population, 240 respondents were selected using purposive and stratified random sampling techniques. The population was stratified along beneficiaries and non-beneficiaries.

In the first stage, two LGAs (Vandeikya and Kwande) were purposively selected. The two local government areas were selected because they have excelled so well in primary healthcare programmes when compared to other LGAs in the zone (Federal Ministry of Health, 2007). The second stage involved a random selection of five council wards from each of the two LGAs. Furthermore, five (5) different villages were randomly selected from all the five council wards in the third stage. The fourth and the final stage involved sampling of 1.1% of beneficiary and non-beneficiary households in all the selected villages using simple random sampling technique, making a total of 140 and 100 beneficiary and non-beneficiary households, respectively for the study.

**Data collection**

Both Primary and Secondary data were used for this study. Secondary data used include research reports, official statistics from Benue State Ministry of Health, publications in the internet, library materials such as text books and journals. Primary data were gathered via questionnaire administered to sampled beneficiaries and non-beneficiaries of the two LGAs with the aid of trained enumerators.

**Data Analysis**

Five (5) point Likert scale and simple descriptive statistics (mean, median, mode, percentage, frequency) and standard deviation were used to analyse the data. The null hypothesis was tested using student t-test expressed as:

$$t = \frac{X_1 - X_2}{\sqrt{\frac{\sum S^2}{n_1} + \frac{\sum S^2}{n_2}}}$$

Where:

t=Calculated Standard value

X<sub>1</sub> and X<sub>2</sub> are parameters of interest

S<sub>1</sub> and S<sub>2</sub> are variance for the parameters

∑= Summation sign

n<sub>1</sub> and n<sub>2</sub>: are sample sizes of relevant variables

Analysis of respondents’ perception of effect of migration on labour supply to farms was measured using 5-point Likert Scale of 1=Strongly Disagree (SD), 2=Disagree (DA), 3=Neutral Opinion (NO), 4=Agree (AG), 5=Strongly Agree (SA). The mean of the responses of sampled beneficiaries and non-beneficiaries can be calculated as follows:

$$\bar{x} = \frac{\sum fx}{N}$$

Where

$\bar{x}$  = mean response

∑ = Summation

f = number of respondents choosing a particular scale point

x = value of each scale point(s) according to the responses from sampled respondents.

N= total number of respondents

## RESULTS AND DISCUSSION

### Migration characteristics among respondents’ family

Table 1 analysed migration characteristics among respondent’s family. The dimension evaluated were the numbers in the family out migrated, sex and age categories of migrated individuals. The result shows that the total mean-man hours loss by family migrants between the ages of 1-20, 21-40 and 41-60 were 23hours, 20hours, 26hours, 22hours and 21hours respectively for beneficiaries of Primary Healthcare Programme. In the contrast, the total mean-man hours lost to family migrants (male and female) between the ages of 1-20, 21-40 and 41-60 for non-beneficiary respondents were 52hours, 62hours, 54hours, 34hours, 55hours and 49hours respectively.

**Table 1: Migration Summary Statistics**

Migrant Statistics	Beneficiaries			Non-Beneficiaries		
	Mean	Man-hours Lost	Total Man Hours Lost (Mean*Man-hours Lost)	Mean	Man-hours Lost	Total Man Hours Lost (Mean*Man-hours Lost)
Family members out migrated	2.9	8	23	6.5	8	52
Sex:						
Male out migrated	2.5	8	20	7.8	8	62
Female out migrated	3.2	8	26	6.7	8	54
Ages:						
1-20	3.1	8	25	4.3	8	34
21-40	2.8	8	22	6.9	8	55
41-60	2.6	8	21	6.1	8	49

Source: Field Survey, 2014

The implication is that the rate of labour depletion for beneficiaries is lesser than that of non-beneficiaries. This also implies that non-beneficiaries lost significant number of labour hours when compared with beneficiaries. The result of confirmatory t-test in Table 2 indicates that the average number of beneficiaries that have migrated out of the village was significantly ( $-23.375 \leq t \leq -4.117$ ;  $p < 0.01$ ) lesser than that of sampled non-beneficiaries. The implication is that access to primary healthcare services will have significant effect on numbers in the family migration in the communities.

**Table 2: Paired sample t-test difference of migration of beneficiaries and non-beneficiaries**

Migrant Statistics	Mean difference	Std Error mean	t-statistics	df	Sig (2-tailed)
Family members out migrated	3.66	0.325	11.252	99	.000
<b>Sex:</b>					
Male out migrated	5.24	0.224	23.375	99	.000
Female out migrated	3.50	0.309	11.313	99	.000
<b>Ages:</b>					
1-20	1.12	0.272	4.117	99	.000
21-40	4.08	0.291	14.013	99	.000
41-60	3.50	0.270	12.967	99	.000

Source: Field Survey, 2014. All are Significant at 1%

### Respondents' Perception on the Effect of Migration on Labour Supply to Farms

Table 3 summarized the perception score of respondents on the effect of migration on labour supply to farms. The average perception index of both beneficiaries and non-beneficiaries on whether movement of people out of the village affected hired labour supply was 3.93 and 3.80 respectively. This indicates that both the beneficiaries and non-beneficiaries viewed rural-urban migration as affecting hired labour supply to farms in the study area.

**Table 3: Summary statistics of sampled beneficiaries and non-beneficiaries perception on the effect of migration on labour supply to farms**

Variable	Category	Mean	Med	Mode	Std dev	Min	Max
Movement of People out of the village affected hire labour supply for farm operation.	Beneficiary	3.93	4.50	5	1.39	1	5
	Non Ben.	3.80	4	4	1.36	1	5
Movement of People out of the village affected family labour supply for farm operation.	Beneficiary	3.74	4	5	1.34	1	5
	Non Ben.	3.80	4	4	1.12	1	5
Movement of people out of the village is higher compared to the movement of people inside the village	Beneficiary	3.40	4	5	1.54	1	5
	Non Ben.	3.52	4	5	1.64	1	5

Source: Field Survey Analysis, 2014. \* Respondents perception was measured on 5 points Likert scale with 1=strongly disagree to 5=strongly agree.

Similarly, with an average perception index of 3.74 and 3.80, both the beneficiaries and the non-beneficiaries agreed that movement of people out of the village affected family labour supply. The result of t-test of statistical significance indicated no significant difference between the perception of beneficiaries and non-beneficiaries as regards the effects of rural-urban migration of family members on hired and family labour use in the study area.

Analysis of respondents' perception on whether the movement of people out of the village is higher than movement of people into the village indicated that the beneficiaries were neutral on this (average perception score of 3.40). However, with an average perception score of 3.52, non-beneficiaries agreed to the view that movement of people out of the village has been more than movement of people into the village. This suggests that family members of non-beneficiaries that have moved out of the village were more than those who have moved into the village. However, t-test of difference in Table 4 proved that no significant difference exist between the perception of beneficiaries and that of non-beneficiaries on this view.

**Table 4: Independent sample t-test difference of sampled beneficiaries and non-beneficiaries opinion on the effect of migration on labour supply to farms**

Variable	t	df	Sig (2-tailed)
Movement of People out of the village affected family labour supply for farm operation.	0.506	238	0.614 <sup>NS</sup>
Movement of People out of the village affected family labour supply for farm operation.	-0.246	238	0.806 <sup>NS</sup>
Movement of people out of the village is higher compared to the movement of people inside the village	-0.410	238	0.683 <sup>NS</sup>

Source: Field survey, 2014, t-ratio not significant at 10%

## CONCLUSION AND RECOMMENDATIONS

The study revealed that the total mean-man hours lost by family migrants between the ages of 1-20, 21-40 and 41-60 were 23hours, 20hours, 26hours, 22hours and 21hours, respectively for beneficiaries of Primary Healthcare Programme. In contrast, the total mean-man hours lost to non-beneficiary respondents were 52hours, 62hours, 54hours, 34hours, 55hours and 49hours respectively. Primary health care centres should be established in every local government areas in the State to avert some health challenges faced by the indigenes of those communities. The health facilities in rural areas should be upgraded to standard to discourage people from travelling to urban centres for medical services. This is probably because the shortage of drugs in primary healthcare centres, fewer doctors, nurses and community healthcare workers, substandard health centres and absence of primary health care centres made people to live rural areas to cities where they can afford quality medical service irrespective of the cost.

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