

# **Socio-economic Factors and Awareness of HIV/AIDS Among Rural Women Farmers in Ebonyi State, Nigeria: Issues for Guidance and Counselling**

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**Abstract** – This study analyzed the socio-economic factors influencing rural women farmers' awareness of HIV/AIDS in Ebonyi State, Nigeria: Issue for Guidance and Counseling. The study employed purposive and multi-stage random sampling techniques in the selection of 120 rural women who formed the sample size. Primary data used for the study were collected using questionnaire and interview schedule. These were analyzed with descriptive and inferential statistics. The result of data analysis showed that the rural women in the study area were knowledgeable on mode of transmission of HIV/AIDS such as: mother-child (94.17 percent), sexual-intercourse (93.33 percent), contaminated sharp (piercing) instruments (91.67 percent) among others. The result of multiple regression analysis indicated a coefficient of multiple determination  $R^2$  of 68.5 percent. This means that about 68.5 percent of the level of awareness of HIV/AIDS in the area was influenced by the socio-economic characteristics of the respondents. Most of the explanatory variables were statistically significant and met a priori expectations. The null hypothesis tested at 5 percent level of significance was rejected. This shows that there is significant relationship between the socio-economic characteristics of the rural women and their level of knowledge of HIV/AIDS in the area, hence the need for counseling. Further analysis identified lack of adequate information (3.64), remoteness of the rural areas (3.10), cost of information access (3.12) among others as major obstacles which limited rural women knowledge of HIV/AIDS in the area. It was concluded that improving the knowledge of HIV/AIDS through constant guidance and counseling would minimize the spread of the scourge and as well improve the contribution of the women to agricultural development in the study area. Necessary recommendations such as improving the educational status of the women farmers among others were made.

**Keywords** – HIV/AIDS, Socio-Economic Factors, Rural Women, Awareness Guidance And Counseling, Ebonyi State, Nigeria.

## **I. INTRODUCTION**

Acquired Immune Deficiency Syndrome (AIDS) is a viral disease caused by Human Immunodeficiency Virus (HIV) that is usually found in body fluids like blood, semen, vagina fluid, and breast milk of infected persons. The virus can be transferred from one infected person to another, mostly through sexual intercourse and sharing of unsterilized instruments like blades, knives, and syringes which had once been used by infected persons (Oladeye, 2003).

The HIV/AIDS pandemic has been described as the worst tragedy in contemporary history (Oladepo, 1994). By the end of 2005, about 40.3 million people worldwide were estimated to have been living with the virus while newly infected persons and death due to HIV/AIDS alone were put at 4.9 million and 3.1 million respectively. About 60 percent (24.2 million) of the HIV infected people live in sub-Saharan Africa (Joint United Nation Programme on HIV/AIDS/World Health Organization, 2005).

The epidemic in Nigeria has extended to beyond the commonly classified high risk groups and is now common in the general population. A break down on the statistics of HIV/AIDS infection in sub-Saharan Africa shows that women are highly vulnerable (Anaeto, 2008). The prevalence rate of HIV/AIDS in Nigeria is put at 5.8 percent in 2003 and 17.6 million women most of whom were of child bearing age were infected (NACA, 2006).

With the adult prevalence rate at 5.0 percent in 2003, the nations is at the thresh hold of an exponential explosive growth of the epidemic. HIV/AIDS, estimates that in Nigeria, around 3.1 percent of adults between ages 13-49 are living with HIV/AIDS. Similarly, Alubu (2002) observed that the probability of underestimating the real magnitude of HIV/AIDS in Nigeria is high since many cases are hardly reported due to inadequate laboratory facilities for testing and this is connected to poor perception and awareness. Indications abound that poverty, ignorance, culture and religion also influence the escalating increase of the epidemic.

The interrelationship between the epidemic and overall development has been widely acknowledged. Its linkage to the rural farming population especially women has so far received less attention probably because the epidemic was initially perceived as largely urban Adelere, Olujide, Popools, (2006). According to Slatter and Wiggins (2005), even though early outbreak of HIV/AIDS occur predominantly in urban areas, the tendency for those showing symptoms of AIDS to return to their villages suggest that the majority of people living with HIV/AIDS are majorly in the rural areas where majority are farmers. This also has the tendency to cause more infections as the rural women farmers hardly are sure of the specific sicknesses of the returnees.

Therefore, the need for effective readjustment on HIV/AIDS scourge and enlightenment among rural women farmers emphasize proper guidance and counseling. Guidance and Counseling do not only help them in terms of the current realities of their job in relation to HIV/AIDS,

but it also helps in cushioning their related personal/social realities to affect their total adjustment programmes. A trained counselor believes in the intrinsic value and worth inherent in each individual, his capacity for growth and change in his ability to cope with life's problems and as well assists an individual in terms of his growth and weaknesses, and the reality of the world he lives in (Ogunyemi, 2003). The need for guidance and counseling services among rural women farmers in relation to HIV/AIDS can therefore not be over emphasized.

## II. PROBLEM STATEMENT

The deleterious effect of HIV/AIDS is almost inexhaustible. The most immediate impact of HIV/AIDS on household assets is the shortage of labour/manpower experienced by households. As it loses the productivity of the afflicted members whose time is absorbed in caring for the sick and dying household members, additional labour is lost during funerals and traditional periods of mourning (Stokes, 2003). Unlike many diseases, HIV/AIDS affects individuals in their most productive years with majority occurring between people of ages 20 and 40 years (Spore, 1997). Stokes (2003) estimates the productive age group at which HIV infections and AIDs death are concentrated to be 15 and 49 years. Hence, the loss of human capital leads directly to a loss of financial capital. This directly aggravates poverty in the affected households, especially among rural farmers.

The adverse effect of HIV/AIDS on health and household is exacerbated by poverty. Flores (2001) asserts that HIV/AIDS pandemic increases poverty by stripping assets and asset rundown leaves individual household and even communities more exposed to future health and nutrition shock. Wilson (2001) puts it that loss of income and agricultural labour cause a decrease in household access to nutritional food and to raise cash to pay for health care or food, families sell food producing assets such as chicken and goats. FAO (2000) records that HIV/AIDS is a determining factor for, as well as consequence of food insecurity. This affects agricultural productivity and other livelihood strategies, thus HIV/AIDS can contribute to the reduction in the amount of food available to individuals, household and food security (Curry, Wieggers, Garbero, Stokes and Hourihan (2006). This calls for proper guidance and counseling for rural households in the study area; in order to ameliorate the effects of the scourge.

Despite the efforts made by government and non-governmental organization in curbing the spread of HIV/AIDS in Nigeria, the scourge is still spreading fast especially among rural residents who are not all that knowledgeable about its mode of transmission. Based on this, it becomes necessary to investigate the socio-economic factors influencing rural women awareness of HIV/AIDS in Ebonyi State, Nigeria and counsel them appropriately. In view of this, the following research questions were raised: (1)What is the level of women farmers knowledge of the mode of transmission of HIV/AIDS? (2)What is the relationship between the socio-

economic characteristics of the rural women and their knowledge of transmission of HIV/AIDS? And (3) What are the constraints limiting the awareness of HIV/AIDS among women farmers in the study area.

## III. OBJECTIVES OF THE STUDY

The broad objective of this study is to determine the socio-economic factors influencing rural women knowledge of HIV/AIDS in Ebonyi State, Nigeria. The specific objectives include to:

- 1) determine the level of women farmers' knowledge of the mode of transmission of HIV/AIDS;
- 2) assess the relationship between the socio-economic characteristics of the rural women and their knowledge of mode of transmission of HIV/AIDS; and
- 3) identify the constraints to the awareness of HIV/AIDS among women farmers in the study area.

## IV. HYPOTHESIS

$H_{01}$ : There is no significant relationship between the socio-economic characteristics of the women farmers and their level of knowledge of mode of transmission of HIV/AIDS in the study area.

## V. METHODOLOGY

This study was conducted in Ebonyi State of Nigeria, which lies appropriately on latitude  $7^{\circ}3'N$  and longitude  $5^{\circ}4'E$  and  $6^{\circ}4'E$  in the South East geopolitical zone of Nigeria. Purposive and multi-stage random sampling techniques were used to select one hundred and twenty (120) rural women farmers in the following stages: Firstly, purposive selection of two Local Government Areas (L.G.A) in each of the three agricultural zones. Secondly, random selection of the two autonomous communities from each of the six selected L.G.As. Thirdly, selection of 10 (ten) rural women farmers from each autonomous community to give a total of 120 (One hundred and twenty) respondents who formed the sample size for the study. A well structured questionnaire and interview schedule were used to collect primary data for the study. Both descriptive and inferential statistics were employed in data analysis. Objective I was analyzed using percentages while objectives II and III were analyzed using multiple regression and mean scores analyses respectively. The null hypothesis was tested at 0.05 level of significance with F-test.

## VI. MODEL SPECIFICATION

### A. Likert Scale Model

$$\text{Decision point } 4+3+2+1 = \frac{10}{4} = 2.5$$

Using 2.5 as the mean decision point, any item that has its mean score less than 2.5 was regarded as a weak factor and rejected; while any one with mean scores of up to 2.5 and above was regarded as strong factor and accepted. In

computing the mean score of each item, the frequency was multiplied with its appropriate likert value and the sum deviated weight with the total no of respondents to the items. This was computed with equation below:

$$\bar{X} = \frac{\sum F}{Nr}$$

Where:

$\bar{X}_s$  = Mean Score

$\sum$  = Summation

F = Frequency of the Respondents

N = Likert Value

nr = Number of respondents to the item

**B. Multiple Regression Model**

$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8)$  -----  
 --- implicit form ..... (i)

$Y = A_0 + A_1X_1 + A_2X_2 + \dots + A_8X_8 + et$  -----  
 --- explicit..... (ii)

Where:

Y = Knowledge of mode of transmission (Number of modes of transmission known)

X<sub>1</sub> = Age (Years)

X<sub>2</sub> = Farming Experience (Years)

X<sub>3</sub> = Farm size (Hectare)

X<sub>4</sub> = Marital status (Dummy)

X<sub>5</sub> = Education (Years spent in formal education)

X<sub>6</sub> = Household size (Number)

X<sub>7</sub> = Income (Naira)

X<sub>8</sub> = Membership of social organizations (Dummy)

et = Stochastic error term

a<sub>1</sub> – a<sub>10</sub> = Parameters for estimation

a<sub>0</sub> = Constant.

**C. Test of Hypothesis**

The null hypothesis was tested using F – test as shown

$$F - cal = \frac{R^2(N-K)}{1-R^2(K-1)} \dots\dots\dots(iii)$$

Where:

R<sup>2</sup> = Co-efficient of multiple determinations

N = Sample size

K = Number of variables

**Decision Rule:** If F-cal > F –tab, reject the null hypothesis otherwise accept alternative.

**VII. RESULTS AND DISCUSSION**

The results and discussion of this study was done according to the objectives of the study as shown:

**A. Level of knowledge of Mode of Transmission of HIV/AIDs among Women Farmers**

There had evolved the general knowledge of mode of HIV/AIDs transmission world over. Table 1 shows the result of the analysis to this regard.

Table 1: Percentage Distribution of Level of Knowledge of Mode of HIV/AIDs Transmission among Women Farmers in Ebonyi State, Nigeria.

Parameters	Frequency	Percentage
1) Sexual intercourse	112	93.33
2) Contaminated sharp (piercing) instruments	110	91.67
3) Blood transfusion	110	91.67
4) Mother to child	113	94.17
5) Mosquito bite	41	34.17
6) Hand shake	12	10.00
7) Sleeping together	11	9.17
8) Eating together	3	2.50
9) Sharing of toilet	27	22.50
10) Sharing of bathroom towel	36	30.00

Source: Field Survey, 2015.

Multiple Responses Recorded

The result of data analysis in Table 1 revealed that 94.17 percent of the respondents indicated that HIV/AIDs can be transmitted through mother to child, 93.33 percent of the respondents indicated that HIV/AIDs can be transmitted through sexual intercourse, 91.67 percent indicated that HIV/AIDs can be transmitted through use of contaminated sharp objects and blood transfusion. Other misconceived modes of transmission indicated by the respondents include: mosquito bites (34.17 percent), sharing of bathroom towel (30.00percent), sharing of toilet (22.50 percent) hand shake (10.00 percent), sleeping together (9.17 percent) and eating together (2.50 percent).

This result implies that a high proportion of the rural women had sound knowledge of the modes of HIV/AIDs transmission possibly due to increased enlightenment

campaigns on the disease. However, some of the wrong perception which still exist among the women is in line with the result of a study carried out by Kaliclman and Simbayi (2003) in a black township in Cape Town, South Africa where many believed that HIV/AIDs can be transmitted through sharing of bathroom towel, mosquito bites, sharing of toilet, sleeping together and even through supernatural means. Anarfi (1997) supported that it may be due to low education which could make them ignorant of the modes of transmission of the disease.

**B. Effects of Socio-economic Characteristics of the Rural Women Farmers on their Knowledge of Mode of Transmission of HIV/AIDs**

The result of the multiple regression analysis was presented in Table 2

Table 2: Summary of Multiple Regression Analysis

Variables	Variables Names	Coefficient	Standard Error	T-values	Level of Significance
B <sub>0</sub>	Constant	3.594	0.909	3.953	1
X <sub>1</sub>	Age	0.041	0.211	0.196	1
X <sub>2</sub>	Farm Experience	-0.105	0.174	-0.603	NS
X <sub>3</sub>	Farm size	-0.515	0.291	-1.770	10
X <sub>4</sub>	Marital status	0.208	0.242	0.860	1
X <sub>5</sub>	Level of Education	0.013	0.180	0.072	1
X <sub>6</sub>	Household size	-0.074	0.288	-0.256	NS
X <sub>7</sub>	Level of income	0.092	0.168	0.549	NS
X <sub>8</sub>	No of social organizations	-0.438	0.309	1.418	NS

Source: Data Analysis, 2015.

This result shows that R<sup>2</sup> which is the coefficient of multiple determination was 68.5 percent. This implies that 68.5 percent of the variation in the dependent variable was caused by the number of the independent variables included in the regression model. This means that the socio-economic characteristics of the respondents significantly influenced their knowledge of HIV/AIDS in the study area. Also, the low value of Durbin-Watson Constant (2.068) shows that there is no auto correlation in the regression model. Hence, all the relevant variables are included. Therefore, the regression is of good fit. The overall statistical reliability of this regression was shown by the low standard error of the estimates (1.94754) and the F-ratio (34. 656) which was significant at 1 percent level of significance.

The individual variables were also tested of the good fit of the regression where Age (X<sub>1</sub>) had positive coefficient and was significant at 1 percent level of significance. This implies there is positive relationship between the age of the women farmers and their knowledge of mode of transmission of HIV/AIDS in the study area. This also conforms to the a priori expectations that the higher the age of the women farmers, the higher their knowledge of mode of transmission of HIV/AIDS. The result is similar to those of Ndeki, Seha and Leshabari (1994) whose study also revealed among other things that knowledge of AIDS increased with age

Farming experience (X<sub>2</sub>) had a negative coefficient. This implies that there is a negative relationship between the farming experience of the women farmers and their knowledge of mode of transmission of HIV/AIDS

Also, farm size (X<sub>3</sub>) had a negative coefficient and was statistically significant at 10 percent level of significance. This implies that the size of the farm of the women farmers have an inverse relationship with their knowledge of mode of transmission of HIV/AIDS.

Marital status (X<sub>4</sub>) had a positive coefficient meaning that the farmers marital status was positively related to

their knowledge of mode of transmission of HIV/AIDS. This is because the married women may during their antenatal or medical checkups receive teachings on the mode of transmission of HIV/AIDS in the study area.

The women level of education (X<sub>5</sub>) showed a positive coefficient and was statistically significant. This shows that increase in the level of education of the rural women led to a corresponding increase in their knowledge on mode of transmission of HIV/AIDS in the area. This is because educated farmers are intelligent and are able to understand through study various modes of HIV/AIDS transmission through media, newspapers and other means.

Household size (X<sub>6</sub>) has a negative coefficient. This implies that there is an inverse relationship between the household size and the women farmers knowledge of mode of transmission of HIV/AIDS.

Level of income (X<sub>7</sub>) had a positive coefficient and conforms with the a priori expectation indicating that the higher the level of income of income of the women farmers the more their knowledge of mode of transmission of HIV/AIDS from several means of HIV/AIDS information.

Finally, the number of social organization a woman farmers belonged to (X<sub>8</sub>) had a positive co-efficient which conforms to the a priori expectation that the higher their knowledge of HIV/AIDS transmission modes.

The final regression equation is shown:

$$Y = 3.594 + 0.041X_1 - 0.105X_2 - 0.515X_3 + 0.208X_4 + 0.013X_5 - 0.074X_6 + 0.092X_7 - 0.438X_8$$

(0.909) (0.211) (0.174) (0.291) (0.242) (0.180)  
(0.288) (0.168) (0.309)

### C. Constraints to HIV/AIDS Awareness among the Rural Women Farmers

Overtime, there have been some factors militating against HIV/AIDS awareness. Some of those constraints were analyzed in Table 3.

Table 3: Mean Score Analysis of Respondents According to the Factors Militating against HIV/AIDS Awareness in the Study Area.

Constraints	Mean Score	Decision
Lack of adequate information about HIV/AIDS	3.64	Accepted
Remoteness of the rural area	3.10	Accepted
Restrains from free interactions	2.48	Rejected
Cultural isolation	2.33	Rejected
Religious Beliefs	2.62	Accepted

Cost of information access	3.12	Accepted
Lack of electricity power	3.01	Accepted
Electronic sources of information	3.23	Accepted

Source: Field Survey, 2015.

The result of data analysis in Table 3 showed that lack of adequate information about AIDs (3.64), lack of electricity supply to power electronic sources of information (3.23), cost of information access (3.12) and remoteness of the area (3.10) were identified as major factors militating against HIV/AIDs awareness in the study area. Others factors are religious practices/beliefs (2.62) and cultural isolation (2. 56).

This result implies that there abound constraints to the awareness of HIV/AIDs awareness in the study area. The three most critical factors were information access related. This could be due to the remoteness of the area and some other factors as indicated by the women farmers.

### VIII. TEST OF HYPOTHESIS

The null hypothesis which states that the socio-economic characteristics of the women farmers do not significantly influence their knowledge of mode of transmission of HIV/AIDs was tested using F-test at 1 percent level of significance as shown:

**Decision Rule:** If F-cal is greater than F-tab, reject the null hypothesis otherwise accept the alternative. Since F-cal (30.17) is greater than F-tab (2.66), the null hypothesis was rejected while its alternative was accepted. This implies that the socio-economic characteristics of the women farmers have significant influence on the knowledge of mode of transmission of HIV/AIDs in the study area.

### IX. CONCLUSION

The study sheds some light on the influence of socio-economic characteristics of rural women farmers on their knowledge of HIV/AIDs in Ebonyi State, Nigeria. The study had shown that greater proportion of the women farmers have good knowledge of HIV/AIDs and its mode of transmission. But, their level of knowledge was influenced by their socio-economic characteristics. Certain factors such as lack of information, remoteness of the rural areas as well as cost of information bedeviled the rural women knowledge of HIV/AIDs in the study area.

### RECOMMENDATIONS

Based on the findings of this study, the following recommendations were made:

- 1) The Government and Non-governmental organizations should embark on aggressive awareness campaign that will sensitize women especially those in the rural areas about risk in sexual behaviour.
- 2) Women empowerment through provision of credit facilities at the grass root will enable them to be productively involve in agricultural activities and as a result have less time for sexual activities

3) HIV/AIDs counseling should be frequently organized for the spouses of rural women farmers for better enlightenment

4) Agricultural Development Programme Extension Agents should be trained on HIV/AIDs to enable them disseminate related information to their rural farmers during technology transfer.

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