 Ethno Med, 4(3): 183-189 (2010)

Awareness of HIV/AIDS Pandemic among Rural Farmers in Vandeikya Local Government Area of Benue State, Nigeria

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KEYWORDS HIV/AIDS Infection Rate. Modes of Transmission. Rural Farmers. Knowledge. Information Sources

ABSTRACT The paper assessed the awareness level of rural farmers about HIV/AIDS in Vandeikya Local Government Area of Benue State, Nigeria. Through simple random sampling, one hundred and sixty respondents were interviewed. Descriptive statistics and chi-square were used to analyze the data collected. Results of the study showed that majority (90.6%) of the respondents were aware of HIV/AIDS, while radio (71.3%) and friends/neighbors (54.4%) constitute the major sources of HIV/AIDS information. Despite the high level of awareness about HIV/AIDS, a reasonable proportion of the respondents ignorantly attributed its cause to poison (35.6%), witchcraft (32.5%), mosquito bite (27.5%) and eating/bathing/sleeping with infected individuals (20%). Chi-square analysis identified age, literacy level and frequency of travels of farmers to have had significant dependency relationship with awareness of HIV/AIDS. To reduce the rate of infection, it is recommended that government and non-governmental organizations should intensify more HIV/AIDS awareness campaign using radio, peer group, and agricultural extension agents. To be effective, awareness campaigns should take cognizance of factors like farmers' age and literacy level.

INTRODUCTION

Since HIV/AIDS was discovered in 1981, its impact has been particularly severe on the economies of the developing world and on the marginalized populations in industrialized countries (United Nations Development Programme 2001). Its negative impact on agriculture is monumental. AIDS affect the rural household productive capacity by reducing the quality and quantity of household's labor and also deplete its financial resources by payment made for medical treatment (when the victim fall sick) and funeral costs (when the victim eventually dies) (Kwaramba 1998). This may further lead to reduced household income, asset depletion, loss of entitlement such as land and reduction in remittances and food transfer as well as increases in the number of dependents thereby reducing food and other resources available per household member.

The HIV/AIDS pandemic has been described as the worst tragedy in contemporary history (Ogunbodede 2004). By the end of 2005, about 40.3million people worldwide were estimated to have been living with the virus while newly infected persons and deaths due to HIV/AIDS alone were put at 4.9 million and 3.1 million respectively. About 60% (24.2million) of the HIV infected people live in Sub-Saharan Africa (SSA) even though the population of SSA is just a little over 10% of the global population (Joint United Nation Programme on HIV/AIDS/World Health Organization 2005).

Nigeria is in the grip of a growing HIV/AIDS epidemic with a national adult infection rate of 5.8% in 2001 and 5.0% in 2003, which masks significant regional variations (0.5-21%, 2001 data) (Federal Ministry of Health 2001, 2004). Available statistics put the estimate of Nigerians living with HIV at 3.3million adults. (Joint United Nation Programme on HIV/AIDS/World Health Organization 2004). Even with these HIV figures, Alubo (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.

This study on the awareness level of HIV/AIDS among rural farmers was carried out in Vandeikya Local Government Area (LGA) of Benue State in North-Central Nigeria. In the national antenatal HIV seroprevalence surveys carried out, Benue State recorded high rates: 16.8% (1999), 13.5% (2001), and 9.3% (2003). It was estimated that some 250,000 inhabitants of Benue State were HIV positive in 2001 (Ssengonzi and Moreland 2002). Also in 2001, a technical survey carried out among some selected rural communities in Benue State identified 'Ihugh' a rural farming settlement in Vandeikya LGA as

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having high HIV prevalence rate of 15% (Royal Dutch Institute 2003).

The HIV/AIDS pandemic is no longer restricted to cities. The disease is now spreading at an alarming rate into rural areas thereby threatening the lives and livelihoods of millions of the rural farming population, especially those in their most productive age bracket of 15 and 45 years (Hilhorst et al. 2006). Although the interrelations between the epidemic and overall development has been widely acknowledged, its linkages to the rural farming population had so far received less attention probably because the epidemic was initially perceived as largely urban. (Adelore et al. 2006).

In most part of Nigeria, rural infection rates are higher than urban rates (Federal Ministry of Health 2004). According to Slater and Wiggins (2005), even though, early outbreaks of HIV/AIDS occur predominantly in urban areas, the tendency for those showing symptoms of AIDS to return to their villages suggests that the majority of people living with HIV/AIDS are now in the rural areas.

Several studies that examined the level of awareness of HIV/AIDS in Nigeria focused on selected groups such as students, teachers, health workers and women attending antenatal clinics (Ayankogbe et al. 2003; Deji and Enuen-wemba 2005; Bankole and Mabekoje 2008). Few other studies assessed the level of awareness of HIV/AIDS among farmers in Ondo State, South-Western Nigeria (Olaleye 2003), and the fishing population in Kogi and Niger States in North-Central Nigeria (Olowosegun et al. 2008). However, despite the high prevalence rate of HIV infection in Benue State, no awareness studies had so far being conducted among the rural farming population. Lack of awareness and misconceptions by the public about HIV/AIDS might have contributed to the spread of the disease.

The present study was therefore conducted to fill this research gap by assessing the level of HIV/AIDS awareness among rural farmers in Vandeikya LGA of Benue State. The study is important because it could provide baseline information for evaluating the effectiveness of preventive strategies of HIV infection among the rural farming population in Nigeria and guide the introduction of better methods of preventing further infection.

The general objective of this study was to assess the level of awareness of rural farmers about HIV/AIDS pandemic in Vandeikya LGA of Benue State.

The specific objectives of the study were to

(i) Examine the personal and socio-economic characteristics of rural farmers in the study area,
(ii) Determine the level of awareness of HIV/AIDS among rural farmers in the study area,
(iii) Identify the sources of HIV/AIDS information and their level of availability to the rural farmers in the study area.
(iv) Determine the level of rural farmers' knowledge of the modes of transmission of HIV/AIDS and
(v) Identify factors influencing the awareness of HIV/AIDS among rural farmers in the study area.

Hypothesis*:* The null hypothesis (Ho) for the study is that: There is no significant dependency relationship between some selected socio-demographic characteristics (age, literacy, frequency of travels, membership of cooperatives, income, gender and marital status) of respondents and their level of awareness of HIV/AIDS.

MATERIALS AND METHODS

Area of Study

The study was conducted in Vandeikya LGA of Benue State in North- Central Nigeria with a population of 230,120 people (National Bureau of Statistics 2007). Benue State is acclaimed as Nigeria's food basket because of its rich diverse agricultural produce which includes yams, rice, beans, cassava, soya beans, benniseed, maize, sorghum, millet, tomatoes and a lot of fruits. Poultry, goat, sheep, pigs and cattle are the major domestic animals kept. Vandeikya LGA has contributed immensely to the "food basket" status of Benue State mainly through the production of yam, cassava, sweet potato, guinea corn, maize and citrus like mango and orange. The choice of Vandeikya LGA for this study was due to its high HIV prevalence rating of 15% in 2001 (Royal Dutch Institute 2003).

Sampling Procedure, Sample Size and Data Collection

A simple random sampling technique was used in selecting the respondents for this study. Village Extension Agents (VEA) in the study area

provided a list of farm households from which 172 farmers were randomly selected. A set of pretested questionnaires was used for primary data collection. Content validation of the research instrument was done by specialists from the College of Agricultural Economics, Extension and management Technology of the University of Agriculture, Makurdi, Nigeria.

One hundred and seventy – two questionnaires were distributed according to the population density of each of the twelve council wards of Vandeikya LGA as follows: Mbakaange (18), Mbagbera (18), Mbayongo(18), Mbadede (17) and Tsambe(17). Others are Mbagbam (12), Mbatyough(12), Mbajor(12), Ningev(12), Mbakyaha(12), Nyimagbagh (12) and Township (12). All the 172 questionnaires were returned but only 160 (93%) were valid. The rest (7%) were rejected due to incomplete information.

Respondents were briefed on the objectives of the study and informed consents were obtained before questionnaires were administered. Five (5) Village Extension Agents (VEAs) of the Benue State Agricultural Development Project (ADP) administered the questionnaires in the farmers' local language (Tiv), while the authors supervised the exercise. The data were collected between December 2006 and January 2007.

Data Analysis

Data collected were summarized and analyzed using descriptive statistics such as frequency distribution and percentages. Chi-square analysis was used to test the hypothesis of no significant relationship between some socio-demographic characteristics and awareness level of HIV/AIDS.

To ascertain the level of awareness of HIV/AIDS, each respondent was asked ten (10) questions covering causes, modes of transmission and preventive measures of HIV/AIDS. Each correct answer scores one point. The highest score was ten (10) points and the lowest was zero (0). Respondents were then categorized into three (3) groups based on their awareness scores, namely:

(a) Low awareness (for respondents with 1-3 scores)
(b) Moderate awareness (for respondents with 4-7 scores)
(c) High awareness (for respondents with 7-10 scores)

RESULTS AND DISCUSSIONS

Demographic and Socio-Economic Characteristics of Respondents

Rural dwellers are said to be more vulnerable to HIV/AIDS infection due to their poor socio-economic background. The socio-demographic characteristics of the respondents provide the background information needed to understand the level of awareness of HIV/AIDS among the farming population in the study area. In table 1, distribution of respondents based on sex showed that majority (65%) were males while 35% were females. The variation reflected the gender bias of male against their female counterpart. Even though, women contribute significantly to agricultural production in Nigeria, men dominate in decision-making and access to information (Amaza et al. 1999). This may explain the higher number of male respondents than female in the study area.

Table 1: Personal and socio-economic characteristics of respondents

Variables	*Frequency*	*Percentage*
Sex		
Male	104	65.0
Female	56	35.0
Total	160	100.0
Age		
21–30	48	30.0
31-40	35	21.9
41 -50	32	20.0
51-60	21	13.1
61and above	24	15.0
Total	160	100.0
Marital Status		
Married	117	73.1
Single	23	14.4
Divorced	11	6.9
Widow	9	5.6
Total	160	100.0
Educational Level		
No formal education	65	40.3
Adult literacy	5	3.1
Primary school	51	31.9
Secondary school	28	17.5
Tertiary education	11	6.9
Total	160	100.0
*Annual Income**		
N28,000 – 34,000	85	53.1
N35,000 – 41,000	47	29.4
N42,000 and above	28	17.5
Total	160	100.0

*In 2006, the official exchange rate was averagely ₦122.5 (Nigerian naira) to $1 (US dollar)
Source: Survey data, 2006.

Age has considerable influence on agricultural production. Results in table 1 revealed that 51.9% of the respondents belonged to the active (reproductive) age of 21-40 years while the rest (48.1%) were above 40 years of age. This age bracket (≤40 years) represents the most active and productive years in agricultural production because they constitute the most productive labor force in the rural areas. Also due to their active sexual activities, the highest prevalent rate of HIV infections in Nigeria is found within the age bracket of 15-40 years (Federal Ministry of Health 1997).

The distribution of respondents according to marital status showed that the majority (73.1%) were married, 14.4% single while 12.5% were either divorced or widowed. This implied that 26.9% (unmarried) of the respondents might be vulnerable to HIV/AIDS infection in their search for sex partners except for moral self-discipline, religious inclination and adherence to cultural values and norms that prohibit fornication and adultery. Even though, married men and women can also be infected with HIV if they engage in unfaithful extra-marital sexual intercourse, the risk of infection is higher among the unmarried (Olaleye 2003).

Data in table 1 also revealed that a reasonable proportion of the respondents (40.6%) had no formal education, 35.0% completed adult literacy class and primary school, 17.5% acquired secondary education and very few (6.9%) had tertiary education. The low level of education revealed in this result is a typical feature of an average rural area in Nigeria. Education determines the kinds and sources of information that respondents can access (Deji and Enuenwemba 2005).

Table 2: Distribution of respondents according to awareness and major sources of information about HIV/AIDS

Variables	*Frequency*	*Percentage*
Awareness of HIV/AIDS		
Aware	145	90.6
Not aware	3	1.9
No response	12	7.5
Total	160	100.0
*Major Sources of HIV/AIDS Information**		
Radio	114	71.3
Friends/neighbors	87	54.4
Church/mosque	14	8.8
Television	8	5.0
Newspapers/poster	6	3.8
Agricultural extension agents	4	2.5
Seminar/workshop	3	1.9

*Multiple responses
Source: Survey data 2006.

Distribution of respondents according to their annual income earnings showed that the majority (53.1%) earned between ₦28,000 and ₦34,0000, 29.4% earned between ₦35,000 and ₦41,000 while a few (17.5%) earned above ₦41,000. The mean annual income was ₦33, 589.40. The low-income level as revealed by this study is a common feature among rural dwellers in Nigeria who are mostly peasant farmers operating at subsistent level of production (Oluwatayo 2008). The implication is that low-income earners may have limited access to HIV/AIDS information due to their inability to purchase radio, television set and other information sources (Marthur et al. 1994).

Awareness, Sources and Availability of HIV/AIDS Information

Various campaigns have been mounted by both government and non-governmental organizations (NGOs) to create awareness about HIV/AIDS. Data in table 2 showed that the majority (90.6%) of the respondents were aware of HIV/AIDS. Radio (71.3%) and friends/neighbors (54.4%) were the major sources of awareness while seminars/workshops (1.9%), agricultural extension agents (2.5%) and newspapers/posters (3.8%) were the minor sources. The claim of unawareness by some respondents may be attributed to the low performance of village agricultural extension agents. According to Olaleye (2003), apart from disseminating improved agricultural technologies to farmers, village agricultural extension agents are very relevant in the campaign against the spread of HIV/AIDS in rural areas because of their close contact with rural farmers.

Radio was ranked the top major source of HIV/AIDS information probably because it has the widest media coverage in Nigeria (Egbule and Njoku 2001). Other studies have also shown that radio is very effective in rural campaigns because it cuts literacy boundaries, produce immediate effects and is widely owned by people due to its cheapness (Kuponiyi 2000; Idu and Obinne 2003). The relatively low patronage of other media channels such as television, newspapers/posters and seminars/workshops may be explained by poor coverage, illiteracy, poor reading habits and weak purchasing power of Nigerian farmers as earlier observed by Ayankogbe et al. (2003).

Furthermore, table 3 showed the level of

availability of the various sources of HIV/AIDS information to farmers. Friends/neighbors was the most regularly available (69.4%) followed by radio (66.9%).

This result confirmed that radio and friends/ neighbors were the top major and regularly available sources of HIV/AIDS information in the study area. It should however be noted that radio tend to convey more credible and reliable messages than friends/neighbors who are more prone to spreading rumors. The least regularly available sources were seminars/workshops (67.5%), agricultural extension agents (57.5%), and television (50.0%).

Most awareness campaigns focused on educating people on possible ways of contracting HIV/AIDS so as to prevent infection. Table 4 present the level of knowledge of rural farmers about ways of contracting HIV.

Many respondents indicated knowledge of unprotected sex (84.4%), blood transfusion (81.9%), and use of unsterilized needles, clippers and blades (78.1%). However, only 35% knew of mother-to-child transmission of HIV. It was also noted that a reasonable proportion of the respondents erroneously attributed HIV/AIDS to poison (35.6%), witch-craft (32.5%), mosquito bite (27.5%), and eating/bathing/sleeping with HIV/ AIDS victims (20.0%).

This result revealed a reasonable level of misconception and ignorance about HIV transmission among the rural farming folks in the study area. Illiteracy, inadequate anti-HIV campaigns, stigmatization and other factors were earlier identified as responsible for the high level of misconception and ignorance about HIV/AIDS in rural areas in Nigeria (Idu and Obinne 2003; Deji and Enuenwemba 2005). It should be noted that a correct knowledge of every mode of transmission is very important as a guide against possible infection. Therefore the implementation of more effective health programme to intensify mass education and rural awareness will help to clarify areas of misconception and increase knowledge about HIV/AIDS.

Table 4: Knowledge of respondents about ways of contracting HIV

*Ways of contracting HIV**	*Frequency*	*Percentage*
Unprotected Sex	135	84.4
Blood Transfusion	131	81.9
Unsterilized needles/ clippers/blades	125	78.1
Poison	57	35.6
From mother to baby	56	35.0
Witchcraft	52	32.5
Mosquito	44	27.5
Eating/bathing/sleeping with patients	32	20.0

*Multiple responses

Results of the Chi-Square analysis showing the relationship between socio-demographic characteristics and HIV/AIDS awareness is presented on table 5. Literacy level, age and frequency of travels all had significant relationships with awareness. Respondents' literacy level was significant probably because, literacy enable farmers to read and write and therefore enhance their accessibility and understanding of HIV/ AIDS information (Egbule and Njoku 2001). The probable reason for the significance of age may be that young people tend to be more news conscious and current with events than older people who concentrate more time on their families and farm activities. Also, frequent travelling provides access to more information (including that of HIV/ AIDS). On the other hand, frequent travelling may expose people to casual and unprotected sex thereby placing them at higher risks of infection (Olowosegun et al. 2008).

Table 3: Level of availability of sources of information about HIV/AIDS

Sources	*Level of availability**					
	Regular		*Sometimes*		*Never*	
	Freq.	*%*	*Freq.*	*%.*	*Freq.*	*%*
Friends/ neighbors	111	69.4	33	20.6	13	8.1
Radio	107	66.9	31	19.4	19	11.9
Newspaper/poster	47	29.4	60	37.5	50	31.3
Church/mosque	40	25	92	57.5	25	15.6
Television	10	6.3	67	41.9	80	50.0
Extension agent	7	4.4	58	36.3	92	57.5
Seminar/ workshop	3	1.9	46	28.8	108	67.5

*Multiple responses
Source: Survey data

Table 5: Summary of chi-square (χ^2) values for testing the relationship between farmers' awareness of HIV/AIDS and their personal/socioeconomic characteristics.

Characteristics	χ^2 *Value*	*Contingency coefficient*
Age	76.017*	0.568
Level of literacy	17.388*	0.313
Frequency of travels	20.376*	0.336
Membership of cooperative	0.173NS	0.33
Income status	0.434NS	0.0382
Sex	0.519NS	0.102
Marital status	0.295NS	0. 027

* = Significant at P< .05 NS = Not Significant at P> .05
Source: Field survey, 2006.

From the foregoing discussion, the study has identified the effectiveness of radio and friends/ neighbors as the major and most frequently available sources of HIV/AIDS information to farmers. Also, the reasonable level of ignorance about modes of HIV/AIDS transmission as found by the study implies that awareness campaigns need to be intensified. Such campaign program should take into account the age, literacy level and travelling frequency of the respondents. These findings are of significant importance to policy makers that design prevention programs for HIV infection.

CONCLUSIONS

Based on the major findings of this study, the paper concludes that radio and friends/neighbors were the major and regularly available sources of HIV/AIDS information to the rural farmers in the study area. Though the general level of awareness about HIV/AIDS was high, a reasonable proportion of the respondents still had some misconceptions about the modes of transmission of the virus. Furthermore, farmers' literacy level, age and frequency of travels were significant to their level of awareness about HIV/AIDS. It is therefore recommended that more awareness campaign with emphasis on modes of transmission should be mounted in rural areas using the radio, peer groups as well as community and religious associations. Also, factors such as age and literacy level of farmers should be considered during the HIV/AIDS awareness campaigns.

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