

The Impact of HIV/AIDS on Agricultural Productivity in Ukum Local Government Area of Benue State, Nigeria

G.A.Abu*, I.D. Ekpebu and S.A. Okpachu*****

****Department of Agricultural Economics, University of Agriculture, Makurdi, Nigeria***

E-mail: goddy_master@yahoo.co.uk

*****Department of Agricultural Economics, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria of Agriculture, Makurdi, Nigeria***

******Federal College of Education (Technical), Potiskum, Yobe State, Nigeria***

E-mail: steve_okpachu@yahoo.com

KEYWORDS Impact. HIV/AIDS. Agricultural. Productivity. Ukum. Benue. Nigeria

ABSTRACT The study aimed at determining and comparing the socio-demographic characteristics between HIV/AIDS victims and non-HIV/AIDS victims and the effects of HIV/AIDS on Agricultural productivity. The study tested the hypothesis that there is no difference in income from farming between HIV/AIDS and non-HIV/AIDS victims in the study area. Methodologically, the study used 40 questionnaires administered to each of the group and Focused Group Discussion (FGD). Data collected were analyzed using simple descriptive statistics and t-test. The results of the study showed that the majority of the respondents were between the ages of 15-49 years. This range of age is considered to be the productive age of active farmers and also, constituted most sexually active age range. Both the infected and non-infected Farm families received more of their sources of labour from their families but the infected families received much more. The t-test at 5% level of probability showed that there was a significant difference between the farm size and annual income of the HIV/AIDS infected farm families and the non-infected farm families. The study recommended that government and faith-based organizations should mount campaign against pre-marital sex, promiscuity and infidelity

INTRODUCTION

Health is ranked among the first in the hierarchy of human needs, violation of which propels an individual into physiological imbalance. Disease is the most leading challenge among others that thrives to violate the virgin nature of health. The disease Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) is an infectious disease. The disease was identified at the Pasteur Institute in Paris, France, by Francisco Barrosinuous et al. in 1981. Subsequently, Robert Gallo at the National Cancer Institute, Bethesda, USA, confirmed the identification of HIV. In Nigeria, however, HIV case was first discovered in a 13 year old girl and was recorded in 1986. Nigeria is ranked 9th among the most populated countries in the world with the projected population of about 140 million people with Benue state having about 4,219,244 people (NPC 2006).

In agriculture, which is one of the most important sectors in Africa and providing livelihood for at least 53% of the economically active population, HIV/AIDS is generating a demand for services that far outstrip national

capacities for medical and health care systems. Here in Nigeria, over 80% of the working population is either directly or indirectly engaged in agriculture (FAO 2000). Benue State is one of the states in Nigeria that is not only blessed with natural fertility of the land which has given rise to a variety of agricultural products, but also there are young men and women who provide the needed labour force.

HIV/AIDS is a disease which has a lot of stigma attached to it with respect to its mode of transmission (Predominantly through sexual intercourse). Hence many people do not want to talk about it and this has greatly contributed to why the infection rate is on the increase. In Nigeria, about 3.5 million people are infected with HIV/AIDS and several thousands have already died of the disease especially youths who are the most sexually active group in our societies. It is estimated that by the year 2005, more than 5.5 million Nigerians will be HIV/AIDS positive, out of this figure, 21% of these people live in Benue State (the 2003 National HIV/Syphilis Sentinel Survey). There is no doubt that the family unit (household) is the worst hit unit of the economy. HIV/AIDS has spread worldwide and the farming

communities are the areas seriously affected with the epidemic. For instance, Benue State is among the states with the highest level of infection in Nigeria.

HIV problems have affected the farmers seriously in Benue State, the farmer's households and their relatives. This situation promoted the government of Benue State to inaugurate the Benue State HIV/AIDS control committee. The disease courses several economic problems among farmers in Benue State and in other agricultural areas. The disease has a disproportionate impact on the morbidity and mortality of the most productive age groups. It affects mostly the sexually active age between 15 and 49 years. The impacts in rural household and farming livelihood were characterized by a sharp reduction in the available time, labour and other resources of individual and household like financial income and possible loss of assets due to huge amounts of money spent on medical services (Jan 1999). These invariably resulted in farmer's low per capita income and inadequate finance of agricultural businesses.

Due to the long incubation period of the disease and its attendant long period of illness, the socio-economic and psychological effect is felt over a long period of time (Ainsworth and Oliver 1992). In addition to the suffering caused, HIV/AIDS prevalence hinders state development and efforts made to alleviate poverty.

Benue State is often described as the food basket of the nation with 70% of its population listing agriculture as their main source of income. According to Marthan (1994), the farmers' household and agricultural business affected by AIDs were economically worse-off in terms of income. The epidemic affected the prime age farmers in their economically productive year which causes reduction of work force and capital in agricultural production process. The increased prevalence rate of HIV/AIDS in rural communities is responsible for a steep rise in farmers mortality rate (Jean 1994). This constitutes a major set back in agricultural development because useful farming skills and experiences are lost. The increase in the mortality of the more productive farmers leads to low economic benefit in the residual population.

HIV/AIDS and its consequences in farming communities are bound to change the future of farmers if not combated. This is because "it weakens and breaks-up household of farmers,

disintegrates rural communities, causes socio-economic and health problems". The epidemic threatens the process of agricultural development. These consequences reveal that the HIV/AIDS scourge has become one of the relevant challenges to the productivities of farmers as well as the over all development of the economy (DFID 2001).

Problem Statement

Nigeria was said to be on the list of countries with the highest number of people living with HIV/AIDS with an adult infection rate of 5.0% in 2003. Overall, according to FMOH (2003), it was estimated that between 3.2-3.8 million adults aged 15-49 years were living with the virus of which approximately 54% were women and this number was expected to increase to between 4.9 and 5.5 million people by 2005. Most of these people would fall sick and die within 5-10 years. This was bound to have negative impact on agricultural production and household food security of the country.

The 2003 national prevalence rate of the HIV/AIDS disease showed significant regional variation. In the 1999, 2001 and 2003 national antenatal HIV zero prevalence survey, Benue State recorded the highest infection rates: 16.8% (1999) 13.5% (2001) as given in table 1 and 9.3% (2003). Though the HIV prevalence rate in Benue State appears to be declining, it still remains relatively high in comparison with other states.

Table 1: HIV prevalence among pregnant women attending antenatal care clinics in Benue State from 1991-2001.

Year	1991	1993	1995	1999	2001
Prevalence rate (%)	1.6	4.7	6.7	16.8	13.5

Source: Technical report sentinel survey among pregnant Women attending antenatal clinics 2001.

In many countries including Nigeria, there is a tendency for HIV prevalence to be monitored only in large urban centers but these centers often comprise of a minority of the population particularly as it affects agricultural production, majority of the farm families are rural dwellers. In the case of Benue State, much has been documented on the prevalence of areas such as Makurdi, Gboko and Otukpo but none has been carried out in other rural communities and this

has aroused the interest of people and informed this study, bringing to mind research questions which this study intends to address such as;

What are the socio-economic characteristics of the farmers living with the HIV/AIDS? What are the effects of HIV/AIDS on rural farming communities in the study areas? What are the factors facilitating the spread of HIV/AIDS in the study area?

This study will attempt to answer the foregoing questions and compare the productivity indices between infected and non-infected farm families and find measures to be taken to prevent the scourge.

Objectives of the Study

The main objective of this study is to analyse the current and possible future impact of HIV/AIDS on rural farm families in Ukum Local Government Area, Benue State.

The specific objectives are;

- i. to identify the demographic and socio-economic characteristics of respondents in the study area;
- ii. to identify factors that facilitate the spread of HIV/AIDS in the study area to compare farm productivity indices between the infected and non-infected households;
- i. to determine the effects of the illness and death on the farm family's strategies and how they respond to these effects; and

Statement of Hypothesis

There is no significant difference in the socio-economic characteristics of infected and non-infected farm families.

METHODOLOGY

The Study Area

This study was carried out in Ukum Local Government Area of Benue state. Benue state is situated between longitude 7°.44'E and 9°.55'E and latitude 6°.29'N and 8°.7'N. It has a projected population of about 4,219,244. The state has 2,164,058 males and 2,055,186 females (NPC 2006).

Ukum local government area lies between latitudes 07°33' N and 07°45'N and longitudes 09°37'E and 09°45' (BNARDA 2004). This Local Government Area is accessible from the main road

from Katsina-ala town through Zaki-biam to Wukari in Taraba state. The head quarters of Ukum Local Government Area is Sankera.

Sampling Procedure

Five out of the thirteen districts in Ukum local Government were covered for this research. The respondents were selected using a two- stage purposive sampling method. The first stage was to get the HIV/AIDS infected group and the non-infected HIV/AIDS group distinctively. In each of the identified group, forty households were selected randomly. This was achieved through the help of community health workers and records obtained from health information centres situated within the local Government area. The total number of respondents sampled for the study was 80 persons.

Data Collection

The primary data were collected through the administration of questionnaires and Focused Group Discussion (FGD) while secondary data were collected through various publications related to the study, unpublished materials, journals, community health workers, past project write-ups and the internet.

Data Analytical Techniques

Simple descriptive statistics such as frequency distribution, percentages, tabular presentation and mean were used. Inferential statistical tools were also used such as t-test to test the hypothesis that there is no difference in income between HIV/AIDS infected household and non HIV/AIDS infected households

RESULTS AND DISCUSSIONS

Demographic and Socio-economic Characteristics of Respondents

Age of Respondents

The majority of respondents affected with HIV/AIDS fall between the ages of 15- 49 years (Table 2), a range regarded as economic active age (80%). The majority of non-infected respondents also fall in the same ranges of age with the infected households' i.e 15-49 years,

(70%). It is of great concern to note therefore that the ability of the infected farmers to supply the required labour is imperative as well as the health status of both infected and non-infected farmers. Therefore, the prevalence of HIV/AIDS adversely affects the families in terms of manual labour supply in agricultural production

Table 2: Age distribution of respondents

Age	Infected households		Non-infected households	
	Fre-quency	(%)	Fre-quency	%
Below 15 years	4	10.0	3	7.5
15 – 49 years	32	80.0	78	70.0
Above 59 years	4	10.0	9	22.5
Total	40	100.0	40	100.0

Source: Field survey 2007

Sex of Respondents

Majority of respondents affected with HIV/AIDS were the females with 52.5% and the remaining 47.5% were males (Table 3). This explains why the female are more vulnerable than male in contracting HIV/AIDS which could be as a result of infidelity, promiscuity among other factors. Some females were widow left behind to cater for the family as their husband's die of HIV/AIDS. The bequeathed family members (widows, orphans etc), are the ones who are aimed at by the intervention programs and given priority to their welfare.

Table 3: Sex distribution of respondents

Gender	Infected families with HIV/AIDS		Non-infected families with HIV/AIDS	
	Fre-quency	(%)	Fre-quency	%
Male	19	47.5	20	50.0
Female	21	52.5	20	50.0
Total	40	100.0	40	100.0

Source: Field survey 2007

Level of Education

It can be observed from table 4 that the most affected people are the secondary school leavers (32.5%) who are considered to be literate in the community followed by those who acquire tertiary institutions. This explains why ignorance, disbelief, carelessness among other factors contributes to individual vulnerability and not

necessarily lack of awareness. As compared to uninfected families, it is observed that it is those who acquire secondary level of education as well as those who have informal education that are the majority, and this explains why the disease affects every category of people, whether learned or not.

Table 4: Distribution of respondents by level of education

Level of education	Infected families with HIV/AIDS		Non-infected families with HIV/AIDS	
	Fre-quency	(%)	Fre-quency	%
Primary school	7	17.5	7	17.5
Secondary school	13	32.5	11	27.5
Tertiary school	10	25.0	3	7.5
Informal	0	0	11	27.5
Adult	10	25.0	7	20.0
Total	40	100.0	40	100.0

Source: Field survey 2007

Annual Income

Respondents of infected families have relatively low annual farm income as contained in table 5. About 72.5% of members of non-infected families earned ₦101, 000 and above while 27.5% earned ₦10, 000 to ₦100, 000 per annum. For members of infected families, about 48% of them earned ₦101, 000 and above while about 50% of them earned ₦10, 000 to ₦100, 000. this is attributed to the fact that majority of the respondents in the infected families may have to divert some productive labour and time to care for the sick members of the families and mourn the dead, which in turn results in the diversion of resources meant for the purchase of farm inputs to cover medical bills.

Table 5: Annual income of Distribution of respondents

Income per annum (N)	Infected families with HIV/AIDS		Non-infected families with HIV/AIDS	
	Fre-quency	(%)	Fre-quency	%
10,000-50,000	14	35.0	2	5.0
51,000 –100,000	7	17.5	7	22.5
101,000– 150,000	14	35.0	10	25.0
151,000– 200,000	3	7.5	8	20.0
201,000– 250,000	0	0	4	10.0
251,000 – Above	2	5.0	7	17.5
Total	40	100.0	40	100

Source: Field survey 2007

Source of Farm Labour

The major source of labour for both infected and non-infected families is from the family, but infected families utilize more family labour than the non-infected families in the studied area (Table 6). Additionally, both the infected and non-infected families utilize equal levels of hired labour, i.e. 30% for each family which explains the fact that the infected families employ hired labour maybe because of debilitating effects of the disease while the uninfected families employ hired labour because they want to reserve their energy.

Table 6: Source of farm labour distribution of respondents

Sources of labour	Infected families with HIV/AIDS		Non-infected families with HIV/AIDS	
	Fre-quency	(%)	Fre-quency	%
Family	21	52.5	19	47.5
Hired	12	30.0	12	30.0
Exchange	2	5.0	5	12.5
Cooperative	5	12.5	4	10.0
Total	40	100.0	40	100.0

Source: Field survey of farm labour.

Marital Status

From table 7 it is observed that 52.5% are married people (families) 32.5% are single, with 7.5% for both divorced and widows in the families infected with HIV/AIDS. The results of the study signify that married people are the most affected, followed by single and then divorced and widows together.

For non-infected families, also married people were mostly covered during the research with 37.5% followed by the single, then divorced and lastly the widow. Going by this result, married

Table 7: Marital status

Marital status	Infected families with HIV/AIDS		Non-infected families with HIV/AIDS	
	Fre-quency	(%)	Fre-quency	%
Single	13	32.5	9	22.5
Married	21	52.5	15	37.5
Divorced	3	7.5	13	32.5
Widow	3	7.5	3	7.5
Total	40	100.0	40	100.0

Source: Field survey 2007

people are the ones to be given more attention by intervention programs.

Family Size

Table 8 revealed that the greatest percentage of HIV/AIDS infected families were not married (67.5%) followed by those married to more than one wife (22.5%) while 10% were married with one wife. The study also showed that 75% of non-infected families had not married, and 17.5% had more than one wife. Promiscuity and polygamy are chief sources through which HIV/AIDS can enter a family as a result of multiple sex partners due to difficulties in ascertaining whether or not the partners are faithful to one another

Table 8: Family size

Family size	Infected families with HIV/AIDS		Non-infected families with HIV/AIDS	
	Fre-quency	(%)	Fre-quency	%
One	4	10.0	3	7.5
More than one	9	22.5	7	17.5
None	27	67.5	30	75.0
<i>Number of Children</i>				
Less than 10	7	17.5	13	32.5
More than 10	11	27.5	14	35.0
None	22	55.0	13	32.5

Source: Field survey 2007

Occupation

Table 9 shows that 67.5% of families infected with HIV/AIDS are farmers while 17.5%, 7.5%, 2.5% and 0.5% are civil servants, traders, teachers, and others respectively. Also, the same table indicates that 82.5% of non-infected families are farmers while 0%, 2.5%, 5%, and 10% are civil servants,

Table 9: Occupation

Occupation	Infected families with HIV/AIDS		Non-infected families with HIV/AIDS	
	Fre-quency	(%)	Fre-quency	%
Farming	27	67.5	33	82.5
Civil service	7	17.5	0	0
Trading	3	7.5	1	2.5
Teaching	1	2.5	2	5.0
Others	2	5.0	4	10.0
Total	40	100.0	40	100.0

Source: Field survey 2007.

traders, teachers and others respectively. Farming has been shown to be the main occupation of the respondents, therefore, any slightest reduction in the population may definitely result in corresponding productivity by the farmers.

Respondents' Behavioural Attitude for HIV/AIDS Transmission

Table 10 shows that 60% of the respondents put on unfriendly and untouchable attitudes towards HIV/AIDS patients. This was a result of the stigma associated with the disease patients. Also, about 40% put on friendly and touchable attitudes. 50% of the respondents who contracted the disease remained indoor for self-medication, about 27.5% suggested going to the hospital for treatment while 15% suggested going to the herbalist and only about 5% suggested staying indoors. The 15% of the respondents who suggested going to the herbalist believed that their condition came as a result of poison, charm or witchcraft. The 50% who remain indoors for self medication as they suggested offered reasons of lack of funds to purchase anti-retroviral drugs, and also succumbed to the stigma syndrome associated with the disease.

Table 10: Respondents attitudes to HIV/AIDS

Question	Response	Frequency	%
How do you relate with HIV patients?	Friendly	13	32.5
	Touchable	3	7.5
	Unfriendly	19	47.5
	Untouchable	5	12.5
What should be your reaction when contracted with HIV	Pass it on	1	2.5
	Go for treatment	11	27.5
	Remain indoor	2	5.0
	Go to herbalist	6	15.0
	Self medication	20	50.0
Total		40	100.0

Source: Field survey 2007

Productivity Indices between Infected and Non-infected Families

Just as observed in Table 11, the hypothesis which states that there is no significant difference between infected and non-infected persons in terms of income and farm size was tested. The t-test at 0.05 level was significantly different. Hence, the null hypothesis was rejected.

CONCLUSION

This study concludes that HIV/AIDS scourge

Table 11: Comparison of productivity indices between infected and non-infected farm families

Farm size variable (ha)	Mean	t-cal	t-tab
Infected families	2.97	3.45*	2.0
Non-infected families	6.74		
Farm income (N)			
Infected families	20.68	4.47*	2.0
Non-infected families	47.83		
Farm output/bag			
Infected families	8.85	1.16NS	2.0
Non-infected families	11.025		

Source: Field survey 2007 * = Significant at 0.05

constitutes a serious threat to the livelihood of farm families. It was found that socio-economic characteristics of infected farm families such as income and farm size were adversely affected by this hydra-headed menace. Some sustainable intervention programmes and measures are therefore pertinent and necessary to curb and possibly eliminate the scourge.

RECOMMENDATION

The government needs to it needs to educate people on the HIV/AIDS scourge, particularly the youth who are regarded as the economic active age people especially in rural areas. Strong campaign teams are needed to be organized either by government or non-governmental agencies or individuals (volunteers, extension agents) targeted at the rural youths (females and males) on the need to withdraw from immoral acts, infidelity and promiscuity and embrace complete abstinence from pre-marital and extra-marital relationship and faithfulness.

REFERENCES

- Ainsworth M, Oliver M 1992 Economic Importance of AIDS: Shocks Response and Outcomes. *Technical Working Paper Population*, 1: 23-26.
- BENSHACC 1998 Curbing HIV/AIDS in Benue State. *Makurdi*, 5: 6.
- BNARDA 2004 Impact of AIDS on Rural Livelihoods Benue State; Implication for policy makers. *Occasional Paper*, 3: 2-4.
- Department for International Development 2001 Integrating HIV/AIDS into DFID. Department Programmes. *Working Paper*, 12: 12.
- FAO 2000. *Mitigating the Impact of HIV/AIDS on Food Security and Rural Poverty*. Rome: FAO.
- Federal Ministry of Health 2003 The National HIV/AIDS/Syphilis Sentinel Survey among Pregnant Women Attending Antenatal Clinics in Nigeria. *Technical Working Paper*, 8: 6.

- Jean P 1994. AIDS and African Development. *The World Bank Research Observer*, 8: 34.
- Marthan T 1994. AIDS and African Development. *The World Bank Research Observer*, 8: 12
- McSweeney L 2001. *Changing Behaviour to Avoid or Cope with AIDS*. Onitsha, Nigeria: Ambassador Publication.
- National Action Committee on AIDS 2004. National HIV and AIDS Behaviour Change Communication: Five-year Strategic Plan (2004-2008), Abuja, Nigeria.
- National Action Committee on AIDS 2005. Public Presentation of HIV/AIDS National Strategic Framework for Action. Encyclopedia 2005. Abuja, Nigeria.
- National AIDS and Syphilis Control Programmes 1999. HIV/Syphilis Sentinels Sero-Survey in Nigeria. *NACA Technical Review*, 2: 24.
- National Population Commission 2006. National population census figures. *NPC Bulletin* 4: 12.
- National Population Commission 2006. *Annual Report*. Policy Project 2003. HIV/AIDS in Nigeria: Overview of the Epidemics. *CBN Bulletin*, 3: 19.
- Society of women and AIDS in Africa 1999. Impact of HIV/AIDS in Africa. ADEC, Inc. South Africa, P. 26.
- UNAIDS 2001. AIDS, Poverty Reduction and Dept relief. from <http://www.unaids.org/hiv/docs> (Retrieved on 14th November, 2001).
- UNDP 2000. HIV and AIDS a Challenge to Sustainable Human Development. *Human Development Report 2004*. New York: Oxford University Press.