

USAGE STRATEGIES FOR MITIGATING THE EFFECT OF HIV/AIDS ON AFFECTED FARM HOUSEHOLDS IN GWER L.G.A. OF BENUE STATE, NIGERIA

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ABSTRACT

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The purpose of the study was to find out the level of usage and availability of HIV/AIDS mitigation strategies recommended by Food Agricultural organization (FAO) in 2001 to mitigate the effect of HIV/AIDS on affected farm household in order to sustain their livelihood with the broader aim of reducing food insecurity and poverty. This research was carried out in Gwer L.G.A. Benue State, Nigeria. A well structured interview schedule was used to obtain relevant information from 110 persons randomly selected from the study area. From the analysis of the data collected, it was revealed that majority (69.4%) of the heads of affected farm households fell between 21-45 years of age. This indicates that they are within the active and socio economically viable age group. More than half of the household head (55.5%) are males, thus most of these households will have better access to agricultural inputs and other productive resources. The distribution also revealed that majority (76.4%) of the heads of affected farm households have one form of formal education or the other, thus indicating that they will be better equipped in utilizing the recommended HIV/AIDS mitigation strategies. The distribution of number of dependants showed that 70.6% of the affected farm households have not less than 6 dependants. Also the distribution of the annual income of affected households showed that only 7.7% of these households earn N36000 and above, thus majority of these households are poor. The results of the hypotheses tested revealed that there is no significant relationship between gender of the head of affected farm and the use of HIV/AIDS mitigation strategies, there is no significant relationship between the number of dependants and the use of HIV/AIDS mitigation strategies. This implies that the use of these strategies is not dependent on the gender of head of household and number of dependants. The tested hypotheses also revealed that there is a significant relationship between the age of head of affected farm households and the use of HIV/AIDS mitigation strategies, there is a significant relationship between the educational level of the head of affected farm households and the use of HIV/AIDS mitigation strategies, and a significant relationship between the annual income of affected farm household and the use of HIV/AIDS mitigation strategies. Thus the use of these mitigation strategies is dependent on the age and educational level of head of affected farm households and the annual income of affected households. Based on these findings it was recommended that target policies should be put in place to address the non availability of these mitigation strategies. Steps should be taken to eradicate stigma and discrimination and also government should make ARTs (anti retroviral therapy) accessible to improve the life of PLWHAs.

Key words: Rural, livelihood, impact, sustainable

INTRODUCTION

Nigeria is in the grip of a growing national epidemic with an adult HIV infection rate of 5.8% in 2001, 5.0% in 2003 and 4.4% in 2005. Though the rate is declining there is an estimate of about 3 Million people aged 15-49 years are reported to be living with HIV/AIDS in Nigeria of which 54% are women. Most of this people are expected to die within the next 5-10 years (Hilhorst *et al*, 2004). Since 1999 Benue State located in the north central Nigeria in which the study site is located has recorded one of the highest state level HIV infection rate in Nigeria. 16.8% in 1999, 13.5% in 2001, 9.3% in 2003 and 10.0% in 2005 (Federal Ministry of Health (FMOH) 2005).

Policy project estimated that some 325,000 inhabitant of Benue were HIV positive in 2003 out of a total population estimated at 3.78 million (Policy project, 2003). Another alarming implication of the HIV epidemic is the emergence of a large number of orphans. In the year 2000, it was estimated that there was approximately 139,000 orphans in Benue and by 2010 there will be over 683,000 orphans (Ssengonzi and Moreland 2001).

Benue's high prevalence is expected to adversely affect individuals as well as State development, compounding other crises that Benue's rural population already faces. Hilhorst *et al*, 2004 reports that 65% of the population in Benue is extremely or moderately poor. Farming which employs 89% of the working population in rural area and 26% in the urban areas is under serious stress. The increasing ill health and mortality of large number of prime age adult who play fundamental role in income generation, protection of asset and social production is having severe repercussion on agriculture thereby increasing food insecurity and poverty. It also reverses decades of hard work and livelihood asset accumulated.

A growing problem in many part of Africa is the severe damage the epidemic is inflicting on rural communities. More than two-thirds of the population of most African countries lives in the rural areas. Over 70% of the population most especially in the sub-Saharan African is predominantly farmers along side with other rural occupation (Kwaramba 1998). Agriculture is a sector that is particularly labor intensive and the most immediate impact on farm household asset is the shortage of labor experienced by households in which one or more member suffer from HIV/AIDS. F.A.O (2003) also opined that not only does the household lose the productive labor of the infected/ill member; it also loses significant labor of other household member whose time is absorbed in caring for the sick and dying member. All these consequently result in reduction in farm production or a complete shift from farming activities.

The hardest hit areas are the rural areas and this is exacerbated by the fact that many of those stricken with HIV/AIDS who are living in urban area return to their native village to be supported by relations resulting to an enormous threat to rural development. The direct lose of human capital in most cases leads to a consequential loss of other capital asset such as natural, physical, financial social capital asset, due to diversion of resources and income to health seeking and caring activities. This negative impact on farm household livelihood asset and activities, heighten the vulnerability of rural communities to other shocks.

FAO (2003) reported that women are the worst hit by the epidemic, yet there are no standard development strategies to ensure the right and livelihood needs of this vulnerable population group. Topouzis (1999,) noted that a large number of widows have been unable to hold up because they have been deprived of their right to own land. The limited access of women careers to credit and other resources has also posed significant constraints. These realities suggest that existing development approaches need to be re-examined in the light of the epidemic. Giving the current scale and nature of the epidemic, the social and economic impact of HIV/AIDS is likely to persist into the future. A lot of studies have been carried out on the implication, effect and impact of HIV/AIDS on households and communities as a whole but the result obtained from these studies have not been matched with intervention and actions to stem down the scourge of the epidemic. A lion share of donor funding are channeled majorly towards preventive and curative health interventions, only a few practical response or policies are aimed at addressing or tackling the wider impact of HIV/AIDS.

Another crucial and rather baffling problem noticed is that most of the people in places of authority and power are often uncertain about what should be done to mitigate the effect of HIV/AIDS on farm households. This is because more than two third of the population of the 25 most affected African countries live in rural areas (Du Guerny 2002), and they are predominantly farmers, yet most AIDS demystifying strategies and programs focus mostly on the urban population. At the same time local initiatives that have been developed, information about such interventions are down played. This raises the question as to whether adequate knowledge and man power needed to effectively address the social and economical impact of HIV/AIDS on farm household is sufficient.

Objectives of the study

The general objective of this study is to investigate the availability and usage of strategies for mitigating the effects of HIV/AIDS on farm households. The specific objectives are to:

Access the labor saving technology available for use to mitigating the effect of HIV/AIDS on farm household.

Identify the rural institution available for capacity building to reduce the effect of HIV/AIDS on farm households.

Determine the level of gender equality practiced, for accessing and controlling the affected farm households

Examine the farm practices used to improve nutrition and ensure security by HIV/AIDS affected farm household.

Determine the social and economics safety nets available for mitigating the effect of HIV/AIDS on affected farm households; and Identify the extension education program organized for transmitting knowledge and skill to improve agricultural production of HIV/AIDS affected farm households.

Hypotheses for the study

Ho₁: There is no significant relationship between the personal characteristics (age of household head, gender of household head, educational level of household head, number of dependants and annual income of household) of affected farm households and the use of HIV/AIDS mitigating strategies.

METHODOLOGY

The study was conducted in Gwer L.G.A. of Benue State, Nigeria and the population of the study consists of all HIV/AIDS affected farm households in Gwer L.G.A. in this local government. A two stage sampling procedure was used in selecting the respondents for the study. The first stage involved a purposive selection of the study area. This procedure was used because Gwer L.G.A. has a well functioning branch of the NGO Benplus (Benue state People Living with HIV/AIDS). This branch of the NGO called Nyom support group, gives aid and support to infected persons in and around the L.G.A. thus making it easy to gain access to the required respondents. The second stage involved the actual selection of the respondents for the study. A list of those infected and affected

with HIV was collected from the support group. From this, 20% of the listed persons were randomly selected for the target population. This comprised of 110 persons.

The instrument adopted for the study was interview schedule and data were analyzed using both descriptive statistics (which include percentage and frequency counts) and inferential statistics (Pearson correlation coefficient and chi-square)

Measurement of variable

The independent variable for the study are the socio-economic characteristic of the respondent, they are

Age: was measured by age in years. Age was categorized into less than or equal to 20years, 21 to 45 years and greater than or equal to 46. It was coded 1, 2 and 3 respectively. Gender: was measured as male and female. It was coded 1 and 2 respectively. Level of education: was measured as, no formal education, adult education, primary education, secondary education and tertiary education. It was coded 1,2,3,4 and 5 respectively.

Dependency Ratio: was measured and categorized into less than or equal to 5, 6 to 10, 11 to 15 and greater or equal to 16. it was coded 1,2,3 and 4 respectively. Annual income: N5000 – N15000, N16000 – N25000, N26000 – N35000 and greater or equal to N36000

The dependent variables for the study are the six recommended HIV/AIDS mitigation strategies

Labour saving technology: was coded LST1 to LST8

Knowledge preservation/transmission: was coded KPT1 to KPT5

Rural institution/capacity building: was coded RI1 to RI4

Gender equality: was coded GE1 to GE5

Improving nutrition: was coded IN1 to IN6

Social and economic safety nets: was coded SES1 to SES7

All the coded mitigation strategies were measured using a scale of 0 – 4

0 – Not available; 1 – Available but not utilized; 2 – Available but poorly utilized; 3 – Available but moderately utilized; 4 – Available but highly utilized

RESULTS AND DISCUSSION

Personal characteristics of the respondents

Table 1: Distribution of the personal data of respondents

Age	Percentage %
0-20	7.4
21-45	69.4
46 above	23.1
Gender	Percentage %
Male	55.5
Female	44.5
Educational level	Percentage %
No formal Education	23.6
Adult Education	10.9
Primary Education	27.3
Secondary Education.	36.4
Tertiary	1.8
No. Of dependants	Percentage %
0-5	29.4
6-10	40.4
11-15	18.3
16 above	11.9
Annual income	Percentage %
N5000-N45,000	50.0
N16,000-N25,000	30.8
N16,000-N35000	11.5
N36,000 above	7.7

Source: Field Survey (2007)

Table 1 shows the age distribution of head of farm household, it indicate that majority(69.4%) of the head of farm household fell between 21-45 years of age that is more than half were within the active and socio economically viable age group. This supports the study conducted by Hilhorst *et al* (2004) who indicated that majority of the infected persons fell within the socio economically active age group.

This distribution in table 1 indicates that there are more male headed household than female headed ones i.e. more than half of the distribution are male headed. Thus most of these households will have easy access to agricultural inputs and other productive resources. This is in support of what IFAD (2001) stated on issues of gender inequality

Table 2: Distribution on the availability and usage of HIV/AIDS mitigation strategies

Strategies	0	1	2	3	4
<i>Section B (1) Labor Saving Technology</i>	73.0	13.6	8.2	4.5	0
1. Animal Traction					
2. Mechanized farming	60.0	26.4	10.0	3.6	0
3. Access to portable water	51.4	33.0	11.0	4.6	0
4. Zero minimum tillage	49.5	39.0	9.5	1.9	0
5. Inter cropping	9.5	20.0	40.0	16.2	14.3
6. Use fuel efficient stoves	56.1	30.8	4.7	8.4	0
7. Use of light tools for women and children	3.7	6.5	9.3	28.0	52.3
8. Use of improved seed variety requiring less labor for weeding	29.1	23.6	24.5	20.9	1.8
<i>Section B (2) Rural Institution</i>	15.7	35.2	11.1	25.9	12.0
9. Community Based organization					
10. Extension institutions	21.1	35.8	26.6	16.5	0
11. Micro finance institution	35.8	40.4	9.2	10.1	4.6
12. Health organizations	6.4	38.5	15.6	30.3	9.2
<i>Section B (3) Gender Equality</i>	24.3	15.9	46.7	10.3	2.8
13. Equal access of women to information					
14. Equal access of women to and control of land	34.0	16.0	42.5	6.6	0.9
15. Equal access of women to and control of credit.	32.1	17.9	35.8	14.2	0
16. Equal access of women to and control of agricultural input	24.8	23.9	37.6	10.1	3.7
17. Stoppage of cultural practice that spreads HIV i.e. widow inheritance	24.5	35.5	22.7	14.5	2.7
<i>Section B (4) Improving Nutrition</i>	16.4	30.0	35.5	18.2	0
18. use of improved crop management					
19. use of high yielding crop variety	11.9	22.0	40.4	22.0	3.7
20. Planting of staple crops such as potatoes and cassava	2.7	0	0.9	23.6	72.7
21. Use of small ruminant	66.7	6.7	8.6	15.2	2.9
22. Planting of vegetable garden	0.9	1.9	7.5	36.4	53.3
23. Extension services to address nutritional needs of affected farm household.	22.7	33.6	25.5	16.4	1.8
<i>Section B (5) Knowledge Presentation/Transmission</i>	24.5	39.1	26.4	10.0	0
24. Extension education program to impart knowledge and skill on animal husbandry					
25. Extension education program to impart knowledge and skill on crop production	21.1	37.6	21.1	19.3	0.9
26. Extension education program to impart knowledge and skill on price and market	30.9	33.6	28.2	5.5	1.8
27. Extension education program on gender specific knowledge.	31.8	38.2	28.2	1.8	0
28. Extension education program to impart knowledge and skill on food storage practices	22.0	34.9	31.2	11.0	0.9
<i>Section B (6) Social and Economic Safety Nets</i>	3.6	2.7	8.2	42.7	42.7
29. Assistance from family members					
30. Assistance from community members	17.1	16.2	20.0	28.6	18.1
31. Assistance from private donors	31.5	26.9	14.8	25.9	0.9
32. Assistance from Non Governmental Organizations	38.2	29.1	13.6	15.5	3.6
33. Assistance from Governmental Organizations	24.8	35.8	8.3	19.3	11.9
34. Assistance from Religious Organizations	10.9	30.9	14.5	34.5	9.1
35. Assistance from Credit Association/Clubs	36.8	33.0	16.0	13.2	0.9

Source: Field Survey (2007)

Key: 0 – Not Available; 1 – Not Utilized; 2 – Poorly Utilized; 3 – Moderately Utilized; 4 – Highly Utilized; NA – Not Available; A – Available

Table 1 also indicates that majority of the head of farm household are educated having only 23.6% of the distribution with no formal education. This implies that households will be better equipped in utilizing these mitigating strategies

The distribution of dependency ratio in Table 1 indicates that's most of the farm households i.e. 40.4% have between 6 to 10 dependants. The distribution of annual income in Table 4.1 shows that half of the farm households interviewed earn between N5,000 to N15,000 as their annual income and only 7.7% of the distribution earn N36,000 and above as annual income. This indicate that majority of the farm household are poor.

Table 2 shows the distribution of respondents according to the availability and usage of strategies for mitigating the impact of HIV/AIDS item by item. All the 35 items received response from the respondents. The first mitigation strategy introduced to the area is labors savings technology, this is presented on Table 2.out of the eight labors savings technologies,3.7% claimed light tools for women and children is not available. The remaining 96.3% claimed it is available and 52.3% highly utilized light tools for women and children.

About 9.5% claimed inter cropping is not available while 90.5% claimed it is available out which 14.3% highly utilized inter cropping. The second mitigation strategy was usage of rural institutions such as community based organizations, micro finance institutions and health organizations. About 6.4% claimed health institutions are available while 93.6% claimed it available, out of which 9.2% highly utilized it.Also,35.8% claimed micro finance institutions are not available out of which 4.6% highly utilized micro finance institutions and about 15.7% claimed community based organization.

The third mitigation strategy was gender equality such as access to some facilities in the study area as shown on Table 2.About 24.3% claimed women have no equal access to information, out of this 2.8% highly utilize it. About 34.0% claimed women do not have equal access to land while 66% claimed they have, out of this 0.9% highly utilized their access to land of note is that 32.1% claimed women do not have equal access to credit and none highly utilized this strategy.

The fourth mitigation strategy is improving nutrition. There are six of these strategies. Less than 1% claimed planting in vegetable garden is not available while 99.1% claimed it is available, out of which 53.3% highly utilized planting of vegetable garden. Also, 2.7% claimed planting of stable crops such as potatoes and cassava is not available while 97.3% claimed it is available, out of which 72.7% highly utilized this strategy.

The next mitigation strategy is on knowledge presentation/transmission. About 24.5% claimed extension education programme to impart knowledge and skills on animal husbandry is not available but none of the respondent highly utilize this strategy.Also,21.1% claimed extension education programme to impart knowledge and skills on crops production is not available while 78.9% claimed it is available, out of which only,0.9% highly utilized this strategy. It is of note that 31.8% claimed extension education programme on gender specific knowledge is not available while 68.2% claimed it is available but more of the respondent highly utilized this strategy.

The final mitigation strategy is social and economic safety net. These are seven items on this strategy. Table 2.shows that 3.6%claimed assistance from family members is not available 96.4% it is available, out of this, 42.7% claimed it is highly utilized. Also, 17.1% claimed assistance from communication members is not available, while 82.9% claimed it is available out of this 18.1% claimed it is highly utilized. Furthermore, 24.8% claimed assistance from governmental organization is not available, while 75.2% claimed it is available, out of this 11.9% claimed it is highly utilized. As for assistance from religious organization, 10.9% claimed it is not available while 89.1%claimed it is not available, out of this 9.1% highly utilized assistance from religious organization.

Table 3: Distribution of respondent on the availability and usage of the six mitigation strategies

Total Mitigation Strategies	0	%	1	%	2	%	3	%	4	%
Total Labor Saving Technology	41.5		24.1		14.7		11.1		8.6	
Total Rural Institutions	19.8		37.5		15.6		20.7		6.4	
Total Gender Equality	27.9		21.8		37.1		11.2		2.0	
Total Improving Nutrition	20.2		15.7		19.7		22.0		22.4	
Total Knowledge Preservation Transmission	26.1		ely36.7		27.0		9.5		0.7	
Total Social Economic Safety Nets	23.3		25.0		13.6		25.7		12.4	

Source: Field Survey (2007)

From table 3, it is observed that 41.5% of the respondent indicated that labor saving technology is not available, 24.1% says it is available but not utilized, 14.7% says it is available but poorly utilized, 11.1 says it is available but moderately utilized and 8.6% says it is available and highly utilized. For rural institution, 19.8% observed that it is not available, 37.5% indicated that it is available but not utilized, 15.6% says it is available but poorly utilized, 20.7% says it available but moderately utilized and 6.4% says it is available and highly utilized. For gender equality, 27.9% observed that it is not available, 21.8% says it is available but not utilized, 37.1% says it is available but poorly utilized, 11.2% says it is available but moderately utilized and 2.0% says it is available and highly utilized. For improving nutrition, 20.2% observed that it is not available, 15.7% says it is available but

utilized, 19.7% says it is available but poorly utilized, 22.0% says it is available but moderately utilized and 22.4% says it is available and highly utilized. For knowledge preservation/transmission, 26.1% observed that it is not available, 36.7% says it is available but not utilized, 27.0% says it is available but poorly utilized, 9.5% says it is available but moderately utilized and 0.7% says it is available and highly utilized. For social and economic safety net, 23.3% observed that it is not available, 25.0% says it is available but not utilized, 13.6% says it is available but poorly utilized, 25.7% says it is available but moderately unitized and 12.4% says it is available and highly utilized.

Testing of hypothesis

There is no significant relationship between the personal characteristics of affected farm households and the use of HIV/AIDS mitigation strategies

Table 4: Correlation of personal characteristics of affected farm households and the use of HIV/AIDS mitigation strategies

	TLST	TRI	TGE	TIN	TKPT	TSES
Age: Pearson Correlations (r)	0.062	0.056	0.033	0.170	0.102	0.202
Probability (P)	0.522	0.008	0.738	0.078	0.292	0.037
EDU: Pearson correlation (r)	0.140	0.084	0.205	0.167	0.161	0.039
Probability (P)	0.145	0.384	0.032	0.081	0.094	0.688
DEPRT: Pearson correlation (r)	0.074	0.159	0.126	0.146	0.091	0.060
Probability (P)	0.443	0.099	0.193	0.129	0.344	0.536
ANINC: Pearson correlation (r)	0.246	0.401	0.347	0.357	0.312	0.334
Probability (P)	0.012	0.000	0.001	0.001	0.001	0.001

Source: Field Survey (2007)

Results in table 4 reveals that there were significant relationship between age of the affected farm households and the rural institutions ($r = 0.056$, $P = 0.008$); and social economic safety nets ($r = 0.202$, $P = 0.037$) while there were no significant relationship between age and gender equality ($r = 0.033$, $P = 0.738$); improving nutrition ($r = 0.170$, $P = 0.078$); knowledge preservation/transmission ($r = 0.102$, $P = 0.292$); labor saving technology ($r = 0.062$, $P = 0.522$).

Table 4 also shows that there were significant relationship between levels of education of the affected farm households and the gender equality ($r = 0.205$, $P = 0.032$) while there were no significant relationship between their levels of education and improving nutrition ($r = 0.167$, $P = 0.081$); knowledge preservation/transmission ($r = 0.161$, $P = 0.094$); labor saving technology ($r = 0.140$, $P = 0.145$); rural institutions ($r = 0.084$, $P = 0.384$); and social economic safety nets ($r = 0.039$, $P = 0.688$).

The table further reveals that there were no significant relationships between the dependency ration of farm household of the affected farmers and the gender equality ($r = 0.126$, $P = 0.193$); improving nutrition ($r = 0.146$, $P = 0.129$); knowledge preservation/transmission ($r = 0.091$, $P = 0.344$); labor saving technology ($r = 0.074$, $P = 0.443$); rural institutions ($r = 0.159$, $P = 0.099$); and social economic safety nets ($r = 0.060$, $P = 0.536$). The table lastly shows that there were significant relationships between annual income of the farm household and all the mitigation strategies of HIV/AIDS used.

CONCLUSION

Most of the strategies for mitigating the effect of HIV/AIDS are not adequately available and utilized. The most highly used labor saving technologies are light tools for women and children and inter cropping. The most highly used rural institution is health organization and micro finance institution. The most highly used gender equality strategy is equal access of women to control of agricultural input and equal access of women to information. With regards to improving nutrition strategy, the most highly used was planting of stable crops such as potatoes and cassava and planting of vegetable garden. The most highly used strategy with regards to knowledge presentation/transmission is very insignificant because very low percentage used any of the strategy. Some of them received assistance from family members, from community members and from governmental organizations with regards to social and economic safety net strategy.

RECOMMENDATION

From the findings of this study, many of the recommend mitigation strategies that were not used by the HIV/AIDS victims should be critically examined to see why they are not been used. For example, it should be examined by the fuel efficient stoves, zero minimum tillage, access to portable waters; mechanized family and animals' traction were not highly used by the respondents. One expects extension institution to be highly used, but this is not the case. This should be reversed through intensify efforts of NGOs and the ADPs.

HIV/AIDS victims do not have equal access to credit; this trend should be reversed because they need credit most. Private donors should be encouraged to assist HIV/AIDS victims because the findings show they are not assisting as they should be.

The use of HIV/AIDS mitigation strategies is dependent on the annual income earned by farm households and not dependent on the dependency ratio of farm households. Some of the mitigation strategies depend on age and educationally levels of the affected farm households.

The finding shows clearly that labor saving technology is highly unavailable. Therefore, targeted policies must be put in place by government and other stakeholders to address the non availability of labor saving technology.

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