

Awareness and Attitude of Cocoa Farmers Toward Activities Encouraging Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome in Ondo State Nigeria

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Abstract: The combination of ignorance and misconceptions about HIV/AIDS is putting a huge wedge in the way of efforts to combat the pandemic in Nigeria. About 3.3 million Nigerian have been infected with 5.8% prevalence. Nigerian Cocoa farmers constitute important integral part of Nigerian farmers due to importance of cocoa to Nigerian agricultural sector. This study determines awareness and attitude of cocoa farmers to activities encouraging spread of HIV/AIDS in Ondo State. Multistage random sampling technique was used to select 260 respondents from 6 Local Government Areas and 16 villages. Descriptive statistics were used to analyze the study data. Ages 40–60 years constitutes 75% of respondents, 38% were literate while 54% were aware of HIV/AIDS, 40% of this 54% were aware of activities encouraging spread of HIV/AIDS. About respondents' attitude, 76% were positively disposed to carrying out activities encouraging spread of HIV/AIDS in the area. The study concluded that awareness of respondents to activities encouraging HIV/AIDS was low while majority were positively disposed to carrying out such activities. The study recommended that relevant organizations should carry out sensitization programmes to enlighten cocoa farmers on danger of carrying out activities encouraging spread of HIV/AIDS. Secondly, extension programmes should include HIV/AIDS education.

Key words: Cocoa • Cocoa farmers • HIV/AIDS • Awareness • Attitude and Ondo State • Nigeria

INTRODUCTION

The spread of Human Immunodeficiency Virus (HIV) to rural areas in Nigeria poses a lot of concern to policy makers due to their perceived higher vulnerability and relevance for national food security. Acquired Immune Deficiency Syndrome (AIDS), a clinical syndrome (a group of various illnesses that together characterize a disease) resulting from damage to the immune system caused by infection with the HIV. In the absence of treatment, it generally takes six to ten years from the point of infection to develop AIDS, although the rate of disease progression may vary substantially from person to person [1]. HIV can be transmitted by sexual contact with an infected person and this route represents majority of transmissions. Other routes of transmission include; sharing injecting equipment, infected mother (before

giving birth, during labour, or through breastfeeding) to newborn babies and the indiscriminate use of untreated sharp objects. HIV transmission through medical transfusions or blood-clotting factors is now extremely rare because of extensive screening of blood supply.

There is no evidence that HIV can be transmitted through the air or by biting insects. If this were the case, the pattern of HIV infections would be dramatically different from what has been observed and cases of AIDS would be reported more frequently in individuals with no identifiable risk for infection. However, practices that increase the likelihood of blood contact, such as sharing toothbrushes or razors, should be avoided [1]. Today, HIV/AIDS threatens the welfare and well-being of people throughout the world. At the end of the year 2005, 40.3 million people were living with HIV or AIDS and during the year 3.1 million died from AIDS-related illness [2].

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Table 1: The regional HIV and AIDS statistics, 2001 and 2008

	Adults and children living with HIV	Adults and children newly infected with HIV	Adult prevalence (%)	Adult and child deaths due to AIDS
Sub-Saharan Africa				
2008	22.4 million[20.8 million-24.1 million]	1.9 million[1.6 million-2.2 million]	5.2[4.9-5.4]	1.4 million[1.1 million-1.7 million]
2001	19.7 million[18.3 million-21.2 million]	2.3 million[2.0 million-2.5 million]	5.8[5.5-6.0]	1.4 million[1.2 million-1.7 million]
Middle East and North Africa				
2008	310 000[250 000-380 000]	35 000[24 000-46 000]	0.2[<0.2-0.3]	20 000[15 000-25 000]
2001	200 000[150 000-250 000]	30 000[23 000-40 000]	0.2[0.1-0.2]	11 000[7800-14 000]
South and South-East Asia				
2008	.8 million [3.4 million-4.3 million]	280 000[240 000-320 000]	0.3[0.2-0.3]	270 000[220 000-310 000]
2001	4.0 million[3.5 million-4.5]	310 000[270 000-350 000]	0.3[<0.3-0.4]	260 000[210 000-320 000]
East Asia				
2008	59 000[51 000-68 000]	3900[2900-5100]	0.3[<0.3-0.4]	2000[1100-3100]
2001	560 000[480 000-650 000]	99 000[75 000-120 000]	<0.1[<0.1]	22 000[18 000-27 000]
Oceania				
2008	59 000[51 000-68 000]	3900[2900-5100]	0.3[<0.3-0.4]	2000[1100-3100]
2001	36 000[29 000-45 000]	5900[4800-7300]	0.2[<0.2-0.3]	<1000[<500-1200]
Latin America				
2008	2.0 million[1.8 million-2.2 million]	170 000[150 000-200 000]	0.6[0.5-0.6]	77 000[66 000-89 000]
2001	1.6 million[1.5 million-1.8 million]	150 000[140 000-170 000]	0.5[<0.5-0.6]	66 000[56 000-77 000]
Caribbean				
2008	240 000[220 000-260 000]	20 000[16 000-24 000]	1.0[0.9-1.1]	12 000[9300-14 000]
2001	220 000[200 000-240 000]	21 000[17 000-24 000]	1.1[1.0-1.2]	20 000[17 000-23 000]
Eastern Europe and Central Asia				
2008	1.5 million[1.4 million-1.7 million]	110 000[100 000-130 000]	0.7[0.6-0.8]	87 000[72 000-110 000]
2001	900 000[800 000-1.1 million]	280 000[240 000-320 000]	0.5[0.4-0.5]	26 000[22 000-30 000]
Western and Central Europe				
2008	850 000[710 000-970 000]	30 000[23 000-35 000]	0.3[0.2-0.3]	13 000[10 000-15 000]
2001	660 000[580 000-760 000]	40 000[31 000-47 000]	0.2[<0.2-0.3]	7900[6500-9700]
North America				
2008	1.4 million[1.2 million-1.6 million]	55 000[36 000-61 000]	0.6[0.5-0.7]	25 000[20 000-31 000]
2001	[1.1 million-1.4 million]52 000	1.2 million[42 000-60 000]	0.6[0.5-0.7]	19 000[16 000-23 000]
Total				
2008	33.4 million[31.1 million-35.8 million]	2.7 million[2.4 million-3.0 million]	0.8[<0.8-0.8]	2.0 million[1.7 million-2.4 million]
2001	29.0 million[27.0 million-31.0 million]	3.2 million[2.9 million-3.6 million]	0.8[<0.8-0.8]	1.9 million[1.6 million-2.2 million]

Source: World Health Organization, UNAIDS. Web: www.unaids.org

Table 1 below explains the data on HIV/AIDS statistics and features by world region. The table shows the distribution of the infection of adult and children. The categories considered include; adults and children living with HIV, adult and children newly infected, adult prevalence rate, adult and child deaths due to AIDS. This table reveals the trend in Sub – Sahara Africa, North Africa & Middle East, Asia, Caribbean Oceania, Latin America, Eastern Europe & Central Asia, North America, Western & Central Europe. The result shows that more attention is needed in the Sub- Saharan Africa.

Situation of HIV/AIDS in Nigeria: The first two cases of HIV and AIDS in Nigeria were identified in 1985 and were reported at an international AIDS conference in 1986 [3]. In 1987, the Nigerian health sector established the National AIDS Advisory Committee, which was shortly followed by the establishment of the National Expert Advisory Committee on AIDS (NEACA). In Nigeria, an estimated 3.6 percent of the population is living with HIV and AIDS [4].

Although HIV prevalence is much lower in Nigeria than in other African countries such as South Africa and

Zambia, the size of Nigeria's population (around 149 million) means that by the end of 2009, there were 3.3 million people living with HIV [5]. According to [5] approximately 220,000 people died from AIDS in Nigeria in 2009. With AIDS claiming so many lives, Nigeria's life expectancy has declined significantly. In 1991, the average life expectancy was 54 years for women and 53 years for men [6]. In 2009, these figures had fallen to 48 for women and 46 for men [5].

Effects of HIV/AIDS on Agricultural Sector: It was posited that in everyday activities, the importance of sound health cannot be undermined, since health plays a major role in the performance of any individual at any point in time [7]. Farming activities are labourious and require sound health for effective performance on the job. The health of the farmers is very important in every nation for several reasons including dependence on food and their nutritional needs. The quantity and quality of labour supply is highly dependent on the health of the people under consideration [8].

The impact of HIV/AIDS in Africa cuts across all sectors of human development and poses serious challenge to the survival of vulnerable poor, whose livelihood depends solely on agriculture [9]. The recent shift from urban to rural areas in the efforts towards addressing the problems of AIDS is worthwhile because the disease is having some tremendous impact on the agricultural sector of several developing countries [10].

In Nigeria today, this deadly disease has attacked over 8 million people with the greatest percentage residing in the rural areas where little attention is given to awareness creation despite the importance of farmers who reside in this part of the country. An empirical study of this type is therefore necessary to determine the awareness and the attitude of cocoa farmers towards activities that may encourage the spread of this disease and to ascertain the sensitization needs of the farmers.

The general objective of this study was to determine awareness and attitude of cocoa farmers in activities encouraging the spread of HIV/AIDS in Ondo State Nigeria. The specific objectives were to; describe the personal characteristics of cocoa farmers in the study area; determine the level of cocoa farmers' awareness of HIV/AIDS in the study area; examine the activities of the cocoa farmers that may encourage spread of HIV/AIDS in the study area and ascertain farmers' attitude towards activities that may encourage spread of HIV/AIDS in the study area.

MATERIALS AND METHODS

The study was carried out in Ondo State, situated in South Western Nigeria. Ondo State is the largest producer of cocoa in Nigeria with sixteen local government areas (LGAs) planting cocoa out of the existing eighteen LGAs. Multistage sampling technique was used to select 6 LGAs and 14 villages while simple random sampling technique was used to select 260 respondents. The LGAs randomly selected for the study include; Ondo East, Ondo West, Idanre, Ile Oluji, Owo and Akure South. Four villages were randomly selected from Idanre LGA being the highest cocoa producing LGA in Ondo state and sixty respondents were interviewed with questionnaire while forty respondents were also interviewed from two villages in each of the other local government areas. This gives a total of 260 respondents from 14 villages.

After the collection and collation of the data only 230 questionnaire were useful for the analysis.

RESULTS AND DISCUSSION

Personal Characteristics of the Respondents: Table 2 above reveals that 20.4% of the respondents are above 60 years of age, while 75.2% are between ages 40 and 60 years. This implies that majority of the respondents are already in their old age and youths need to be encouraged to engage in cocoa farming. With respect to HIV/AIDS, the spread of the disease may not be rampant among the respondents since youths are more vulnerable to contracting the disease. According [11] who posited that majority of those affected with the HIV/AIDS disease fall between 20 and 50 years of age, which is regarded as the economic active age.

Table 3 revealed that many (62.2%) of the respondents have no formal education while 15.2 and 17.4% have primary and secondary education respectively. The remaining 5.2% have tertiary education. The low level of literacy among the respondents may affect their attitude towards activities that may encourage the spread of HIV/AIDS in the study area. This is in support of [11] who reported that the households not affected with the HIV/AIDS are generally more educated than those affected.

Table 4 shows that 64.9% of the respondents were married while 9.1% were single. The remaining 17.0 and 9.1% were widowed and divorced respectively. This could imply that the spread of the disease might not be high if the married ones among the respondents show faithfulness to their spouse. However, unfortunately this is not the case with people in the rural areas where they believe in polygamous.

Table 2: Frequency Distribution showing the Marital Status of the Respondents

Age	Frequency	Percentage
20-40	10	4.3
40-60	173	75.2
>60	47	20.4
Total	230	100.0

Source: Field survey, 2009

Table 3: Frequency Distribution showing the Educational Level of the Respondents

Level of Education	Frequency	Percentage
No formal education	143	62.2
Primary education	35	15.2
Secondary education	40	17.4
Tertiary education	12	5.2
Total	230	100.0

Source: Field survey, 2009.

Table 4: Frequency Distribution showing the Marital Status of the Respondents

Marital status	Frequency	Percentage
Single	21	9.1
Married	149	64.9
Widowed	39	17.0
Divorced	21	9.1
Total	230	100.0

Source: Field survey, 2009.

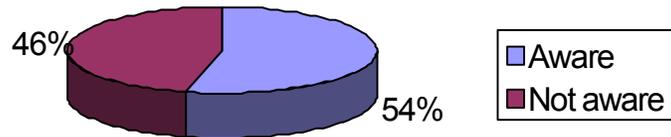


Fig. 1: Respondents' Awareness of HIV/AIDS in Ondo State of Nigeria (n=230)

Source: Field survey, 2009

Fig. 1 shows that 54% of the respondents were aware of HIV/AIDS in the study area while the remaining 46% indicated that they were not aware of this disease. This is a development in negative direction because of the endemic effect of this disease on the health of people and the impact it could have on cocoa production if cocoa farmers are infected. This view is supported by [11] who reported that 40% of the respondents infected with the disease in a study on HIV/AIDS attested experiencing a significant reduction in their agricultural production and income.

Table 5 shows that 59.7% were not aware of the activities that may encourage spread of HIV/AIDS while 40.3 percent of those who were aware of HIV/AIDS show varying degree of awareness based on the number of

these activities known to them. The respondents' knowledge of these activities will determine their rate of vulnerability to this deadly disease.

Table 6 reveals that 40.3% of the respondents who were aware of activities encouraging spread of HIV/AIDS show varying degree of awareness. More of the respondents were aware of the fact that extra marital sex could encourage the spread of the disease. This is followed by premarital sex, using already used unsterilised sharp objects, use of already used toothbrush, syringe, barbers' clippers and lastly pedicure and manicure practices. This is in support of the report [1] on practices that increase the likelihood of blood contact that may cause HIV/AIDS, such as sharing toothbrushes or razors. The ranking of respondents' awareness is presented in

Table 5: Frequency distribution showing the awareness of activities encouraging spread of HIV/AIDS by the respondents (n = 124)

Level of awareness	Frequency	Percentages
Awareness of activities that may encourage spread of HIV/AIDS	50	40.3
Not aware of activities that may encourage spread of HIV/AIDS	74	59.7
Total	124	100.00

Source: Field survey, 2009

Table 6: Frequency distribution showing the extent of respondents' awareness of activities that may encourage the spread of HIV/AIDS in Ondo States (n = 50)

S/N	Activities causing HIV/AIDS	Frequency	Percentage	Rank
.	Use of already used syringe	12	24	5 th
2	Pre-marital sex	25	50	2 nd
3.	Sharing toothbrushes	15	30	4 th
4.	Pedicure and manicure Practices	5	10	7 th
5.	Extra marital sex	30	60	1 st
6.	Using unsterilised barbers Clipper	6	12	6 th
7	Using already used unsterilised sharp objects	20	40	3 rd
8	Receiving unscreened blood	3	6	8 th

Source: Field survey, 2009

Table 7: Frequency distribution showing the attitude of respondents' towards activities that encourage the spread of HIV/AIDS in Ondo States

S/NO	Attitudinal Statements	SA	A	U	D	SD
1	Sharing of razor blade or other sharp objects can cause HIV/AIDS transfer.	12.5	10.2	3.4	65.3	8.6
2.	HIV/AIDS cannot be spread through unprotected sexual intercourse	7.2	23.8	-	63.9	5.1
3.	It is necessary to protect oneself with condom when having sex with an unknown person(s). Sexual enjoyment will be reduced with the use of condom	6.9	22.0	12.4	45.9	12.8
4.	HIV/AIDS can be transferred trough contacts like kissing, handshake and eating together	14.5	6.7	5.1	69.8	3.9
5.	HIV/AIDS is a not disease of rich people	25.5	18.2	22.5	23.6	10.2
6.	Government needs to spend more money to create awareness on how the spread of AIDS can be reduced in the society	45.7	10.5	0.9	30.0	12.9
7	The best way to avoid HIV/AIDS is to visit traditional doctors for charms that can remove the effects the disease in infected persons during sexual intercourse.	32.8	25.5	3.9	32.9	4.9
8	Having a personal clipper is unnecessary because of HIV/AIDS infection, the important thing is to barb in a clean barbing saloon	24.0	45.0	12.2	10.7	8.1
9	It is not a waste of money buying a new syringe in hospitals for injection	65.7	13.8	10.1	5.9	4.5
10	Cocoa farmers need regular attendance of workshop/training to acquire knowledge on how best they can conduct themselves to avoid AIDS infection	12.9	34.0	20.0	19.2	13.9
11	Knowledge or information about HIV/AIDS is not strictly meant for rich people.	34.5	19.5	9.5	29.0	7.5
12	With good nutrition, HIV/AIDS is of no consequence	23.8	40.8	21.3	7.6	6.5

Source: Field survey, 2009

table 6 above. This result implies that the respondents do not attach importance to the potentials of some of the activities listed above that may encourage the spread of HIV/AIDS in the study areas.

Cocoa Farmers' Attitude Toward Activities Encouraging Spread of HIV/AIDS in Ondo State, Nigeria: Table 7 above reveals the attitude of cocoa farmers in Ondo state to activities that encourage the spread of HIV/AIDS. The table revealed that the respondents showed positive disposition to some activities that can encourage the spread of the disease. For example, more than halve of the respondents, disagreed with use condom while having sex with an unknown person (s). The table showed that many (58.3%)

agreed with the fact that visiting a traditional doctor to obtain charms that will destroy the effect of HIV/AIDS in an infected person during intercourse is a sure way to avoid contacting the disease. On good nutrition, most of the respondents strongly agreed (23.4%) and agreed (40.8%) with the school of thought that, with good nutrition HIV/AIDS is of no consequence. Lastly, (63.9%) of the respondents disagreed while (5.1%) strongly disagreed with the claim that the disease cannot be spread through unprotected sexual intercourse. This implies that despite their positive disposition towards some activities that can encourage the spread of the disease, most of the respondents were aware of the possibilities of contacting the deadly disease through unprotected sexual intercourse.

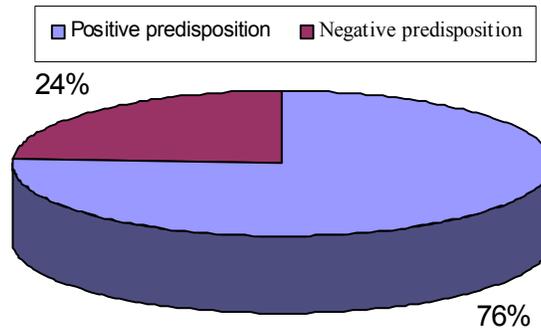


Fig. 2: Pie Chart showing summary of respondents' attitude towards activities that may encourage spread of HIV/AIDS in Ondo State, Nigeria
Source: Field Survey 2009

Table 7: Chi-Square analysis of the significant relationship between respondents' personal characteristics and attitude towards activities that may encourage spread of HIV/AIDS in Ondo State of Nigeria

Personal Characteristics	df	χ^2 Value	P-value	Contingency Co-efficient	Remark	Decision
Age	4	9.2	0.12	0.3	NS	Accept H_0
Sex	2	6.9	0.51	0.1	NS	Accept H_0
Educational Status	6	13.2	0.01	0.6	S	Reject H_0
Marital Status	6	7.8	0.02	0.7	S	Reject H_0

Source: Field Survey, 2009.

NS = Not Significant, S = Significant, H_0 = Null Hypothesis, Significant Level $P \leq 0.05$.

Summary of cocoa farmers' attitude towards activities encouraging spread of HIV/AIDS in Nigeria Pie Chart showing summary of respondents' attitude towards activities that may encourage spread of HIV/AIDS in Ondo State, Nigeria

Figure 2 above reveals that majority of respondents (76%) showed positive disposition to activities that encourages spread of HIV/AIDS in Nigeria. This implies that the chances of respondents carrying out these activities are very high. This therefore shows that effort needs to be made to concentrate more in the rural areas in awareness creation on HIV/AIDS, where majority of food consumed in the cities comes from.

Box 1. Comment by an old cocoa farmer in the study area

HIVAIDS are we sure that it is real? How do you explain a situation where youths are being discouraged to test their potency? For me, a 16-year-old boy should go out and confirm who he is for his parents to know what to do in case he has problems. Therefore, I see nothing bad in premarital sex.

Source: Field Survey 2009

The statement in Box 1 revealed the level of ignorance of some of the respondents. A cocoa farmer made this comment in one of the villages visited for the study. As far as this farmer was concerned, youths

testing or confirming their potency at the detriment of their lives was of more priority. This simply shows that, awareness creation and knowledge transfer need to be intensified on issues that bother on HIV/AIDS and modes of contacting it in the rural areas.

The chi-square analysis in Table 7 revealed that educational status ($\chi^2 = 13.2$, $P = 0.01$) and marital status ($\chi^2 = 7.8$, $P = 0.02$) were found to be significantly associated to the respondents' attitude towards activities encouraging spread of HIV/AIDS in Ondo States of Nigeria. Age ($\chi^2 = 9.2$, $P = 0.12$) and sex ($\chi^2 = 6.9$, $P = 0.51$), were found not to be significantly associated to respondents' attitude towards activities that may encourage spread of HIV/AIDS in Ondo States of Nigeria. This implies that the more educated ones show more caution in respect of activities that could encourage the spread of the disease. The Contingency co-efficient of 0.6 and 0.7 show a high significant relationship between educational status and marital status to their attitude towards activities encouraging spread of HIV/AIDS in Ondo States of Nigeria.

CONCLUSION

The study concludes that respondents' awareness of activities that may encourage spread of HIV/AIDS was low while majority were positively predisposed to carrying out such activities. It was recommended that

governmental and non-governmental organizations should make efforts to carry out sensitization programmes to enlighten cocoa farmers on the danger of carrying out activities that could encourage the spread of HIV/AIDS. Secondly, HIV/AIDS education should be incorporated in to extension programmes in the areas, since AIDS affects the physical well being of its victims and consequently their agricultural activities which ensure food security of cocoa farmers.

REFERENCES

1. Microsoft Encarta Encyclopedia. 2005. Microsoft Corporation 1993-2004 www.Encarta.com.
2. AVERT. 2006. HIV/AIDS Stigma and Discrimination (eds.) Jenni Fredriksson and Annabel Kanabus. <http://www.avert.org/contact.htm> Accessed November, 2009.
3. Adeyi, *et al.*, 2006. AIDS in Nigeria: A nation on the threshold. In *The epidemiology of HIV/AIDS in Nigeria*. Harvard Center for Population and Development Studies.
4. United Nations General Assembly Special Session (UNGASS). 2010. UNGASS Country Progress Report: Nigeria.
5. UNGASS, 2010. United Nations General Assembly Special Session. UNAIDS report on the global AIDS epidemic.
6. World Health Organization (WHO). 2008. WHO African Region: Nigeria CTA 2004. The HIV/AIDS Pandemic- A Treat for Rural Communities and Agricultural productivity in ACP Countries. Technical Center for Agricultural and Rural Cooperation ACP-EU.
7. UMEH, J.C., 1991. Rural health and labour supplies: Empirical evidence from the World Bank-Assisted Agricultural Development Project in Kwara State, Nigeria. *Soc. Sc. Med.*, 32(12): 1351-1360.
8. Oyekale, A.S., 2004. Rural Households' Vulnerability to HIV/AIDS and Economic Efficiency in the Rainforest Belt of Nigeria. http://www.gdnet.org/pdf2/gdn_library/awards_medals/2004/r_m/investment/rural_households.pdf
9. Abamu, F.J., and K.F. Nwanze, 2003. Agriculture and Health: Crossroads and Challenges for Future Agricultural Development in Africa. A presentation at the CORAF/ WECARD Consultation on Science and Technology Strategies for Improved Agricultural Productivity and Food Security in Africa Dakar, Senegal, 10-12 February 2003. pp: 1-34.
10. CTA. 2004. The HIV/AIDS Pandemic- A Treat for Rural Communities and Agricultural productivity in ACP Countries. Technical Center for Agricultural and Rural Cooperation ACP-EU.
11. Daudu, S.O.J. Okwu and W. Shaibu, 2000. The Effect of HIV/AIDS Scourge on Farm Families in Makurdi Local Government Area of Benue State, Nigeria Department of Agricultural Extension and Communication, University of Agriculture, Makurdi, Nigeria. pp: 1-4.