
AVAILABILITY AND UTILIZATION OF HIV/AIDS SERVICES IN ENUGU EAST LOCAL GOVERNMENT AREA OF ENUGU STATE

C. C. Igbokwe & M. C. Ukwuma & Lawreta Ijeoma Abugu & B. C. Igbokwe
University of Nigeria, Nsukka

Abstract

The purpose of the study was to determine the availability and utilization of HIV & AIDS services in Enugu East LGA of Enugu state. The study adopted a descriptive research design. Four research questions and two null hypotheses guided the study. The population for the study comprised 84 People Living Positive and 20 health workers making a total of 104 respondents. No sampling was done hence the entire population constituted the sample size. The instrument used for data collection was the researchers made questionnaire called the HIV & AIDS Services Availability and Utilization Questionnaire (HASAUQ). Research questions 1 and 2 were answered using frequencies and percentages while means were used to answer research questions 3 and 4. Chi-square and t-test statistics were used to test hypotheses 1 and 2 respectively at 0.05 level of significance. The results presented in tables showed that prevention services of HIV & AIDS was more available (63.33%) than clinical services (58.57%). Availability of HIV & AIDS services (both clinical and preventive services) were higher in urban settings (36.43% and 42.50%) than rural settings (22.14% and 20.83%) respectively. Utilization of HIV & AIDS prevention services ($\bar{x} = 3.06$) was high while utilization HIV & AIDS clinical services ($\bar{x} = 1.90$) was low. Utilization of both clinical and preventive services were higher in urban settings ($\bar{x} = 2.13$ and 3.42) than rural settings ($\bar{x}=1.38$ and 2.21) respectively. There was no significant difference in availability and utilization of HIV & AIDS services based on location ($\chi^2_{cal}= 0.021 < \chi^2_{crit} = 0.886$ and $t_{cal} = 1.439 < t_{crit}=1.960$) respectively and so the two null hypotheses were accepted. Based on the findings of the study, the researchers recommended among other things that government should partner with and make it easier for non-governmental organisations that focus on HIV & AIDS to operate within communities.

Keywords: Availability, Utilization, People Living Positive, HIV & AIDS, Voluntary counselling and testing.

Introduction

Human Immune Deficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) are serious public health problems worldwide. They have affected both developed and developing countries of the world - the epidemic is a global crisis, an unprecedented threat and a formidable challenge to people living with the virus. World Health Organization (WHO, 2003) reported that in 2002 about 33 million people in Africa were infected with HIV and AIDS. Equally, United Nations Agency for International Development (UNAID, 2003) reported that in 2002 Nigeria as a nation had 2.9 million cases of people living with HIV & AIDS. UNAID (2008) reported in 2007 that approximately 40 million people worldwide were infected with HIV & AIDS, while in sub-Saharan Africa, an estimated 22.5 million people were also reported to be living with HIV & AIDS.

In Nigeria, HIV & AIDS was identified in 1986 (Okafor, 1997), and the prevalence rate rose steadily to a peak of 5.8 percent by 2002. The prevalence rate reduced in 2003, putting the country at 5.0 percent as reported in the Nigerian National Sentinel Prevalence Survey of 2003 (UNAID, 2008). Nigeria with a population of about 170 million is one of the countries where the existence of HIV/AIDS has been reported, and where fears of further spread of the deadly disease have been expressed (Okafor, 1997). The prevalence rate of HIV/AIDS in Nigeria has not been steady,

nonetheless the high rates of infection is still of great concern. Nigeria has the highest number of HIV & AIDS infected adults in West Africa (UN, 2004). Nigeria is also the third country in the world after South Africa and India with the highest number of people living with HIV/AIDS (Avert, 2014). It was projected by UNAID (2003) that, by 2015 there will be 10-15 million HIV cases in Nigeria. In 2010, the Federal Republic of Nigeria (2010) reported that about 3.2 to 3.8 million people were living with HIV & AIDS. Improved HIV & AIDS prevention and control are due to the implementation of Voluntary Counselling and Testing (VCT) in Nigeria.

Voluntary Counseling and Testing (VCT) is a dialogue between a counselor and a client. According to UNAIDS (2003) VCT is aimed to provide the client with information on the HIV test, its benefits and the risks involved. The aim is to have the informed consent of the client before the test, and to help the client gain a better understanding of the test results. VCT also provides the client with background information on HIV/AIDS infection, modes of transmission, preventive methods, treatment and care. This helps to assess the risk of HIV infection in the client. Other objectives of VCT include encouraging and maintaining a safe behaviour to avoid future infection and/or to prevent further spread of HIV, to help the client to handle possible emotional reactions related to the HIV test results and to discuss courses of action adapted to each client, his family needs and circumstances. To ensure a nationwide prevention and control of HIV & AIDS, VCT is integrated in a wide range of the services. HIV & AIDS services comprise of activities in several thematic areas as clinical services, prevention services, mitigation and systems strengthening.

Clinical Services are a range of services that are offered to persons who have been exposed to the virus. They comprise diagnosis, treatment, prevention of mother-to-child transmission, palliative care, home based care, HIV-TB services and treatment of opportunistic infections (OIs) (Resch, Wang, Ogungbemi & Kombe, 2009). In the opinion of Kakieteka et al, (2013), clinical services category include provision of ART, visits to health facilities, referral to health facilities, support for HIV and TB treatment adherence, home-based care, palliative care, treatment education and literacy, mother – to child transmission prophylaxis. The services primarily manage the conditions of HIV positive individuals with the aim of elongating their lives as much as is possible.

Prevention services refer to the creation of awareness about HIV & AIDS, advocacy for behavioural change, promotion of safe sex, promotion of blood safety, use of post-exposure prophylaxis and the observance of universal precautions. According to Kakieteka et al, (2013), prevention services category include information and awareness raising, life skills, behaviour change communication, action to change harmful traditional practices, stigma reduction, activities to change cultural and gender norms to reduce stigma and discrimination; condom distribution, provisions of needles and bleach, HIV testing promotions and outreach to groups at risk. These are measures that ensure that people and communities exposed to risks of infection are protected.

Mitigation is concerned with the care and support of orphans and vulnerable children. Mitigation involves care and support which include social, psychological, and spiritual support, counseling, childcare, day and respite care, nutrition support, support for orphans and vulnerable children (OVC), support groups and self-help activities (Kakieteka et al, 2013).

Systems Strengthening has to do with laboratory infrastructure, strategic information and planning as well as information systems in communities. The present study investigated clinical and preventive services. Despite these services, Nigeria still has a high population of people living positive- PLP which has been attributed to HIV & AIDS services availability and utilization (Federal Republic of Nigeria, 2010).

Availability pertains to the extent to which a thing can be reached. Hornby (2005) defined availability as the condition of being available, that is, being easily accessible and obtainable. Hence, availability of HIV & AIDS services will be considered as the condition in which HIV & AIDS services: clinical services, prevention services, mitigation and systems strengthening, are easily accessible to communities where needs exist. However, availability of the services is one thing; extent of their utilization may be another question.

Utilization according to Hornby (2005) implies to use something, especially for a practical purpose. It can also refer to using things in unusual or unintended ways, as a more formal equivalent of "make use of". Hence, utilization of HIV & AIDS implies the extent to which HIV & AIDS services: clinical services, prevention services, mitigation and systems strengthening, are made use of by communities and people infected with HIV. Utilization can be measured in terms of extent of

utilization which connotes coverage or the degree to which these services are being utilized. Thus, this study is set to investigate the availability and utilization of HIV & AIDS services in Enugu East LGA of Enugu State.

Enugu East LGA is one of the seventeen Local Government Areas in Enugu state in South-East Nigeria. It is located in the Enugu East senatorial zone and is one of the three LGAs that make up the Enugu urban, that is, the administrative capital of the state. It comprises four major towns including Trans-Ekulu, Emene, Abakpa-Nike and Ugbo-odogwu. The people are Ibos and are mainly civil servants. Others are traders, farmers or artisans. The LGA is predominantly urban with some rural communities scattered at the outskirts. Despite the large land mass of Enugu East LGA, it had been sparsely populated until recent times when government and private establishments sprang up in the area leading to more urbanization. Consequently, of all three LGAs that make up the Enugu Urban, it has the least number of health centres, with only five government health facilities including the National Orthopaedic Hospital (Abakpa), a dental clinic (Trans-Ekulu), and three health centres at Ugbo-Odogwu, Iji-Nike and Abakpa. Physicians' Weekly (2013) identified Emene as one of the most deprived areas in the state in terms of availability of health care. The people have to travel distances of over 10 kilometres to the neighbouring Enugu North LGA to access any of the twenty-three government-owned health centres located there. There are people living positive in these communities as can be found in other communities. They experience some difficulties in the form of stigmatization and discrimination as well as other structural deficiencies which may hamper their abilities to utilize services, if they are available.

No study exists on availability and utilization of HIV & AIDS services in Enugu East LGA of Enugu State, to the best knowledge of the investigators. This study therefore, seeks to fill this gap. In order to achieve this task, four specific objectives and research questions were posed to determine:

1. availability of HIV & AIDs services in Enugu East LGA of Enugu State
2. availability of HIV & AIDs services in Enugu East LGA of Enugu State base on location
3. utilization of HIV & AIDs services in Enugu East LGA of Enugu State
4. utilization of HIV & AIDs services in Enugu East LGA of Enugu State based on location.

Research Questions

1. What is the availability of HIV/AIDS services in Enugu East LGA of Enugu state?
2. What is the availability of HIV/AIDS services in Enugu East LGA of Enugu state based on location?
3. What is the utilization of HIV/AIDS services in Enugu East LGA of Enugu state?
4. What is the utilization of HIV/AIDS services in Enugu East LGA of Enugu state based on location?

Hypotheses

Two null hypotheses tested at 0.5 level of significance were postulated thus:

1. There is no significant difference in the availability of HIV & AIDS services in Enugu East LGA of Enugu State based on location.
2. There is no significant difference in the utilization of HIV & AIDS services by PLP in Enugu East LGA of Enugu State based on location.

Methods

This study adopted a descriptive survey design. According to Nwana (1990), the descriptive survey research design facilitates the description of situation in its present state and solicits information directly from the respondents. Nworgu (2006) asserted that the descriptive survey research design is one which aims at collecting data on, and describing in a systematic manner, the characteristics, features or facts about a given population. Hence, this design was found appropriate for the present study because it describes the availability and utilization of HIV & AIDS services in Enugu east LGA.

The population for the study comprised of all People Living Positive and all health care workers administering HIV & AIDS services in the two clinics that offer HIV & AIDS services in Enugu East LGA. There were 84 People Living Positive (PLP) and 20 health workers in the two clinics in the study area making a total of 104 respondents. No sampling was done hence the entire population constituted the sample. This is because Nwana (1990) postulated that when the population is small and manageable, the entire population can be used for the study.

The instrument used for data collection was a researcher's self-made questionnaire called the HIV & AIDS Services Availability and Utilization Questionnaire (HASAUQ). The questionnaire was developed from the literature in line with the research questions. The questionnaire was in three sections. In section one, information on the respondents' biodata were solicited. In section two, questions on availability of HIV & AIDS services: clinical and prevention services were asked. Data on availability of HIV & AIDS services was collected using a dichotomous pattern of 'yes' or 'no' to represent 'available' or 'not available'. In section three, questions on utilization of HIV & AIDS services: clinical and prevention services were asked. Data on utilization of HIV & AIDS services were collected using a 5-point scale of very high extent, high extent, moderate extent, low extent or no extent. The responses were coded 5, 4, 3, 2 and 1 respectively with a criterion mean point of 3.0.

Face validity of the instrument was established through the judgment of three experts in the Department of Human Kinetics and Health Education, University of Nigeria, Nsukka. Cronbach's Alpha was employed for establishing the internal consistency of the instrument. The inter-item correlation coefficient of 0.65 was attained hence the instrument was considered reliable because Ogbazi and Okpala, (1994) asserted that reliability coefficient of .60 and above is adjudged reliable for a study.

The statistical package for social sciences (SPSS V.15) was employed for data analysis. Research questions 1 and 2 were answered using frequencies and percentages while research questions 3 and 4 were answered using summated ratings and means. The two null hypotheses were tested using chi-square and t-test statistics.

Results

The results are presented in tables alongside brief interpretation of its content.

Table 1
Availability of HIV Services (n = 20).

Clinical Services	F	%
Diagnosis	18.00	90.00
Treatment of HIV/AIDS using Antiretroviral drugs	16.00	80.00
Prevention of mother-to-child transmission	19.00	95.00
Palliative care for terminal HIV cases	4.00	20.00
Home based care for HIV cases	0.00	0.00
HIV-TB services	12.00	60.00
Treatment of Opportunistic Infections	13.00	65.00
Cluster Average	11.71	58.57
Preventive Services		
Creation of awareness about HIV & AIDS	9.00	45.00
Advocacy for behavioural change	6.00	30.00
Promotion of safe sex	12.00	60.00
Promotion of blood safety	15.00	75.00
Use of post-exposure prophylaxis	16.00	80.00
Observance of universal precautions.	18.00	90.00
Cluster Average	12.67	63.33

Table 1 shows that the overall availability of HIV clinical services was 11.71 (58.57%) while the HIV services most available were the prevention services 12.67 (63.33%).

Table 2
Availability of HIV Services based on location (n = 20)

Clinical Services	Urban (n = 10)		Rural (n = 10)	
	F	%	F	%
Diagnosis	10.00	50.00	8.00	40.00
Treatment of HIV/AIDS using Antiretroviral drugs	9.00	45.00	7.00	35.00
Prevention of mother-to-child transmission	10.00	50.00	9.00	45.00
Palliative care for terminal HIV cases	4.00	20.00	0.00	0.00
Home based care for HIV cases	0.00	0.00	0.00	0.00
HIV-TB services	9.00	45.00	3.00	15.00
Treatment of Opportunistic Infections	9.00	45.00	4.00	20.00
Cluster Average	7.29	36.43	4.43	22.14
Preventive Services				
Creation of awareness about HIV & AIDS	7.00	35.00	2.00	10.00
Advocacy for behavioural change	5.00	25.00	1.00	5.00
Promotion of safe sex	9.00	45.00	3.00	15.00
Promotion of blood safety	10.00	50.00	5.00	25.00
Use of post-exposure prophylaxis	10.00	50.00	6.00	30.00
Observance of universal precautions.	10.00	50.00	8.00	40.00
Cluster Average	8.50	42.50	4.17	20.83

Table 2 shows that HIV clinical services are more available in Urban settings 7.29 (36.43%) than in the rural settings 4.43 (22.14%). Equally, prevention services were more available in Urban setting 8.50 (42.50%) than in rural setting 4.17(20.83%).

Table 3
Utilization of HIV Services (n = 84).

Clinical Services	VHE	HE	ME	LE	VLE	Total	f
Diagnosis	260.00	20.00	45.00	16.00	4.00	345.00	4.11
Treatment of HIV/AIDS using Antiretroviral drugs	175.00	168.00	12.00	4.00	1.00	360.00	4.29
Prevention of mother-to-child transmission	65.00	96.00	57.00	6.00	6.00	230.00	2.74
Palliative care for terminal HIV cases	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Home based care for HIV cases	0.00	0.00	0.00	0.00	0.00	0.00	0.00

HIV-TB services	15.00	48.00	15.00	2.00	1.00	81.00	0.96
Treatment of Opportunistic Infections	25.00	12.00	27.00	24.00	16.00	104.00	1.24
Cluster Mean							1.90
Prevention Services							
Creation of awareness about HIV & AIDS	60.00	92.00	15.00	4.00	3.00	174.00	2.07
Advocacy for behavioural change	80.00	48.00	63.00	40.00	7.00	238.00	2.83
Promotion of safe sex	115.00	60.00	36.00	20.00	14.00	245.00	2.92
Promotion of blood safety	125.00	68.00	39.00	18.00	14.00	264.00	3.14
Use of post-exposure prophylaxis	175.00	168.00	12.00	4.00	1.00	360.00	4.29
Observance of universal precautions.	120.00	72.00	39.00	18.00	14.00	263.00	3.13
Cluster Mean							3.06

Table 3 shows that there was low utilization of HIV & AIDS services clinically with a grand mean (\bar{x}) of 1.90 while there was high utilization of preventive services with a grand mean of (\bar{x}) 3.06.

Table 4
Utilization of HIV Services based on location (n = 84).

Clinical Services	Urban		Rural	
	Total	\bar{x}	Total	\bar{x}
Diagnosis	270.83	4.59	74.18	2.97
Treatment of HIV/AIDS using Antiretroviral drugs	282.60	4.79	77.40	3.10
Prevention of mother-to-child transmission	180.55	3.06	49.45	1.98
Palliative care for terminal HIV cases	0.00	0.00	0.00	0.00
Home based care for HIV cases	0.00	0.00	0.00	0.00
HIV-TB services	63.59	1.08	17.42	0.70
Treatment of Opportunistic Infections	81.64	1.38	22.36	0.89
Cluster Mean		2.13		1.38
Preventive Services				
Creation of awareness about HIV & AIDS	136.59	2.32	37.41	1.50
Advocacy for behavioural change	186.83	3.17	51.17	2.05
Promotion of safe sex	192.33	3.26	52.68	2.11
Promotion of blood safety	207.24	3.51	56.76	2.27
Use of post-exposure prophylaxis	282.60	4.79	77.40	3.10
Observance of universal precautions.	206.46	3.50	56.55	2.26
Cluster Mean		3.42		2.21

Table 4 shows that the overall utilization of HIV services based on location clinically was (urban \bar{x} =2.13, rural \bar{x} =1.38) while preventive services utilization was (urban \bar{x} =3.42, rural \bar{x} =2.21). The table indicates that HIV & AIDS services utilization were higher in urban than rural settings.

Table 5
Summary of Chi-square Analysis of no Significant Difference in Availability of HIV Services Based on Location

Location	N	χ^2 – cal	df	χ^2 – crit	Decision
Urban	10	0.021	1	0.886	Accept
Rural	10				

Significant at $p < .05$

Table 5 shows the Chi-Square analysis of no significant difference in availability of HIV Services based on location. The table revealed that χ^2 – Calculated value of 0.021 is less than the χ^2 – Critical value of 0.886 at .05 level of significant and 1 degree of freedom. Consequently, the null hypothesis is accepted. This implies that there is no significant difference in availability of HIV services based on location.

Table 6
Summary of t-test Analysis of no Significant Difference in Utilization of HIV Services Based on Location

Location	N	\bar{x}	SD	t-cal	df	t-crit	Decision
Urban	59	2.78	6.701	1.439	82	1.960	Accept
Rural	25	1.80	11.511				

Significant at $p < .05$

Table 6 shows the t-test analysis of no significant difference in utilization of HIV Services based on location. The table revealed that t-calculated value of 1.439 is less than t-critical value of 1.960 at .05 level of significance and 82 degrees of freedom. The null hypothesis is therefore accepted. This implies that there is no significant difference in utilization of HIV services based on location.

Discussion

Discussion is hereby presented according to the research questions:

1. Availability of HIV & AIDS services in Enugu East LGA of Enugu State.
2. Availability of HIV & AIDS services in Enugu East LGA of Enugu State based on location.
3. Utilization of HIV & AIDS services in Enugu East LGA of Enugu State.
4. Utilization of HIV & AIDS services in Enugu East LGA of Enugu State based on location.

Availability of HIV & AIDS Services in Enugu East LGA.

Table 1 showed that the HIV services most available were the prevention services 12.67 (63.33%) while clinical services was 11.71 (58.57%). This finding was not surprising and in line with some research assertions. These findings is in agreement with the assertion of Avert (2014) that resources needed to provide sufficient treatment and care for those living with HIV in Nigeria remain seriously lacking. A study of health care providers found many had not received sufficient training on HIV prevention and treatment and many of the health facilities had a shortage of medications, equipment and materials (Physicians for Human Rights, 2006). The implication of this finding is very grave as there could be people living with the virus and who may remain unaware of their status due to a lack in HIV & AIDS services supply. Some high risk individuals and communities may be barred from accessing these services due to stigmatization, discrimination or the peoples’ perception of their lifestyles. UNAID (2008) reported that HIV prevention messages are not sufficiently reaching people at risk of infection such as men who have sex with men – MSM and sex workers due to legislations prohibiting and criminalizing their activities. For example, same-sex relations in Nigeria are criminalized with 14 years imprisonment. Such laws limit the nature of services that can be available.

Similarly, clinical services are still lacking as about 11.71 (58.57%) of required services are available. This concurs with the findings of Avert (2014) that very few Nigerians know their HIV status. This can place people at risk of becoming ill, as they do not access timely HIV treatment and care. It also increases the risk of onward transmission to sexual partners.

Availability of HIV & AIDS Services in Enugu East LGA Based on Location.

Table 2 revealed that HIV & AIDS clinical and preventive services were more available in urban settings 7.29 (36.43%) and 8.50(42.50%) than rural settings 4.43(22.14%) and 4.17(20.83%) respectively. This finding is plausible and in line with the findings of Physicians' Weekly (2013) that sub-populations in rural areas may be less likely to receive quality care and achieve optimal HIV outcomes when compared with individuals living in urban areas. Generalizing HIV & AIDS care in rural areas may be misguided because each has its own unique characteristics. However, Table 5 showed that the Chi-Square analysis of availability of HIV Services based on location indicated no significant difference ($\text{cal}\chi^2 = 0.021 < \text{crit}\chi^2 = 0.886$ at 0.05 level of significance, $\text{df} = 1$). Since the $\text{cal}\chi^2$ -value obtained is less than the $\text{crit}\chi^2$, the null hypothesis was accepted. This implies that even though availability is more in urban settings than rural settings, the difference is not statistically significant. This finding notwithstanding, HIV & AIDS services should be established in rural settings for rural dwellers to access care. The Federal Republic of Nigeria (2010) acknowledged low levels of HIV & AIDS services in rural settings which have contributed in no small measures to people travelling long distances to access available services in urban settings.

Utilization of HIV & AIDS Services in Enugu East LGA.

Table 3 showed that there is a low utilization of clinical services of HIV & AIDS with a cluster mean (\bar{x}) of 1.90 while there was high utilization of prevention services (\bar{x}) 3.06. This finding is in line with the findings of Dako-Gyeke and Agyapong (2014) that only 29.2 per cent of respondents have utilized HIV& AIDS service. Most people who test for HIV do so because it is a routine part of some other service they intend to access. With regards to ARVs, UNAID (2008) reported that antiretrovirals (ARVs) to prevent transmission from mother to child reached only 22% of pregnant women living with HIV in 2007. Although a marked increase from the previous year, similar progress has not been made in providing prophylactic ARVs to HIV-exposed infants: only 8% of them were reached in 2007. The implication of this finding is that people who are infected with HIV virus may be unaware and hence, constitute a risk to the people in their immediate surroundings. This is especially as most people do not attend hospitals except when they feel sick and take tests to determine their HIV status if it is incorporated in some other services being accessed.

Utilization of HIV & AIDS Services in Enugu East LGA Based on Location.

Table 4 showed that the overall utilization of clinical services of HIV is higher in urban settings with a cluster mean (\bar{x}) of 2.13 than in the rural settings with a cluster mean (\bar{x}) of 1.38. Equally, there were higher utilization of prevention services with a cluster mean (\bar{x}) of 3.42 in urban settings than in the rural settings with a cluster mean (\bar{x}) of 2.21. The result was expected and therefore, not surprising. It is in line with the finding of the United Nations Children's Education Fund – UNICEF (2010) that there are marked disparities in care by wealth and residence status. They asserted that only roughly a quarter of the poorest women and less than half of rural women utilized HIV& AIDS services at all and less than a tenth of the poorest and a third of rural women received skilled care (UNICEF, 2010). According to the Federal Republic of Nigeria (2010), utilization of skilled HIV & AIDS services is higher in urban than rural areas – 84 per cent versus 46 per cent. The inequalities in utilization of HIV & AIDS services in urban and rural settings could also be attributed to high levels of discrimination and stigmatization which are more pronounced in rural communities than in the urban settings. Table 6 showed that the t-test analysis of utilization of HIV Services based on location indicated no significant difference ($t\text{-cal} = 1.439 < t\text{-critical} = 1.960$ at 0.05 level of significance, $\text{df} = 82$). Since the t-calculated value obtained is less than t-critical value at .05 level of significance, the null hypothesis was accepted. This implies that although, utilization of HIV & AIDS services were higher in urban than rural settings, the difference is not statistically different. Federal Republic of Nigeria (2012) stated that people who want to get tested for HIV often have to travel long distances, and away from rural centres, as there is a distinct lack of HIV testing and counselling facilities.

Recommendations

Based on the findings and recommendations, the following recommendations were made;

1. Health educators should intensify health education programmes especially community health education in rural areas to enhance utilization of HIV & AIDS services.
2. The government should consider finding alternative ways of bringing HIV & AIDS services closer to the people.
3. The government should partner with and make it easier for Non-governmental organizations that focus on provision of HIV & AIDS to operate within communities.

Conclusion

Based on the finding of the study and discussion, the following conclusions were made:

1. Availability of HIV & AIDS services was moderately adequate with prevention services being slightly higher (63.33%) than clinical services (58.57%).
2. HIV & AIDS services- clinical and prevention services were more available in urban settings (36.43% and 42.50%) than in the rural settings (22.14% and 20.83%) respectively.
3. Utilization of HIV & AIDS clinical services was low with a cluster mean of 1.90 while utilization of prevention services was high with a cluster mean of 3.06.
4. Utilization of HIV services – clinical and prevention services was higher in urban settings with a cluster mean (\bar{x}) of 2.13 and 3.42 than in the rural settings with a cluster mean (\bar{x}) of 1.38 and 2.21 respectively.

References

- Avert. (2014). *HIV & AIDS in Nigeria*. Available from <http://www.avert.org/hiv-aids-nigeria.htm>
- Dako-Gyeke, P. & Agyapong, E. B. (2014). Utilization of HIV Counselling and Testing Services in Urban and Rural Communities in Eastern Region of Ghana: Implications for Achieving Universal HCT Coverage. *Journal of interdisciplinary studies*, 3(4)
- Federal Republic of Nigeria.(2010). *National guideline for the prevention of mother to child transmission*. Abuja, Nigeria.
- Federal Republic of Nigeria.(2012). *Global AIDS Response Progress Report*. See more at: <http://www.avert.org/hiv-aids-nigeria.htm#sthash.jnsj2LJ7.dpuf>
- Hornby, A. S. (2005). *Oxford Advanced Learners Dictionary of Current English*. Oxford. Oxford University Press
- Joint United Programme on HIV and AIDS and World Health Organization (2005).*AIDS epidemic update*. Geneva: UNAIDS and WHO Publication.
- Kakieteka, J., Geberselassiea, T., Manteuffela, B., Ogungbemib, K., Krivelyovaa, A., Bauscha, S., Rodriguez-Garcıac, R., Bonnelc, R., N'Jiee, N., Fruha, J. & Gard, S. (2013). It takes a village: Community-based organizations and the availability and utilization of HIV/AIDS-related services in Nigeria. *AIDS Care*, 25(1), 78 – 87.
- Nwana, O. C. (1990). *Introduction to educational research*. Ibadan. Heinman Educational Books (Nig) Ltd.
- Nworgu B. G. (2006). *Educational Research. Basic Issues And Methodologies*. Ibadan. Wisdom publishers Ltd.
- Ogbazi, N. & Okpala, J. (1994). *Writing Research Reports. Guide to Research in Education, Social Sciences and Humanities*. Owerri: Prime Time Series.
- Okafor, R. U. (1997). Sexual Knowledge and sources of sexual information on secondary school students in anambra state. *Journal of Nigerian health and movement education*. 1 (1). 9-19.
- Physicians for Human Rights. (2006). *'Nigeria: Access to Health Care for People Living with HIV and AIDS*. – Available from: <http://www.avert.org/hiv-aids-nigeria.htm#sthash.jnsj2LJ7.dpuf>

- Physicians' Weekly (2013). *Comparing Rural and Urban care in HIV*. Available from: <http://www.physiciansweekly.com/rural-urban-care-hiv/#sthash.a5IRs06e.dpuf>
- Resch, S., Hong, W., Ogungbemi, M. K. & Kombe, G. (2009). Sustainability Analysis of HIV/AIDS Services in Nigeria. Bethesda, MD. Health Systems 20/20 Project, Abt Associates Inc.
- UNAID (2008). A Report of a Theological Workshop Focusing on HIV and AIDS related stigma. [org/publication/TRC-Pubo6/JC1119](http://www.unaids.org/publication/TRC-Pubo6/JC1119)
- UNAID (2003). *HIV Voluntary Counselling and Testing: a gateway to prevention and care. UNAIDS best practice collection*. New York, United States.
- UNICEF. (2010). *Nigeria PMTCT factsheet*. Abuja, Nigeria.
- United Nation Development Programmes, (2004) HIV and AIDS. A Challenge to sustainable human development. Human Development Report. Nigeria: UNDP Publication.
- World Health Organization (2003). Prevention of Mother-to-child transmission of HIV-Genetic Training package, participant manual. Geneva: WHO Publication.