



# **Socio-Demographic Differences in HIV and AIDS Awareness among Secondary School Adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State**

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## **ABSTRACT**

The study investigated socio-demographic differences in HIV and AIDS awareness among secondary school adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State. Two null hypotheses were formulated to guide the study: The design used in the study was ex-post facto design. Population of the study consisted of 8,158 students while a sample of 653 students which was 8% was drawn using disproportionate stratified random sampling technique. Instrument used for data collection was questionnaire titled “HIV and AIDS Awareness scale (HAAS) which was developed by Clarke in 2011. The instrument was face, content and constructs validated using factor analysis while Cronbach alpha was used to estimate the reliability of the clusters of the instrument with values of  $r = .81$  and  $r = .82$  respectively. The hypotheses were tested using z-test statistics at 0.05 level of significance. The result of the study revealed that a difference existed in the HIV and AIDS awareness of adolescents across gender (male and female) as well as location (rural and urban) in Obio/Akpor and Emohua Local Government Areas of Rivers State. It was recommended that relevant social amenities should be provided in these schools to improve students’ awareness on the issue of HIV and AIDS in secondary schools in the study areas.

**Keywords:** Socio-Demographic Differences, Awareness, Secondary Schools, Adolescents, Rivers State

## **INTRODUCTION**

Adolescents in the secondary schools seem to have little or no awareness of the dreaded HIV and AIDS in our society. For instance, the recent disclosure that Nigeria has shown more interest in the handling of HIV and AIDS treatment should be a compelling reason for a radical review of the current efforts to continue to curb the deadly disease. One major process in the right direction of curbing the disease is by creating awareness on HIV and AIDS in relation to the meaning, causes, symptoms, consequences and preventive measures. The adolescent period is a very critical one which involves sexual exploration, and cross- gender socialization. It is therefore necessary to find out factors that could support the propagation of awareness of HIV and AIDS among secondary school adolescents. This has become imperative, if the country’s health authorities are genuinely interested in arresting the rapid spread of the disease which is witnessing a decline in some other parts of the world.

Experts who met at the American Conference on the treatment of HIV and AIDS held in Denver, Colorado in the United States on May 18, 2013, came up with the damning verdict that the HIV and AIDS situation in Nigeria has lessened. Their assessment was that infection rate had been reduced just because the country has taken reasonable precaution to protect the vulnerable members of the society against the spread of the disease and the inevitable consequences which is a high mortality rate (UNDP, 2013).

This trend has resulted from the recognition that the epidemic is affecting women and men in different ways. Many victims of physical abuse and sexual violence are adolescents. For example, the generally lower status of women leads to their subordination and restricted opportunities to control the circumstance which predisposes them to the contraction of the disease. Men on the other hand, are influenced by pressures that can make it difficult for them to adopt protective behaviours both for themselves and their sexual partners (Bruyn, 1995).

Adolescents represent the nation's future and the development of Nigeria rests in their hands. However, the HIV and AIDS epidemic may deny Nigeria of the services of the adolescents. The menace of HIV and AIDS in all the states in Nigeria and its threat to life as conceived by different researcher have prompted several investigation into the social and demographic aspects of HIV and AIDS in different states of the country. HIV means 'Human Immuno Deficiency Virus' also referred to as AIDS and it infect human beings and causes a lowering of the body immune system. This makes it impossible for the body to fight certain infections. H - Human, because the AIDS virus only lives in human beings and not in animals, insects, water or air while I – Immunodeficiency implies that the AIDS virus makes the body defense immune system not to be effective in protecting the body from diseases and the V -Virus, is a very small germ that we cannot see with our eyes but which is very harmful to our body.

AIDS is a condition that results when a person's immune system has been lowered (due to infection with HIV), so that the body can no longer fight other infections such as malaria, tuberculosis and skin infections. Presently, there is no cure but the condition is manageable. The A - Acquired means that one gets the disease from somewhere else and that the body does not make the disease and the I - Immune means that one is protected with the ability to fight illnesses while the D - Deficiency simply means that one is lacking something and the S - Syndrome is a group of illness that happens together. People with AIDS get many of the same type of infections and illnesses.

The stages of the HIV infection include the following; acute infection during which large amount of the virus are being produced in the red blood cell. Many, but not all people develop the symptoms. There is also clinical latency and during this stage of the disease, HIV reproduces at very low levels, although it is still active. In this period, one may not have symptom also. Treatment makes this period lasts an average of ten years but some people may progress this stage faster than others. In the long run, as the Cardiovascular Four (CD4) cell fall below 200 cells/mm a person is considered to have progressed to AIDS. Furthermore, without treatment, people typically survive 3 years but when there is a dangerous opportunistic illness, life-expectancy without treatment falls to 1 year or below. However, with the regular intake of Antiretroviral Therapy (ART) and maintaining a low viral load, then one may likely enjoy a near normal life span and may most likely never progress to AIDS.

The threats posed on adolescent living with HIV and AIDS infections have attracted the attention of many researchers. In spite of much research carried out on HIV and AIDS, no lasting solution to completely reduce the spread; especially among adolescents has been provided. Researchers over the years have focused on the sources of acquiring and spreading HIV and AIDS which includes sexual intercourse, infected blood and blood products, infected mother to her child, sharing of sharp or pointed skin piercing instruments e.g. razor blade, barbing clippers, piercing needles, scarification knives used on infected person and how not to transmit the disease which are as follows: Sneezing, mosquito and insect bite, holding or shaking of hands, sharing plate, cups, dresses, bathroom, swimming pool, caring for people living with HIV and AIDS (PLWHA) dancing and the use of antiretroviral drugs (Federal Republic of Nigeria, 2012) which has proved useful.

On the other hand, several researchers point to youth sexual behavior, economic underdevelopment, traditional sex, widowhood rite, usage of unsterilized instruments, male circumcision and female genital cutting, group sex etc as practices that heighten the spread of this epidemic. The main focus of this study however is to find out the socio-demographic differences in HIV and AIDS awareness among secondary school adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State.

The study intends to investigate the socio-demographic differences in HIV and AIDS awareness among secondary school adolescents across their gender and location in the study area. Adolescence is the period of life when an individual experiences puberty and psychological development. Puberty is brought about by the activities of pituitary glands which initiate the secretion of gonadotropin after which gonads begin to secrete sex hormones. These sex hormones in turn promote such effects as protein synthesis, muscle development, bone growth and the development of secondary sex characteristics. In males, it involves rapid increase in height, shoulder becomes large, and voice deepens, growth of hair at the armpit and at the abdomen around the external reproductive cells. However, it also accounts for the presence of spermatozoa in testes. This makes adolescent boys to experience semen emission at night. The female sex hormones are estrogen and progesterone. The effects of estrogen include enlargement of the breasts, enlargement of the pelvic, rapid increase in height and appearance of hair in the pubic region and armpit. The adolescent's role in the society cannot be over emphasized and the health of adolescents is very crucial to the society. Gender is the socio-cultural and psychological dimension of being male or female. From different write ups so far, it is discovered that men and women are been effected by pandemics (Santrock, 2006) irrespective of their gender.

On the other hand, location is a place, position, the physical or geographical situation where people live. It could be urban or rural as used in this study. Studies tend to show that, the physical environment influences people's behaviour, either positively or negatively. These factors play major roles on how people relate to health related issues. It is on this premise that this study tends to investigate socio-demographic differences in HIV and AIDS awareness among secondary school adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State.

There are several studies that have been carried out by researchers on the socio-demographic differences in different locations. The study by Gupta *et al.*, (2013) investigated the knowledge about HIV/AIDS among secondary school students and it was revealed in the finding of the study that about 85% of the students sourced their information on HIV and AIDS from the television. Similarly, as it relates to the knowledge about modes of transmission of HIV/AIDS among girl students, 95.1% of them told that it is through unprotected sex while 75.8% of the students said that it was transmitted from mother to child. On the other hand, Adeleke *et al.*, (2015) investigated HIV/AIDS awareness among secondary schools' adolescents in south-western Nigeria and the result of the study showed that while two-third (209, 63.0%) of the respondents were females, majority of the participants (296, 91.9%) were quite aware of HIV/AIDS and about a quarter (79, 24.2%) of them have had sexual encounter. Similarly, it was revealed that majority of them (213, 64.9%) discussed their sexual matters with their parents. Ayodele and Ayodele (2016) investigated urban-rural differentials in HIV/AIDS knowledge of Nigerian senior secondary school students and showed significant urban-rural and gender differences in students' HIV/AIDS knowledge. The result of the study also showed that urban students had higher mean scores, indicating higher level of HIV/AIDS knowledge and similarly, urban female students had higher knowledge mean score compared to their male counterparts.

Furthermore, Yadav *et al.*, (2011) investigated awareness of HIV/AIDS among rural youth in India and the result of the study showed that basic knowledge of HIV/AIDS was still lacking in two-fifths of the rural youths in the study area. Similarly, Zhang *et al.*, (2019) conducted a study on awareness of HIV/AIDS and its routes of transmission as well as access to health knowledge among rural residents in Western China and it was revealed in the result of the study that there was a statistically significant differences between subgroups classified by age, education, occupation and income and this was also due to the per capita annual net income of rural households according to province. On their part, Edeh *et al.*, investigated awareness and attitude of senior secondary school students towards HIV/AIDS risk factors

and preventive measures in Ebonyi State, Nigeria and pointed out in its findings that senior secondary school students were aware of HIV/AIDS risk factors and do have a positive attitude toward such HIV/AIDS risk. The study also showed that there was no significant difference in the mean responses of male and female students on attitude and preventive measures towards HIV/AIDS risk factors in the study area. Also, there was no significant difference in the mean responses of urban and rural senior secondary school students on awareness of HIV/AIDS risk factors and attitude towards the risks factors in the study area. All of these studies reveal the differences that existed in the level of awareness on HIV and AIDS among adolescents as well as its implications if not adequately managed.

**Aim and Objectives of the Study**

The aim of the study was to investigate socio-demographic differences in HIV and AIDS awareness among secondary school adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State. Specifically, the objectives of the study were to:

1. determine the gender differences in HIV and AIDS awareness among secondary school adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State
2. ascertain the location differences in HIV and AIDS awareness among secondary school adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State

**Hypotheses**

The following hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in HIV and AIDS awareness between male and female secondary school adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State
2. There is no significant difference in HIV and AIDS awareness between urban and rural secondary school adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State?

**METHODOLOGY**

Design adopted in the study was ex-post facto design. The population of the study consisted of 8,158 students in Senior Secondary schools (I &II) in 14 schools in Obio/Akpor and 21 schools in Emohua LGAs of Rivers State respectively (**Source:** Rivers State Senior Secondary Schools Board, 2014/2015). The sample size for the study was 653 students which was 8% of the entire 8,158 students and they were drawn using disproportionate stratified random sampling technique across the strata of gender (male and female) and location (urban and rural). The instrument used for collection of data was questionnaire titled “HIV and AIDS Awareness scale (HAAS) which was developed by Clarke in 2011. The instrument was face, content and constructs validated using factor analysis while Cronbach alpha was used to determine the reliability of the questionnaire with values of  $r = .81$  and  $r = .82$  for the two clusters of the instrument. The hypotheses were tested using z-test statistics at 0.05 level of significance.

**RESULTS**

**Hypothesis One:** There is no significant difference in HIV and AIDS awareness between male and female secondary school adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State

**Table 1: z-test analysis of the gender difference in HIV and AIDS Awareness among Secondary School Adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State**

Gender	n	Mean	SD	df	z-cal.	z-crit.	Level of Significance	Decision
Male	91	25.2747	3.15195	598	30.74	1.96	0.05	Rejected
Female	509	31.7878	5.25100					

In table 1, it was revealed that the value of z-cal. was 30.74 while the value of z-crit. was 1.96 at 598 degrees of freedom and 0.05 level of significance. Therefore, since the value of z-cal. of 30.74 was more

than the value of z-crit. of 1.96, the null hypothesis was rejected and the alternative hypotheses upheld that there was a significant difference in HIV and AIDS awareness between male and female secondary school adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State.

**Hypothesis Two:** There is no significant difference in location in HIV and AIDS awareness among secondary school adolescent in Obio/Akpor and Emohua Local Government Areas of Rivers State

**Table 2: z-test Analysis of the Location Difference in HIV and AIDS Awareness among Secondary School Adolescents in Obio/Akpor and Emohua Local Government Areas of Rivers State**

Location	n	Mean	SD	df	z-cal.	z-crit.	Level of Significance	Decision
Urban	306	34.2255	3.41906	598	41.86	1.96	0.05	Rejected
Rural	294	27.2347	4.98558					

Table 2 showed that the value of z-cal. was 41.86 while the value of z-crit. was 1.96 at 598 degrees of freedom and 0.05 level of significance. Furthermore, since the value of z-cal. of 41.86 was more than the value of z-crit. of 1.96, the null hypothesis was rejected indicating that there was a significant difference in location in HIV and AIDS awareness among secondary school adolescent in Obio/Akpor and Emohua Local Government Areas of Rivers State.

## DISCUSSION OF FINDINGS

### Differences in Gender on Awareness of HIV and AIDS awareness among secondary school adolescent in Obio/Akpor and Emohua Local Government Areas of Rivers State

Based on the z-test statistics analysis in the study, the hypothesis revealed that there was significant difference between male and female adolescents in HIV and AIDS awareness among secondary school adolescent in Obio/Akpor and Emohua Local Government Areas of Rivers State. This finding agrees with the outcome of a related study conducted by Adeleke *et al.*, (2015) which indicated that while two-third (209, 63.0%) of the respondents were females, majority of the participants (296, 91.9%) were quite aware of HIV/AIDS and about a quarter (79, 24.2%) of them have had sexual encounter. Similarly, it was revealed that majority of them (213, 64.9%) discussed their sexual matters with their parents. These findings tend to suggest that HIV and AIDS awareness level was higher among female adolescents than their male counterparts. This is not surprising as the increasing rate of sexual crime against female children in recent time suggests that female adolescents and children are more prone to sex related issues and as such have more awareness on sex related issues including HIV/AIDS than their male counterparts.

The result of the study revealed that there was a difference between the male and female adolescents in their knowledge of HIV and AIDS. Several international studies have also shown that nearly half of all people infected with HIV and AIDS are women but now have been reduced because of the level of awareness of HIV and AIDS. Similar study by Health Digest (2002) also recorded that out of 1,400 female students, 1000 of them were aware of HIV and AIDS while out 1,030 male students, 200 of them know about HIV and AIDS. Supporting this assertion, Gupta *et al.*, (2013) in their findings reported that about 85% of the students sourced their information on HIV and AIDS from the television. Similarly, as it relates to the knowledge about modes of transmission of HIV/AIDS among girl students, 95.1% of them told that it is through unprotected sex while 75.8% of the students said that it was transmitted from mother to child. This suggests that female students may also be more inquisitive than male students and as such seek for information on HIV and AIDS either for knowledge acquisition or for personal safety.

However, in a different perception, the study by Edeh *et al.*, (2021) showed that although senior secondary school students were aware of HIV/AIDS risk factors and do have a positive attitude toward such HIV/AIDS risk. The study showed that there was no significant difference in the mean responses of male and female students on attitude and preventive measures towards HIV/AIDS risk factors in the study area. Similarly, there was no significant difference in the mean responses of urban and rural senior

secondary school students on awareness of HIV/AIDS risk factors and attitude towards the risks factors in the study area. This finding suggests that aside the knowledge acquired in the school environment, the life of students outside the school environment may also play an important role in their level of HIV and AIDS in the study area.

#### **Difference in Location on Awareness of HIV and AIDS awareness among secondary school adolescent in Obio/Akpor and Emohua Local Government Areas of Rivers State**

The z-test statistics used to test hypothesis two showed that there was a significant difference between students in rural area and students in urban areas in their HIV and AIDS awareness. The study showed that there was a significant difference between students in rural areas and students in urban areas on their level of awareness on HIV and AIDS in both Obio/Akpor and Emohua Local Government Areas of Rivers State. This finding agrees entirely with a similar study by Ayodele and Ayodele (2016) which showed that urban students had higher mean scores, indicating higher level of HIV/AIDS knowledge and similarly, urban female students had higher knowledge mean score compared to their male counterparts. The life of urban students may have given them more exposure to information on HIV/AIDS than students in the rural areas. The lack of access to information sources may account for the low level of awareness among rural students.

Supporting this perception, Yadav *et al.*, (2011) in their study showed that basic knowledge of HIV/AIDS was still lacking in two fifths of the rural youths in the study area. This means that it is not all students in the rural areas that are lacking in knowledge on the issue of HIV/AIDS but their level of knowledge simply differ. The access to information is what creates the difference in their level of awareness and not necessarily their location. This position was also substantiated by the finding of the study by Zhang *et al.*, (2019) which indicated that there was a statistically significant difference between subgroups classified by age, education, occupation and income and this was also due to the per capita annual net income of rural households according to province. Therefore, it is not the location of the students that reduces their level of awareness but their exposure to information sources. Therefore, providing all students to relevant information sources will go a long way to increase their level of awareness about HIV/AIDS whether in urban or rural areas.

#### **CONCLUSIONS**

The following conclusions were made based on the findings of the study:

1. The awareness of male students on HIV and AIDS differ significantly from that of the female students in secondary schools in Obio/Akport and Emohua Local Government Areas of Rivers State.
2. There was a significant difference in HIV and AIDS awareness between students in the urban and those in the rural areas in Obio/Akpor and Emohua Local Government Areas of Rivers State.

#### **RECOMMENDATIONS**

The following recommendations were made based on the findings of the study:

1. It is important for peer educators on the issues of HIV and AIDS to allot separate period for boys and girls during their enlightenment programmes in secondary schools in the study area to improve on the level of awareness of these students on HIV and AIDS in their localities.
2. they can share information on vital educational and non-educational issues that will keep them abreast The government should ensure that good roads and other social amenities are provided in rural areas counselors should be posted to public schools in the rural areas so as to provide students with opportunity to acquire relevant information on the issue of HIV and AIDS as it affects members of the public.
3. Students should be exposed to interactive sessions irrespective of their gender and location where with basic issues affecting their lives in and outside the school environment.

## REFERENCES

- Adeleke, I. T., Azeez, B. A., Aliyu, D., Ogundiran, L. M., Salami, A. & Adeoye, W. A. (2015). HIV/AIDS awareness among secondary schools' adolescents in south-western Nigeria: A correlate to strengthen advocacy and strategic sexuality education programs. *American Journal of Health Research*, 3(1), 61-67
- Ayodele, O. & Ayodele, O.M. (2016). Urban-rural differentials in HIV/AIDS knowledge of Nigerian senior secondary school students: *International Journal of Health Sciences*, 4(3), 35-41
- Bruyn, M. (1995). *Facing the challenges of HIV and AIDS/STDS: A gender based response*. Royal Tropical Institute
- Edeh, N. C., Nwaubani, O. O., Eseadi, C., Ogidi, C. I. & Offor, C. C. (2021). *Awareness and attitude of senior secondary school students towards HIV/AIDS risk factors and preventive measures in Ebonyi State, Nigeria*.  
<https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=9962&context=libphilprac>
- Federal Republic of Nigeria (2012). *Global AIDS response progress report*.  
<https://www.unaids.org/sites/default/files/country/documents/Nigeria%202012%20GARPR%20Report%20Revised.pdf>
- Gupta, P., Anjum, F., Bhardwaj P., Srivastav, J. P. & Zaidi, Z. H. (2013). Knowledge about HIV/AIDS among secondary school students: *North American Journal of Medical Science*, 5(2), 119-123
- Health Digest (2002). AIDS: Is there a cure? *Health Digest*, 2, 23
- Santrock, J. W. (2005). *Adolescence*. The McGraw-Hill Companies Inc.
- United Nations Development Programme (2013). *Human development report: The rise of the south human progress in a diverse world*. <http://hdr.undp.org/en/en/content/human-development-report-2013>
- Yadav, S. B., Makwana, N. R., Vadera, B. N., Dhaduk, K. M. & Gandha, K. M. (2011). Awareness of HIV/AIDS among rural youth in India: A community based cross-sectional study. *The Journal of Infection in Developing Countries*, 5(10), 711-716
- Zhang, T. Miao, Y., Li, L. & Bian, Y. (2019). Awareness of HIV/AIDS and its routes of transmission as well as access to health knowledge among rural residents in Western China: A cross-sectional study. *BMC Public Health*, 19, 1630