# Socio-Demographic profile of People Living with HIV/AIDS (PLWAs) in Port Harcourt, Nigeria

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\*Ifeyinwa Chijioke-Nwauche, \*\*Yetunde Akani

Departments of \*Clinical Pharmacy and Management, Faculty of Pharmaceutical Sciences, University of Port Harcourt and \*\*Medical Social Services, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria.

#### ABSTRACT

#### **BACKGROUND**

AIDS is one of the important health problems facing developing countries particularly in sub-Saharan Africa. It constitutes a major public health threat responsible for morbidity and mortality in these areas. It is a debilitating disease of profound immunosuppression produced by chronic infection with human immunodeficiency virus (HIV) and if not treated exposes the person to a myriad of opportunistic infections. HIV/AIDS is generally regarded as a social disease because of its mode of transmission and the associated lifestyle involved. The study was designed to evaluate the socio-economic profile of People Living with HIV/AIDS (PLWAs) in Port Harcourt, Rivers State, Nigeria.

#### **METHODS**

Structured questionnaires were used to collect socio-economic characteristics of demographic information from recruited participants who were attendees of HIV adult clinics at two hospitals in Port Harcourt, Nigeria.

# **RESULT**

A total of 145 people completed the study. There were 46 (31.7%) males and 99 (68.3%) females. Data collected showed that age, sex, marital status, education are important factors associated with the characteristics of people living with HIV/AIDS in Port Harcourt, Nigeria.

#### **CONCLUSION**

There is need for continuous evaluation/monitoring of these characteristics in PLWHA to assess the improvement of socio-economic factors that influence HIV spread in the environment.

KEYWORDS: Socio-economic; Profile; People living with HIV/AIDS,

Correspondence: Dr I. Chijioke-Nwauche email:eleloheisraelify@yahoo.com

#### INTRODUCTION

HIV/AIDS is one of the most common and important health problems facing developing countries and one of the most common infections in sub-Saharan Africa<sup>1</sup>. It constitutes a major public health threat responsible for morbidity and mortality in these areas.

HIV/AIDS accounted for the deaths of 2 million people in 2007 with 2.7 million new infections of which 1.9 million occurred in sub-Saharan Africa<sup>2</sup>. A more current report<sup>3</sup> showed that in 2010, about 34million people were living with HIV/AIDS with 2.7million are new infections. The greatest burden of HIV/AIDS is in sub-Saharan Africa with an estimated population of 22.9million comprising (68%) of infected people globally.

Nigeria has the burden of 3.5million infected persons, the third highest in the world<sup>4</sup>. Currently an estimated 3.1 million people are

living with HIV/AIDS with a National prevalence of 4.1% 5. Nigeria has the second highest number of new infections yearly; is ranked second in the number of people living with HIV/AIDS after South Africa and accounts for about 9% of the global HIV burden<sup>5</sup>

The heterosexual route accounts for about 80% of HIV transmission in Nigeria. Other routes of transmission are blood transmission and mother to child transmission which accounts for about 360,000 children with HIV. In settings as obtained in Nigeria, where heterosexual transmission is common, women are more likely to be affected in the epidemic thereby increasing the burden of mother to child transmission. The high prevalence of HIV in women of reproductive age has led to a growing population of HIV-infected and affected children. It is estimated that one HIVpositive child is born every five minutes, in Nigeria<sup>6</sup>. The prevalence of HIV in the 36 states of Nigeria shows Benue state to be on top of the ladder while Kebbi was on the lowest pedals. Rivers state which is our study area is on the 10th position<sup>7</sup>.

The impact of HIV/AIDS in Nigeria is profound and multifaceted ranging from healthcare, political and social instability but the greatest impact is on the economy because HIV/AIDS attacks people mostly in their productive years and in resource-limited countries it is usually fatal. HIV fosters and promotes poverty, destabilizes the family structure and takes a great toll on the nation's economy. The major effects on the economy are seen on the increased costs and reduction in labour supply. This is particularly evident in agriculture which is the primary source of activity of the Nigerian population occupying about 45% of the employed labour force<sup>8</sup>. The indirect costs of HIV/AIDS include lost time due to illness, recruitment and training and cost to replace workers and care of orphans. Approximately 54% of annual income of an affected household is estimated to be spent on HIV and this involves income losses due to sickness and out-of-pocket expenses on

healthcare<sup>9</sup> Personal cost is estimated to be over 200% of household expenditure and include expenses on antiretroviral drugs (ARVs), other drugs (e.g for opportunistic infections), laboratory tests and investigations<sup>10</sup>. Another important burden of HIV/AIDS is the managing the interaction with malaria which is equally endemic in Nigeria and presents the challenge of drugdrug interactions<sup>11</sup>.

Due to the debilitating impact of HIV/AIDs and its effect on the economy and public health sector of Nigeria; there is need for a continuous monitoring of the factors that predispose to increased prevalence and incidence of HIV in the country. The evaluation and monitoring of socio-economic and demographic indices is also an important step in improving the quality of life of People living with HIV/AIDS (PLWAs). Consequently the monitoring of the HIV/AIDS epidemic has thus become extremely significant not only for the purpose of assessing the magnitude and spread of the problem, but also for the purpose of planning and designing appropriate and relevant intervention strategies<sup>12</sup>. Several social and economic factors have been associated with the spread of HIV/AIDS<sup>13,14</sup> in many places. The objectives of the study therefore were to assess the socio-demographic and cultural factors among PLWA in Rivers State in order to find out possible ways that will help reduce the spread or increased vulnerability of people to HIV/AIDS.

#### Materials and methods

A total of 145 respondents made up of 100 females and 45 males aged 20-66 years with previously confirmed HIV infection attending either the University of Port Harcourt Teaching Hospital (UPTH) and the Braithwaite Memorial Specialist Hospital (BMH) adult HIV clinics both in Port Harcourt, Nigeria were recruited in the study. Subjects were consecutively sampled as they presented over the period of the study. Permission for the study was obtained from the Ethics Committee of the University of Port Harcourt Teaching Hospital (UPTH) Port

Harcourt, the Braithwaite Memorial Specialist Hospital (BMH), Port Harcourt and also the London School of Hygiene and Tropical Medicine, London.

The study was carried out in two sites; the University of Port Harcourt Teaching Hospital (UPTH) and the Braithwaite Memorial Specialist Hospital (BMH) both in Port Harcourt, Nigeria. The study was conducted from September 2010 to September 2011. Self-administered structured questionnaires were given to each participant to obtain their family and social history or any clinical history that may be of importance.

#### Study area

Port Harcourt is the capital of Rivers State. It lies along the Bonny River in the Niger Delta 41 miles upstream from the Gulf of Guinea, rich in the nation's oil resources. The region is dotted with oil and gas activities which attract many foreigners and migrant workers and commercial sex workers follow the camp<sup>15</sup>. These socio-economic conditions contribute to a high seroprevalence of HIV infection (6.0%) which is higher than the national prevalence 7

## Statistical Analysis

All data collected were entered into spread sheets and analysed in STATA version 11 (Stata Corp., Madison WI). Continuous variables that were normally distributed were analysed using student t-test while those that were not normally distributed and continuous data were analysed using Wilcoxon's rank sum test.

#### RESULTS

The age of  $119\,(82.1\%)$  were obtained out of 145 participants. The mean age of study participants was 37.93 years in the range of 22-66 years (Table 1). The age group with the highest number of participants was 30-39 year group with a percentage of 39.5%, while the age group of >60 years had the lowest number 2.1% (Figure 1).

A high percentage 78% (113) of the study participants have been diagnosed as positive

for greater than two years and many of them (56.7% (82%) have been on anti-retroviral therapy for more than two years. The baseline characteristics of study population are summarised in Table 1.

A higher proportion of our study subjects were female from the demography of the study as shown in Table 1.

The survey of the occupation of our HIV participants revealed that the highest prevalence of HIV was found in traders (25.4%) followed by business men/women (22%) and least in housewives (1.7%). Other group of people with relatively high prevalence were junior civil servants and unemployed people (Fig.2).

The distribution of subjects based on their marital status is a shown in Figure 3. A higher percentage of our study participants were married (47.1%) while the single were 33.2%.

With regards to education level of the participants, the result shows that a greater percentage (48.2%) of our study participants were those with secondary education, while those with primary and tetiary education were (23.2%) and (28.6%) respectively (Fig. 4).

**Table 1:** Baseline characteristics of study population

	N	Male	Female
	(Range/Mean/ SD)		
No. screened	145	46 (31.7%)	99 (68.3%)
Mean age (yrs)	37 (22-66)	43	39
Mean Wt (Kg)	67 (40.92±)	71	65

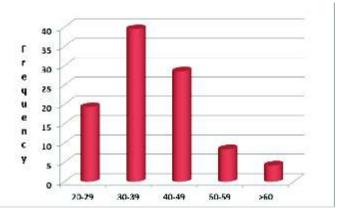


Figure 1: HIV status and age distribution

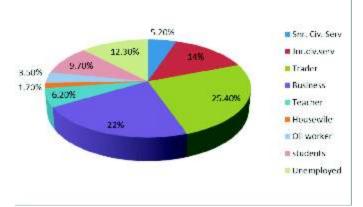


Figure 2: Distribution of Occupation among the study participants

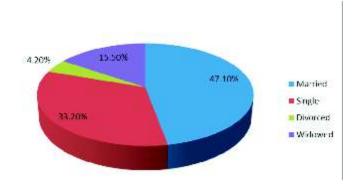


Figure 3: Marital status of study participants

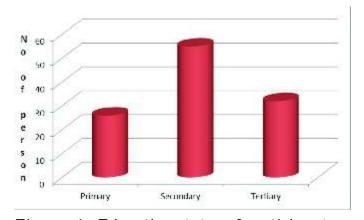


Figure 4: Education status of participants

#### **DISCUSSION**

Our participants were predominantly females consistent with demographics of HIV/AIDS with many published reports<sup>16-18</sup>. They were comprised of 69.3% females and 30.7% males. This agrees with the report<sup>19</sup> of higher prevalence among women due to higher vulnerability and infections in all age groups. One of the key drivers in HIV distribution is the entrenched danger of inequalities and inequities. This is often seen in the areas of economic dependency for women, because in most societies men have greater control and access to productive resources<sup>20</sup>. As a result of this, women do not have right to determine sex choice or right over her own body. In sub-Saharan Africa, 61% of the people living with HIV/AIDS are women<sup>21</sup>. This is visibly seen as the feminization of AIDS where for every HIVpositive young man, there are three HIVpositive young women. Reports have shown that a young woman in Africa is up to eight times more likely to acquire HIV than a young man (UNAIDS, 2010). In Nigeria the prevalence rate in females is 4.0% compared to 3.2% in men 20. The other aspect of this imbalance is seen in the area of violence against women and girls which include forced sex, rape, forced marriages, physical assault and humiliation or intimidation<sup>22</sup>.

Demographic data obtained from the present study, reveals highest prevalence of HIV in the age range 30-34 years corresponding to the NACA, UNGASS, (2010) report that HIV/AIDS was highest in the age range 30-34 years in the urban region. This was also established in the HIV/AIDS prevalence disaggregated age and sex report with the highest prevalence in the age group 30-39 in both males and females 19 in consonance with the results obtained.

On the basis of questionnaire responses, our observation is that education has an influence on the serostatus of our HIV-positive subjects. The influence of education as seen from the result is an important factor that should be addressed with regards to the spread of HIV. The result shows that a greater percentage

(54%) of our HIV study participants were those with secondary education. National results report that highest prevalence of HIV in women is found among those with primary and secondary education<sup>23</sup>. This class of people are junior workers and mostly commute between the villages and the city since they may not be able to maintain their families in the city. This invariably exposes them to higher sexual risk behaviour. The females in this group are not able to determine sex choice because of economic dependence on the men and societal pressure. Also they are more likely to be uninformed of the health facilities available to them. In the paper on stigmatisation and HIV, Onah<sup>24</sup> recommends education for in-depth knowledge of HIV and AIDS from primary to tertiary institutions among others.

Migration in addition to some other factors has been reported as one of the key driving factors of HIV 17, 25. Traders and business people by the nature of their occupation are migrants so they are more exposed to HIV. The report<sup>26</sup> of higher vulnerability of female fish traders in Zambia to HIV, due to the fact that they regularly travel to remote fishing camps to purchase fish, highlights this issue. In Malawi, AIDS is believed to have spread along major trading and transporting centres<sup>27</sup>. Another group of people who are migratory are students. The slightly high prevalence among the students is indicative of this lifestyle. HIV/AIDS is a disease that is driven by poverty and this explains why the unemployment is a major contributing factor to increased HIV prevalence. The data shows that the junior civil servants and the unemployed group in this study also have relatively high prevalence and this is consistent with the 3.1% prevalence of HIV infection among unemployed individuals previously reported in Port Harcourt, Nigeria<sup>28</sup>.

Significant continued unfaithfulness by both partners in the marriage relationship is a major factor that exposes both partners to increased risk of HIV, hence the higher prevalence seen among married people. This is

inter-related to the economic dependence of women on their husbands for sustenance thereby not being able to determine sex choice even where unfaithfulness is very evident. The cultural aspect of polygamy in the society places additional pressure on the women resulting to 'inbreeding' within the family and spread of HIV in the society. The relatively high number of widowed people in the group is a further indication of the consequences of this lifestyle in the society. Analysis of our data revealed that many of the widowed participants lost their husbands through HIV thereby underlining the influence of unfaithful lifestyle among the married men and consequent vulnerability of their spouses. Observation from the study shows that a greater majority of our HIV subjects (77.7%) have been established as being HIV positive for longer than two years and thereby many of them have been on long-term ARV therapy, the longest duration of the persons on ARV being greater than two years (56.7%).

#### **CONCLUSIONS**

The results of this study have revealed the socio-economic profile of PLWHA in Port Harcourt. Key drivers like education, poverty, marital status, age that play relevant roles in HIV prevalence have been highlighted from this study. There is need for evaluation, monitoring of these characteristics in PLWHA and more aggressive awareness and enlightenment campaigns against the sociocultural and socio-economic factors that promote HIV spread in our environment. The information obtained from the study contributes to the demographic data available in the assessment of HIV/AIDS in the region.

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