

# Assessment of Knowledge, Perception and Attitude of People Living With HIV/AIDS toward HIV/AIDS in Maiduguri, Northeast-Nigeria

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## Citation

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## Abstract

The aim of this study was to assess the knowledge, perceptions and attitude of people living with HIV/AIDS (PLWHA) toward some important HIV/AIDS issues in University of Maiduguri Teaching Hospital, a tertiary health facility in Northeast Nigeria. A structured self administered questionnaire was used as instrument. It consisted of both closed and open ended questions and was used to assess demographic information of PLWHA, mode of information of HIV status, knowledge of HIV transmission, practices and perception toward HIV/AIDS and HIV-related stigma and discrimination by health care workers, family members and acquaintances. Findings show that most of the respondents (50%) were within the age group of 15-34 years. Majority (55%) knew their HIV status through voluntary HIV counseling and testing while in some (36%) when they took ill. About 78% have a good knowledge of the cause of HIV/AIDS as well as its routes of transmission (90%), but some (35%) believed that HIV/AIDS is a punishment from God. About 59% and 62% respectively believe that kissing and sharing of cutlery can transmit HIV. Results also revealed that almost 80% of the respondents have likeness for condom use during sex as against 39% who indicated that they sometimes have unprotected sex despite being aware of their own HIV status. Concerning sharing information about their status with their partners, about 42% of them are yet to make the disclosure. When asked about positive living, 63% responded in affirmative but 21% sometimes feel like passing the infection to others. A few PLWHA ( $\leq 10\%$ ) indicated experiencing denied treatment, hospital admission and breach of confidentiality stigma and discrimination among healthcare workers, while 21% feel dejected due to rejection by family members and friends. Counseling effort need to be intensified to inculcate positive attitude and practices in PLWHA and to guard them against spreading the disease. Enactment of stigma and discrimination laws will go a long way to curtail issues of stigma and discrimination in the community and health institution.

## INTRODUCTION

In Nigeria, 3.6 percent of the estimated population is living with HIV and AIDS (UNGASS, 2010). Although HIV prevalence is lower in Nigeria than in other sub-Saharan African countries such as South Africa and Zambia, the size of Nigeria's population (around 162.5 million) greatly magnifies the burden of infection in the populace. As at the end of 2009, Joint United Nations for HIV/AIDS (UNAIDS) reported that there were an estimated 2.98 million people living with HIV in Nigeria out of the 22.5 million in Sub-Saharan Africa. This placed Nigeria second to South Africa having the highest number of people living with HIV globally (UNAIDS, 2010). Recently, Nigeria has been reported to have the highest number of new infections each year (WHO/UNAIDS (2011).

The three main HIV transmission routes identified in Nigeria include heterosexual sex, blood transfusion and mother-to-child transmission (MTCT) (Adeyiet al., 2006; Egesie and Egesie, 2011; WHO, 2011). Among these routes, about 80-95 percent are as a result of heterosexual sex (Adeyiet al., 2006). Those factors that contribute to this high rate of infection include inadequate information about sexual and reproductive health issues, low levels of condom use, high levels of sexually transmitted diseases, stigma and discrimination and low self-risk perception among the most-at-risk persons (MARPS) (PHR plus, 2004, NAHRS, 2007). HIV transmission through unsafe blood accounts for the second largest source of HIV infection in Nigeria (Egesie and Egesie, 2011) while, an estimated 360,000 children are living with HIV in Nigeria, most of whom became infected from their mothers (UNAIDS, 2010). This

figure gives more than 50% increase from that reported in 2007(UNAIDS, 2008).

Although HIV/AIDS awareness among the general population in Nigeria is documented as about 94%, knowledge of all the routes of transmission and two methods of prevention have remained low (54% and 52.5% respectively) (NARHS, 2007). In addition, NARHS report of 2007 documents that the use of condoms in the last sex act was low even as heterosexual route remains the main mode of spread of HIV in Nigeria.

In Northeast Nigeria, females were reported with sexual debut at the median age of 15 and were among the lowest compared to other zones in the country. However, very few male and female (8.7% and 7.1% respectively) in Northeast Nigeria had ever tested for HIV, and this is among the lowest in the country (NARHS 2007).

The aim of this study was to assess the knowledge, perceptions, attitude of people living with HIV/AIDS (PLWHA) toward some important HIV/AIDS issues in Maiduguri, Northeast Nigeria.

## SUBJECTS AND METHODS

### STUDY POPULATION STUDY DESIGN

This study was carried out among people living with HIV/AIDS (PLWHA) attending the Presidential Emergency Program for AIDS Relief (PEPFAR)-antiretroviral therapy (ARV) clinic, University of Maiduguri Teaching Hospital. Quantitative survey technique was carried out using a structured self-administered questionnaire. The questionnaire consisted of both closed and open ended questions which were administered to the respondents on first come first served basis. Interpreters were used to translate the questions into local languages where necessary. Of the 200 subjects that consented to participate in the study were administered with questionnaires, only 185 responded. The questionnaires which were self completed by the respondents were subdivided into sections to assess knowledge, perception and attitude of PLWHA towards HIV and AIDS issues. Ethical clearance was received from the ethical committee of the hospital data generated from respondents were presented in frequency tables for analysis.

## RESULTS

Of the 200 questionnaires were distributed to respondents and a total of 185 were returned indicating 93% response rate.

**Table 1**

Bio-data of People Living With HIV/AIDS in Maiduguri

| Items                        | No. (%)  |
|------------------------------|----------|
| <b>Age Range (yrs)</b>       |          |
| 15 - 34                      | 92 (50)  |
| 35 - 54                      | 81 (44)  |
| 55 and above                 | 12 (6)   |
| <b>Sex</b>                   |          |
| Male                         | 73 (39)  |
| Female                       | 112 (61) |
| <b>Marital Status</b>        |          |
| Single                       | 38 (21)  |
| Married                      | 76 (41)  |
| Divorced                     | 22 (12)  |
| Separated                    | 15 (8)   |
| Widowed                      | 34 (18)  |
| <b>Religious affiliation</b> |          |
| Christianity                 | 73 (39)  |
| Islam                        | 108 (58) |
| Traditional                  | 4 (2)    |
| <b>Occupation</b>            |          |
| Civil Servant                | 55 (30)  |
| Farmer                       | 9 (5)    |
| Business                     | 49 (26)  |
| House Wife                   | 10 (5)   |
| Job seeker                   | 32 (17)  |
| Student                      | 30 (16)  |

Demographic information of PLWHA indicated in Table 1, shows that majority of the respondents (50%) were within the age group of 15-34 years, while the least (6%) were in the age group of 55 years and above. A greater proportion of the respondents were female (61%) while male accounted for only 39%. The married (41%) were more than single (21%) and separated subjects (8%).

Majority of the respondents were Moslems (58%) while traditional believers were the least (2%). Also, civil servant were the majority of the PLWHA respondents (30%) closely followed by those in business (26%). Farmers were the least (5%).

**Table 2**

Mode of Discovery of HIV Status among PLWHA respondents

| Responses  | Frequency  | Percentage |
|--|------------|------------|
| Sickness   | 67         | 36         |
| Voluntary HIV counseling and testing             | 101        | 55         |
| Mandatory testing without Counseling and consent | 17         | 9          |
| <b>Total</b>                                     | <b>185</b> | <b>100</b> |

Table 2 shows that majority of the respondents (55%) knew their HIV status through voluntary HIV counseling and testing followed by those who knew their status when they were sick (36%) and through mandatory HIV testing, 9%.

**Table 3**

Knowledge of HIV/AIDS among People Living With HIV/AIDS (n=185)

| General knowledge:                          |         |         |       |
|---|---------|---------|-------|
| AIDS is caused by microbes                  | 81(51)  | 146(79) | 11(6) |
| AIDS is caused by a virus (germ)            | 167(90) | 13(7)   | 5(3)  |
| AIDS is punishment from God                 | 65(35)  | 115(62) | 5(3)  |
| Transmission of HIV:                        |         |         |       |
| STI increases the risk                      | 178(96) | 4(2)    | 3(2)  |
| Sexual intercourse                          | 170(92) | 15(8)   | -     |
| Infected partner(s)                         | 61(37)  | 19(10)  | 5(3)  |
| Transfusion of infected blood               | 174(94) | 8(4)    | 3(2)  |
| Used needles and syringes                   | 177(96) | 6(3)    | 2(1)  |
| Mother to child in the womb                 | 167(90) | 18(10)  | -     |
| Mother to child during delivery             | 181(98) | 3(2)    | 1(1)  |
| Mother to child through breast              | 179(97) | 5(3)    | 1(1)  |
| Coughing and sneezing                       | 38(21)  | 143(77) | 4(2)  |
| Sharing of cups                             | 5(3)    | 166(90) | 14(7) |
| Using public bathrooms                      | 11(6)   | 162(88) | 12(6) |
| Through toilet seat                         | 8(4)    | 175(95) | 2(1)  |
| Through kissing                             | 115(62) | 67(36)  | 3(2)  |
| Through hand shake                          | 10(5)   | 166(90) | 9(5)  |
| Sharing of towels and                       | 5(3)    | 176(95) | 4(2)  |
| Sharing of cutlery                          | 109(59) | 70(38)  | 6(3)  |
| Eating with PLWHA                           | 7(4)    | 178(96) | -     |
| Sleeping together with PLWHA                | 12(6)   | 173(94) | -     |
| HIV infected persons can live a normal life | 101(55) | 73(39)  | 11(6) |

Table 3 shows knowledge of HIV/AIDS indicated by the respondents. Majority of them (78% – 90%) have a good knowledge of the cause of HIV/AIDS. However, 35% believed that HIV/AIDS is a punishment from God. More than 90% of the PLWHA have good knowledge of the conventional HIV transmission routes including mother-to-child transmission. However, 59% and 62% respectively believes that kissing and sharing of cutleries with can also transmit HIV and one-half of the respondents knew that HIV infected persons can live a normal life.

**Table 4**

Practice of People Living With HIV/AIDS towards HIV/AIDS issues

| Items  | Yes (%) | No (%)  |
|--|---------|---------|
| Do you like using condom during sex?                                   | 147(79) | 38(21)  |
| Ever since you knew your HIV status, have you had any unprotected sex? | 73(39)  | 112(61) |
| Do you collect your drugs regularly?                                   | 154(83) | 31(17)  |
| Do you take your drugs regularly?                                      | 170(92) | 15(8)   |
| Do you adhere to the recommended dosage?                               | 140(76) | 45(24)  |
| Do you come for your follow-up regularly?                              | 173(94) | 12(6)   |
| Do you like drinking beer/alcoholic beverages?                         | 57(31)  | 128(69) |
| Have you told any confidant of your HIV status?                        | 112(61) | 73(39)  |
| Have you told your partner of your HIV status?                         | 107(58) | 78(42)  |

Table 4 shows some of the practices of PLWHA towards

important HIV/AIDS issues. Majority of the respondents exhibited good sexual practices toward important issues of HIV/AIDS. For instance, almost 80% of the respondents indicated likeness for condom use during sex. However, 39% indicated they sometimes have unprotected sex despite having knowledge of their own status and about 42% of them are yet to tell their partners of their HIV status. On practices that concern adherence to ARV medications, more than 80% collect and take their medications regularly

**Table 5**

Perception of People living with HIV/AIDS toward HIV/AIDS and HIV- related stigma and discrimination (n=185)

| Items   | Yes (%) | No (%)  |
|---|---------|---------|
| Perception toward their positive status   |         |         |
| Do you mix freely with people ever since your <del>Sex</del> status was discovered?           | 53 (29) | 132(71) |
| Can you declare your HIV status in public?  | 75 (41) | 110(59) |
| Are you living positively with your status?   | 117(63) | 68(37)  |
| Do you feel unhappy most times because of your status?  | 83(45)  | 102(55) |
| Do you sometimes feel like passing the infection to another person?                           | 39(21)  | 146(79) |
| Do you sometimes feel sure for HIV/AIDS should come soon?                                     | 120(65) | 65(35)  |
| Perception toward HIV-related stigma and discrimination                                       |         |         |
| Are your treatment services growing?  | 113(61) | 72(39)  |
| Have you ever been denied treatment by any health worker?                                     | 10(5)   | 175(95) |
| Have you ever been denied hospital admission due to your HIV/AIDS status?                     | 15(8)   | 170(92) |
| Were you teased without your consent?   | 19(10)  | 166(90) |
| Have you experienced any breach of confidentiality?   | 18(10)  | 167(90) |
| Have you experienced any inappropriate behavior/ comments from health workers?                | 21(11)  | 164(89) |
| Have you had restricted access to facilities like toilet, common eating and drinking utensil? | 14(8)   | 171(92) |
| Do you feel dejected and rejected by friends/family members?                                  | 38(21)  | 147(79) |

Table 5 shows the perception of PLWHA toward HIV/AIDS and HIV-related stigma and discrimination due to their status. A greater proportion of PLWHA had a positive perception toward their status. For instance, when asked if they live positively with their status, 63% responded in affirmative whereas 21% would not mind to pass the infection to others. However, about 55% and 60% respectively most times feel unhappy with their status and would not accept an open declaration of their HIV status. On the issues of HIV-related stigma and discrimination, generally, a few of the respondents (≤10%) indicated experiencing issues of stigma and discrimination among HCW such as denied treatment, hospital admission and breach of confidentiality. However, 21% of them

experienced dejection as a result of rejection by family members and friends.

## **DISCUSSION**

Results from this study revealed that one-half of the respondents were in the age group of 15-34 years. This is the sexually active age group which makes it desirable that they have good knowledge of HIV/AIDS else the contrary could be disastrous due to the strong association of HIV with sexual intercourse (UNAIDS 2004). More so, HIV-related deaths are higher among this age group especially those aged 25 to 34 years, normally an age group that is known with low mortality (Joint United Nations programme on HIV/AIDS, 2000).

Globally, about half of all cases of AIDS are reported to occur in women (World Health Organization, 2006). In the United States, HIV/AIDS among women has increased from 7% in 1985 to 27% in 2004 (Centers for Disease Control, 2005). In sub-Saharan Africa, about 60% of women are infected by HIV (World Health Organization, 2006). In this study, majority of the respondents were females (61%) as against 39% males. Since this was a hospital based study, the high number of female respondents could be attributed to the fact that women have better health seeking behavior than their male counterpart. This exposure and awareness of the status of women renders them more stigmatized and discriminated against than men and they are frequently assumed to be more promiscuous, irrespective of their sexual history (UNAIDS, 2001).

This study revealed that the magnitude of widowhood caused by loss of one partner as a result of HIV/AIDS emphasizes the importance of heterosexual transmission of HIV (FMOH 2005) among married infected or discordant couples. The significance of these findings underscores the need to intensify HIV prevention messages even among unsuspected spouses. Heterosexual transmission may be compounded by co-factors such as lack of information about sexual education and HIV, low level of condom use, low CD4 count and increasing viral load, and high levels of STI which make it easier for the virus to be transmitted (The Vanguard, 2005).

Cultural and religious beliefs have been a major barrier in reducing the spread of the HIV/AIDS. In this environment, discussions that border on sexual education with teenagers, particularly girls are seen as a taboo and indecent. This was observed by respondents and authors of this study and this could serve as a barrier to the fight against the scourge of HIV/AIDS. Until recently, there was little or

no sexual education for young people in the community and this has been a major barrier in reducing the prevalence of STI. According to the recent sentinel survey report, HIV prevalence in Maiduguri has increased by 10-fold from 1.0% in 2008 to 10.3% in 2010 (FMOH 2010).

The high level of knowledge of some HIV/AIDS issues observed in this study among majority of PLWHA could be attributed to the activities of awareness creation and education obtained by PLWHA accessing care at the PEPFAR clinic at the University of Maiduguri teaching hospital. However, similar level of knowledge had earlier been reported in the general population (NARHS 2007). Despite this observation, a reasonable percentage (35%) of PLWHA still believe that AIDS is a punishment from God, while some (15%) believe that AIDS is caused by witchcraft. Findings from this study also show that majority of PLWHA are aware of the conventional mode of HIV transmission. A low percentage (5% - 29%) believe that HIV infection can be transmitted through hand shake, use of public toilet seat, coughing and sneezing and mosquito bites. Even though only a few had misconception about the mode of HIV transmission in this study, it is still necessary to further intensify enlightenment campaign to educate the populace on the basic facts about HIV.

The attitude of healthcare workers toward PLWHA in this study did not indicate any serious effect on the respondents, although a few cases of breach of confidentiality, denied treatment and mandatory testing without consent were reported among 5%-10% of them. Many studies have shown that PLWHA have been maltreated by health care providers in several ways including withheld treatment, non-attendance of hospital staff to patients, HIV testing without consent, lack of confidentiality, inappropriate comments, inability to give news of HIV positive result and denial of hospital facilities and medicines (Vivo Positivo 2002; UNAIDS, 2004). Any of these acts is capable of having a significant psychological and physiological impact on the individual concerned and this may have affected many of the PLWHA concerned in this study. It is important for the hospital management to be more conscious of the existence of these possible forms of mal-treatment in the hands of health care workers and discipline erring staff to deter others. More care including psychosocial, pastoral and palliative as well as hospice care are important services for PLWHA.

Counseling effort needs to be intensified to inculcate positive attitude and practices among PLWHA in order to guard them against spreading the disease, and to overcome stigma and discrimination. Where there is proper knowledge

of the disease and adherence counseling, the client tends to have a more positive attitude towards the infection and accept to adhere to proper health care. Such practices will surely discourage negative behaviours such as PLWHA willing to have unprotected sex and transmission of infections to others in retaliation or revenge. Enactment of anti-stigma and discrimination laws will also go a long way to curtail issues of stigma in the community.

## References

- Adeyi O, Kanki P, Odutolu O, Idoko J. A. (Eds) (2006). AIDs in Nigeria. A nation on the threshold. Cambridge. Harvard center for population and development studies.
- Centers for Disease Control (2005). HIV/AIDS surveillance report, 2004 (vol.16) Atlanta; US department of health and human services, CDC, 1-46. [www.cdc.gov/hiv/topics](http://www.cdc.gov/hiv/topics).
- Egesie J. and Egesie E. (2011). Seroprevalence of Human Immunodeficiency Virus (HIV) among blood donors in Jos – Nigeria. Cited in Barros E, (2011) ‘HIV – infection: Impact, Awareness and social Implications of living with HIV/AIDS’, In Tech.
- Federal Ministry of Health (2005). Technical Report 2005. National HIV Sero-prevalence Sentinel Survey among Pregnant Women Attending Antenatal Clinics in Nigeria.
- Federal Ministry of Health (2010). Technical Report 2010. National HIV Sero-prevalence Sentinel Survey among Pregnant Women Attending Antenatal Clinics in Nigeria. Joint United Nations Programme on HIV/AIDS; The business response to HIV/AIDS: The impact and lessons learned, (2000). Geneva and London, The Prince of Wales Business leader forum and the global business council on HIV/AIDS.
- PHR (2004) Reducing stigma and discrimination surrounding HIV and AIDS in Nigeria. Engender- Health. The Vanguard (22 April 2005) Hospital to pay N.5million fine for transfusing HIV infected blood. Sola Ogundipe, <http://www.vanguardngr.com/articles/2002/southwest/sw322042005:htm/>.
- UNAIDS, (2001). India: HIV and AIDS- related stigmatization, discrimination and denial August 2001.
- UNAIDS, (2004). Epidemiological Fact sheet Nigeria, up date.
- UNAIDS (2008) ‘Report on the global AIDS epidemic’.
- UNAIDS (2010) UNAIDS ‘ report on the global AIDS epidemic’
- UNGASS (2010) ‘ UNGASS Country Progress report Nigeria’
- UNDP (2011) ‘Human development project’
- VivoPositivo (2002). Situaciones de discriminacion que Afectan a las personas Viviendo con VIH/SIDA en Chile, Vivo Positivo, Santiago.
- World Health Organization, (2006) The global on women and AIDS. [www.unaids.org](http://www.unaids.org)
- WHO/UNAIDS/UNICEF (2011) ‘Global HIV/AIDS Response: Epidemic update and health sector progress report towards Universal Access 2011’

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