

HIV Prevalence amongst Pregnant Women Clients Attending Antenatal Clinic at the Faith Alive Foundation and PMTCT Centre, Jos Plateau State

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Abstract

Introduction: HIV infection and AIDS is a public health problem worldwide, particularly affecting the populace in resource challenged setting like sub-saharan Africa. Women of reproductive age are mostly affected and infected with the HIV disease. **Methodology:** A cross-sectional study of 216 randomly selected women that booked for antenatal care at the Faith Alive Foundation and PMTCT centre Jos between 1st July to 31st December, 2014 was carried out. Information regarding age, parity, gestational age at booking, educational status and HIV sero-status of the clients was analysed. Screening test was conducted in a serial two step approval using determine and UNIGOLD as the confirmatory test, while STAT-PAK was the tie-breaker with discordant result as per the national algorithm. Positive samples were confirmed by western blot method. **Result:** A total of 18 women out of the 216 women studied were positive giving a sero-prevalence rate of 8.3%. The highest sero-prevalent rate was amongst 25 - 29 years age group (31.5%). Women of parity 1 - 4 constituted the highest group of 62.9%. Majority of the women 65.7% booked in the second trimester while 26.9% booked in the 3rd trimester. Most of the women 47.2% had secondary school education while only 5.6% of them had no form of education. **Conclusion:** HIV infection prevalence rate among antenatal attendants at Faith Alive Foundation and PMTCT centre Jos is still high. Multisectorial approach and intervention strategies should be further scaled up for the prevention of vertical transmission of the virus. However, it is worth noting that it is mainly an

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HIV/AIDS hospital which should have affected the outcome.

Keywords

HIV Prevalence, Antenatal Clinic, Faith Alive Foundation and PMTCT Centre, Jos Plateau State

1. Introduction

HIV/AIDS has become the leading cause of death among women of reproductive age and also contributes to the death of infants and children [1].

HIV Infection with its high rates and consequences is a social economic disaster for most developing countries with the potential to reverse health and development gains [1] [2].

It is important to note that without interventions, the rate of HIV Mother To Child Transmission (MTCT) of HIV ranges from 25% to 40% however with effective intervention, HIV MTCT rates have been reduced below 2% and virtually eliminated in most developed countries [3]. Cuba recently announced its total elimination [4]. WHO has been working with partners in Cuba and other countries in the Americas since 2010 to implement a regional initiative to eliminate mother-to-child transmission of HIV and syphilis. As part of the initiative, the country has worked to ensure early access to prenatal care, HIV and syphilis testing for both pregnant women and their partners, treatment for women who test positive and their babies, caesarean deliveries and substitution of breastfeeding. These services are provided as part of an equitable, accessible and universal health system in which maternal and child health programs are integrated with programs for HIV and sexually transmitted infections [4].

The HIV estimated prevalence in Nigeria is 3.4% [5] and Nigeria has the second largest HIV burden in the world in terms of the total number of persons living with the virus with a generalized HIV epidemic driven by low risk perception, poverty, gender based vulnerability and few other factors.

About 3 million people live with HIV & AIDS in Nigeria and HIV prevalence estimates are higher among women (3.5%) than men (3.3%) [6].

There seem to be a gradual and steady decline in trend of HIV prevalence among women attending antenatal clinics (ANC) from 5.8% in 2001 through 5.0% in 2003 to 4.1% in 2005 and 4.1% in 2010 [5].

The principal purpose of testing women for HIV during pregnancy is to make decision that minimises the risk of transmitting HIV to their babies [7] [8]. It also helps to monitor the trend of HIV epidemics that helps policy makers to take appropriate actions or decisions [8] [9]. It is estimated that the overall risk of MTCT is about 15% - 25% among HIV infected women who do not breast feed and 25% - 45% among those who breastfeed [10].

The objective of this study was to determine the seroprevalence rate of HIV amongst antenatal clients at Faith Alive Foundation and PMTCT Centre. Previous study conducted by a team from Faith Alive Foundation and PMTCT Center was in the rural area [11] and at the center along with its satellite centers. FAF was established in 1996 to meet the holistic health and social services need of the less privileged including person living positively at no costs to them.

2. Materials and Methods

Faith Alive Foundation and PMTCT Centre is one of the collaborating centres of the PEPFAR programmes amongst which Prevention Of Mother To Child Transmission (PMTCT) of HIV counseling and testing is done routinely at the booking clinic by trained nurses/midwives using the opt-out-techniques. Ethical approval was obtained from the Ethics committee of Faith alive Foundation (FAF) and Jos North Local Government Health unit where FAF is located in Plateau State, North Central Nigeria. Participants were selected by simple random as they presented at the hospital after vital signs and clinical diagnosis. HIV counseling was provided according to the National guidelines and standards with the "opt out" algorithms. Pretest counseling was administered in privacy followed by the documentation of the consent form. The Participants were explained the nature and the scope of the rapid testing as well as the algorithm used. Screening test was done in a serial two step approach using Determine HIV test kits and UNIGOLD HIV kits. Discordant results were subjected to STAT-PAK for

confirmation. Rapid testing lasted for about 15 - 25 minutes in the presence of the participants. All the participants consented to HIV Counseling and Testing. Post test counseling and options of care were presented to all clients. However all positive samples were confirmed with western blot method.

Two hundred and sixteen women who had booked for antenatal clinic between 1st July and 31st December 2014 were randomly selected.

Information regarding age, parity, gestational age at booking, educational status and HIV sero status of the clients were entered into an antenatal card which was opened for each client for the purpose of antenatal care. The reasons why these information were been asked for were fully explained and the participants all had a full understanding of the reasons the information were requested for. The participants all agreed with the research. These information were later on extracted.

Data was captured and analysed using Epi Info 6.04.

3. Results

A total of 18 out of the 216 women who were analysed were positive giving a sero-prevalence rate of 8.3%. The highest sero-prevalence rate was amongst the 25 - 29 years age group (31.5%) as shown in **Table 1**.

Table 2 shows that the multiparous (para 1 - 4) constituted the highest group (62.9%) with para 1 specifically constituting 29.1%

Table 3 shows that 142 of the women (65.7%) booked in the second trimesters (14 - 26 weeks) while 58 (26.9%) booked in the 3rd trimester.

Table 4 shows that 102 of the women (47.2%) had secondary education while 12 (5.6%) had no form of education.

Table 1. Age distribution.

Age range (years)	No of HIV + ve	No of HIV – ve	Total number	Percentage (%)
15 - 19	1	13	14	6.5
20 - 24	3	31	34	15.7
25 - 29	5	63	68	31.5
30 - 34	5	61	66	30.6
35 - 39	2	27	29	13.4
40 - 44	1	3	4	1.8
45 - 49	0	1	1	0.5
Total	18	198	216	100

Table 2. Parity distribution.

Parity	No of HIV + ve	No of HIV – ve	Total Number	Percentage (%)
0	5	63	68	31.5
1	4	59	63	29.1
2	2	37	39	18.1
3	3	20	23	10.6
4	1	10	11	5.1
Grand-multipara*	3	9	12	5.6
Total	18	198	216	100

* ≥5.

Table 3. Gestational age at booking.

Gestational age	No of HIV + ve	No of HIV – ve	Total Number	Percentage (%)
< 13	3	13	16	7.4
14 - 26	10	132	142	65.7
27 -40	5	53	58	26.9
Total	18	198	216	100

Table 4. Educational status.

Level of education	No of HIV + ve	No of HIV – ve	Total Number	Percentage (%)
None	2	10	12	5.6
Primary	4	52	56	25.9
Secondary	8	94	102	47.2
Tertiary	4	42	46	21.3
Total	18	198	216	100

4. Discussion

The prevalence rate of 8.3% in this study is much higher than the estimated 3.4% [5] HIV prevalence in Nigeria, it is also higher than the 3.2% reported in an earlier study in a North Central area of Nigeria by Isichei [11], 4.9% in Bayelsa [12] and 5.4% in Bishoftu hospital Ethiopia. It is similar to the 8.83% reported in Nnewi [13], but lower than the 19.1% found in Makurdi [14].

The reasons for this higher prevalence may be that it is not uncommon to find HIV prevalence rates higher in facility based studies than population based studies [15]. Moreover the facility may be viewed as a centre mainly for HIV/AIDS clients who receive treatment and care and this could have attracted more of such patients and consequently be responsible for the higher prevalence rate identified.

Since the late 1980s, country specific HIV prevalence estimates in countries with generalized epidemics have been derived from the data collected at health facilities providing antenatal care for pregnant women because they are considered a good proxy for the general population [16] and group sexually active. Routine voluntary testing in pregnancy is advisable anywhere, more especially in high HIV prevalence areas. It is an essential step in PMTCT programmes and the onward spread of HIV [8].

Testing in pregnancy also benefits the women in reinforcement of safe sex practices, provision of opportunity for counseling on infant feeding options, and enabling a woman to make informed choices about future pregnancies [11] [17]. It also reduces the risk of transmission of HIV to a partner who is negative and may eventually become the child sole parent [11].

The age group of 25 - 29 years had the highest prevalence rate. This is similar to findings in Makurdi [14], Abakiliki [18] and Lesotho [17] but at variance with the finding in Nnewi [13].

The study also shows that most of the women booked within the first and second trimesters (73.1%) while 26.9% booked late in the third trimester. This is at variance with the findings in Makurdi [14] and Nnewi [13] where most of the patients booked late in the third trimester. Late booking for antenatal care is discouraged as this may not allow the care provider ample opportunity to institute interventions which may be beneficial to both mother and her baby [14] [17].

About 94% of the clients had formal education to varying levels. This is similar to the findings in Makurdi [14], Nnewi [13] and Bayelsa [12] but at variance to the findings in Abakiliki [18].

The integration of HIV voluntary counseling and testing into antenatal care has numerous benefits [11] [14] [19]. These benefits should be extended to all women and their spouses by offering them antenatal HIV screening and thus a knowledge of their HIV status [19].

The effective implementation of this programme is fraught with some challenges which in developing countries will include lack of privacy thereby making confidentiality difficult, stigmatization of HIV-positive women

by health workers and the community, high level of illiteracy and financial constraint [8] [11] [19]. Some of these challenges should progressively be given attention by the federal, state and local governments and also by international agencies still working in Nigeria.

HIV sero-prevalence in pregnancy in Faith Alive Foundation and PMTCT Centre is still high despite interventions and strategies that have been put in place. The fact that the facility offers services mostly to the less privileged including person living positively at no cost to them may draw a large pool of positive clients and therefore a higher rate as compared to the general public is observed.

The intervention strategies though scaled up need to be sustained by all agencies involved and support to Faith Alive Foundation Jos and other international agencies should be encouraged if the need to contain and reduce the HIV prevalence rate in antenatal clients is to be achieved.

5. Conclusion

HIV infection prevalence rate among antenatal attendants at Faith Alive Foundation and PMTCT centre Jos is still high. Multisectorial approach and intervention strategies should be further scaled up for the prevention of vertical transmission of the virus. However, it is worth noting that it is mainly an HIV/AIDS hospital which should have affected the outcome.

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