

## **The Sociological Impact of the Prevalence of HIV/AIDS among Pregnant Women Attending Antenatal Care in General Sani Abatcha Specialist Hospital Damaturu, Yobe State.**

**<sup>1</sup>Umar Saleh Baba, <sup>2</sup>Lawan Abubakar Lawu and <sup>1</sup>Ali Garba Kolo**

<sup>1</sup>Department of Sociology Yobe State University, Damaturu, Nigeria.

<sup>2</sup>Institute of Human Virology, Nigeria.

Email:umarsaleh1986@gmail.com

### **Abstract**

This study investigates the sociological impact of the prevalence of HIV/AIDS among pregnant women attending antenatal care in General Sani Abatcha Specialist Hospital Damaturu, Yobe State. 334 respondents participated in the research. The respondents were selected through simple random sampling methods to collect data from women attending antenatal care. The tool used for data collection was self-administered questionnaire. The data collected was analyzed using descriptive statistics. The findings from the study reveal that, most of the respondents are not knowledgeable of the disease HIV/AIDS and also have no knowledge about the transmission from mother to child. The study revealed that most of the respondents knew the use of drugs in pregnancy and avoidance of breast feeding as a way of preventing transmission. The study recommends, among others that practice and counseling of pregnant women before testing for HIV should be further encouraged and sustained also the government, teachers, nurses and pharmacists should double their efforts towards HIV/AIDS awareness to both HIV victims and non-victims in order to prevent it spread transmission in society.

**Key words-** Antenatal care, Prevalence of HIV/AIDS, Pregnant Women, Sociological Impact, Specialist Hospital

### **Introduction**

The sociological impact of Human Immune Deficiency Virus (HIV) and Acquire Immune Deficiency Syndrome (AIDS) has continued to be the major concern not only to Damaturu, Yobe State but the Nigerian Government and the entire world at large. Globally, the pandemic of HIV and AIDS has continued to constitute serious health and socio-economic challenges for more than two decades. In underdeveloped and developing countries, it has reversed many of the health and developmental gains over the past three decades as reflected by indices such as life expectancy at birth and infant mortality rate among others. About half of those living with HIV and AIDS are women and the majority of them are of child-bearing age. In sub-Saharan Africa, where the HIV disease is most severe, more than 60% of adults living with HIV are women and the risk of HIV acquisition is concentrated among women of reproductive age (UNAIDS Report, 2008). Prevalence of HIV is higher among young women in antenatal care, and pregnancy is common among both HIV-infected women and women at risk of HIV infection throughout sub-Saharan Africa Pethfor (2015). A substantial amount of HIV research to date has concentrated on prevention of mother to child transmission (PMTCT), as well as on the impact of PMTCT on

subsequent maternal responses to highly active antiretroviral therapy (HAART). However, such research typically concentrates on pregnant women exclusively with primary outcomes that are not focused on maternal health but rather infant or child outcomes (Myer, 2010).

With a total population of over 180 million people, Nigeria is currently estimated to have the highest number of persons living with HIV/AIDS in sub-Saharan Africa, with the exception of South Africa. As of the end of 2003, about 5.4% of Nigerians ages 15–49 were estimated to be HIV-positive a steady increase from an estimated 1.8% of the adult population 15 years ago (Joint United Nations Programme on HIV/AIDS and WHO, 2007). HIV in pregnant women is an important public health concern. Antenatal screening for HIV should routinely be offered to all pregnant women, as early diagnosis and management is important both to prevent transmission to the child and the mother's health (World Health Organization, 2010).

A more serious challenge today, is the growing infection rates among the adolescents in sub-Saharan Africa. There is great concern about the spread of HIV epidemic in or within the adolescent population. According to Berlin (2009), most youths become sexually active before marriage, many while still in their teens had begun sexual activity. HIV in pregnant women is an important public health concern. Antenatal screening for HIV should routinely be offered to all pregnant women, as early diagnosis and management is important both to prevent transmission to the child and the mother's health. The pandemic is having a ruinous effect on the reproductive health of women in Nigeria. The number of HIV-positive women has increased, with an attendant alarming increase in the number of HIV-positive children in recent years. In 2007, around 370,000 children under 15 became infected with HIV, mainly through mother-to-child transmission. About 90% of these MTCT infections occurred in Africa where AIDS is beginning to reverse decades of steady progress in child survival. In high income countries of the world, MTCT has been virtually eliminated thanks to effective voluntary testing and counseling, access to antiretroviral therapy, safe delivery practices, and the widespread availability and safe use of breast-milk substitutes. If these interventions were used worldwide, they could save lives of thousands of children each year. Hence, there is an urgent need to combat this menace. (NIH, 2001).

Nigeria Demographic Health Survey of 2004 showed that among pregnant women attending antenatal care clinics only 24.3% (44.4% urban and 16.2% rural) had been counselled about HIV; 79.2% of women and 82.5% of men had never been tested for HIV; and, 46% of women as compared to 56.4% of men knew that mother-to-child transmission is possible. In addition, 60% of pregnant women (83% of urban and 51% of rural women surveyed) made use of antenatal care services, while 2.5% had visited traditional birth attendants (TBAs). But only 32.6% (54.2% urban and 23.8% rural) had their babies delivered in a health facility, while 66.4% had delivered at home (National Population Commission and ORC Marco, 2004). Antenatal VCT is one of several interventions used to reduce MTCT. In a survey of health and laboratory facilities in all six zones of Nigeria, the data that were collated and analysed concerning an individual's reason for HIV testing at the surveyed laboratory facilities showed that only 16.3% of those surveyed had used voluntary testing services (Idigbe, Ibrahim, Ubane, Onwujekwe, Esan, Otoh and Ade-doyin, 2000). However, accurate data on the acceptability of HIV testing among pregnant women in Nigeria are scarce, but given the trend of rising HIV infection among pregnant women and the promotion of exclusive breastfeeding in the country, one would expect a high incidence of mother-to-child HIV transmission. Even so, the success of antenatal VCT is dependent upon women's and communities' knowledge and perceptions of HIV. Despite increasing HIV

prevalence among women using antenatal clinics in Nigeria (National AIDS/STDs Control Programme, 2002), very little is known about their knowledge and perceptions of HIV. Such information is important for understanding and determining the likelihood that pregnant women will accept and seek VCT-which would contribute to preventing MTCT, through increased acceptability and demand for confidential antenatal HIV testing, and so prepare for the scaling-up of Nevirapine therapy in the country.

### **Statement of the Problem**

Despite improvements in PMTCT services over the years, MTCT of HIV infections is high especially in Nigeria. Despite increasing HIV prevalence among women using antenatal clinics in Nigeria, very little is known about their knowledge and perceptions of HIV. Such information is important for understanding and determining the likelihood that pregnant women will accept and seek VCT-which would contribute to preventing MTCT, through increased acceptability and demand for confidential antenatal HIV testing, and so prepare for the scaling-up of Nevirapine therapy in the country. The United Nations AIDS (UNAIDS) and World Health Organization (WHO) estimate that, there were 17.5 million women worldwide with HIV infection (UNAIDS/WHO AIDS). Close to 600,000 children are infected with the virus each year by Maternal to Child Transmission (MTCT), and the majority of these cases are in developing countries like Nigeria. About 90% of the HIV-infected children acquire the infection from their mothers during pregnancy and childbirth (CDC, HIV/AIDS Surveillance Report, 2003 (Vol. 15). The estimated rate of MTCT of HIV without intervention is 25-45% (during pregnancy - 5-10%, during delivery - 15-20%, during breast feeding - 5-15%); and the risk factors include high levels of maternal viral load, vaginal delivery, prematurity and breastfeeding, among others (Newell, 2003). The prevalence of HIV and AIDS among pregnant women appears to be alarming in Nigeria. Therefore, this study investigates the sociological impact of the prevalence of HIV/AIDS among the pregnant women attending antenatal care in General Sani Abacha Specialist Hospital Damaturu. The objectives of the study is to investigate the sociological impact of the prevalence of HIV/AIDS among pregnant women attending antenatal care in General Sani Abatcha Specialist Hospital Damaturu Yobe State.

### **Literature Review**

#### **The Concept of HIV/AIDS**

In the world today, Nigeria accounts for about 10% of all HIV/AIDS cases. Women constitute 57% of adults infected with HIV in Nigeria, a prevalence which is higher than that of the global figure of 48%. Sixty percent of new infections occur in the 15 - 25-year-old age group but the prevalence is highest among productive young people between the ages of 20-29 years. Heterosexual transmission accounts for 80% of all infections. According to Karim (2011), HIV stands for human Immune Deficiency virus which is the virus that causes AIDS. The virus has an effect to human body causing an infection of the immune system by weakening the entire system and destroy the body ability to fight infection. Human Immuno-deficiency Virus (HIV) is easily transmitted through unprotected (i.e. without condom use) anal intercourse than other sexual activities. It is also more likely to be transmitted to the receptive partner than the transmitting partner in both vaginal (8/10,000 exposures) and oral (138/10,000 exposures) intercourse

HIV has been isolated in biological human fluid such as blood, semen and vaginal secretion, empirical; the disease can be acquired mainly through sexual intercourse with infected partner. People can be infected with HIV and have not been sick but they can still transmit the virus.

### **Prevention of Mother to Child Transmission (MTCT) of HIV Programmes**

This programmes include pre and post-test counselling on women/couples wanting to have a baby and all pregnant women are pre- and post-test counselled on HIV in order to make an informed decision on whether to conceive or to keep the pregnancy to full-term or not, or join the PMTCT programme and choose an appropriate infant feeding method. The women are counselled on the recommended infant feeding methods (Karim, 2010). HIV-positive women not willing to use formula replacement feeding are advised to exclusively breast-feed their children for 3 to 6 months with abrupt cessation at 3 to 6 months and to immediately introduce formula milk feeding for a period of 1 year. The other recommended feeding method is exclusive formula feeding for 3 to 6 months with introduction of supplementary feeding at 3 to 6 months. HIV-negative mothers are encouraged to breast-feed for 3 to 6 months, introduce other foods after 3 to 6 months, and continue breast-feeding for 1 to 2 years or as desired by the mother (Karim, 2010).

The programme also provides free formula milk to HIV-positive mothers enrolled in the PMTCT programme who opt to formula feed and those who practise exclusive breast-feeding for the first 3 to 6 months and want to change to formula milk replacement feeding thereafter.

The Programme also entails that:

- i. HIV-infected pregnant women are supplied with free Zidovudine (AZT) antiretroviral therapy from 28 weeks' gestation throughout pregnancy and every 3 hours during delivery to prevent MTCT of HIV.
- ii. All HIV-positive pregnant women are put on Isoniazid preventive therapy for 1 year after delivery to prevent tuberculosis (TB), (another most) common opportunistic infection in HIV-positive persons.
- iii. Babies born from HIV-positive mothers are put on Zidovudine (AZT) syrup for 1 month to prevent replication of HIV contracted from the mother.
- iv. The PMTCT programme also closely monitors the health, growth and development of babies born from HIV-positive mothers for 2 years as well as to determine the number of children who seroconvert. Seroconversion relates to the HIV-negative babies born from HIV-positive mothers who become HIV positive after delivery. An HIV test is done at 18 months. Unless there are suspicions of HIV infections earlier in their developmental stage the test would be done earlier to assess the HIV status of the children born from HIV-positive mothers.
- v. Babies born from HIV-positive women are also supplied with cotrimazole three times a week for six months to prevent pneumocystic carinii pneumonia (PCP), another common HIV opportunistic infection in HIV positive individuals.
- vi. All HIV-positive babies and pregnant women enrolled in PMTCT programme with a CD4 count of less than 200 or with one or two opportunistic infections are started on Highly Active Antiretroviral Therapy (HAART) (Rutenberg, Baek, Kalibala and Rosen 2003b, p.25)

## **Factors associated with HIV transmission in breast-feeding**

Okonkwo, Reich, Alabi, Umeke and Nachman (2007) state that the individual's knowledge of MTCT of HIV influences their decisions on the infant feeding method and may put the child's life at risk of HIV infection. Prolonged breast-feeding, longer than 12 months is associated with an increased risk of HIV/AIDS transmission of 14% to 15%. Mixed feeding for 6 months is associated with a 5% risk. The other factors are a high viral load; poor attachment to the breast, oral infant pathologies like oral thrush and immature immunity status of the infant (AIDS Helpline 2004). This means that avoidance of breast-feeding in these conditions may reduce the risk of HIV transmission.

Aspects that influence transmission of HIV during breast-feeding include:

(a) High maternal viral load: In Durban, South Africa, Nigeria and in Malawi, Van et. Al., (2012) found HIV ribonucleic acid (RNA) in breast milk. This substance is found in the nucleus of living cells including HIV and in breast milk. The presence of this RNA in breast milk increased the risk of HIV transmission five-fold. The level of HIV in breast milk was found increased in mastitis, which was associated with increased risk of HIV transmission. The risk of HIV transmission was also found to be high in the acute stage (recent infection) of AIDS or advanced stage where the CD4 cell count is low.

(b) Breast conditions: The following breast conditions are associated with an increased risk of HIV transmission: inflamed breasts during clinical mastitis, sub-clinical mastitis or breast abscess, cracked nipples, fissures, sores on the breast and bleeding from the nipples.

Therefore, women are advised to identify fissures, cracks on the breast, breast abscess and mastitis that may be a mode of entry of HIV to the baby and avoid breast-feeding during these conditions, babies born from HIV-positive mothers can also get HIV from the breast milk itself, as studies have confirmed the presence of HIV in breast milk with high concentration in the colostrum.

(c) Integrity of infant mucous membrane: Conditions that damage the gastro-intestinal tract like oral thrush may be associated with increased risk of HIV transmission. This may result from feeding with cow's milk, allergic reactions to complementary feeds and other oral infection.

(d) Sex of infant: According to French and Brocklehurst (1998), male infants who were breast-fed on HIV-positive mothers with a CD4 cell count of less than 200 mm<sup>3</sup> had a 60% chance of being infected while their female counterparts had a 40% risk of being infected.

(e) Premature infants: Premature infants are at high risk of HIV transmission due to an immature immune system, which cannot easily fight infections. In addition, the premature skin can easily be damaged during breast-feeding and allow HIV to enter the baby's blood stream

## **Methods of Prevention of Mother to Child Transmission of HIV**

### **Prevention before Delivery**

In the pre-delivery phase of pregnancy, the use of ARTs is the major way of reducing MTCTs. Treatment of women and their children with anti-retroviral during the course of pregnancy and breastfeeding has dramatically lowered the risk of MTCT, by reducing maternal viral burden and by providing prophylaxis to the infant. There is a positive link between maternal prenatal viral load and the risk of both in utero and intrapartum transmission. Mirochnick (2004) affirms that ARV drugs suppresses viral replication in the body assisting the individual's immune system to strengthen and regain the capacity to fight-off infections. WHO recommends that, anti-retroviral treatment should begin as soon after diagnosis as possible for those who have HIV infection. Providing ART to all pregnant and breast feeding women living with HIV serves three synergistic purposes: improving individual health outcomes, preventing MTCT of HIV, preventing the horizontal transmission of HIV from the mother to an uninfected sexual partner (WHO, 2015).

It is recommended that pregnant women currently not on antiretroviral therapy start after gestation week 14 and the assessment criteria are same as those for non-pregnant patients. Before starting therapy, consideration should be given to: the patients consent and willingness, the current HIV viral load, state of her immune system as shown by a CD4+ cell count, and medical history. Socioeconomic factors should also be considered to assess the risk of catching opportunistic infections and, the prevention of drug resistance. Improvement of overall maternal health, quality of life and outlook should be the primary goal of HIV therapy. [if any reason ART is stopped, all antiretroviral medications should be stopped and restarted at the same time. The main way to monitor response to ART was through either clinical or immunological (CD4 cell count). (WHO 2015.)

### **Prevention During Delivery**

Elective caesarean section (ECS) before the onset of labour has decreased the risk of-HIV transmission by approximately 50% (Andersson, Sandström, Mola and Amoa, 2003). ECS reduces MTCT rates by preventing the neonate from coming into direct contact with infected maternal fluids and secretions during labour since the majority of HIV transmission appears to occur near or at the time of delivery when foetal exposure to maternal body fluids is most likely. The recommendation is that ECS is carried out before the mother goes into labour and membrane rupture and this is to take place at 2-3 weeks before expected date of delivery. All ARTs should still be taken in regular doses before the operation and antibiotic prophylaxis is same as in non HIV infected mothers. ECS is beneficial compared to vaginal delivery because the risk of transmission may increase during complicated vaginal delivery, for instance when instrumental procedures are necessary, when labour is prolonged, or when a long time passes between the rupture of the membranes and delivery. These complications are more common in first time deliveries. Practicalities such as the possibility of prior planning, daytime delivery and the availability of experienced staff, are factors in favour of an elective caesarean section.

Vaginal delivery is not recommended for HIV infected mothers however given the cost and risk of complications such as thrombosis, infection and hemorrhage involved in any major operation, and the lack of resources to manage such complications especially in developing

countries, the routine use of caesarean sections may not provide an increase benefit when post-operational mortality rates are taken into account. In such inevitable cases ways to increase the safety of vaginal birth are of particular relevance. The requirement is that the mother should have no history of previous uncomplicated vaginal deliveries, and should be on a well-functioning antiretroviral treatment, with undetectable viral load and no obstetric risk factors. Reducing the viral load in the vaginal canal during vaginal birth significantly reduces the risk of intra-partum transmission of HIV. HAART has proven to significantly lower the level of HIV viral load in vaginal discharges hence reduces the risk of transmission. In effect, discussions have taken place to determine whether elective caesarean section is still necessary to mothers who have had HAART and have a possibly lower transmission rate because of undetectable viral load that has been reached through HAART regimes.

### **Prevention After Delivery**

WHO (2010) recommends all mothers, regardless of their HIV status to practice Exclusive Breastfeeding (EBF) "*which means no other liquids or food are given - in the first six months of life to achieve optimal growth, development, and health*". Thereafter infants should receive nutritionally adequate and safe complementary foods while breastfeeding continues up to 24 months or beyond. However, given the need to reduce the risk of HIV transmission to infants and minimizing the risk of other causes of morbidity and mortality, the guidelines also state that "*when replacement feeding is acceptable, feasible, affordable, sustainable, and safe*", Exclusive Formula Feeding (EFF) which implies avoidance of breastfeeding by HIV-infected mothers is recommended (WHO, 2010). Hence in the developed countries where healthy and affordable replacement formula feeding is available HIV positive mothers are strongly counselled not to breastfeed their infants. Thus infants are fed with formula milk or donated breast milk while at the same time the mother receives anti-lactation medication. This seems to be the surest way to prevent infants from contacting maternal virus in breast milk.

On the other hand, in developing countries where there is societal context of unsafe water and unsanitary or nutritionally deficient home-modified animal milk substitutes resulting in risks of infant death due to diseases such as diarrhea and malnutrition coupled with high costs of breast prohibitive milk substitutes as well as risk of stigmatization that accompanies not breastfeeding, EBF has been recognized and remains the only feasible and sustainable option for the infant to receive the nutrients and antibodies needed to survive. For an individual HIV-infected mother, it is a very challenging situation to balance the risks and benefits. Postpartum counselling for HIV-positive women which includes information about the risks and benefits of various infant feeding options based on local assessment and guidance in selecting the most suitable option for their situation. Proper feeding techniques, management of complications such as subclinical mastitis as well as psychological support and coping strategies should be covered in these postnatal counseling sessions (Karim, 2011). Enforcing treatment of clinical mastitis with antibiotics, and expressing and discarding breast milk from the affected breast while also continuing feeding from the unaffected breast, and treating infant oral thrush or nipple candidiasis with nystatin can all help reduce MTCT of HIV, HIV viral component in breast milk could also be inactivated either by chemical means or heat. A preclinical study of treating breast milk with Sodium dodecyl sulphate has shown some promise. Boiling or pasteurization of breast milk appears to decrease HIV infectivity of milk. Pretoria pasteurization, in which breast milk in a glass jar is placed in boiling

water for 12-15 minutes, is a simple method for maintaining breast milk at 56-62.5°C by heat transfer. This method, which can be done in the home has been shown to reduce bacterial contamination of unrefrigerated breast milk for up to 12 hours (Mirochnick, 2004).

## **Materials and Methods**

In this study, quantitative approach with correlational research design were employed to examine the sociological impact of the prevalence of HIV/AIDS among pregnant women attending antenatal care in General Sani Abatcha Specialist Hospital Damaturu, Yobe State The population of this study consist of all the women attending antenatal care in General Sani Abatcha Specialist Hospital Damaturu and they are estimated at about 1,190 women (NPC, 2006). To derive the sample size of the study, statistical apparatuses and equations of Cochran, (1977) were utilized by the researchers in which a sample of 334 respondents were gotten from the population of the study. Simple random sampling technique was also employed. The basic requirement for this sampling techniques was that 334 respondents one out of two was selected within the child bearing age (17-45) years were used to conduct the research. The instrument was validated by the experts in the field in order to measure what it intend to measure so as to ensure clarity of the items, appropriateness of the choice of words and expression to respondents and relevance to the purpose of the study. In collecting the data, the instrument (questionnaire) was distributed to all the selected respondents. The respondents were also informed about the purpose of the study and at the same time the researchers assured them confidentially in all the process. The collected data were analyzed by using the Statistical Package for Social Science (SPSS).

## **Result and Discussions**

They were 334 respondents in the study. Their ages ranged from 17-45years, with a mean of 28.3-± 5.8 years and a mode of 28.0 years. Their parity ranged from 0 to 8 with frequencies of 77 (23.1%) for para 0, 246 (73.6%) for para 1–5, and 11 (3.2%) for para 6–8. The majority of the women (88.9%) were Muslims with minority of Christians (11.91%). Two hundred and three (203) out of the 334 patients (60.8%) had attained only primary education; 89 (26.6%) had secondary education; 9 (5.7%) tertiary education and 23 (6.9%) had no formal education. The occupations of the 334 respondents fell into three broad groups: Skilled 34 (10.2%), Semi-skilled 259 (77.5%), and Unskilled 41 (12.3%). The majority of the women (96.4%) were married including 5.1% who were in polygamous marriages. Eight women were single while four of the male partners were out of the country at the time of the study.



**Table 1. Respondents level of awareness about HIV/AIDS (N = 334)**

Responses	N	%
<b>What is HIV/AIDS?</b>		
STI (sexually transmitted infection)	334	100.0
Life-threatening disease	290	86.8
Blood disease	100	29.9
Other (e.g. curse, punishment)	5	1.5
<b>How did you hear/learn about HIV/AIDS?</b>		
Radio	300	89.9
Television	260	77.8
Church/Mosque	236	70.7
Friend	198	59.8
Health worker (Doctor/Nurse/Pharmacist)	170	50.9
Newspapers	130	38.9
<b>How is HIV transmitted?</b>		
Heterosexual intercourse	334	100.0
Injections (unsterile needles)	210	62.9
Blood transfusion	200	59.9
Unsterile instruments (barbers, manicure, pedicure)	180	53.9
Transplacental (in the womb)	32	9.6
Homosexual intercourse	18	5.4
Breast milk (breast-feeding)	11	3.3
Other (e.g. spiritual, witchcraft)	6	1.8
<b>How long does it take from infection to appearance of symptoms?</b>		
No idea	137	41.0
≤ 1year	60	18.0
>1year to ≤ 5years	88	26.3
>5years to ≤ 10years	37	11.1
>10years	11	3.3
Same day	1	0.3
<b>What are some of the symptoms/signs of AIDS?</b>		
Weight loss	290	86.8
Prolonged fever	270	80.8
Chronic diarrhea	105	31.4
Recurrent boils	102	30.5
Rashes	90	26.9
Chronic cough	85	25.4
Herpes zoster (ananse)*	75	22.5
<b>What is the cure/treatment for AIDS?</b>		
No cure	299	89.5
No cure but palliative /compassion/prayers	35	10.5
<b>How can HIV be prevented?</b>		
Being faithful to partner	311	93.1
Abstain from sexual intercourse	297	88.9
Not sharing sharps	89	26.6
Condom use	65	19.5

**Source: Field survey, 2018.**

The above table indicates that the awareness of HIV/AIDS is almost universal (99% for men and 98% for women) and the most common source of HIV/AIDS information is the radio and other sources include TV, newspapers, friends and churches. This high level of awareness is borne out in this study where almost all respondents identified HIV/AIDS as a life threatening condition. The three major sources of information were radio, TV and churches/mosques. The Demographic Health Survey of the Ministry of Health (1998) reported that 89% of pregnant women attended antenatal care with a median of 4.6 visits. 75% of women were seen before the third trimester. This high antenatal clinic coverage gives the opportunity to carry out VCT and start anti-retrovirals. Stigmatisation and discrimination constitute a big challenge, 30 to 40% of respondents said that the government should quarantine or isolate people living with HIV/AIDS (PLWHAS). In this study, 73.9% of the women who had not done HIV test (193/290) were willing to do it only if anonymity is strictly ensured. The HIV prevalence among pregnant women to be greater than 40% in various settings. Although some have reported a much lower prevalence of 3.4% in pregnant women, there should be no complacency since the situation may worsen if appropriate interventions are not put in place. It is noted that the women in this study were aware of common symptoms/signs of AIDS such as weight loss, prolonged fever and chronic diarrhea. It is likely they have seen patients suffering from AIDS or seen such images on TV or in the newspapers. They were also aware that there is currently no cure for AIDS. Being faithful to one's partner or abstaining from sex were preventive measures stated but condom use was rarely mentioned perhaps because these were women who desired to be pregnant in the first place. Areas of concern include the low level of acquisition of knowledge directly from health workers. There is a worrying lack of knowledge about the transplacental and breastfeeding routes of transmission particularly as the subjects were pregnant women. Awareness that HIV/AIDS could be passed from infected mother to her baby was relatively low (173 out of 334 or 51.8%). Only 125 out of 334 or 37.4% of women correctly said it takes between 1 to 10 years from infection to the appearance of symptoms of AIDS. These areas should form part of the talk given before each antenatal session and should be strengthened with the use of audio-visual aids. The decision to do the HIV test is based on many factors including perceived benefits such as availability of drug treatment for the mother and baby. The advent of therapy in industrialized countries has greatly increased motivation for people to be tested for HIV, and has reduced the stigma associated with the disease. Where there are real benefits in terms of ART, women are more likely to accept VCT in pregnancy, followed in positive cases by a short course of anti-retroviral treatment in order to reduce mother-to child transmission of HIV even in breastfeeding populations.

People may not perceive themselves to be at risk. Sexually active people may recognize personal risk but not appreciate the risk derived from high-risk behavior of a partner. Denial of risk is a common coping mechanism as demonstrated by 20 of the women in this study. Thirty-four of the women (10.2%) were required to do the test prior to marriage in the mosque or church. This finding compares with the study, two out of fifteen couples (13.3%) interviewed said that they were required by the Mosque or Church to test prior to marriage (mandatory testing). Women may also seek partner consent prior to testing as shown by the 21 out of 261 (8.0%) in this study. There is anecdotal evidence that spousal consent affects uptake of PMTCT services in Damaturu. It is suggested that further studies are done to elucidate the relationship between knowledge of vertical transmission and attitude to MTCT and VCT as these will ultimately influence policy and planning.

**Table 2. Knowledge of Respondents about Prevention of Mother-to-Child Transmission of HIV (PMTCT) Services.**

<b>Knowledge of PMTCT</b>	No.	%
<b>Can an HIV positive woman transmit HIV to her baby? (n = 334)</b>		
Don't know	157	47.0
Yes	173	51.8
No	4	1.2
<b>For those answering yes (n =173)</b>		
<b>When does transmission from infected mother to her baby occur?</b>		
Before birth (in the womb)	159	91.9
During labour	5	2.9
During breast feeding	9	5.2
<b>How can HIV transmission from a positive mother to her baby be prevented?</b>		
No idea	161	93.1
Giving drug to pregnant woman	3	1.7
Not breast-feeding	9	5.2

**Source: Field survey, 2018.**

Table 2 summarizes the knowledge of the women about MTCT. About 50% of respondents said an HIV positive woman could transmit HIV to her baby before birth but had no idea of any means to prevent this. Teachers, nurses and pharmacists were aware that HIV could be transmitted during labour or breastfeeding and this could be prevented. They also knew of the use of drugs in pregnancy and the avoidance of breast-feeding as ways to prevent transmission.

### **Conclusion**

The purpose of this study is to investigate the sociological impact of the prevalence of HIV/AIDS among pregnant women attending antenatal care in General Sani Abatcha Specialist Hospital Damaturu Yobe State. Based on the findings of this research it can be concluded that awareness of HIV/AIDS is almost universal in which (98%) of the respondents indicated that they were aware of the HIV/AIDS existence and the most common source of HIV/AIDS information sources were radio, TV and churches/mosques. This high level of awareness is borne out in this study because almost all the respondents identified HIV/AIDS as a life threatening condition. On the knowledge about HIV/AIDS prevention 50% of respondents said an HIV positive woman could transmit HIV to her baby before birth but had no idea of any means to prevent this.

### **Recommendations**

It is recommended based on the findings of this research that:

- i. The practice and counseling of pregnant women before testing for HIV should be further encouraged and sustained.
- ii. Pregnant women should acquire accurate knowledge of the means of transmission and non-transmission of HIV from mother to child,

- iii. there is need to further intensify the enlightenment programme on the mode of HIV infection as this will go a long way to help reduce self-stigma among pregnant women with HIV/AIDS.
- iv. Health managers and administrators should provide all the necessary and appropriate equipment and supplies to enable the staff carryout their duties with minimum risk of occupational exposure.
- v. Government, teachers, nurses and pharmacists should double their efforts towards HIV/AIDS awareness to all HIV victims on the HIV transmitted during labour or breastfeeding in order to prevent massive transmission in the society.

## References

- Andersson. M., Sandström. C., Mola. G., Amoa, A.B. and Andersson, R. (2003). *Awareness of and attitudes towards HIV among pregnant women at the Antenatal Clinic, Port Moresby General Hospital*. P N G Med J.
- Addo, V.N. (2005). Pregnant Women's Knowledge of and Attitudes to HIV Testing at Anokye Teaching Hospital, Kumasi. *Ghana Medical Journal*. 39: 50-54.
- Berlin, J.U.A. and Ellenberg, S.S. (2009). *Inclusion of Women in Clinical Trials*. BMC Med 7: 56.
- Cochran, W. G. (1977). *Sampling Techniques* (3rd Ed.). New York: John Wiley & Sons.
- French, R. and Brocklehurst, P. (1998). *The effect of pregnancy on survival in women infected with HIV: A systematic review of the literature and meta-analysis*. Br J Obstet Gynaecol 105: 827-835.
- Hesketh, T., Duo, L., Li, H., Tomkins, A.M. (2005). Attitudes to HIV and HIV testing in high prevalence areas of China: informing the introduction of voluntary counselling and testing programmes. *Sex Transm Infections*.
- Idigbe, K. and Ibrahim, G. (2000). *Antenatal VCT as one of the several intervention used to reduce MTCT in Nigeria*. Enugu press.
- Karim Q. A, Kharsany AB, Frohlich JA, Werner L, Mashego M. (2011) Stabilizing HIV prevalence masks high HIV incidence rates amongst rural and urban women in KwaZulu-Natal, South Africa. *Int J Epidemiol* 40: 922-930.
- MacCarthy, S., Laher, F., Nduna, M. and Farlane, L. (2009). Responding to Her Question: A Review of the Influence of Pregnancy on HIV Disease Progression in the Context of Expanded Access to HAART in Sub-Saharan Africa. *AIDS Behav*, 13 Suppl 1: 66–71.
- Myer, L., Carter, R.J., Katyal, M., Toro, P., El-Sadr, W.M. (2010). Impact of antiretroviral therapy on incidence of pregnancy among HIV-infected women in Sub-Saharan Africa: a cohort study. *PLOS Med* 7: e1000229. PubMed: [20161723](https://pubmed.ncbi.nlm.nih.gov/20161723/).

National AIDS Agency (NACA) central statistics office (2004) HIV prevalence rates of pregnant women in Swaziland and Nigeria

National Institutes of Health (2001). NIH Policy and Guidelines on the inclusion of women and minorities as subjects in Clinical Research – Amended, October (2001). MD: Bethesda.

National Population Commission (2004) Nigeria demographic health survey of pregnant women with HIV/Aids.

National AIDS/STDs control programme (2000). The success of Antenatal VCT upon women and communities and perception of HIV Nigeria.

Okonkwo, K.C., Reich, K, Alabi, A.I., Umeike, N. and Nachman, S.A. (2007). An Evaluation of Awareness: Attitudes and Beliefs of Pregnant Nigerian Women Toward Voluntary Counselling and testing for HIV. AIDS PATIENT CARE and STDs.

Rutenbery, N. (2003). Report on HIV/AIDS on Transmission during pregnancy in Kenya clinic and Zambian Clinics

Schwartz. S., Mehta, S., Taha, T., Rees, H. and Venter. F. (2011). High Pregnancy Intentions and Missed Opportunities for Patient-Provider Communication About Fertility in a South African Cohort of HIV-Positive Women on Antiretroviral Therapy. AIDS Behavior.

United Nation Aids/World Health Organization (2007). Ids Epidemic Update: 2007. Geneva.

United Nation Aids/World Health Organization (2008). 2008 Report on the global AIDS epidemic. Available:<http://www.unaids.org/en/KnowledgeCentre/HIVData/GlobalReport/2008>. Geneva.

Van, H. J. G., Andrew, M. A., Hebert, M. F., Vicini, P. (2012). The Status of Pharmacometrics in Pregnancy: Highlights from the 3(rd) American Conference on Pharmacometrics. Br J Clin Pharmacol, 74: 932–9.