

Reflecting on the Challenges of Prevention of Mother to Child Transmission of HIV/AIDS in Africa

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BACKGROUND

It has become necessary to look at the current challenges facing the PMTCT program in Africa with a view to generating robust discussions that can chart the way forward. At the present, it is estimated that vertical transmission accounts for at least 90% of pediatric HIV infection¹. This can occur during pregnancy, labour and delivery or during breastfeeding. In absence of interventions, the risk of such transmission is 15-30% in the non breastfeeding infected mothers¹. But with appropriate interventions, the risk of transmission is reduced to less than 2%. The burden of MTCT of HIV is higher in Sub-Saharan Africa than the rest of the world because of high levels of hetero-sexual transmission, high prevalence of HIV in women of reproductive age group, higher proportion of females in reproductive age infected with HIV, a high total fertility rate (TFR), high rate of prolonged breastfeeding and poor access to effective interventions aimed at preventing MTCT¹.

At the current HIV prevalence/transmission rate, if appropriate interventions are not implemented, about 100,000 babies will be infected through MTCT from an estimated 260,000 infants born to HIV positive mothers.¹

THE NIGERIAN PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) OF HIV/AIDS PROGRAM

Among pregnant women in Nigeria, there is a high prevalence rate of HIV infection. Onah et al² reported a prevalence rate of 13.7% in Enugu, while the national mean is 5.0%³. Therefore, prevention of perinatal transmission of the virus remains a challenge in the environment. The unborn baby as well as the new born baby is helpless and needs to be protected at all cost. In response to this challenges, the Federal Government in collaboration with the development partners set up a National Task Force on PMTCT and also established PMTCT sites in all the major federal government health facilities across the country and developed the National goal for PMTCT.

The Nigerian national goal for PMTCT as contained in the 2003 AIDS policy on HIV/AIDS is to reduce the transmission of the HIV through MTCT by 50% by the year 2010 and to increase access to quality HIV counseling and testing services by 50% of the same year.¹ To achieve this goal, a comprehensive four pronged strategy to prevent HIV infection among infants and young children was developed, which promotes implementation in an integrated manner within the health care delivery system. These strategies are: (i) primary prevention of HIV infection among women of reproductive age and their partners; (ii) Prevention of unintended pregnancies among the HIV positive women; (iii) prevention of HIV transmission from HIV infected mothers to their children and (iv) providing care and support for HIV positive women and their families¹.

The first strategy is based on abstinence from sex in single women, being faithful to one partner or correct and consistent use of the condom, if abstinence is not possible. The other element of primary prevention is safer and responsible sexual behavior. This includes delaying the onset of sexual activity until marriage, reducing the number of sexual partners and the use of condoms. At present, studies in Nigeria indicate a trend towards early initiation of sex, high sexual activity and limited use of condoms among the youths³⁻⁵. The implication is an increase in perinatal transmission to the child. Program managers need to consider this aspect of the problem in order to reduce the number of HIV positive women and decrease the strain on the limited resources. There is an urgent need to initiate and sustain health campaign in schools to promote healthy sexual behaviour as well as correct and consistent use of the condom. Basic reproductive health education should be introduced both at the secondary school as well as the basic studies level in the universities. To prevent unwanted pregnancy among HIV positive women, the government and the care givers have the responsibility of providing HIV positive women and their partners with comprehensive information and education on the risks associated with child bearing, and to ensure that HIV positive women use effective methods of contraception.

However, the major thrust of PMTCT is anchored on a number of interventions applied during pregnancy, delivery and postpartum period to reduce the rate of vertical transmission. These include voluntary counseling and testing (VCT) for HIV infection, the use of antiretroviral therapy, modified obstetric practices and safer infant feeding practices. These services are offered free of charge in designated PMTCT sites.

ROUTINE (VOLUNTARY) COUNSELING AND TESTING

This is usually the entry point into PMTCT program. Testing for HIV infection is usually preceded by counseling during which the women are counseled on the modes of transmission of the virus, the various interventions available for positive women, the value of avoidance of breastfeeding and ways of avoiding being infected by the virus. The recommended mode is the routine approach during which HIV test is included in the routine antenatal tests and the women have the option to opt out. There is no place for mandatory HIV testing. During the counseling sessions, misconceptions about HIV infection are clarified and assurance of confidentiality given. Serial rapid test is done with two test kits. Patient is confirmed positive if the two tests are positive and negative if the tests are negative. In event of discordant test, a third test kit is used as the tie breaker. Following the test, all the women receive post test counseling. Women who opt out of the test are not denied care; instead they are encouraged to accept the test as soon as feasible.

Despite the important place of VCT in PMTCT programs, studies show that only a little proportion of Nigerian pregnant women receive these services, despite a high level of willingness among them to submit to HIV testing⁷⁻⁹. It is currently estimated that only about 5% of pregnant women in Nigeria receive antenatal counseling and testing for HIV/AIDS. These likely are women that reside within the urban centers. Obviously, there is a need to scale up counseling and testing programs for HIV/AIDS as the women are willing to accept the test. Counselors should be trained and encouraged to work in the rural areas where most of Nigeria women reside. Restricting the services to only the big centres will not achieve the desired result. Also, due to the fact that only about 37.5% of our women deliver in the formal health facility, there is the need to involve the community health workers, including the traditional birth attendants (TBAs), for home based care in the current efforts to scale up HIV counseling and testing.

THE USE OF ANTIRETROVIRAL THERAPY (ART) IN PMTCT PROGRAMS

Antiretroviral drugs reduce MTCT by reducing the maternal viral load as well as improving the maternal immune system. All pregnant women should be commenced on ART, irrespective of the WHO clinical staging. The time of commencement and the choice of ART in HIV seropositive pregnant women depend on the clinical setting. Seven clinical settings are recognized.

Among the developed countries, the widespread use of Highly Active Antiretroviral Therapy (HAART) which is a combination of three potent antiretroviral drugs has reduced the mother to child transmission rate to less than 2%. This has led to near elimination of MTCT as a route of HIV transmission. In Sub-Saharan Africa, current PMTCT programs are based on the use of the more accessible simpler and shorter course antiretroviral (scARV) prophylactic regimens¹¹. These short course therapies do not achieve equal success rates with the use of HAART. Worse still, the relative success achievable with these drugs in the region is often compromised by the breastfeeding culture of the people.

For HIV positive pregnant women in the resource-poor countries, the World Health Organisation (WHO) recommends HAART only for those who require HAART for their own health. Less complicated treatments, involving a short course of one or two HIV drugs can be used to reduce the risk of passing HIV to the baby¹². This is on basis of difficulty with accessing HAART is used in the less developed countries¹³⁻¹⁵. For instance, among women who were managed in the PMTCT program of NAUTH, Ikechebelu et al (2009) found a mother to child transmission rate of 2.7% for women who participated fully (mother and baby received HAART, did not breastfeed), while mothers who did not receive any intervention had a transmission rate of 37.5%¹⁵. There is need therefore, to make HAART available to all HIV pregnant women in the region. Government should devote more funds towards the procurement of these drugs. The current dependence on donor agencies for these drugs leaves our program at their preferences.

SAFER INFANT FEEDING METHODS

Breastfeeding accounts for 5-20% of mother to child transmission of HIV infection and therefore avoidance of breastfeeding lowers the risk. In the work of Ikechebelu et al in NAUTH, the overall transmission rate of mothers who breast fed was 21.9% as against 5.0% among mothers who did not breastfeed¹⁵. When women who did not receive any intervention avoided breastfeeding, the transmission rate dropped from 37.5% to 21.1%¹⁵. Non breastfed infants are prone to serious health risks, including six fold increases in mortality due to infectious diseases¹. Therefore, the best mode of infant feeding within the context of PMTCT in Sub Saharan Africa is yet to be settled. In an attempt to resolve the issue, the WHO recommended that exclusive breastfeeding for 4-6 months should be practiced by HIV positive mothers in under resourced areas, except where replacement feeding is available, feasible, affordable, safe and sustainable¹². This new WHO Consensus Statement on HIV and Infant Feeding

highlights critical issues in the continuing debate on whether the HIV transmission resulting from breastfeeding can ever be superceded by the benefits of breastfeeding and therefore justified ethically. Some of the new findings that are referred to in the document include: (1) exclusive breastfeeding for up to 6 months was associated with a three to four fold decreased risk of HIV transmission compared to non-exclusive breastfeeding in three large cohort studies; (2) where free infant formula was provided, the combined risk of HIV transmission and death was similar whether infants were formula fed or breastfed from birth; and (3) early breastfeeding cessation was associated with reduced HIV transmission, but also with increased risk of morbidity and child mortality in infants born to HIV-infected mothers. These findings should encourage developing countries to reassess their positions on infant feeding by HIV-infected mothers, and balance policies that support breastfeeding and formula feeding by HIV-infected mothers. Overall, children under PMTCT programs within Sub Saharan Africa are exposed to two main risks: (1) the risk of HIV transmission through breastfeeding; and (2) the risk of mortality due to common childhood illnesses. The goal of any PMTCT program is to keep children free of HIV infection and to reduce mortality risks.

In summary, adequate counseling on safer infant feeding options should be offered to all HIV positive pregnant women. It is important to identify the population in whom exclusive replacement feeding is available, feasible, affordable, safe and sustainable. For the other women, exclusive breastfeeding should be encouraged with an abrupt cessation.

CONCLUSION

There is still a lot to be done by the government to improve PMTCT programming in Africa. Primary prevention through promotion of healthy sexual behaviour and use of condoms, the use of HAART and defining the best infant feeding options remain key challenges.

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