



Uptake of prevention of mother-to-child transmission (PMTCT) of HIV services among pregnant women in Rivers State, Nigeria: a preliminary assessment.

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Abstract

Background: The prevention of mother-to-child transmission of HIV programme has proven to be an effective and efficient strategy at reducing transmission of HIV from infected mothers to their children. The aim of the study was to make preliminary assessment of the uptake of PMTCT services in selected health facilities in Rivers State, Nigeria, three years after commencement of the programme.

Methods: A cross-sectional study was carried out between June 2005 and May 2006 using secondary data from three PMTCT sites (Isiokpo, Ahoada and Bori General Hospitals). These sites were randomly selected from the existing 16 in the State by a simple random sampling method. PMTCT clinic records in the sites were reviewed and relevant information on PMTCT services collated and analysed using Epi Info ver. 6.04 statistical package and simple proportions and frequency distribution tabulated.

Results: A total of 2,524 pregnant women were counselled about HIV screening. Of those who were counselled, 2389 (94.7%) opted in for HIV test and 8.0% were positive. However, only 22.1% of the HIV positive women delivered in the hospitals where they were tested, and only 16.7% of them had an opportunity to receive ARV drugs during labour. Similarly, only 57% of their babies received nevirapine at birth.

Conclusion: Uptake of PMTCT services appeared low. Further studies are needed to determine if HIV positive pregnant women can benefit from self-administration of ARV at the onset of labour if delivering elsewhere, and for their newborns to have a similar opportunity for ARVs so as to accelerate PMTCT uptake.

Key words: HCT uptake, PMTCT services, Rivers State, Nigeria

Introduction

One of the world's most important public health challenges is tackling the HIV/AIDS pandemic. Each year, about 2.4 million infected pregnant women give birth and 1800 babies acquire the infection every day¹. HIV infection has been shown to be responsible for the worsening trends in child survival among under-five children in many African countries². Without intervention, there is a 15-30% risk of mother-to-child transmission (MTCT) during pregnancy and delivery and an additional 10-20% risk post-partum via breast feeding³. This risk of transmission can be reduced by relevant interventions to less than 5%, if properly managed⁴. This is because prevention of mother-to-child transmission (PMTCT) has proven to be an effective and efficient strategy at reducing transmission from infected mothers to their children⁵. Uptake of PMTCT services was defined as the percentage of registered pregnant women who received pre-test HIV counselling in the antenatal clinic, accepted HIV testing and when their results were positive for HIV, came back to deliver in the hospital as instructed. It also includes the proportion of pregnant women who received anti-retroviral drugs (ARV) in labour/delivery and the proportion of babies who received nevirapine (NVP) at birth.

The National guideline on PMTCT has an objective to reduce the transmission of HIV by 50% by the year 2010 and to increase access to quality Voluntary Counselling and Testing (VCT) services by 50% by the same year⁶. To achieve this target, PMTCT programme was introduced in Rivers State, Nigeria in 2003, to target all women in the reproductive age groups irrespective of their marital status, all women attending antenatal clinics and their male partners.

Uptake of PMTCT services has been shown to be impressive in many African countries like in Tanzania and Kenya, where after 11 months of implementation of the

PMTCT programme, uptake rose to 98% from 4% at commencement⁷ and in Rwanda where it rose to 93%⁸. It was however lower in Botswana where it ranged only between 38% and 68%⁹. The aim of this study was to conduct a preliminary assessment of uptake of PMTCT services in selected health care facilities in Rivers State, Nigeria, three years after the commencement of the programme.

Methodology

Study Design and Data Analysis

A descriptive, cross-sectional study was carried out between June 2005 and May 2006 in three PMTCT sites selected from the existing sixteen by a simple random sampling method. PMTCT clinic records were retrieved from the selected health facilities and relevant information on the utilization of the services collated. Data was collected from the VCT, Delivery, Child Follow up and Maternal Follow up Registers. All data collected were analysed using the Epi-Info version 6.04d statistical package and simple proportions and frequency distribution tables constructed.

Ethical Clearance

Ethical clearance for the study was obtained from the Ethical Committee of the University of Port Harcourt and the State Action Committee on AIDS (RVSACA).

Results

A total of 2,848 pregnant women attended antenatal clinics in the health facilities assessed within the period under review. Of these, 2,524 (88.6%) received pre-test counselling for HIV and 2389 (94.7%) undertook the HIV test. A total of 190 (8.0%) of them had a positive HIV test result (Table 1). However, only 42 of the 190 women who were HIV positive delivered in the health facilities where they were tested, giving a delivery rate of 22.1%: seven (16.7%) of the women who delivered in these health facilities received ARV during labour/delivery, while only 24 (57.1%) of the

babies received ARV at birth (Table2).

Discussion

This study revealed that the acceptance rate for HIV pre-test counselling and testing was good among the ANC attendees in the health facilities assessed and was similar to results obtained from PMTCT sites in Nigeria and other African countries^{7, 8, 10, 11}. Contrary to this was the poor delivery rate of HIV positive women observed in these health facilities. This situation has been found to be consistent with other studies in Nigeria where poor utilization of maternal and child health services by pregnant women because of socio-economic and cultural concerns, make delivery at home more attractive to them^{12, 13}. It could also be that

many of the HIV-positive women, who only recently became aware of their status, were yet to come to terms with the reality and were either in the state of denial, fear, withdrawal, and self-stigmatization or simply did not receive sufficient post-test and follow up counselling. These circumstances have been shown to be limiting factors to the uptake of PMTCT services in many other settings^{14, 15}.

The crucial matter however, was that an opportunity for both the mother, and child to receive ARV drugs during labour and immediately after birth respectively was missed. The poor uptake was further worsened because, only a few of the pregnant women who delivered in the health facilities received ARVs during labour and their babies nevirapine at birth during the period of the study. The uptake was very poor when

Table I: Coverage of HIV counselling and testing services

HIV counselling and testing Site	No. of ANC attendees	Women pre-test Counseled	No. actually Tested*	Positive Result
Isiokpo	369	288 (78%)	223 (77.4%)	19 (8.5%)
Ahoda	745	503 (67.5%)	456 (90.7%)	38 (8.3%)
Bori	1734	1733 (99.9%)	1710 (98.7%)	133 (7.8%)
Total	2848	2524 (88.6%)	2389 (94.7%)	190 (8.0%)

* Denominator = No of women counselled

Table 2: Access to ARV during and after birth

Health Facility	Health facilities delivery rate of HIV positive women	ARV access during Labour/ Delivery	ARV access at birth
Isiokpo	0 (0.0%)	0 (0.0%)	0 (0.0%)
Ahoda	5 (13.2%)	3 (60%)	4 (80%)
Bori	37 (27.8%)	4 (10.8%)	20 (54.0%)
Total	42 (22.1%)	7 (16.7%)	24 (57.1%)

compared with uptake in Botswana, where 96% of women and 89% of babies had AZT during labour and nevirapine at birth respectively¹⁴ and in Rwanda where in the first two years of the PMTCT programme, all the HIV positive women (100%) received nevirapine with their babies at delivery¹⁶.

The uptake rate of PMTCT services was found to be low. Efforts must be made at overcoming the visible constraints and obstacles towards accelerated uptake of services. Further studies are needed to determine if pregnant women diagnosed of HIV during antenatal period can be offered ARVs, with an instruction to self-administer at onset of labour if delivery is elsewhere, and their newborns are also given ARVs at birth as has been reported in some countries¹⁷. This strategy could substantially increase uptake of ARVs for the protection of newborns from HIV infection at birth. Follow-up of such women (who did not deliver in the health facilities) at their homes by community health workers can be used as a strategy to improve PMTCT uptake.

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