



**Karolinska
Institutet**

Department of Public Health Sciences, Division of Global Health

Missed Opportunities: Prevention of Mother-To-Child Transmission of HIV in Uganda

AKADEMISK AVHANDLING

som för avläggande av medicine doktorsexamen vid Karolinska
Institutet offentligen försvaras i Samuelssonsalen, Tomtebodavägen 6

Fredagen den 27 april 2012 klockan 09.00

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Stockholm 2012

ABSTRACT

Background: Despite the existence of effective interventions such as prophylactic antiretroviral medicines, mother-to-child transmission (MTCT) of HIV is still a major reason for HIV transmission in sub-Saharan Africa. Antenatal care (ANC) facilities are the main location for implementing prevention of MTCT (PMTCT) programmes and HIV testing is the first step in PMTCT.

Aim: The overall aim was to determine access to PMTCT services and to identify barriers and facilitators for accessing these services in rural Uganda.

Methods: Four studies (I-IV) were carried out 2008-2010 in, or neighbouring, the Iganga/Mayuge Health and Demographic Surveillance Site (HDSS) covering 12,000 households in Iganga and Mayuge districts in eastern Uganda. Semi-structured interviews were conducted with pregnant women to explore their views on HIV testing during ANC (I). Men's views on being HIV tested together with their spouse were explored through in-depth interviews and focus group discussions (II). Questionnaire-based interviews and ANC record reviews were employed to quantify the HIV testing uptake and to determine risk factors (adjusted relative risks; aRR) for not being tested for HIV among 881 pregnant women (III). Population-based data from Study III, known MTCT rates and health facility- and semi-structured interview data on dropouts from the PMTCT programme were used to estimate the number of HIV-infected children with base-case PMTCT coverage and for scenarios with an assumed increase in coverage of PMTCT programme components (IV).

Results: ANC attendance was 96% but even with existing policies for opt-out and couple HIV testing only 64% of the women were tested for HIV and only 4% had been tested together with their spouse (III). The quality of HIV counselling was generally poor, few attending facilities that lacked HIV testing services received any counselling (I, III), even fewer (6%) were tested elsewhere (III). Living more than 3 kilometres from a health facility with HIV testing services increased the risk for not being tested among the poorest and among the least poor (aRR 1.44 and 1.72), adjusting for age. Women found recruiting their spouses for couple testing (I) to be very challenging (I, II), and men were very negative towards it (II). The estimated MTCT rate with base-case PMTCT coverage was 13% at birth (IV). Increasing HIV testing uptake to 100% would be the single most effective intervention to reduce MTCT, but only combination interventions with perfect adherence would reduce MTCT rates to the target below 5%.

Conclusions: Despite near to universal ANC attendance and opt-out HIV testing and couple HIV testing policies in place, less than two-thirds of women were HIV tested and very few tested together with their spouse leading to missed opportunities for PMTCT. The main barriers to PMTCT are health systems-related: lack of HIV testing and referral, poor counselling, and gender-related power dynamics both at the household level and at the point of health service delivery.

Keywords: HIV, prevention of mother-to-child transmission (PMTCT), HIV testing, access, Uganda, Health and Demographic Surveillance Site (HDSS)