

# Research Letter

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## **Re-engagement in HIV care among mothers living with HIV in South Africa over 36 months postbirth**

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**Prevent-mother-to-child-transmission services are integrated into antenatal care in South Africa, but postbirth care is at HIV clinics. Almost all mothers living with HIV (MLH) in 24 township neighborhoods ( $n = 324$ ) reported engagement in HIV care from pregnancy to 36 months after birth. Less than half re-engaged in HIV care at 6 months (45%), 52.5% at 18 months, and 62.5% at 36 months. Most were prescribed antiretroviral drugs if re-engaged in care, yet only about half (53%) are on antiretroviral drugs at 36 months after birth. Implementation of option B+ will require substantially better engagement in care.**

In Cape Town, South Africa, 26–30% of pregnant women are infected with HIV. Fortunately, South Africa has broad availability and uptake of HIV testing and antiretroviral drug therapies during the perinatal period for both mothers and children [1]. The country is planning to implement the B+ protocol, which will guarantee all mothers living with HIV (MLH) lifelong antiretroviral drug [2]. The B+ protocol will heighten the importance of maintaining HIV care over time. Services to prevent-mother-to-child-transmission (PMTCT) are generally integrated into antenatal care. However, following the birth of their child, MLH must re-engage in HIV care at HIV-specialty clinics [3]. During pregnancy, about 99% of pregnant women in Cape Town are tested for HIV [4]. Whereas the rates of uptake of tasks to PMTCT are known, it is difficult to estimate how many new MLH transition to HIV care after birth. In trials evaluating PMTCT, the loss to follow-up ranges from 19 to 89% [5]. Loss to follow-up among adults in Johannesburg indicates that 30% are disengaged from care by 12 months [6]. This article summarizes MLH's reports of their re-engagement in care over the 36 months following their children's birth, suggesting the scope of the challenge service providers face in implementing B+ protocols.

The data on MLH's re-engagement in care were gathered in the context of a cluster randomized controlled trial (RCT) in 24 township neighborhoods [7]. No intervention effects were observed on any measure of re-engagement in care and, therefore, the RCT is not described in this brief study. Other studies

summarize the maternal and child outcomes from this RCT [4,8]. The Institutional Review Boards of University of California Los Angeles, Stellenbosch University, and Emory University approved the study [ClinicalTrials.gov (NCT00996528)].

Neighborhood clusters ( $n = 24$ ) of 450–600 households were matched outside Cape Town, and 98% of pregnant women were recruited from May 2009 to September 2010 at an average 26 weeks of pregnancy (range 3–40 weeks).

We assessed 1238 women at baseline. Follow-up assessments were conducted at 2 weeks after birth (92%; mean = 1.9 weeks, SD = 2.1 weeks, median = 1.1, range = 0.1–14.9); 6 months (88%; mean = 6.2 months, SD = 0.7, median = 6.0, range = 4.2–11.7); 18 months (84%; mean = 19.1 months, SD = 3.0, median = 18.0, range = 13.6–34.4); and 36 months (86%; mean = 37.3 months, median = 37, SD = 2.2 months, range = 34–42 months). All assessments were completed by 72% of mothers.

Mothers living with HIV were on an average about 26 years old, with about a 10th grade education, and 18.8% were employed [4]. More than half (56%) were living with a partner, although 89% had recent sexual partners. Most mothers lived in informal housing (shacks, 68.7%), 53.3% had water, 55.2% had a toilet, and 89.8% had electricity on their premises. Almost half of the mothers (49.5%) and 29.1% of their children had gone hungry in the last week. Most mothers had previously had children (65.9%) and 76.9% had attended an antenatal clinic at the time of recruitment. Among nonprimiparous mothers, 15.9% had previously had a low birth weight infant (<2500 g).

Almost all women had been tested for HIV (99.2%). At recruitment, 26.2% ( $n = 324$ ) of women were HIV-seropositive, with 92% learning of their serostatus during this pregnancy at the antenatal clinic. Information regarding HIV status was self-reported and was able to be validated after birth on the child's government-issued Road to Health card which documents maternal HIV status, as well as clinic visits and hospitalizations. Information on linkage and retention in HIV care and antiretroviral drug utilization was only obtained by maternal self-reports. At completed follow-up assessments, some MLH did not report HIV-related clinic utilization, even though they reported other aspects of their health status and care utilization.

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By 36 months after birth, 13 MLH had died, 23 of their children (6.2%) were seropositive, and an additional 47 mothers identified themselves as HIV-seropositive. Almost all MLH (93%; 279/300) had received antenatal care and PMTCT, as previously reported [4]. By 6 months after birth, 45% of MLH (126/278) had sought care at an HIV clinic and 70.6% of these MLH (89/126) had been prescribed antiretroviral drug [32% of the overall MLH (89/278)]. At 18 months, 52.5% (147/280) had sought HIV care; 89% of these were receiving antiretroviral drug [46% of the overall MLH (130/280)]. At 36 months, 62.5% ( $n = 165/264$ ) were receiving HIV care, with 85% of these receiving antiretroviral drug (140/165). Only 31% of MLH had been linked to HIV care at the 6, 18, and 36-month assessments (86/280). From 18 to 36 months, 43% (119/275) had been receiving care. Among surviving MLH, 53% are receiving antiretroviral drug at 36 months following their children's birth.

These are disturbing data, given the broad accessibility of antiretroviral drug in the Western Cape of South Africa and the relatively high quality of medical care in the region. B+ regimens may improve re-engagement, but the poor follow-up rates in PMTCT trials [5], the failure to integrate HIV into primary healthcare clinics in Africa, and HIV stigma (which may be responsible for this study's missing self-reports) must be anticipated.

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### Conflicts of interest

No conflicts of interest are declared.

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