

Strategies to improve retention of mother-baby pairs in PMTCT programs

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Rationale

Approximately half of HIV infections among children take place during breastfeeding. While there has been success in retaining pregnant women on antiretroviral therapy (ART) during pregnancy, there has been inadequate focus on retention support to mother-baby pairs (MBPs) during the breastfeeding period.¹

Literature shows that the majority of MBPs not retained in prevention of mother-to-child transmission (PMTCT) programs are due to loss to follow-up (LTFU) rather than death.² These children are at higher risk of vertical acquisition of HIV compared with breastfeeding infants who remain in care.

Current postpartum LTFU rates limit successful implementation of PMTCT programs in sub-Saharan Africa.³ Cumulative sub-Saharan Africa PMTCT LTFU rates in 2011 were estimated to range from 20% to 28% during antenatal care and then sharply increase to 70% at four months postpartum and approximately 81% six months after birth.⁴

Given these staggering statistics, the quality and effectiveness of PMTCT services should include an assessment of the proportion of MBPs retained in care⁵ and early infant diagnosis (EID) rates.

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Barriers and facilitators of implementation

Barriers

Factors associated with PMTCT LTFU include structural barriers, such as multiple visits prior to ART initiation, clinic schedule constraints, long waiting times, discriminatory health provider attitudes, lack of EID services and poor-quality counseling. Other barriers include socio-behavioral factors, such as stigma and discrimination, limited time to process HIV diagnosis before ART initiation, insufficient disclosure support, and poor family and/or spousal support. Biomedical factors, such as being too ill to initiate ART and drug side-effects, have also been associated with PMTCT LTFU. Finally, socio-economic barriers include poverty and home deliveries.⁶



Facilitators

The facilitators of MBP retention include having a supportive partner, disclosure to partner and family, peer counseling, psychosocial support and positive experiences with health providers.⁷

Time to LTFU has also been documented as shorter among mothers with babies who did not undergo EID at 4-6 weeks of age compared with MBPs who had, as recommended by WHO.⁸

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Policy and legal considerations

National programs should rapidly adopt and fully implement lifelong ART for optimal PMTCT, overall health of the mother and enhanced retention of MBPs.

Antenatal care, PMTCT, maternal, newborn and child health (MNCH) platforms and nutrition services should be integrated to the greatest extent possible.

Cohort monitoring is key to measuring retention over time and often requires a national policy to modify or implement new registers to track MBP retention and outcomes together.

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Steps for scale-up

Evidence supports several strategies to address MBP LTFU:

1. **Home visits:** Home visits by health workers on enrolment into PMTCT programs promotes retention. Additional home visits and community sensitization by community health workers (CHWs) may encourage deliveries in health facilities that provide peri-partum PMTCT services.
2. **Client reminder systems:** Electronic client reminder systems with text messaging help to improve retention, as well as adherence. A good example is the PedTrack client reminder system, a simple software program adopted by Save the Children in Zambia. Health providers are able to improve treatment adherence by sending reminders and tracking MBPs with support of CHWs.
3. **Peer support at community and facility level:** Peer support facilitates retention in PMTCT programs.⁶ A good example, is mothers2mothers (m2m), a facility-based peer support program that provides education and psychosocial support for mothers living with HIV.
4. **Tracking and tracing standard operating procedures (SOPs):** SOPs should outline how health providers should identify MBPs that have failed to attend scheduled clinic appointments, how CHWs should trace MBPs in communities and facilitate their return to care, and how providers and CHWs should coordinate and communicate on tracking and tracing.⁹
5. **Integrated MBP clinics:** MBPs should be given the same appointment date. Health providers must be prepped to receive both mother and baby in the same appointment. The clinic should be organized so that MBP files, drugs and any other materials required for their care are in one place.

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Case example of successful implementation

In 2014, the Government of Ethiopia, with technical and financial support of H4+ and other partners, developed and rolled out a new MBP cohort register. For the first time, mothers were linked with their babies in a single register, allowing health facilities to track their combined outcomes.

In 2017, the Federal Ministry of Health of Ethiopia developed PMTCT maternal and HIV-exposed infant cohort monitoring tools and conducted training to roll out the system at regional level.

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Tools to support implementation

Monitoring and evaluation framework for antiretroviral treatment for pregnant and breastfeeding women living with HIV and their infants: <https://www.childrenandaids.org/sites/default/files/2017-05/IATT-Framework-Monitoring-Evaluation-Framework-for-ART-Treat.pdf>

The PHFS Learning Platform: <https://www.usaidassist.org/toolkits/partnership-hiv-free-survival-learning-platform> - a compendium of resources for the QI approach.

Three interlinked patient monitoring systems for HIV care/ART, MNCH/PMTCT and TB/HIV - Standardized minimum data set and illustrative tools: http://www.who.int/hiv/pub/imai/three_patient_monitor/en/

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Monitoring

1. **Integration into national health management information system:** The PMTCT cohort monitoring system should be part of the national health management information system to ensure scalability and sustainability.
2. **Maternal and birth cohort monitoring:** Cohort monitoring is key to tracking retention of both HIV-positive mothers and HIV-exposed infants. Longitudinal monitoring of mothers and infants is critical to ensuring that MBPs receive uninterrupted care during pregnancy and breastfeeding. Paired records for MBPs, such as a shared client folder and shared unique identifier, are key.
3. **Electronic PMTCT databases:** Where feasible, electronic PMTCT databases improve health outcomes for MBPs through enhanced patient tracking and tracing. Through these databases, facilities can identify those LTFU and implement tracing through community cadres.¹⁰
4. **Quality improvement:** Facility teams should receive quality improvement training and regular mentorship to identify areas for improvement. This requires data completeness and accuracy to monitor progress according to set indicators.


- National programs should assess existing barriers to and facilitators of retention of MBPs. Rapid mitigation of barriers and scale-up of enablers can help to improve retention.
- Innovations and technology can contribute real-time tracking of MBPs within the health system and help to assess effectiveness of PMTCT services.
- Maternal and HIV-exposed infant PMTCT cohort monitoring is key to ensuring retention of MBPs. National programs should introduce and integrate PMTCT cohort monitoring into the national health information system to measure the quality and effectiveness of PMTCT services.

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