



Mother Infant Pair Program: A Proven Model in Vertical Transmission Prevention (VTP) and Differentiated Service Delivery (DSD)

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HIV
Impact Network for
Vertical Transmission
Elimination



Outline

- **Introduction**
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Introduction: Vertical Transmission Prevention (VTP) Landscape in Eswatini

High HIV Prevalence: Eswatini has one of the highest HIV prevalence rates in the world, with approximately 27% of adults aged 15-49 living with HIV¹.

VTP-Specific Statistics: About 97% of pregnant women living with HIV (WHIV) in Eswatini accessed antiretroviral therapy in 2023, but socio-economic and cultural factors still impact program success, particularly in rural areas¹.

Vertical Transmission: Eswatini has reduced vertical transmission rates significantly, with national data showing vertical transmission at **below 4%** at 6 weeks postpartum^{2,3}.

1. *UNAIDS Global Report (2023)*,
2. *WHO VTP Guidelines (2022)*
3. *UNICEF Progress for Every Child (2023)*

Introduction: VTP Landscape in Eswatini (2)

Eswatini's Commitment: The Ministry of Health (MOH) in Eswatini has adopted a multi-faceted Vertical Transmission Prevention (VTP) approach aligned with WHO guidelines, aiming to reach zero new infections in children. Strategies include early antenatal care (ANC) enrollment, community-based HIV testing, and continuous follow-up post-birth^{1,3}.

Integrated DSD in VTP: Eswatini has implemented Differentiated Service Delivery (DSD) models, integrating VTP within broader maternal and child health services to reduce travel burdens and improve continuity of care².

1. *Ministry of Health Eswatini (2023),*
2. *WHO/AFRO Regional Reports (2023), and*
3. *UNAIDS (2022).*

Objectives of the Baylor Foundation Eswatini Mother Infant Pair (MIP) DSD strategy

Baylor Foundation Eswatini implemented the Mother Infant Pair (MIP) DSD strategy in 2015.

Objectives

1. To decrease number of infant seroconversion to zero by identifying breastfeeding WHIV who are interrupting treatment and infants with perinatal HIV exposure and engaging them into care.
2. To provide comprehensive and continuous care for breastfeeding women living with HIV and their infants.
3. To support continuity of treatment and adherence through a tailored Mother Infant Pair (MIP) and multi-month dispensing (MMD) Differentiated Service Delivery (DSD) model.
4. To integrate WHO-recommended Vertical Transmission Prevention (VTP) and DSD strategies within Baylor Foundation Eswatini's healthcare system.

Program Description: Recruitment of MIPs

- **Entry Point:** Mothers and infants are recruited at facility antenatal clinics and routine clinic consultation at our paediatric outpatient clinics and satellite sites.
- **Criteria:** Women living with HIV. Infants are automatically enrolled at birth for follow-up.
- **Follow-Up Mechanism:** Synchronized appointment dates for mothers and infants to reduce the number of trips they need to make to a health facility.
- **Regular Facility-Based Visits:** Scheduled every 1-3 months including multi-month dispensing (MMD) considering mother-infant pair needs and clinical guidelines.
- **Baby Clubs:** During selected MIP visits, mothers and infants attend Baby Club sessions, which focus on peer support, adherence counseling, and education on child development. Transport is reimbursed. Visits are tracked for mother and baby.
- **Home Visit Schedule:** For those with high viral loads or at high risk of loss to follow-up, targeted home visits by the mentor mother and/or social workers are scheduled.

Program Description: Integrated Service Delivery for the Mother

HIV Services

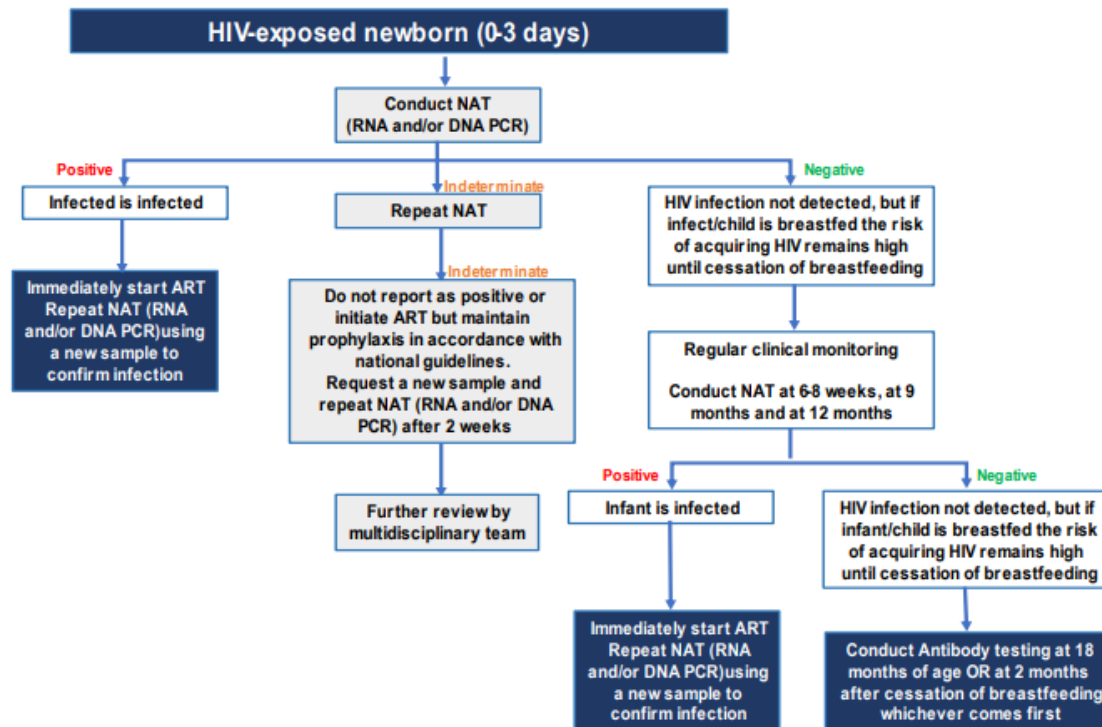
- **Antiretroviral therapy provision:** 3MMD refills for mothers and, if needed, prophylactic antiretroviral therapy for babies.
- **Early postpartum care:** Detecting and managing complications and supporting breastfeeding.
- **SRH services:** Contraception, cervical cancer screening, screening and treatment of STIs (e.g., chlamydia, syphilis and gonorrhoea).
- **Lab follow-up:** Monitoring of CD4 counts, VL, LFT, creatinine and other lab parameters as indicated.

Integrated Services

- **Health Education:** On breastfeeding, hygiene, nutrition, and early childhood development.
- **NCD screening:** Routine monitoring of wt, Ht, Bp, and BMI. Selected monitoring of random blood glucose, urine dipstick.
- **Peer Support:** MIP mothers share experiences and encouragement.
- **Mental health services:** Through routine PHQ9 screening.
- **Socio-economic support:** Through coaching on income generating skills.

Program Description: Integrated Service Delivery for the Baby

- Enhanced Postnatal Prophylaxis (ePNP), growth monitoring, immunizations, Early Childhood Development (ECD) screening
- EID testing schedule:



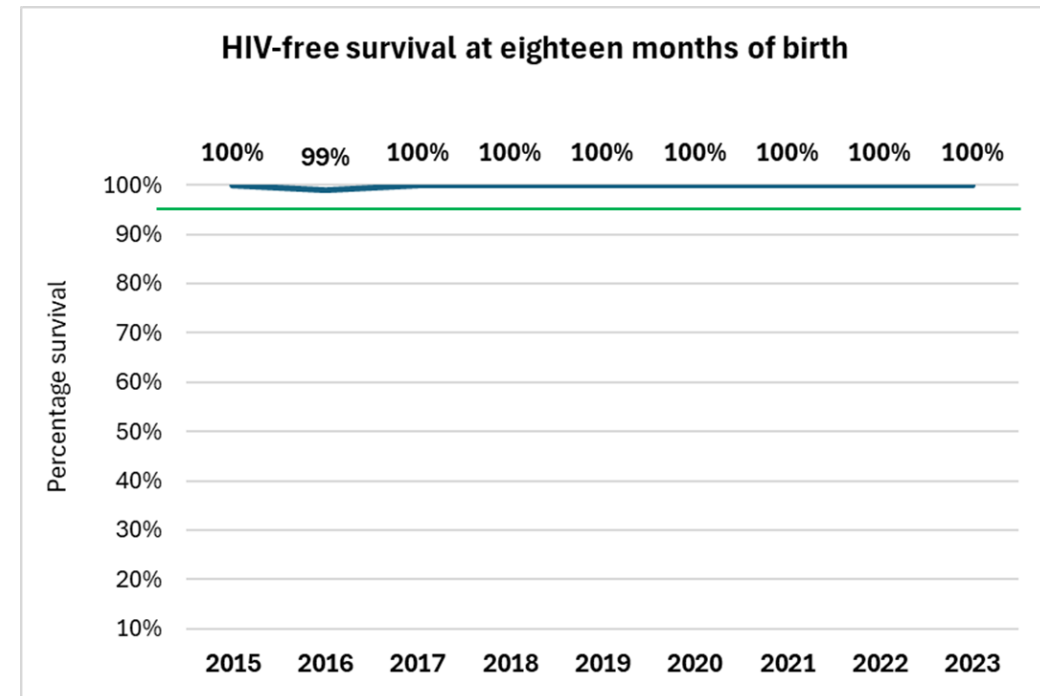
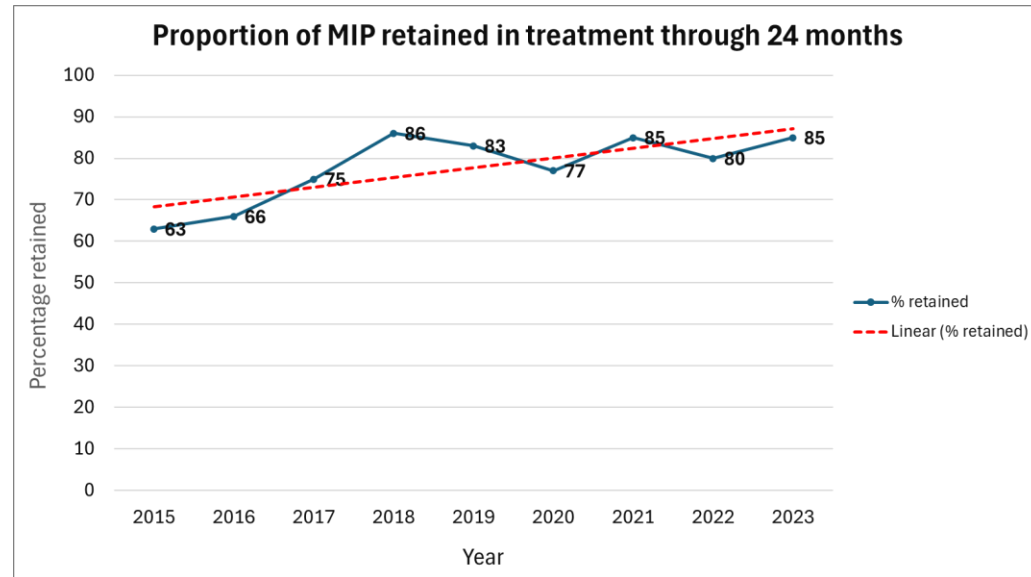
Program Description: Monitoring & Evaluation

Electronic Charts:

- **Naming and Indexing:** Electronic files are labeled with unique patient identifiers, including maternal ID, baby's PIN **and** baby's birth date, ensuring ease of reference
- **Electronic Medical Records (EMR):** Patient details are entered into Baylor-specific EMR systems, allowing digital retrieval and continuity of care
- The monitoring and evaluation team extracts data quarterly to measure MIP performance
- **Transition from Registers:** Complete transition from paper-based to electronic registers is maintained
- EMRx files are indexed by unique file numbers and visit date for quick access

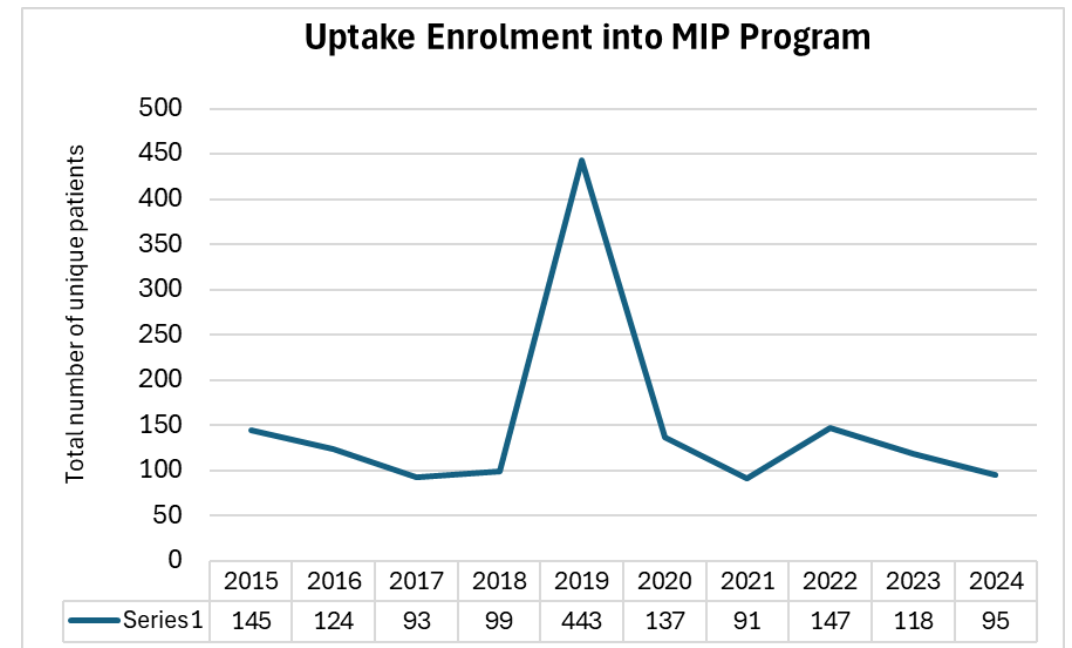
Results

- **150** babies (unique patients) on average are followed up each year at Baylor sites
- Linear trendline depicts increase in MIP retention
- Mothers' records can be extracted separately to track retention
- 2 infants seroconverted since inception of the program
- No new seroconversion since 2017
- Stable retention rates of MIPs through 24-months (~85%)
- Our MIP participants attained HIV-free survival at 18-months of birth at >95%



Results: Key Findings

- **VTP Transmission Rate:** Low rate within the cohort; only 2 babies seroconverting in 9 years.
- **VL Monitoring:**
 - **Pregnant women on antiretroviral therapy:** 1st ANC visit, 34-weeks gestation.
 - **Lactating women on antiretroviral therapy:** 6-weeks postpartum and every 6-months until breastfeeding cessation.
- **Viral Suppression:** Viral coverage is 100%. Viral suppression is 96% (991/1031).
- **Spike in Enrolment:** Stockouts of contraceptive commodities in 2019.
- **Adherence to Antiretroviral Therapy:** Enhanced adherence through regular counseling and mentor mother involvement.



Lessons Learned: Key Success Drivers

- Integration of VTP and DSD in a single model, ensuring that both mother and child receive streamlined, continuous, client-focused care
- Continuous monitoring through regular review, provision of multi-month dispensing (MMD) during pregnancy and breastfeeding, and feedback from mothers
- Quarterly data review meetings
- **Data-Driven Impact:** Baylor Foundation Eswatini's data collection and evaluation practices inform VTP improvements and align with HIVE's focus on measurable, sustainable progress

Conclusion

- **Summary of Outcomes:** The MIP Program is a highly effective model with proven success in minimizing vertical transmission and supporting mother-infant pairs.
- **Path Forward:** The MIP DSD Model is a replicable, scalable model that can further Eswatini's and global efforts in VTP.
- **Call to Action for HIVE Members:** We call for advocacy for continued support and investment in DSD models to achieve the goal of eliminating vertical transmission.



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