AIDSFREE MOTHER-BABY PAIR RETENTION IN CARE THROUGH COMMUNITY FOCAL MOTHERS

FINAL REPORT

MARCH 2019

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This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of Cooperative Agreement AID-OAA-14-00046. The contents are the responsibility of AIDSFree and do not necessarily reflect the views of USAID, PEPFAR, or the U.S. Government.

AIDSFree

The Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project is a five-year cooperative agreement funded by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) with the United States Agency for International Development (USAID) under Cooperative Agreement AID-OAA-A-14-00046. AIDSFree is implemented by JSI Research & Training Institute, Inc. with partners Abt Associates Inc., Elizabeth Glaser Pediatric AIDS Foundation, EnCompass LLC, IMA World Health, the International HIV/AIDS Alliance, Jhpiego Corporation, and PATH. AIDSFree supports and advances implementation of the U.S. President's Emergency Plan for AIDS Relief by providing capacity development and technical support to USAID missions, host-country governments, and HIV implementers at local, regional, and national levels.

Recommended Citation

Pearson, Jennifer, Alexandra Coombs, Menzi Ginindza, Phinda Dlamini, Christopher Makwindi, Caspian Chouraya, and Aida Yemaneberhan. 2019. *AIDSFree Mother-Baby Pair Retention in Care Through Community Focal Mothers: Final Report*. Arlington, VA: Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project.

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ACRONYMS

ART	antiretroviral therapy
CFM	community focal mother
CHW	community health worker
CWC	child welfare clinic
EID	early infant diagnosis
HCW	health care worker
HEI	HIV-exposed infant
LTFU	lost to follow-up, loss to follow-up
m2m	mothers2mothers
MBP	mother-baby pair
MCH	maternal and child health
MOH	Ministry of Health
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PMTCT	prevention of mother-to-child transmission
SOP	standard operating procedure
SRHU	Sexual and Reproductive Health Unit
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

In Eswatini, fewer than half of HIV-exposed infants are retained in care long enough to receive their final HIV status at 18-24 months, or after the end of breastfeeding (AIDSFree 2016). It is critical that mother-baby pairs (MBPs) attend all scheduled child welfare visits together, as these include important health services for both mothers and infants/children, including prevention of mother-to-child HIV transmission (PMTCT) services. However, in Eswatini, many MBPs are lost to follow-up (LTFU) after the six-week postpartum visit; one study showed that only 6 percent of infants were retained in care at 12 months, indicating significant numbers of MBPs who are missing key services (Woelk 2015). LTFU hinders determination of HIV-exposed infants' HIV status and PMTCT final outcome.

The AIDSFree community focal mother (CFM) model has demonstrated success in improving retention in care of MBPs through PMTCT final outcome at 18–24 months. This model uses a proactive community-based approach. Trained and compensated CFMs visited all enrolled MBPs, regardless of HIV status, at home *before they missed a visit* to encourage them to continue visiting the health facility. During home visits with the mother, CFMs developed and regularly reviewed a care plan to anticipate mobility over the next 18 months. This proactive approach helps mothers plan for visits, anticipate challenges, and improve retention in care.

Since its inception in 2017, the CFM model has seen retention in care of enrolled MBPs in critical maternal and child health and PMTCT care—all children enrolled in the program completed their age-appropriate child welfare visits per the Ministry of Health (MOH)-recommended schedule and received key health services or were documented in the facility register as transferred to another facility, relocation outside the intervention catchment area, or infant death. At 18 months, 100 percent (60/60) of children who reached 18 months completed their 18-month visit and received their final HIV status, compared to 38 percent of HIV-exposed children in same facilities at baseline. Enrolled children also received all other services per the MOH schedule, including growth monitoring, immunizations, deworming, and vitamin A supplementation.

This proactive CFM model improved retention and service uptake rates of enrolled infants; 82 percent of MBPs enrolled missed no visits and completed all visits on time, while 18 percent missed one or more visit but were successfully linked back to care and prevented from becoming LTFU. Due to this success, AIDSFree in Eswatini has led efforts for national scale-up by collaborating with the MOH and implementing partners to train additional community cadres. The CFM model has been recognized as a PEPFAR solution. Upon the request of USAID Kenya, the program is also being adapted by AIDSFree Kenya for implementation in two counties and possible national scale-up. These positive responses and adoption of the CFM model can support overall improved rates of PMTCT final outcome and early infant diagnosis (EID) of HIV.

BACKGROUND

Eswatini has the highest HIV prevalence in the world, but has made significant progress in addressing the epidemic and achieving the Joint United Nations Programme on HIV and AIDS 95-95-95 goals related to HIV testing, treatment, and viral load suppression. As of 2017, 90 percent of women in Eswatini living with HIV age 15 and over have been tested, 97 percent of those were on treatment, and 92 percent of those on treatment were virally suppressed (PEPFAR 2018). These high rates are an incredible achievement toward epidemic control.

Unfortunately, despite these efforts, fewer than half of HIV-exposed infants (HEI) are retained in care long enough to receive their final HIV status at 18–24 months. MBPs receive care together at child welfare visits through 18-24 months postpartum/of age, but there are high rates of LTFU of MBPs after the six-week postpartum visit. A secondary data analysis of infants in Eswatini in 2015 showed that at six weeks, 80 percent of the infants were retained in the PMTCT program; this declined to 61 percent at two-four months, but then declined sharply to 20 percent at five–seven months (Woelk 2015). At 12 months, the percentage of infants retained was only 6 percent (see Figure 1). Routine program data have shown that less than 50 percent of HIV-exposed infants have a documented final PMTCT status by 18 months or end of breastfeeding (AIDSFree 2016). This poor retention in care limits the impact of PMTCT services, including EID and linkage to ART for HEIs.

Figure 1. Secondary analysis of retention of HIV-Exposed Infants in Eswatini

Expected	Observed	Time period	Prop	95% CI
1,839	1,471	6 wks	0.80	0.69, 0.94
1,839	1,142	2–4 m	0.61	0.51, 0.73
1,839	372	5–7 m	0.20	0.13, 0.32
1,821	255	8-10 m	0.14	0.075, 0.26
1,698	107	11–13 m	0.063	0.027, 0.14

Source: Woelk 2015.

Mother-baby pairs are lost through transfers by facility or self, death of mother and/or baby, when they are prevented from accessing care, or decide to discontinue care. In the child welfare clinics (CWCs), there is limited record of services provided to the mother alongside that of her baby and different registers are used to capture information on the pair. The mother and her infant do not possess a unique identifier and are not linked together in electronic medical records or health information systems. This makes it difficult to track mothers and infants as a pair and determine when they have missed services or become LTFU.

TECHNICAL ASSISTANCE

At the request of USAID/Eswatini, AIDSFree provided technical assistance from 2016 to 2018 to implement a community-based activity to address LTFU among MBPs to improve the rates of PMTCT final outcome.

Landscape Analysis

In November 2016, AIDSFree conducted a landscape analysis with USAID/Eswatini, the Eswatini MOH, and key implementing partners. The goal of the landscape analysis was to determine the scope and design of the intervention. To achieve this, AIDSFree actively engaged with key stakeholders, including MOH, traditional leaders, the USAID mission, and other implementing partners. Objectives of the landscape analysis included exploring the underlying factors leading to LTFU of MBPs, as well as barriers to retention in care of MBPs and potential solutions. The landscape analysis also involved meetings with stakeholders to understand their efforts related to PMTCT and community-based interventions and stakeholders' perspectives on potential community-based models for improving MBP follow-up.

Contributing factors to LTFU among MBP were consistently identified by partners as a mobile population, low health literacy, financial constraints, HIV-related stigma and discrimination, gender inequity, and health facility factors, including documentation gaps. Many of these factors are consistent with barriers identified in the literature.

Overall, stakeholders recommended using a community-based model that worked through traditional structures, such as the chiefs and the chiefs' inner councils, to encourage child welfare as a community priority and to engage male partners of women with new babies. The stakeholders also suggested using a mentor mother model to provide one-on-one contact and education at the household level. The stakeholders emphasized the critical need to strengthen health facility documentation gaps to understand whether the LTFU rates reflected true discontinuation of care, missing data, or both.

Literature Review

Retaining MBPs in care after delivery is critical to provide effective PMTCT services and reduce the rate of pediatric HIV infection. In designing the intervention, AIDSFree conducted a literature review to determine factors related to mother-infant cohort retention in PMTCT care in sub-Saharan Africa countries.

Key barriers and facilitators to retention in care include the following (Obai 2017; Achebe 2018):

Barriers

- **Structural**: Lack of integration of MBP services at health facilities, health facility schedule constraints and wait times, poor quality services, discriminatory health provider attitudes, lack of EID services, wait time for HIV test results, distance and lack of transportation to clinic.
- **Sociobehavioral**: Lack of social support, stigma and discrimination, non-disclosure of HIV status.
- **Socioeconomic**: Poverty, including lack of funds for transportation to clinic and lack of funds to pay for health services.
- **Individual**: Low education, including lack of understanding the importance of adhering to all facility appointments as a MBP.

Facilitators

- **Structural**: Positive experiences with the health system; MBP linkage in the health information system/facility registers, including paired records and a shared unique identifier; electronic PMTCT databases.
- **Sociobehavioral**: Peer counseling and support, both at the facility and community levels; supportive partner, family, friends; other forms of psychosocial support.

Strategies to Improve Retention in Care

A 2018 publication by the Child Survival Working Group identified strategies to improve retention of MBPs in PMTCT programs (Achebe 2018). These include:

- **Peer support** at community and facility level, such as a mothers2mothers (m2m) model that provides education and psychosocial support to mothers living with HIV.
- **Home visits** by community health workers (CHWs) to encourage facility attendance and community sensitization to maternal and child health.
- **Client reminder systems** to improve both retention in care and antiretroviral therapy (ART) adherence, either through CHWs making calls, or electronic reminders using text messaging/SMS systems.
- **Tracking and tracing standard operating procedures (SOPs)** to instruct health care workers (HCWs) in identifying MBPs who have missed scheduled clinic appointments, the procedure for CHWs to trace MBPs in communities and help them return to care, and how HCWs and CHWs should coordinate and communicate to find and follow up with MBPs.
- **Integrated MBP clinics** so that mothers and their children receive services at the same appointment in the same room, including ART for mothers living with HIV.

Intervention Design

AIDSFree, in collaboration and active engagement of MOH, the USAID mission, and traditional leaders, designed a proactive household- and community-based intervention to address LTFU and encourage retention in care of mother-baby pairs. The design was based on the landscape analysis results, the current literature on best practices to address MBP retention in PMTCT care, engagement with Eswatini traditional leadership, and the availability of health facilities that were able and willing to participate. The intervention selected and trained women to act as CFMs who would interface with both MBPs in their community and the local health facilities, meeting with mothers at their household to encourage them to remain in care through determination of their child's PMTCT final outcome at 18-24 months, or after cessation of breastfeeding.

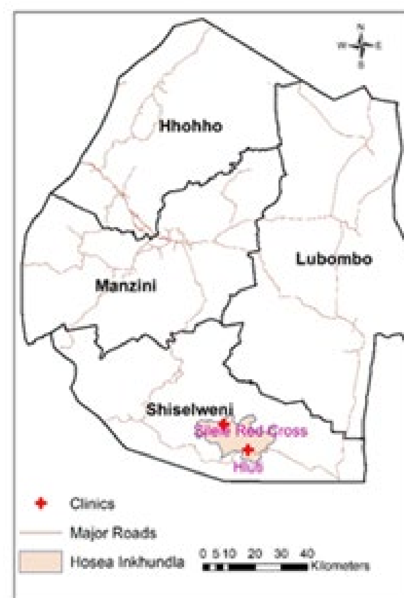
Constituency and Health Facility Selection

Because the intervention relied heavily on health facilities to enroll and provide services to MBPs, and on the traditional leaders to support the work of CFMs, AIDSFree reviewed possible health facilities and chiefdoms to determine where to implement the intervention. The constituency (similar to district), and chiefdoms under it, were selected based on the support of their chief's inner councils for this child welfare and PMTCT intervention. AIDSFree reviewed where MBPs from the selected constituency were receiving care, and chose those health facilities with sufficient volume of MBPs and an interest in working with AIDSFree.

The intervention was implemented in Hosea constituency (*inkhundla*) in Shiselweni Region consisting of six chiefdoms: Ondiyaneni, KaLiba/Ludzakeni, Lushini, Nsingizini, Manyisen, and Hhohho Emuva. (See Annex 3 for a list of chiefdoms and their populations.)

AIDSFree selected three clinics to work with for the intervention, including two high-volume facilities: Hluthi Clinic and Silele Red Cross Clinic (see Figure 2). Each clinic has a catchment of three chiefdoms in the constituency. In addition, Jericho Clinic was selected, due to spillover of MBPs from Ondiyaneni Chiefdom.

Figure 2. Location of Selected Health Facilities



Chiefdom Engagement

AIDSFree prioritized engagement with members of Eswatini's traditional structures, namely the chief's inner councils and Constituency Committee, to secure community buy-in for the intervention. The MBP retention in care intervention was implemented through Eswatini's traditional structures in partnership with the MOH. The initiative was introduced to the chiefdoms through the development officers (*bucophos)*, or chiefs' inner council representatives. Through the *bucophos*, AIDSFree attended meetings of the chiefs' inner councils to address the inner council members and sensitize them on the challenge of mother-baby pair retention in care, the importance of children receiving the full package of child welfare visits—including the importance of completing the visits to ensure determination of a final HIV status for the child at 18-24 months—and to introduce the initiative.

Nomination of CFMs by Inner Councils

Upon the request of AIDSFree, the inner councils nominated CFMs based on the selection criteria. Selection criteria included being a woman aged 21-45 with at least one child under 10 years. Candidates had to be well-respected long-term residents who were committed to community health issues and able to observe confidentiality. These women needed to have sufficient education and English language skills and be willing to travel throughout the community to conduct household visits and regularly visit the health facility. Ideal candidates would have previous volunteer experience.

Acting chief and chief's inner council members at Lushini Chiefdom community sensitization meeting.

The number of CFMs for each chiefdom was determined by the birth cohort size

Chiefdoms

Communities in Eswatini are governed by traditional chiefs and their inner councils. The chiefs are the custodians of traditional law and custom, report directly to the king, and are responsible for the day-to-day running of their chiefdoms as well as maintaining law and order. Chiefdoms are a natural entry point for HIV and child welfare interventions though the inner council; they offer an excellent opportunity to reach the Swazi people, including those in rural areas, as all Swazi people are members of a chiefdom. As representatives and advisors to the chief, inner council members are highly respected in their communities.

in the three facilities, as indicated by a review of facilities’ child welfare registers, and geographic considerations of each chiefdom. AIDSFree, along with health facility representatives, conducted interviews with the inner councils’ nominees and the final selected candidates were invited to participate in the CFM training.

IMPLEMENTATION

AIDSFree worked with the CFMs, health facilities, chiefs' inner councils, and the MOH to implement a successful intervention.

Community Focal Mother Training

AIDSFree developed materials to train CFM nominees in their roles, including a facilitator's guide, training presentation, and job aids, as well as monitoring and evaluation tools. AIDSFree held a five-day training for the CFM nominees in May 2017. CFM nominees received training on key communication skills through role plays, with an emphasis on the importance of keeping mothers', caregivers', and babies' information confidential. The training modules also covered an introduction to the intervention and CFM model, HIV and PMTCT basics, key health services for mothers and infants, the MOH child welfare schedule, and a review of the tools for household visits.

CFM Training Modules

- Module 1: Introduction to the CFM Model
- Module 2: HIV and PMTCT Basics
- Module 3: MBP Package of Care
- Module 4. Communication Skills
- Module 5: Conducting Home Visits
- Module 6: Understanding the Child Health Card & Using the Community Focal Mother Register
- Module 7: Review & Next Steps

The training focused on role plays to prepare trainees for their potential role as CFMs and emphasized that CFMs will not serve as CHWs. CFMs are distinct from other lay health cadres—they do not provide health counselling or HIV testing services. CFMs are more closely aligned with a peer support model, where their focus is on encouraging MBPs to attend all child welfare visits and helping her address barriers to doing so.

Participants were briefed on the expected duties of CFMs, which include conducting monthly household visits and community-based follow-up to meet with MBPs. During household visits, CFMs would review the Child Health Card and develop a care plan with the mother to cover the

next 18-24 months to help her anticipate her and the child's location and determine how to receive services. During these visits, CFMs were expected to use the intervention tools to record what was discussed with the mother—or caregiver, whoever takes the child in for care—in terms of challenges to completing clinic visits and action plans to address them, and report these issues to the supervising team and health facility focal person, as well as the chief's inner council.

Participants during the AIDSFree CFM training in May 2017.

Based on the pre- and post-test administered to participants, all CFM candidates improved their knowledge and attitudes and indicated a readiness to take on the role of a CFM. However, to determine who would actually serve as CFM, AIDSFree trainers and staff from the three health facilities selected the final CFMs based on additional criteria—namely, participant comprehension of material, maturity, facilitation skills, and capacity to serve as a CFM, as demonstrated through role plays. The remaining trainees were designated as "reserve" CFMs, prepared to assume the role in the case of CFM attrition. Trained CFMs were formally introduced to the inner council members in their respective chiefdoms and staff at health facilities to ensure recognition and open communication with traditional leaders and clinic staff.

Mother-Baby Pair Enrollment

AIDSFree enrolled MBPs through the three selected health facilities. All mothers—regardless of HIV status—attending postnatal car for their six-week postpartum visit (and up to the 6-month visit if not enrolled at 6 weeks) at the three clinics starting in May 2017 and on a monthly basis throughout the intervention were told about the importance of MBP follow-up through 18-24 months. They were informed by the clinic nurse that a CFM will visit and meet with her or her child's caregiver in

Mother-baby pairs at the Child Welfare Clinic at Hluthi Clinic.

their homes, review the Child Health Card, and encourage them to keep visiting the clinic or to return to the clinic if they miss a visit or stay in a different town or community. Mothers were asked by health facility staff to consent to receive household visits from the CFM identified in her chiefdom. Those mothers who agreed were assigned to a CFM for community follow-up. Enrollment at the six-week visit was selected after data review showed that retention at the six-week visit was high in the intervention facilities, but subsequently declined. To reduce stigma concerns at community-level, CFMs provided proactive follow-up of all MBPs, regardless of HIV status.

Household Visits

At the first household visit, a CFM introduces herself and refreshes the mother on the initiative's objectives, identifies her role as a CFM, and requests to review the baby's Child Health Card to verify the completion of the age-appropriate clinic visit. When meeting with the mother or baby's caregiver, the CFM stresses the importance of completing child welfare visits on time, discusses and problem-solves any challenges MBP have confronted in completing visits, and reminds the mother/caregiver of the next scheduled clinic visit to begin planning for timely attendance. On a bimonthly basis, CFMs were provided with additional MBPs who had consented and been enrolled at the health facility to begin following up in the community.

Household visits were guided by several job aids, including a step-by-step checklist developed by AIDSFree (see Annex 1). The checklist covers the full household visit from introduction, to Child Health Card review, to assessment of clinic visit completion, to key messages and communication of next steps to the mother/caregiver.

CFMs at their monthly supportive supervision meeting at Silele Red Cross Clinic.

At the first household visit, CFMs create a care plan with the mother using a template developed by AIDSFree. The care plan asks mothers to anticipate their location at each of the schedule child welfare visits up to 18-24 months to proactively address challenges in completing clinic visits on time (see Annex 2). CFMs then use these care plans as job aids to guide follow-up discussions with mothers by reviewing and updating them as needed at each subsequent monthly household visits.

Supportive Supervision

AIDSFree advisor reviewing register with CFMs at a supportive supervision meeting at Silele Red Cross Clinic.

CFMs were supported by a supervising team, comprised of AIDSFree advisors and health facility focal persons. This supervision structure ensured that the CFMs received the support they needed to fulfill their role successfully, as well as collect that data necessary to show the impact of the intervention.

During the first month of household visits, AIDSFree advisors accompanied CFMs during household visits to conduct intensive supportive supervision and guidance. AIDSFree advisors also accompanied CFMs to quarterly meetings with the chief's inner council and develop action plan to address challenges.

Other key members of the supervising team were the health facility focal persons. The three participating health facilities each identified a focal person—a nurse working in the Child Welfare Department—who acted as a liaison between the facility and the community, including the AIDSFree team and the CFMs. The health facility focal person also met with CFMs at twice-monthly visits at the clinic to discuss updates, challenges, and status of MBPs (transfers-out, etc.), at which time they supplied CFMs with the list of new MBPs to begin following up with in the community.

Health Facility Focal Person

The health facility focal person's role included ensuring that facility health care workers:

- Provided health education and services to mother-baby pairs,
- Recorded child welfare visits on the child health card and in the facility register, and
- Enrolled new MBPs by requesting verbal consent from all mothers at six-week visit, regardless of HIV status.

This allowed the facility to successfully enroll MBPs and release the names and contact information of mothers to CFM for home meetings.

MONITORING AND EVALUATION

Monitoring and Evaluation Tools

AIDSFree developed a *Community Focal Mother Register* for routine collection of intervention data during household visits. CFMs were guided by the CFM checklist (Annex 1) and recorded information in their register, including:

- Child's completion of age-appropriate clinic visit.
- Challenges the mother faced in attending clinic visits.
- Action plan discussed to address challenges.
- Mother's plan for completing next clinic visit on time.
- Plans for the next household visit with the MBP.

This tool supported the CFM in verifying that the Child Health Card and the facility registers were consistent and up-to-date. As MBPs would sometimes receive care from another health facility, CFMs could identify this in the Child Health Card and relay this information to the child's primary health facility, who could update their registers to indicate that the child had not missed a visit.

Data Collection and Monitoring

Child welfare register data routinely collected includes completion of key clinic visits at six weeks, 10 weeks, 14 weeks, six months, nine months, 12 months, and 18–24 months as well as HIV testing completion and infant HIV status. AIDSFree developed a baseline data collection tool for data abstraction from the three clinics' child welfare registers to determine retention in care of children who had reached 18-24 months.

Throughout program implementation, data were collected monthly from facility registers for monitoring. Data also were collected from the CFM registers. The AIDSFree supervising team met regularly with CFMs to ensure their success in collecting data during household visits and reporting that information back to health facilities. This monitoring of data collection and CFM performance included:

- Monthly meetings with CFMs for ongoing mentorship, review of CFM registers, and distribute monthly compensation.
- Compilation of weekly reports, including data abstractions from CFM register.
- Quarterly meetings with all CFMs to monitor program implementation and hear suggestions for improvement.

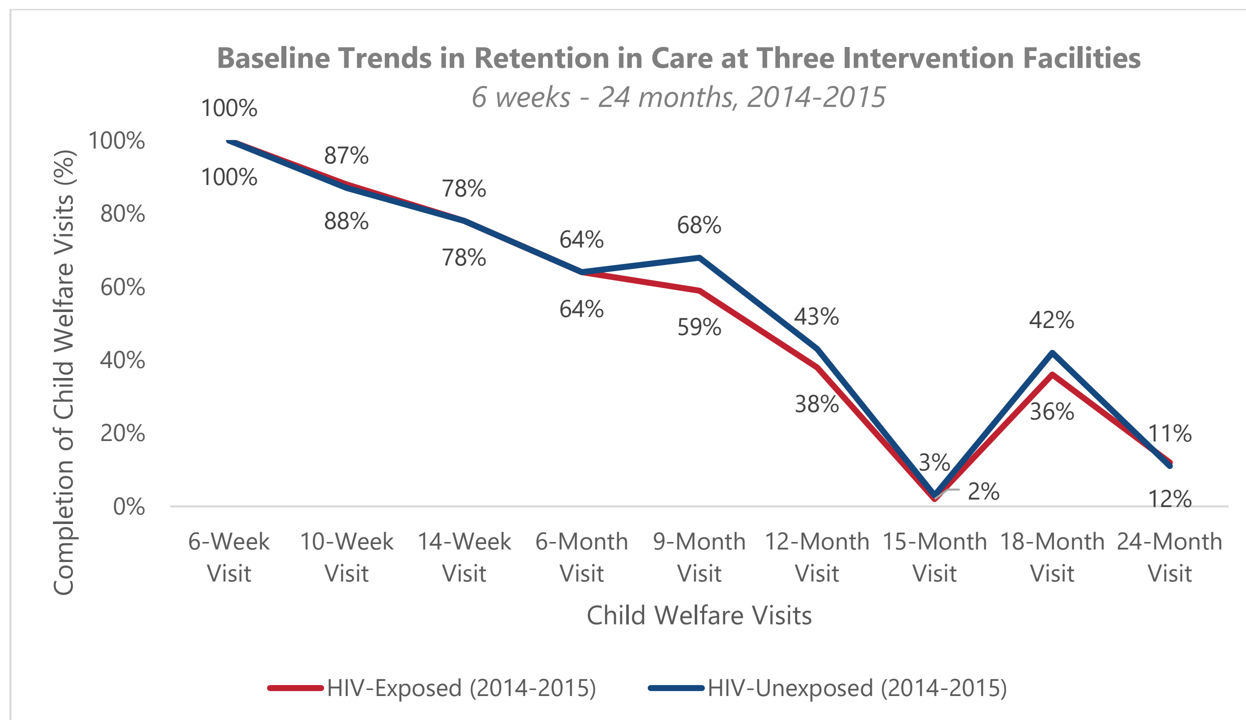
Endline data were collected through the end of November 2018, including data on the first cohort of children to reach the 18-month child welfare visit.

Baseline Data

AIDSFree collected baseline data from the three facilities. This included data from a cohort of children who had completed their last child welfare visit at 18-24 months and received their final PMTCT outcome in 2014–2015. As the intervention enrolled both HIV-exposed and unexposed infants, baseline data were collected for both cohorts. Records for 925 children were abstracted from all three clinics.

The overall baseline retention rate among the HIV-unexposed infants seen at the first CWC visit from 2014 to 2015 started at 100 percent at six-eight weeks and dropped to 11 percent by 24 months. Overall retention rate among the HEIs seen at the first CWC visit from 2014 to 2015 started at 100 percent at six-eight weeks and dropped to 12 percent by 24 months (see Figure 3).

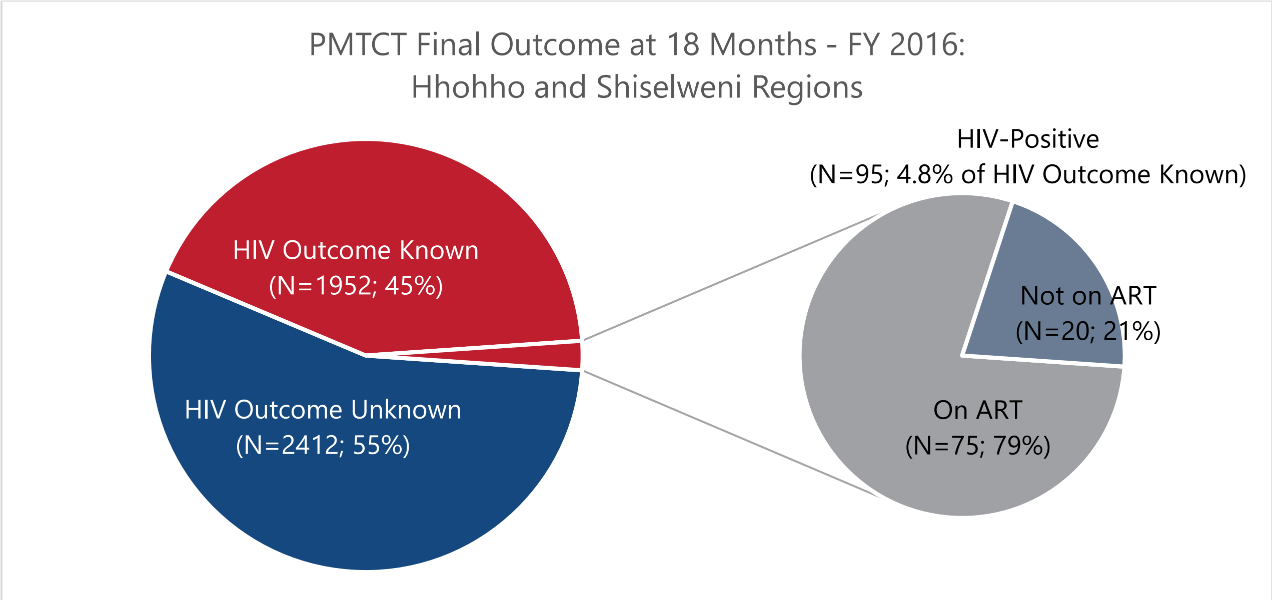
Figure 3. Baseline Retention in Care of Infants, 2014–2015 (Silele Red Cross Clinic, Hluthi Clinic, and Jericho Clinic)



In addition to retention in care at the three health facilities, AIDSFree reviewed the number of HIV-exposed children in two regions (Hhohho and Shiselweni) who had received the final HIV test at 18-24 months to determine their PMTCT final outcome. In the cohort for AIDSFree fiscal

year 2016, only 45 percent of children had received their PMTCT final outcome. Of those that did receive their final HIV test, 4.8 percent were HIV-positive, and 79 percent of those children were then initiated on ART (see Figure 4).

Figure 4. Baseline PMTCT Final Outcome



RESULTS

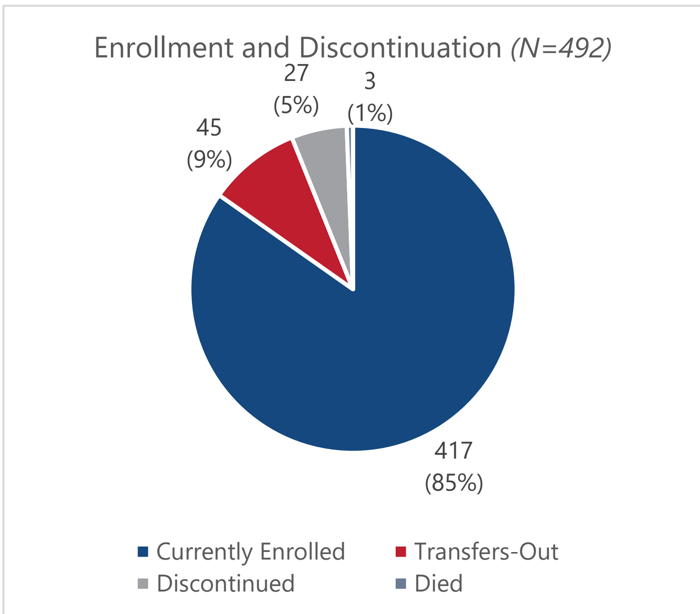
The results reported are based on data collected from June 2017 through November 2018.

Enrollment

As of November 2018, a total of 492 infants were ever enrolled in the three health facilities over the course of the intervention, along with their mothers. Of those, 417 were active and receiving home visits from the CFMs at the end of the period under review (see Figure 5).

Out of all ever enrolled, 45 MBPs transferred their care to another health facility; all received referrals from CFMs to the new health facility and were confirmed as transfers-out by their original health facility, who verified the completed referral with the receiving health facility. Additionally, 27 infants were discontinued from the intervention due to moving out of the community catchment area, and three infants died—however, none of the three who died were HIV-exposed. No infants were LTFU since CFM program initiation in June 2017.

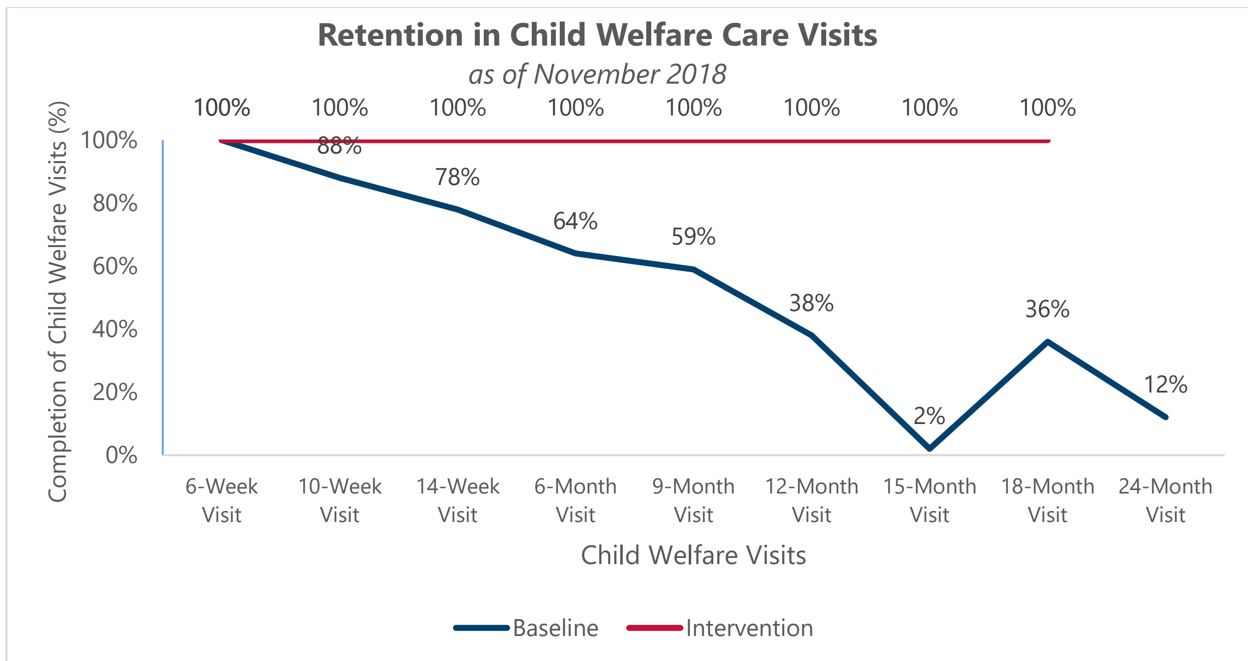
Figure 5. Enrollment and Discontinuation



Retention in Care

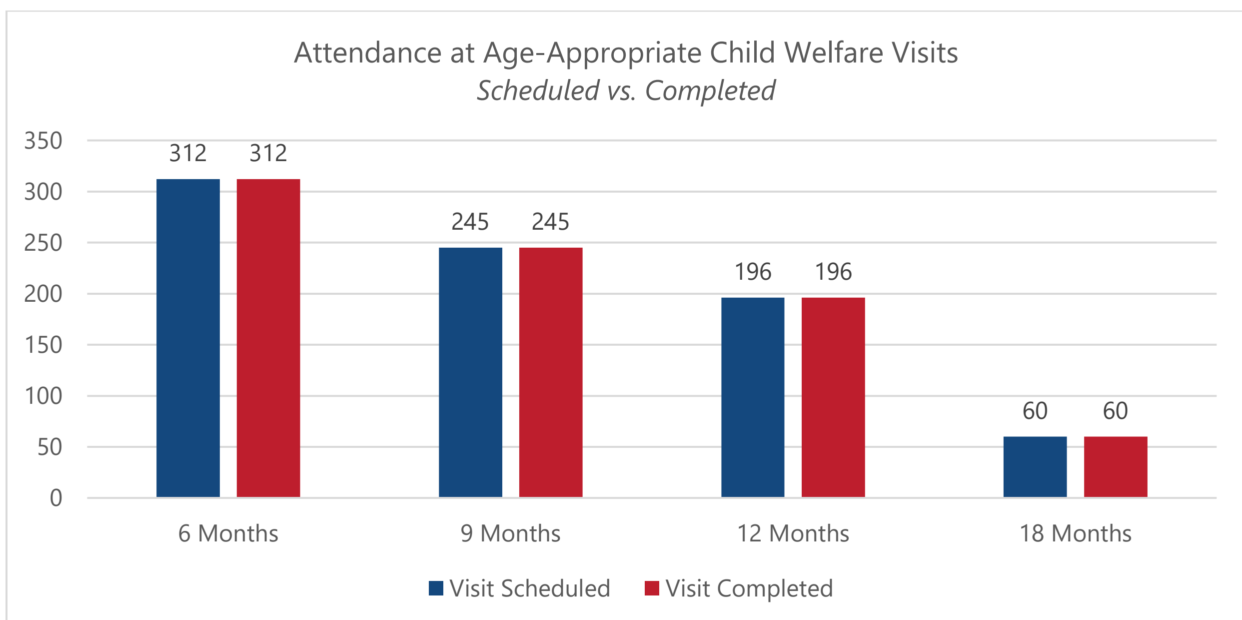
The AIDSFree model demonstrated successful retention in care—all children (100 percent) completed all of their CWC visits through 18 months of age at the clinic per the MOH schedule or were documented in the facility register as transferred-out, discontinued due to relocation outside the community intervention catchment area, or died (see Figure 6). Overall, in comparison to baseline, the AIDSFree program saw significant increases in retention in care of MBPs enrolled. Figure 6 compares the intervention data with the 2014–2015 cohort reviewed at baseline.

Figure 6. Retention in Child Welfare Visits: Baseline HIV-Exposed vs. AIDSFree Intervention



For key visits at six, nine, 12, and 18 months, all of the expected children—children who reached each age milestone—completed their visit. As of November 2018, no enrolled MBPs have reached 24 months—no data are available for that visit. Due to ongoing monthly enrollment at the health facility, there are more children presenting at the earlier visits than later visits. All enrolled children completed their facility visits per the MOH schedule (see Figure 7).

Figure 7. Children Completing Age-Appropriate Child Welfare Visits



Child Welfare Services

While the focus on this intervention was on children receiving scheduled HIV testing and the test for PMTCT final outcome at 18-24 months, by improving retention in care, AIDSFree also assisted children in receiving other vital maternal and child health (MCH) services. By attending all scheduled clinic visits, children in the intervention completed their monthly growth monitoring and received immunizations, vitamin A supplementation, and albendazole (deworming) in accordance with the MOH child welfare schedule (see Figure 8).

Figure 8. Infants/Children Completing MCH Services at Each CWC Visit

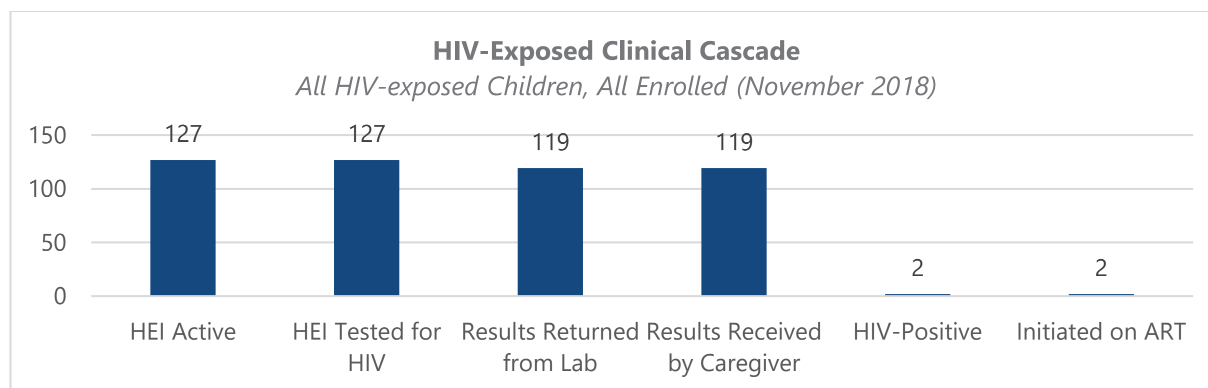
Child Welfare Service	6-Month Visit	9-Month Visit	12-Month Visit	18-Month Visit
Growth Monitoring	312 / 312	245 / 245	196 / 196	60 / 60
Immunizations	*N/A*	245 / 245	*N/A*	60 / 60
Vitamin A	312 / 312	*N/A*	196 / 196	*N/A*
Albendazole	*N/A*	*N/A*	196 / 196	*N/A*

HIV-Exposed Infant Clinical Cascade

Of all 492 infants ever enrolled, 153 (31 percent) were born to HIV-positive mothers and categorized as HIV-exposed. Twenty-six HEIs discontinued from the program due to relocation or transfer of care to a non-intervention facility. The rate of HEIs who discontinued the program (17 percent, 26/153) is similar to the rate of HIV-unexposed infants who discontinued due to relocation or transfer of care to a non-intervention facility (14 percent, 48/338).

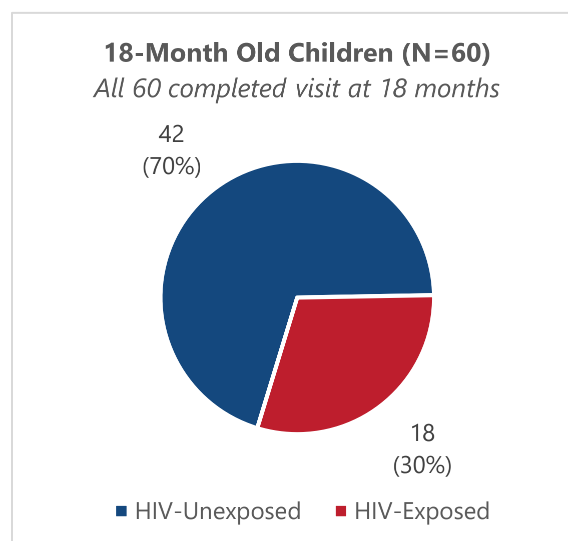
As of November 2018, there were 127 HIV-exposed infants/children enrolled in the program—30 percent (127/417) of total infants enrolled. Of the HEIs, 127 (100 percent) were tested for HIV according to the testing algorithm (six weeks, nine months, 12 months and 18 months—up to their current age-appropriate visit); 94 percent (119/127) of those tested had their age-appropriate results returned from the lab as of November 2018, with eight test results pending due to delays from the national laboratory. All tested infants had a mother or caregiver receive the results and documented in the facility register at each testing visit reached. Only two infants (2 percent, 2/119) tested HIV-positive, both of which (100 percent) were initiated on ART (see Figure 9).

Figure 9. HEI Clinical Cascade—All HIV-Exposed Children Enrolled (All Ages)



PMTCT Final Outcome

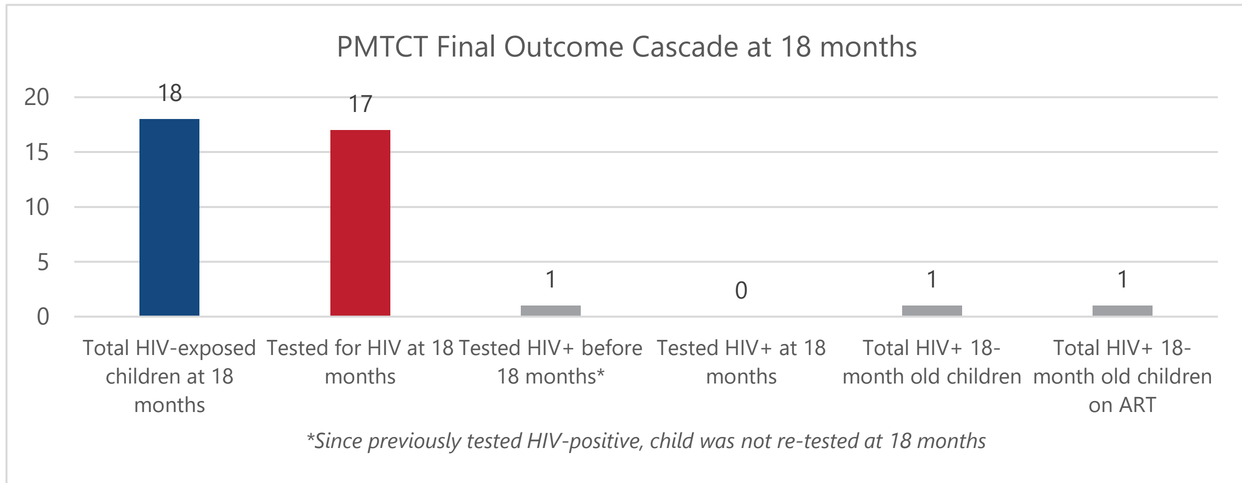
Figure 10. HIV Exposure at 18-Months



As of November 2018, 60 children had reached the 18-month visit, and all 60 (100 percent) completed that visit. Of the 60, 18 were HIV-exposed and needed an HIV test to determine PMTCT final outcome (see Figure 10).

All 18 (100 percent) had their final HIV status determined. One of these 18 HIV-exposed children who reached the 18-month visit had previously tested positive, been initiated on ART, and did not require an 18-month test. None (0 percent) of the remaining 17 children tested HIV-positive at 18 months. All 17 children had received previous testing per the MOH algorithm and tested HIV-negative at each testing point; the 18-month test confirmed their final PMTCT diagnosis (at final outcome) (see Figure 11).

Figure 11. PMTCT Final Outcome—At 18-Month Visit (18 HIV-Exposed Children)



FINDINGS

While not included as indicators in the program design, program data collected by the CFMs and health facilities offered additional insights as well as indications of program success.

Mother vs. Alternate Caregiver for Infant

The results of the landscape analysis indicated that one of the main barriers to successful retention in care was the mobility of mothers—that mothers would relocate and leave their infants with alternate caregivers (e.g., grandmother, aunt, or nanny). To accommodate this, AIDSFree designed the intervention to be flexible and allow CFMs to meet with caregivers other than mothers to ensure that whoever was responsible for bringing the child in for care received reminders and assistance planning. However, CFMs reminded those they met of the importance of mothers attending child welfare care together with their infants so they could receive vital maternal health services, including HIV testing or ART care, family planning, infant feeding counseling, and cervical cancer screening. This step helped emphasize MBP retention in care, rather than simply infant retention in care, in accordance with PMTCT best practices.

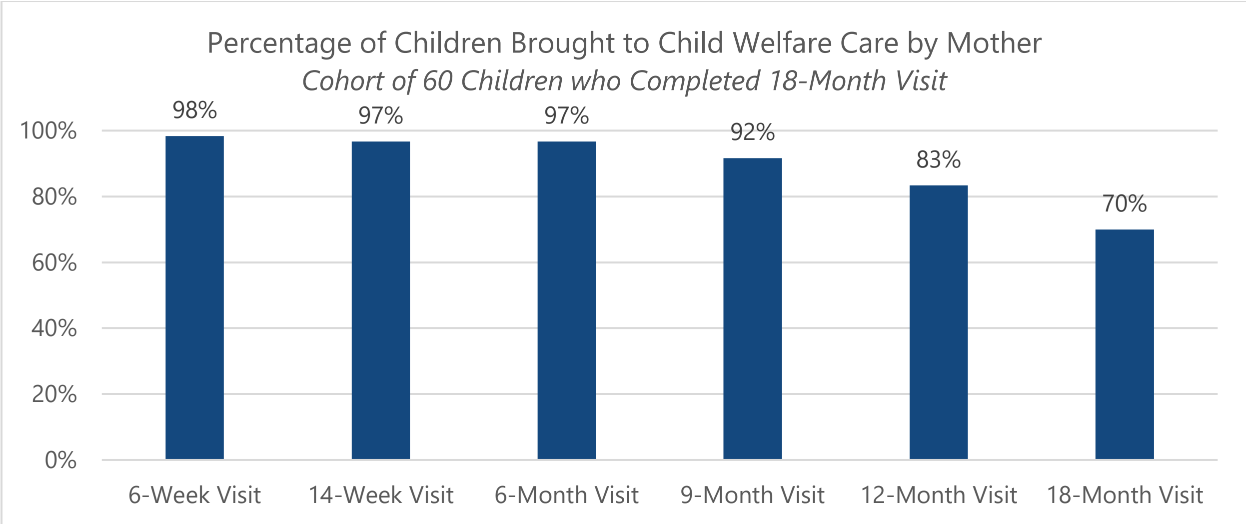
"Community focal mothers are getting more infants to child welfare care, and their mothers are getting more services – the community focal mother program is benefiting children, but it also benefits mothers."

Zandile Magongo, In-Charge, Silele Red Cross Clinic

During home visits, AIDSFree CFMs recorded the person who brought the infant/child to the health facility for child welfare visits. Figure 12 below provides data based on the cohort of 60 children who have reached 18 months, completed their 18-month child welfare visit, and received their final PMTCT outcome. From these data, it is clear that the majority of children received care along with their mothers at the health facilities, as opposed to visiting with an alternate caregiver. The rate of MBPs visiting the health facility together was higher during the initial postpartum period and decreased over time, but remained high throughout the 18-month period. While baseline data for comparison are not available, based on feedback from stakeholders, this is a significant improvement over the common practice in Eswatini.

This intervention both improved the number of children who are taken to the health facility at all and receive child welfare services (100 percent), as well as improved the number of MBP who receive MCH services together (70-98 percent, depending on visit), helping to ensure that mother also receives regular HIV testing or ART care to prevent mother-to-child transmission.

Figure 12. MBP Facility Visits

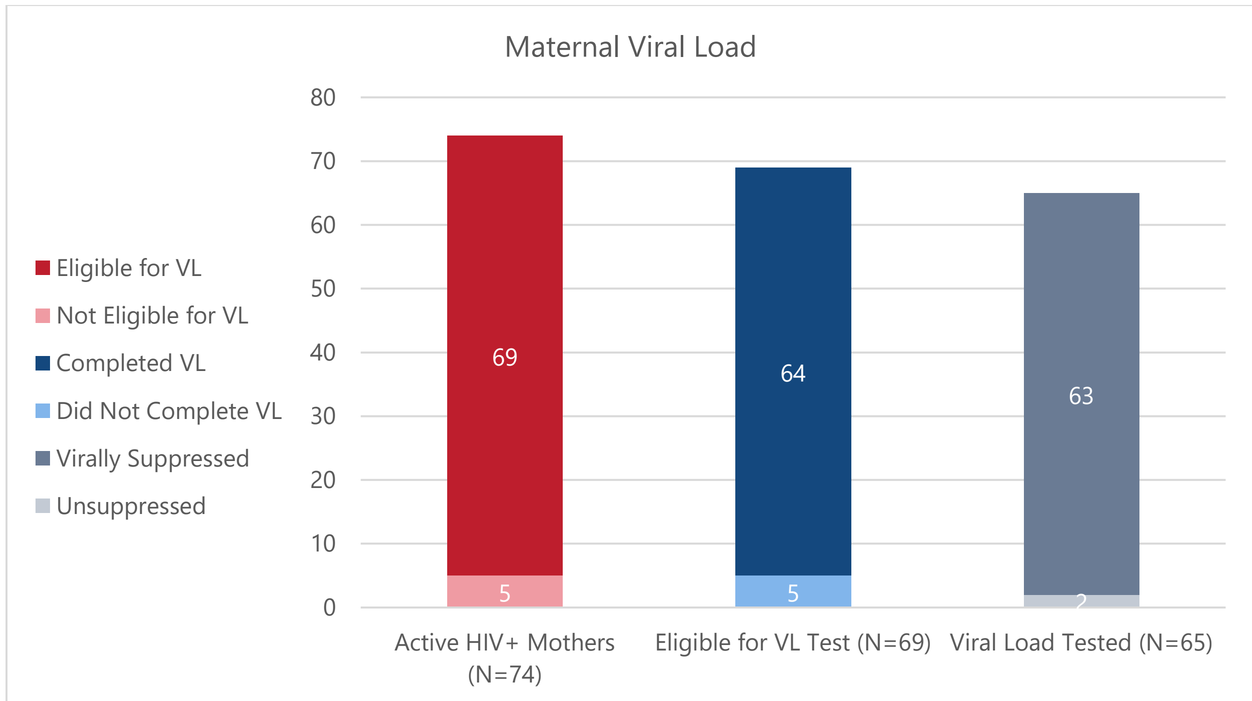


Maternal Viral Load

Similarly, while the intervention was designed to improve retention in care for HIV testing to determine final PMTCT outcome among children at 18–24 months, facility register data review demonstrated high rates of viral load suppression among HIV-positive mothers enrolled in the intervention. Mothers received reminders from CFMs on the importance of attending health facilities for HIV services, which may have contributed to HIV-positive mothers adhering to ART care, including viral load testing.

While not all HIV-positive mothers chose to attend ART care at one of the three implementation sites where their infants attend child welfare care, AIDSFree analyzed the viral load data of those did receive care at the three intervention facilities. Of HIV-positive mothers receiving ART care at an intervention site, 94 percent (64/69) of those who were eligible for viral load testing received a test, and 98 percent (63/65) of those who were tested were virally suppressed (WHO 2016). The two mothers who were not virally suppressed were enrolled in enhanced adherence counseling, or stepped-up adherence counseling, as it is known in Eswatini (see Figure 13).

Figure 13. Maternal Viral Load



Adolescent Mothers

Sixteen percent (66/418) of enrolled mothers were adolescents age 15-19. All (100 percent) of these adolescent mothers and their infants were retained in care and completed all scheduled child welfare visits. Adolescent mothers are a particularly vulnerable group who are less likely to be retained in care and receive postnatal services and child welfare services for their infants. Though the CFMs were not adolescents themselves to act as peer support, nor focused on counseling specific to adolescent mothers, the success of this intervention can inform programs looking to improve retention in care for young mothers and their infants.

DISCUSSION

Improvements in Service Uptake

Due to the intervention's 100 percent retention in care at all child welfare visits, children received not only all HIV services but also all other critical MCH services, including monthly growth monitoring, immunizations, vitamin A supplementation, deworming, and early childhood development services per the MOH schedule. This is significant, as the baseline data indicated that for both HIV-exposed and unexposed infants' retention in care declined significantly after the six-week visit, meaning few children received these health services that are necessary to decrease infant morbidity and mortality. For example, according to baseline data, only 38 percent of HIV-exposed children at the three implementation clinics attended the child welfare visit at 12 months, as opposed to 100 percent for AIDSFree-enrolled infants during program implementation.

AIDSFree team with clinic in-charge reviewing the register.

The program's success at improving retention in care at all visits through 18 months can help contribute to reduced childhood illnesses. In fact, reports from the health facilities indicated that they were seeing fewer pediatric clients for childhood illnesses, which they believed was due to the improvement in immunization coverage. The health facility staff said that the lower client load helped improve their workload and ability to deliver health services. This intervention was successful at addressing both PMTCT follow-up challenges, but also immunization rates and overall child health service utilization.

Health System Improvements

Transfers-Out

The CFM model strengthens health facilities' access to community-level information about MBP location and mobility, which improved facility data quality. CFMs were able to communicate with a mother and discuss with her when she wanted to transfer care to another facility, issue her a referral form, and have the receiving health facility confirm the transfer. Previously, few mothers would notify their health facility that they had transferred care, and due to limited health information systems and communication between facilities, the original health facility would list the MBP as LTFU. In this model, a CFM would report to the health facility that the MBP had been transferred-out, not LTFU. The new model improved facilities' data quality and reduced rates of LTFU.

> *"Sometimes mothers call me to tell me they are going to be leaving the chiefdom so I'll know they will be going to another facility."*
>
> Nozipho Ndwandwe,
> Community Focal Mother

Linkage Back to Care

The model also allowed CFMs to work with health facilities to quickly identify MBPs who had missed a visit and issue them MOH referral forms to link them back to care. Throughout the 18-month intervention, 82 percent of MBPs enrolled missed *no visits* and completed all visits on time; only 18 percent (75/417) of MBPs ever missed a visit during the 18 months of implementation. These results provide strong evidence that this proactive model is more successful than reactive defaulter tracing models that wait until MBPs have missed a visit to identify them and attempt to link them back to care.

Of the 75 MBPs who missed a visit, all 75 (100 percent) were followed up by a CFM and issued a referral form, and 100 percent were successfully linked back to care and completed their missed visit within the allowable time frame for on-time completion. On average, CFMs completed one follow-up attempt to contact the mother, remind her of the missed visit, and issue her a referral. However, CFMs sometimes made multiple visits to the households to link the MBP back to care; once, a CFM made six visits before the MBP completed their scheduled visit. However, CFMs usually only had to make a single visit before MBPs were successfully linked back to care. The most common way of

> *"When a mother has missed a facility visit, I use the referral slip. I encourage mothers to go back to the health facility as soon as possible. With one mother, I wrote a referral and I saw the next day she had already gone to the health facility."*
>
> Nomalanga Matse,
> Community Focal Mother

contacting a MBP who had missed a visit was by conducting an additional visit and making contact at the household.

Data Quality Improvement

This intervention offered an opportunity for health facility staff to identify data quality issues in the health facility register. CFMs were able to identify when a facility register was incomplete when compared to the Child Health Card. This process helped facility staff to identify when a child has received services at another facility or when information has mistakenly been left out of the register. Working with the CFMs, health facilities identified and corrected register data quality issues early, before they were reported into the national database.

> *"This program has helped us as a facility—we've seen quite an improvement in our facility data."*
>
> Delsile Nxumalo, Data Clerk
> Silele Red Cross Clinic

This process helped address a question that was discussed during the landscape analysis—whether LTFU rates being reported in the health facility accurately reflected low rates of service delivery for MBPs. Results from this intervention indicate that, in a significant number of cases, MBPs are likely completing some child welfare visits at a facility other than the one where they were registered at six weeks, or self-transferred to another health facility and are recorded as LTFU in their original facility when in fact they are still receiving care. In this way, the intervention addressed data accuracy of the PMTCT cascade in this population.

Community Ownership

From the design phase, AIDSFree closely engaged with the inner councils of the six chiefdoms selected. The inner councils were formally introduced to the CFMs who successfully completed the training, and from the initial introductions, the inner councils were clear that they embraced close coordination with the CFMs on this crucial intervention. Throughout implementation, inner councils expressed interest in increasing community attention to the issue of MBP retention in facility care for the well-being and future of their chiefdoms.

Male Engagement

CFMs had the opportunity to work directly with their inner councils by reporting on successes and challenges at their respective chiefdoms' inner council monthly meetings. CFMs' reports to the inner councils included challenges they faced in completing household visits, as well as barriers to care reported by mothers, such as their male partners preventing them from taking the child in for care. These meetings were an opportunity to increase male engagement in the

initiative by involving the all-male inner councils, and to stress the importance of MBP clinic visits to the community at large.

CFM successes and challenges are seen by their chiefdom inner councils as the chiefdoms' successes and challenges—key to the future and strength of the chiefdoms. The inner councils requested opportunities to increase the role of men in the chiefdoms in this initiative by asking for these regular updates. Having CFMs report monthly to the inner councils provided a chance for both groups to work together and develop community-led action plans to address challenges in retention in care as a community. At the inner councils' request, the monthly meetings were led by the CFM themselves, not by the AIDSFree team—indicating a high level of community ownership that strengthened the initiative.

LESSONS LEARNED & RECOMMENDATIONS

The CFM model and its success at improving rates of retention in care of MBP for PMTCT final outcome and use of MCH care, offers lessons learned and recommendations for programs wishing to replicate the program in another setting. Below are key lessons from program planning and implementation that contributed to the intervention's success.

Recommendations

Proactive Approach: Conduct home visits *before* MBPs have missed a visit to encourage appointment attendance and prevent LTFU, instead of tracing defaulters.

Stakeholder Engagement: Engage early, consistently, and regularly with the MOH and health facilities throughout design and implementation.

Integration with Health Facility: Select facilities with an interest and willingness to enroll MBPs, assign a focal person, work directly with CFMs, and allow access to facility registers.

Community Engagement—Through Traditional Structures: Involve traditional leaders in addressing community challenges to retention in care and the importance of child welfare.

Community Focal Mother Recruitment, Training, and Selection: Use traditional leaders and health facility staff in nominating trusted women to train as CFMs.

Support and Compensation for Community Focal Mothers: Provide regular supportive supervision and monetary compensation for CFMs throughout the intervention.

Focused Scope of Community Focal Mother Role: Keep CFMs' focus on encouraging all MBPs—regardless of HIV status—to attend child welfare visits together.

Active Involvement of Regional Administration: Engage with local government administration, including social workers, to address challenges from family and community.

Proactive Approach

A key tenet of the CFM model is the proactive approach to reducing LTFU. Many retention-in-care programs identify MBPs only after they have missed a visit, whereas CFMs conduct household visits with all MBPs **before they have missed a visit**, preventing delays in service delivery. The CFM model works with mothers to create a proactive care plan so they can anticipate their location through 18–24 months and strategize to attend all child welfare visits, including identifying any barriers that might lead to missed visits and resources needed to avoid LTFU.

Despite the CFMs' efforts, some MBPs missed scheduled visits. Working in conjunction with the health facility, CFMs were able to quickly identify the MBP and meet with them to discuss the challenges that lead to the missed visit. CFMs then issued the MBP an MOH referral form to encourage them to complete the missed visit as soon as possible and link them back to care before they are officially considered LTFU. Most mothers completed the missed visit within one day of being issued the referral by their CFM.

In addition to issuing referrals for missed visits, CFMs issued MOH referrals to MBPs who were moving out of the area or transferring their care to another facility. By issuing a referral form that can be confirmed by the receiving facility, the MBP is officially documented as a transfer-out and not considered LTFU. Unlike some community cadres, CFMs in Eswatini were able to issue MOH referral forms that are accepted by the health facility, which helps keep MBPs connected even if they transfer their care to another location.

> *"Some babies are left with their grannies, and the CFM comes to educate the grandmothers and ensure that children are taken to the clinic."*
>
> Lencane, age 28, mother of four

CFMs not only conducted regular household visits, but were able to establish an ongoing relationship with the MBP that helps the mother become more receptive to the CFM's advice and referrals. CFMs were assigned to a specific MBP that did not change throughout the 18-24 months, which allowed the two women to build a trusting relationship. This relationship also allowed the CFM to find out if someone other than the mother ever took the baby in for child welfare visits, such as the grandmother or aunt. The CFMs worked with the child's caregiver to make sure they were supported to take the child in even when the mother was unavailable, and to update the care plan with this information. For the CFM model, the mother's presence is preferred, but is not a limiting factor to conducting household visits, as the focus is on encouraging child welfare visits regardless of who brings the child to the facility. This feature is a key strength of the model; while MBP retention in care is key, the ultimate goal is to have the child receive regular HIV testing services to address PMTCT final outcome rates.

Stakeholder Engagement

Early, consistent and regular engagement of the MOH was crucial during the design, preparation, and implementation of the program. The MOH was involved in initial discussions on developing a model for a community-based program to improve PMTCT final outcome rates, and provided input on the design. The team from the Sexual and Reproductive Health Unit

(SRHU) at the MOH participated in the CFM training to provide context for the importance of the program. Throughout the program, AIDSFree met with the SRHU program manager to provide updates, as well as presented updates at the national technical working group meetings. By establishing this relationship early, the MOH was able to see the progress and success of the initiative, facilitating the MOH's interest in adopting the program nationwide, as is underway as of December 2018.

"Community focal mothers are our hand in the community; it is a great partnership."

Thando Khumalo, Facility Focal Person, Silele Red Cross Clinic

AIDSFree used the landscape analysis to discuss PMTCT and MBP retention in care with other implementing partners and key stakeholders. Conversations with stakeholders helped AIDSFree to determine what the established mechanisms for PMTCT and child welfare were in Eswatini, and what systems were and were not in place to track MBPs, remind them of appointments, conduct defaulter tracing, and prevent LTFU. This stakeholder engagement helped AIDSFree to avoid duplicative efforts, and enabled use of lessons learned from these programs in Eswatini.

Selecting the health facilities in which to implement the pilot program was critical. As AIDSFree already had a presence in the Shiselweni Region, facilities there were prioritized. AIDSFree met with health facility staff to determine their willingness and interest in implementing the model. AIDSFree also conducted a baseline data review of the rates of LTFU and PMTCT final outcome to determine the extent of the challenge and where the program could have the most immediate and obvious impact, as the intervention was implemented as a short-term technical assistance activity.

Integration with Health Facility

Health facility staff leadership and willingness to implement the model were critical to its success. AIDSFree met with local leaders before sites were selected to ensure they were interested in working with CFMs to improve MBP retention in care. When they agreed, health facility staff were involved in the baseline data collection as well as ongoing meetings throughout the program with AIDSFree for data review. Health facility staff also participated in CFM recruitment—one health facility staff sat on the panel to interview CFM candidates and determine who should receive training. The health facility focal person at each site was also tasked with meeting with CFMs during supportive supervision sessions, as well as sensitizing new health facility staff on the CFM model to ensure effective communication and collaboration.

AIDSFree committed to using existing facility registers to lower the burden on health facility staff as well as ensure improvements in MBP retention were recorded and reportable for the health facility. Despite this, HCWs took on a role in sensitizing and enrolling mothers with new babies, working with CFMs to allow them access to the registers to verify child welfare visits and record information from household visits, as well as work with other health facilities to confirm transfers-out that had been made by CFM referrals. For that reason, it was important to ensure that HCWs were familiar with the program, and could see the benefit it yields. As the head nurse at Silele Clinic explained, while the program might involve some of their time, it also helps reduce their workload, because there were fewer missed and rescheduled appointments for MBPs, and clinic staff were seeing fewer sick children due to children being up-to-date with their immunizations and other health services. AIDSFree worked closely with all health facility staff to help them build relationships with CFMs and the supervising team.

Thando Khumalo, health facility focal person at Silele Red Cross Clinic.

Part of working closely with the clinics was identifying a health facility focal person in each of the three facilities to work directly with CFMs. The role involved being a champion of the program, explaining it to other health facility staff and helping normalize MBP enrollment. The health facility focal person was also tasked with assigning MBPs to CFMs and participating in the monthly feedback meetings with CFMs to hear their challenges and concerns. The focal person also confirmed referrals CFMs made and officially listed an MBP as a transfer-out, and updated the child welfare registers from the CFM register to ensure data quality.

"It's difficult for us at the health facility to call clients who haven't come to their visits; we have long lines of clients waiting. We don't have time to follow-up."

Thando Khumalo, Facility Focal Person—Silele Red Cross Clinic

Community Engagement—Through Traditional Structures

As a community-based program, community sensitization was a key component of successful implementation. AIDSFree met with the *bucophos*, or development officers for the chief's inner council, to gauge their interest in the initiative. Based on the positive feedback, AIDSFree enlisted the *bucophos* and the chief's inner council in nominating mothers who were well-respected in the community and who met the selection criteria to train as CFMs. Much of the success of the initiative is due to the women selected to be CFMs, who were viewed positively by their neighbors and whom mothers felt comfortable trusting without concern that they will break confidentiality. Engaging with traditional community structures was a critical part of the intervention.

Regular engagement with the inner councils provided an opportunity for bidirectional feedback between the CFMs and the inner council. At monthly meetings, the CFMs would report on challenges mothers were experiencing in attending child welfare visits, such as lack of transportation, resistance from their husbands, HIV-related stigma, and others. Hearing these challenges allowed the inner council to understand the barriers mother faced in taking their children in for health services, and to identify solutions to individual- and community-level problems. Solutions included bringing in the regional social workers in specific cases where family members were the barrier. CFMs' reporting to the inner council also allowed for more discussion of the importance of HIV testing and care and mother-baby pair retention in care, spreading the message about the importance of child welfare in the community, helping to shift social norms and address HIV-related stigma.

"The inner council encourages us to continue our good work."

Fisani Mkhumane
Community Focal Mother

The inner council recognized its role in encouraging child welfare visits and these meetings helped build the council's capacity to prioritize maternal and child health in their community. Many council members were unaware that they could or should encourage members of their community to complete facility visits and hold them accountable if they are preventing a child from attending visits. The CFM model can help capacitate traditional leaders so they feel comfortable promoting child welfare and supporting clinic attendance.

Community Focal Mother Recruitment, Training, and Selection

The selection of women in the community to train as CFMs was a core component of the intervention. It was vital that CFM identified were well-respected members of the community with positive relationships with the mothers served, the inner council members, the health facility staff, and the AIDSFree team. The CFM selection criteria emphasized women with recent

experience as mothers who could speak to their own antenatal care and postnatal experiences, and who were able and willing to maintain the confidentiality of mothers, their infants, and their families.

AIDSFree actively engaged the inner council to identify and nominate women who had the education, social skills, and drive to commit to the training and take on the role of CFM in their communities. Health facility staff played an important part in evaluating CFM candidates during interviews to ensure that the women selected would be able to work well with the nurses and health care staff. The success of this focus on selection of quality candidates is evidenced by the fact that no CFMs left the program or had to be replaced due to poor performance, and there were no complaints registered by mothers or caregivers against the CFMs throughout the implementation period.

Support and Compensation for Community Focal Mothers

It was critical that CFMs received regular and active supportive supervision by the supervising team throughout implementation. This process helped the supervising team to identify and address CFMs' challenges and concerns, as well as to provide continuous learning and mentorship opportunities.

During the first few household visits, the supervising team accompanied the CFMs to ensure that they were able to successfully apply their training and complete the tools correctly. Supportive supervision meetings, where CFMs meet in a group with their supervising team twice a month, presented an opportunity for CFMs to share experiences, build relationships among themselves, and be motivated in their role. To provide additional opportunities for cross-sharing as well as keep their skills up-to-date, AIDSFree provided a refresher training after one year of implementation for all CFMs.

In accordance with best practices on supporting community and lay cadres, AIDSFree provided compensation to the CFMs. As the role required regular household and facility visits, the time commitment and dedication therefore required adequate compensation in the form of a stipend, as well as airtime to make phone calls to mothers to arrange household visits and to follow up with them if they have missed a child welfare visit. Compensation was based on fulfillment of CFM role—namely, that household visits were completed, not attempted. In addition, the stipend provided to CFMs was not based on number of MBPs each followed, but was equal for all who completed the required visits and documentation. As the number of MBPs followed varied over time and by a CFM's location, this method was deemed to be the fairest way of compensating all CFMs. In addition, a package of support materials was provided, including a t-shirt, hat, backpack, and umbrella.

Focused Scope of Community Focal Mother Role

AIDSFree designed the CFM role to be focused in scope so that CFMs could concentrate on a key goal—namely, ensuring MBP retention in care. The CFMs' role was focused on encouraging clinic visit attendance and on educating and reminding mothers and caregivers of the importance of clinic visits for the baby's and mother's health as well as the benefits of retention in care. Keeping the focus on the MBP retention and not training CFMs as lay health workers with comprehensive health education training, allowed CFMs to concentrate on problem solving and planning with mothers, as well follow up at the community level when MBPs missed visits. While CFMs can be recruited from existing volunteer or health worker cadres, women selected to serve as CFMs should be able to limit themselves to the CFM role. In Eswatini, CFMs were trained to refer all medical questions from mothers and caregivers to HCWs for further information or diagnosis, while as CFMs they focus on providing support for retention in care.

"In the past, transfers-out were not well-documented. Now we have up-to-date information, thanks to the Community Focal Mothers."

Zandile Magongo, In-Charge
Silele Red Cross Clinic

CFMs provided proactive follow-up of all MBPs, regardless of HIV status. It was important to the program that CFMs work with HIV-positive and HIV-negative mothers, to avoid the stigma of visiting only households with HIV-positive members that can lead to discrimination in the community or accidental disclosure of members' HIV status. Seroconversion of mothers during the breastfeeding period is a continuing driver of mother-to-child transmission of HIV, so it is critical that mothers who were HIV-negative at delivery still be assigned follow-up so they can receive regular HIV testing to identify if they have acquired HIV and be initiated on treatment to prevent mother-to-child transmission.

Active Involvement of Regional Administration

A success of the CFM model was engaging local and regional government administration, including support from the regional administrator. AIDSFree was also able to build a relationship and reach out to regional social workers in addressing issues that the CFMs have identified in the household. Social workers were actively involved in addressing family situations that prevented the child from attending child welfare visits, something not anticipated but developed out of a need from the enrolled mother-baby pairs and from AIDSFree's positive relationship with regional administration. Through this intervention, social workers were eager to join CFM refresher trainings to explain their role and situations that would necessitate their involvement.

Challenges

Health Facility Level

As the health of the mother impacts significantly that of her baby, there is need to monitor and track mothers and their babies as pairs through the continuum of PMTCT and health care. One of the most significant barriers to tracking retention in care in Eswatini is that MOH registers do not link mother-baby pairs together and do not provide them with a unique identifier, either in paper records or electronic medical records and health information systems. This situation makes it difficult to track mother-baby pairs across the PMTCT continuum, as well as confirm any changes in care or transfers to other facilities. The CFM model helped address the concern with transfers-out, but linking mother-baby pairs together is considered a best practice for improving PMTCT retention in care and would strongly improve health facilities' ability to track MBPs who relocate within Eswatini.

HIV-positive mothers may or may not receive ART care at the same facilities as their infants receive child welfare services, due convenience, stigma, and other factors. If a mother is receiving ART at another health facility, it is difficult for the program to track and know whether she is adhering to her ART regimen and is up-to-date on her viral load testing – key factors in PMTCT efforts. AIDSFree abstracted register data on mothers receiving ART care at the intervention sites that indicated the program may have a positive effect on improving maternal vial load testing and suppression. Future adaptations of the model could explore adding enhanced ART adherence reminders to the home visit checklist. This strategy would address the difficulty in collecting data of mothers receiving care at other health facilities as well as help determine the impact of the program in potentially improving maternal viral load.

Staff rotations provided a challenge to the intervention at the facility level. As staff would leave and new staff be hired and trained, these staff needed to be sensitized to the intervention so they could promote the benefits to new mothers and enrol them in the program. Staff are also responsible with recording visits and services provided in the health facility registers. Gaps in some facility registers were often addressed by CFM review of the Child Health Card and reporting back to the health facility. However, these data gaps are an issue for reporting on services provided and there is a need for quality improvement in ensuring record all services provided properly.

Community Level

At the community level, events such as the traditional *incwala* ceremony and elections disrupted program implementation at times. However, disruptions were minimized with inner council permission for CFMs to continue household visits, but CFMs were not able to meet with and report to the inner councils during these periods.

Some other cadres of community health workers were disinterested in enrolling in the initiative with their infants. They felt that they already had sufficient knowledge and training to understand the importance of and to complete child welfare visits. In contrast, CFMs who became pregnant during the intervention chose to enroll in the intervention and receive home visits, so they could complete a care plan and receive reminders and support in completing their visits on time.

CFMs identified social issues in the community that were leading to LTFU. Sometimes parents would refuse to take their children in for child welfare visits because of issues with their partner. These issues were referred to the chief's inner council so they could speak with the household members and encourage them to prioritize their child's health. Serious issues were referred to the regional social workers for intervention on the child's behalf.

Finally, while mothers would give birth and/or receive care for their infants at one health facility, many would later make plans and relocate to another health facility—for work opportunities, to return to school, or for other reasons. If within Eswatini, CFMs issued them a referral form; but due to relocations of those outside of Eswatini—primarily in South Africa—some MBPs could not be confirmed as linked to care, leading them to be listed as discontinued from the program.

SCALE-UP

Due to the success of the initial technical assistance (June to December 2017), USAID provided additional funding (May to December 2018) to continue implementation at the three sites and to work with the MOH to scale up the program on a national level.

From May to December 2018, AIDSFree reviewed and revised the training materials into a comprehensive facilitator's guide, job aids, and training presentation, and created a set of SOPs on how to implement the program in Eswatini, with considerations for adaptation in other settings.

AIDSFree Eswatini has integrated the CFM model into the field program and has used the materials to expand the CFM program to three new sites by training an additional 104 CFMs to follow up mother-baby pairs in their nine chiefdoms.

AIDSFree worked closely with the SRHU at the MOH to roll out the program with a new national community cadre, 300 Global Fund community mentor mothers who will follow mothers from antenatal care in pregnancy through 24 months postpartum. AIDSFree has supported the SRHU to incorporate the AIDSFree CFM model and training materials into the December 2018 training of mentor mothers.

AIDSFree also worked with other implementing partners to encourage their adoption of the CFM model. AIDSFree worked closely with m2m to adapt the monitoring tools to fit within its current program, and supported m2m to train 55 community mentor mothers to implement the AIDSFree CFM model. These mentor mothers are in 21 m2m-supported facilities—five facilities in Shilselweni Region and 16 facilities in Hhohho Region.

> *"We would love for this mother-baby pair program to continue. We don't know what we'd do without our community focal mothers now—and we have the facility data numbers to show it."*
>
> Zandile Magongo, In-Charge
> Silele Red Cross Clinic

The AIDSFree field program will support PACT to adapt the monitoring tools and to train 351 community visitors using the CFM model and training materials in February 2018.

Based on the positive results, the program has been acknowledged as a model that could improve MBP retention in care and PMTCT rates in other settings. As of December 2018, the AIDSFree Kenya team is adapting the program for implementation with community health volunteers in Trans-Nzoia and Turkana counties in Kenya. PEPFAR has also recognized the model as a best practice and approved documentation of the model as a PEPFAR Solution.

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ANNEX 1. HOUSEHOLD VISIT CHECKLIST

These steps should be reviewed **at every household visit** with a mother-baby pair:

Steps—Be sure you review each step	
1. Follow **home entry protocol**—introduce yourself as a CFM	**Is baby up-to-date?** If baby **6-9 weeks**, check 6-week visit If baby **10-13 weeks**, check 10-week visit If baby **14-23 weeks**, check 14-week visit If baby **6-8 months**, check 6-month visit If baby **9-11 months**, check 9-month visit If baby **12-17 months**, check 12-month visit & check most recent growth monitoring visit If baby **18-24 months**, check 18-month visit
2. Explain the Mother-Baby Pair Retention in Care activity and the **purpose of your visit**	
3. Request **time and private space** to talk about Child Welfare visits	
4. Ask to review baby's **Child Health Card** and to fill Community Focal Mother register with information needed. *Review and complete each step carefully.*	
5. Ask baby's current age in weeks/months. **Verify baby's age and clinic visits in Child Health Card.** *To identify if mother-baby pair is up-to-date with clinic visits in Child Health Card, see schedule at right →*	
! STOP ! ** IF BABY'S HEALTH CARD IS NOT UP-TO-DATE, TURN PAGE OVER **	
IF BABY'S CHILD HEALTH CARD IS UP-TO-DATE, CONTINUE TO REVIEW BELOW:	
Congratulate mother and reinforce importance of continuing facility visits	**Comments** (in diary)
Review mother-baby pair **care plan**—update information, if necessary	
Review when **next facility visit** will be (approximate date), how to get there (clinic location/transportation)	
Remind what to bring to the next facility visit including Child Health Card	
Review **Child Health Card** for the last facility visit information	
Complete **CFM Register** for this household visit using Child Health Card	
Thank mother for her time, remind her you will return in a month, agree on the day/time for the **next household visit**	**Preferred household visit days/times** (in diary)

Complete in **CFM Diary** any additional comments and plan for next monthly household visit

IF BABY'S HEALTH CARD IS NOT UP-TO-DATE	**Note comments in CFM diary**
If facility visit was missed, review each step below:	
Discuss with the mother, and **document in diary**, the reasons they were **unable** to attend the facility visit on time	
Discuss ways to **overcome any challenges** that led to missing the facility visit	
Complete and give her an **MOH Referral Form** for the missed facility visit	
Encourage her to visit facility with baby **as soon as possible** for the missed visit	
Review **care plan**—update information, if necessary	
Review when the **next health facility visit** will be (approximate date/month), how to get there (clinic location and transportation)	
Remind what to bring to the next facility visit: mother-baby pair & Child Health Card	
Review **Child Health Card** for the last clinic visit	
Complete **Community Focal Mother register** for this household visit	**Note in CFM diary preferred household visit days/times**
Thank mother for her time, remind her you will return in a month, agree on the time and day for the **next household visit**	

Challenges & Action Plan: Document these in your CFM diary

Additional Comments: Document these in your CFM diary

Plan for Next Monthly Household Visit: Document this in your CFM diary

ANNEX 2. MOTHER-BABY PAIR CARE PLAN

Initial Care Plan Development Date: _____________

Mother's Name: __________________________ Antenatal Care Number: __________________

Baby's Name: ____________________________ CWC Number: ____________________________

Chiefdom: _______________________________ Sub-area: _________________________________

Mother's mobile number(s): ______________ Partner/alternate number: ___________________

Baby's Date of Birth: ________________ CWC Health Facility: __________________________

Do you anticipate staying outside the chiefdom (travel, school, work) before your baby is 24 months / during the next two years? ☐ YES ☐ NO

If *yes*, when (approximate date/month or baby's age): _______ For how long? ______________

Instructions: *Column 1 to be filled in at clinic when MBP is assigned to CFM. Anticipated locations and caregiver information to be filled by CFM at first household visit, then reviewed, and updated as needed, at all subsequent visits.*

	Calculate estimated month of clinic visit based on birthdate	**Where do anticipate staying on this date?** *(Chiefdom / Town)*	**Do you anticipate your baby will stay with you?** *YES or NO*	**If no, who will be baby's primary caregiver**? *(Name / relation)*	**Where does this person stay?** *(Chiefdom / Sub-area)*	**Anticipated primary caregiver mobile number(s)**
When baby is 10 weeks						
When baby is 14 weeks						
When baby is 6 months						
When baby is 9 months						
When baby is 12 months						
When baby is 18 months						
When baby is 24 months						

Review care plan with the mother (or caregiver) at each household visit—reviewing each upcoming clinic visit and original information provided. You will update/change information as needed (mobile numbers, plans to leave the Chiefdom shortly).

Notes:

ANNEX 3. SELECTED CHIEFDOMS

Table 1. Chiefdoms under Hosea Constituency

	Chiefdoms in Catchment Area	Catchment Population (2006 census data)
Silele Red Cross Clinic	Ondiyaneni	3289
	KaLiba / Ludzakeni	2578
	Lushini	625
Hluthi Clinic	Nsingizini	5085
	Manyiseni	No data
	Hhohho Emuva	1044

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