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*Applying Science to Strengthen
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USAID ASSIST Project

Tanzania Country Report FY14

Cooperative Agreement Number:

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Performance Period:

October 1, 2013 – September 30, 2014

DECEMBER 2014

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DISCLAIMER

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Abbreviations

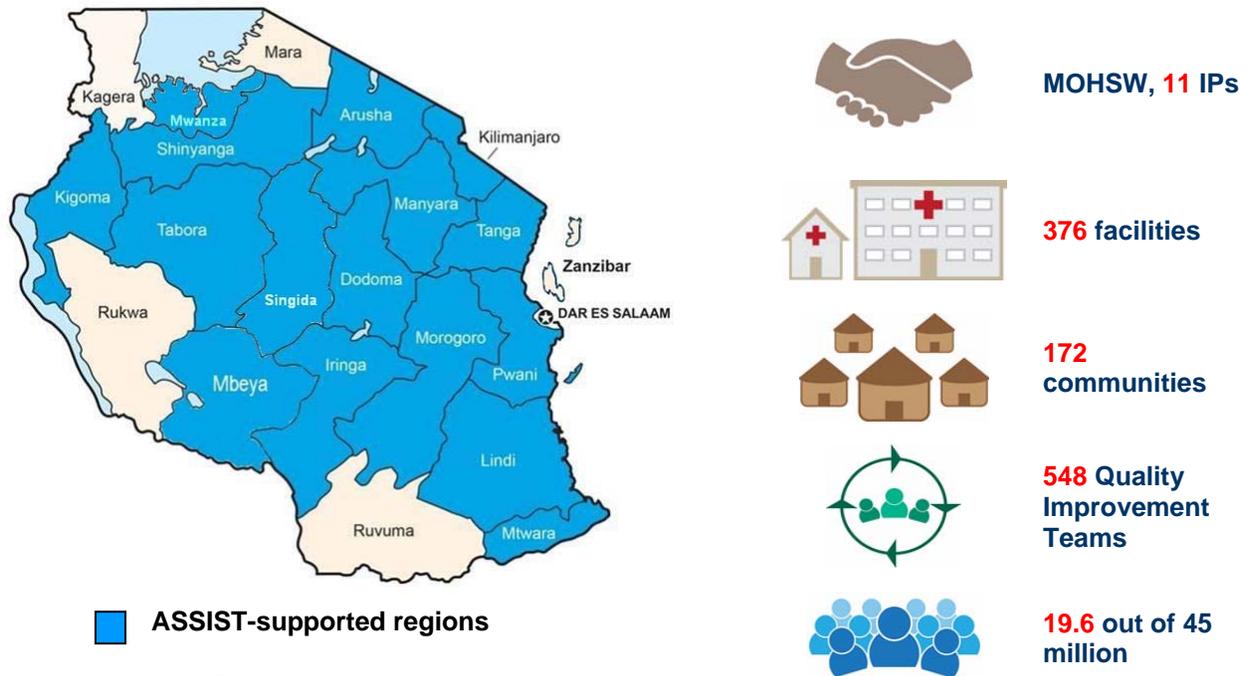
AIDS	Acquired immunodeficiency syndrome
AIMGAPS	Assuring Infants and Mothers Get All PMTCT Services
ANC	Antenatal care
ART	Antiretroviral therapy
ARV	Antiretroviral
ASSIST	USAID Applying Science to Strengthen and Improve Systems Project
CBO	Community-based organization
CDC	U.S. Centers for Disease Control and Prevention
CHBC	Community home-based care
CHMT	Council Health Management Team
CP	Child protection
CTC	Care and treatment centers
DBS	Dried blood spot
DSW	Department of Social Welfare
EBF	Exclusive breastfeeding
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EID	Early infant diagnosis
eMTCT	Elimination of mother-to-child transmission
EWI	Early warning indicators
FP	Family planning
FY	Fiscal year
HBC	Home-based care
HCI	USAID Health Care Improvement Project
HEI	HIV-exposed infant
HIV	Human immunodeficiency virus
HMIS	Health management information system
IP	Implementing partner
LGA	Local Government Area
LTFU	Loss to follow-up
MVC	Most vulnerable children
MVCC	Most Vulnerable Children Committee
MOHSW	Ministry of Health and Social Welfare
NACS	Nutrition assessment, counselling and support
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PHFS	Partnership for HIV-Free Survival
PITC	Provider-initiated HIV testing and counselling
PLHIV	People living with HIV
PMTCT	Prevention of mother-to-child transmission of HIV
QI	Quality improvement
QIT	Quality improvement team
RCH	Reproductive and Child Health
RHMT	Regional Health Management Team
SES	Standard Evaluation System
SOP	Standard operating procedure
TA	Technical assistance
TB	Tuberculosis
URC	University Research Co., LLC
USAID	United States Agency for International Development
WHO	World Health Organization

1 Introduction

The USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project was invited by the USAID Mission in Tanzania to continue supporting the Ministry of Health and Social Welfare (MOHSW) and U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) antiretroviral therapy (ART) and prevention of mother-to-child transmission of HIV (PMTCT) implementing partners in building capacity to improve quality of care. This work builds on activities begun under the USAID Health Care Improvement Project (HCI) in 2007. USAID ASSIST supports activities geared to strengthening access to, retention, and effectiveness of ART/PMTCT care; services and protection of most vulnerable children (MVC); and community-based support for persons living with HIVs. Furthermore, as part of the Partnership for HIV-Free Survival (PHFS), ASSIST is supporting activities aimed at eliminating HIV infection in children and reducing deaths among HIV-infected mothers, including national scale-up of PMTCT Option B+. Other technical areas addressed by ASSIST include support to Tanzania’s efforts to improve the quality of ART care for infants and children exposed to or infected with HIV.

USAID ASSIST’s approach in Tanzania is to build the capacity of Regional Health Management Teams (RHMTs) and Council Health Management Teams (CHMTs) to coach and mentor facility-based improvement teams. These teams in turn test changes that will improve access and retention in HIV care, improve management of TB/HIV co-infection, improve adherence to antiretroviral drugs, and improve nutritional care for HIV-positive mothers and exposed infants.

Scale of USAID ASSIST’s Work in Tanzania



2 Program Overview

Activities	What are we trying to accomplish?	At what scale?	Improvement Activity	Activity
1. Support the MOHSW and PMTCT implementing	<ul style="list-style-type: none"> Improve access to HIV prevention, testing, care treatment and support 	<i>New learning sites:</i> Mwanza: 26 out of 33 sites Singida: 35 out of 35 sites; Mbeya District Council and	x	

Activities	What are we trying to accomplish?	At what scale?	Improvement Activity	Activity
<p>partners to scale up programs providing women and their families improved access to HIV prevention, testing, care, treatment, and support through quality improvement approaches along the PMTCT cascade</p>	<ul style="list-style-type: none"> • Improve optimal ARV care for mothers and infants attending post-natal care • Support the MOHSW, implementing partners (IPs) and stakeholders to design, test and adopt performance benchmark and standards for effective implementation of option B+ • Support MOHSW, RHMTs/CHMTs to improve early infant diagnosis among HIV-exposed children in Mbeya urban 	<p>Dodoma: 20 sites <i>Existing sites:</i> Lindi: 15 out of 98 sites Mtwara: 20 out of 83 sites Kilimanjaro: 16 out of 256 sites Iringa 60 out of 176 sites Manyara: 8 out of 135 sites Njombe: 19 out of 186 sites Tanga: 13 out of 340 sites Shinyanga: 18 out of 310 sites Tabora: 25 out of 171 sites Morogoro: 50 out of 64 sites</p>		
<p>2. Support the MOHSW and HIV-Free Survival IPs towards elimination of HIV infection in children and reducing deaths among HIV-infected mothers</p>	<ul style="list-style-type: none"> • Improve optimal ARV care for mothers and infants attending post-natal care • Improve retention all mother-infant pairs in post-natal care regardless of their HIV status • Improve monitoring of well-being of HIV+ mothers attending post-natal services and their infants • Improve provision of optimal nutritional care for mother – infant post-natal care at the health facility and community level 	<p>3 out of 26 regions (Tabora, Iringa and Mbeya) 1 district in each of the 3 regions (Nzega, Mufindi and Mbeya Municipal) 10 sites in each of the 3 districts A total of 30 QI teams</p>	x	
<p>3. Support the MOHSW and IPs to scale up improvement activities for ART services to achieve sustainable patients coverage, retention and clinical outcomes</p>	<ul style="list-style-type: none"> • Support MOHSW, RHMT/CHMT and IPs to scale up HIV/AIDS care improvement to 4 new regions • Provide technical assistance (TA) to MOHSW, RHMTs, and CHMTs in integrating essential services with ART program • Strengthen follow-up of ART patients for better retention and clinical outcomes 	<p>Mwanza – 1 of 6 districts; 26 sites Singida – 1 of 6 districts; 35 sites Dodoma – 1 of 6 districts; 10 sites Mbeya – 1 district; 5 sites Morogoro - 50 out of 64 sites Shinyanga - 18 out of 34 sites Iringa - 50 out of 37 sites Njombe - 9 out of 7 sites Lindi - 15 out of 66 sites Mtwara - 20 out of 60 sites Kilimanjaro - 16 out of 31 sites Manyara - 8 out of 27 sites Tabora - 25 out of 40 sites</p>	x	

Activities	What are we trying to accomplish?	At what scale?	Improvement Activity	Activity
		Tanga - 13 out of 71 sites		
	<ul style="list-style-type: none"> Test changes to improve patient-centeredness of care 	14 facilities in Morogoro urban and rural		
4. Support the MOHSW, IPs, and local structures to strengthen quality of care, support and protection to most vulnerable children (MVC) through improvement approaches	<ul style="list-style-type: none"> Support the Department of Social Welfare (DSW) of the MOHSW and MVC IPs in improving and strengthening the MVC care response system 	Child protection (CP) model district - Mkuranga: <ul style="list-style-type: none"> 124 MVCC/CP team members from 3 wards with 24 villages trained on CP and improvement approaches. A total of 21 QI teams 	x	
5. Work with the MOHSW and stakeholders to develop a community home-based care (CHBC) quality improvement program and monitoring framework and support country wide scaling up	<ul style="list-style-type: none"> Support the Department of Social Welfare (DSW) of the MOHSW and MVC IPs in improving and strengthening the MVC care response system 	National -3 out 24 wards in Bagamoyo District -133 QI teams	x	
	<ul style="list-style-type: none"> Support the DSW, local government areas (LGAs) and IPs in developing a comprehensive MVC care and protection framework Implement a comprehensive MVC care package addressing child protection needs i.e. violence, abuse, neglect in a model district 	3 wards in Mkuranga District		
6. Support the MOHSW and partners to develop, field test and scaling up plan of national Quality Improvement Framework for PMTCT Option B+	<ul style="list-style-type: none"> Support the MOHSW, IPs and stakeholders to design, test and adopt performance benchmark and standards for effective implementation of option B+ 	National	x	
	<ul style="list-style-type: none"> Support the MOHSW, IP and stakeholders to design, test tools for facilitation of implementation of a coordinated and integrated PMTCT option B+ strategic approach at district level 	26 facilities in one district of Mwanza Region		

Activities	What are we trying to accomplish?	At what scale?	Improvement Activity	Activity
	<ul style="list-style-type: none"> Support field testing of the common PMTCT Option B+ improvement plan in one model district in Mwanza 			
7. To support MOHSW and IPs to improve the quality of ART care for infants and children exposed or infected with HIV	<ul style="list-style-type: none"> Support MOHSW, RHMT/CHMT to improve early infant diagnoses among HIV exposed children and testing of HIV among non-exposed children in four regions Improve pediatric ART treatment initiation Strengthen follow up of pediatric ART patients for better clinical and immunological monitoring Strengthen retention and outcome of HIV infected infants and children in four regions 	<ul style="list-style-type: none"> All 23 districts in 4 regions of Tabora, Shinyanga, Iringa and Njombe All high volume health facilities in each district (about 43 sites in 23 districts) Working with 43 QI teams 	x	
8. CORE FUNDED: Community Linkages Demonstration Project	<ul style="list-style-type: none"> Optimize linkages between the community and health facility to improve care and treatment services for PLHIV 	<ul style="list-style-type: none"> Tanga region Facilities: 2 health facilities (1 dispensary and 1 health Center)/ 60 facilities in Muheza district Coverage: 10,500 target population (PLHIV)/204,461 total population of Muheza district 	x	

3 Key Activities, Accomplishments, and Results

Activity 1. Support the MOHSW and PMTCT IPs to scale up programs providing women and their families improved access to HIV prevention, testing, care, treatment, and support

BACKGROUND

In FY13, the USAID Mission in Tanzania invited the USAID ASSIST Project to continue supporting the MOHSW, HIV/AIDS IPs, RHMTs and CHMTs to scale up PMTCT quality improvement efforts initiated in 2008 through HCI. Throughout FY13, USAID ASSIST supported these teams to identify implementation gaps along the PMTCT care pathway and test, learn, and adopt changes to narrow the gaps. Through these efforts, 11 out of the 26 regions (i.e., Tanga, Lindi, Morogoro, Mtwara, Tabora, Arusha, Iringa, Shinyanga, Kilimanjaro, Manyara, and Dodoma) and 212 of the 1800 PMTCT sites in these districts were reached. These efforts resulted in positive gains in access, retention and wellbeing of PMTCT clients as

exemplified by: increased exclusive breastfeeding (EBF) in Iringa from 40% in May 2010 to 78% in May 2013 and increased access to CD4 testing among pregnant women in Kilimanjaro from 74% in January 2012 to 83% in December 2012. Furthermore, male partner testing in Kilimanjaro increased from 16% in January 2012 to 34% in April 2013, and uptake of family planning among persons living with HIV (PLHIV) in Manyara Region increased from 6% in January 2012 to 90% in December 2012.

During FY14, the Tanzania PMTCT program transitioned from Option A to Option B+ where all HIV+ pregnant or breastfeeding women will be offered lifelong ART, irrespective of their CD4 count, to optimize national efforts towards elimination of mother-to-child transmission of HIV (eMTCT) by 2015.

Operationally, the move will decentralize ART to frontline facilities offering PMTCT, resulting in expanded access to ART. This also comes with challenges, including limited personnel skills, increased workload, shortage of commodities and supplies, as well as poor client retention.

KEY ACCOMPLISHMENTS

- **Iringa District Council scale-up sites: All scale-up sites except one have switched to Option B+, and ART services are integrated at the Reproductive and Child Health (RCH) clinics. In Iringa District Council, the 13 scale-up sites initiated QI implementation through:**
 - Strengthening health education at RCH on: Importance of HIV-positive mothers taking ARVs for prophylaxis or for lifelong treatment and of HIV-positive pregnant women bringing back their babies for postnatal care where they will be linked to child follow-up until their HIV status is determined.
 - Linking with village leaders and facility board members to advocate for early ANC booking and for men to escort their female partners for antenatal care (ANC). Sites are using home-based care (HBC) providers to track HIV-exposed infants (HEI) who do not turn up for results. Some Option B+ sites with site-based care and treatment centers (CTC) are entering PMTCT clients' information daily to the data base to minimize losing data. Some facilities have initiated interfacility linkages where they can borrow reagents, ARVs, or other supplies at times of shortages and use ledger books to record supplies given or received from other facilities. One facility tried on the job peer training on dried blood spot (DBS) testing and observed an increased number of children receiving DBS tests.
- **Iramba District, Singida Region: Conducted baseline assessment and learning session (Q2).**
 - A baseline assessment was conducted at six facilities of Iramba District. The findings revealed that only Kiomboi was implementing QI activities with support from Japan International Cooperation Agency (JICA). Implementation of PMTCT Option B+ had started at the district hospital, while the other facilities were waiting for ARVs to start treatment. There was shortage of HIV test kits (rapid & DNA/PCR) and drugs for opportunistic infections (e.g., Cotrimoxazole and ARVs for pediatric clients). There was inadequate post-natal follow up of HIV-positive mothers and babies and weak community linkages. Documentation is a big problem in all the facilities assessed, and in some facilities, PMTCT and provider-initiated HIV testing and counselling (PITC) registers were not in place.
 - The first learning session was conducted for all 35 facilities in the district. The teams agreed to focus on improving: Early ANC booking (before 12 weeks of pregnancy); couple testing at RCH; uptake of lifelong ART for HIV-positive pregnant and breast feeding women; pediatric PITC; Cotrimoxazole uptake among HIV-exposed infants; integration of HIV and family planning (FP) services at RCH; integration of TB and HIV services; postnatal follow up of HIV-positive mother-baby pairs; and supply chain management for HIV test kits, CD4 reagents, ART for PMTCT, and Cotrimoxazole.
 - Conducted coaching visits to Iramba District, reaching 32 facility teams (April 2014).
 - Supported IP staff (1), RHMTs (2), and CHMTs (5) to provide coaching and mentoring to 58 health care providers in 35 sites of Iramba District (Q4).
- **Lindi Region: Held learning session (March 2013).** Two RHMT members, eight staff from the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), and staff from nine health facilities in Lindi participated in a learning session organized by EGPAF. ASSIST was invited to provide TA on reviewing QI indicators, facilitating experience-sharing among teams, development of improvement changes, and testing changes. ASSIST also supported training on improvement and its dimensions. Teams agreed on the following new priority areas for improvement: Uptake of lifelong ART for HIV-positive pregnant and breast feeding women; early infant diagnosis of HIV; couple testing at RCH; TB

and HIV service integration; HIV and FP service integration at RCH; postnatal follow-up of HIV-positive mother-baby pairs; PITC for pediatric clients and adults receiving in-patient and outpatient department services; and supply chain management of commodities.

- **Mtwara Region: Conducted indicator review** (March 2014). ASSIST conducted an indicator review meeting in the Mtwara Region with regional ART and PMTCT IPs (three from EGPAF and one from Tanzania Health Promotion Services), two RHMT members, five CHMT members, and 44 QI team members from eight collaborating facilities in the region. The teams shared QI implementation progress and reviewed clinical indicators to accommodate PMTCT Option B+, pediatric indicators, and TB/HIV services integration. Ten indicators were selected to monitor performance over time.
- **Kilimanjaro Region: Conducted third learning session** (Q1). The learning session was attended by four RHMT members, nine CHMT members, nine staff from EGPAF, and 60 health care workers. The facilities shared progress and agreed on the indicators to be monitored and those to be added as a result of Option B+.

Iringa Region:

- **Conducted end line assessment for Assuring Infants and Mothers Get All PMTCT Services** (AIMGAPS) (Feb 2014). The qualitative and quantitative assessment was conducted in four districts, with regional and district RCH Coordinators participating. The qualitative component focused on obtaining perspectives of services from: clients, providers, and community QI teams. In-depth interviews were conducted with 11 service providers and 32 clients. Members of community QI teams from 11 villages implementing the community component of AIMGAPS were involved in focus group discussions to gain their insights on involving community groups to improve PMTCT service uptake and retention. The quantitative component entailed retrospective data collection from 543 client records to determine services received by HIV-positive women during ANC, labor and delivery, postnatal care, and child follow-up.
- **Conducted harvest meeting with 11 facility quality improvement teams** (May 2014). Facilitators included: 22 QI team members, 4 district RCH Coordinators, the regional RCH Coordinator, and a MOHSW Monitoring and Evaluation Officer. Participants documented, rated, and aggregated tested changes around eight domains of PMTCT care: access to care; provision of ARVs and cotrimoxazole supply chain; infant feeding; early infant diagnosis (EID); retention to care; community linkages; quality improvement; and data use. Identified high-ranking tested changes included: on-job training and orientation of service providers on proper documentation, group and individual counseling, and supplies and logistics management of ARVs.

Arusha Region (June 2014):

- ASSIST was invited by EGPAF to provide TA to the learning session for the PMTCT/ART collaborative sites in the Arusha Region. Seven EGPAF staff and two RHMT were coached on how to carry out experience sharing and learning sessions for new improvement teams. Twenty-five sites with a total of 77 participants were trained in two parallel sessions, of which 12 participants were CHMTs. This learning session enabled scaling up ART/PMTCT improvement to 10 new sites in the region.

RESULTS

Improvement in Key Indicators

Activity	Indicator	Baseline	Current Value	Magnitude of Improvement (Percentage points)
1. Support the MOHSW and PMTCT implementing partners to scale up programs providing women and their families improved access to HIV	% of pregnant women tested and counselled for HIV during ANC period in Magu District, Mwanza	63% (August 2013) 11 sites	76% (May 2014) 11 sites)	13
	% HIV-positive pregnant and breast feeding women who receive ARVs treatment for PMTCT and their health in Singida Region	0% (Oct. 2013) 6 sites	100% (July 2014) 6 sites	100
	% HIV-positive women (pregnant and	27% (Jan	66% (May	39

Activity	Indicator	Baseline	Current Value	Magnitude of Improvement (Percentage points)
prevention, testing, care, treatment and support through quality improvement approaches along the PMTCT	breast feeding) receiving lifelong ART for PMTCT and for their health, Lindi Region	2014) 6 sites	2014) 6 sites	
	% male partners tested and counselled for HIV in Arusha Region	30% (Jan 2014) 18 sites	45% (July 2014) 18 sites	15
	% women from ANC who bring partner in for HIV testing in Kilimanjaro Region	16% (Sept 2011) 13 sites	47% (Aug 2014) 13 sites	31
	% of male partners tested and counselled for HIV in Singida Region	37% (Oct 2013) 19 sites	72% (July 2014) 19 sites	35
	% of pregnant women who book for first ANC by 12 weeks in Singida Region	6% (Oct. 2013) 20 sites	16% (July 2014) 20 sites	10
	% HIV clients on ART with follow-up CD4 testing (12-month cohort) in Kilimanjaro Region	30% (Jan 2013) 12 sites	52% (Aug 2014) 12 sites	22
	% of eligible HIV-positive women of reproductive age receiving family planning methods in Arusha Region	27% (Jan 2014: 13 sites	44% (July 2014) 13 sites	17
	% of women attending FP services and tested for HIV in Singida Region	25% (Oct. 2013)15 sites	90% (July 2014)15 sites	65
	% of HIV-exposed children testing for 1st PCR within 4-6 weeks in Arusha Region	63% (Jan 2014)18 sites	83% (July 2014)18 sites	20
	% of HIV-positive mother-HEI pairs seen at the facility each month in Arusha Region	6% (Jan 2014) 12 sites	10% (July 2014) 12 sites	4

- **Improved access to exclusive breastfeeding (EBF) and other HIV pediatric care:** Experience in the Kilimanjaro Region showed that improving processes contributes to sustained and improved access to exclusive breastfeeding and other HIV pediatric care. Figure 1 shows improvements achieved in critical PMTCT services, including the practice of exclusive breastfeeding and enrollment of exposed infants into care. Figure 2 shows improved uptake of pediatric HIV testing through expanding services to other departments within the same hospital.
- **Improved the percentage of women from ANC who bring partner for HIV testing,** which increased from 16% in September 2011 to 39% in February 2014 (Figure 3). Overall, there was a steady improvement in CD4 count testing in the 12-month cohort across sites. Most of the facilities conducted monthly QI meetings and were supported to ensure that they focus on the improvement objectives. Teams were also supported on expanding the offer of family planning services to female ART clients. CD4 uptake in the 12-month cohort increased from 34% from January 2013 to 54% in April 2014.
- **Increased partner testing among pregnant women at ANC:** Some improvements were observed in male involvement in PMTCT services. In Malambo Health Center in Arusha Region, partner testing among new pregnant women at ANC increased from 17% in January 2013 to 79% by May 2014 (Figure 3).

Figure 1: Improvements in EBF and pediatric care services, 15 sites, Kilimanjaro Region (Jan 2012 – Feb 2014)

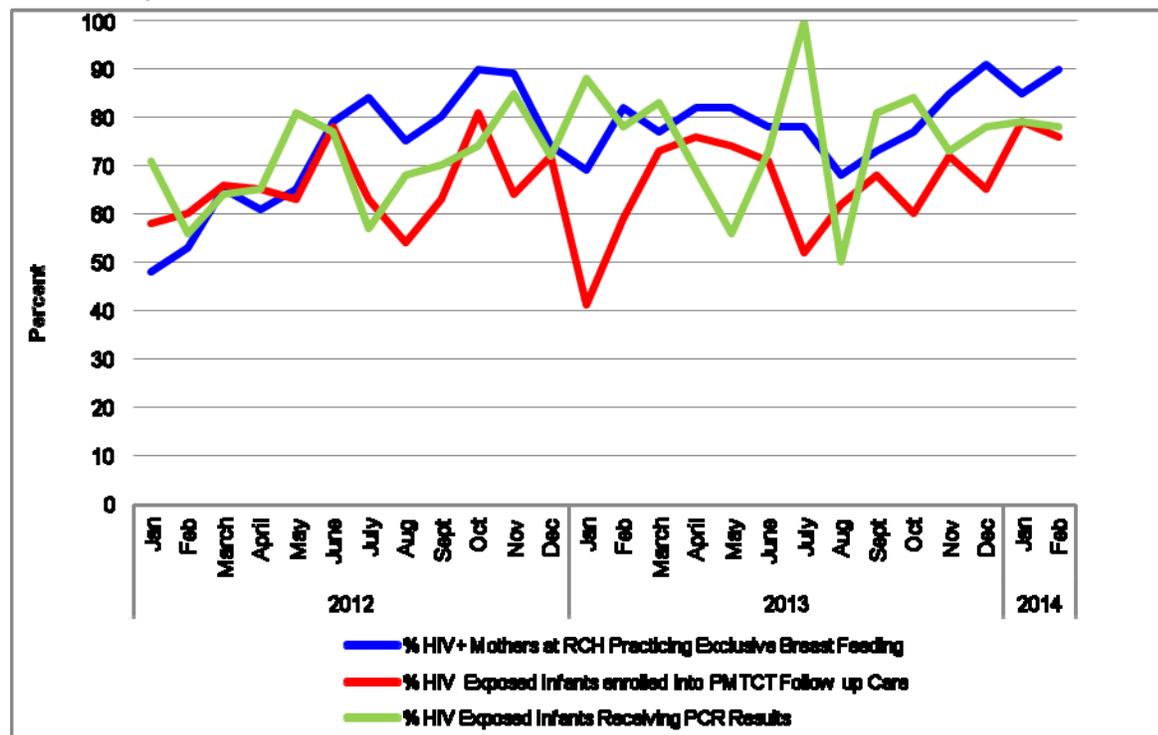


Figure 2: Percentage of pediatric in-patients tested for HIV in hospital pediatric wards, Kilimanjaro Region (Oct 2012 – Feb 2014)

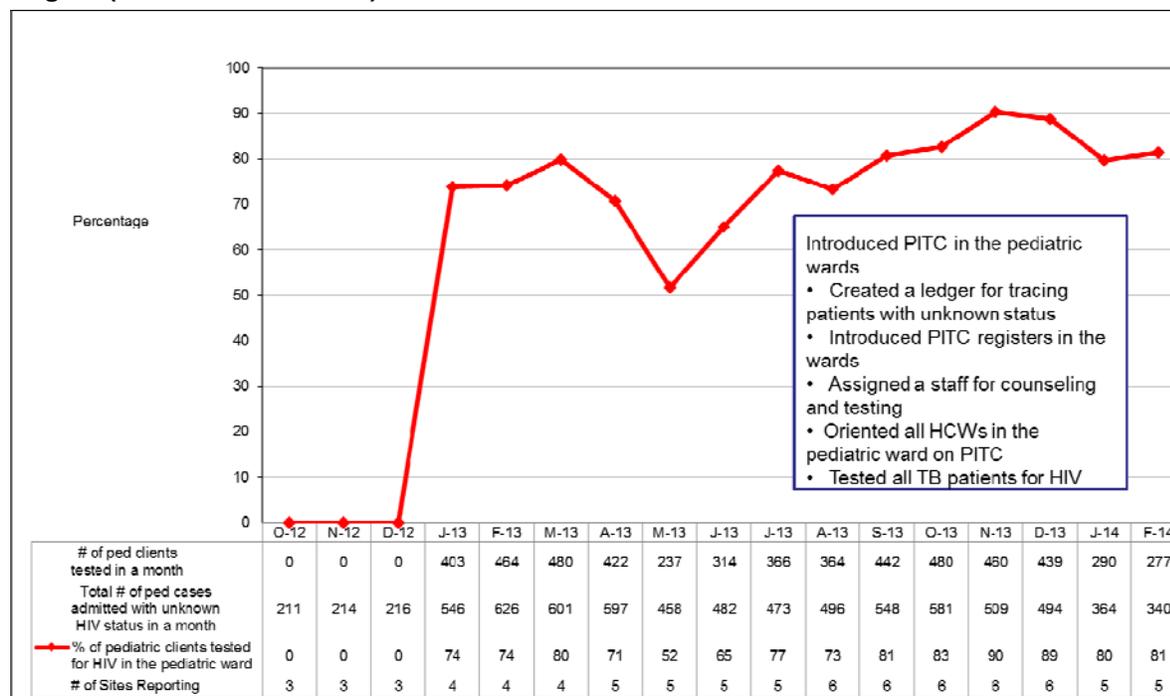
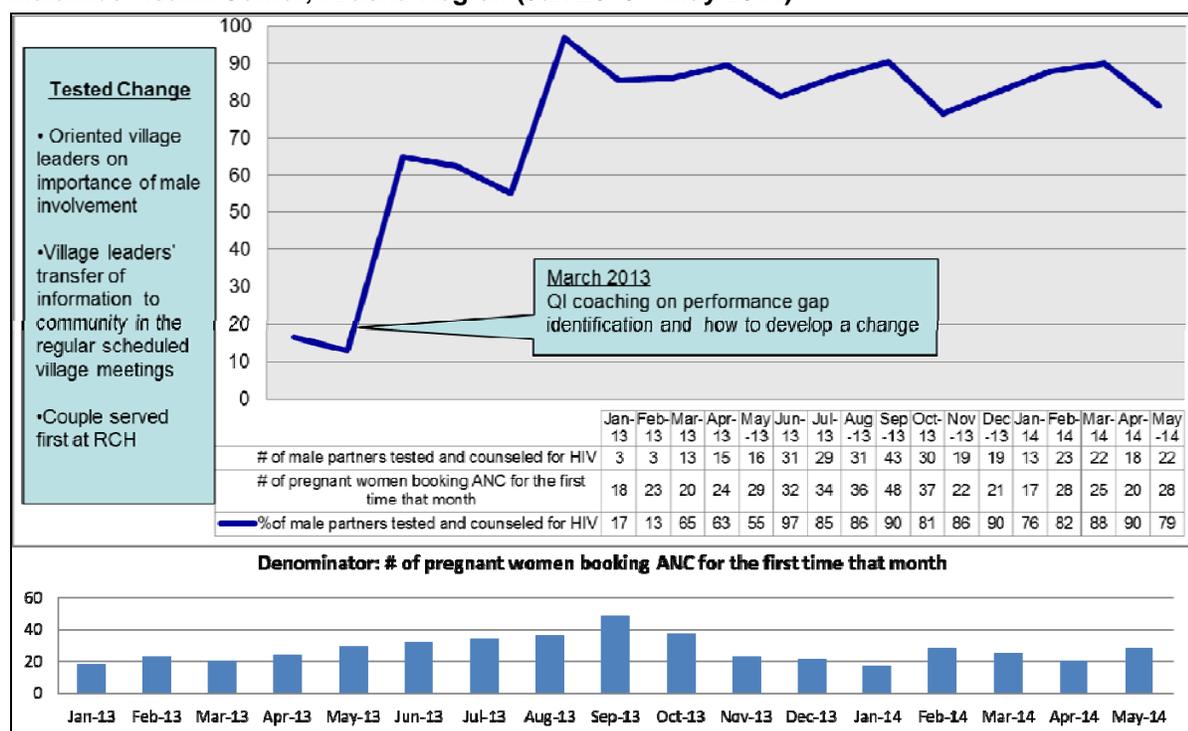


Figure 3: Percentage of male partners tested and counseled for HIV during PMTCT services, Malambo Health Center, Arusha Region (Jan 2013 – May 2014)



SPREAD OF IMPROVEMENT

In FY14, ASSIST built from experiences and gains from existing sites to scale up improvement efforts to four new regions: Mwanza, Singida, Mbeya, and Dodoma. In partnership with relevant stakeholders, ASSIST set up demonstration collaboratives involving the major facilities in one district in each region, and lessons emanating from these sites will be extended to smaller facilities by CHMTs and IPs with TA from ASSIST. To ensure local improvement capacity, district health managers and frontline workers were empowered with skills to define and measure quality, test changes, and measure results in addressing quality gaps.

Activity 2. Support the MOHSW and Partnership for HIV-Free Survival IPs towards eMTCT and reducing deaths among HIV-infected mothers

BACKGROUND

Tanzania is committed to eMTCT by 2015. To pursue this goal, the MOHSW in Tanzania is participating in a multi-country study applying quality improvement approaches to test and adapt options of strengthening the postpartum continuum of care as recommended by the Interagency Task Team on Prevention and Treatment of HIV Infection in Pregnant Women, Mothers, and Children. Previously such efforts significantly improved access to the PMTCT interventions, but numerous challenges as revealed by the National PMTCT Assessment (2011) remained to be addressed, including: i) only 19% of pregnant women with advanced HIV infection were started on lifelong antiretroviral treatment; and ii) only 21% of exposed infants have access to EID services due to limited EID sites (only 30% of PMTCT sites provide the service). In addition, the Tanzania Demographic Survey (2010) revealed further challenges including: i) poor access to quality ANC (only 43% of pregnant women complete 4 ANC visits); ii) about 50% of pregnant women deliver at home; and iii) only 65% women attend post-partum care.

FY13 was a preparatory year, and ASSIST worked with the MOHSW and IPs to establish the national steering committee to spearhead the implementation of the Partnership for HIV-Free Survival in Tanzania. In 2014 the Partnership initiated a total of 30 improvement demonstration sites in three regions (10 sites in each region), focusing on strengthening access to a package of PMTCT services that optimize HIV-free survival while reducing maternal mortality. Quality improvement teams in all sites tested

changes to improve mother-baby pair retention and increase access to lifelong ARV for pregnant and breast feeding women.

Membership in the Tanzania Partnership includes: relevant ministry departments (PMTCT, Tanzania Food and Nutrition Center, Health Services Inspectorate, and Quality Assurance Section), UN agencies (WHO, UNICEF and UNFPA), USG agencies (USAID and CDC), ASSIST, and PMTCT IPs (Baylor College of Medicine, Tunajali-Deloitte, EGPAF, FHI360/FANTA III, and Jhpiego).

KEY ACCOMPLISHMENTS

PHFS, Mufindi District, Iringa Region

- **ASSIST in partnership with Tunajali-Deloitte, RHMT, and CHMT conducted baseline assessment and oriented R/CHMTs on QI (Q1):** Ten sites selected for implementation of HIV-Free Survival from Mufindi District, Iringa Region were assessed. The assessment revealed: QI activities were implemented in only two health facilities – Mafinga and Lugoda hospitals; only five sites received training on nutrition assessment, counselling, and support (NACS), but needed support to implement; health facilities were ready for PMTCT B+, however, there was a need to improve ART and RCH services; inadequate follow-up of mother-baby pairs; inadequate community linkages; and documentation was a challenge in many facilities.
- **First learning session for the PHFS sites (Q1).** Twenty-eight service providers and four CHMT members attended. During the learning session, findings from the baseline were shared, and priority areas for improvement were determined. Participants were introduced to QI principles and dimensions; facility teams were formed, and they developed work plans.
- **Conducted mentoring and coaching/learning session (Q2).** ASSIST, in collaboration with the CHMT and Tunajali, conducted coaching and mentoring visits to the 10 sites implementing PHFS in Mufindi District. It was found that the QI teams had conducted one meeting, but no data was updated in the standard evaluation system (SES) journal, despite teams testing improvement changes. In this district, a second learning session was conducted for 19 service providers from eight sites which were implementing the PHFS initiative.
- **Conducted a third learning session in Mufindi (September 2014).**

PHFS, Nzega District, Tabora Region

- **Conducted coaching and mentoring.** During Q2, a joint coaching and mentoring visit was conducted at 10 sites by ASSIST, EGPAF, and CHMT from Nzega District on assessing the functionality of the QI teams. It was found that the majority of the teams had conducted at least one QI meeting. The coaches clarified issues raised by QI teams, such as definition of indicators and sources of data and assisted teams to update the SES journal. In May, coaching visits were conducted at 10 sites.
- **Held learning session (Q2-Q3):** 11 sites were trained in QI for ART/PMTCT services for five days, with a total of 27 health care workers participating in the training. In addition, a total of 32 QI team members implementing PHFS participated in a five-day second learning session conducted by ASSIST in collaboration with EGPAF and CHMT. A third learning lesson was held in Nzega in August 2014. The participants agreed on priority areas: ART initiation for HIV-positive pregnant women and lactating mothers, HIV-infected infants, and children below two years; HIV testing for children at outpatient department, RCH, and inpatient wards; FP for HIV-positive women of child-bearing age attending CTC services; male partner testing at RCH; follow-up CD4 count monitoring among PLHIV at six and 12 months after ART initiation; and pregnant women booking at 12 weeks.

PHFS Mbeya Urban District, Mbeya Region

- **Conducted coaching and mentoring visits:** ASSIST in collaboration with Baylor Pediatric AIDS Initiative and CHMT of Mbeya Urban conducted coaching and mentoring visits at the 10 PHFS sites. During the coaching visits, QI team functionality as well as progress of QI implementation was assessed by coaches. Some sites had conducted QI meetings but no site had updated the SES journal. The QI team members were coached on how to extract data from relevant data sources, and the SES journals were updated. Coaching visits were conducted in June 2014.

PHFS Country Coordination

- Key results from the three learning sessions for the three districts included: Participants shared their experiences, accomplishments, and challenges in implementing the PHFS program. Some of the

tested changes shared included: giving mother and her baby the same day appointment; serving mother and baby in one service point/room; using phones to provide feedback to mothers when DNA/PCR have been brought to the facility; providing health education on the importance of ARV to mother and baby; and shifting of postnatal care for women who are HIV-positive from CTC to RCH so that the mother and baby can receive services during one clinic visit. Each facility developed action plans using the MOHSW/URC SES journal.

- **Two ASSIST staff attended a three-day regional meeting in Kampala, Uganda where they shared their experiences with PHFS teams from Kenya and Uganda, IPs of all three countries, and the MOHs (Q1).** They also developed implementation plans with the IPs.
- **Facilitated a three-day National Learning Platform for the PHFS which involved the MOHSW, the USAID Mission, and PMTCT IPs (April 2014).** During the event the MOHSW briefed the participants on the status of PMTCT B+, NACS, safe motherhood, and postnatal care activities in the country. Meanwhile three districts implementing PHFS shared their successes and challenges encountered during implementation. This was followed by preparation of action plans based on lessons learnt from other teams.

RESULTS

Improvement in Key Indicators

Activity	Indicator	Baseline	Current Value	Magnitude of improvement (Percentage points)
2. Support the MOHSW and HIV Free Survival Implementing Partners towards elimination of HIV infection in children and reducing deaths among HIV-infected mothers (Nzega, Mufindi, Mbeya)	% of pregnant and breastfeeding HIV-positive women on ARV (10 sites in each district)			
	Mbeya June 2013 to May 2014	5%	93%	88
	Mufindi June 2013 to Aug 2014	59%	76%	17
	Nzega April 2013 to Aug 2014	13%	92%	79
	% of HIV-infected infants initiated on ART (10 sites in each district)			
	Mbeya July 2013 to May 2014	0%	100%	100
	Nzega April 2013 to July 2014	33%	100%	67
	Mufindi July 2013 to August 2014	25%	100%	75
	% of mothers attending the 4 standard postnatal visits (24hrs, 2-7 days 28, and 42 days) (10 sites in each district)			
	Mbeya June 2013 to May 2014	14%	16%	2
	Nzega April 2013 to July 2014	0%	50%	50
	Mufindi June 2013 to August 2014	0%	50%	50
	% of HIV-positive mother-baby pairs attending HIV service each month (10 sites in each district)			
	Mbeya June 2013 to May 2014	0%	28%	28
	Nzega April 2013 to July 2014	0%	89%	89
	Mufindi June 2013 to August 2014	0%	62%	62
	% of women seeking postnatal services at RCH receiving nutritional counselling (10 sites in each district)			
	Nzega Oct 2013 to July 2014	0%	91%	91
	Mufindi July 2013 to August 2014	61%	71%	10
	Mbeya June 2013 to May 2014	4%	25%	21
	% of HIV-exposed infants on exclusive breastfeeding (10 sites in each district)			
	Nzega April 2013 to July 2013	29%	90%	61
	Mufindi June 2013 to August 2014	84%	70%	-14
Mbeya June 2013 to May 2014	67%	91%	24	
% of pregnant and post-natal women who are malnourished (10 sites in each district)				
Nzega Oct. 2013 to July 2014	0%	0%	0	
Mufindi July 2013 to August 2014	6%	1%	-5	
Mbeya Sept 2013 to May 2014	23%	6%	17	

- Results from the 30 PHFS sites are presented as time series graphs in Figures 4-6.

Figure 4: Percentage of HIV-positive pregnant and lactating women taking ARVs in 10 PHFS sites each in Mbeya Urgan, Mufindi, and Nzega districts (April 2013 – Aug 2014)

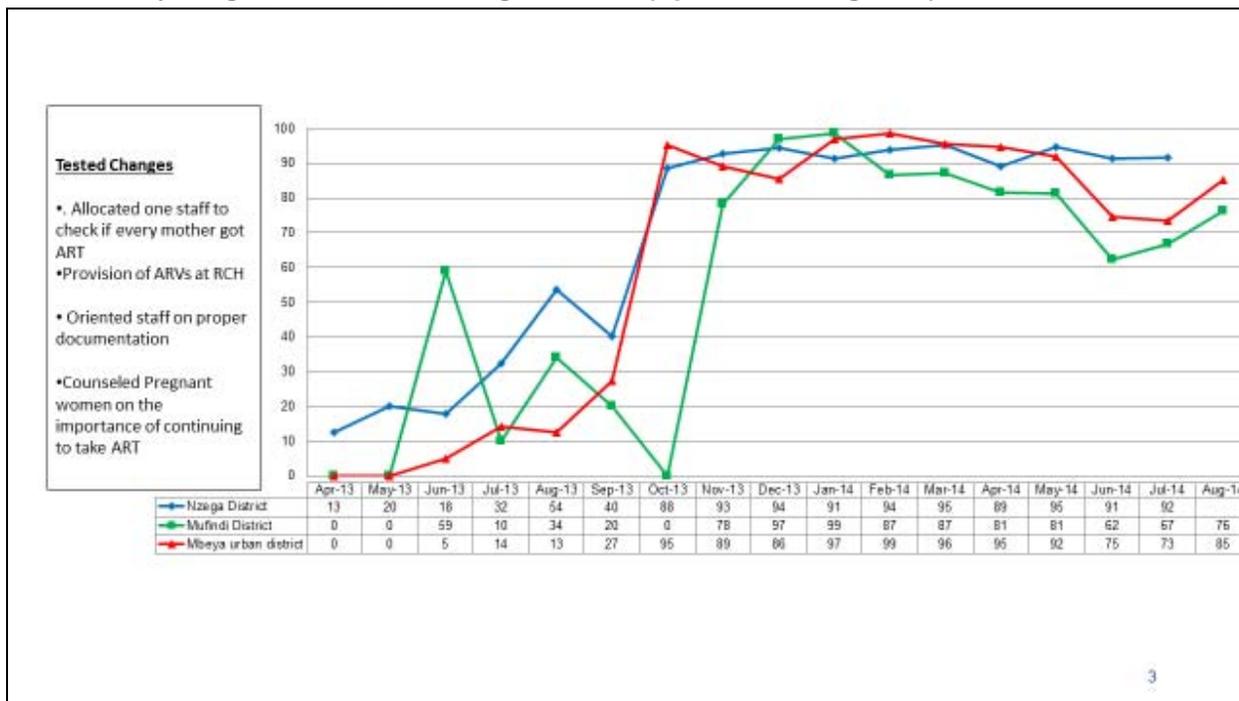


Figure 5: Percentage of mother-baby pairs attending HIV services each month in 10 PHFS sites each in Mbeya Urban, Mufindi and Nzega districts (April 2013 – Aug 2014)

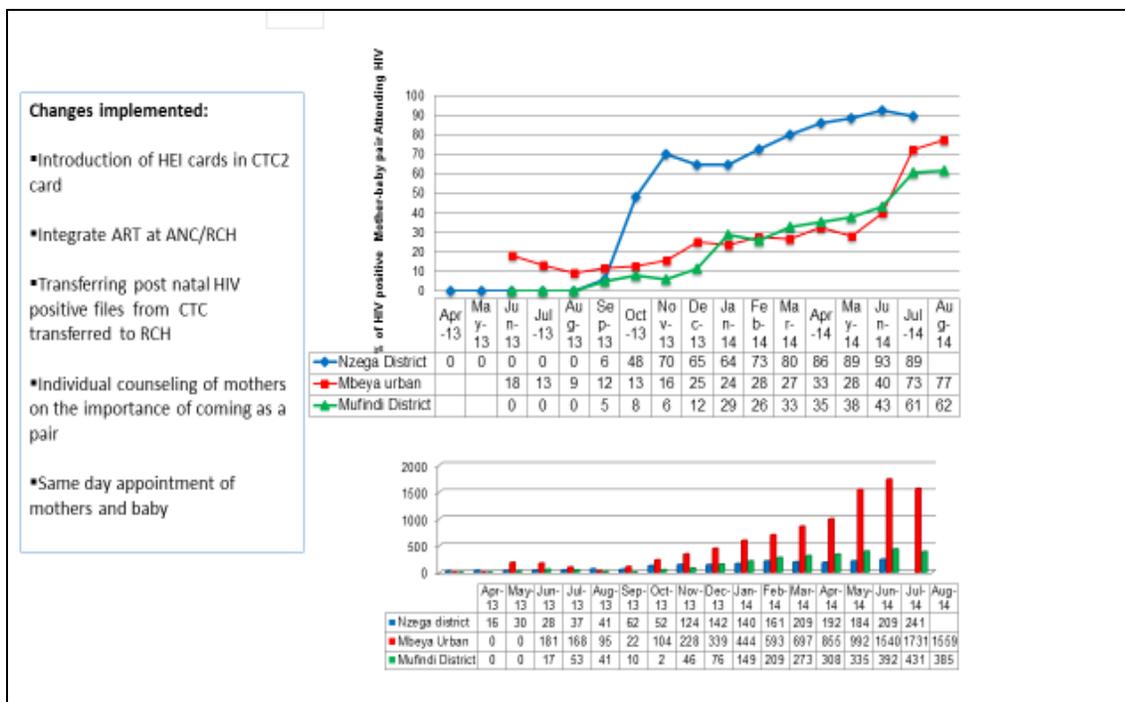
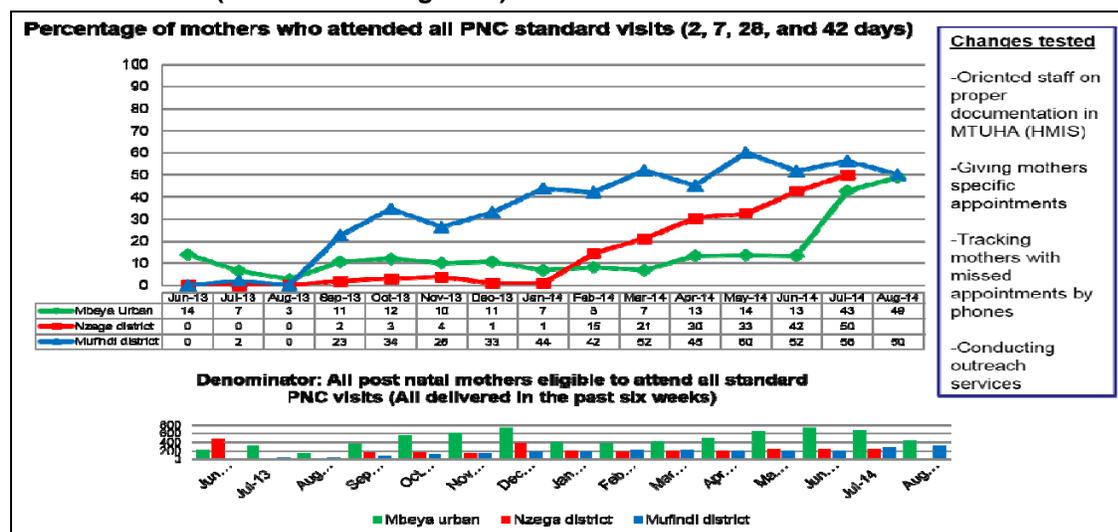


Figure 6: Percentage of mothers who attended all postnatal standard visits, Mbeya, Nzega, and Mfundi districts (June 2013 – Aug 2014)



SPREAD OF IMPROVEMENT

The HIV-free survival intervention package is being demonstrated in Nzega District (Tabora), Mufindi District (Iringa) and Mbeya Municipal (Mbeya) in the initial phase of implementation. Lessons learned and effective changes will later be scaled up to other districts of the three regions and later with support from other stakeholders, the intervention will be scaled to other regions in the country. However, guided by the positive outcomes above, the MOHSW asked ASSIST in FY14 to integrate the intervention package in all PMTCT sites, and work is ongoing.

Activity 3. Support the MOHSW and IPs to scale up improvement activities for ART services

BACKGROUND

ASSIST has been supporting the MOHSW and IPs in designing and managing a national quality improvement program for ART with financial support from PEPFAR. For over five years, through these efforts, the quality of ART uptake has experienced significant gains in 11 regions. The USAID Mission asked ASSIST to continue the support and scale up the activity to more sites in FY14.

Notwithstanding the above achievements, the ART program still faces several challenges, including low enrollment to HIV care, significant retention gaps due to morbidity and loss to follow-up, PLHIV on ART not keeping scheduled appointments, and delay in starting ART among HIV+ TB patients. Furthermore, the MOHSW is in the process of integrating ART-PMTCT services as the nation switches from PMTCT Option A to PMTCT Option B+ which offers lifelong ART to HIV+ pregnant and HIV+ breastfeeding women.

KEY ACCOMPLISHMENTS

- **Conducted mentoring and coaching visit, Morogoro Region** (February 2014). ASSIST conducted coaching for 10 improvement teams with 67 health care providers. Teams were coached on the analysis of tested improvement changes, reviewing QI team functions, identifying new QI members to replace those who had left the facility, and development of work plans for the next action period. The coaching team noted that there was improvement in bridging several gaps that were identified in January 2013. For example, at the Sabasaba Health Center, there was remarkable reduction in number of PLHIV on ART who were lost to follow-up. This improvement was made possible through the team's initiative by use of expert patients (peer mentors) to help with tracking of those who were lost and contacts made using mobile phone calls to lost cases.
- **Conducted orientation of peer mentors** (Q2). A one-day meeting was organized for 53 peer mentors from Morogoro municipal and district councils. In this meeting, peer mentors were oriented to the new PMTCT Option B+ approach and their roles in ensuring all HIV+ pregnant and breast feeding

mothers take lifelong ART for PMTCT. Peer mentors would help in: alleviation of fear and anxiety in newly identified HIV+ mothers; and adherence to treatment and tracking of client who missed their appointment. Peer mentors developed work plans on how they can support pregnant and postnatal women attending RCH clinics on adherence to ART.

- **Conducted learning and coaching sessions in Shinyanga Region** (February to March 2014). Two ASSIST staff conducted a four-day learning session for the new 14 PMTCT/ART quality improvement teams (QITs); 30 health care workers participated. This was immediately followed by day-long coaching and mentorship sessions at 10 old sites in Shinyanga and Simiyu regions for 100 health care workers.
- **Conducted coaching session** (May 2014). Conducted rapid assessment on patient-centered care practices in two districts (Morogoro Municipal and Morogoro District Council) to understand existing gaps in four dimensions of patient-centered care: 1) Respect for patients' values, preferences and expressed needs; 2) Coordination and integration of care; 3) Information, communication and education; and 4) Access to ART/PMTCT care. In collaboration with the RHMT, CHMTs, and facility health management teams, 154 PLHIV and 43 health care providers were interviewed from 14 health facilities in the two districts. After analysis, the findings will inform the improvement design.
- **Conducted mentoring and coaching visit to 15 ART/PMTCT collaborative sites in Lindi Region where 10 old sites were supported on implementation of QI work plans** (June 2014). This visit enabled scaling of QI efforts to five new sites where QI teams were formed, oriented to QI principles and performance measures, and supported to develop work plans using improvement tools. A total of 91 health care providers from both new and old sites, 11 CHMT members, three RHMT members, and one EGPAF staff participated in the sessions.
- **During the fourth quarter, ASSIST supported RHMTs, CHMTs, and Tunajali to conduct coaching and mentoring visits in 10 sites of Dodoma Municipal Council.** During the activity, 85 facility managers and their staff were reached. The old teams were revived and scale-up sites were supported on forming QI teams and developing work plans.
- **The regional partners were also supported to scale up QI activities to six new sites.** In total, 10 sites which were supported to conduct baseline assessments.

RESULTS

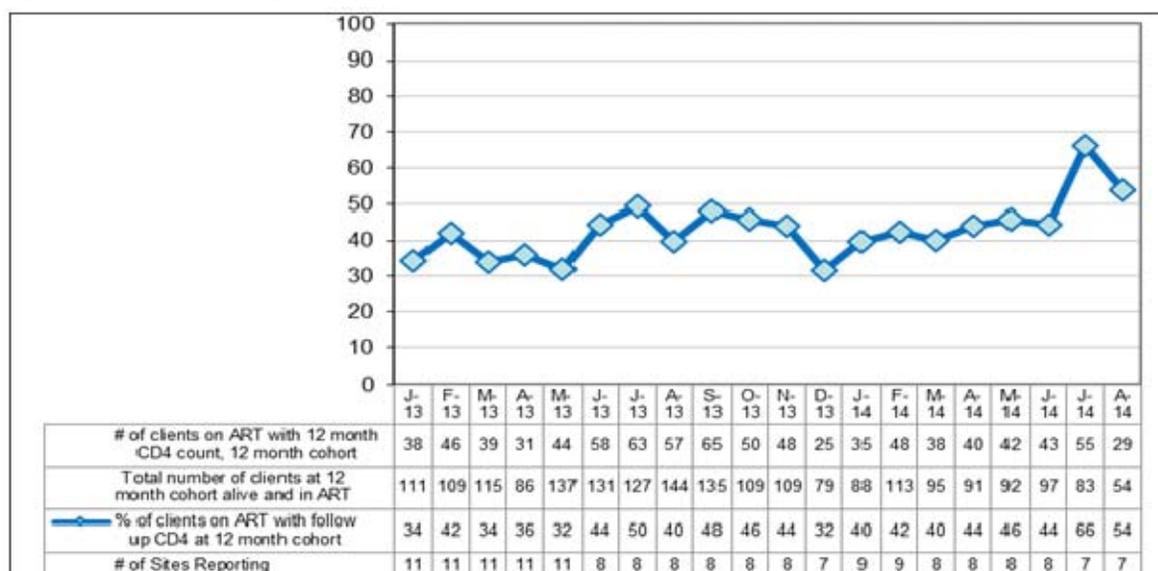
Improvement in Key Indicators

Activity	Indicator	Baseline	Current Value	Magnitude of Improvement (Percentage points)
3. Support the MOHSW and IPs to scale up improvement activities for ART services to achieve sustainable patients coverage, retention and clinical outcomes	% of new sites with quality improvement teams			
	Singida Region	0% (Oct 2013) 35 sites	91% (July 2014) 25 sites	91
	Dodoma Region	0% (Oct 2013) 10 sites	100% (July 2014) 10 sites	100
	Mwanza – Magu Region	0% (Oct 2013) 26 sites	79% (Aug 2014) 26 sites	79
	Mbeya Region	0% (Oct 2013) 10 sites	100% (Aug 2014) 10 sites	100
	% of health care providers trained in QI in Singida Region, Iramba District (80 HCWs trained)	0% (Oct 2013) 35 sites	100% (July 2014) 35 sites	100
	% of HIV-positive pregnant women screened for TB at RCH in that month in	0% (Sept 2011) 13	100% (Feb 2014) 13	100

Activity	Indicator	Baseline	Current Value	Magnitude of Improvement (Percentage points)
	Kilimanjaro Region	sites)	sites	
	% of HIV-positive pregnant women counseled for family planning at ANC in the month	13% (Sept 2011)	100% (Feb 2014)	87
	% of HIV-positive pregnant women counseled for family planning at CTC in the month	1% (Sept 2011)	54% (July 2014)	53
	% of PLHIV who are lost to follow-up			
	Arusha Region	12% (July 2013) 13 sites)	11% (Feb 2014) 13 sites)	-1
	Kilimanjaro Region	19% (Jan 2012) 13 sites)	15% (Aug 2014) 13 sites)	-4
	% of HIV mother-baby pairs lost to follow-up and then tracked back to care in Nzega Region	0% (Oct 2013)	65% (July 2014)	65

- **Improved CD4 testing to clients on ART.** Figure 7 shows that the percentage of clients on ART with follow-up CD4 at 12 months in Kilimanjaro Region increased from 34% in January 2013 to 54% in August 2014.

Figure 7: Improved CD4 testing to clients on ART (12 months cohort) in 12 sites in Kilimanjaro Region (Jan 2013 – Aug 2014)



SPREAD OF IMPROVEMENT

ASSIST will support scaling up of QI activities for the ART program by collaborating with respective ART implementing partners in three new regions: Mwanza, Singida, and Dodoma. In addition, ASSIST will facilitate regional internal scale-up in Tabora, Arusha, Kilimanjaro, Manyara, Iringa, Njombe, Shinyanga, Morogoro, Lindi, Mtwara, and Tanga.

Activity 4. Support the MOHSW, IPs, and local structures to strengthen quality of care, support and protection to most vulnerable children through improvement approaches

BACKGROUND

ASSIST has been working to strengthen systems to safeguard safety, wellbeing and family stability for most vulnerable children (MVC) in partnership with the MOHSW, IPs, and LGAs. Under HCI, an improvement collaborative in Bagamoyo and Kigoma was implemented to improve care for vulnerable children. Despite some improvements, different challenges have continued to affect the quality of care and protection of vulnerable children. These include: weak coordination and linkages of MVC services across different sectors; weak community resource bases; weak resource mobilization capacity; and lack or little support to vulnerable children and households. Others include: weak data for decision support and lack or low accountability for the plight of most vulnerable children. Furthermore, systems for responding to violence, exploitation, and abuse against vulnerable children are weak or in some places, not existing.

KEY ACCOMPLISHMENTS

- **ASSIST in collaboration with Bagamoyo District Council continued to support MVC Committees (MVCCs)/QITs** with coaching sessions in three wards of Magomeni, Kiwangwa, and Fukayosi. A total of 17 QITs/MVCCs participated together with ward and village leaders. QITs have continued to work and collaborate with village authorities in mobilization of various resources in supporting most vulnerable children.
- **Teams worked to ensure children are protected against exploitation, abuse, and violence in Magomeni ward.** Two cases of abuse were identified by the MVCC and reported to authorities for actions.
- **Organized the first meeting with QI Task force to discuss the process of developing new MVC QI guideline** (March, 2014).
- **In collaboration with the DSW, conducted an introductory visit to Mkuranga District Council for initiation of MVC improvement activities, especially addressing child protection issues in Mkuranga District** (February 2014). The visit revealed that:
 - There was no MVC committee or specific board at the district level for overseeing MVC activities, and only five of 18 wards had formed MVCCs. Even where they existed, the MVCCs were not functioning. At village level, only 74 out of 121 villages had MVCCs, but these were not active. There were no budgets for child protection activities or annual plans for child protection activities at district, ward, and village levels.
 - Most community-based organizations (CBOs) provided direct aid like school supplies, fees, and food. Most children do not know where to report child abuse cases, and very few have courage to report abuses due to cultural issues.
 - There was inadequate skills and knowledge among key actors dealing with child protection issues; that was why some of them were not well addressed.
 - There is weak documentation and reporting, including application of data during planning due to lack of specific targets and indicators. There is also low understanding of children's rights among community members.
- **ASSIST and DSW staff conducted a child protection training at the district level with a total of 22 members from district departments and representatives of faith-based organizations and NGOs** (April 2014). This was followed by child protection training at the community level in June 2014 in which a total of 124 MVCC/child protection team members from three wards with 24 villages participated. The training was conducted at ward level for three days in each ward.
- **ASSIST supported Mkuranga and Bagamoyo districts to conduct coaching and mentoring to QITs/child protection teams.** Teams at ward and village levels in Mkuranga made plans on preventing and responding to child protection issues, such as educating parents and communities not to involve children during local dances in late hours (night), proper dress during those dances, and spot check on local theatre/video rooms to make sure pictures/videos shown are relevant to local culture and traditions. Teams also mobilized MVC caregivers to join the Village Community Bank, which encourages them to save and lend some money to support their basic needs, and within that they allocated some amount specifically to support most vulnerable children.

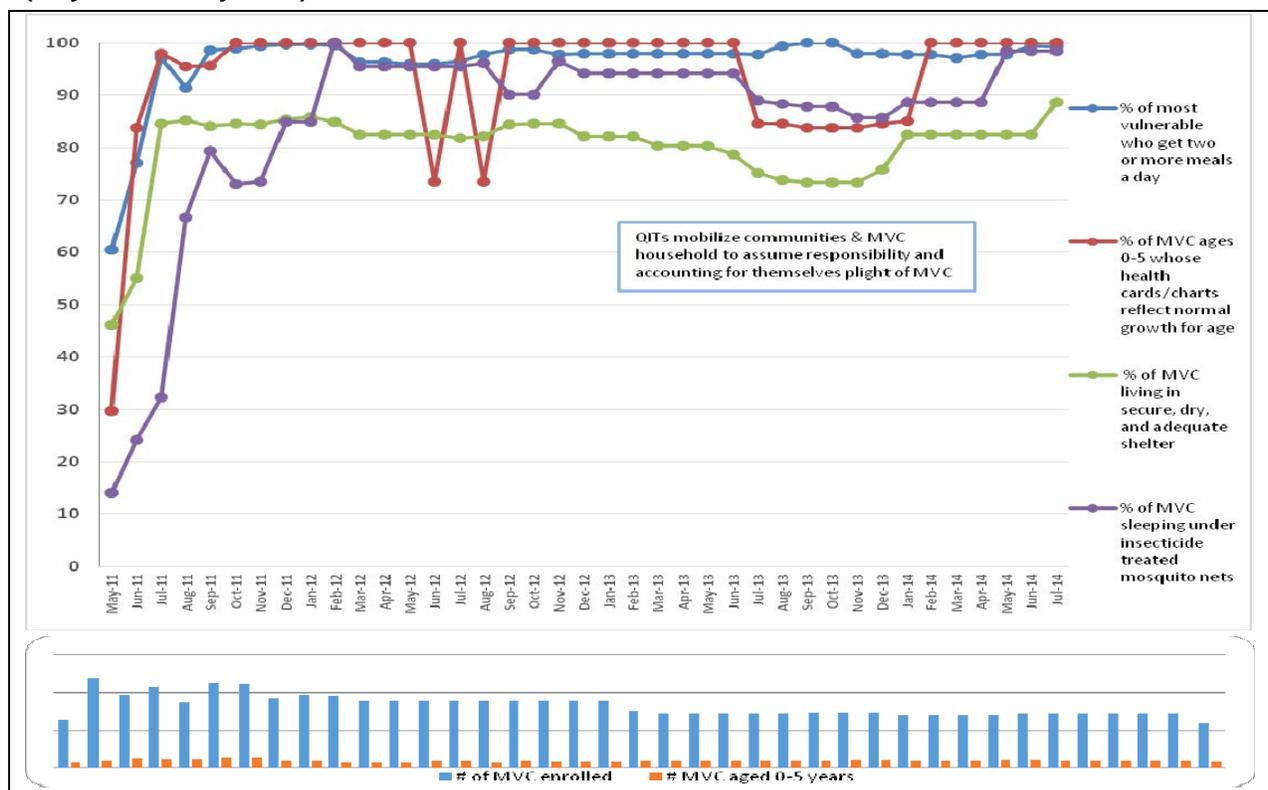
RESULTS

Improvement in Key Indicators

Activity	Indicator	Baseline (May 2011)	Current Value (July 2014)	Magnitude of Improvement (Percentage points)
4. Support the MOHSW, IPs, and local structures to strengthen quality of care, support and protection to most vulnerable children through improvement approaches	25 sites (Bagamoyo District)			
	% of MVC with access to two meals in a day	14%	98%	84
	% of MVC with access to adequate shelter	46%	89%	43
	% of MVC with access to Community Health Fund	0%	38%	38
	% of MVCs enrolled and attending school	77%	92%	15
	% of MVC reporting to have slept under insecticide-treated bednets the previous night	60%	99%	39
	Proportion of MVC with birth certificates	6%	39%	33

- In Bagamoyo 25 teams/MVCCs have continued to sustain the gains of supporting vulnerable children with basic services and ensuring linkage and integration of community social services to most vulnerable children and families (Figure 8).

Figure 8: Institutionalization of MVC services in 26 sites in Bagamoyo District Council by QITs (May 2011 – July 2014)



SPREAD OF IMPROVEMENT

ASSIST is providing TA and support to the DSW and IPs in implementation of activities and documenting best practices and lessons achieved during implementation of HCI to facilitate scaling up of improvement to other regions.

Activity 5. Work with the MOHSW and stakeholders to develop a CHBC quality improvement program and monitoring framework and support country wide scaling up

BACKGROUND

In FY13, ASSIST supported the MOHSW and IPs to disseminate and operationalize national standard operating procedures (SOP) for the home-based care (HBC) program. Furthermore, the HBC SOP were prototyped in Tanga and Dodoma regions to demonstrate and learn how proper usage of the SOP contributes to increased access to a broad range of HBC services to clients. During the same period, ASSIST piloted a model to integrate HBC and MVC services at service delivery level in Muheza District, Tanga Region.

Approximately 1300 hard copies of the HBC SOP were printed and disseminated across zones to respective HBC IPs concurrently with printable electronic copies for wider dissemination. The prototyping of HBC SOP promoted the delivery of integrated HBC through formation of networks of various community-based providers, all linked with health facilities catering to specific catchment areas. The intervention has improved referrals for both clinical (e.g., to PMTCT, HIV counselling and testing, TB clinic and family planning by over 50%), and psychosocial support services. In general, prototyping of the HBC SOP and integration work in Muheza revealed that development of functional networks of CBOs is possible and that orientation of HBC providers to the HBC SOP are of paramount importance towards realization of broader needs of PLHIV and their families in the ART era. Despite these milestones, the rollout of the HBC SOP to providers remains a challenge. The monitoring and evaluation system is weak, and the HBC program still runs vertically to other community-based programs, including MVC program.

In FY14, USAID ASSIST supported the MOHSW and HBC IPs to continue with dissemination of the SOPs to service delivery points across all levels of care and to strengthen data recording and reporting systems. Working with the Tanga CHMT, the project is testing tools for routinely conducting data quality audits in terms of accuracy, consistency, and appropriateness of collected data.

KEY ACCOMPLISHMENTS

- **ASSIST provided TA to RHMT, CHMT, and HBC providers from 14 wards in Tanga City** (May 26-30, 2014). The support included orientation to the National SOP for HBC, review of all HBC recording and reporting tools, and development of action plans to improve gaps. Major gaps were around reporting timeliness, data completeness, and consistency as data move from one level to another.
- **ASSIST supported RHMTs and CHMTs in Muheza to conduct an orientation on integration of HBC and MVC services in Muheza District** (August 4 -9, 2014). A team of improvement advisors accompanied RHMT, CHMT, and HBC/MVC IPs in Muheza District Council and started working with community groups to revive and strengthen initiatives for integrating HBC and MVC services in four wards, namely Genge, Kilulu, Kicheba and Mkuzi. The main activities conducted in preparation for implementation included conducting stakeholder meetings to advocate for integration and community linkage of HBC and MVCC, re-orientation of HBC providers and MVCCs to data collection and reporting tools, and supporting the CHMT to strengthen and establish village health teams. During discussions with stakeholders it was realized that there were no linkages between HBC and MVC programs.

SPREAD OF IMPROVEMENT

In FY14, USAID ASSIST supported the MOHSW-led effort to scale up use of the HBC SOP nationwide. ASSIST supported printing of 1300 copies of the HBC SOP to facilitate training in the planned zones. The MOHSW led the process while ASSIST provided TA. Due late obligation of funds, work is ongoing, and the impact will be reported in FY15.

Activity 6. Support the MOHSW and partners to develop, field test and scaling up plan of national Quality Improvement Framework for PMTCT Option B+

BACKGROUND

In response to the WHO recommendation, Tanzania has adopted PMTCT Option B+ to facilitate virtual elimination of mother-to-child transmission of HIV by 2015. Implementation of Option B+ comes with some anticipated programmatic, operational, and clinical challenges that include the need to integrate ART and RCH service delivery, maintaining adherence and retention to lifelong ARV, referral mechanisms, cost and sustainability, and transition from the PMTCT to HIV care and treatment program. For smooth transitioning to this new option, there is a need to closely look at how the processes and systems of service delivery at the RCH, CTC, and community levels can be re-designed for better outcomes and impact.

KEY ACCOMPLISHMENTS

- **ASSIST supported the MOHSW and PMTCT IPs to develop national Early Warning Indicators (EWI) and QI indicators as well as assessment tools for PMTCT Option B+ (Q1).**
- **During a pre-work visit in Magu District, a baseline assessment of early warning responses by health facility teams as required by EWI and QI indicators was conducted in 10 health facilities (Q1).** The ASSIST team supported RHMT, CHMT, and facility QI teams on how to address encountered clinical and logistical gaps through on-site coaching and mentorship.
- **ASSIST conducted coaching and mentorship sessions to health providers from 12 health facilities in Magu District, Mwanza** (February 10-22, 2014). These sessions aimed at strengthening district- and facility-level response mechanisms to address stock-outs of ARVs, test kits, and other supplies. Other objectives of the coaching visits included strengthening facility early warning response mechanisms to prevent emergence of HIV drug resistance and ensuring documentation of improvement interventions.
- **Conducted coaching and mentoring sessions** (April 9-17, 2014). In collaboration with the RHMT and CHMT, ASSIST conducted coaching and mentorship sessions to service providers in all 26 health facilities providing PMTCT Option B+ services in Magu District. The focus was on supporting teams to overcome implementation challenges related to stock-outs of ARVs and HIV test kits, prescribing practices, and HIV testing to infants, women (during ANC, labor and post-natal), and their partners. In addition, QI teams were supported on how to correctly abstract baseline indicator data from various health management information system (HMIS) registers, drawing of run charts, and filling of SES journals.
- **Conducted first learning session** (June 16-27, 2014). ASSIST conducted the first learning session for staff from 29 health facilities providing PMCTC Option B+ in the district. Participants were oriented to concepts and scientific basis for improving quality of care as well as tools for monitoring and documenting improvement work. QI teams that had started Option B+ earlier in October 2013 shared their indicators' performance and how they managed to overcome challenges such as stock-outs of ARVs, test kits, and testing of women during labor and post-natal clinics.
- **ASSIST supported CHMT and IPs in Magu District to introduce weekly SMS that shows the current stock for each PMTCT site (Q4).** The SMS are sent by facility managers to CHMT and regional IPs on a weekly basis, reporting on stock levels. This was in response to critical shortages of testing kits and unequal distribution of HMIS and ART registers. The practice assisted the pharmacist and laboratory technologist to identify PMTCT sites that are short on commodities and those ones that have surplus to guide relocation of testing kits. This led to an increase in the percentage of pregnant women tested and counseled for HIV at RCHs from 63% in August 2013 to 76% in May 2014.

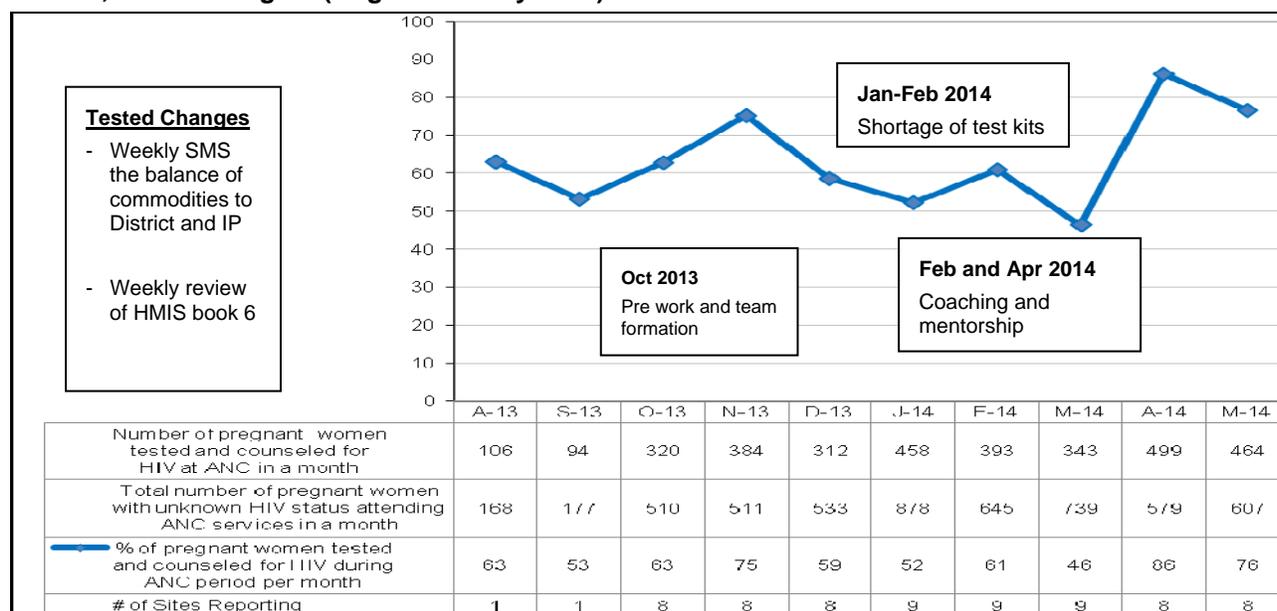
RESULTS

Improvement in Key Indicators

Activity	Indicator	Baseline	Current Value	Magnitude of Improvement (Percentage points)
6. Support the MOHSW and partners to develop, field test and scale up national Quality Improvement Framework for PMTCT Option B+	# of sites with QI teams tracking EWI indicators	October 2013	26 (Aug 2014)	26
	% of pregnant women tested and counseled for HIV during ANC period in Magu District, Mwanza	63% (Aug 2013) 11 sites	76% (May 2014) 11 sites	13
	% of HIV-positive pregnant and breastfeeding women initiating ART who are prescribed an appropriate first-line ART regimen in Magu District, Mwanza	100% (Oct 2013) 9 sites	100% (May 2014) 9 sites	NA
	% of HEI testing for 1st DNA/ PCR between 4-6 weeks each month in Magu District	11% (Oct 2013) 8 sites	29% (May 2014) 8 sites	18

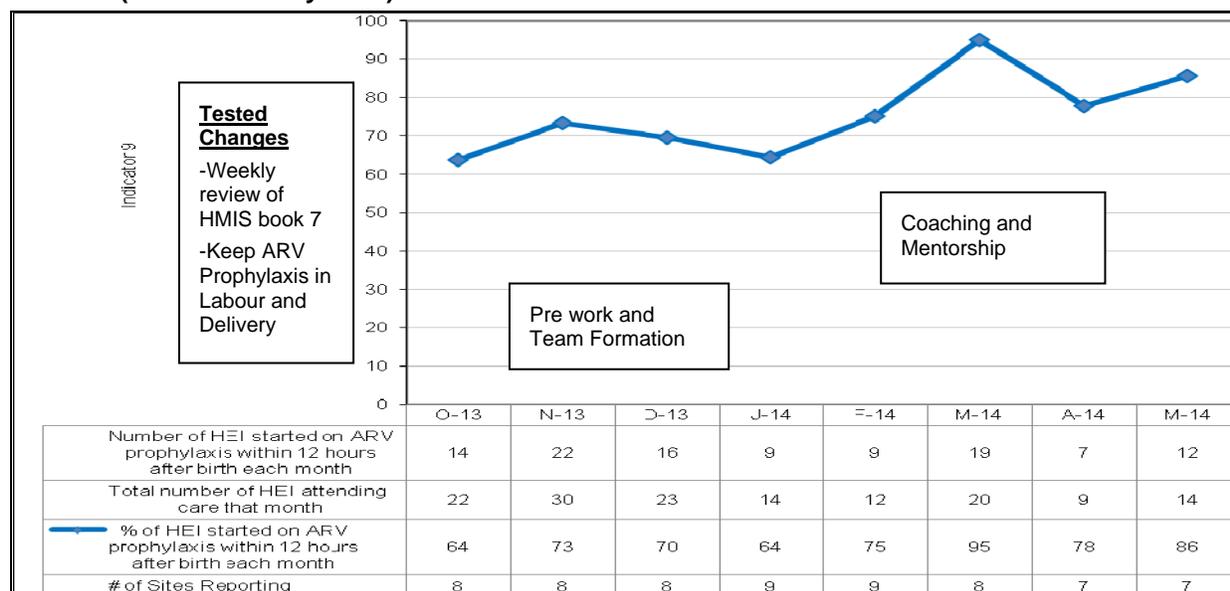
- Increased percentage of pregnant women tested and counseled for HIV (Figure 9).

Figure 9: Percentage of pregnant women tested and counseled for HIV at RCH, at 9 sites in Magu District, Mwanza Region (Aug 2013 – May 2014)



Health workers in PMTCT sites decided to keep ARVs at labor and delivery room for easy access and availability; after this practice, every HIV-exposed baby born at anytime was given ARV, and documented in HMIS register 7 (Figure 10).

Figure 10: Percentage of HEI receiving ARV prophylaxis within 12 hours after delivery, Magu, Mwanza (Oct 2013 – May 2014)



SPREAD OF IMPROVEMENT

The main product of this intervention is a PMTCT Option B+ Improvement Framework and field tested Early Warning Indicators (EWI) of ARV resistance. Change ideas applied in Magu and found to be working are currently being packaged for sharing and later used as a guide for improving the national roll-out of PMTCT Option B+ and monitoring ARV resistance. A case study is under development, and national dissemination meeting will follow in early FY15.

Activity 7. Support MOHSW and implementing partners to improve the quality of ART care for infants and children exposed or infected with HIV

BACKGROUND

Significant progress has been achieved in improving access to diagnosis and treatment of infant and children exposed or infected with HIV since the publication of the National HIV Early Infant Diagnosis Guidelines (2008) and the implementation of the National eMTCT Plan (2012-2015). Available data show that the number of infants and children enrolled in care increased from 15,672 in 2008 to 29,457 in 2010.¹

However, the infant and children ART program still faces several challenges: i) low enrollment of infected children to HIV care – only 7.8% of the total enrolled patients were children below 15 years; ii) limited EID sites: only 30% of the PMTCT sites provide this service; iii) inadequate documentation of necessary information to monitor childhood nutrition services; iv) setbacks related to disclosure of HIV status and adherence to ARVs; v) poor CD4 monitoring; and vi) difficulties in formulation and dosing of treatment regimen for weight and age. Furthermore, proper follow-up and monitoring of HIV-infected children who are in care and on ART treatment is weak; in most facilities, there is delay in getting the DNA PCR results; there is inadequate screening for opportunistic infections; and provider capacity to manage ART needs strengthening.

In FY14, the USAID ASSIST Project supported the MOHSW and ART implementing partners at different levels to apply improvement approaches to optimize HIV testing in children (PITC) and link them to ART services in 10 high-volume sites each in Mbeya, Njombe, Iringa, Tabora, and Shinyanga regions. Lessons learned from these sites will guide national scale-up.

KEY ACCOMPLISHMENTS

- Conducted baseline assessment, Mbeya District Council (Q2). A baseline assessment for the

¹ National Surveillance Data #22

pediatric QI initiative was conducted to understand current pediatric ART coverage among children enrolled into care and treatment centers. HIV testing performance among children below 15 years was assessed to understand if children who accessed services in those facilities access HIV testing and counselling services and if they are linked to care for those identified as HIV positive through PITC.

- **Key findings:** By December 2013, children below 15 represent 6% of the total cumulative enrollment into care. Among the children who were enrolled into HIV care, 90% had been started on ART. However 43% of the children enrolled were not on ART by the end of reporting period (October-December 2013). The number of children receiving ART in those facilities represented about 6% of the total number of PLHIV receiving ART services during the same period (Oct-Dec 2013). Five out of 18 HIV-infected children diagnosed as HIV-positive through PITC program were enrolled into HIV care during the period of Oct-Dec 2013. HIV testing performance was poor in all four facilities visited.
- **Coaching was conducted in 39 sites from four regions of Tabora, Iringa, Shinyanga, and Njombe regions** (April – June 2014). In each health facility visited, QI teams were established and work plans were developed in pediatric QI focus areas. Also QI team members were oriented on a SES journal for documenting QI work.

RESULTS

The activity started late and results will be available FY15.

- **Data validation:** In August 2014, ASSIST worked with RHMTs and CHMTs to conduct validity assessment of improvement data in terms of completeness and appropriateness in recording as the collaborative matures. The CTC 2 cards that are being filled as part of documentation of ART services were systematically sampled for attendees in the previous month at maturation of the improvement collaborative in Arusha in June 2014 and compared to those at the start of the improvement collaborative in Singida (in Feb 2014). The three main sections of the card (demographic, treatment eligibility, and care provision) which are routinely filled out were examined for completeness in documentation. Figure 11 shows results of the data validation for five sites in Singida Region. As shown in Figure 12, consistency in documentation for all sections was observed in Waso, Kirurumo, Longido and Oltrumet sites in Arusha Region. The figures suggest that recording is more complete in the relatively mature improvement collaborative sites.

Figure 11: Filling of CTC2 card sections by health care workers, 5 sites, Singida Region, at the beginning of the improvement intervention (Feb 2014)

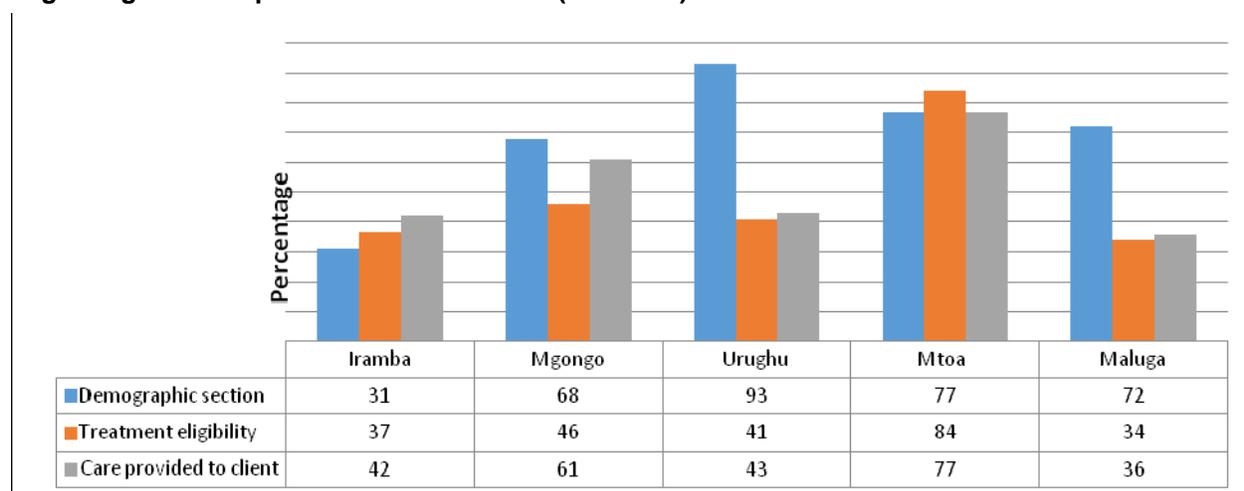
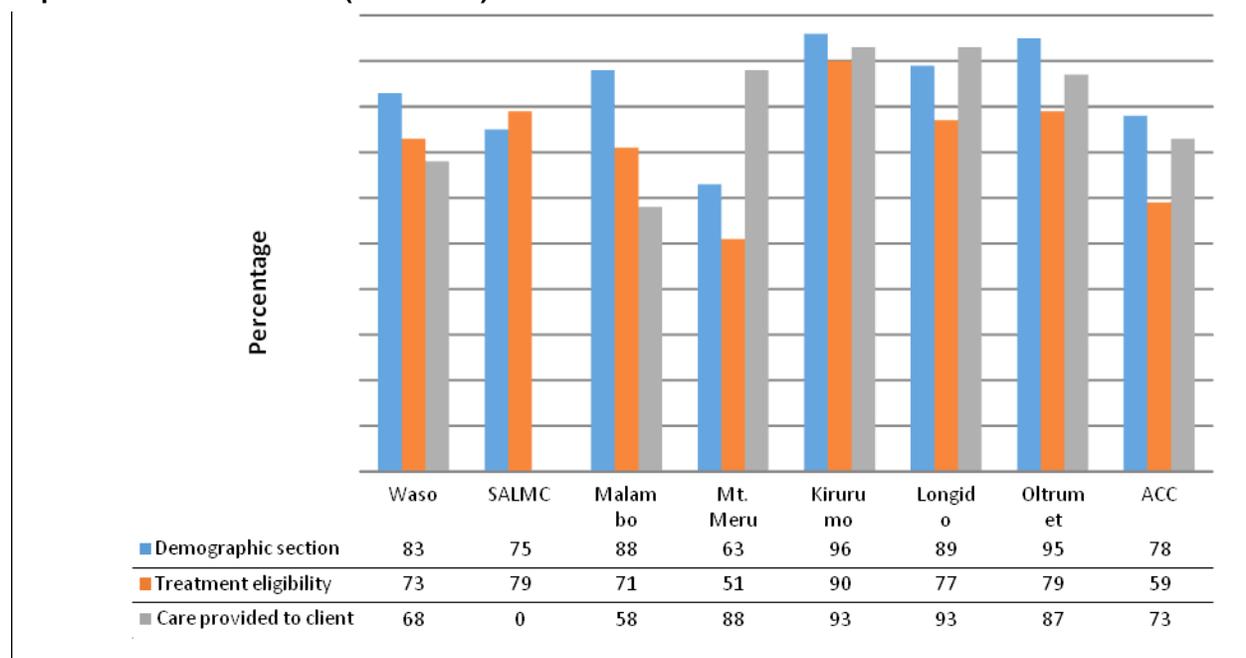


Figure 12: Filling of CTC2 cards by health care workers, 8 sites, Arusha Region, at the end of the improvement intervention (June 2014)



SPREAD OF IMPROVEMENT

ASSIST will support RHMT/CHMT and IPs to continue testing the validation tools, pulling in more aspects of validation, including levels of accuracy, timeliness, and appropriateness in one more district in each region. Lessons learned from these sites will guide further scale up of the process.

Activity 8. (Core-funded) Community linkages activity to optimize linkages between the community and health facility to improve care and treatment services for PLHIV

BACKGROUND

Uptake and retention throughout the entire continuum of care for people living with HIV (PLHIV) remains very low in many resource-limited countries. However, community-based support can play an important role in improving uptake and retention of PLHIV by strengthening the linkage between the community and health facility. A systematic review has shown that the median retention of patients prior to starting antiretroviral (ARV) treatment (ART) in sub-Saharan Africa is only 29%. According to a prospective cohort study that compared patients receiving community-based adherence support to those who were not, community-based adherence support significantly led to a reduced proportion of patients who were lost to follow-up, a lower mortality rate, and an improved virological suppression after starting ARVs among those patients receiving community-based adherence support.

HCI began a community linkages activity in the Muheza District of Tanga Region in 2011. HCI conducted a rapid situational analysis in 2011 to gain an understanding of community health needs, current practices, existing partnerships, resources, providers, stakeholders, and community-facility linkages. Overall, the activity sought to 1) identify obstacles/barriers to effective linkages and coordination; 2) identify potentially synergistic programs that add value to home-based care (HBC) and most vulnerable children (MVC); and 3) develop a package of services and processes. The work begun under HCI continued under PEPFAR funding from the Office of HIV/AIDS through USAID ASSIST in FY14.

KEY ACCOMPLISHMENTS

- **Health talks incorporated into community groups' (CG) meetings** (Jan – March 2014). ASSIST worked with the HBC providers and community coaches to identify community groups which were ready to incorporate health talks into their regular meetings. These groups were then given

orientation to the community health system strengthening approach and now have incorporated health talks at their regular meetings. The ASSIST coordinator and the HBC provider coached community improvement teams and community groups on how to receive and send health information clearly and correctly.

- **The ASSIST coordinator worked with HBC providers and community coaches to select community groups and community QI teams in five villages within the catchment area of Kilulu dispensary and Mkuzi health center of Muheza District** (Jan – March 2014). A total of 27 community groups and five community QI teams were selected in five villages. The community linkages project selected a sixth village in Muheza District as a control village.
- **Coaches from health facilities conducted a one-day orientation for 27 community groups and five community improvement teams** about each member’s role in creating awareness and collecting data of the number of eligible people for HIV testing.
- **The ASSIST district coordinator, working with the HBC providers and health facility coaches, coached the community groups to collect data and incorporate health talks in their regular meetings.** The ASSIST district coordinator and the HBC providers, with the help of facility data focal persons, community groups (especially PLHIV groups), and treatment assistants managed to trace clients who were lost to follow-up (LTFU). The progress tracking LTFU is shown in Figure 13.
- **During the first QI team meeting (January 2014), HBC providers proposed to focus on increasing the number of people tested for HIV** since the data from the previous few months indicated that the number of people tested for HIV was low.
- **ASSIST Community System Strengthening coordinator and HBC providers in Muheza conducted supportive supervision by visiting the health facilities, community improvement teams, and community groups to coincide with the groups’ regular meetings.** The community group members continued sensitizing their household members to go for HIV testing and go back to the facilities if they had stopped going, as well as providing support to the HBC providers.

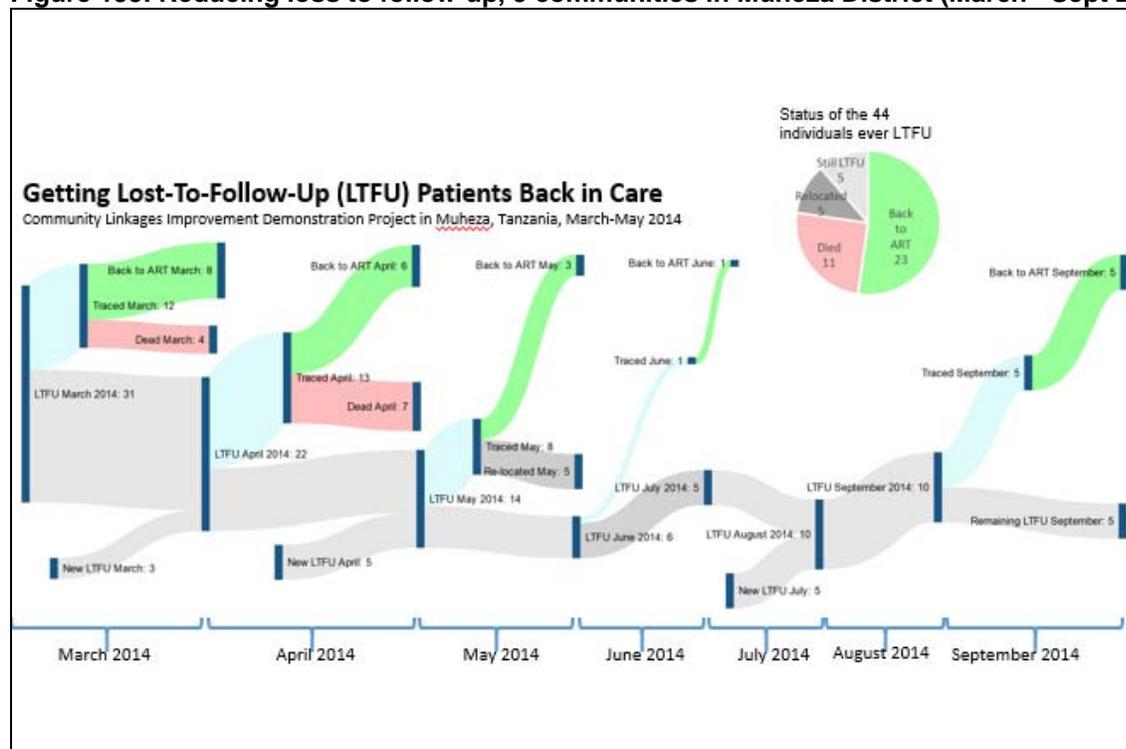
RESULTS

Improvement in Key Indicators

Activity	Indicator	Baseline (March 2014)	Current Value (September 2014)
8. Community linkages activity to optimize linkages between the community and health facility to improve care and treatment services for PLHIV	Number of ART patients lost to follow-up	31	5

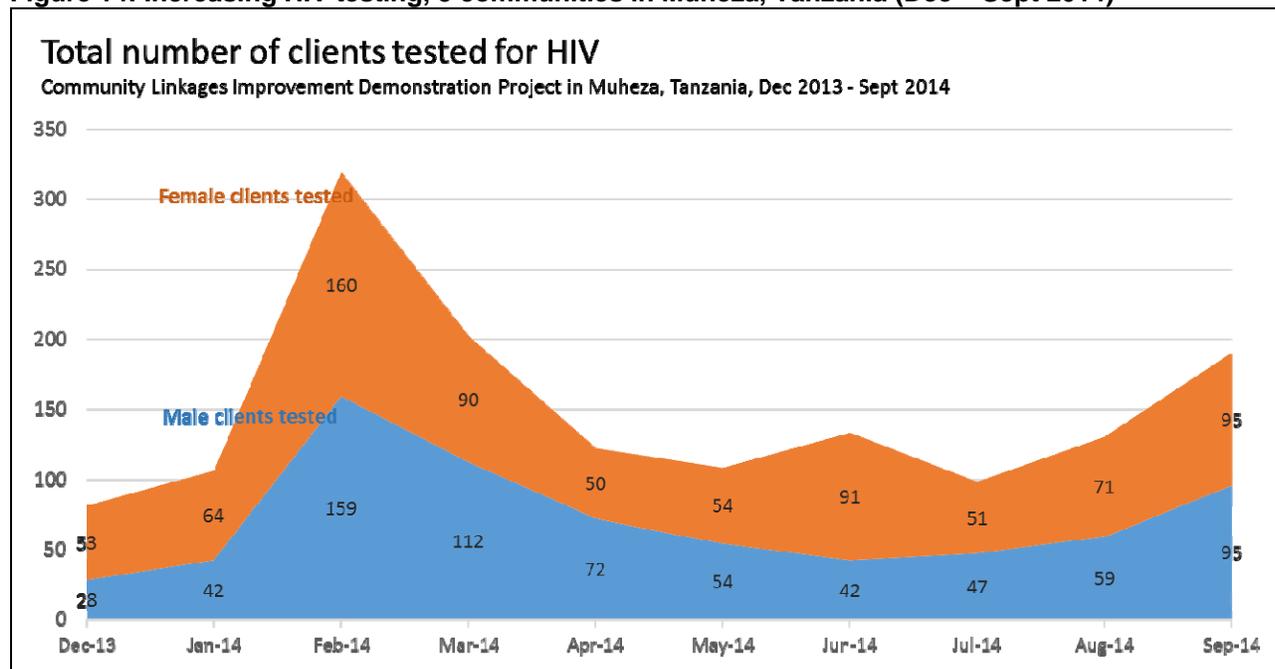
- **Reduced loss to follow-up (LTFU):** The HBC providers together with the PLHIV support groups traced clients who were lost to follow-up. Those who were found were educated on the importance of continuing with treatment. All accepted to go back to treatment. In September 2014 there were five new patients who were LTFU. When added to the previous number, 10 people were LTFU; of these, five were traced and went back on ART. LTFU has gone down from 31 clients in March 2014 to 5 by September 2014. Information about deaths or relocation to other areas was obtained from community group members (Figure 13).

Figure 133: Reducing loss to follow-up, 5 communities in Muheza District (March - Sept 2014)



- HIV testing:** 1389 clients came for HIV testing; 95 were HIV-positive and enrolled to care and treatment. The number of males accepting to test started increasing steadily during the implementation period. By September there were equal numbers of males and females. The spike was due to an outreach service which was requested by one of the communities (Figure 14).

Figure 14: Increasing HIV testing, 5 communities in Muheza, Tanzania (Dec – Sept 2014)



4 Sustainability and Institutionalization

During FY14, ASSIST continued to support the MOHSW working with the existing structures and focusing on PEPFAR and MOHSW priorities. At the policy level, ASSIST supported the development of the National QI Strategic Plan defining the national improvement agenda (2013 – 2017), while at regional and district levels, ASSIST supported the middle managers (RHMTs and CHMTs) to improve their skills in leading QI. At facility levels, ASSIST guided local managers to support QI teams through regular coaching and by providing frequent opportunities to share experiences.

ASSIST is also supporting the National QI Forum which has brought together people working in improvement across programs and sectors to share experiences. QI is not yet a routine activity in the health sector in Tanzania, but through the efforts of ASSIST, we have a community of QI practitioners in the Tanzanian health sector, learning areas in model districts, and QI tools and infrastructures as well as an improvement agenda.

5 Knowledge Management Products and Activities

- Two staff from the ASSIST office in Dar es Salaam presented at the East Africa Share Fair: Knowledge Exchange to Accelerate Progress Toward FP2020's Goal in Arusha in August 2014.
- The following blogs were published on the USAID ASSIST website about improvement work in Tanzania:
 - International Day of the Girl Child: Addressing challenges limiting girls' access to education in Bagamoyo District, Tanzania <https://www.usaidassist.org/blog/international-day-girl-child-addressing-challenges-limiting-girls-access-education-bagamoyo>
 - Integrating “Role Play” with other training methods for more effective learning sessions <https://usaidassist.org/blog/integrating-%E2%80%9Crole-play%E2%80%9D-other-training-methods-more-effective-learning-sessions>
 - Improving access to and utilization of postpartum family planning: Why gender matters <https://usaidassist.org/blog/improving-access-and-utilization-postpartum-family-planning-why-gender-matters>
 - Love thy neighbor: Tanzanian communities mobilize their own for HIV testing and care <https://usaidassist.org/blog/love-thy-neighbor-tanzanian-communities-mobilize-their-own-hiv-testing-and-care>
 - Conversation: a powerful tool for sharing innovations <https://usaidassist.org/blog/conversation-powerful-tool-sharing-innovations>
 - National QI Forum Bringing New Energy to Health Care Improvement in Tanzania <https://usaidassist.org/blog/national-qi-forum-bringing-new-energy-health-care-improvement-tanzania>
- A short report was produced on the community linkages work: <https://usaidassist.org/resources/tanzania-community-linkages-project> as was a success story <https://usaidassist.org/resources/tanzania-success-stories-community-linkages-demonstration-project-muheza-district>

6 Research and Evaluation Activities

- **ASSIST worked on “A qualitative evaluation of AIMGAPS” this year.** To collect the data for this study, ASSIST conducted virtual/live trainings for data collectors in Tanzania on qualitative data collection and research ethics. Ms. Rhea Bright provided the live component of the training in Tanzania, and Dr. Sarah Smith Lunsford provided virtual training from Bethesda. While indicator data suggest improvements in quality, uptake, and retention in PMTCT services, more needs to be understood about how these improvements were achieved. Research questions for the qualitative evaluation were:
 - What are clients and providers perceptions of PMTCT services with respect to quality, uptake, and retention?
 - How do clients experience receiving PMTCT services and providers experience delivering these services?

- What are the perceptions of and experiences with Option B+ from both provider and client perspectives?
- Are there differences in provider and clients perceptions and experiences between those sites with facility-only support and those with facility and community-level support?

The findings from this study are expected to contribute to knowledge of how to improve the quality of PMTCT services and client uptake and retention into care. Two manuscripts have been completed and are currently under review.

- **ASSIST completed a protocol and tools for a study of “Factors associated with missed appointments among ART clients in Morogoro Region” in Tanzania (Q2).** This study seeks to explore individual factors and gender dynamics contributing to loss to follow-up among clients from HIV care and treatment clinics services in Morogoro, Tanzania. The study addresses the following research questions:
 - What percentage of HIV-infected women on ART receiving HIV care and treatment services are lost to follow up?
 - What perceived benefits and perceived barriers contribute to loss to follow-up among ART patients?
 - What are social-cultural and psychosocial factors contribute to loss to follow-up among ART patients?
 - What types of gender dynamics contribute to loss to follow-up ART patients?

Information will be collected from ART clients, and key information from clients and providers. Findings will inform the development of a package of best practices to promote retention among PLHIV clients.

7 Gender Integration Activities

The ASSIST team in Tanzania integrated gender into the PHFS program in FY14 by identifying the need to simultaneously engage male and female partners in couples’ testing and counselling at ANC and PMTCT sessions to improve health outcomes. The team worked with local community leaders to promote the uptake of maternal and child health services and HIV testing/treatment, which led to a considerable increase in male partners accompanying their female partners for ANC visits and male partner testing. The team observed improved results in male participation in ANC (80%) and HIV testing, signaling the need to ensure that all men who test positive are enrolled and retained in care. The team introduced the *Partner Enrolled in Care* program to allow clinic staff who follow pregnant women every month to also monitor whether the male partner is enrolled in care or not.

Gender Integration Training: Dr. Faramand, President of WI-HER LLC, traveled to Tanzania in July 2014 to conduct gender integration training for ASSIST staff and to support teams to integrate gender. She conducted a session on the importance of collecting and analyzing sex-disaggregated and gender-sensitive indicators and conducted follow-up visits to ASSIST sites in the field and worked with technical teams to design gender integration activities.

- **Collected sex disaggregated data and gender sensitive indicators:**
 - Percentages of clients tested for HIV
 - Percentage of women from ANC who bring partner for HIV testing
 - % of male partners tested for HIV

8 Directions for FY15

For the 17 regions where improvement in ART is ongoing, ASSIST will continue to provide TA to the IPs, RHMTs, and CHMTs to scale up improvement efforts beyond the demonstration sites. In Morogoro, teams will build on experiences with patient self-management to strengthen and scale up the application of principles of patient centeredness in care and treatment.

In FY15, USAID ASSIST will support the DSW and other MVC stakeholders to build community alliances in the focal districts in Pwani, Kigoma, Iringa, and Mbeya regions to map and identify priority problems affecting most vulnerable children and test changes to address the gaps. USAID ASSIST will support development of communication tools and facilitate learning sessions, coaching, and workshops to build

capacity and share experiences. Ongoing improvement work in Muheza, Kigoma, and Bagamoyo will be expanded and lessons learned harvested to guide scaling up processes to other districts in Iringa and Mbeya regions.

In FY15 ASSIST will employ competency-based and process improvement approaches to build the capacity of RHMTs, CHMTs, and community-based service providers to be able to provide client-centered care and to accommodate key components that underpin integration of various programs across levels in relation to the HBC SOP.

ASSIST will support stakeholders to apply improvement approaches to test changes, sharing learning, and implement innovations to address pediatric ART quality improvement framework gaps. The activity will be conducted in ten high-volume sites in each of the four regions of Tabora, Shinyanga, Njombe, and Morogoro to generate learning to address implementation challenges before spreading the best practices to cover more sites in the regions.

**USAID APPLYING SCIENCE TO STRENGTHEN
AND IMPROVE SYSTEMS PROJECT**

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