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USAID APPLYING SCIENCE TO STRENGTHEN AND IMPROVE SYSTEMS

Annual Performance Monitoring Report FY15

Cooperative Agreement No.:
AID-OAA-A-12-00101

USAID Funding Office:
Office of Health Systems

Performance Period:
October 1, 2014 – September 30, 2015

NOVEMBER 15, 2015

This annual performance monitoring report was prepared by University Research Co., LLC for review by the United States Agency for International Development (USAID). The USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project is made possible by the generous support of the American people through USAID.

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DISCLAIMER

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Acknowledgements

This performance monitoring report covering all of fiscal year 2015 was prepared by University Research Co., LLC (URC) for review by the United States Agency for International Development (USAID) as a deliverable under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project.

The USAID ASSIST Project is made possible by the generous support of the American people through USAID's Bureau for Global Health, Office of Health Systems. The project is managed by URC under the terms of Cooperative Agreement Number AID-OAA-A-12-00101. URC's global partners for USAID ASSIST include: EnCompass LLC; FHI 360; Harvard University School of Public Health; HEALTHQUAL International; Initiatives Inc.; Institute for Healthcare Improvement; Johns Hopkins Center for Communication Programs; WI-HER LLC; and the World Health Organization Service Delivery and Safety Department.

For more information on the work of the USAID ASSIST Project, please visit the ASSIST website or write assist-info@urc-chs.com.

Recommended citation

USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project. 2015. USAID ASSIST Project Annual Performance Monitoring Report FY15. Performance Period: October 1, 2014- September 30, 2015. Published by the USAID ASSIST Project. Bethesda, MD: University Research Co., LLC (URC).

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ACRONYMS

ACS	Acute coronary syndrome
ACSM	Advocacy, communication, and social mobilization
AE	Adverse events
AIDS	Acquired immunodeficiency syndrome
AIMGAPS	Assuring Infants and Mothers Get All PMTCT Services
AMTSL	Active management of the third stage of labor
ANC	Antenatal care
ANM	Auxiliary nurse midwives
ANPPCAN	African Network for the Protection and Prevention of Child Abuse and Neglect
AOR	Agreement Officer's Representative
APC	USAID Advancing Partners and Communities Project (Botswana)
APHIA	AIDS, Population, and Health Integrated Assistance (Kenya)
ART	Antiretroviral therapy
ARV	Antiretroviral virus
ASHA	Accredited Social Health Activists (India)
ASSIST	USAID Applying Science to Strengthen and Improve Systems Project
CADBICU	Bluefields Indian & Caribbean University
BMJ	British Medical Journal
BP	Blood pressure
BPI	Brief physician interventions
CBO	Community-based organizations
CCPC	Community child protection committees
CDC	U.S. Centers for Disease Control and Prevention
CDO	Community Development Officers
CHC	Community health center
CHMT	Council Health Management Team (Tanzania)
CHMT	County Health Management Team (Kenya)
CHS	Community Health Services (Kenya)
CHV	Community health volunteer
CHW	Community health worker
CME	Continuing medical education
CMS	Central Medical Stores
COE	Center of Excellence
COP	Chief of Party
COPD	Chronic obstructive pulmonary disease
COR	Continuum of Response
CP	Child protection
CQI	Continuous quality improvement
CRS	Catholic Relief Services
CSI	Child Status Index
CSO	Civil society organization
CTC	Care and treatment center
CVD	Cardiovascular disease
DBS	Dried blood spot
DCS	Department of Children Services (Kenya)

DHMT	District Health Management Team
DHO	District Health Office
DM	Diabetes mellitus
DMH	*Direction Medecine Hospitaliere* (Cote d'Ivoire)
DNA	Deoxyribonucleic acid
DOH	Department of Health
DOTS	Directly observed therapy, short-course
DQA	Data quality assessment
DR-TB	Drug-resistant tuberculosis
DSW	Department of Social Welfare
EBF	Exclusive breastfeeding
EC	Eastern Cape
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EHCP	Essential Health Care Package
EID	Early infant diagnosis
EmONC	Emergency obstetric and neonatal care
eMTCT	Elimination of mother-to-child transmission of HIV
ENC	Essential newborn care
EONC	Essential obstetric and newborn care
EQA	External quality assessment
FANTA	Food and Nutrition Technical Assistance Project
FP	Family planning
FY	Fiscal year
HAST	HIV, AIDS, Sexually Transmitted Diseases, and TB
HBB	Helping Babies Breathe
HBC	Home-based care
HCI	USAID Health Care Improvement Project
HCW	Health care worker
HEI	HIV-exposed infant
HES	Household economic strengthening
HIV	Human immunodeficiency virus
HMIS	Health management information system
HQ	Headquarters
HR	Human resources
HRH	Human resources for health
HSS	Health systems strengthening
HTC	HIV testing and counseling
HVFI	Hope Valley Family Initiative
HWD	Health workforce development
IBESR	*Institut du Bien Etre Social et de la Recherche* (Institute for Social Welfare and Research) (Haiti)
ICAP	International Center for AIDS Care and Treatment Programs
ICF	Intensified case finding
ICOP	Inuka community-based project
IEC	Information, education, and communication
IP	Implementing partners
IPC	Infection prevention and control

IPT	Isoniazid preventive therapy
IRB	Institutional Review Board
IST	In-service training
I-TECH	International Training and Education Center for Health
IUD	Intrauterine device
IYCF	Infant and young child feeding
JHU CCP	Johns Hopkins University Center for Communication Programs
KAP	Knowledge, attitudes, and practices
KARS	*Komisi Akreditasi Rumah Sakit* (National Health Care Accreditation Commission) (Indonesia)
KCCA	Kampala Capital City Authority
KM	Knowledge management
KMC	Kangaroo mother care
LGBT	Lesbian, Gay, Bisexual, and Transgender
LIFT	Livelihoods and Food Security Technical Assistance Project
LP	Limpopo
LTFU	Lost to follow-up
M&E	Monitoring and evaluation
MC	Male circumcision
MDG	Millennium Development Goals
MDR-TB	Multidrug-resistant tuberculosis
MGLSD	Ministry of Gender, Labor and Social Development
MGSO4	Magnesium sulfate
MLSS&S	Ministry of Labor, Social Security, and Services (Kenya)
MMAS	Ministry of Women and Social Action (Mozambique)
MMR	Maternal mortality ratio
MMRI	Maternal Mortality Reduction Initiative
MNCH	Maternal, newborn, and child health
MOGCDSW	Ministry of Gender, Children, Disability, and Social Welfare (Malawi)
MOH	Ministry of Health
MOHSW	Ministry of Health and Social Welfare
MP	Mpumalanga
MUAC	Mid-upper arm circumference
MVC	Most vulnerable children
MVCC	Most Vulnerable Children Committee (Tanzania)
N/A	Not applicable
NACS	Nutrition assessment, counselling, and support
NASCOP	National AIDS and STI Control Program (Kenya)
NCD	Non-communicable diseases
NGO	Non-governmental organization
NQIF	National Quality Improvement Framework (Uganda)
NSP	National Strategic Plan
NTCP	National Tuberculosis Control Program
NTF	National Task Force
NVP	Nevirapine
OHA	USAID Office of HIV/AIDS
OPD	Outpatient department

OVC	Orphans and vulnerable children
PCR	Polymerase chain reaction
PDSA	Plan-do-study-act
PE/E	Pre-eclampsia/eclampsia
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PHC	Primary health care
PHFS	Partnership for HIV-Free Survival
PHMT	Provincial Health Management Team (Burundi)
PITC	Provider-initiated HIV testing and counseling
PLHIV	Persons living with HIV
PMTCT	Prevention of mother-to-child transmission of HIV
PNC	Postnatal care
PNLS	National AIDS Control Program (Burundi)
POC	Point of care
PPFP	Postpartum family planning
PPH	Postpartum hemorrhage
PSS	Psychosocial support
Q1-4	Quarter 1 to 4
QA	Quality assurance
QI	Quality improvement
QIF&SP	Quality Improvement Framework and Strategic Plan (Uganda)
QIT	Quality improvement team
R&E	Research and evaluation
RCH	Reproductive and child health
RCQHC	Regional Center for Quality in Health Care
RDT	Rapid diagnostic test
REPPSI	Regional Psychosocial Support Initiative
RHMT	Regional Health Management Team
RMNCH+A	Reproductive, Maternal, Neonatal, Child, and Adolescent Health (India)
RTI	Respiratory tract infection
SCC	Safe Childbirth Checklist
SDS	Service Delivery and Safety Department
SLAMTA	Strengthening Laboratory Management towards Accreditation
SMC	Safe male circumcision
SMGL	Saving Mothers Giving Life
SOP	Standard operating procedures
SRH	Sexual and Reproductive Health
STI	Sexually transmitted infection
TA	Technical assistance
TB	Tuberculosis
TBD	To be determined
TOT	Training of trainers
TWG	Technical working group
UHC	Universal health coverage
UI-CFW	Universitas Indonesia (UI) – Center for Family Welfare
UNAN	*Universidad Nacional Autónoma de Nicaragua* (National Autonomous University of Nicaragua)

UNICEF	The United Nations Children's Fund
UPOLI	*Universidad Politécnica de Nicaragua* (Polytechnic University of Nicaragua)
URC	University Research Co., LLC
USAID	United States Agency for International Development
USG	United States Government
VCO	Volunteer Children Officers
VHT	Village Health Team
VMMC	Voluntary medical male circumcision
VSL	Voluntary savings and loan
VSLA	Village savings and loan associations
WHO	World Health Organization
YCC	Young Child Care

EXECUTIVE SUMMARY

University Research Co., LLC (URC) and its partners have completed the third year of implementation of the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project. This report is the sixth Semi-Annual Performance Monitoring Report for the project and aims to summarize the accomplishments and results toward the program objectives of USAID ASSIST activities during quarter (Q) 1 through 4 of Fiscal Year 2015 (FY15).

Objective of USAID ASSIST: The overall objective of the USAID ASSIST Project is to foster improvements in a range of health care processes through the application of modern improvement methods by host country providers and managers in USAID-assisted countries. The project's central purpose is to build the capacity of host country systems to improve the effectiveness, efficiency, client-centeredness, safety, accessibility, and equity of the services they provide. In addition to supporting the implementation of improvement strategies, the project seeks to generate new knowledge to increase the effectiveness and efficiency of applying improvement methods in low- and middle-income countries.

USAID ASSIST country programs are in alignment with the goals of United States Government and global initiatives, including Ending Preventable Maternal and Child Deaths and Achieving an AIDS-Free Generation. Aligning with these priorities and policies ensures that considerations for marginalized and underserved populations and gender, age, and social differences are taken into account at all levels of implementation.

Scale of work during FY15: During FY15, USAID ASSIST provided assistance in 23 countries through field and core funding. Twenty-one (21) of the countries were funded through field support: Botswana, Burundi, Cambodia, Cote d'Ivoire, Democratic Republic of Congo (DRC), Georgia, Haiti, India, Indonesia, Kenya, Lesotho, Malawi, Mali, Mozambique, Nicaragua, Nigeria, South Africa, Swaziland, Tanzania, Uganda, and Zambia. Activities in 11 countries were supported through core funds. Funds from the USAID Office of HIV/AIDS supported activities in: 1) community health and health workforce development in Lesotho, Mozambique, South Africa, and Swaziland; 2) HIV and AIDS activities in Uganda, Tanzania, and Swaziland; 3) nutrition assessment, counselling, and support improvement in Zambia; and 4) technical leadership activities for the Partnership for HIV-Free Survival, which involves activities in Kenya, Lesotho, Mozambique, South Africa, Tanzania, and Uganda. USAID cross-bureau-funded activities, through the Office of Health Systems, supported postpartum family planning activities in Niger; malaria prevention activities in Malawi; people-centered care in Mali and South Africa; pre-service training in improvement methods in Kenya; as well several global and regional initiatives that contribute to local and global learning in improvement. The project also provided technical assistance to the Regional Center for Quality in Health Care with field support from the East Africa Region and assistance in Ukraine with Europe and Eurasia Bureau funding.

To support the project's learning agenda, ASSIST provided technical assistance in knowledge management (KM) to field teams in Lesotho, Uganda, DRC, and Mali to strengthen staff capacity in KM and assist technical teams to incorporate KM approaches in their work. In addition, in-person training was provided to country teams in Ukraine, Malawi, Zambia, Kenya, Mali, and Lesotho to integrate gender considerations into their improvement work. Virtual training was provided to ASSIST in Burundi, DRC, Uganda, Swaziland, Tanzania, and Zambia to support teams to collect analyze sex-dissagregated data. Ongoing gender support was provided to other field offices to collect and analyze sex-disaggregated and gender-sensitive indicators, identify gender-related gaps and issues affecting outcomes, and respond to those gaps. The ASSIST knowledge portal continues to show high usage. An Improvement Methods Toolkit was launched on the portal, and new video content was developed.

The project's research and evaluation (R&E) activities are being designed to help show country programs how and why investment in improvement adds value to health care delivery. Another aspect of the R&E agenda is to build up the body of evidence of what works and what does not in terms of improvement methods. In FY15, the R&E team supported country-led research programs in 12 countries (Burundi, Cote d'Ivoire, DRC, India, Kenya, Malawi, Mali, South Africa, Swaziland, Tanzania, Uganda, and Ukraine). In addition the team supported a multi-country study on orphans and vulnerable children in Africa and a multi-country study in Latin America, evaluating a web-based improvement collaborative to prevent neonatal infections in hospitals. The R&E team also provided

technical assistance to Burundi, Cote d'Ivoire, India, Kenya, Malawi, Tanzania, and Uganda on validation of their improvement indicators. In this fiscal year, steps to undergo data collection from control groups began in Cote d'Ivoire and Burundi. In Uganda and India, data collection from control groups was completed, and reports are currently being finalized on the findings.

Major global technical leadership activities included: convening a high-level Technical Advisory Group that brought together a distinguished group of improvement science and health systems experts, to advise the project at the midpoint of its implementation; contributing to the US Human Resource and Services Administration Expert Meeting on organizational capacity development; presenting evidence for collaborative improvement and use of cost-effectiveness analysis to the Institute of Medicine; participating in an expert meeting to develop WHO monitoring and evaluation framework; contributing to the Global Human Resources for Health Strategy; presenting on the spread and scale-up of high-impact interventions; leading a five-day training on cost-effectiveness analysis for the USAID Bureau for Economic Growth, Education, and Environment; and the development and launch of a Global Health eLearning course on improvement for the USAID Global Health eLearning platform to introduce USAID staff, Ministry of Health officials, health care managers, and other global health professionals to principles and approaches that can help health care workers continually improve the work that they do and make care better.

FY15 Results:

- **Publications:** In FY15, project staff published eight peer-reviewed articles; 10 case studies; eight technical and research reports; 13 short reports; 12 tools and change packages for country institutions; and five videos describing project-supported work and results.
- **Presentations:** During FY15, ASSIST had an active presence at 12 international and eight national conferences. In all, staff made 43 oral presentations and led 10 workshops at the 20 conferences, thereby sharing knowledge of lessons learned from the use of modern improvement approaches.
- **Research and evaluation studies:** At of the end of FY15, the project had 33 studies underway in 12 countries.
- **Improvement in key indicators:** As discussed in this report, ASSIST-supported programs demonstrated improved care and outcomes for a range of services, including antenatal and postnatal care, essential obstetric and newborn care, PMTCT, HIV care and treatment, TB-HIV case management, malaria, and NCD services.

Challenges: While the work under ASSIST is proceeding, there remain serious funding issues, in particular the discrepancy between the timing of the funding and the work planning requirements. In FY15, ASSIST received five different modifications with additional funding for continuing and new scopes of work throughout the year, presenting a challenge in terms of planning and resourcing the work. This has consequences on the timing and speed by which project activities can be implemented. More serious consequences can happen if an activity goes into closedown mode and is then expected to ramp up. The staffing implications of such erratic timing of funding makes managing the work and paying due diligence to our ASSIST staff very difficult in view of the host country labor law requirements we also have to abide by. Moreover, the USAID ASSIST Project and URC have been put in the risky financial position of forward-funding activities in order not to lose momentum of some mission- or core-funded activities and not have to re-start project activities from the beginning if and when funds are made available.

Field Support-Funded Activities

AFRICA

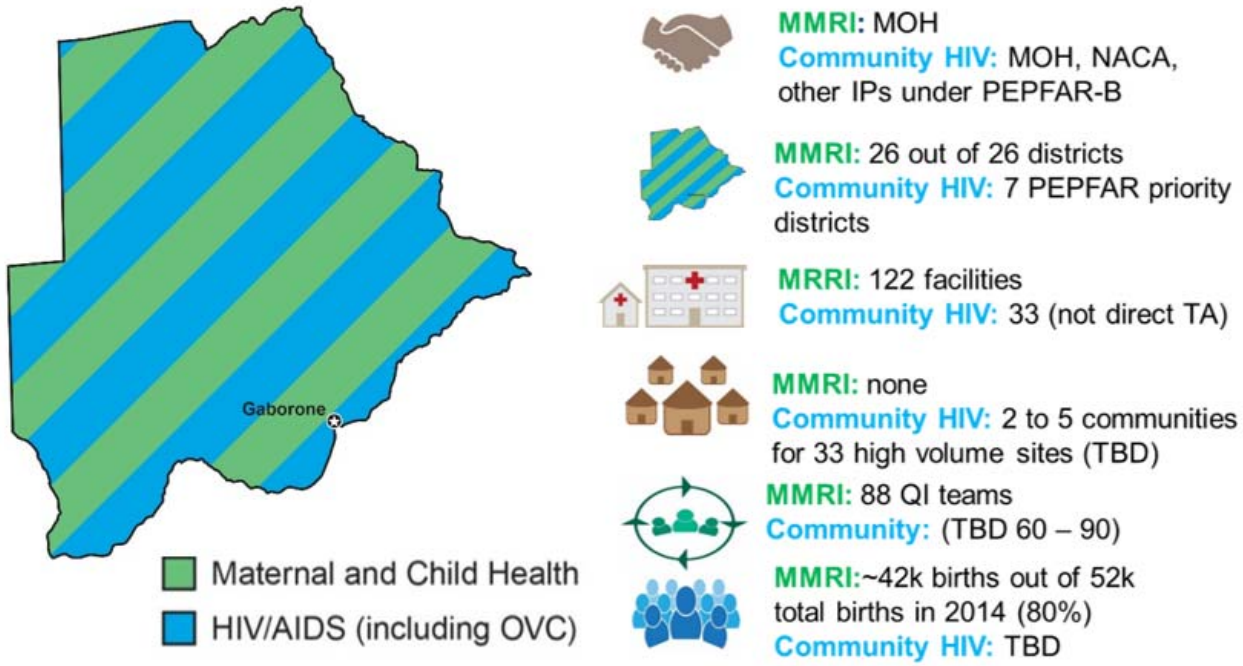
BOTSWANA

BACKGROUND

The USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project started working in Botswana in January 2013, building on planning activities conducted in 2012 through the USAID Health Care Improvement Project (HCI). In 2013, the Ministry of Health (MOH) in Botswana designed and implemented the national Maternal Mortality Reduction Initiative (MMRI). Technical assistance for this initiative was provided by the USAID ASSIST Project. The objective of the MMRI was to develop a system-level strategy to achieve the Millennium Development Goal (MDG) 5 target (to reduce maternal mortality by 75% between 1990 and 2015) by identifying gaps in the public health system and implementing improvements in a timely and efficient way. The project operated in all 26 districts in Botswana establishing quality improvement (QI) teams in 72% of 122 facilities providing inpatient maternity services. The focus of the QI activities was the implementation of evidence-based, high-impact interventions including: reduction of postpartum haemorrhage (PPH) through active management of the third stage of labour (AMTSL); promotion of monitoring of the fourth stage of labour to identify early onset of complications that require immediate intervention; immediate administration of magnesium sulphate in patients with pre-eclampsia/eclampsia (PE/E); and the immediate uterine evacuation of products resulting from complicated incomplete abortion within two hours of the diagnosis.

In FY16, ASSIST Botswana, at the request of USAID, will shift its focus to contributing to the goal of epidemic HIV control through the application of quality improvement approaches to the community health system response to HIV. Improving how existing community platforms interact and link with clinical service providers is seen as key to the achievement of PEPFAR 3.0 goal and targets. Preparation for this shift in focus began in Q4 of FY15.

Scale of USAID ASSIST's Work in Botswana



PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. National Maternal Mortality Reduction Initiative (MMRI)	
• Reduce maternal mortality through implementation of evidence-based, high-impact interventions • Contribute to improving maternal outcomes of HIV-positive women through improving maternity care and PMTCT for HIV-positive women and their newborns	• Districts: All 26 health districts • 122 facilities (90%) providing obstetric services: 2 referral hospitals, 28 district and primary hospitals, and 92 clinics with maternity services. • QI teams formed in 88 facilities with maternity services (72% of total)
2. Strengthen the Community Health System Response to HIV/AIDS	
• Improve community and facility referrals and linkages and increase retention for HIV-positive patients.	• 7 PEPFAR priority districts (out of a total of 26) with highest HIV burden facilities • 33 facilities (not direct support) • 2-5 communities per facility in 33 high-volume facilities

Improvement Activity

Activity 1. National Maternal Mortality Reduction Initiative

OVERVIEW

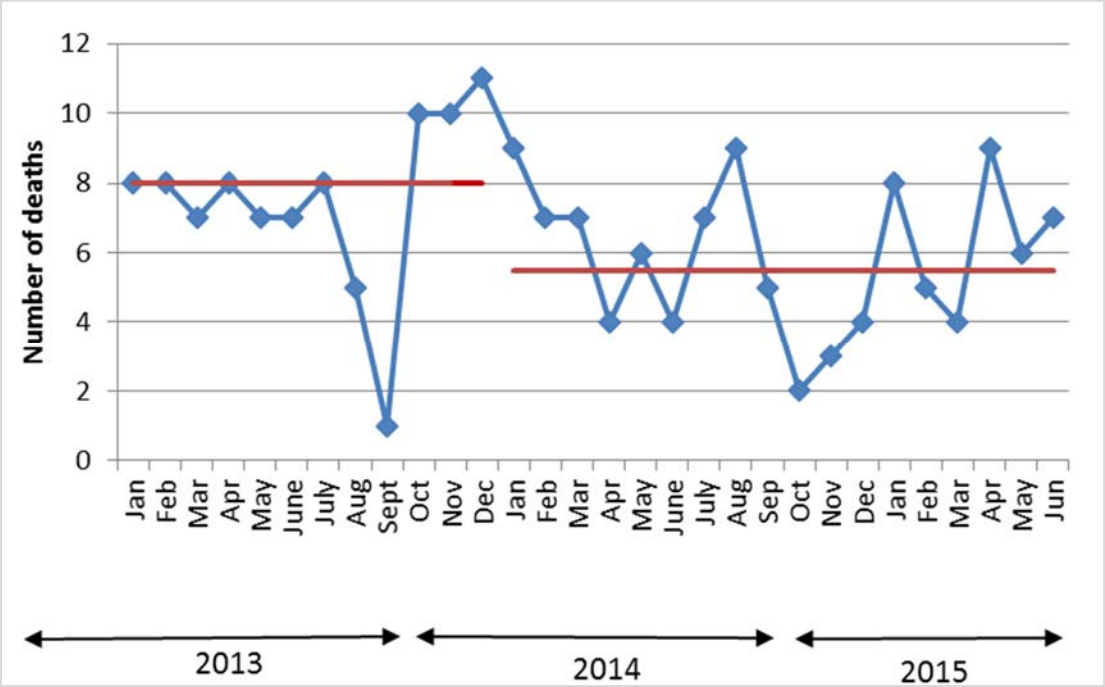
The focus of QI activities under the MMRI was the implementation of evidence-based, high-impact interventions to reduce maternal mortality. The top three causes of maternal death identified in the country in 2012 (MOH maternal mortality report 2007-2011) were severe pre-eclampsia/eclampsia, postpartum hemorrhage (PPH), and post-abortion complications. By targeting these three major causes of mortality, we worked towards a measurable reduction in the maternal mortality in Botswana.

High-impact interventions included: immediate administration of magnesium sulfate in patients with severe pre-eclampsia/eclampsia, promotion of monitoring fourth stage of labor to identify early onset of complications that require immediate intervention, active management of the third stage of labor (AMTSL), and the immediate uterine evacuation in cases of complicated incomplete abortion.

KEY ACCOMPLISHMENTS AND RESULTS

- **Improvement in reduction of maternal mortality:** The number of maternal deaths reduced from 90 deaths in 2013 to 68 deaths in 2014**. Figure 1** indicates improvement in the reduction of maternal mortality. The median in 2014 reduced to 5.5 deaths/month compared to eight deaths/month in 2013.

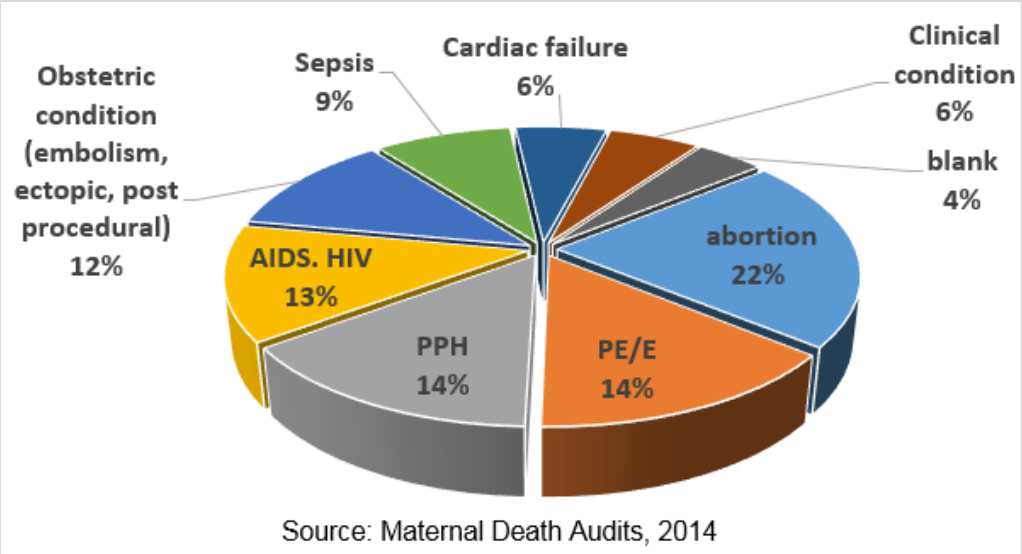
Figure 1: Botswana | Number of maternal deaths per month, nationwide (Jan 2013 – June 2015)



- **Developed an electronic tool for surveillance and analysis of obstetric complications (e-MH 3123 form).** The MOH requested Dr. Maria Insua from ASSIST to support the Sexual and Reproductive Health Monitoring and Evaluation system with the design and adaptation of their surveillance perinatal reporting tool (MH 3123) following the MMRI reporting model developed by the ASSIST project. Currently the MH 3123 paper form is used to collect data on obstetric and neonatal complications in health facilities and is sent by fax or mail to the central level. Reporting has been inconsistent with some facilities reporting only quarterly or annually instead of monthly and other facilities not reporting at all. The data then needs to be captured at the central level causing a significant delay (often years) in data analysis. In February 2015 ASSIST adapted the existing MOH paper tool MH 3123 to an excel format that will allow for electronic reporting via email and will facilitate timely analysis. The objectives considered in the new design of the new tool (MH 3123) were:
    - *To strengthen the data reporting system from facilities to the central level.* To achieve this objective we adapted the paper form to an excel data sheet that will allow for timely reporting by the facilities via e-mail. In addition the reporting system will become more efficient by removing the data entry step at the central level.
    - *To promote the use of data at the facility and district level*. To achieve this goal we embedded a dashboard of indicators and graphs that are automatically calculated in the excel data sheet.
- **Conducted capacity building sessions in the use of the new electronic MH 3123 form for District M&E officers and District MMRI coordinators.** Sessions took place in Gaborone (May 25-26, 2015) for the southern districts and in Francistown (May 28-29) for the central and northern districts. The trainings were organized and funded by the MOH. Approximately 20-25 district M&E, IT, medical data officers in addition to the 11 MMRI district coordinators were updated in the use of the MMRI tools and the new perinatal surveillance tool. The sessions lasted two days and focused on the practical use of the tools. The framework for analysis was presented and pilot tested during each training session and specific recommendations for indicator measurement and sources of data collection were provided to be incorporated in an updated version of the tool.

- **Presentation of the new electronic MH 3123 tool to the Prime Secretary and relevant MOH officers.** A high level meeting was conducted in Gaborone on June 2nd, 2015. The meeting was held to present the tools developed by the MMRI for data collection, reporting and analysis using the new perinatal surveillance form. The permanent secretary welcomed the adaptation of the MH 3123 form following the format of the MMRI tools and recommended the tool be pilot tested and included in the IPMS system.
- **Provided capacity building for data analysis and project management for MOH officers (October 2014-September 2015). Dr. Insua provided c**ontinuous support with data analysis and coaching in data management and analysis at the central level to prepare for the complete handing over of MMRI activities to the MOH at the end of August 2015.
- **ASSIST conducted weekly monitoring of near misses and immediate audit of near misses** (Oct 2014-August 2015)**.** Through this process as well as a review of the national maternal mortality audits, the project has developed a more nuanced understanding of the causes of near misses and maternal deaths, allowing for more targeted follow-up of potential complications and the development of strategies to address ongoing process failures. For example, a review of the maternal mortality audits in 2014 revealed that the majority of cases of PPH in Botswana are now not due to uterine atony as previously thought but to poor clinical practices during and after C-sections procedures. As a result, district coordinators have been asked to report all incidences of PPH to Dr. Sinvula, the National Coordinator on a weekly basis with specific details on the cause of bleeding, the estimated quantity of bleeding, how the patient was managed, and the fate of the patient. Dr. Sinvular has subsequently been responding to reports of inadequate management of PPH by paying targeted visits to specific facilities for immediate follow-up on clinical and process issues. In addition, a surgical checklist has been developed to improve compliance with best practices and better management of surgical patients.
- **ASSIST conducted an analysis of the maternal mortality audits for 2014** (Jul-Aug 2015). The analysis included 51 (74%) maternal audits conducted from a total of 68 maternal deaths in 2014. With this timely analysis of maternal death audits we are providing evidence of gaps to support decision making at higher levels. Findings from this analysis are presented below:
  - 81% of maternal deaths in 2014 were considered avoidable.
  - **HIV status.** HIV-positive status was reported in (35 out of 69) 51% of the deaths, HIV-negative in 36%, and unknown in 13% of deaths. HIV-related complications (acquired immunodeficiency syndrome (AIDS)) was responsible for 13% of all maternal deaths.
  - **Clinical causes of death.** 71% of the causes of maternal death in 2014 were due to direct obstetric causes, 25% to indirect causes and 4% were unknown. Main causes of maternal deaths were abortion complication in 22% , PPH and PE/E 14% each, HIV related 13% and other obstetric complications (embolism, postprocedural, ectopic pregnancy) in 12%, sepsis 9% and cardiac failure and other clinical conditions in 12% of maternal deaths (**Figure 2**).

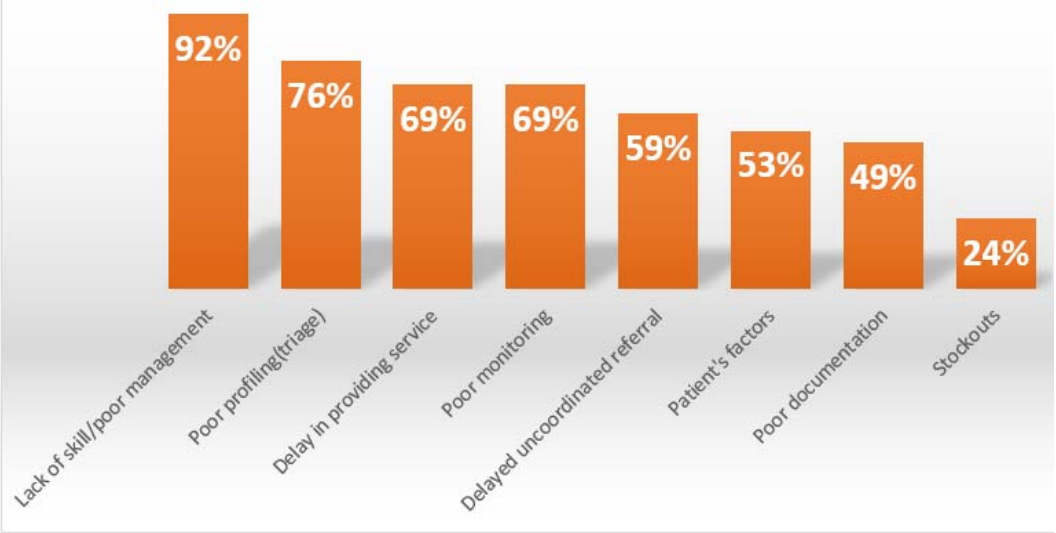
Figure 2: Botswana | Causes of maternal deaths, n= 69 (2014)



Source: Maternal Death Audits, 2014

- **Contributory causes of deaths.** The Maternal Audit Committee considered contributory causes of deaths due to patient factors and health system factors **(Figure 3).**
  1. **Patient factors**: Patient's factors were identified in 67% of deaths as contributing to maternal deaths. Among them delay in seeking care was identified in 35% of the cases. Default in HAART treatment was documented in 6% of cases.
  2. **Health system factors**: were identified in 92% maternal deaths. The most frequent related to provider knowledge and skills to diagnose and mange conditions as per quality standards.
  - Lack of providers skills were identified in 92% of maternal deaths. Lack of provider's skills includes providing the wrong medication for the condition or wrong dosage (including overdose), poor diagnostic skills and failure to recognize the clinical condition and/or reach a correct clinical diagnosis
  - Poor patient profiling (triage) and failure to recognize a patient with a clinical emergency in 76% of maternal deaths.
  - Delay in providing service was identified in 69% of maternal deaths. Delay in provision of care includes delay in the provision of treatment (magnesium sulfate) or taking the patient to theatre to perform c section or uterine evacuation. Delay in seeing the patient once in the facility, delay in prescribing lab test or retrieving the test results
  - Poor monitoring was reported in 69% of maternal deaths. Poor monitoring includes poor or lack monitoring patient's vitals and urine output, no monitoring for adverse events to medications, poor postoperative monitoring , poor postpartum monitoring
  - Referral issues were reported 59% deaths including delay in transferring patient to the hospital, lack of transport, attempting to transport an unstable patient, Poor coordination of referral and poor communication on the status of the patient from the referring doctor to the receiving doctor
  - Poor documentation was reported in 49% of cases.
  - Stock-outs and lack of availability/disrepair of lab machines were reported in 24% of maternal death cases.

Figure 3: Botswana | Maternal mortality audits. 74% maternal deaths audited – Health system contributory factors to maternal deaths (2014)

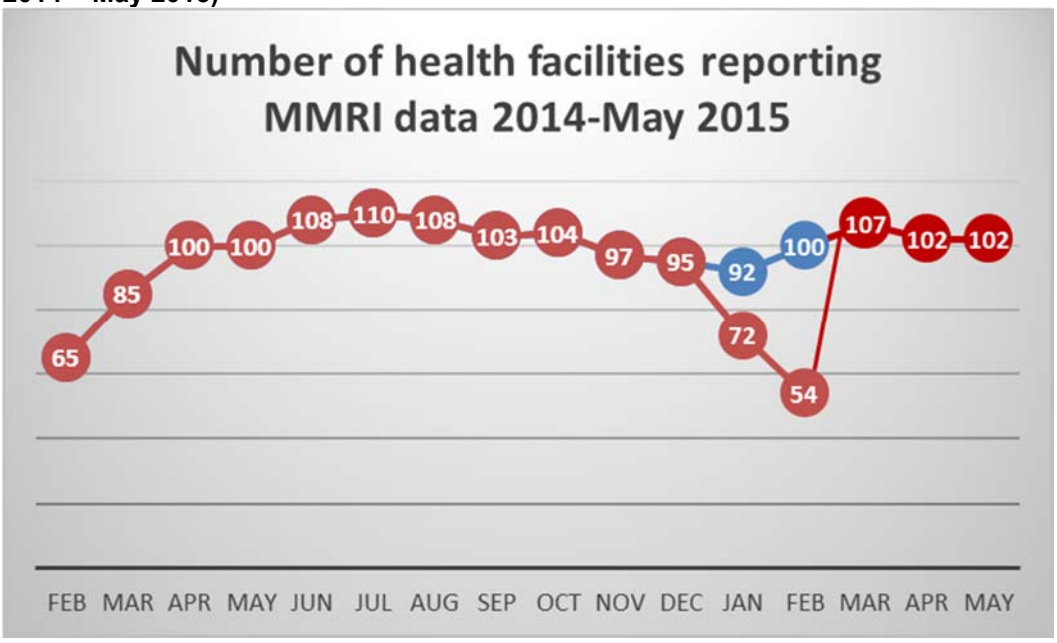


Source: Maternal Death Audits, 2014

- **Provided ongoing support to the QI strategy being implemented in the facilities** (Oct 2014 – Sept 2015)
    - **District coordinators conducted QI coaching visits to the QI teams twice a month**. MMRI district coordinators continue to provide regular and ongoing support to QI teams at the facility level. These visits include a review of the data collected by the teams, coaching in problem identification and analysis, and support with running PDSA cycles to test changes in their chosen areas of improvement.
    - **Coaching support by an external QI specialist.** Between October 2014 and March 2015, an ASSIST consultant made two visits to Botswana to provide a total of 7 days of intensive coaching support to three of the district coordinators in the districts of Ngami, Palapye and Tutume. These visits covered:
    - Good preparation for a QI meeting; building on previous meetings, having a clear agenda and objectives
    - Working systematically through priority topics; testing change ideas until improvement has been secured
    - Increasing the pace of the QI work
    - Sustaining improvements
    - **A two-day QI training program was provided to five midwife district coordinators by the ASSIST consultant in Gabarone** (Dec 2014).
- **ASSIST and MOH conducted a third QI learning/sharing workshop, Kansane** (Feb 22-28, 2015).
    - Participants included MMRI district coordinators, MOH officers (Deputy Permanent Secretary, Director of Sexual and Reproductive Health Department, Director of Maternal Services) and the ASSIST team.
    - Participants reviewed the importance of utilizing PDSA cycles and were coached to review data reported through the MMRI monitoring and evaluation (M&E) system
    - Provided a forum for QI coordinators to share progress on their improvement work and discuss improvement strategies and barriers to implementation.
    - Performance results were shared and workshops were conducted to analyze factors leading to maternal deaths in each facility as per the maternal mortality audits conducted.
    - Coordinators worked on developing a work plan to support QI teams in moving forward with QI activities.

- **Draily participation in the morning clinical rounds at the National Referral Hospital Princess Marina**. Dr. Sinvula, has been attending the daily morning rounds of the OB-GYN department at Princess Marina Hospital in Gaborone, the country's main referral hospital. System issues such as overcrowding in the ward were discussed during the morning rounds. The hospital often reported up to 20+ patients waiting in a single day to have an elective C-section and occupying beds usually held for emergencies. ASSIST worked with hospital managers and coordinated with other referral hospitals to absorb the backlog in elective C-sections at Princess Marina Hospital. This is expected not only to improve the overcrowding of patients in the hallways but also to improve infection control and postoperative monitoring and bring about a reduction in postoperative sepsis.
- **Supported Sexual and Reproductive Health Department of the MOH with data analysis** (Oct 2014 – Sept 2015), To improve facility compliance with routine monthly reporting to the MOH on obstetric complications, in February 2015 Dr. Insua adapted the existing paper tool MH3123 to an excel format that will allow for electronic reporting via email and will facilitate timely analysis and consolidation of records in a master database. Currently, the routine reporting to the MOH is inconsistent and infrequent. The burden of transferring data from paper-based data collection tools to electronic formats for analysis further delays timely analysis. ASSIST's analysis of the relevant data has informed MOH decisions on the necessary staff rate per delivery in maternity facilities that will lead to a more adequate distribution of staff based on the demand for services and complexity of pathologies treated at each facility. The project has presented to the MOH a preliminary analysis of referral patterns during obstetric emergencies that subsequently resulted in a maternal death, as well as provided quarterly M&E reports and annual project reports.
    - Weekly monitoring and reporting on the availability of essential drugs and commodities in the facilities from the MOH district coordinator to the MMRI Coordinator to inform MOH and the Central Medical Stores.
    - As a result of improved monitoring and reporting of stock-outs, the MOH and Central Medical Stores are taking immediate action to address the availability of essential drugs and commodities. ASSIST has been working directly with facilities in which stock-outs have been reported to develop a contingency plan to make those drugs available, coordinate with the facility pharmacy to improve procurement, and in some cases arranging for drugs from one facility to be sent immediately to the facility with a stock-out to make treatment available to patients.
    - The MMRI Coordinator meets weekly with the Central Medical Stores (CMS) to compare data from their inventories and the data on drug availability collected by the MMRI district coordinators and prioritize those facilities with stock-outs or with minimum availability of essential drugs.
    - ASSIST has been working closely with the National Blood Transfusion Services to improve the availability of blood at the facility level.
- **Facilities reporting MMRI data**. During January-February 2015 the number of facilities reporting data decreased from 95 in December 2014 to 54 in February 2015 (**Figure 4**). This was as a result of a massive transfer of 759 midwives throughout the country that disrupted the QI Teams. District coordinators have been working on reforming QI teams in the facilities since March 2015 and have trained new personnel as focal points for data collection. As a result, data reports in June included data collection for the missing months of January-March 2015. The retroactive number of facilities reporting data is presented below in blue.

Figure 4: Botswana | Number of facilities reporting MMRI data per month in each district (Feb 2014 – May 2015)



- **QI teams established**. A total of 88 QI teams were formed in the facilities, which represents 72% of the 122 facilities included in the initiative having a QI team. QI teams were not implemented in private hospitals and in some remote maternity clinics. Eighty-nine percent (78 out of 88) of the QI teams formed were functional; 10 QI teams failed to implement QI activities in the areas of improvement selected. We considered a QI team to be functional if they meet regularly (weekly/biweekly), used QI methodology to identify gaps and proposed solutions or changes that were tested (following PDSA), and used performance data to evaluate if the changes tested were successful in obtaining the targets established. **Table 1** presents number of teams and functional teams per type of facility.

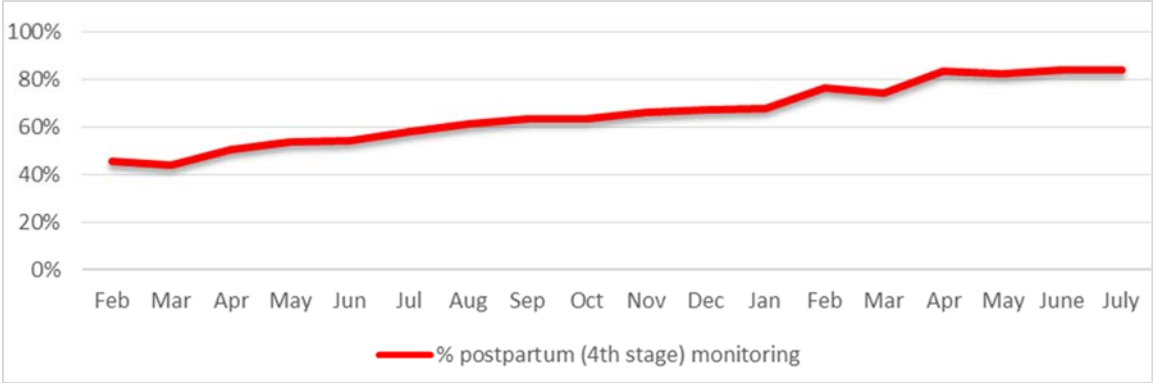
Table 1: Botswana | QI teams established per type of facility

Type of facility	QI teams established	QI team functional
Maternity clinic	63	55
District Hospital	6	6
Primary Hospital	17	15
Private Hospital	0	0
Referral Hospital	2	2
Total	88	78

- **Improvement aims focus of the QI teams**. Each QI team selected one or more areas of improvement based on baseline data and audits of patient files. Of the 78 QI teams actively working on improvement, 68% worked on improving monitoring of 4th stage of labor, 55% on adherence to AMTSL, 6% on PE/E management during labour, 16% on management of incomplete abortions, 6% on management of septic abortions, and 14% on other topics (improving partogram use, promoting hospital delivery, checking for cervical tears, FP counselling and supply).
- **Monitoring postpartum vitals (4th stage of labor).** Monitoring postpartum vitals was a main focus of improvement for 68% QI teams. Teams were working on this topic as a result the

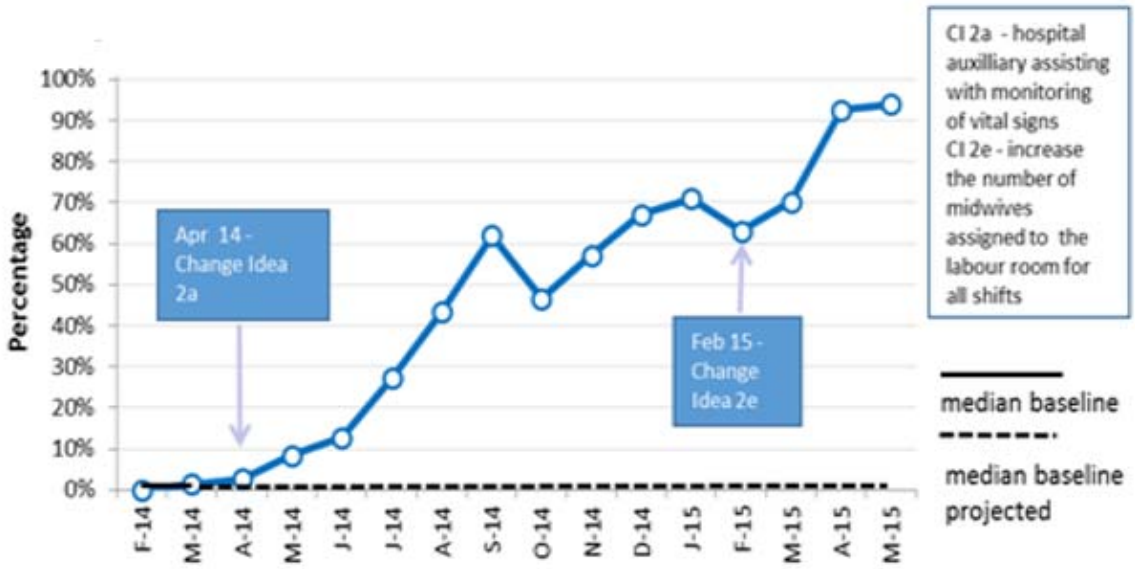
compliance with this indicator increased from a baseline of 46% in February 2014 to 84% in July 2015 **(Figure 5).**

Figure 5: Botswana | Compliance with postpartum monitoring (4th stage of labor), n= 43,899 (Feb 2014 – Jul 2015)



- An example of improvement in monitoring women during the immediate postpartum period (4th stage of labor) in the Athlone Hospital is presented in **Figure 6**. Two changes were tested: Use of hospital auxiliaries to assist with the monitoring in April 2014 and increasing the number of auxiliaries in the labor room in all shifts in February 2015. Both changes led to the achievement of 93% compliance with the indicator by May 2015.

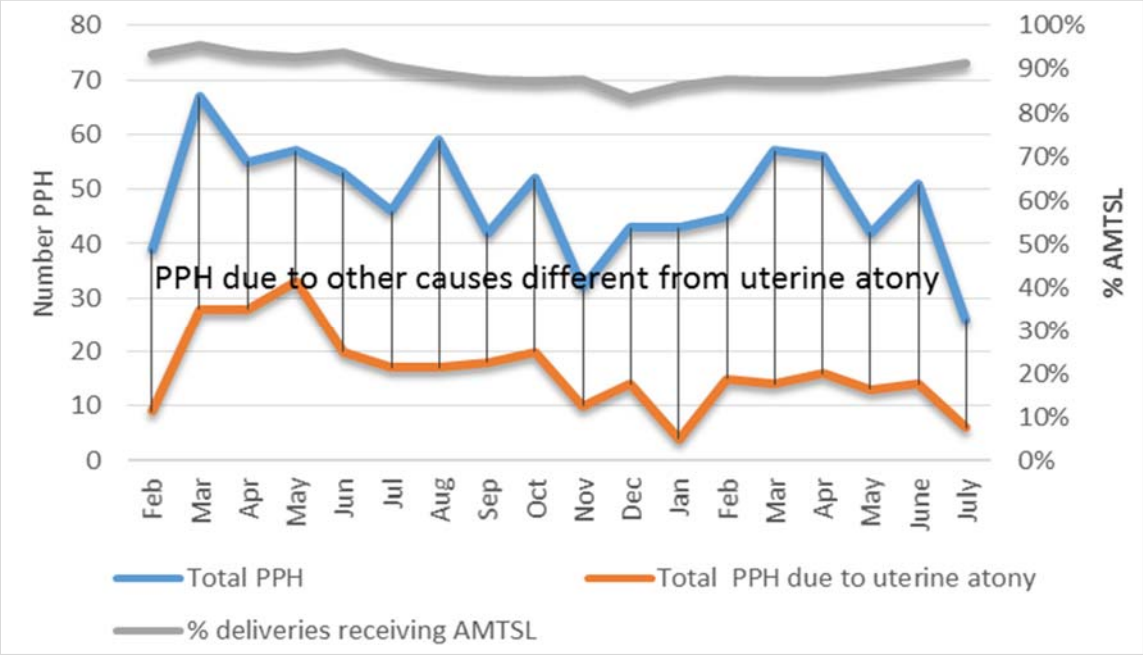
Figure 6: Botswana | Compliance with postpartum monitoring (4th stage of labor), Athlone Hospital, n=1,205 (Feb 2014 – May 2015)



- **Active management of 3rd stage of labor.** Of the 780 PPH cases documented from Feb 2014-May 2015, 35% were due to uterine atony, 22% to retained placenta and 43% to other causes (cervical tears, uterine laceration, uterine rupture, coagulopathy, post procedural C-section complications). The MMRI has introduced additional indicators to gather more data on the others causes contributing to PPH, such as lacerations or PPH after intervention (C-sections) that are playing a significant role as causes of PPH.

  Compliance with the provision of uterotonic (oxytocin 10 units IM or misoprostol or ergometrine if oxytocin is unavailable) within the first minute after delivery has remained steady around 90% since February 2014. Subsequently the percentage of PPH due to uterine atony was reduced from 51% in April 2014 to 23% in July 2015 (**Figure 7**).

Figure 7: Botswana | Percentage compliance with AMTSL vs incidence of PPH due to uterine atony or other causes (n=44,064 vaginal deliveries) (Feb 2014 – July 2015)

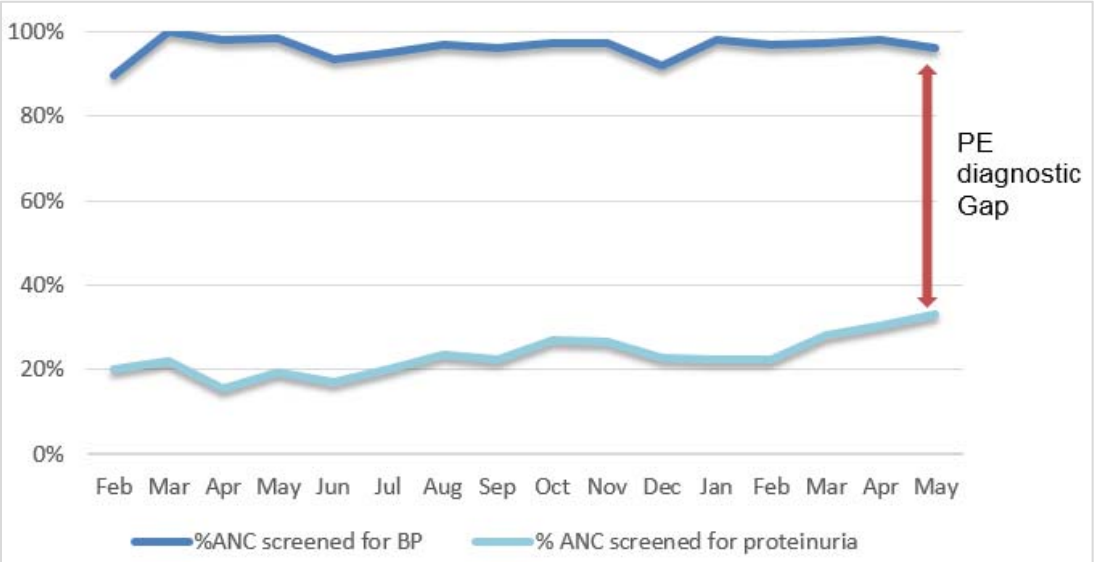


- **Screening and diagnosis of pre-eclampsia and eclampsia.** Every pregnant women should be monitored for blood pressure and presence of protein in urine at each antenatal visit that is a severe condition that requires immediate treatment to avoid mother and fetus severe complications and/or death. Pre-eclampsia and Eclampsia were the second cause of maternal mortality in Botswana during 2014.

  Data indicates that while 97% pregnant women have their blood pressure measured during at least one ANC visit only 23% of them were screened for presence of protein in urine. Measurement of protein in a simple ambulatory method that consist on dipping the uristick in the woman's urine and the result of proteinuria are ready in minutes. As a result of the screening gap, there is a severe underdiagnoses of pre-eclampsia complication in Botswana (**Figure 8**). The number of preeclampsia cases decreased from 95 (4.8%) cases in February 2014 to 27 (1.1%) in May 2015. The incidence of pre-eclampsia reported in May falls below what will be expected as per international studies[1] conducted that found a 2% to 8% global incidence of preeclampsia in pregnancies.

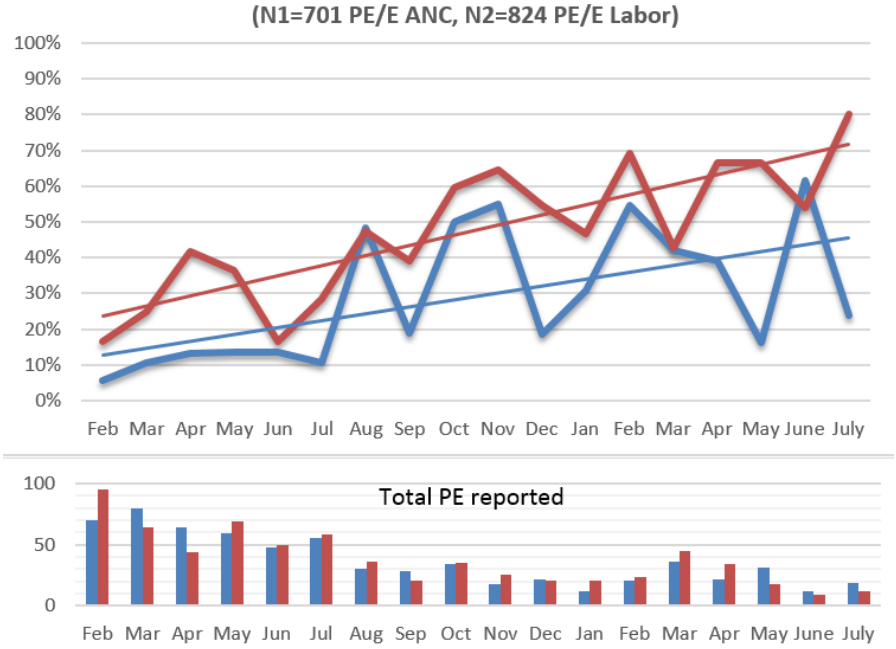
[1] The Global Impact of Pre-eclampsia and Eclampsia.Lelia Duley, MD, Seminars in Perinatology.Volume 33,

Figure 8: Botswana | Percentage of pregnant women screened for hypertensive disorders of pregnancy (PE/E) during the antenatal period, n= 42,399 (Feb 2014 – May 2015)



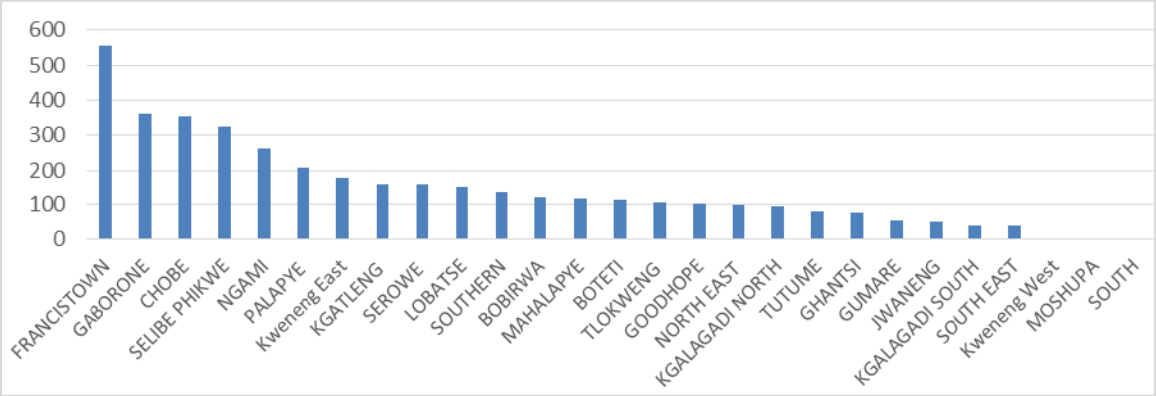
- **Management of severe pre-eclampsia/eclampsia.** We observed a general improvement in the performance during labour of this indicator from a baseline of 29% in February 2014 to 80% in July 2015. Nevertheless, we need to be cautious with the interpretation of PE/E data, as we have observed a dramatic reduction in the number of cases of severe PE/E reported since August 2014. The cause of this reduction is unknown and will require further investigation of the data being reported to the MOH.
- **Figure 9** below presents the effect of having a QI team working on management of PE/E in the Princess Marina Referral Hospital compared to the average compliance with management of PE/E as per standards in other facilities without a QI team or having a non-working QI team.

Figure 9: Botswana | Women with severe pre-eclampsia managed with magnesium sulfate (MgSO4) and early delivery in the Princes Marina Hospital (red) compared to the average in 26 sites (blue) (Feb 2014 – Feb 2015)



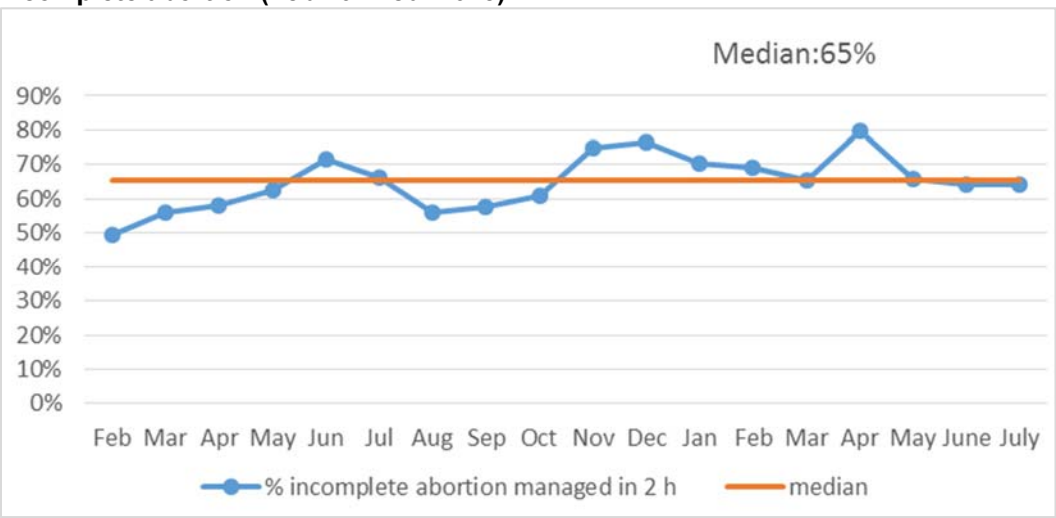
- **Management of abortion complications.** Seventy one percent (71%) *of abortion complications reported were due to incomplete abortions and 10% were septic abortions*. The abortion ration presented a distribution with a higher burden in the North-East districts **(Figure 10).**

Figure 10: Botswana | Distribution of burden of abortion complications. Average Abortion Ratio: 205 abortions (complications)/1000 live births (Feb 2014-May 2015)



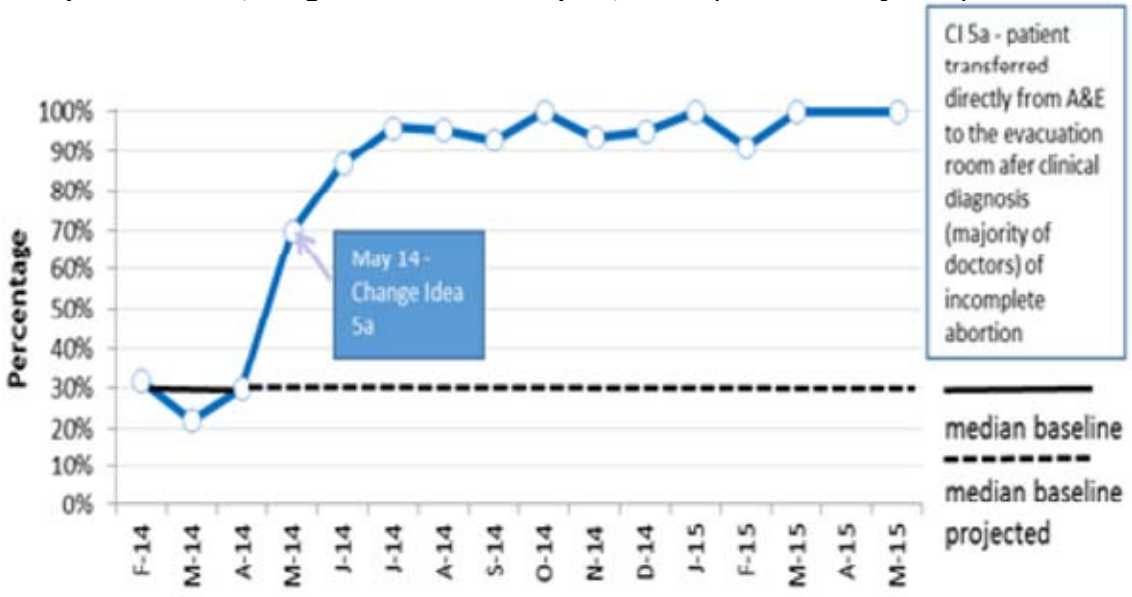
- **Performance in the management of incomplete abortions within two hours of diagnosis** improved from 50% in February 2014 to 64% in July 2015 in the 26 facilities reporting management of abortions (data on this indicator is only collected in hospitals, as clinics in Botswana do not perform uterine evacuation of retained product of conception). **Figure 11** presents aggregated data of all facilities performing evacuation of incomplete abortions since February 2014 until July 2015. The figure shows a positive increase in compliance with prompt uterine evacuation with five consecutive performance points above the median since November 2014.

Figure 11: Botswana | Performance with prompt evacuation (within two hours of diagnosis) of incomplete abortion (Feb 2014-Jul 2015)



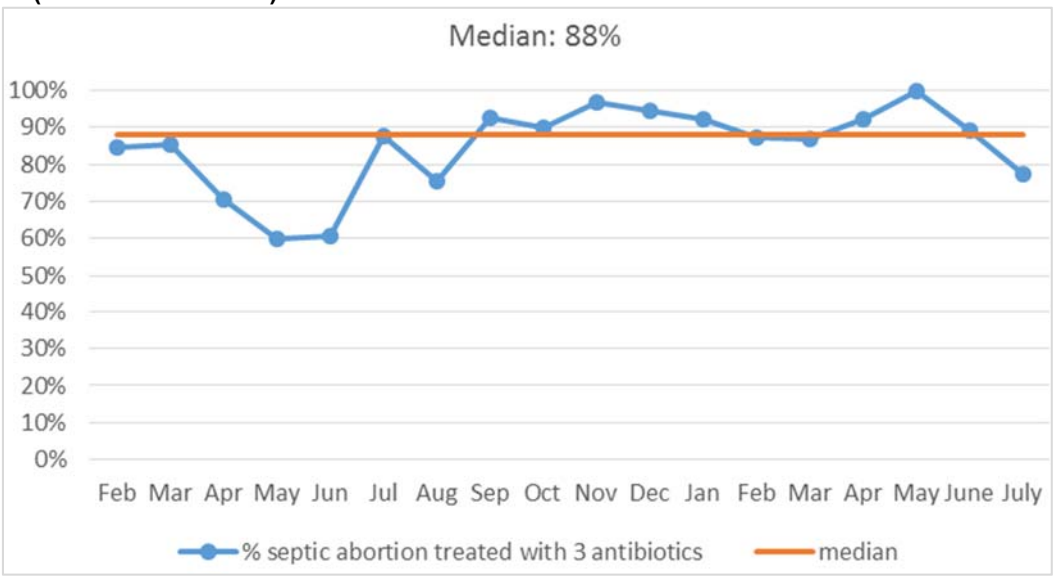
- An example of improvement in compliance with management of incomplete abortion within two hours of diagnosis in Sekgoma Memorial Hospital is presented in **Figure 12.** In May 2014, the following change was introduced and tested – transferring patients with incomplete abortions directly from the admission and evaluation department to the theatre for evacuation -- compliance with the indicator reached 100% in May 2015.

Figure 12: Botswana | Performance with prompt evacuation (within two hours of diagnosis) of incomplete abortion, Sekgoma Memorial Hospital, n=307 (Feb 2014-May 2015)



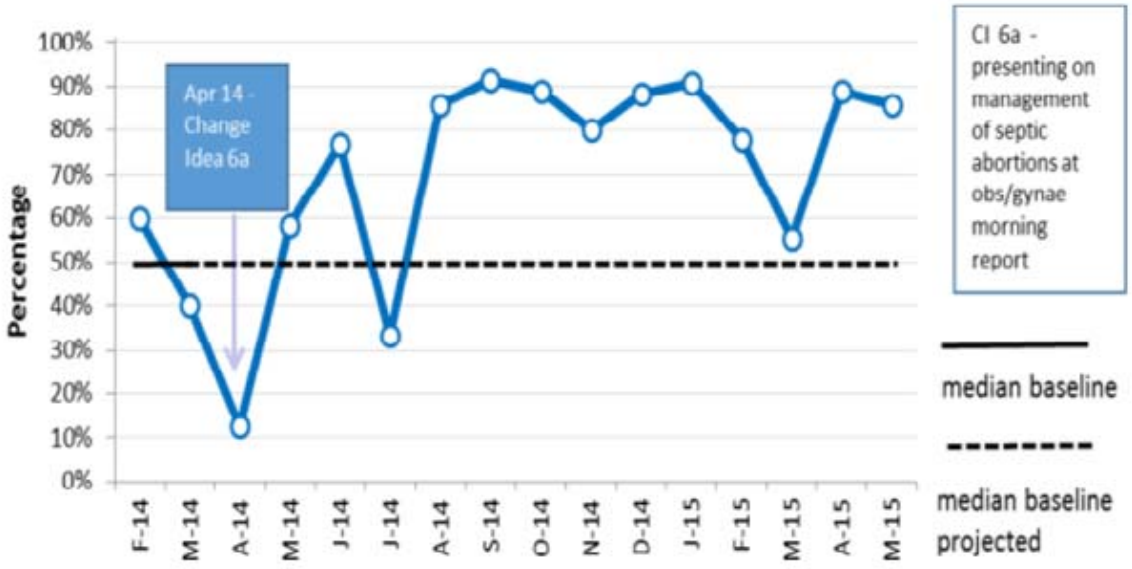
- **Performance in management of septic abortions with triple antibiotherapy intravenous** was initially high at 85% compliance with this indicator in February 2014. Performance seemed to be increasing slightly after September 2014 to reach 100% in May 2015 (**Figure 13**).

Figure 13: Botswana | Compliance with management of septic abortion with three antibiotics IV (Feb 2014-Jul 2015)



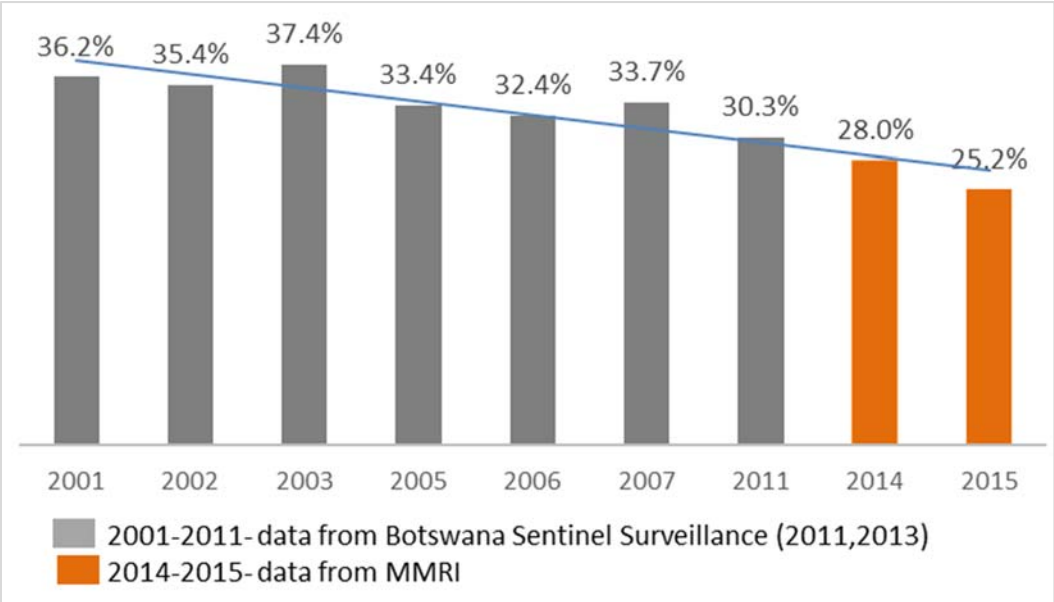
- An example of compliance with management of septic abortion with provision of triple antibiotic intravenous therapy in the Nyangabwe Referral Hospital is presented in **Figure 14**. After the introduction and further implementation of the change idea – presenting each case of abortion, including septic abortion and peer review during the Ob/Gyn morning sessions – improvement in the percentage of women with septic abortion who received the antibiotics increased.

Figure 14: Botswana | Percentage of women with septic abortion who received triple antibiotics IV, Nyangabwe Hospital, n=170 (Feb 2014 – May 2015)



- **HIV prevalence during pregnancy.** From Feb 2014-May 2015, we found 11,598 pregnant women identified as HIV+ during ANC visits and 374 (0.8%) newly diagnosed during labour. Project data provides a prevalence of HIV among pregnant women of 28% in 2014 and 25% from Jan to May 2015. Prevalence of HIV among pregnant women is higher than the 18.5% HIV prevalence found in general population (aged 18 weeks and over), with females at 19.2% and males 14.1% documented by the Botswana AIDS Impact Survey IV (BAIS IV, 2013).
- **Figure 15** below presents the evolution downwards of HIV prevalence in Botswana from data reported by the 2011 Botswana Sentinel Surveillance (grey color) and data reported by the MMRI on 57,436 deliveries from February 2014-May 2015 (orange color). We observe a decrease trend in the prevalence of HIV among pregnant women in Botswana from 36.2% in 2006 to 25.2% in May 2015.

Figure 15: Botswana | HIV prevalence during pregnancy



- **ARV coverage of HIV-positive pregnant women**. Data from Feb 2014-May 2015 found that 94 % of women diagnosed with HIV during ANC visits received antiretroviral treatment during the antenatal period and this coverage was maintained constant over the time of the analysis. This represents an improvement from data reported in 2013 by the MOH (National Eligibility Guidelines) with only 67% of the total HIV infected pregnant women were receiving ART. This improvement in coverage is due in part to the more inclusive eligibility criteria set by the MOH to receive ART. At the present time every single pregnant women HIV positive qualifies for ART treatment while in 2013, national guidelines established a cutting point of CD 4 count lower than 350 cells/µl to qualify for ARV treatment.

IMPROVEMENT IN KEY INDICATORS

Activity	Key Indicators	Baseline (Feb 2014)	Last value (July 2015)	Change (percentage points)
National Maternal Mortality Reduction Initiative	% of delivering women administered oxytocin in the 1st minute after delivery	82% (67 facilities, 2031 deliveries)	91% (48 QI teams working on AMTSL)	9
	% of women monitored during the 4th stage labor per protocol	39% (67 facilities, 2031 deliveries)	84% (59 QI teams working on 4th stage)	45
	% of women in ANC with severe pre-eclampsia managed per protocol	6% (68 facilities, 72 PE cases during ANC)	26%* (3 QI teams working on ANC PE management)	20
	% of women in labor with severe PE managed per protocol	18% (69 facilities reporting, 97 PE cases in labour)	(100%)* (5 QI teams working on this topic)	82
	% of incomplete abortions managed per protocol	45% (20 facilities reporting abortions)	58% (14 QI teams working on incomplete abortion management)	13

* Since August 2014 there was a significant reduction on the number of cases of severe PE reported. The high percentage of compliance with management of PE per protocol may be artificially inflated due to underreporting of PE overall. We will compare with data from the MOH once available before reporting on this indicator.

SUSTAINABILITY AND INSTITUTIONALIZATION

MMRI technical assistance from a National Coordinator; an outside consultant with extensive QI experience who provides coaching and capacity building through monthly visits to different districts in the country; and a senior technical advisor based at URC headquarters. In turn, and critical to the institutionalization of the improvement work under MMRI, the Ministry appointed a total of 11 midwife coordinators to oversee Quality Improvement activities throughout Botswana's 26 health districts, and to provide logistical support for the implementation of project activities.

ASSIST's support to the Ministry of Health and the MMRI ended in September 2015, and technical activities and related tools were handed over prior to September 31, 2015.

During the duration of ASSIST's support to the Ministry of Health in this area, the project involved a range of activities meant to directly support the institutionalization, sustainability and gradual scale up of improvement activities under the MMRI. These included:

- Capacity building at the central level of the Ministry to continue the monitoring and evaluation of MMRI-related activities. ASSIST developed a manual for MMRI data collection and data analysis

to facilitate further knowledge transfer to the MOH. ASSIST also provided ongoing capacity building in data management and analysis with designated MOH personnel from the beginning of the project.

- Tool development to facilitate data reporting and analysis of maternal complications, including the electronic adaptation of an existing paper-based MOH perinatal surveillance tool (MH 3123). The tool was developed in Excel to facilitate timely electronic reporting and reduce data entry errors, facilitating better analysis of routine data linking to a master database that pulls from other data sources.
- Capacity building to M&E district officers and MMRI district coordinators in the use of the electronic perinatal surveillance tool and the MMRI QI performance tool to support the integration of both reporting systems.
- Support to MMRI district coordinators in their development of work plans to guide the implementation of QI activities at the facility level and monitor progress towards activities planned.
- Development of a data extraction tool for maternal mortality audit qualitative data, including capacity building within the Maternal Mortality Unit to timely analyze maternal mortality audits.
- Development of a change package of successfully proven changes that lead to improvement to facilitate scaling up improvement in facilities throughout the country.

Challenges for sustainability

As in many focused projects receiving external technical assistance, there are a range of challenges with regard to achieving sustainability around the intense and important work under the Maternal Mortality Reduction Initiative. The most significant ones include:

- **The need of a critical mass of QI-trained coordinators**. Under the MMRI, the implementation structure was very lean due to budget constraints, relying to a large degree on the National Coordinator and eleven regional coordinators. Each coordinator had very specific functions that in theory should continue in order to ensure sustainability. During the one year and a half of ASSIST support, implementation efforts were mostly focused on the training and mentoring of the selected QI coordinators as well as direct support to activities. In order to ensure sustainability, probably a larger pool of MOH staff and professionals should have been trained in QI methods to achieve a critical mass and broader foundation.
- **The existence of a broader quality improvement framework** would help in integrating improvement efforts conducted by several programs in the country, and to ensure coordination of methods and reporting activities. One immediate possibility of extending the impact of Quality Improvement activities beyond maternal mortality reduction should have been around efforts to decrease neonatal mortality. Other initiatives introducing QI methods in HIV prevention and other relevant areas could have further contributed to a broader emergence of an organizational improvement culture in the health system, and beyond.
- **The presence of an operational QI/QA department in the Ministry of Health** at the central level. With strong leadership QI activities in one area could have reinforced and extended those in others, e.g. to reduce maternal mortality and neonatal mortality alongside each other. Coordination with other areas of care and departments (clinical services, pharmacy and procurement, pre-service training and continuous medical education) would have contributed to broader sustainability of QI activities.
- **Specifically with regard to the actual MMRI program:** The unclear existence of a multi-year commitment, budget and workplan for the MMRI work and its expansion in itself is a major challenge to its sustainability.

Activity 2. Strengthening the Community Health System Response to HIV/AIDS

OVERVIEW

ASSIST's community response work in Botswana began in the 4th quarter of FY15. It is widely recognized that community level actors need to play a critical role in the Botswana HIV response, specifically in reaching the global UNAIDS 90-90-90 targets for people living with HIV. ASSIST will work with select communities to increase access and uptake of services, create strong linkages with care, spread health promotion messages and reduce barriers and stigma related to testing and

seeking treatment. Smaller groups of community actors can assist with patient self-management, treatment support, addressing barriers to care such as food insecurity, and tracing of patients lost to follow-up. Keeping PLHIV in care and on treatment will lead to healthier patients, reduced morbidity and mortality, more productive community members, and fewer vulnerable children.

At the request of the USAID mission in Botswana, ASSIST will contribute to the PEPFAR Botswana goal of epidemic control through the application of quality improvement approaches to the community level response to HIV. Improving how existing community platforms interact and link with clinical service providers is seen as key to the achievement of the PEPFAR 2017 goals and targets.

ASSIST will work closely with a range of other partners, especially the USAID Advancing Partners and Communities (APC) Project, in applying quality improvement to engage with some of Botswana's most affected communities across seven priority scale up districts in Botswana.

Preparatory work for the programmatic shift of ASSIST from maternal mortality to strengthening the community health system response in Botswana began in July 2015. USAID has mandated ASSIST under the overall Botswana PEPFAR strategy to improve community and facility referrals and linkages and increase retention for HIV-positive patients. Specifically, ASSIST's work will focus generally on addressing key processes of care delivery, support and linkage toward achieving PEPFAR's 90-90-90 targets. ASSIST is currently working with districts, communities and other stakeholders to develop specific improvement aims. Generally, these aims will focus on progress towards epidemic control in partnering communities through:

- improving existing processes and mechanisms to refer to, link and retain people in care
- improving two-way communication between communities and relevant facilities
- increasing the percent of people in communities are aware of their status, linked to care, and retained in treatment over time, to improve their health and reduce the risk of transmission

There are three broad categories of relevant processes that are at the focus of ASSIST's work at community and district levels:

1. Processes within communities themselves, i.e. how different community groups can come and work together to support the HIV response and related services)
2. Processes that link community and facility activities, including referrals, appointment management, other communications and follow up to improve retention and reduce loss to follow up
3. Processes within community-based organizations (supported by APC) and their coordination of service delivery in communities

KEY ACCOMPLISHMENTS AND RESULTS

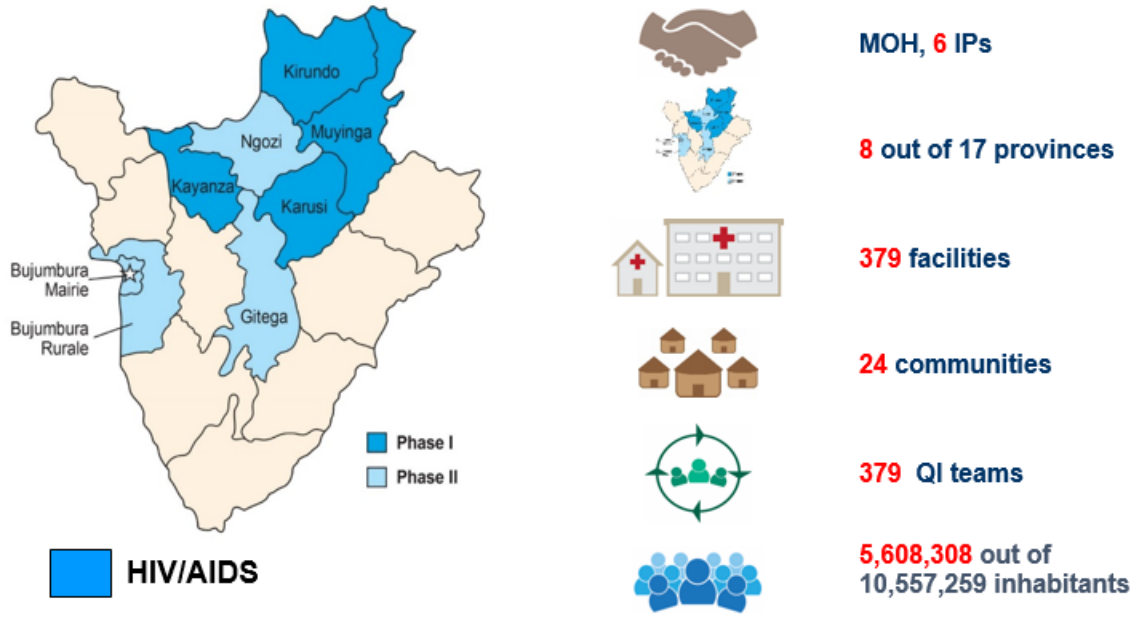
- **Contributed to Botswana PEPFAR planning** (Jun–Aug 2015). The ASSIST Regional Director for Southern Africa, Donna Jacobs, met with the USAID Botswana Team to discuss and inform the development of an ASSIST community HIV scope of work. Between July and August 2015, Kim Stover and Cecil Haverkamp participated in USAID Botswana district consultation meetings with all seven priority districts. The primary purpose was to inform the design of the USAID-APC work plan, but also offered an opportunity to explore the roles of ASSIST in supporting PEPFAR targets through community-based improvement work.
- **Developed work plan and overall scope of work for ASSIST** (Aug–Sept 2015). Following APC district consultations and broad coordination with other partners, ASSIST worked with USAID Botswana to develop a scope of work and other elements toward an improvement plan for USAID and Botswana Government review and approval.
- **Hired new Chief of Party (COP)** (Jul 2015). Cecil Haverkamp was hired as the new COP in July 2015 and completed a one-week orientation at HQ before taking his post in Botswana. He began building a new team and developing the new ASSIST programmatic focus in August 2015.

BURUNDI

BACKGROUND

With funding support from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the USAID ASSIST Project began work in Burundi in January 2013, building on a prevention of mother-to-child transmission of HIV (PMTCT) service delivery assessment and human performance technology assessment conducted in 2012 under the USAID Health Care Improvement Project (HCI). ASSIST is working with the Ministry of Health (MOH), the Government of Burundi, and other USAID implementing partners to improve the uptake and quality of PMTCT services for mothers, their partners, and their infants, and to improve retention of mothers and infants along the PMTCT cascade. In addition, ASSIST is working in close collaboration with FHI360, Pathfinder International, Management Sciences for Health (Supply Chain Management Systems), MEASURE Evaluation, Abt Associates, EngenderHealth, and local non-governmental organizations to address these health care gaps. In FY15, ASSIST Burundi supported improvement work at sites in eight provinces, which covered 25 out of 46 health districts in the country.

Scale of USAID ASSIST's Work in Burundi



PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Implement a PMTCT improvement intervention in eight provinces	
• Improve uptake of PMTCT services (by mothers, infants, and partners) • Improve retention of mothers and infants along the PMTCT cascade • Improve quality of PMTCT services	• Provinces: 8 out of 17 provinces: Bujumbura, Bujumbira Rural, Gitega, Ngozi, Kayanza, Kirundo, Muyinga, Kurusi • Districts: 25 out of 25 health districts in the 8 provinces (25 out of 46 districts in the country) • Facilities in selected districts: 100% (379 out of 379) PMTCT sites in the 25 health districts • QI teams: 379 facility teams • Catchment population facilities/communities served: 5,608,308 out of 10,557,259 inhabitants

What are we trying to accomplish?	At what scale?
• Strengthen community system to improve the performance of community health workers (CHWs) to provide quality of PMTCT services at the community level	• Communities: 24 sub-Collins surrounding 6 out of 15; and peripheral facilities in Giteranyi District in Muyinga Province • QI teams: 24 community teams • Catchment population communities served in the target health district: 123,748 out of 292,967 inhabitants

Improvement Activity

Activity 1. Implementing a PMTCT improvement intervention in eight provinces

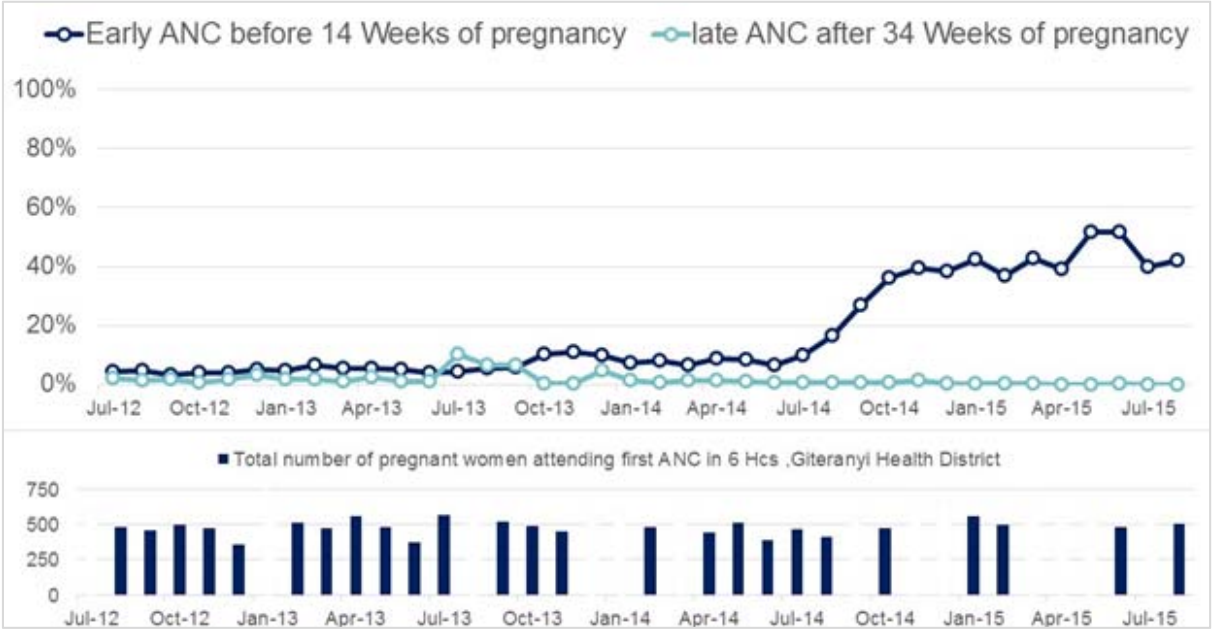
KEY ACCOMPLISHMENTS AND RESULTS

- **Finalized elaboration of change package from phase 1 and its dissemination strategies in the new sites of the eight provinces** (Oct – Dec 2014). ASSIST staff in Burundi, with the technical assistance of the regional office and in close collaboration with the MOH through the HIV/AIDS National Program, developed basic documents to extend the project into the new sites in eight provinces, such as the final change package from phase 1 and its dissemination strategies. The following areas were identified as gaps in the baseline assessment: documentation, integration of PMTCT services with ANC, HCT among pregnant women attending ANC, their partners, and their infants, clinical care, retention, and pharmaceutical supplies. The phase 1 of our intervention for improving quality of PMTCT services was focused on two areas: HCT among pregnant women attending ANC, their partners,and their infants as well as documentation. In this phase 1 ASSIST has chosen to work in 70 pilot sites located in 4 USAID-supported provinces (Kayanza, Kirundo, Muyinga and Karusi). The final change package from this phase 1 and its dissemination strategies have been documented in order to facilitate and guide the dissemination of best practices from the 70 pilot sites to new health facilities (sites) located in all 8 USAID supported provinces (sites located in the previous 4 provinces and sites located in new 4 USAID supported provinces).
- **Organized a PMTCT experts' meeting for validation of final change package of phase 1 and dissemination strategies** (Gitega City, Dec 10-12, 2014). One purpose of this meeting was to explain to national PMTCT experts the content of the final change package of phase 1, and to offer the opportunity to make any necessary amendments. In addition, it was an occasion for participants to analyze if each change is in line with National Health Policy or HIV National Guideline. Fifty seven (57) participants took part in this meeting, including PMTCT experts coming from various departments of the MOH, USAID's partners, local NGOs representatives, and district and provincial health managers.
- **Conducted orientation meeting for Extension Agents on change package and built capacity of new coaches in four new provinces:Bujumbura, Bujumbura Urban, Gitega, and Ngozi** (Mar 5-6, 2015). In order to accelerate the spread and implementation of the change package of phase 1 in new sites, ASSIST, through this meeting, enhanced knowledge on quality improvement approach and the technical content of the change package from phase1 and its dissemination strategies.
- **Conducted provincial meetings to disseminate the phase 1 final change package in all 8 provinces covered by ASSIST**. To accelerate the spread of tested changes from phase 1 in new sites in all eight provinces, ASSIST, along with the National HIV/AIDS Program, organized provincial dissemination meetings to allow all PMTCT stakeholders in each province to have a common understanding of the collaborative improvement approach as well as the contents of the PMTCT change package. These meetings took place as follows: Muyinga, Mar 18-20, 2015; Karusi and Kirundo, Apr 1-3, 2015; Kayanza, Jun 24-26, 2015; Bujumbura and Ngozi, Jul 22-24, 2015; and Bujumbura Town and Gitega, Jul 29-31, 2015.
- **Conducted site coaching visits in four phase I provinces (Kayanza, Kirundo, Muyinga and Karusi).** To continue improving PMTCT services and maintaining or increasing site-level

performance, ASSIST continued to provide technical support to district and provincial coaches through monthly coaching visits. District coaches conducted coaching visits in all the 70 phase I sites on a monthly basis, and some coaching visits in mixed team (district coaches and PNLS or ASSIST staff) were conducted. Coaching visits were also conducted in scale-up sites in the four phase I provinces by the district coaches and extension agents. The main purpose of the coaching visits was to check on the quality of data previously submitted, the implementation of the change package, and support the formation and functioning of QI teams in the scale-up sites. All new sites in these four provinces formed QI teams. Due to the security issues, the orientation and dissemination meetings were not conducted in the same period. Scale-up sites in Kirundo, Karusi, and Muyinga provinces were oriented in April while sites in Kayanza were oriented in June 2015.

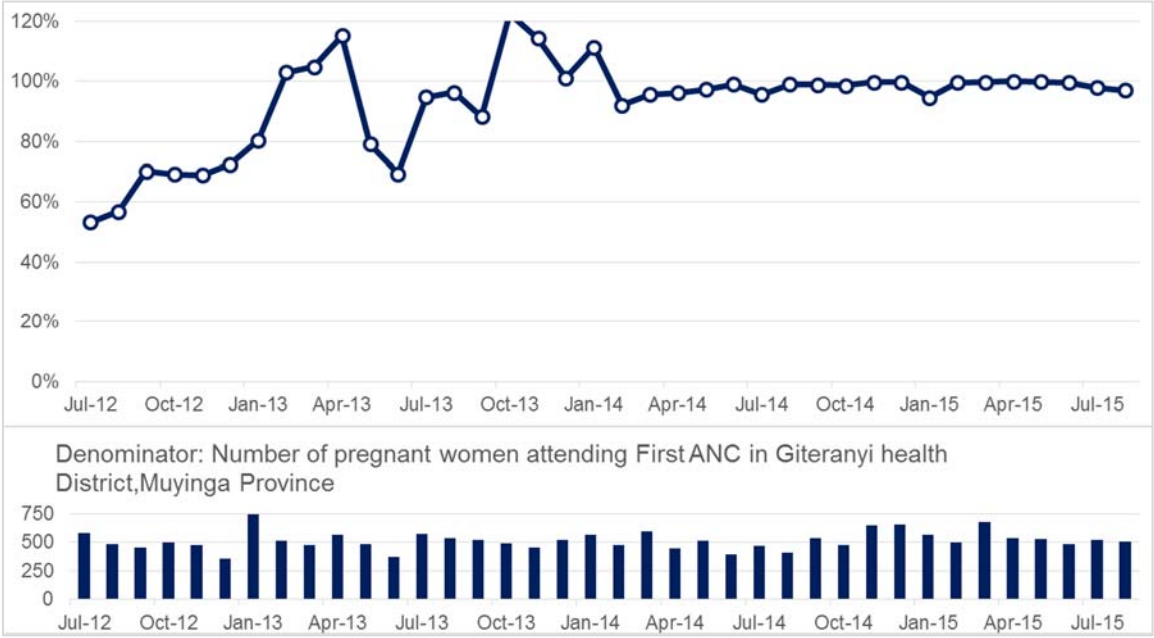
- **Conducted data quality review visits** (Jun and Sept 2015). In order to assure the quality of data and validate the accuracy of data reported by sites, ASSIST technical staff and health district and provincial coaches organized two data quality review visits during June and September 2015. The data validation process used a checklist tool that ASSIST had developed and field-tested in the first part of FY15. During the visit, the data quality review team: 1) interviewed QI team members about randomly chosen indicators in order to be sure that team members understood the indicator and knew the numerator and denominator if applicable; 2) asked them which registers produced these data; and 3) then reviewed with the team the data of two or three months chosen randomly and compared those data with data that had been reported by the team for the months chosen. In this way, the data quality review team could identify the causes of errors at each stage of the analysis. The visits ended with recommendations from the review team about actions the QI team could take to rectify the identified causes of errors.
- **Conducted the provincial semi-annual workshop to review quality of HIV/PMTCT data and services.** The meeting focused on identification of local barriers/obstacles to assuring quality of data of PMTCT and HIV services and the identifying what each health facility could do in a short time to address identified issues. During the reporting period, two meetings have been organized, one for Vumbi and Kirundo health districts of Kirundo province, and the second for all health districts of Kayanza Province. These meetings were organized to support the institutionalization process.
- **Organized a PMTCT experts' meeting for validation of improvement plan of phase 2 (Kayanza City, Aug 18-21, 2015)** The purpose of the meeting was to validate the technical content of the improvement plan of the collaborative in phase 2 to address PMTCT retention in care, adherence on ART, and HIV-exposed infant care and treatment as well as reviewing quality improvement indicators in order to align them with the new national guidelines for prevention and treatment. When the phase 1 change package is being disseminated to new sites in all 8 provinces, the package of phase 2 which addresses PMTCT retention in care, adherence on ART, and HIV-exposed infant care and treatment will be implemented in only some targeted sites.
- **Conducted coaching visits to the 24 community QI teams on a monthly bases in the pilot project in Giteranyi Health District:** The coaching visits were focused on the data collection tools, the process to be followed for identifying change ideas and how to guide change idea testing, and to explain the advantage of providing linkages between health facility and community levels.
- **Strengthened the community system to improve the performance of CHWs to provide quality of PMTCT services at the community level. Figure 16** shows how the six facilities are getting over half of pregnant women to go for their first ANC visits before 14 weeks of pregnancy. In achieving these results, changes tested include:
    - Increase in number of health education sessions in health facility per week on advantages of early ANC
    - CHW sensitizes the community on advantages of early ANC
    - Announcement made in the church that any pregnant woman who attends 1st ANC visit before 14 weeks will receive an incentive

Figure 16: Burundi | Percentage of pregnant women attending first ANC visits before 14 weeks of pregnancy, 6 sites, Giteranyi District (Jul 2012 – Jul 2015)



- **Figure 17** shows how these sites are now testing nearly all women for HIV during their first ANC visit. In achieving these results, the following changes were tested:
  - Increase in number of health education sessions in health facility per week on advantages of early ANC and importance of HCT for pregnant women.
  - CHW sensitizes the community on advantages of early ANC and importance of HCT for pregnant women.
  - HCT conducted in ANC room and result given in the same room on the same day.

Figure 17: Burundi | Proportion of pregnant women who are tested for HIV during their first ANC visit, 6 sites, Giteranyi District (Jul 2012 – Aug 2015)

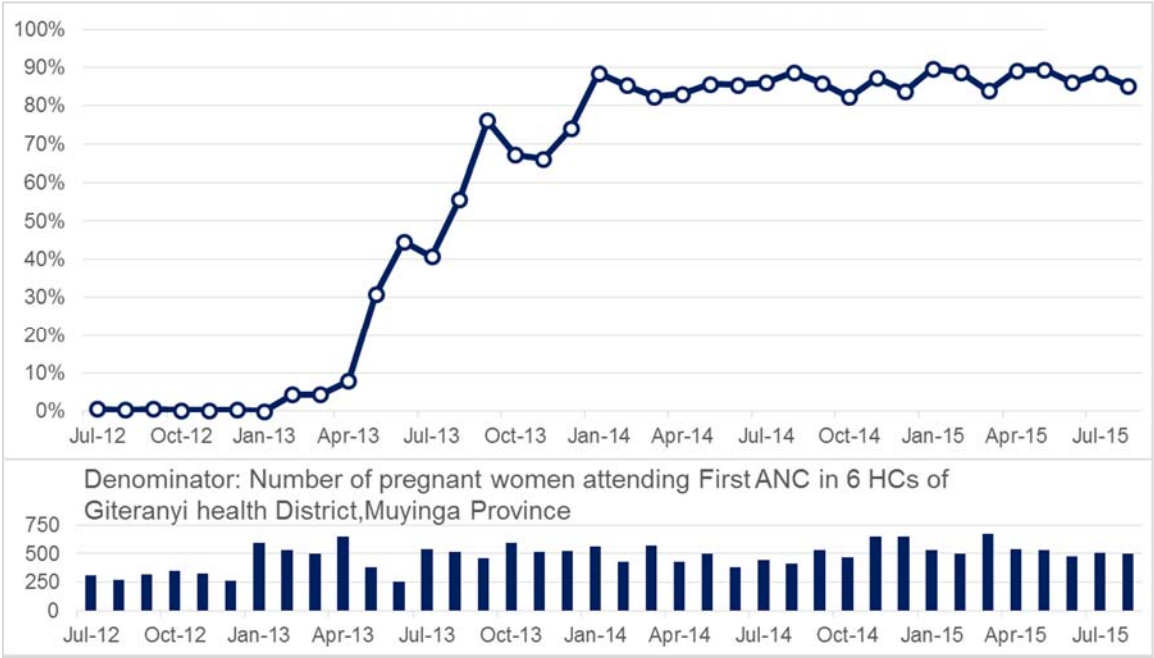


- **Figure 18** shows the increased percentage of pregnant women tested in ANC whose partners

have also been tested for HIV. Changes tested include:

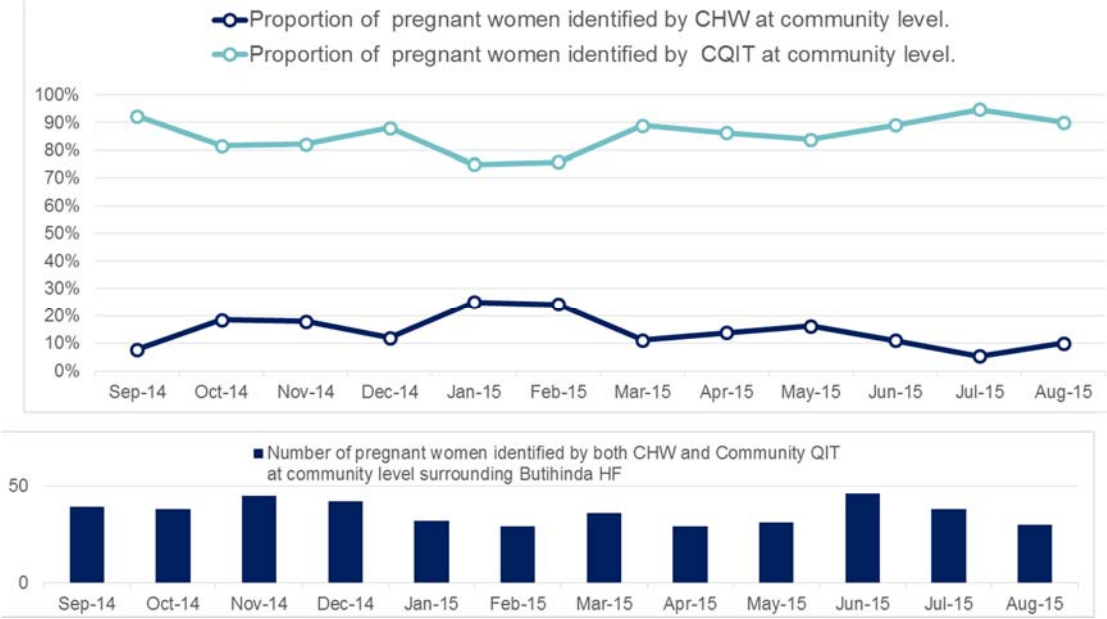
- Male leader sensitizes men to advantages of HTC for couples
- Advantages of partners' testing posted at all gathering venues
- Invitation letters given to partners
- Women who visit ANC service with their partners are seen before others
- CHWs involve chiefs of sub-collines in community mobilization for PMTCT and advantages of HTC for couples

Figure 18: Burundi | Percentage of pregnant women tested for ANC whose partners are also tested, 6 facilities, Giteranyi Health District (Jul 2012 – Jul 2015)



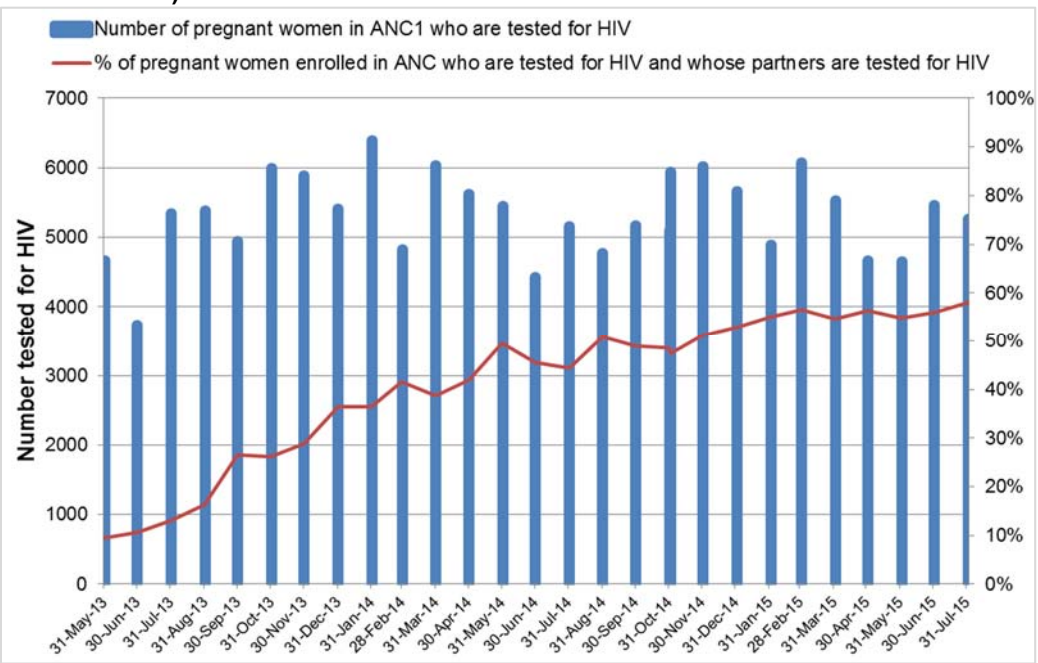
- **Figure 19** shows the impact of the community QI team supporting one of the six health centers, Butihinda Health Center, in identifying a much larger number of pregnant women than the CHW could identify. This community engagement in encouraging pregnant women to go early for prenatal care has contributed importantly to the six sites' success in identifying HIV-positive women earlier in pregnancy. As these health centers are one of the PMTCT service care sites, including antiretroviral therapy (ART), HIV-positive women identified earlier in pregnancy have the advantage of benefiting from ART earlier following the PMTCT protocol and thereby increasing the chance of protection against MTCT.

Figure 19: Burundi | Proportion of pregnant women identified and being referred to health center at community level, Butihinda Health Center (Sept 2014 – Aug 2015)



- The activities introduced by community QI teams to achieve these results, include the following:
  - Spend one hour discussing issues related to ANC services during community group meeting
  - Home visit made by community group delegate to their members and delivery messages on the advantages of early ANC and the importance of HCT for pregnant women
  - Develop a song for community group members on the advantages of early ANC
- **Figure 20** shows continued increase in the proportion of women tested in ANC and whose partners are also tested for HIV among the 69 sites supported by ASSIST in the four initial provinces in Phase 1.

Figure 20: Burundi | HIV testing of pregnant women and their partners, 69 phase 1 sites (May 2013-Jul 2015)



- **Figures 21-22 show progress in scaling up these practices in 28 new sites in Kirundo Province since March 2015.**

Figure 21: Burundi | Percentage of pregnant women going to ANC, 28 spread sites, Kirundo Province (Mar – Aug 2015)

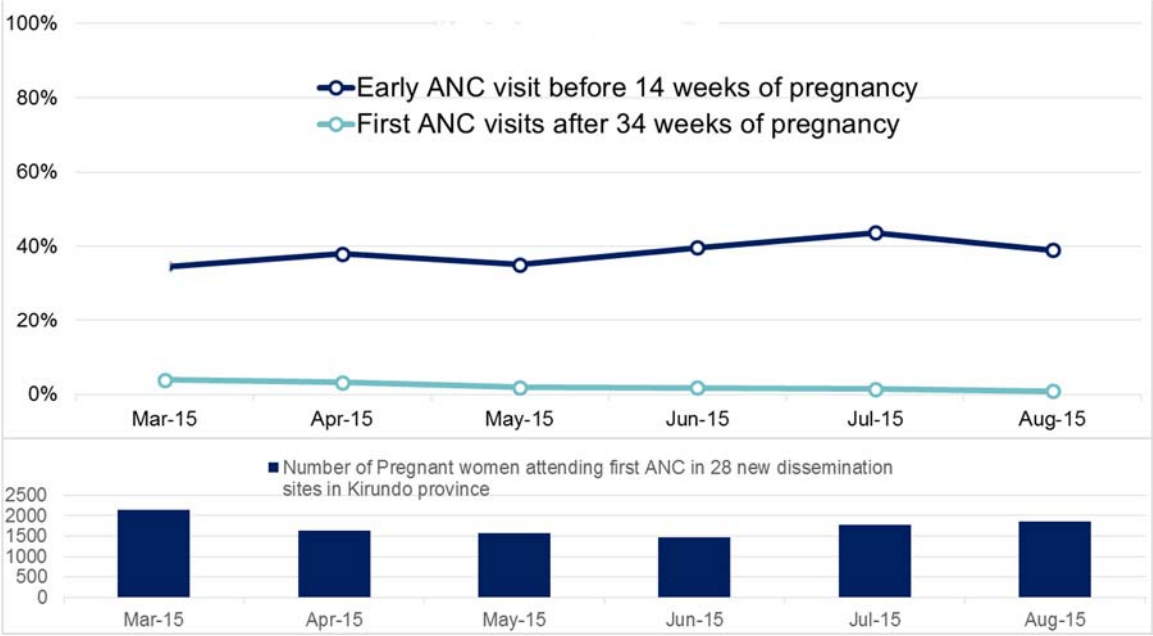
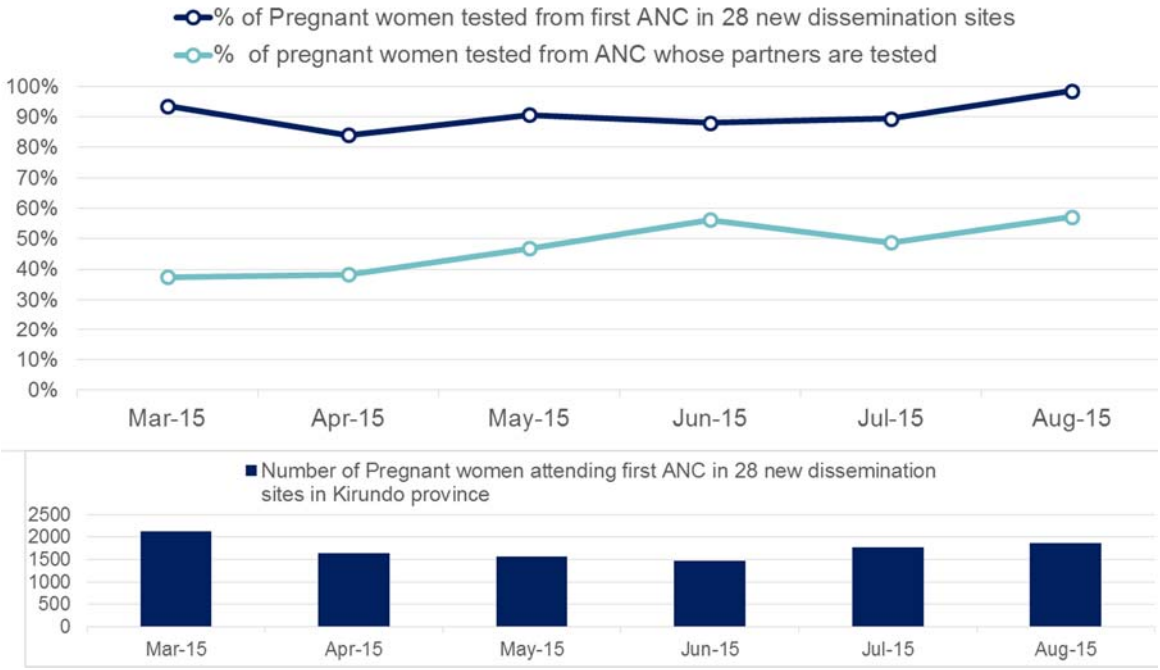


Figure 22: Burundi | Percentage of pregnant women and their partners tested for HIV during their first ANC visit, 28 scale-up sites, Kirundo Province (Mar – Aug 2015)



- **The ASSIST team is conducting gender-integration activities (see Table 23 in the Knowledge Management section).**

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (July 2012)	Last value (Sept 2015)	Change (percentage points)
Implementing a PMTCT improvement intervention in 8 provinces	% of pregnant women tested during ANC visits	47% (69 sites)	94% (69 sites)	47
	% of women attending ANC visits before 14 weeks	8% (67 sites)	42% (69 sites)	34
	% of partners tested (husbands or partners of enrolled women in PMTCT services)	0% (69 sites)	58% (69 sites)	58
	# of exposed children tested for HIV at 18 months	9 (70 sites)	225 (70 sites) October 2014 until Aug 2015	216 (number of children tested)

SUSTAINABILITY AND INSTITUTIONALIZATION

ASSIST is working closely with all levels of the health system, from the peripheral level through health districts and provinces level to the central level. This keeps a close link between the different levels.

ASSIST is actively engaging national policy makers, as well as provincial and district health managers in all phases on design and implementation of work, especially in collection, synthesis, and validation of the best practices as well as in change package elaboration/validation and dissemination. District and Provincial Health Management teams are regularly mentored on QI, with district coaches providing support to facility QI teams.

Furthermore, with other PEPFAR implementer partners, ASSIST is contributing to national health systems strengthening (HSS) efforts by building improvement capacity and by linking different complementary departments in this effort, including the National Health Information System (NHIS), the Human Resources Department (HRD), clinical/technical departments, and the planning/policy department. We expect that this synergistic approach will create the opportunity to design a National Quality Improvement Strategy.

COTE D'IVOIRE

BACKGROUND

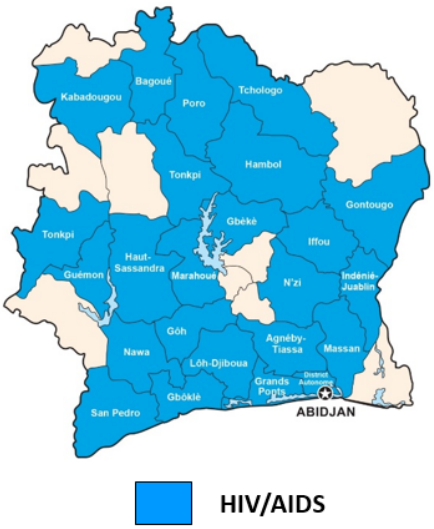
With funding from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the USAID ASSIST Project is working in Cote d'Ivoire in collaboration with the Ministry of Health (MOH) to:

1. Provide technical expertise to implementing partners (IPs) in the implementation of their HIV and AIDS improvement activities at PEPFAR-supported facilities.
2. Build the capacity of a newly established MOH quality improvement (QI) unit (*Direction Medecine Hospitaliere - DMH*) within the General Health Directorate (DGS) to strengthen the capacity for improving care at the central level.
3. Establish a quality improvement system in the four university hospitals.

Specifically, ASSIST is working towards building a QI approach into the health system in Côte d'Ivoire. Currently, there is no infrastructure to provide orientation and guidance to managers, or to manage QI in the health system. ASSIST is also working to improve health care service delivery to HIV-infected patients in health facilities and increase the retention rate for ART patients. ASSIST is providing technical assistance to the six PEPFAR clinical partners (ACONDA, ICAP, HAI, ARIEL, EGPAF, SEV-CI) to support the Côte d'Ivoire MOH in delivering high quality HIV care and treatment services. In addition, ASSIST provided technical assistance to PNLS (National Project Against HIV/AIDS) in the South Comoé Region.

Since 2013, the new USAID instruction to the USAID ASSIST Project approach is to work above-site while the six PEPFAR clinical partners provide direct support to health facilities. The role of ASSIST is to provide adequate technical assistance to PEPFAR partners so that they are able to support health facilities in producing quality health services and care. More recently, FANTA has also sought ASSIST technical support to apply QI to nutrition assessment, counseling, and support (NACS).

Scale of USAID ASSIST's Work in Côte d'Ivoire



MOH, DMH, DIPE, PNLS, 6 IPs , FANTA

23 out of 30 regions

60 facilities

60 QI teams

6 million out of 23 million

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Improve the quality of HIV and AIDS care and treatment services	
• Improve timeliness, continuity, effectiveness, efficiency, and patient-centeredness of provided services and their consistency with clinical guidelines through the improvement collaborative approach • Strengthen capacity of medical providers to provide safe, timely, continuous, effective and efficient medical care • Improve awareness on quality improvement experiences countrywide • Strengthen health information system to support development of evidence-based decisions on improvement quality of medical care • Ensure equitable access to priority "best-buy" high impact medical services in demonstration regions	Health Regions: 23 out of 30 Districts: 43 out of 82 districts in 23 Health Regions Facilities in selected districts: 11% (60 out of 529) Catchment population facilities/communities served: 6 million out of 23 million people served
2. Health systems strengthening	
• Strengthen leadership, management and planning of MOH quality improvement unit in coordinating quality improvement activity design and implementation • Establish QA/QI system in the 4 University Hospitals	Central Level University Hospitals (District Abidjan South, East and North; and Bouake) 60 primary health care facilities (in 43 health districts and 4 health regions) 60 quality improvement teams

= Improvement Activity = Cross-cutting Activity

Activity 1. Improve quality HIV/AIDS care and treatment services

OVERVIEW

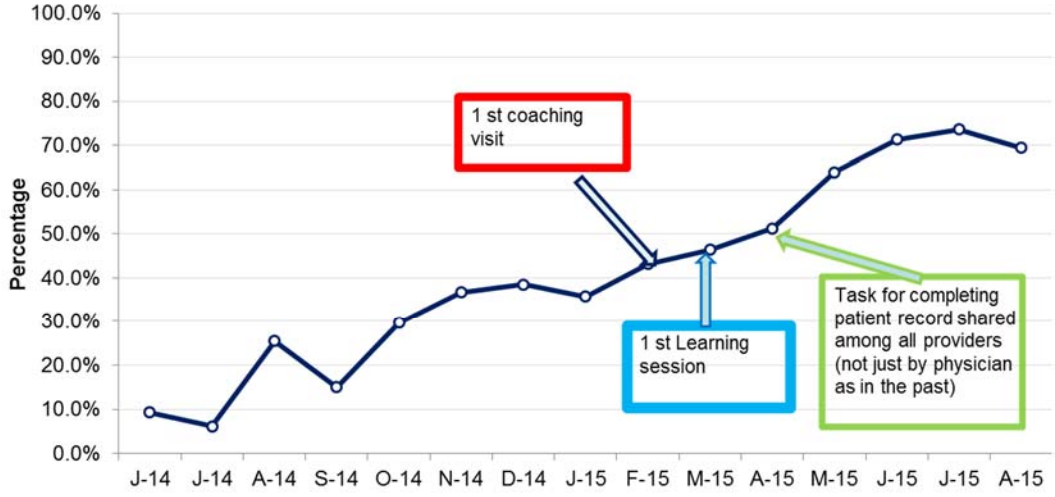
ASSIST is working to improve health care service delivery to HIV-infected patients in health facilities and to increase the retention rate for patients on ART. The project is providing technical assistance to the six PEPFAR implementing partners to improve their capacity to support the Côte d'Ivoire MOH in delivering high-quality HIV care and treatment services as well as PNLS.

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST conducted the second series of one-day coaching visits on health facilities with PEPFAR partners** (Oct -Nov 2014). The 10 sites of HAI were visited, while only six sites were visited for ACONDA. The ACONDA regional office duplicated the coaching visits for their remaining four health facilities. ASSIST was represented in all the coaching visits by at least one staff. As a result, the 16 QI teams developed a better understanding of the monthly performance assessment process and the drafting of the improvement plan. Finally, all PEPFAR partners except one (ARIEL GLASER) have organized their second coaching visits.
- **ASSIST was invited by Health Alliance International (HAI) to support testing of changes in three of their sites** (Nov 2014). During these sessions, assistance was provided to the QI teams on change testing through PDSAs and the changes surrounding documentation and respecting scheduled appointment visits.
- **ASSIST invited Dr. Maina Boucar to participate in the first workshop with all the counterparts of ongoing QI initiatives with PEPFAR** (Jan 2015). This was an opportunity to review ongoing collaborative initiative**,** and clarify the roles and accountability of each partner. USAID emphasized that ASSIST's work should be above-site while CDC partners' work is direct site support according to PEPFAR's vision of the partner's interventions in the country. Through technical assistance, ASSIST will build capacity among six PEPFAR clinical partners who have direct contact with facilities and are able to provide the necessary support required to implement QI activities. During the workshop, challenges related to this approach were discussed and ASSIST was asked to make sure that the collaborative QI approach is being used by PEPFAR partners in the field to improve sites' performances on the defined indicators.
- **ASSIST organized a quarterly QI technical meeting with the six QI focal contacts of the PEPFAR partners** (Jan 27, 2015). The main goal was to update the partners on activities that have been implemented and plan upcoming activities. Presently, the current QI initiative is being jeopardized by IPs who are not complying with their own plans and commitments. While sites are supposed to be testing changes, they are still developing their improvement plans and are not receiving the necessary guidance and assistance required from their partners. Sites are requesting support to move forward with the current QI initiative but the support is slow. Due to delays in allocating obligated funds, some partners are reorienting priorities to contracted activities reported in the MERS.
- **ASSIST organized a series of coaching visits through mixed teams (ASSIST and PEPFAR partners) at seven health facilities throughout five health districts** (Feb 2015): **HG Tanda et HG Kounfao (HAI), HG Anyama (EGPAF), HG Avocatier (ICAP), CHR Bouaflé, PMI Bouaflé and HG Zuénoula (SEV-CI) and in Abidjan, Aboisso, and Ayame** (Sept 7-9 2015). The aim of these sessions was to finalize the improvement plans and initiate testing of changes. As a result, ASSIST and the IPs received the changes planned for five health facilities coming from different partners.
- **ASSIST organized learning sessions for the two partners:** In March 2015, ASSIST held learning sessions for two partners EGPAF and ICAP. The goal of these learning session was to monitor the level of implementation of planned changes and the results that were obtained. At the end of these sessions, the 20 health facilities (from 14 health district departments of the country) finalized their improvement plans and developed change ideas and action plans.
- An additional seven learning sessions were organized jointly with the six PEPFAR clinical IPs: ICAP (26-28 August 2015), ACONDA (19-22 May 2015), SEV-CI (3-5 August 2015), HAI (31 August-2 September 2015), Ariel (16-18 June 2015 and 7-8 July 2015), and EGPAF (24-26 June 2015)

- **ASSIST organized a series of site visits for data verification in 15 health facilities in seven health districts** (Jan – March 2015). The aim of this activity was to ensure the quality of the data ASSIST received from health facilities. After the verification, the results were presented to the QI teams so a review of mistakes could be performed. Corrections were done on the data, and refresher training was provided to local QI teams for a better understanding of indicators computation for the coming months. The reporting process was again explained to the local staff, as the reporting data has proven to be a challenge.
- **Data reported by the sites that ASSIST was able to coach with implementing partners** (**Figure 23** and below under "Improvement in Targeted Indicators") **shows continued gains.**
- **Two coordination meetings were organized with all six IP to discuss new PEPFAR requirements and expectations for how they will work with ASSIST** (Aug 14 and Sept 25, 2015).

Figure 23: Côte d'Ivoire | Percent of client records with all items filled in (June 2014-Aug 2015)



numerator	27	10	69	12	89	22	127	25	138	142	159	160	164	162	125
denominator	290	162	271	80	300	60	330	70	320	306	310	250	230	220	180
%	9%	6%	25%	15%	30%	37%	38%	36%	43%	46%	51%	64%	71%	74%	69%
nb of sites	26	16	27	8	29	5	31	7	32	31	31	25	23	22	18

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (January-March, 2014)	June 2014	Sept 2015	Change (percentage points)
Improve Quality HIV/AIDS care and treatment services in Côte d'Ivoire	% of client records with all items filled % of HIV+ patients eligible to ART and initiated on ART	6% (58 sites)	3% (13 sites)	67% (18 sites)	61
	% of HIV+ patients eligible for ART and initiated on ART	98% (50 sites)	100% (13 sites)	96% (18 sites)	-2
	% of HIV+ patients who are screened for tuberculosis during clinic visit	50% (50 sites)	68% (13 sites)	97 % (17 sites)	47
	% of HIV+ patients on ART seen in the review period	51% (47 sites)	75% (13 sites)	87% (18 sites)	36
	% of infants born to HIV+	53%	29%	53%	0

Activity	Indicators	Baseline (January-March, 2014)	June 2014	Sept 2015	Change (percentage points)
	mothers tested by PCR prior 2 months and with PCR result	(24 sites)	(13 sites)	(13 sites)	
	% of HIV+ pregnant women with baseline CD4 test performed in the first month of diagnosis	50% (52 sites)	66% (13 sites)	55% (7 sites)	5
	% of infants born to HIV+ mothers who are still in care in the review period	42% (30 sites)	4% (13 sites)	70% (13 sites)	28

Activity 2. Health systems strengthening

OVERVIEW

In November 2014, the former QI department, *Service de la Promotion de l'Assurance Qualité en Santé* (SPAQS), was dissolved after being operational for five years. One mandate of ASSIST is to support the MOH to build a QI approach within the current health system. During a policy meeting held in February 2014, it became apparent that there was little engagement on QI in health care settings in the country. In addition, there was no infrastructure to lead the QI process and develop the QI system so that it could be integrated into the national health system. In February 2015, a new MOH department, *Direction Medecine Hospitaliere* (DMH), was put in place which will be responsible for QI, with new leadership and a new organizational structure.

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST participated in the editing and review of the National HIV AIDS Standard Operating Procedure document for health facilities and communities** (Oct–Dec 2014). The documents are the first of their kind, which will serve as reference documents for the provision of quality of HIV care and services to patients in Cote d'Ivoire.
- **ASSIST participated in a series of meetings with MOH representatives to look into the best infrastructure to put in place to lead and build QI approach within the current health system** (Jan–Mar 2015). As of result, the new infrastructure has been approved by the MOH and the heads of departments are appointed. ASSIST and this new department agreed on the following activities to be completed during FY15:
  - Development of a policy document for quality improvement in Cote d'Ivoire
  - The development of National Quality Improvement Strategic Plan 2015 – 2020
  - Organization of meetings to sensitize health managers on building QI systems and initiating QI activities in health care settings
  - Capacity building of new QI unit staff on QI methods and performance monitoring
- **ASSIST participated in a MOH-led initiative to collect baseline information on the national infrastructure to support quality assurance for care and health services and patient safety** (March 2015). This assessment was supported and performed by the African Health Organization through the Cote d'Ivoire MOH. This will be an opportunity for ASSIST and MOH to announce the development of the national QI policy document.
- **ASSIST initiated a national quality policy document** (Aug 2015). ASSIST worked with the MOH DMH to create a technical group to lead the process. The group reviewed all existing QI and related documents in the country and has developed and field-tested a questionnaire to collect complementary information.
- **ASSIST began new support to FANTA sites to apply QI to NACS** (Oct 2014, Jun-Aug 2015) ASSIST held a series of discussions with FANTA to support them in applying QI methods to improve the quality of NACS services for PLHIV and OVC. FANTA selected 11 high-volume sites that it supports in different part of the country (Dabou, Abengourou, Bouaflé, Issia, Oumé, San

Pedro, and Abidjan) to pilot the QI activities and together with ASSIST and the MOH, selected performance indicators that it will track:

- Percentage of PLHIV/OVC whose nutritional status was assessed through anthropometry
- Percentage of PLHIV/OVC whose nutritional status was classified
- Percentage of PLHIV/OVC whose nutritional status was assessed
- Percentage of PLHIV who received nutritional counselling
- Percentage of malnourished OVC who received nutritional treatment.

FANTA conducted baseline measurements in the 11 sites, and in June 2015, ASSIST organized jointly with FANTA the first learning session for these teams, held in Yamoussoukro. In July and August, ASSIST conducted joint coaching visits with FANTA to the sites in Abidjan.

SUSTAINABILITY AND INSTITUTIONALIZATION

The USAID ASSIST Project is building the capacity in QI methods and principles of key MOH staff and QI units: *Direction Medecine Hospitaliere* (DMH), National HIV/AIDS Care and Treatment Program (PNLS), and the National Health Information System (DIPE). ASSIST is helping to create a critical mass of competent health providers using QI concepts at the health facility level; helping to develop a network of QI experts to allow experience and best practice sharing; and promoting the transfer of QI competencies to PEPFAR IPs and health facility staff. ASSIST is also participating in building a QI system by engaging the MOH in the development of national policy documents on QI and standard operating procedures for HIV care and service delivery.

DEMOCRATIC REPUBLIC OF CONGO

BACKGROUND

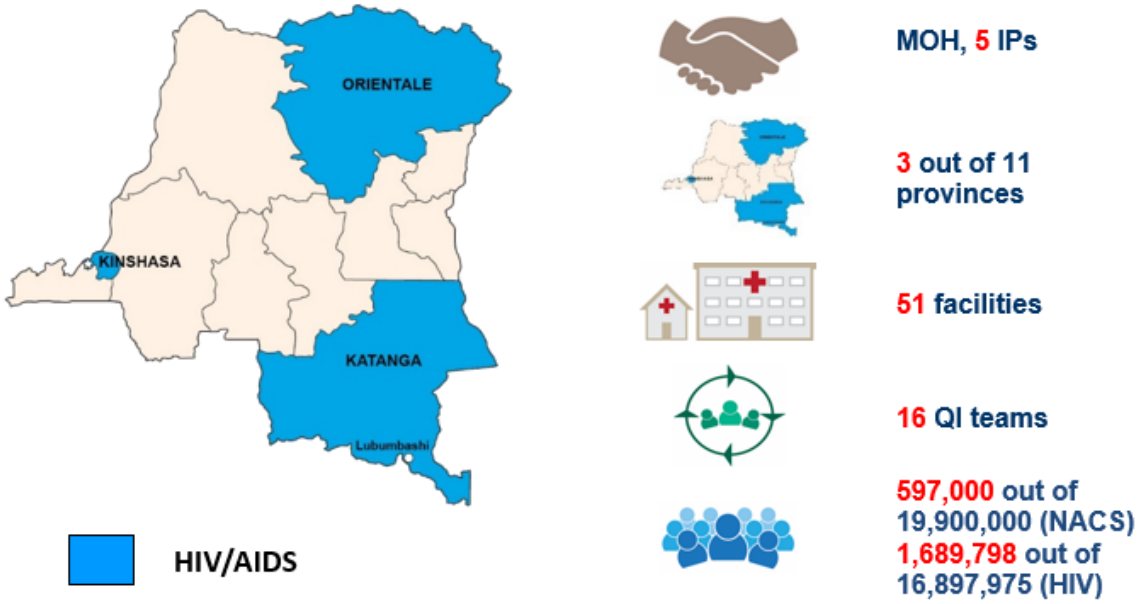
Since FY14, ASSIST has been supporting the MOH in the Democratic Republic of Congo (DRC) to improve nutritional services for HIV clients through the integration of nutritional assessment, counseling, and support (NACS) into HIV care and treatment. This intervention, led by ASSIST in close collaboration with other USAID implementing partners (FANTA/FHI, LIFT/FHI and ProVIC/PATH), follows a successful partnership from 2012-2013 with ProVIC on improving the quality of prevention of mother-to-child transmission of HIV (PMTCT) services in four health facilities in Kinshasa.

For FY15, USAID/PEPFAR in the DRC was tasked with:

- Improving nutritional services for HIV clients through strengthening gains in NACS and scaling up best practices to new sites in partnership with FANTA and LIFT in Kinshasa and Katanga provinces
- Improving PMTCT services and retention in care and assuring good adherence to therapy for persons living with HIV (PLHIV), including children and key populations in target facilities, in collaboration with ProVIC and PROSANI in Kinshasa and Katanga provinces

The specific type of service to focus on will be district-based in accordance with each IP's technical content. ASSIST will be fully responsible for all improvement activities in targeted facilities. ASSIST will focus on high-impact interventions to maximize epidemic impact through quality management of prevention and care, targeting groups with high burden of disease, and support to strengthen health systems.

Scale of USAID ASSIST's work in the Democratic Republic of Congo



PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Quality improvement technical assistance for integrating NACS into HIV care and treatment services	
Improve management and nutritional status of malnourished HIV clients by: • Integrating NACS into facility-based ART, PMTCT and maternal, newborn, and chld health (MNCH) services	Provinces: 2 out of 11 (Kinshasa and Katanga) Districts: 6 out of 13 in 2 provinces Facilities in selected districts: 16 out of 494 (3%) Catchment population: 597,000 out of 19,900,000
2. Quality improvement technical assistance to HIV care and treatment activities	
• Improve retention in care for PLHIV in target facilities in Kinshasa, Orientale, and Katanga provinces in close partnership with key IPs • Improve adherence to therapy for PLHIV in target facilities in Orientale and Katanga provinces in close partnership with key IPs	Provinces: 2 out of 11 (Orientale and Katanga) Districts: 5 out of 17 in 2 provinces Facilities in selected districts: 35 out of 335 (10%) Catchment population: 1,689,798 out of 16,897,975
3. Building capacities at all levels in QI and related health system strengthening	
• Strengthen the capacities of national, provincial and district health managers and care providers to apply improvement skills	Institutionalization of QI within the health system and reinforcement of managers and providers capacities in QI at National HIV Program (PNLS), provincial and district levels

= Improvement Activity = Cross-cutting Activity

Activity 1. Quality improvement technical assistance for integrating NACS into HIV care and treatment services

OVERVIEW

Nutritional status can influence the health status of PLHIV on antiretroviral therapy (ART). While

doing HIV case management in health facilities in DRC, nutritional assessment and care are often overlooked by providers. In rare cases where the nutritional assessment is made, the quality of services is poor due to a lack of skills or equipment or by poor organization of services. The partnership of FANTA, LIFT, and ASSIST in NACS has helped raise awareness and improve outcomes in order to systematically ensure that every PLHIV receives evaluation and classification of nutritional status, counseling, and suitable support according to his or her nutritional status. Best practices will be identified at the end of the initial phase of the collaborative improvement approach, which will then be used for spread on a larger scale.

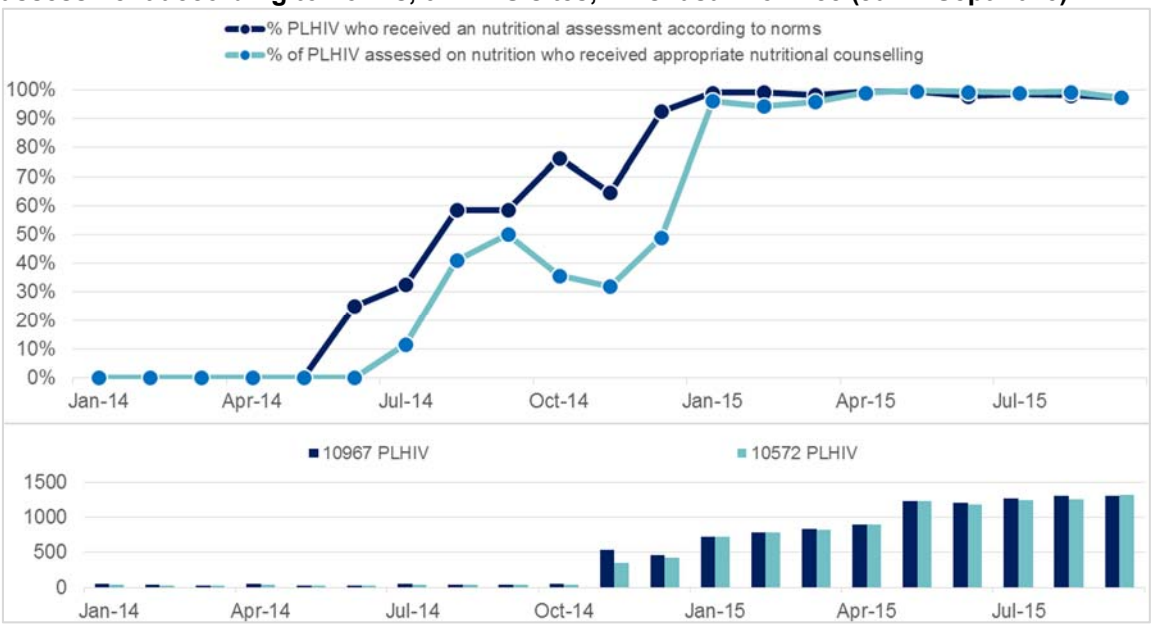
This work focuses on increasing the proportion of PLHIV evaluated for nutritional status, who receive nutritional counseling, and the proportion of pregnant women, HIV-exposed children, and lactating women who are classified nutritionally.

KEY ACCOMPLISHMENTS AND RESULTS

- **Facilitated a training of providers and coaches in NACS and QI, which helped develop a coaching program** (Jun 2014).
- **District and Health Zones coaches alone conducted coaching visits** (Oct–Dec 2014).
- **Jointly with FANTA and LIFT, ASSIST conducted a supervisory coaching in some sites in Kinshasa and Lubumbashi** (Dec 2014).
- **Organized the first coaches' meeting in Kinshasa and Lubumbashi** (Dec 2014). Discussions were on their coaching experience, functionality of QI teams, ideas tested and changes implemented, and challenges and constraints faced by QI teams. The opportunity was used to strengthen their capacity in QI, data validity, performance analysis, and documentation of changes.
- **Organized the first learning session in Kinshasa and Lubumbashi** (Dec 2014). Representatives from sites shared their work including changes implemented, the level of their performance, and challenges encountered.
- **ASSIST helped reformulate the aims of the project** based on the SMART process in conjunction with the MOH and the two main PEPFAR partners (FANTA and LIFT) (Dec 2014).
- **Conducted two coaching visit along with the PNLS and the National Nutrition Program to help develop a sound QI plan and to guide QITs to identify changes and testing** (July and Sept 2015).
- **ASSIST team is collecting and analysing sex-disaggregated data (see Table 23 in the Knowledge Management section).**
- **Two coaching visits took place with ASSIST, FANTA, LIFT and ProVIC to review compliance with NACS norms and the environment to support quality NACS services** (Jul and Sept 2015). ASSIST organized two meetings in Kinshasa and Lubumbashi to discuss data quality, and draw up lessons learned that should be shared with sites and coaches (June and July 2015). **Figure 24** shows that changes tested yielded significant improvement. Changes tested included the following:
    - The assessment of children under-five and PLHIV
    - The classification of PLHIV
    - Individual nutrition counseling
    - The patient registration and NACS reporting activities
    - The introduction of anthropometric measurements for the evaluation
    - Extension of the activity to PLWHA pregnant women and children exposed
    - The use of MUAC
    - The calculation of BMI for all patients
    - Cooking demonstrations
    - The expansion of the nutrition assessment to MNCH unit and reception
    - Patient record card was changed for anthropometric measurements are taken routinely for all patients
    - Mass nutritional counseling
    - Every PLHIV must have anthropometric measurements on the back of his ARV drugs prescription before provision at the pharmacy
    - Modification of PLHIV system more room in the waiting room, reception

- Establishment of a one HIV-nutrition shop services: the whole package is done to a single point by a nurse dedicated to HIV activities to reduce the time to stay and fill the gap coverage
- Introduction of FP services in the counseling box to reduce the risk of stigmatization of NACS beneficiaries.

Figure 24: Democratic Republic of Congo | Percent of PLHIV who received a nutritional assessment according to norms, 9 NACS sites, Kinshasa Province (Jan – Sept 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value September 2015	Change (percentage points)
NACS	% PLHIV who received an nutritional assessment according to norms in Kinshasa Province	0%	100% (9 sites)	100
	% of PLHIV assessed on nutrition who received appropriate nutritional counselling	0%	100% (9 sites)	100

Activity 2. Quality improvement technical assistance to HIV care and treatment activities

OVERVIEW

ASSIST has begun a care and treatment intervention in DRC. During the past four months, protocols and assessment tools were developed, training of trainers and data assessors performed, and data were collected in all 38 sites in the three target provinces of Kinshasa, Orientale, and Katanga**.**

KEY ACCOMPLISHMENTS AND RESULTS

- **Built consensus with USAID/PEPFAR in DRC, key IPs and MOH on ASSIST target content, provinces, and sites** (Dec 2014).
- **Developed an assessment protocol for care and treatment with the main objective to evaluate quality of care provided to PLHIV** (Jun 2015).

- 38 sites evaluated in three provinces (Kinshasa, Orientale and Katanga provinces) including 10 general hospitals, three provincial hospitals, 18 peripheral health facilities, five referral health facilities and two hospitals centers. Among these sites, 16 were urban, seven rural and 15 urban-rural; 4,560 patient charts were reviewed (Jul 2015).
- Main areas of focus of the baseline assessment include: enrolment to treatment, adherence to initial assessment norms, adherence to clinical, treatment and follow up norms, adherence to ART treatment for PLHIV, adherence to appointments, drugs procurement and retention in care, and quality environment of sites;
- Seven assessment tools were used (general information, interview with the PMTCT responsible; adherence to initial evaluation norms for HIV+ patients, adherence of follow up for adults patients on ART, six-months trends for some indicators, chart reviews for a cohort of patients on ART, and chart reviews for a cohort of patient on pre-ART).

- The data from the baseline assessment is currently being analyzed.

Activity 3. Building capacities at all levels in QI and related health system strengthening

OVERVIEW

ASSIST actively continued to engage national policy makers and provincial and district health managers in all phases of the improvement work. Building their capacity will have many effects:

- They own the system and should doing any intervention to improve it
- They live within the system so they understand more clearly the barriers
- They should assume sustainability for planning, mobilizing resources, and creating partnerships

Once ASSIST is fully established in the DRC, local managers and coaches, with support from ASSIST, will be responsible for implementing plans for improving quality of all of the target services. Each team will be provided with sufficient support so that they will be able to conduct improvement activities independently of ASSIST staff members to address ongoing technical and systems level gaps. Building capacity from lessons learned and from the institutionalization of these practices will strengthen the health system at all levels and will provide information and evidence to inform strategic planning at the district, provincial, and central levels.

KEY ACCOMPLISHMENTS AND RESULTS

- **Developed capacity of district supervisors as coaches for NACS activities** (June 2015).
- **Oriented IP supervisors in coaching and NACS data management** (May 2015).

ASSIST focuses on the MOH at all levels through the adaptation of interventions based on contents and activities at each level:

- For the policy and strategic level, improvement will work on conceptualization of improvement strategies. These include: 1) defining a clear quality improvement policy guidance and basic principles; 2) analyzing systems and processes to identify quality gaps for which decentralized levels should be directed; 3) developing roles and responsibilities for QI implementing partners (IPs) and stakeholders at each level, from the national to the point of service delivery, to communities and consumers. This will be done on the basis of evidence-based packages or standards that are aligned with the national objectives. This exercise, among others, will help the central MOH to evaluate if it is up-to-date on norms, if quality gaps exist, and if gaps exist, to target them for an improvement process. In DRC, ASSIST will work closely with the central MOH, the AIDS control program, as well as general health decentralized structures.
- For the decentralized levels, ASSIST will focus on barriers and change concepts and support providers to adapt change ideas to their own setting to overcome barriers through their own ideas.

ASSIST will work closely with national and decentralized MOH representatives to ensure that improvement work reflects and is well integrated into routine MOH functions, including routine care and health management, reporting, in-service education, and supervision. All coaches will be national, regional and district supervisors or reproductive health (RH)/family planning (FP) trainers.

EAST AFRICA REGION

BACKGROUND

On October 2011, stakeholders from 13 African countries took formative steps towards the development of a quality improvement competency framework at the Regional Consultative Workshop for Health Care Improvement in Kampala, Uganda. This forum was convened by the Regional Center for Quality in Health Care (RCQHC) with the support of USAID/East Africa, USAID Washington, the Centers for Disease Control and Prevention (CDC), and HCI. In 2012, the RCQHC requested technical assistance from USAID/East Africa and the USAID ASSIST Project to further develop, refine, and validate the competency framework. ASSIST employed a structured methodology to develop a tool that was not only technically robust, but also relevant and user-friendly, so that it could offer the strongest foundation for competency-based education and training for health workers.

The PEPFAR 3.0 Human Resources for Health strategy emphasizes strengthening of pre-service training institutions and the use of QI as a performance improvement strategy. The development of a competency framework for improvement and inform pre-service and in-service training, workforce strategy planning, and performance review, among other things. A workforce that is more competent in improvement can identify problems with care and improve them leading to better health outcomes.

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Technical assistance and support to the RCQHC to develop and validate a Health Quality Improvement Core Competency Framework	
• Build RCQHC capacity in methodologies to develop, validate, and apply competency frameworks • Provide technical guidance at each stage of the development and validation process	East Africa Region

Cross-cutting Activity

Activity 1. Technical assistance and support to the RCQHC to develop and validate a Health Quality Improvement Core Competency Framework

OVERVIEW

In early 2013, ASSIST began to provide technical assistance and mentorship to the RCQHC in developing a competency framework using a Delphi process. ASSIST supported the RCQHC conduct an initial workshop to develop a framework and first round of expert reviews and revisions in 2013 and 2014. Because RCQHC's funding has ended, ASSIST has taken over managing the second round of expert reviews, revisions, and a review for face validity.

KEY ACCOMPLISHMENTS

- The second round of expert review took place from January to February 2015.
- Reviewers' comments were compiled in March 2015 and we achieved agreement of reviewers to complete the Delphi process.
- Final revisions were made to the document, which was sent to RCQHC in July 2015 for final approval to publish.

The sustainability strategy is two-fold: 1) to build the capacity of RCQHC in developing competency frameworks so they can provide assistance to MOH or other groups in the region; and 2) to develop an improvement competency framework that can be utilized by MOHs, medical training institutions, implementing partners and others to assess and address competency gaps in health workers.

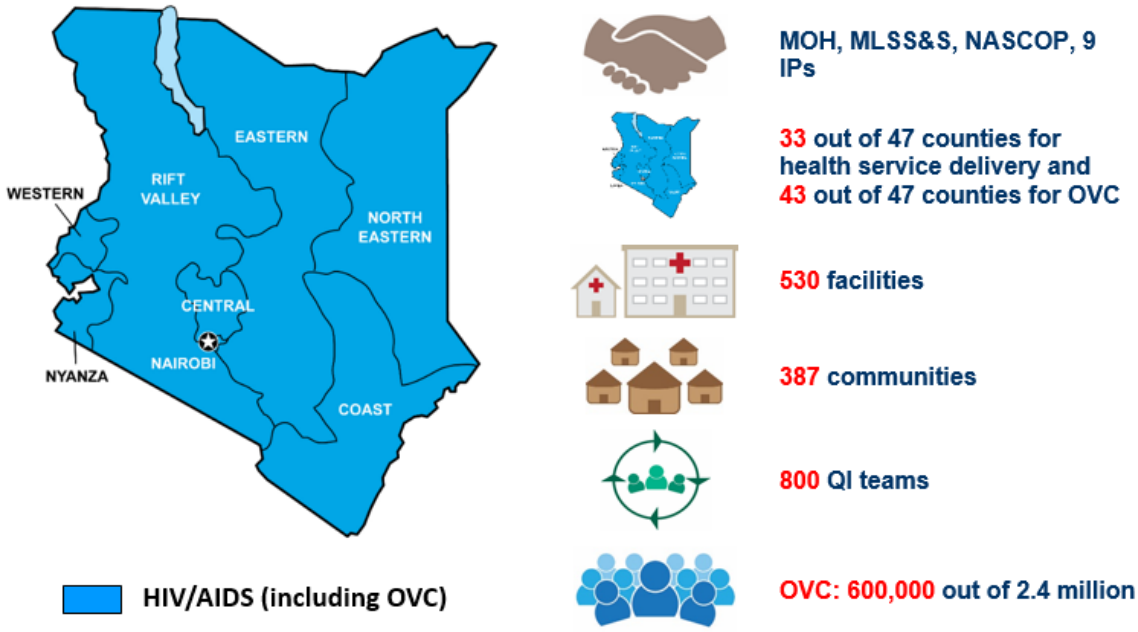
KENYA

BACKGROUND

ASSIST began working in Kenya in October 2012, building on the work of HCI. In Kenya, ASSIST supports the MOH; the Ministry of Labor, Social Security and Services (MLSS&S); the National AIDS and STI Control Program (NASCOP); United States Government implementing partners (IPs); and county governments to design, develop, and implement strategies that will enhance the quality of health service delivery. ASSIST works to improve maternal neonatal child health (MNCH) and reproductive health services in order to reduce maternal and neonatal deaths; malaria programs in order to improve case management and strengthen the national program; HIV care and treatment, and the care of orphans and vulnerable children (OVC) in the country in order to support PEPFAR 3.0 goals.

The project design for ASSIST Kenya is divided into two phases. Phase 1 (Jan 2013- Mar 2014) involved the development of national frameworks to support institutionalization of QI and developing change packages through the centers of excellence (COEs) aimed at harvesting change ideas that can be scaled up across Kenya. Starting in April 2014, during Phase 2, ASSIST began the scale-up of QI as well as completion of the national frameworks for institutionalizing improvement.

Scale of USAID ASSIST's Work in Kenya



PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Ownership and Institutionalization of Quality Improvement (QI) at the National Level	
• Support development of a national QI policy, standards, and syllabus • Strengthen national systems that support application of QI techniques to improve integrated health outcomes	• County and national level
2. Capacity Development in QI	
• Provide training on the science of improvement and develop quality improvement teams (QITs) and work improvement teams (WITs) in facilities from high volume sites in collaboration with the USAID Kenya service delivery partners including AIDS, Population and	• County level reaching 33 counties

Health Integrated Assistance (APHIA+s), AMPATH+ and COGRI, to drive the scale-up of QI	
3. HIV Care and Treatment	
• Provide QI TA to county governments and the USAID Kenya service delivery partners including APHIA+, AMPATH+, and COGRI to strengthen and improve the HIV chronic care model and to enroll and retain more adults and children in HIV care and treatment	• National • 5 priority counties, at least 10 high-volume facilities per county • At least 6 USAID funded partners (APHIA+ partners)
4. OVC and Child Protection	
• Strengthen systems at county and national government levels to support the institutionalization of QI in child protection and OVC programs to improve the welfare of children • Provide TA to county governments, the USAID Kenya service delivery partners including APHIA+, AMPATH+ and COGRI to apply QI techniques to strengthen care for OVC and their households	• National: 43 of 47 counties sites and 9 USAID-funded partners and MLSS&S
5. Maternal and Neonatal Child Health (MNCH) and Reproductive Health (RH)	
• Provide QI TA to county governments and the USAID Kenya service delivery partners including APHIA+, and AMPATH+ to improve and strengthen MNCH and RH services in Kenya	• County levels (5 counties, 46 facilities) • National
6. Malaria	
• Apply QI techniques and in collaboration with county governments and USG implementing partners, strengthen capacity in program management to achieve malaria program objectives at all levels of the health care system	• County and service delivery levels • National

= Improvement Activity = Cross-cutting Activity

Activity 1. Country ownership and institutionalization of QI at the national level

OVERVIEW

The Kenya 2010 Constitution enshrined health as a right of every Kenyan. In addition, various policy documents and legal frameworks exist to support the achievement of 'healthcare for all'[2]. Although quality of health service is implied in these documents, efforts are needed for better coordination by developing a comprehensive plan that is explicit about what needs to be improved, how improvements will occur, and what targets are to be achieved. The MOH identified this as a gap and the Kenya Health Quality Improvement Policy (KHIP) was subsequently developed through an evidence-based and consultative process under the stewardship of the government. The KHIP identified six priorities (strategic objectives) to address priority challenges in improving quality and safety. The policy will inform current and future health sector efforts and strategies to improve, institutionalize, and standardize quality improvement.

To provide leadership for the scale-up, ASSIST, through MOH's Directorate of Health Standards, Quality Assurance and Regulations (DHSQAR), has liaised with county health managers and other key MOH Directorates to ensure systems exist to identify and address problems in health service delivery, quality and policies to support these.

[2] The Constitution of Kenya 2010, Vision 2030, the Kenya Health Policy 2012-30, the KNHSSP III, Kenya Quality Model for Health, KASF 2014-19 and the draft Health Bill 2012.

KEY ACCOMPLISHMENTS AND RESULTS

Health QI Policy and Service Delivery:

- **ASSIST has been working with the Directorate of Health Standards, Quality Assurance and Regulations under the MOH and has developed several products including:**
  - *Kenya Health Quality Improvement Policy:* Draft Health Improvement Policy and QI standards were developed with the assistance of ASSIST through a consultative process that included a policy validation meeting held in October 2014 and a draft policy review meeting held in February 2015.The draft KHIP focuses country's efforts to improve health service delivery quality on six priorities and has been reviewed by stakeholders and is awaiting MOH sign off.
  - *Clinical practice guidelines:* a web portal containing clinical practice guidelines was developed (Feb 2015) which hosts all clinical practice guidelines after they are reviewed. On June 24, 2015, the cabinet secretary for health officially launched the website: (http://guidelines.health.go.ke/).
  - *Integration of improvement science into pre-service medical training*: In collaboration with the MOH and FUNZO Kenya, ASSIST started working with four medical training institutions (Kenya Medical Training College, Moi University, University of Nairobi and Kenya Methodist University) and the regulatory bodies, towards integrating improvement science at the core curricular for the various cadres. During the quarter, a ministerial pre-service training subcommittee on quality improvement was established to lead this process.
  - *Health accreditation framework for the country:* ASSIST supported the MOH to initiate preliminary steps towards developing an accreditation framework for the health sector. A technical working subcommittee (subcommittee to the QI TWG) at the MOH was established to spearhead process.
  - *Universal financing strategy formulation:* The MOH has embarked on developing a strategy that will guide the rollout of universal access and financing to health. This strategy has several components, including strategic collection of funding to finance the strategy, pooling of the funds, strategic purchase of services, and mandatory CQI as part of the board accreditation strategy. ASSIST leads the subcommittee that oversees the mandatory CQI section of the strategy
- **Supported the national Emergency Obstetric and Neonatal Care (EmoNC) technical working group in formulating the QI process indicators** (Feb 2015). These have been adopted and form part of core assessment in the ongoing USAID-driven EmoNC scale up in Kenya across 18 counties with the highest maternal mortality rate.
- **Finalized the Kenya HIV QI framework for NASCOP and training package** (March 2015). ASSIST supported NASCOPto develop and finalize a national Kenya HIV quality framework and training package that has since been rolled out in the country.

OVC and Child Protection:

- **Supported the National Council for Children (NCCS) in the development and finalization of the National Plan for Children (NPA) that was launched on June 29, 2015.**
- **Supported the NCCS to develop a directory of service providers for children services.** Data collection in 45 of the 47 counties was finalized and data entry carried out in May 2015. The national service providers' directory was launched in June 2015.
- **Supported the Department of Children Service (DCS) to hold meetings with select partners to carry out a pre-test of the psychosocial support (PSS) guidelines** (March – Sept 2015). Guidelines were pretested in Embu, Nakuru, Malindi, Siaya, Uasin Gishu, Nairobi and Busia counties.
- **Continued supporting USAID partners in mainstreaming QI at the point of service delivery.**

Activity 2. Capacity development in QI

OVERVIEW

ASSIST continued offering TA to county governments and USG funded partners on:

- Capacity building of county, partners, and facility teams on actively applying improvement to address quality gaps in HIV and AIDS care and treatment

- Scaling up tested change packages that address quality of care gaps which will include:
  - Integration of HIV testing and counseling (HTC) to the routine care of clients
  - Establishing linkage systems at various HTC points for active HIV-positive clients referral
  - Strategies for retention to care of clients in Comprehensive Care Centers (CCCs)

KEY ACCOMPLISHMENTS AND RESULTS

- **Supported NASCOP PMTCT program with facilitation of one PMTCT master Training of Trainer (TOT) training** (Jan 26-30, 2015). Forty-eight master trainers (from various counties and implementing partners) were taken through the newly developed bridged PMTCT training curriculum with emphasis on monitoring PMTCT performance at the facility level.
- **Conducted sensitization meeting for county, sub-county health managers, and facility in-charges from select high volume facilities**, in Uasin Gishu County supported by AMPATH (Feb 13, 2015).
- **Trained Lea Toto Children of God Relief Institute (COGRI)-supported pediatric HIV care targeting staff from the eight clinics in Nairobi** (Mar 23-26, 2015). Forty participants (7 clinicians, 9 nurses, 1 counsellor, 1 social worker, 7 nutritionists, 4 pharmaceutical technologists, 2 M&E officers and 8 administrators) were trained.
- **ASSIST trained Health Right and Elgeyo Marakwet County on QI** (Feb 23 -27, 2015). Health care workers from nine facilities and five staff of Health Right International were trained in QI
- **From April to September 2015, ASSIST supported the APHIA+ implementers and county governments by:**
  - Organizing a QI training for the APHIA technical teams and CHMTs, as well as providing ongoing mentorship and support.
  - Developing a QI scale-up strategy within the project sites.
  - Identifying, training, coaching and building the capacity of work improvement teams (WITs) in each of the selected facilities.
  - Conducting a gap analysis and matching the gaps with the change ideas tested and documented from the COEs with the plan of scaling up the methodologies and the changes in the subsequent quarters.
  - *APHIA+ Nairobi-Coast & Nairobi County*: Two QI continuing medical education (CME) were held bringing together the county QI coaches providing support to 10 high caseload facilities.
  - *APHIA+Nairobi-Coast (Kwale & Taita Taveta counties):* Two QI CME (one in each county) were supported involving the partner and 20 high caseload facilities.
  - *APHIA+ Imarisha (Marsabit & Isiolo County):* ASSIST supported the project to carry out post-training QI assistance in Isiolo and Marsabit county managers.
  - *APHIA+ Kamili (Kitui & Makueni counties):* ASSIST supported APHIA+ Kamili in disseminating the new emergency obstetric and newborn care (EmONC) tool to Makueni County. The tool includes process of care (QI) indicators. ASSIST further supported APHIA+ Kamili, providing direct support to the county improvement coaches and managers from 10 high volume facilities in Kitui.
  - APHIA+ Western Kenya (Siaya, Busia & Kakamega): Supported each of the sub-counties (22 sub-counties) in Malaria QI focusing on case management.

Activity 3. HIV care and treatment

OVERVIEW

ASSIST works in HIV care and treatment by strengthening the HIV chronic care model in select counties across the APHIA Plus service delivery mechanisms. ASSIST has also been supporting the elimination of mother-to-child transmission of HIV (eMTCT) through the Partnership for HIV-Free Survival (PHFS) model in Kwale County. ASSIST HIV care and treatment support was conducted jointly with USG IPs in applying tested change packages to improve the HIV chronic care model in order to enhance enrollment and retention of more adults and children in HIV care and treatment.

PHFS interventions focused on supporting sites to apply the science and model of improvement to:

- Address quality gaps in eMTCT

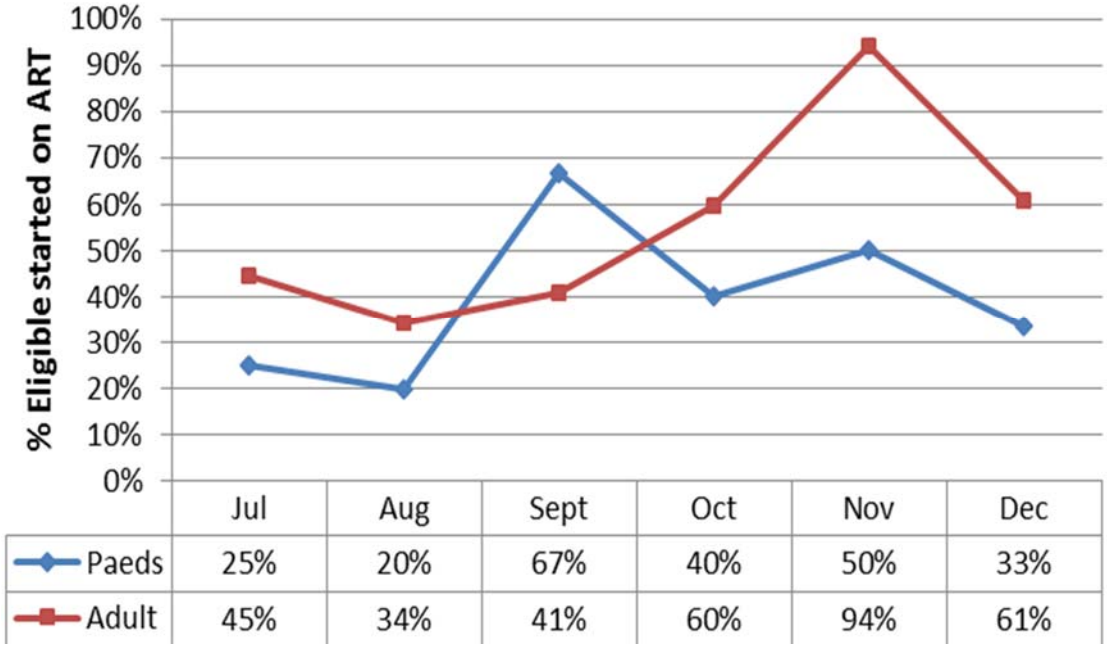
- Encourage mother-baby pairs to begin treatment immediately after the mother tests positive at ANC, with targeted follow-up for such clients from then onward
- Open and manage a joint file for each mother-baby pair; integrating HIV CCCs and PMTCT at MCH clinics
- Provide psychosocial support (PSS) through mentor-mothers (expert patients with additional training)
- Encourage mothers to support active screening for HIV-exposed mother-baby pairs at all entry points (outpatient department, labor and delivery, MCH, CCC) and linking them back into to care

KEY ACCOMPLISHMENTS AND RESULTS

APHIA Plus Nairobi

- Continued to support the county QI coordinators by holding monthly meetings to follow up on work plans developed during the QI training held in September 2014.
- Conducted monthly facility level mentorship at Mbagathi District Hospital (high HIV caseload facility) to follow up on the HIV care and treatment and EMTCT baseline assessment conducted after the QI training held in September 2014.
- Supported the WIT conduct a process flow analysis of clients within the CCC and developed a more efficient client flow to ensure that all clients seen are triaged and that the filtering of patients is done (Jan 2015).
- Helped the CCC WIT conduct a baseline assessment and select the key indicators for improvement.
- A root cause analysis was conducted showing that there was a delay in filing of CD4 results in the patients' files and delayed treatment preparation sessions. The following change ideas were suggested: CD4 results were filed by data clerks immediately after being received from the lab; structured treatment preparation sessions were introduced; line list of all clients eligible for ART was to be produced at the end of the week to allow flagging of files.
- **These changes resulted in an increase in pediatrics started on ART from 20% at baseline to 33% over six months and adult ART initiation from 45% to 61% over the course of six months (Figure 25).**

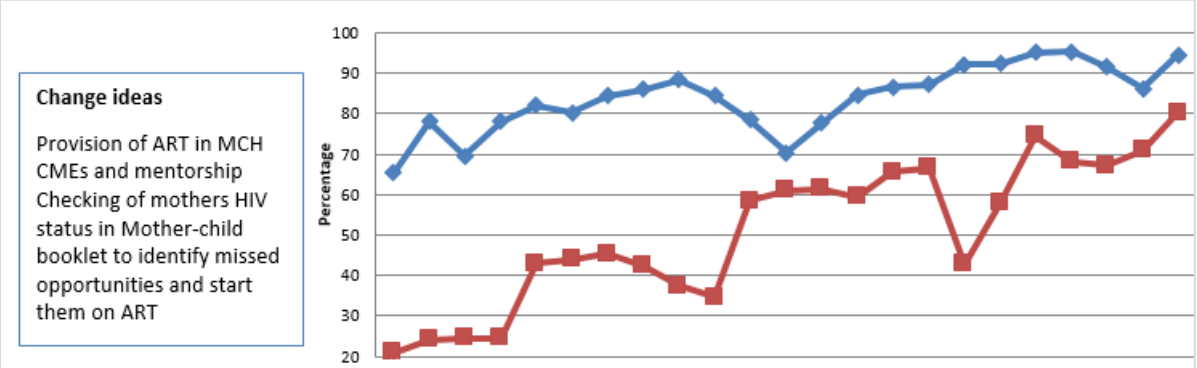
Figure 25: Kenya | Percent eligible for ART, started on ART, Mbagathi Hospital (July 2014 – Dec 2014)



PHFS (Kwale County, APHIA Plus Nairobi- Coast)

- **Supported implementing partner in improving documentation and supporting QI activities at the 13 facilities, supported a PHFS learning session; and conducted QI data validation in 11 of the 13 facilities** (Q1-2, FY15). ASSIST conducted a DQA of PHFS data by going to the source documents (i.e. HEI register, patient files and mother-baby pair register). The HEI register and patient files were up to date in only three of 11 facilities visited. The mother baby- pair register was in use in 10 of the 11 facilities. It was up to date and accurately used in six of the 11 facilities, was reported to be easy to use than the HEI register. On the job training was done to those who had difficulty in using any of the three tools.
- **Supported PHFS learning sessions in Kwale County** (Feb 16-17, 2015). Sharing and learning of change ideas took place and a package of ideas was suggested to be implemented across all facilities in the County. Fifty-seven participants from the 16 participating facilities developed work plans which they were to share and validate with the rest of their team members. The results are shown in **Figure 26.**

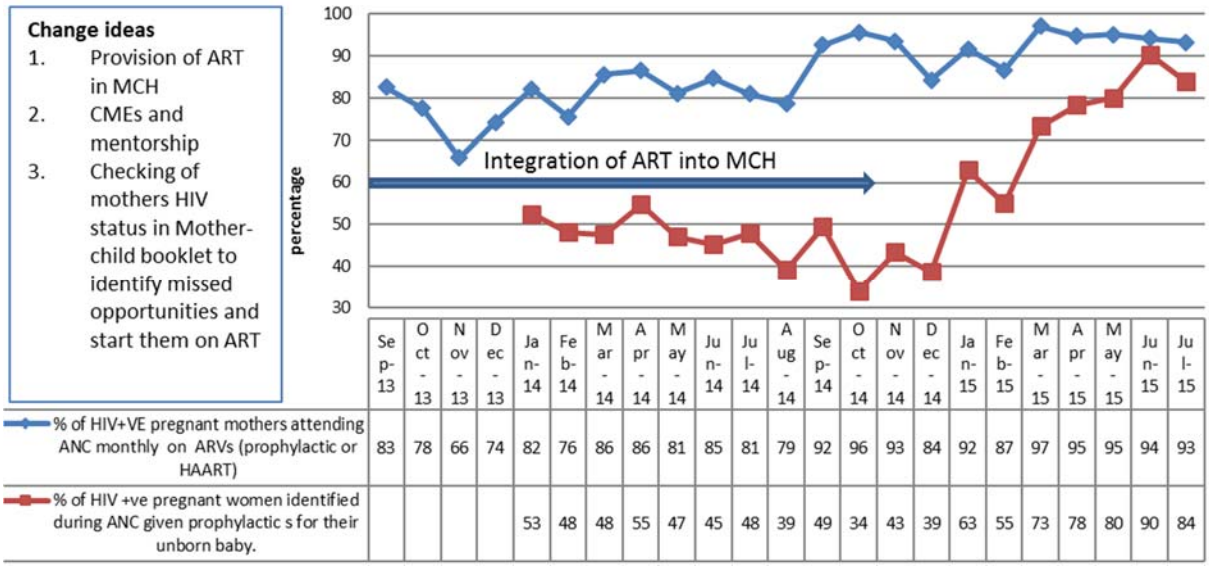
Figure 26: Kenya | Percentage of HEI receiving NACS and exclusively breastfeed for 6 months, 16 sites, Kwale County (Sept 2013 – Jul 2015)



	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15
% of HEI aged ≤6 months who are being exclusively breastfed	65	78	70	78	82	80	84	86	88	84	78	70	78	85	87	87	92	92	95	95	92	86	95
% of mother –baby pairs who received nutrition assessment, categorization counseling and support monthly	21	24	25	24	43	44	45	42	38	35	58	61	61	59	66	66	43	58	74	68	67	71	80

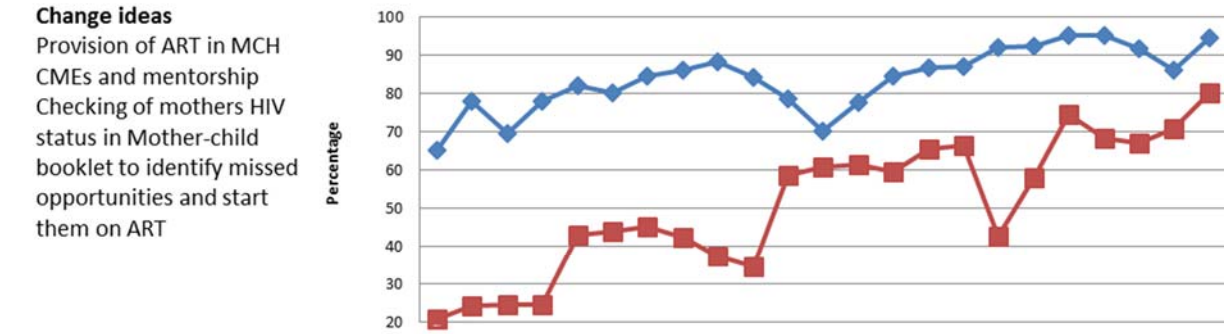
- **In Kwale County, the county QI team has been actively following nine PHFS indicators in 13 high- and mid-volume sites. The county has demonstrated that QI works as shown in Figures 27-29.**

Figure 27: Kenya | Percentage of pregnant women on ART and nevirapine, 16 sites, Kwale County (Sept 2013 – Jul 2015)



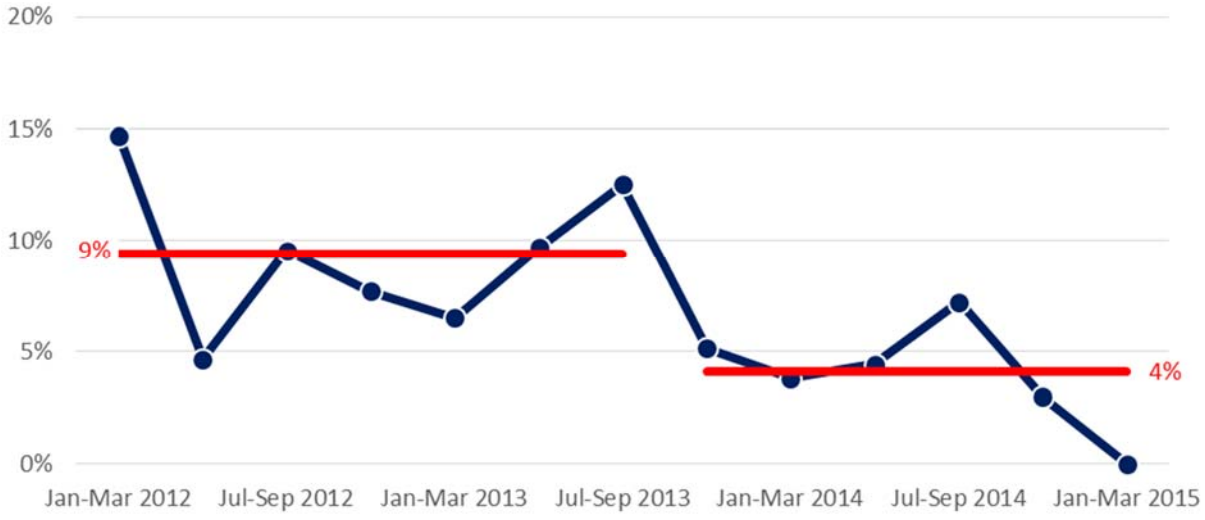
	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15
% of HIV+VE pregnant mothers attending ANC monthly on ARVs (prophylactic or HAART)	83	78	66	74	82	76	86	86	81	85	81	79	92	96	93	84	92	87	97	95	95	94	93
% of HIV +ve pregnant women identified during ANC given prophylactic s for their unborn baby.					53	48	48	55	47	45	48	39	49	34	43	39	63	55	73	78	80	90	84

Figure 28: Kenya | Percentage of HEI receiving NACS and exclusively breastfeed for 6 months, 16 sites, Kwale County (Sept 2013 – Jul 2015)



	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15
% of HEI aged ≤6 months who are being exclusively breastfed	65	78	70	78	82	80	84	86	88	84	78	70	78	85	87	87	92	92	95	95	92	86	95
% of mother–baby pairs who received nutrition assessment, categorization counseling and support monthly	21	24	25	24	43	44	45	42	38	35	58	61	61	59	66	66	43	58	74	68	67	71	80

Figure 29: Kenya | Reduction in MTCT rate, 15 sites, Kwale County at 6 weeks (DNA-PCR)



HIV Care & Treatment

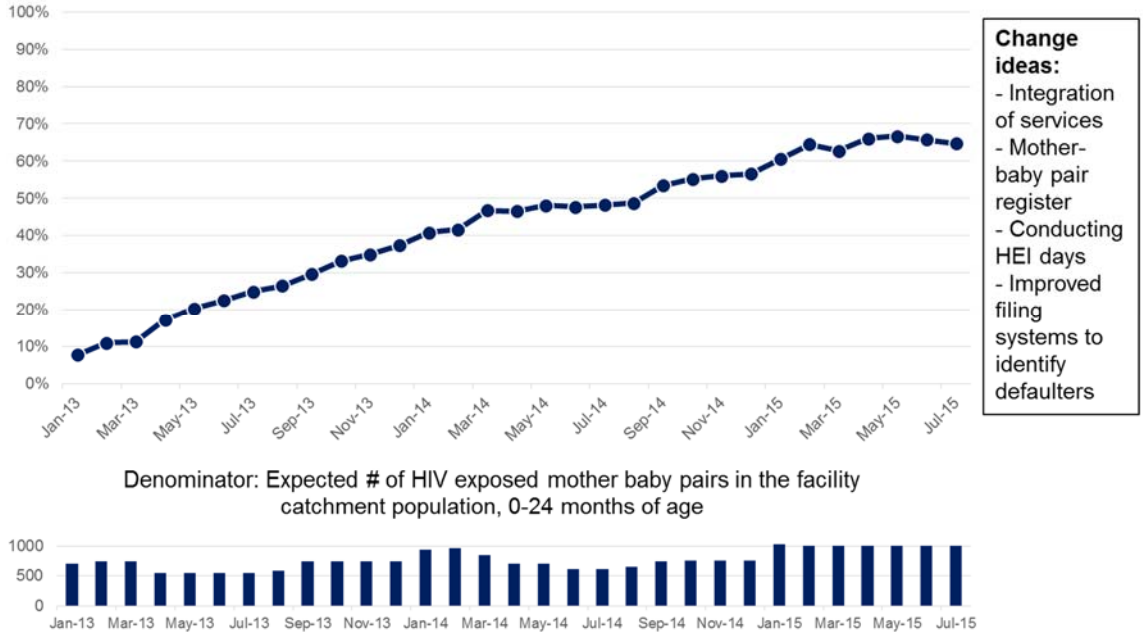
APHIA Plus Western (Kakamega County): APHIA Western together with ASSIST selected eight sites from Kakamega County for QI demonstration. The sites were required to follow three HIV QI indicators: 1) Integrating NACs into CCC; 2) measuring viral load of clients at least every six months; 3) tracking SAMs and MAMs linked to food by prescription programs.

- **Throughout the reporting period and through monthly QI mentorship meetings, ASSIST supported the APHIA Plus Western in implementing QI activities in 14 high caseload facilities in six counties.**
- **ASSIST provided QI mentorship visits to seven facilities, in order to enhance use of improvement methods by the counties HMTs, sub county HMTs, and health providers in the facilities and to follow up from the CQI training done in the previous quarter** (Q2 FY15). In addition, ASSIST aimed to foster the integration of NACS as a core component in critical healthcare service delivery areas especially HIV/AIDS care and treatment. During the mentorship, a number of challenges were addressed, including poor use of partographs; poor documentation on tuberculosis (TB) screening and use of TB intensified case finding cards; documentation or no accurate records for HIV-exposed infant (HEI) mortality and gaps in loss to follow up and defaulter tracing.
- **In five sites, the percentage of HIV positive clients categorized with moderate or severe acute malnutrition and provided with food by prescription increased from 21% in January 2015 to 65% by August 2015.**

APHIA+ Nairobi- Coast Kwale County PHFS: To increase mother-baby pairs in active care, teams have been testing the following changes: developing a mother-baby register; conducting HIV-exposed infant (HEI) days; and improving filing systems.

- **Results achieved are shown in Figure 30.**

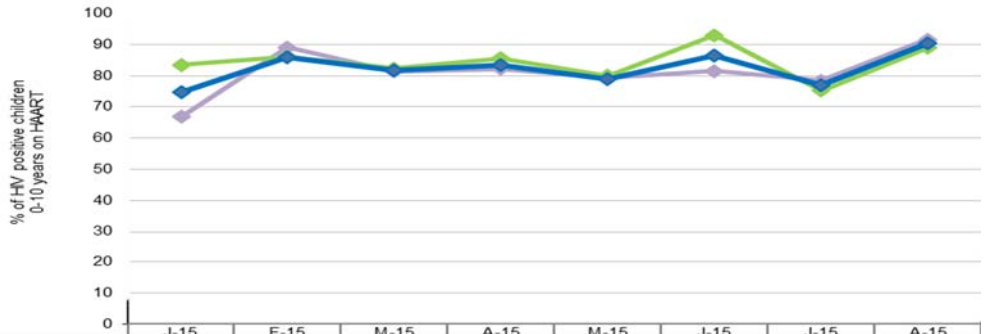
Figure 30: Kenya | Increase of mother-baby pairs in active care, 16 sites, Kwale County (Jan 2013 – July 2015)



APHIA Plus Nairobi- Coast (Nairobi County): The QI teams in Nairobi worked on the following change ideas: Scheduling patient appointments; ensuring retention into care of HIV positive children ages 0-10 through scheduled appointments; screening HIV positive patients for TB using ICF cards.

- **Results:** At nine sites, teams have seen an increase of patients keeping their scheduled appointments from 58% in January 2015 to 73% in August **(Figure 31).**

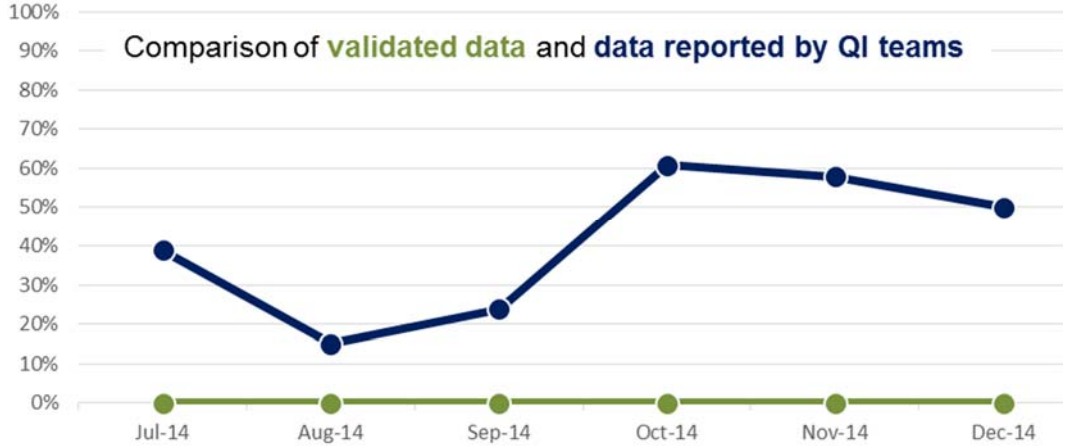
Figure 31: Kenya | Percentage of HI- positive children 0-10 years on HAART, 9 sites, Nairobi County (Jan – Aug 2015)



	J-15	F-15	M-15	A-15	M-15	J-15	J-15	A-15
Denominator among females	187	200	204	208	208	217	223	131
% among females	67	89	81	82	79	82	78	92
Denominator among males	164	209	198	208	180	184	190	126
% among males	84	86	82	86	80	93	75	89
Denominator Total	351	391	384	398	369	382	413	257
% of HIV positive children 0-10 years on HAART	75	86	82	83	79	86	77	90
# of Sites Reporting	9	9	9	9	9	9	9	6

APHIA Plus Imarisha (Isiolo County): **ASSIST conducted QI data validation to the only facility in Isiolo County that is implementing HIV QI process focusing in 5 out of the 11 HIV QI indicators** (Jan 2015). **Figure 32** provide a summary of the findings.

Figure 32: Kenya | Percent CD4 baseline testing at enrollment into care, Isiolo County (Jan 2014 – Dec 2014)



Validation of data continues to be useful in collecting data errors in summary tools that are used to populate the national health Information summary data.

- **ASSIST supported USG implementing partners (*APHIA Plus Western, APHIA Plus Imarisha and APHIA Plus Nairobi- Coast)* in implementing and tracking NACS QI indicators** (Q2 FY15).
  - Supported a NACS mentorship meeting in Migori County under APHIA+ Western (Jan 2015)
  - Conducted a NACS QI data validation exercise for Isiolo County Referral Hospital, Garbatula Sub district hospital and the comprehensive care clinic (Feb 2015)**.**
  - Noted that the Daily Activity Register (DAR) improvised black book at triage does not capture any anthropometric measurements for NACS, hence an assumption is made on the NACS data presented that all who go through the triage and have their names recorded in the black book must have received anthropometric assessment. ASSIST is working with the teams to find others ways of collecting the NACS data and see how this can inform register reviews
  - Some of the patients categorized as moderate acute malnutrition (MAM) and severe acute malnutrition (SAM) at triage and referred for management at the nutrition room did not reach the nutrition room, as seen in the validated data presented in **Figures 33-34**.

Figure 33: Kenya | Percent HIV-positive MAM and SAM receiving food by prescription (both therapeutic and supplementary), Isiolo County (Jan 2014 – Dec 2014)

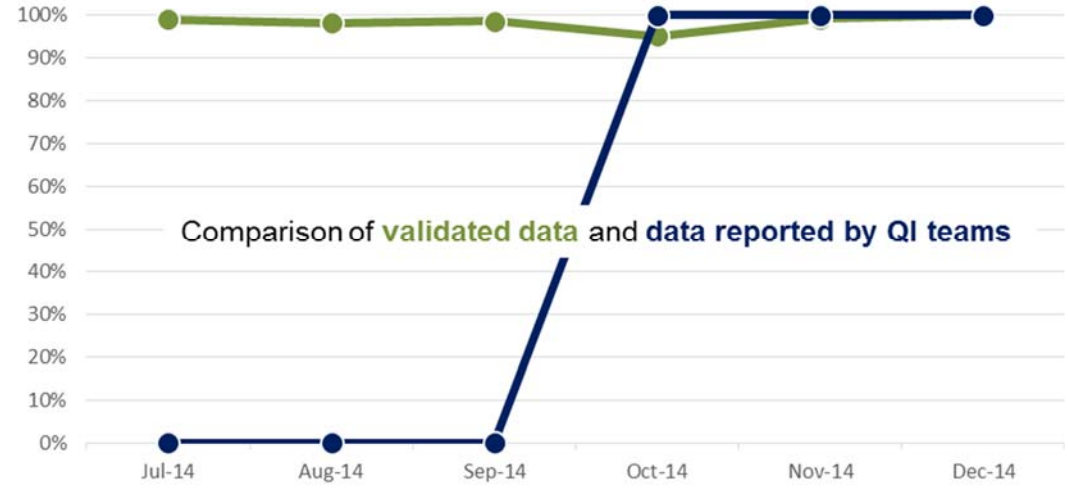
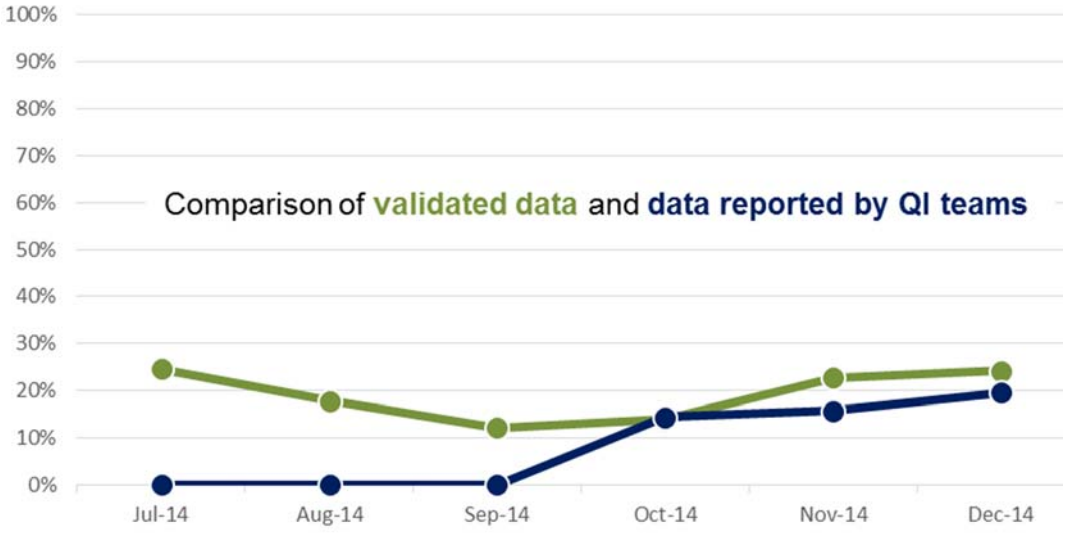
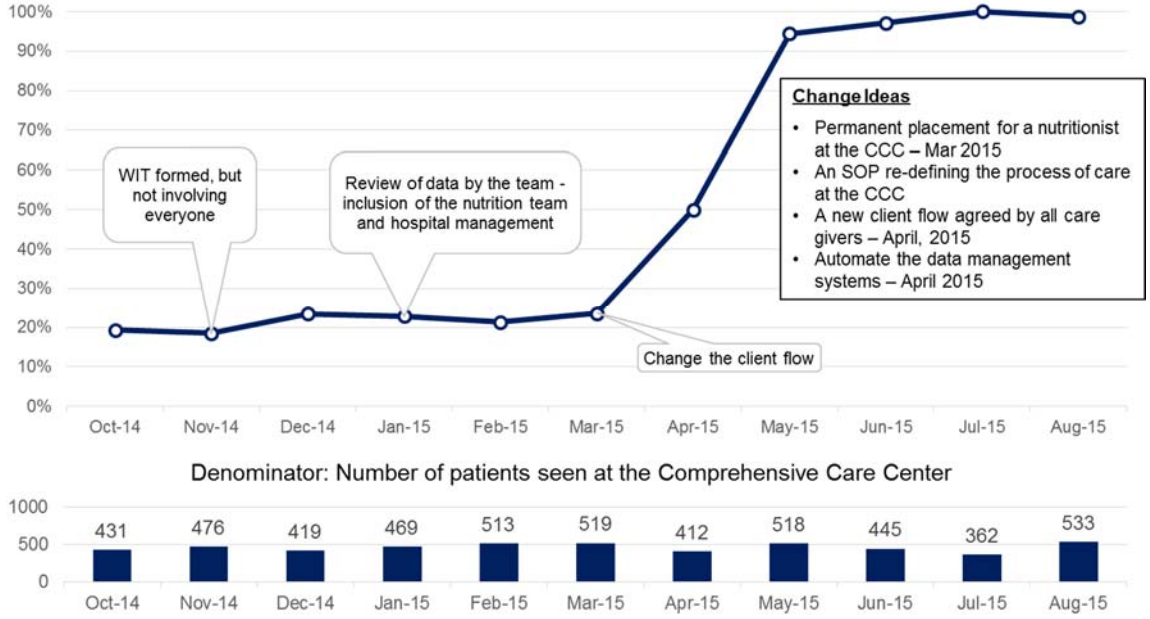


Figure 34: Kenya | Percent MAM and SAM at the CCC during the month, Isiolo County (Jan 2014 – Dec 2014)



- **During the PHFS learning session, ASSIST supported Kwale County to address the following** (Feb 16 – 17, 2015)**:** HIV-exposed mother-baby pairs receive appropriate nutrition assessment counseling and support at each visit; establish the HIV status of every pregnant women and every child under two years; improve retention of HIV-exposed mother baby pairs from ANC until two years of postnatal age; ensure HIV-exposed babies receive appropriate quality care at each stage as per guidelines.
- Isiolo County is predominantly an MNH QI focal county, however, APHIA Plus Imarisha requested ASSIST to support them in making the County Referral Hospital implement QI in the CCC. The site formed several work improvement teams including one in the CCC. Some of the challenges identified included appointment keeping; nutrition assessment and categorization; as well as viral load tracking for HIV positive patients.
- To address nutrition assessment and categorization, the work improvement team established that clients were not being assessed and categorized because of system flow challenges and introduced the following change ideas:
  - All clients will be taken their height and weight measurements at the triage before seeing the clinician
  - The clinician will refer all clients to the nutritionist and make sure that the client file is forwarded there before getting drugs
  - All clients who are classified as MAM or SAM will not be issued with drugs before they are cleared by the nutritionist
  - Date of next appointment will be synchronized between the CCC, pharmacy and nutrition.
  - **Figure 35** shows the results after the implementation of the change ideas.

Figure 35: Kenya | Percentage of clients receiving nutrition assessment and categorization, Isiolo County Referral Hospital (Oct 2014 – Aug 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
PHFS	% of HIV exposed M-B pairs (0-24months) in active care	30% (Sept 2013) 16 sites	65% (July 2015) 16 sites	35
	% ART for pregnant women	83% (Sept 2013) 16 sites	84% (July 2015) 16 sites	1
	% HEI receiving NACS	21% (Sept 2013) 16 sites	80% (July 2015) 16 sites	59
	% HEI exclusively breastfed for 6 months	65% (Sept 2013) 16 sites	95% (July 2015) 16 sites	30
HIV care & treatment (Nairobi)	% of HIV+ children 0-10 years on HAART	75% (Jan 2015) 9 sites	90% (Aug 2015) 9 sites	25
Isiolo	% patients receiving appropriate NACS	20% (Oct 2014) 1 site	100% (Aug 2015) 1 site	80

Activity 4. OVC and child protection

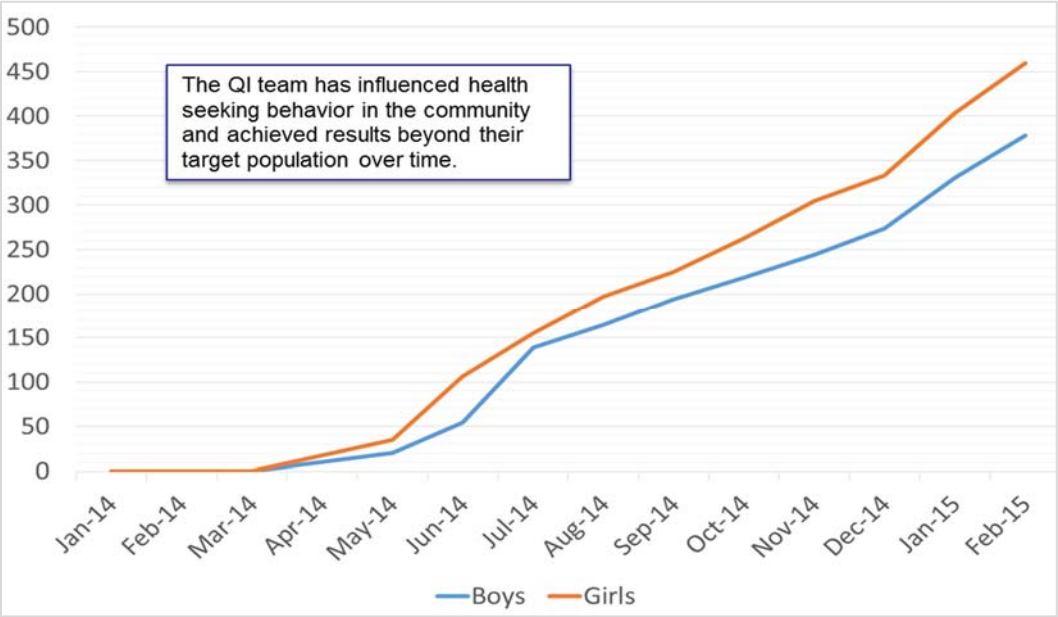
OVERVIEW

ASSIST supports the MOH, the MLSS&S through the Department of Children's Services (DCS) and the National Council for Children Services (NCCS) in strengthening the child protection system for improved service delivery. Key activities included: 1) pre-testing and validations of the PSS guidelines for vulnerable children; 2) finalization of the national directory of child protection service providers; 3) the national plan of action for children; 4) national child sector strategic plan.

KEY ACCOMPLISHMENTS

- **Development and finalization of child protection directory.** ASSIST supported the development of the mapping tool and roll-out of mapping in 45 counties. The stakeholder mapping was finalized in February 2015 and data entry is ongoing. ASSIST supported the NCCS to collate all data collected into a directory that launched by the Cabinet Secretary in the MLSS&S in June.
- **Development and finalization of national referral tool for child protection finalized and disseminated** (Nov 2014). ASSIST supported the national council for children services (NCCS) and the Department of children services to develop and finalize the national referral tool for child protection. The tool was disseminated and distributed to the 47 counties.
- **Finalization of the National Plan of Action for Children***:* Conducted a stakeholder review on the draft NPA was held in February and March 2014. The NPA was launched in June 2015 by the Ministry.
- **Development and finalization of national psychosocial support guidelines.** ASSIST supported the Ministry to review draft PSS guidelines and prepare pre-test protocols for the guidelines**.** The final pretest draft shared with the ministry in January 2015. ASSIST supported the MLSS&S to conduct a validation in September and the guidelines are now undergoing review before their launch in November 2015.
- **Finalization of the child sector strategic plan:** ASSIST supported the Ministry to conduct a validation of the national child sector strategic plan (Dec 2014).
- **Two learning sessions were held for AMPATH Plus, APHIA Plus Western Kenya and ICOP projects.** QI teams from Migori, Siaya, and Homa Bay counties participated in the learning session. The learning sessions were supported by ASSIST and held in March 2015. The ASSIST team provided technical support to the teams and coaches on core principles of QI including data management, documentation and QI principles.
- **ASSIST conducted a harvest meeting that was held for QI teams in Coast Region** (Feb 2015). Twenty QI teams from Mombasa, Lamu, Taita Taveta, Kwale and Kilifi counties were represented. The essence of the harvest was to prepare the teams for APHIA project close out and document key lessons and best practices emerging from the QI teams experience. ASSIST also was able to transition the QI teams to the government in preparation for site takeover by the project that will replace APHIA+. Savings and Internal Lending Communities (SILC) and Village Saving and Loaning (VS&L) are scalable approaches to house hold economic strengthening, most QI teams reported seeing significant changes in household where the caregivers were members of these groups.
- **ASSIST teams conducted coaching and mentorship to the eight projects during the reporting period.** A large effort was implemented to ensure the partners adopt QI methodologies in OVC care and provided support to build their capacity to sustain the gains of their interventions over time. The coaching visits are jointly done with the partner level leadership and QI team coaches for each county. The AMPATH Plus team in Uasin Gishu received two coaching visits in November 2014 and January 2015. The four QI teams in the county have made a lot of progress in their ability to respond to the needs of all children in the community. The involvement of the government community leaders in the QI teams have enhanced community participation in responding to the needs of vulnerable children.
- **At APHIA Plus Kamili, the Hope Valley QI team has been working with the community to promote community facility linkages.** The team had initially focused on 500 children supported by the project but has over time expanded their scope to reach out to all the children in the community. The change ideas include: Sensitizing caregivers in importance of health seeking behavior, linking caregivers to National Health Insurance, negotiating with health facilities for fee waivers for needy cases and monitoring community facility linkages. **(Figure 36).**

Figure 36: Kenya | Number of children linked to health services, HVFI - Nyandarua County (Jan 2014 – Feb 2015)



- **Support to USG partners and counties in mainstreaming QI in OVC and Child Protection Programs:** During the reporting period, ASSIST continued to offer QI TA to county governments, and USG partners including APHIA+ Nairobi- Coast, AMPATH+, APHIA+ Nuru ya Bonde, Wezesha, ICOP, APHIA+ Kamili and APHIA+ Western Kenya. The support focused on the following change ideas:
  - How to actively apply the science and model of QI to address quality gaps in OVC service delivery
  - Scaling up tested change packages that address gaps which will include;
    - Household Economic strengthening to address gaps in the other seven service areas
    - Local resource mobilization to address issues affecting children at different levels and enhance social accountability
    - Establishing linkage systems at various levels to enhance service delivery

APHIA Plus Kamili (Municipality QIT in Embu West): The QI teams conducted a self-assessment based on the standards, conducted focused group discussions with children, their caregivers, and the community and administered the Child Status Index (CSI) on 1,000 children and identified the following service areas as causing major challenges:

- Shelter: many children were living in a dilapidated shelter that caused a risk to their safety and health
- Education: vulnerable children were not attending school regularly
- Food security affecting their well being

The team carried out a root cause analysis and found that the problems are due to household poverty drunkenness and drug abuse among most caregivers. Below are the change ideas the team proposed to address the gaps:

- Rehabilitation of parents/guardian/caregivers through community forums
- Holding public meetings through the area sub chiefs and other community leaders to encourage caregivers on importance prioritizing shelter as a basic need for children instead of misusing the little income they get for alcohol and drugs.
- Initiate modern agricultural practices to increase household food security

Implementation work in Embu started in May 2015 and by September 2014, 40 houses had been renovated through community efforts, and 210 children live in dry and safe shelter.

To address education, the team worked with parents, children and teachers to ensure children

education and nutrition needs were met. **Figure 37** shows the number of children who were now able to attend school regularly (i.e., the entire school week as stipulated in the Ministry of Education guidelines) and **Figure 38,** the number receiving three meals a day.

Figure 37: Kenya | Number of vulnerable children reintegrated into school and attending school regularly, Embu West (May – Jun 2015)

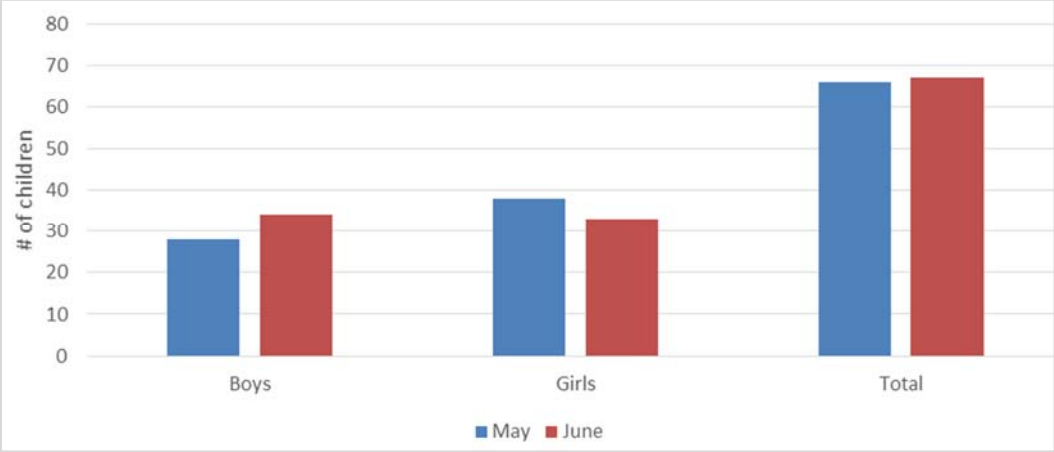
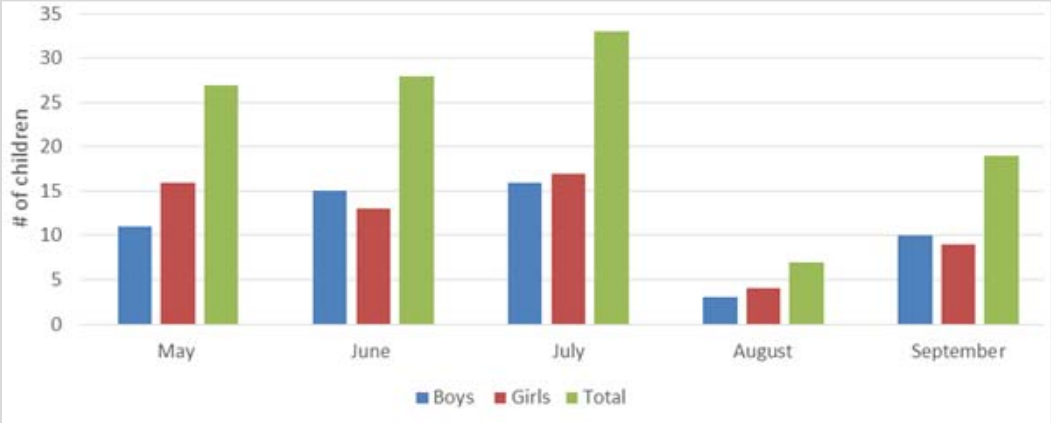


Figure 38: Kenya | Number of vulnerable children eating three meals a day, Embu West (May – Sept 2015)



Mbeti North QI team, Embu West: The team administered CSI in March 2015 and identified education not doing well out of the 2000 children supported by the local implementing partner, 200 children were not regularly attending school. As a result, the team carried out root cause analyses on the problem of education they found that the major reasons included:

- Lack of paraffin in the homes to enable children do homework and revisions at home in the evening. This was attributed irresponsible caregivers and alcoholism.
- School drop-outs due to early pregnancies, caregivers not paying school fees for their children on time since to most of them it wasn't a priority

The following are change ideas the team proposed and implemented:

- Educate caregivers on the importance of ensuring resources that enable children study are available to improve their performance.
- Use the local government officials to discipline caregivers who failed to provide for their children
- Educate caregivers on food storage and post-harvest management to ensure children and their households have food to eat all the year round
- Train caregivers on household economic strengthening as a boost to their meeting vulnerable

children basic needs
- Support children to improve their performance through school based mentorship programs

So far, with the above change ideas were implemented, the following vulnerable children who previously were not regularly attending school are now attending school regularly.

Kangaru QI Team: Service area: Shelter. Kangaru area is an informal settlement in Embu town and that experienced fire disasters rendering 98 OVC and their households homeless. The QI team and the local government administration worked together to address shelter, food security and education needs of the affected children and their households. An additional 25 children lived in bad shelter because of the caregiver's apathy and inability in ensuring children had access to adequate shelter

The teams implemented the following change ideas:

- Mobilize the community to put up shelter and provide household items to the affected families affected by the fire
- Sensitize and link caregivers to household economic strengthening to enable them to get money for renovating houses that are in bad conditions.
- Report non cooperating caregivers to the local government officials to ensure they renovated their houses

Mwelekeo QI Team, Ol-Kalou: Service areas: Psycho Social Support and Education. This decision to address the two services was prompted by the QI teams and community health volunteers observation of vulnerable children's' social behavior during household visits which was also established a contributing factor to their low education performance during community meetings.

The QI team proposed implementing the following change ideas to address the situation:

- Conduct individual counseling to five OVC to ensure their intellectual and emotional wellbeing
- Empower orphans and vulnerable children to recognize their psychosocial needs and not be ashamed to ask for support
- Work with caregivers to reestablish PSS clubs for children
- Provide ongoing support and mentorship to caregivers during home visits to enhance their parenting skills
- Provide information to children and caregivers on vulnerable children's social needs
- Continuous mentoring for caregivers and children

During the months of April-June, a total of 308 orphans and vulnerable children were supported on PSS and are now accessing education as expected. The team continues to monitor their performance in schools

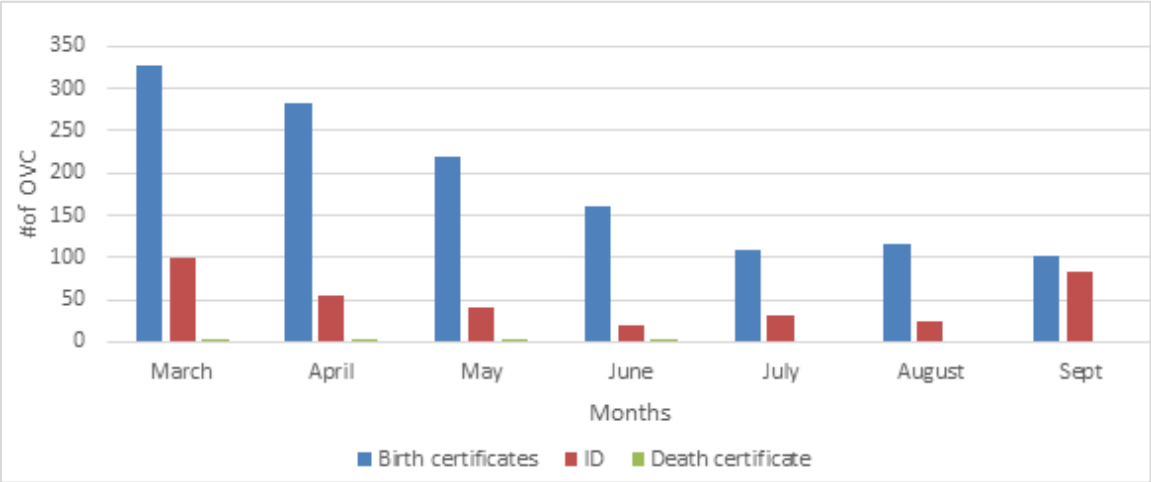
APHIA Plus Western Name of QI team*: *Dago Dala Hera: The QI team is addressing household economic strengthening to enhance integrated service delivery to children and their households across education, food security and health, shelter, and child protection. To ensure sustainability and continuity in service delivery, especially targeting the most vulnerable children, the team has embarked on local resource mobilization through the one egg per child per month initiative where every child who has received hens from the project must give to one egg per month back to the project. The community-based organization (CBO) sells the eggs and puts the money in a kitty that helps them respond to need of vulnerable children as they arise.

AMPATH Plus Name of QI team: Kapseret: Service area: Child protection.

Change ideas:

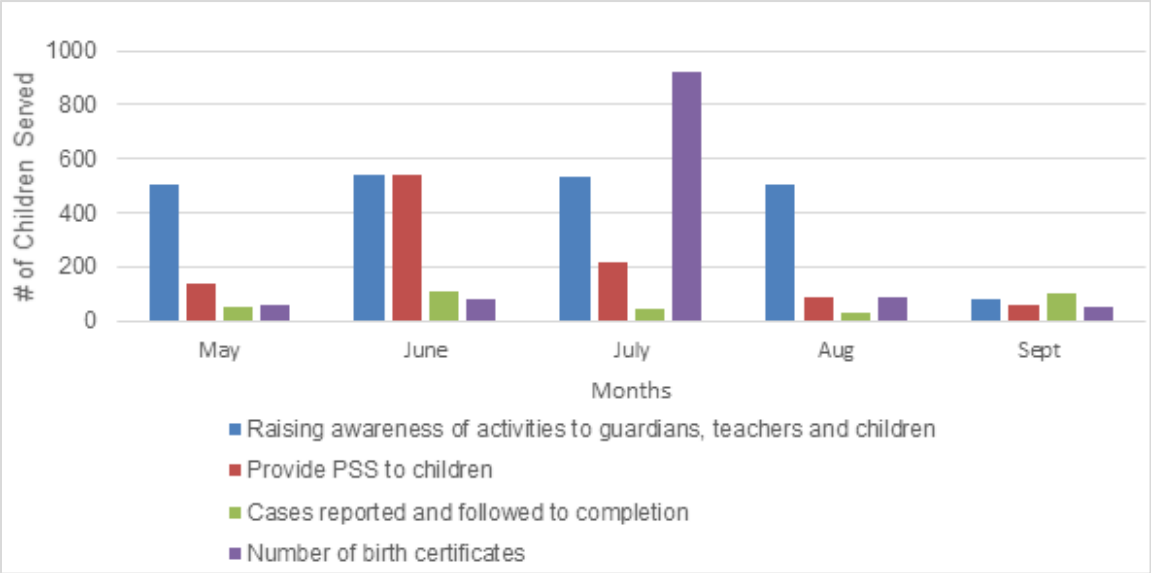
- Create awareness to caregivers on the importance of getting vital civil registration documents
- Educate community members, particularly children on child protection and when and where to report cases of abuse, exploitation, and neglect
- **Figure 39** shows the progress made by QI team Kapseret in increasing the number of children with identification.

Figure 39: Kenya | Increase in children accessing birth certificates, caregiver identification, and parental death certificates, Kapseret (Mar – Sept 2015)



***QI team Kapsoya*:** Focused on improving child protection, the QI team tested the changes and achieved the results in **Figure 40.**

Figure 40: Kenya | Improving child protection and case management, Kapsoya (May – Sept 2015)

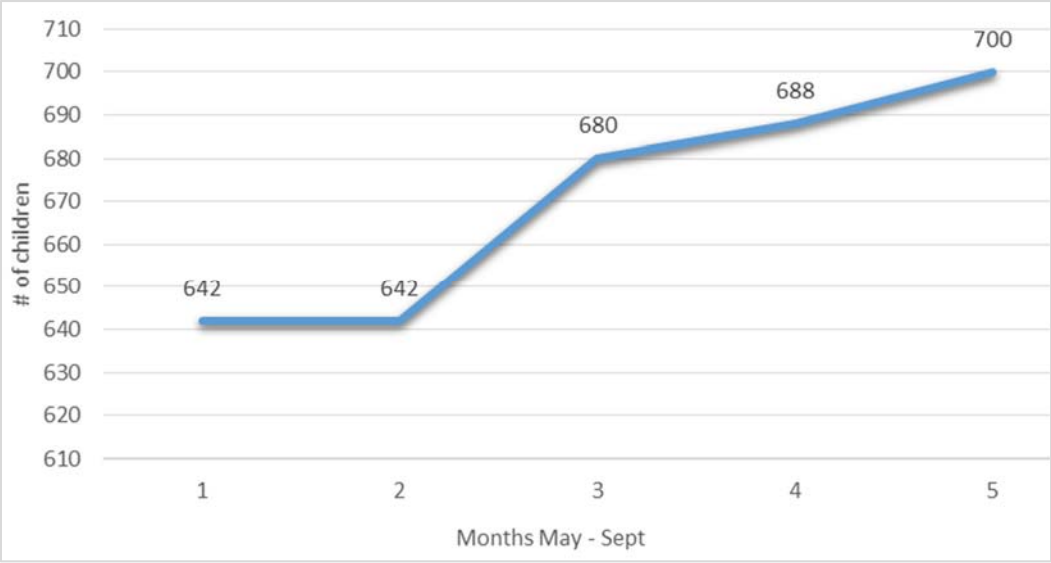


QI team Tulwet: Focused on improving education, the Tulwet QI team tested the following changes to increase the number of children attending school. Results are shown in **Figure 41**.

Tested to improve education attendance

- Awareness creation to guardians on the importance of education
- Mobilizing guardians to join groups savings and loaning to pay fees, buy solar lamps and basic needs
- Providing psychosocial support to children and guardians
- Linking guardians to VS&L to enable them pay levies for their children
- Identifying boys who were circumcised and taken through PSS sessions and reintegrated into school
- Rescuing girls from early marriage and reintegrated into school

Figure 41: Kenya | Improving school attendance, Tulwet (May – Sept 2015)



- **The ASSIST team is addressing gender issues in OVC and addressing those (see Table 23 in the Knowledge Management section).**

Activity 5. Maternal, newborn, and child health and reproductive health

OVERVIEW

The Millennial Development Goals (MDG) four and five, concerning child and maternal mortality, are the two goals with the least progress made globally and in Kenya. Despite the underwhelming performance, considerable momentum has been created to transition many of the gains into the Sustainable Development Goals (SDGs) as launched by the United Nations in 2015. There is still an emphasis on improving maternal, neonatal and child health indicators as primary targets in the SDG 3. While global, regional, and national policies and strategies exist to improve maternal, newborn and child health (MNCH); and interventions to prevent maternal, neonatal and child deaths are available in Kenya, MNCH indicators remain unacceptably poor. Progress has been hindered by poor policy implementation and weak health systems, which do not engage with, or respond to, community needs. This results in poor access and utilization of preventive and curative health services. ASSIST aims to support low-cost, effective QI approaches that can address the challenges raised above and in recognition that newborn and maternal health and survival are closely linked.

ASSIST's strategy is to apply a system approach to QI by providing technical assistance to county governments and APHIA+ projects to improve and strengthen maternal, neonatal, child and reproductive health services in Kenya. The strategy focuses on a sample of counties with a spectrum of facilities selected and developed as centers of excellence (COE) through which QI is applied to generate change ideas that can be scaled up across the system.

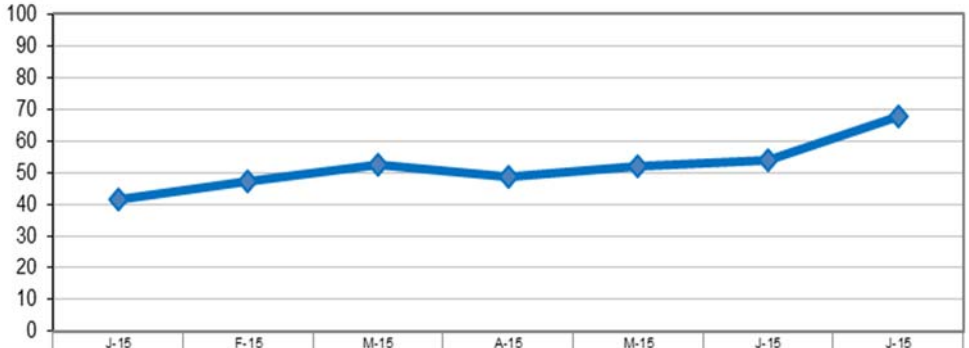
KEY ACCOMPLISHMENTS AND RESULTS

APHIA+ Nairobi, APHIA Plus Imarisha

- **Monthly facility level mentorship conducted at Mbagathi District Hospital to follow up on the MNCH and EMONC baseline assessment conducted after the QI training held in October 2014**
- **Conducted a QI orientation meeting with DANIDA supported facilities.** Following a request from the Isiolo County government, ASSIST gave a brief orientation on the Model for Improvement and steps in QI to a group representing 10 health care facilities supported by Amref-DANIDA MNCH Project (Jan 13-14, 2015).

- **Conducted orientation of refined QI indicators to selected facilities** (January 2015). The eight selected coaches have been taken through the expectation of the QI coaching and the expected capacity support to be provided by APHIA+ Imarisha and ASSIST.
- **Supported four CMEs for the QI coaches on setting up an improvement aim and situational analysis** (Feb- March 2015).
- **Initial data from all the seven facilities was collected and handed to ASSIST and APHIA+ Imarisha through an agreed structure** (March 2015). Data validation was conducted for all MNH QI indicators and feedback given for three of the seven facilities in March.
- **Combined (five counties, 40 sites).** The baseline data collected for all the 40 sites from the five counties showed that skilled delivery was still a major issue. Clients' blood pressure was not being monitored or recorded as required, they were not being given oxytocin within a minute of delivery nor was after delivery care happening as required. The sites formed WITs which reviewed their data and came up with the following change ideas:
  - Pairing of experienced staff with new staff
  - Mentorship on use of new WHO partograph tool
  - Monitoring of partograph as part of hand off
  - Improved documentation
  - EmONC trainings supported by the county and national governments
  - Sub-county and facility-level support supervision
- **Results for the sites that have started testing changes are shown in Figures 42-44.**

Figure 42: Kenya | Percentage of deliveries with WHO partographs accurately filled in, 40 sites, 5 counties (Jan – Jul 2015)



	J-15	F-15	M-15	A-15	M-15	J-15	J-15
# of deliveries with partographs accurately filled	318	332	417	434	520	514	668
# of deliveries at the facility	762	704	790	890	994	955	987
% of deliveries with partographs accurately filled (WHO partograph)	42	47	53	49	52	54	68
# of Sites Reporting	39	39	39	40	40	40	40

Figure 43: Kenya | Percentage of women with documented four-hourly blood pressure checks during labor, 38 sites, 5 counties (Jan – Jul 2015)

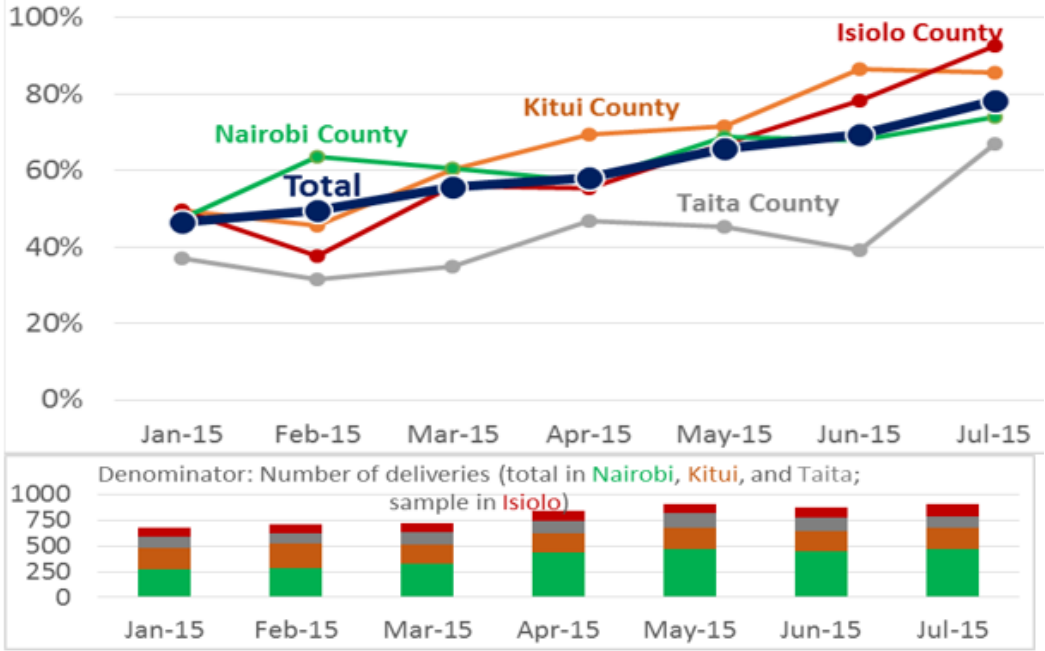
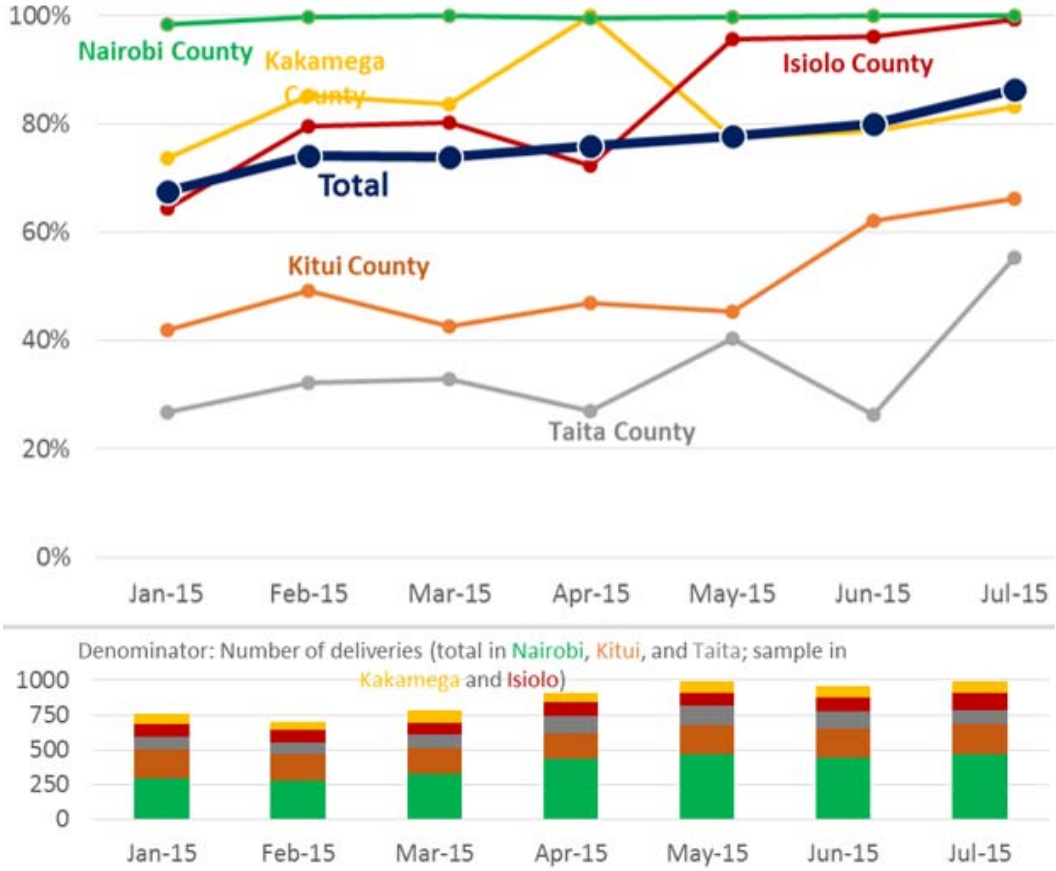


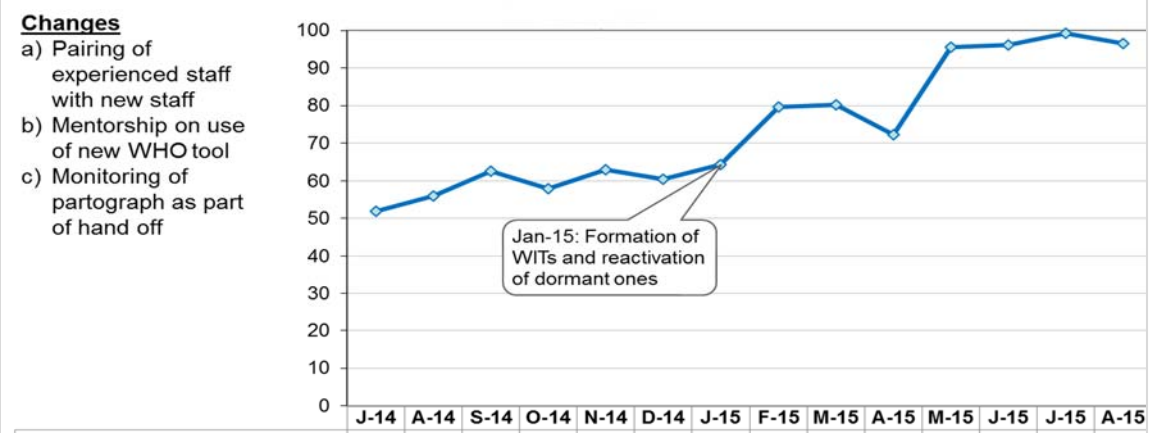
Figure 44: Kenya | Percentage of deliveries with oxytocin administered for AMTSL within 1 minute of delivery, 40 sites, and 5 counties (Jan – Jul 2015)



APHIA+ Imarisha (Isiolo County)

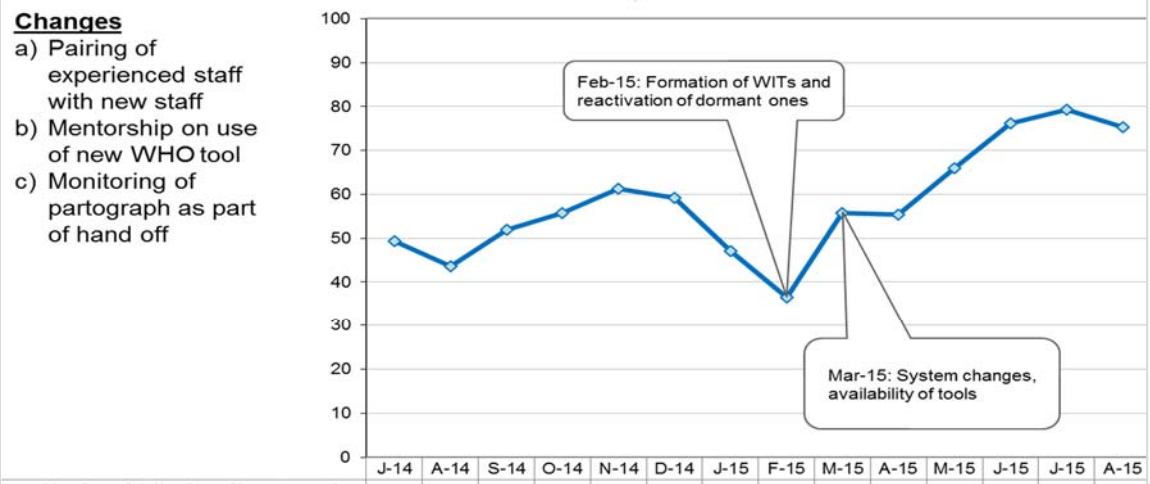
- **A QI collaborative of seven high-volume facilities in Isiolo County. These teams are looking at a compendium of QI process and outcome indicators:**
  - Improved monitoring of labor and management of third stage of labor
  - Delivery by skilled birth attendants
  - Completion of four ANC visits and postnatal care of mother and baby
  - Care of the newborn and reduction of infection in maternity units.
- **Results achieved by these teams are shown in Figures 45-47.**

Figure 45: Kenya | Percentage of deliveries with AMTSL documented, 7 sites, Isiolo County (Jan 2014 – Aug 2015)



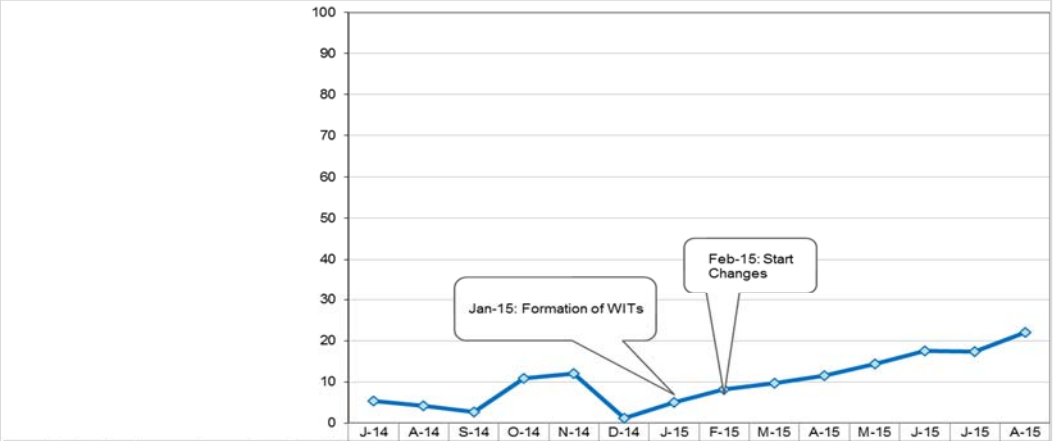
	J-14	A-14	S-14	O-14	N-14	D-14	J-15	F-15	M-15	A-15	M-15	J-15	J-15	A-15
Number of deliveries with AMSTL documented (n)	41	47	52	62	51	46	56	74	69	68	87	97	120	113
Total number of deliveries at the facility (Sampled files)	79	84	83	107	81	76	87	93	86	94	91	101	121	117
% of deliveries with AMSTL documented (esp. oxytocin within a minute of delivery)	52	56	63	58	63	61	64	80	80	72	96	96	99	97
# of Sites Reporting	7	7	7	7	7	7	7	7	7	7	7	7	7	7

Figure 46: Kenya | Percentage of deliveries with partographs accurately filled, 7 sites, Isiolo County (July 2014 – Aug 2015)



	J-14	A-14	S-14	O-14	N-14	D-14	J-15	F-15	M-15	A-15	M-15	J-15	J-15	A-15
Number of deliveries with partographs accurately filled (n)	36	34	40	58	46	42	41	34	48	52	60	77	96	88
Number of women admitted in labor during the month (Sampled files)	73	78	77	104	75	71	87	93	86	94	91	101	121	117
% of deliveries with partographs accurately filled	49	44	52	56	61	59	47	37	56	55	66	76	79	75
# of Sites Reporting	7	7	7	7	7	7	7	7	7	7	7	7	7	7

Figure 47: Kenya | Percentage of mother-baby pairs with postnatal review at 7-14 days, 7 sites, Isiolo County (Jan 2014 – Aug 2015)



	J-14	A-14	S-14	O-14	N-14	D-14	J-15	F-15	M-15	A-15	M-15	J-15	J-15	A-15
Number of mother-new-born pairs reviewed by health care provider 7-14 days of birth (as documented in the Post-Natal Register)	15	10	6	26	27	3	10	17	27	26	40	47	51	62
Number of registered live births in the month	278	236	224	239	223	237	199	206	277	226	278	269	295	281
% of mother-new-born pairs reviewed by health care provider 7-14 days of birth	5	4	3	11	12	1	5	8	10	12	14	17	17	22
# of Sites Reporting	7	7	7	7	7	7	7	7	7	7	7	7	7	7

- **The ASSIST team is addressing gender-related barriers to ANC (see Table 23 in the Knowledge Management section).**

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
MNCH (Kitui, Taita, Kakamega, Isiolo, Nairobi)	% deliveries with partographs accurately filled	42% (Jan 2015) 7 sites	68% (July 2015) 7 sites	26
	% of women with 4 hourly BP check during labor	46% (Jan 2015) 7 sites	78% (July 2015) 7 sites	32
	% of deliveries with oxytocin administered for AMSTL within a minute of delivery	68% (Jan 2015) 7 sites	86% (July 2015) 7 sites	18
	% postnatal review at 7-14 days at MCH	5% (July 2015) 7 sites	22% (Aug 2015) 7 sites	17

Activity 6. Malaria

OVERVIEW

Malaria is the leading cause of morbidity and mortality in Kenya, with 25 million out of a population of 34 million at risk. The disease accounts for 30-50% of all outpatient attendance and 20% of all admissions to health facilities. An estimated 170 million working days are lost to the disease each year (MOH, 2001). Malaria is also estimated to cause 20% of all deaths in children under five (MOH 2006). The group most vulnerable to malaria infections are pregnant women and children under five years of age. ASSIST's improvement aims is to effectively support select high malaria burden counties to develop, test, and adopt change ideas to improve the supply chain for malaria diagnostics

and anti-malaria drugs.

The counties selected for malaria QI implementation are Busia, Siaya, and Kakamega. The counties apply QI principles to continuously identify and address performance gaps. The gaps identified with malaria distribution and usage included:

- Mapping out and redistribution of county actors/stakeholders-equity of support
- Formation of robust malaria TWGs at county level pulling together of core partners with regular meetings
- Test and adopt change ideas to improve the supply chain and case management
- Test and Implement QI approaches in selected high load facilities in the various counties

Some of the change ideas adopted by the malaria quality improvement teams in these select counties include the decentralization of distribution systems.

KEY ACCOMPLISHMENTS AND RESULTS

- **County TWG in Siaya constituted and ready to conduct malaria improvement CMEs from October 2015 through FY16**
- **Six monthly Quality Improvement CMEs were held for high malaria caseload health facilities in Kakamega and Busia counties to promote peer learning and share progress of improvement projects** (Oct 2014 – Mar 2015).
- **Supported counties to hold monthly TWG meetings in Kakamega, Siaya and Busia** (Oct 2014 and Mar 2015)**.** Due to the TWG meetings, county governments have taken control of the malaria quality improvement activities and are now providing leadership among stakeholders.
- **Applied QI techniques in collaboration with Busia, Siaya and Kakamega counties and APHIA+ Western to improve the supply chain for malaria diagnostics and anti-malaria drugs within health facilities.** Overall, improvement was noted **(Figures 48-50).**

Figure 48: Kenya | Number of clinical malaria cases, Busia County (Nov 2014 – Sept 2015)

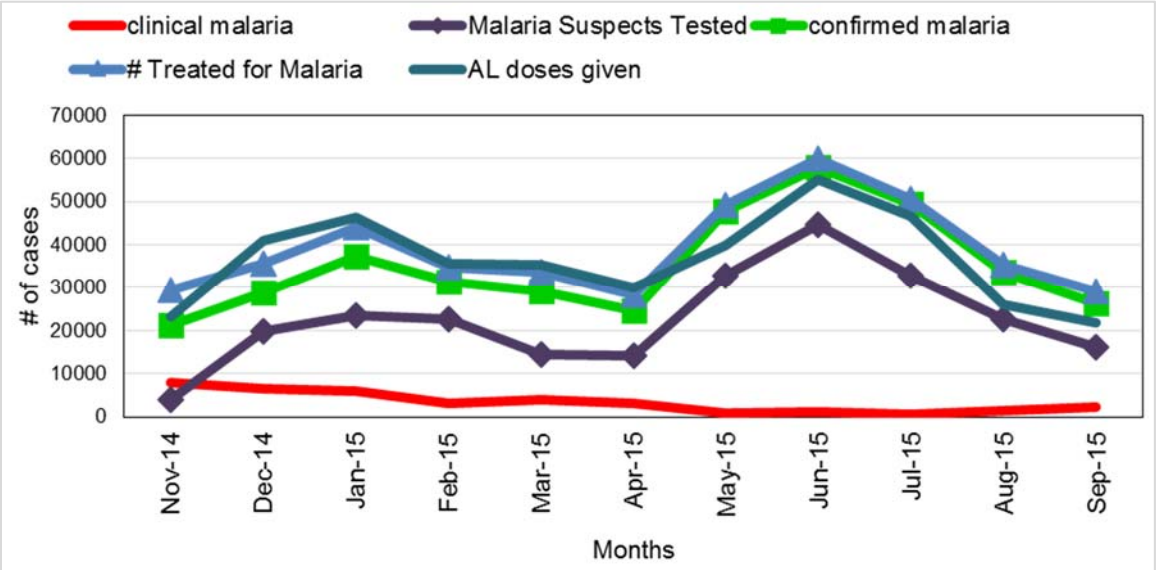


Figure 49: Kenya | Number of confirmed clinical malaria cases, Kakamega County (Nov 2014 – Sept 2015)

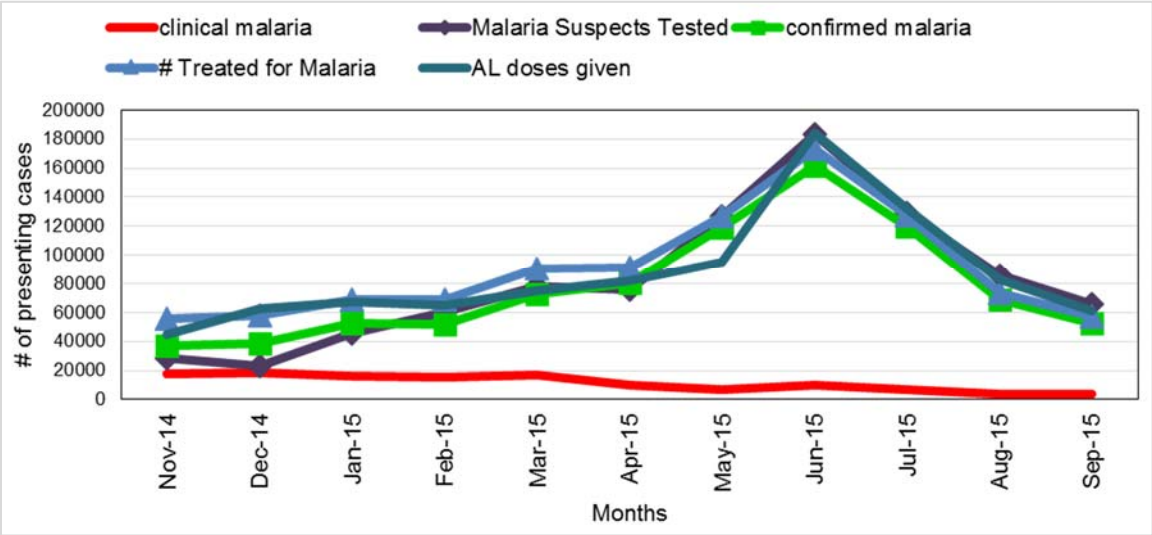
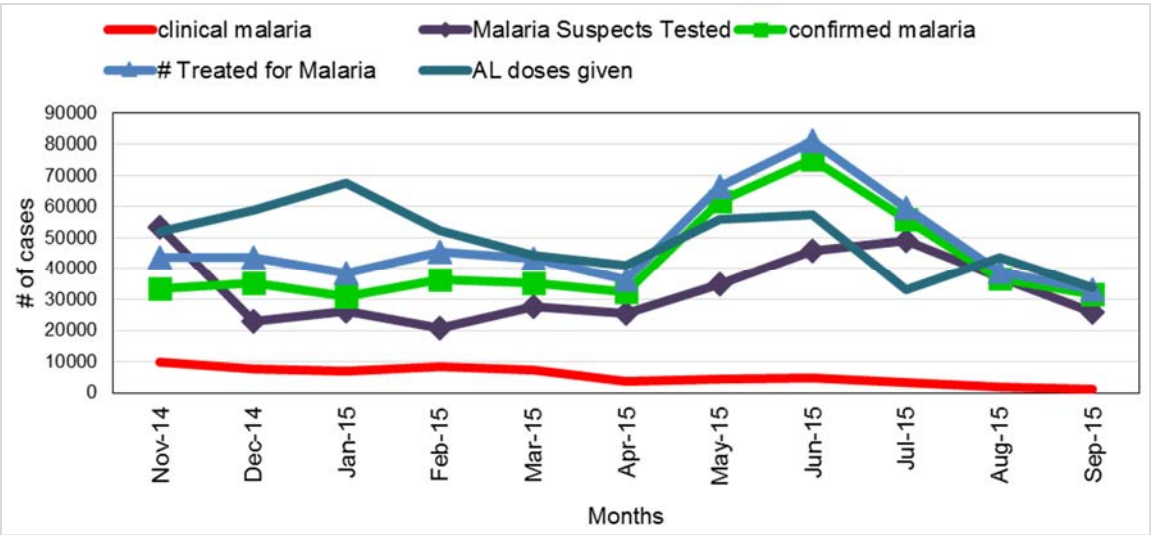
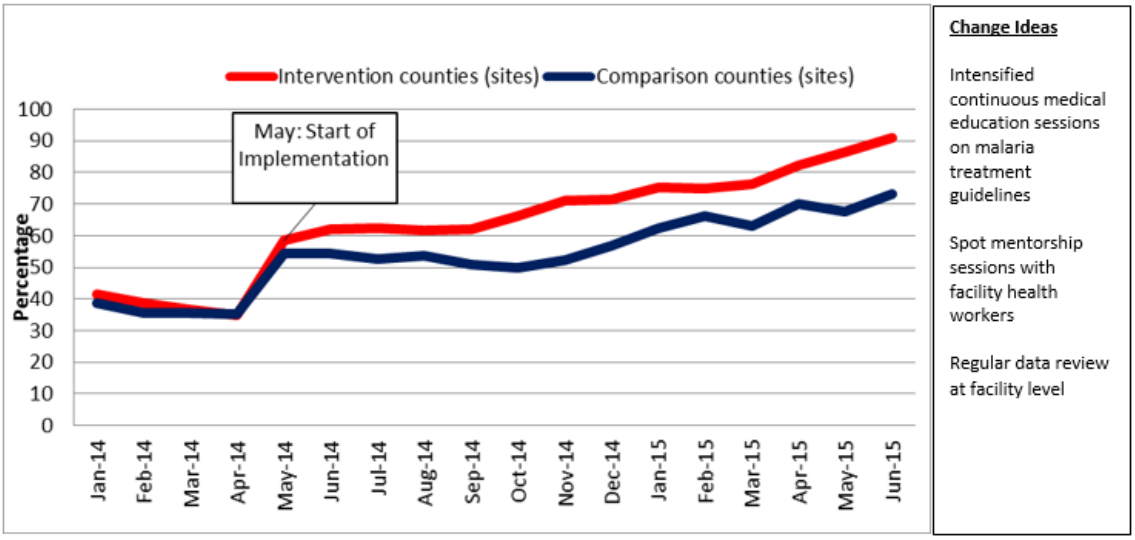


Figure 50: Kenya | Number of confirmed clinical malaria cases, Siaya County (Nov 2014 – Sept 2015)



A number of change ideas were implemented, including intensified continuous medical education sessions (CME's) on malaria treatment guidelines, spot mentorship sessions with facility health workers and regular data review at facility level were employed which have led to some improvement in key indicators. **Figure 51** shows increased percentage of malaria cases treated in intervention sites and comparison sites. The Ministry has encouraged sharing across sites in meetings which may be the cause of the improvement seen in the comparison sites.

Figure 51: Kenya | Increasing malaria cases treated according to national guidelines (Jan 2014-June 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
Malaria	% malaria case management as per guidelines	41% (Jan 2014)	91% (Jun 2015)	50

INSTITUTIONALIZATION/SUTAINABILITY STRATEGY

ASSIST's technical assistance in Kenya has been designed to institutionalize the capacity for continuous improvement in national, county, and facility structures for health care delivery. ASSIST works closely with all relevant MOH units to ensure that the project's support for facility-level improvement work and engagement with county and sub-county structures is aligned with national policies and strategies.

LESOTHO

BACKGROUND

The Government of Lesotho (GOL) launched its National Antiretroviral Therapy (ART) Program in November 2004. Since the national program was launched, the GOL's efforts to provide ART have been hampered by chronic shortages of staff due to high staff attrition rates and historically high costs of drugs used in ART. In recent years, the country has made significant progress in scaling up treatment for HIV and AIDS. The number of people on treatment has risen steadily since the onset of the national program in spite of service delivery gaps. A key problem still being encountered is that only a few of the children requiring therapy receive it.

Since November 2013, the GOL has worked with the USAID ASSIST Project on the following areas:

- The development of a National Strategy for improving the quality of clinical services, in line with the PEPFAR Quality Framework
- Strengthening linkages between HIV testing and counselling (HTC), antenatal care (ANC), maternal nutrition and child health (MNCH), HIV care and treatment, prevention of mother-to-child transmission of HIV (PMTCT), and home-based care (HBC) services
- Improving the quality, uptake, and retention of services along the continuum of PMTCT care; and
- Scaling up of quality improvement within integrated clinical services

Scale of USAID ASSIST's Work in Lesotho

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Strengthen linkages and retention to improve clinical services	
• Eliminate new infections among children through implementation of evidence-based high impact interventions • Reduce AIDS-related maternal deaths through implementation of evidence-based high-impact interventions • Increase ART coverage by establishing linkages to ART programs, and home-based care • Improve patient knowledge, skills, and self-confidence to manage their HIV as a chronic condition through implementation of the Chronic Care Model	• Districts: 3 out of 10 (Butha-Buthe, Thaba-Tseka, and Mohale's Hoek). • Facilities in selected districts: 4 facilities in each of the 3 pilot districts (12 facilities in total, 27% of all facilities in the 3 districts) • Population served: 411,853 (population of 3 districts)

☐ Improvement Activity

Activity 1. Strengthen linkages and retention to improve clinical services

OVERVIEW

A key constraint to the MOH being able to effectively and efficiently provide HIV care and treatment services has been the vertical manner in which these services are rendered—despite policies and strategies to do so otherwise. Given the limited resources the MOH has, it is recommended that they enhance linkages with other government departments in an attempt to provide improved health care services, particularly in the remote parts of the country.

The Partnership for HIV-Free Survival (PHFS) program is a prime example of the need to have linkages strengthened as a means of ensuring that the objective of "keeping mothers and babies alive" is met. Collaboration is needed between PMTCT and nutrition programs' management, laboratory services, pharmaceutical services, transport department, DHMTs, facility staff, and the MOH transport office to ensure that services are provided in a proper and equitable manner.

During the current phase of program implementation, the role of ASSIST is mainly to provide technical assistance (TA) in the development of capacity for quality improvement within the MOH. The entry point for this role is the PHFS program. It is expected that in the next phase of the work (due to start in FY16) ASSIST's role shall expand to include a more intensive involvement in providing quality improvement TA to the general HIV and AIDS program.

Retaining exposed infants and their mothers in care enables HIV-free infant survival and enables systems to keep mothers alive, even in the face of infection. This is made possible by enabling mothers and babies to access the services which contribute directly to survival, such as ARVs for the mother and infant and young child feeding for the baby, and ensuring that mothers and babies are seen together in the same clinic and therefore have their care linked together.

ASSIST's work will improve care on a large scale as a consequence of successful implementation of the PHFS retention strategy. Firstly, the QI principles and processes being employed in the program are applicable across the entirety of the functions of the MOH. Secondly, the establishment of QI teams within the various facilities within which the program is being implemented will have the effect of creating a core group of QI practitioners that the MOH will have as a resource.

KEY ACCOMPLISHMENTS AND RESULTS

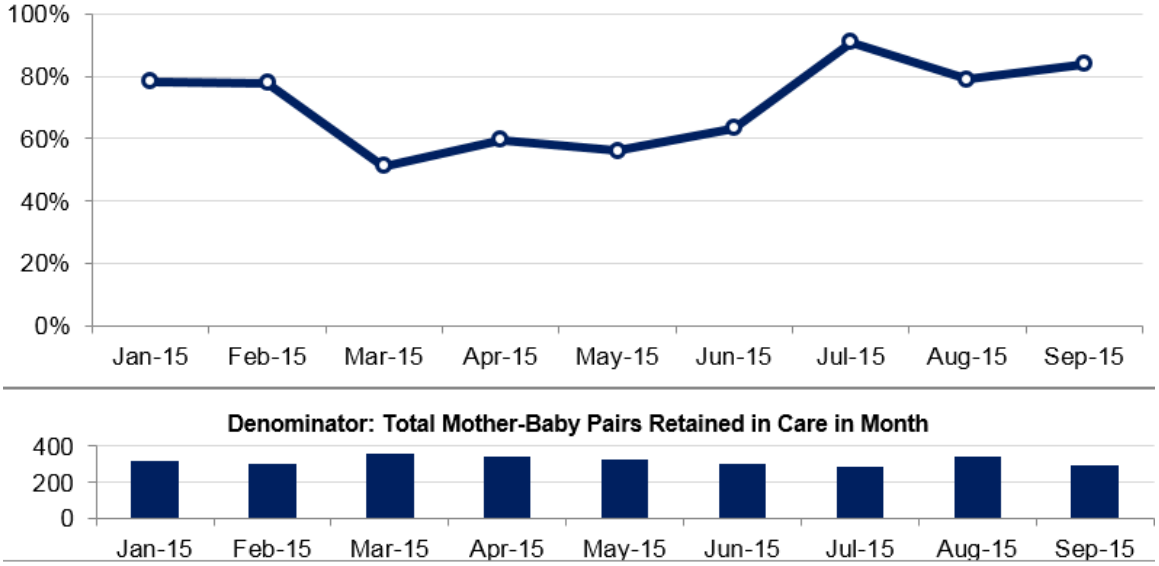
During FY15, ASSIST provided TA to the MOH and PEPFAR Implementing partners at national and district levels. The PHFS initiative was used as the entry point for the program in Lesotho. The program contributed to the reduction of maternal and newborn mortality through the provision of TA to facility-based staff in order to help improve the application of essential preventative and management interventions. In order to attain this reduction in maternal and newborn mortality, three approaches were instituted. These are as follows:

1. **Capacity-building through onsite coaching and mentorship:** All 12 pilot facilities were provided with coaching and mentoring during the period under review. Key QI interventions that were implemented included:

- ***Address data quality issues at site level:*** Facility teams were given refresher training on the proper use of registers in the MCH, ANC, and ART clinics. This training took place at every contact that the national QI team (comprised of the ASSIST Chief of Party and the MOH QA/QI Unit) had with the facilities. It should be noted that in spite of the interventions undertaken, two facilities (Nts'ekhe Hospital and Butha-Buthe Hospital) face significant management challenges that have adversely affected their participation in PHFS activities
- ***Ensure that HIV-exposed babies are alive, thriving and free from HIV at 18 months of age****:* The focus in this reporting period has been to ensure that all mother-pairs, at every contact with the health system, receive the standard package of services defined for them. A crucial component of this standard package is an assessment of the nutritional assessment of both the mother and the baby. In the event that either is found to require supplementation, the package includes the provision of "Plumpy-Nut" as a supplement. Due to the persistent shortage of the supplement, an additional intervention was to continuously advocate for the provision of the supplement.

2. **Strengthening the correct use of standardized HMIS data collection and reporting tools:** At the beginning of this reporting period, about 75% of facilities had complete data sets covering all three indicators being monitored under the PHFS project. This proportion peaked at 90% at the beginning of Q4 and then dropped to 85% at the end of the quarter **(Figure 52).**

Figure 52: Lesotho | Percentage of mother-baby pairs with complete and accurate data, 10 facilities, 3 districts (Jan-Sept 2015)



3. **Coordination with Ministry of Health:** Key achievements at national level included:

- **A knowledge exchange visit was undertaken to Uganda** (Feb 2015)**.**

  The team from Lesotho was comprised of ASSIST Chief of Party, one M&E Officer from the Health Planning Department, two Quality Assurance Managers from the MOH (QA/QI Unit manager and the Nutrition Assessment, Counselling and Support project coordinator), one "in-charge" nurse from Motete Health Center, and the District Coach from Mohale's Hoek.

  A mixed-method agenda was created to provide ample opportunities for knowledge exchange and shared learning. Day one consisted of interactive peer-to-peer learning activities. In addition, interviews were conducted with coaches, who support the sites, to document key areas of learning regarding effective coaching. Days two and three consisted of site visits where participants observed on-site coaching during QI meetings. Days four and five consisted of reflection on the site visits, discussion about effective QI practices, and actions for knowledge sharing, along with the Lesotho team's presentation on what they had heard and learned, how they had processed this learning and how they planned to apply it.

  The exchange visit enabled valuable direct peer-to-peer learning. Trust building between all participants was fostered, and as a result, representatives from both countries' ministries were transparent about their gaps, experiences and areas that need improvement, leading to a deeper exchange that often is not possible during large multi-country meetings. The direct sharing of knowledge and experiences by the ministry staff was noted as highly valuable, as was the knowledge shared from supporting partners.

  The content shared during this visit will provide the remaining PHFS teams with: 1) emphasis on maintaining data quality through creating standards around data collection, tracking, and sharing, 2) evidence-based change ideas that they can test and adapt, 3) ways to enhance QI capacity building; and 4) a glimpse of how scale-up and spread can be achieved.

- **Quarterly coaching and supportive supervision visits:** A total of three coaching and supportive supervision visits were conducted during the course of FY15. Two CHAL facilities, Paray Hospital and Mofumahali-Oa-Rosari Health Center, are performing very well in terms of the three PHFS indicators. Lithipeng Health Center, a GOL facility, has also shown improvement in relation to the three PHFS indicators. **Figures 53-54** demonstrate site-specific improvements in retention of mother-baby pairs following the coaching and supportive supervision visits.

Figure 53: Lesotho | Percentage of mother-baby pairs retained in care, Paray Hospital (Apr 2014 – Sept 2015)

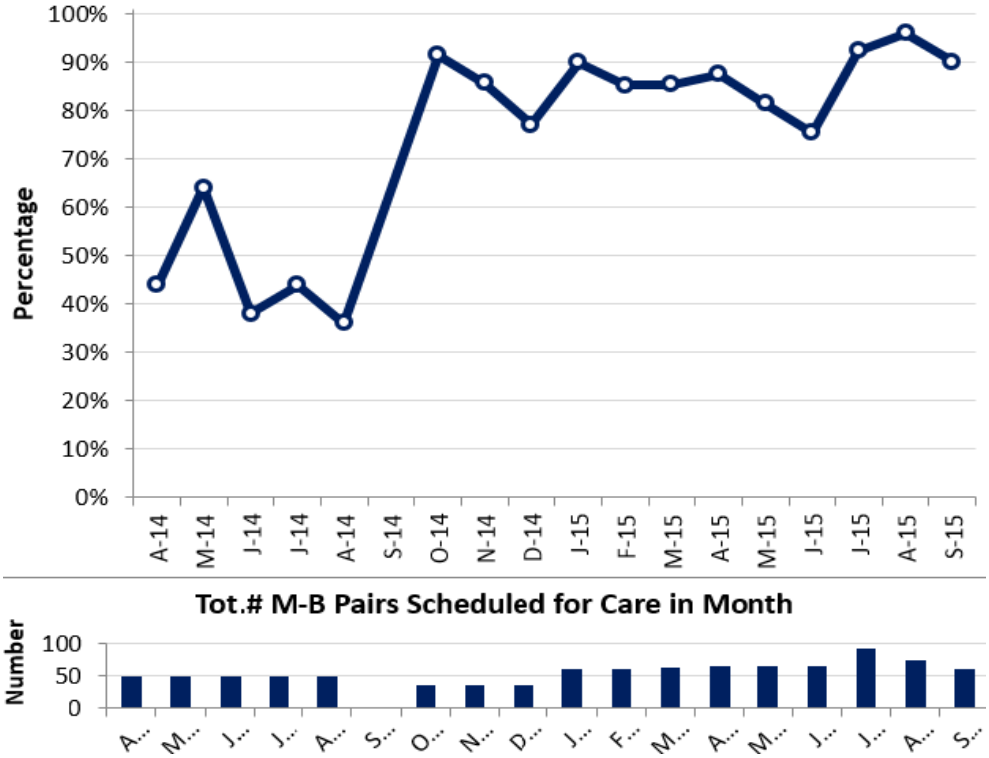
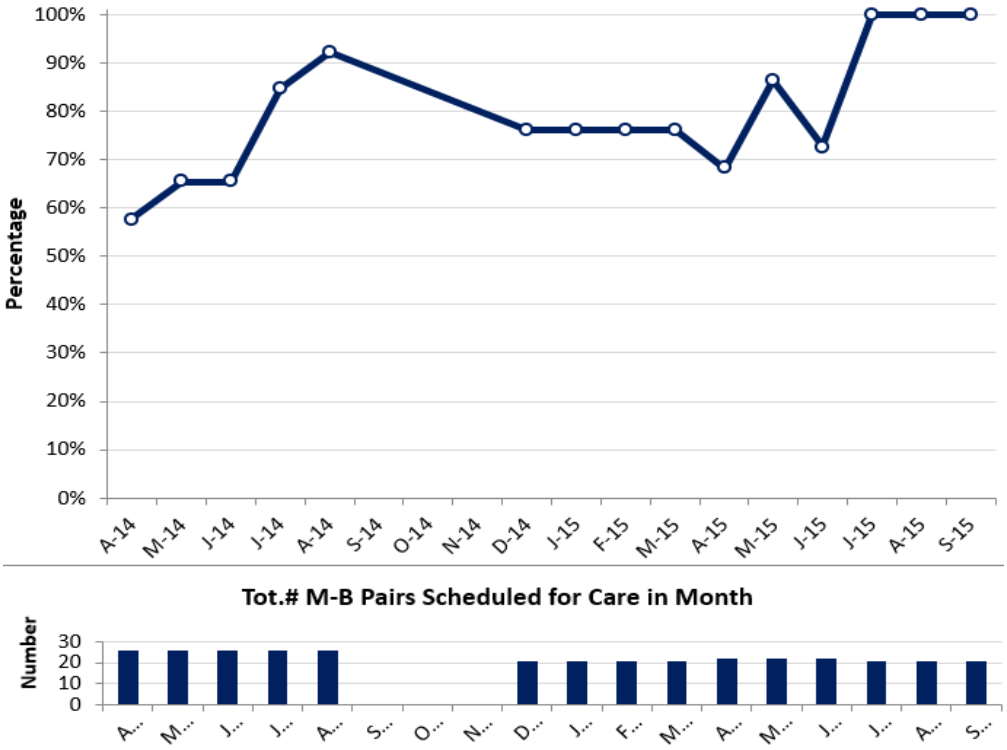


Figure 54: Lesotho | Percentage of mother-baby pairs retained in care, Lithinpeng Health Center (Apr 2014 – Sept 2015)



- **Figures 55-56 show results for the PHFS retention and data quality indicators across all 12 sites.**

Figure 55: Lesotho | Percentage of mother-baby pairs retained in care, 12 facilities in PHFS pilot districts (Sept 2013 – Sept 2015)

Figure 56: Lesotho | Percentage of mother-baby pairs receiving the standard package of services, 12 facilities in PHFS pilot districts (Jan 2014 – Sept 2015)

- **ASSIST conducted gender integration and gender analyses (please see Table 23 in the Knowledge Management section for more details).**

IMPROVEMENT IN KEY INDICATORS

Indicators	Facility	Baseline (April 2014)	Sept 2015	Change (percentage points)
Retaining mothers and babies in care: Percentage of eligible mother-baby pairs who receive ART and under 5 care each month	**MOHALE'S HOEK DISTRICT**			
	Nts'ekhe Hospital	No data	17%	-
	Morifi Health Center	58%	93%	35
	Lithipeng Health Center	58%	100%	42
	Mofumahali-Oa-Rosari Health Center	89%	97%	8
	BUTHA-BUTHE DISTRICT			
	Butha-Buthe Hospital	No data	Validating data	-
	Linakeng Health Center	74%	73%	1
	Motete Health Center	89%	Validating data	-
	St. Paul Health Center	79%	53%	26
	THABA-TSEKA DISTRICT			
	Health Division	71%	87%	16
	MOHlanapeng	100%	82%	18
	Paray	44%	90%	46
	Linakeng	75%	65%	10
Data quality: Percentage of mothers and babies whose data are accurately and completely filled by the end of the month	**MOHALE'S HOEK DISTRICT**			
	Nts'ekhe Hospital	No data*	63%	-
	Morifi Health Center	No data*	77%	-
	Lithipeng Health Center	No data*	95%	-
	Mofumahali-Oa-Rosari Health Center	No data*	97%	-
	BUTHA-BUTHE DISTRICT			
	Butha-Buthe Hospital	No data*	Validating data	-
	Linakeng Health Center	No data*	100%	-
	Motete Health Center	No data*	Validating data	-
	St. Paul Health Center	No data*	50%	-
	THABA-TSEKA DISTRICT			
	Health Division	No data*	100%	-
	MOHlanapeng	No data*	100%	-
	Paray	No data*	100%	-
	Linakeng	No data*	76%	-
Routine visits: Percentage of mother-baby pairs who attend under 5 and ART clinics and receive the standard package of services	**MOHALE'S HOEK DISTRICT**			
	Nts'ekhe Hospital	No data*	78%	-
	Morifi Health Center	No data*	100%	-
	Lithipeng Health Center	No data*	100%	-
	Mofumahali-Oa-Rosari Health Center	No data*	100%	-
	BUTHA-BUTHE DISTRICT			
	Butha-Buthe Hospital	No data*	Validating data	-
	Linakeng Health Center	No data*	100%	-

Indicators	Facility	Baseline (April 2014)	Sept 2015	Change (percentage points)
	Motete Health Center	No data*	Validating data	-
	St. Paul Health Center	No data*	88%	-
	THABA-TSEKA DISTRICT			
	Health Division	No data*	100%	-
	MOHlanapeng	No data*	100%	-
	Paray	No data*	100%	-
	Linakeng	No data*	100%	-

SUSTAINABILITY AND INSTITUTIONALIZATION

ASSIST is supporting the MOH to establish QI teams at various levels of the health care system. This will serve to ensure that QI becomes entrenched within the MOH. In addition, ASSIST will support the establishment of a QI technical working group in 2016 whose membership shall include the major health-related development partners, as well as key implementing partners under the USAID/PEPFAR/CDC umbrella. ASSIST will also support the development of a MOH quality improvement policy, and a QI strategy (with an attendant implementation plan).

During the demonstration and the scale up phases of the project, ASSIST intends to develop District Health Management Team (DHMT) members to serve as district-level improvement coaches who will be able to support national scale-up and sustain improvements. ASSIST will transition in 2016 to a reduced support-mode to allow the MOH, DHMTs and implementing partners to lead improvement efforts. With a national quality improvement strategy in place, and improvement coaches at each level of the health system, ASSIST anticipates creating a sustainable environment for implementing quality improvement approaches to eliminate new infections among children and reduce AIDS-related maternal deaths.

MALAWI

BACKGROUND

Malawi has an alarming 10.6% national prevalence of HIV, with one million people in the country living with HIV. More than half (58%) of those infected are women and girls. The pandemic continues to infect 10,000 people a year, and around 46% of new infections occur among young people 15-24 years old. The disease impacts thousands of families, leaving a growing number of children affected by HIV and AIDS. The HIV pandemic has led to an increase in number of orphans and vulnerable children (OVC) in the country, currently 1.8 million[3]. Of the OVC population, 130,000 are infected with HIV[4]. Almost half (49.6%) of the girls are married off before their 18th birthday and 10% are not in school.[5] As a result, vulnerable children and their families in Malawi are faced with a myriad of challenges including access to essential services such as health, education, economic wellbeing, and protection.

In recent years, there has been rapid expansion of efforts to provide services for orphans and vulnerable children in Malawi. At times, the increase in OVC funding has resulted in a focus on high coverage and outputs, with insufficient attention to the outcomes. Further, stakeholders have called for extra attention to desired outcomes that make a difference in the lives of VC and their families.

In 2009, HCI, with support from the USAID Mission in Malawi and PEPFAR, supported the Ministry of Gender, Children, Disability, and Social Welfare (MOGCDSW) to develop quality standards of care to

[3] Malawi National Plan of Action, Ministry of Gender Children Disability and Social Welfare (2015-2019)

[4] UNAIDS HIV estimates, 2014

[5] Malawi Violence Against Children (2013) Findings from a national survey, The Ministry of Gender, Children Disability and Social Welfare

guide the delivery of services provided to vulnerable children in Malawi. The MOGCDSW endorsed the standards and recommended the scale-up of their usage in the country. The MOGCDSW also incorporated the use of the OVC standards in the National Plan of Action (NPA) for Vulnerable Children 2015-2019 with support from UNICEF and USAID. In the NPA (2015-2019), the MOGCDSW is promoting six core objectives which include: 1) Improving access to essential services by VC, 2) building the capacity of families and communities to facilitate full rights of VC, 3) improving capacity (technical, institutional and human resource) of the social protection system, 4) ensuring VC live in supportive environment, 5) strengthening the functionality of the monitoring and evaluation systems, and 6) Improving policy and legislation, leadership and coordination at levels to protect VC from the consequences of vulnerability. The ASSIST project is supporting the MOGCDSW to achieve all the six objectives in its activities.

ASSIST Malawi's work supports the five PEPFAR agendas, particularly the agenda of promotion and protection of human rights for all and other vulnerable populations. The project is promoting sustainable changes to be introduced in existing community local government structures to support the welfare of children. ASSIST's work in Malawi contributes to the first Development Objective of the Country Development Cooperation Strategy (CDCS, 2013-2018) of improving social and sustainable livelihoods through promotion of self-reliance, community ownership, participation, partnership and multi-sectoral team work of government and non-governmental stakeholders at grass root level. This work is also contributing to the PEFAR 3.0 pillar of sustaining the control of the epidemic by saving lives and averting new infections by increasing women and girls' access to income and productive resources including education.

Scale of USAID ASSIST's Work in Malawi

HIV/AIDS (including OVC)

MOGCSW, MOH, 3 USG partners (VMMC)

9 out of 28 districts (OVC)

7 out of 28 districts (VMMC)

2 out of 28 districts (Malaria)

151 communities

10 QI Teams (OVC)

13 QI Teams (VMMC)

329,311 out of 13.6 million

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Improve quality of services for vulnerable children (VC) and their families	
• Improve the percentage of VC ages 6-17 with improved school performance in 21 primary schools by strengthening family and community support and involvement in children's education in Balaka and Mangochi districts • Increase the percentage of vulnerable families engaged in household economic strengthening activities that are linked to existing community support systems	• Southern Region: Balaka and Mangochi districts • 5/12 Traditional authorities in Mangochi and 2/7 Traditional authorities in Balaka • Communities: 10

What are we trying to accomplish?	At what scale?
• Build the capacity of 10 communities to identify evidence-based, effective changes for spreading to new communities • Build the capacity of District Social Welfare Officers in 2 districts to facilitate subsequent OVC program improvements	• Catchment population: 173,399 out of 316,748 total population of Balaka District • 155,912 people out of 803,602 total population of Mangochi District
2. Improve the quality and safety of Voluntary Medical Male Circumcision (VMMC)	
• Build the capacity of PEPFAR partners to implement continuous quality improvement in VMMC service delivery • Build the capacity of VMMC facilities to continuously improve the quality and safety of VMMC services at the site level • Improve the quality and safety of VMMC services, processes and systems in targeted VMMC facilities in 7 districts in Malawi	• Southern Region: Blantyre, Chikwawa, Thyolo, Mulanje, Chiladzulu, Zomba and Phalombe • 13 QI teams • 3 implementing partners

Improvement Activity

Activity 1. Improve quality of services for vulnerable children and their families

OVERVIEW

In March 2015, the MGCDSW, with support from the ASSIST project started supporting five new community based teams to initiate improvement work in their communities. The teams were taught how to conduct Child Status Index assessments using the MEASURE Evaluation Child Status Index (CSI) tool. The new communities identified various priority areas to work on and they initiated their improvement work to improve the quality of services delivered to vulnerable children and their families. In quarters two and three of FY15, the previously established QI teams started to improve education performance of children in 15 primary schools in Mangochi and Balaka districts. These five teams were also supported to develop their improvement aims and changes to be tested and improvement progress indicators'. These aims were based on the selected priorities identified from the community in child status index assessment findings.

KEY ACTIVITIES AND RESULTS

- **Seven teams have supported 696 vulnerable households with various services** (Jan 2015 – Sept 2015). USAID ASSIST supported the teams to identify vulnerable households and link them to existing social interventions, ranging from establishing kitchen gardens, linkages to Village Savings and Loans (VSLs), linkages to use modern methods of farming, linkage to other NGOs, establishing wetland farming, engaging in small businesses and engaging in livestock production in the seven targeted communities.
- **Provided support to 10 quality improvement teams through on-site coaching visits** (Q3-Q4): In order to improve the quality of services for vulnerable children and their families, the MGCDSW, in collaboration with ASSIST, conducted on-site coaching visits to 10 communities to build the capacity and skills of social service providers to use quality improvement techniques in their work. During the coaching visits, the Ministry supported the five initial QI teams to develop second improvement aims and also guided the five new community improvement teams to conduct CSI, analyze and use the results to identify priority areas for improvement.
- **Conducted three quarterly gender integrated learning sessions** (Nov 3-6, 2014, Mar 9-13 and Aug 22nd–25th, 2015). In the first quarter of FY15, ASSIST and the MOGCDSW facilitated a learning session bringing together primary school teachers, school heads, and agriculture extension workers**.** During the learning session, teams were taught some of the evidence-based changes that could lead to improvement in education performance among VC in schools. Objectives of the learning sessions included to review baseline information collected for the

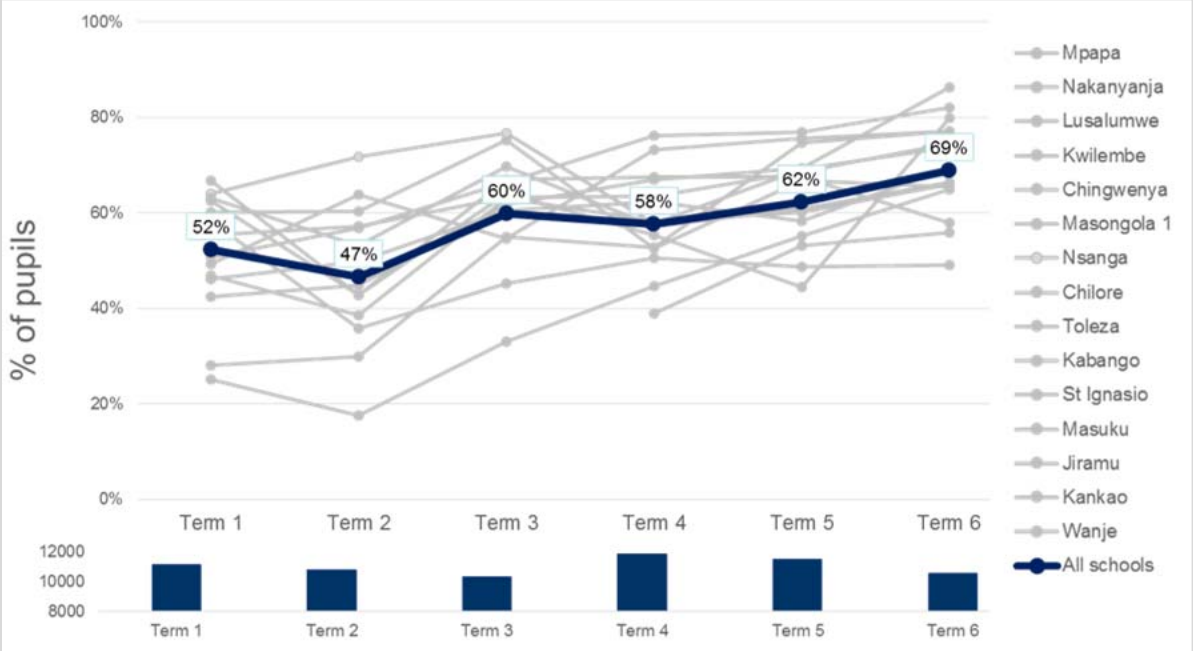
second improvement aim on household economic strengthening, review progress, and share lessons from the targeted schools. During these learning sessions, ASSIST and the MOGCDSW compiled all the changes that were reported to be effective in leading to improvements in education performance among vulnerable children. Further, representatives from each of the 10 communities were brought together to share best practices and to learn from each other about their improvement experiences. As part of the facilitating of the learning the teams were undertook a field visit to one of the schools in the district to learn how the school managed their data on site. The teams appreciated the field visit and they learned a lot from the school.

- **QI orientation for five new communities** (Q3-Q4)**:** The MOGCDSW, with support from ASSIST, scaled up the improvement work to new communities within the targeted Mangochi and Balaka districts. The Ministry, in collaboration with the Mangochi and Balaka District Social Welfare Officers selected five community-based organizations (CBO) to champion the improvement work. The communities were oriented on QI methods and techniques. To initiate the improvement work, community representatives were guided to go back to their communities to collect baseline information about the welfare of vulnerable children, identify critical challenges faced by vulnerable children and their families using the CSI assessment tool adapted from MEASURE Evaluation, and identify priorities to address based on the findings.
- **Building the capacity of teams in integrating gender in improvement work for OVC** (Q2): To ensure improved services, women and men, boys and girls need to be empowered and given the opportunity for self-improvement. Initially, teams were disaggregating their data by sex and they needed more support and skills on how they could fully integrate gender-responsive changes into the improvement work. Elizabeth Romanoff Silva, an Improvement and Gender Specialist from WI-HER LLC, visited Malawi to support the gender in OVC work. In collaboration with the Ministry, she oriented community quality improvement teams on how to identify gender gaps and how teams can identify effective changes the teams to address gender gaps to close the quality chasm that exist in many social services. A total of 39 (29 male and 10 female) community members, government extension workers, volunteers, and local leaders were oriented to the use of the OVC standards using QI techniques between (Mar 3-6, 2015)**.** Participants were drawn from three community-based organizations (CBOs) in Mangochi and two CBOs in Balaka. The five communities (Malembo, Mpeya, Chapola, Kadyalunda and Chanthunya 2) were oriented to use quality improvement techniques to improve the quality of life for vulnerable children and their households. ASSIST and the District Social Welfare Officer for Balaka District facilitated the workshop.
- **Harvard University doctoral student visited Malawi to conduct OVC data validation** (Q4)**:** As part of ASSIST's mandate to validate 25% of the key indicators collected by teams supported by the project, Alex Kintu, a post-doctoral student from Harvard University, visited Malawi to support the field team conduct a data validation exercise. The purpose of the visit was to compare ASSIST reported figures with records kept by CBOs and school records; appreciate the processes followed by QI teams in coming up with the reported figures to understand what these figures represent; compare the data collection processes and data quality across all teams; and compare primary education performance data in schools that ASSIST supports to that of control facilities that do not get this support. The validation was confined to education indicators only.

  Results of the validation exercise showed that quality improvement activities have had a positive effect on education performance in the communities that are supported by ASSIST. This was manifested by the positive trend in education performance in almost all schools that received this support; by the similarity of data that QI teams previously submitted to ASSIST and finally by the data collected during the validation process. In addition, schools that are supported by QI teams had more reliable data tracking mechanisms and generally performed better than those that did not.
- **Senior Improvement Advisor for OVC visited Malawi to support the OVC program** (Q3). To ensure the OVC work in Malawi is aligned to the PEPFAR 3.0 objectives, Dr. Diana Chamrad visited Malawi to support the OVC work and how it can align to the new PEPFAR objectives in its programming. She also supported how best to improve case management and referrals of vulnerable families to various interventions particularly access and utilization of health services.

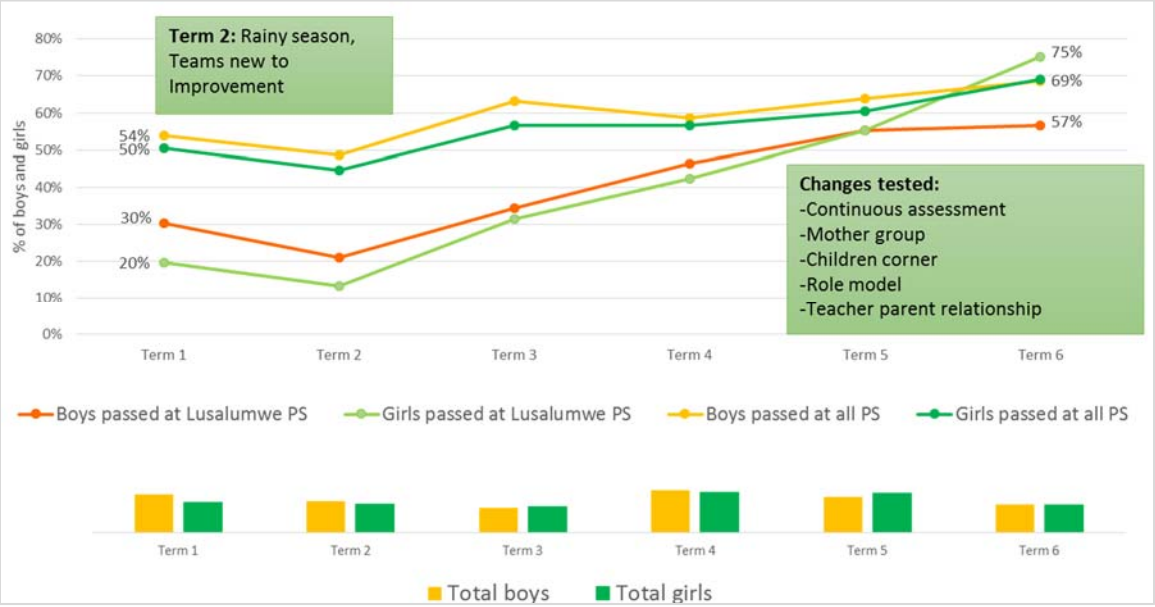
- **Results on improving education performance of children in 15 targeted primary schools in Balaka and Mangochi Districts** (Q2-3)**:** During Jan-July 2015, the community QI teams worked with 15 primary schools to improve the performance of the learners. The teams tested different changes, some of which included: 1) using volunteer mother groups to follow up children irregularly attending school, 2) using continuous assessments and revisions, 3) using local role models to motivate girls to work hard in school, and 4) introducing extra-curricular educational activities such as children's corner sessions, debates and competitions' among classes. As the teams tested these changes across terms, the schools continued to show improvement in the performance of the pupils.
- **Integrated gender in primary education in Balaka and Mangochi districts** (Q3-4). The teams continued to analyze education performance data disaggregated by sex. Using the results of the analysis, the teams developed improvement plans that incorporated gender sensitive changes to address the gender gaps that existed between boys and girls in terms of academic performance. **Figure 57** shows that from quarter two and three there was an improvement from 52% to 69% in terms overall end-of-term exam pass rates in primary schools**.**

Figure 57: Malawi | Percentage of pupils passing exams in 6 terms, 15 primary schools supported by five community QI teams, Balaka and Mangochi districts (Sept 2013- Jul 2015)



- **Integrated gender in primary education in Balaka and Mangochi districts** (Q3-4). The teams continued to analyze education performance data disaggregated by sex. Using the results of the analysis, the teams developed improvement plans that incorporated gender sensitive changes to address the gender gaps that existed between boys and girls in terms of academic performance. **Figure 58** shows results of overall education performance of children in 15 schools disaggregated by sex and an example of one primary school that has managed to clearly close the gender gap by moving from (20%, 54%) for girls and boys in term one, to (75%, 69%) in term six.

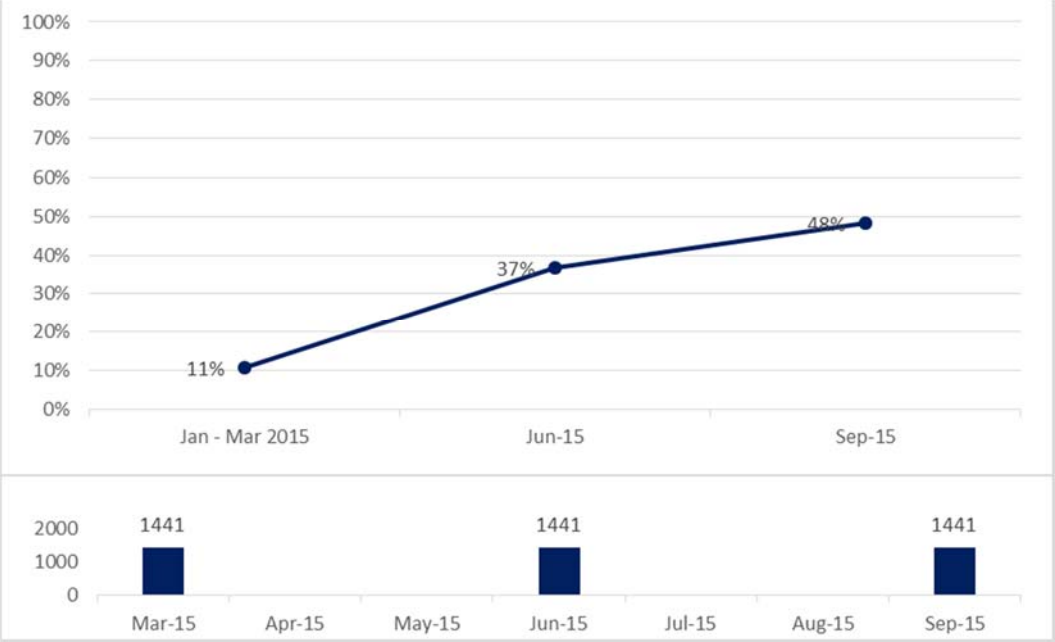
Figure 58: Malawi | Percentage of boys and girls who passed end-of-term exams across 6 terms, 15 primary schools in Balaka and Mangochi districts and Lusalumwe Primary School (Sept 2013 – Jul 2015)



- **Aligning to the National Plan of Action (2015-2019), the Ministry with support from ASSIST supported community teams to build the capacity of guardians in vulnerable households as primary caregivers to care for their own children in an economically stable environment** (Q3). A number of interventions were promoted by the community teams to improve the vulnerable households' food security and economic status. The goal was to ensure that vulnerable households have enough food for the rest of the year, particularly during food scarce months of October-February. Guardians were taught how to access money to meet important family needs such as access to food, health, and education and scholastic materials for their children.

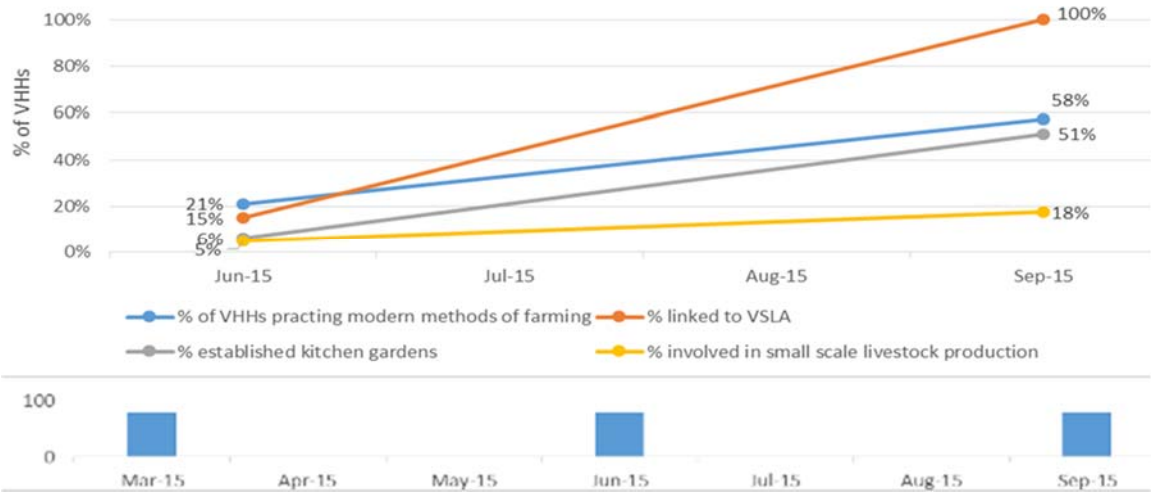
  The 10 teams began having discussions with vulnerable families to participate in food security and economic strengthening activities, while linking them to available services or projects available in their communities. Anecdotal evidence shows that families are becoming self-reliant are now able to cope with seasonal adversities. Some of the interventions the teams engaged the vulnerable households (VHHs) to improve food availability and economic status of their households included: linking VHHs to Village Savings and Loan Associations, establishing kitchen gardens, linking VHHs to NGOs supporting economic strengthening activities, and supporting households to begin using modern methods of farming as they prepare for the growing season. **Figure 59** shows the percentage of vulnerable households supported in seven of the 10 communities. The remaining three communities have not yet started reporting household economic strengthening (HES) data due to data analysis challenges. Overall, 1,441 vulnerable households were targeted between Q2-Q4. Out of these, 11% were supported with various household economic strengthening activities and in quarter two, 48% were reached with the HES interventions to build their self-reliance in quarter four.

Figure 59: Malawi | Percentage of vulnerable households supported to improve their household food availability and economic status in Balaka and Mangochi districts (Jan – Sept 2015)



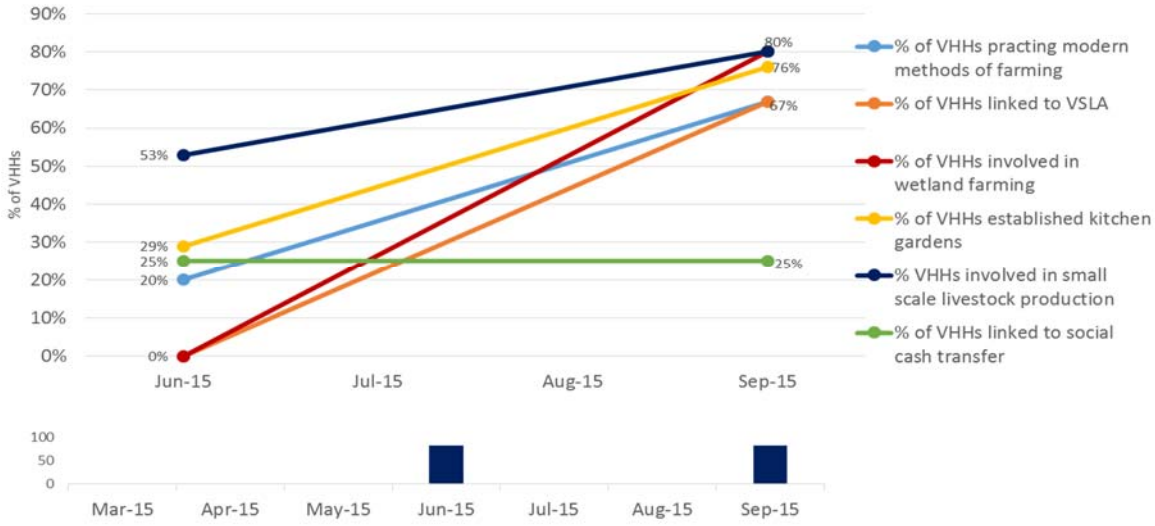
- **Results from community teams that supported vulnerable households in various HES interventions.** Kadyalunda CBO is one of the community QI teams that engaged the vulnerable families to improve household food availability and economic wellbeing to support essential needs of their families. **Figure 60** shows the results of support the Kadyalunda QI team provided to vulnerable households (VHHs) in the last two quarters. The team mentored families on how to be economically resilient and to be food secure during periods of food scarcity. The team encouraged vulnerable households to use modern methods of farming and discourage cultural practices that promote food wastage. The team recorded an increase from 53% in quarter 2 to 80% in quarter 4 of vulnerable households practicing modern methods of farming. Vulnerable families were also counselled on the importance of participating in interventions like Village Savings and Loans Associations (VSLA) to be able to access small loans for capital for small businesses and boost the household income and savings for the families. The team facilitated linkages of vulnerable households to VSLA groups from 0% in quarter two to 67% in quarter four among 80 vulnerable households.

Figure 60: Malawi | Results of household economic strengthening and food security activities for Kadyalunda community QI team (March 2015 – Sept 2015), n=80



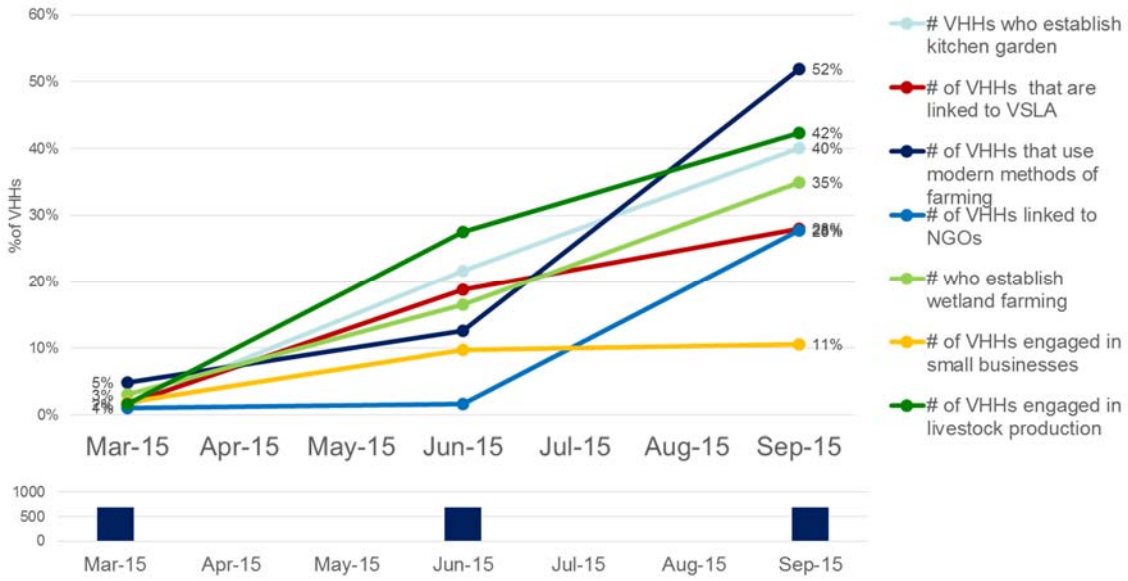
- **Another example of a community team that also observed improvements in households supported with household economic strengthening activities is the Mpeya community QI team in Balaka District. Figure 61** shows that the Mpeya QI team engaged nearly all the targeted families in an activity to improve their food security situation and economic status. The targeted beneficiaries were 83 vulnerable households in the catchment area. It also illustrates that from June to September 2015, improvements were attained in the percentage of vulnerable households: linked to VSLA interventions (from 0% to 67%); cultivating in wetland areas during the dry season (0% to 80%); and establishing of kitchen gardens at the household level (29% to 76%) to encourage families to incorporate vegetables in their dietary intake, particularly for children and HIV-infected guardians/family members, among other improvements.

Figure 61: Malawi | Results of household economic strengthening and food security activities for Mpeya community QI team (April– Sept 2015), n=83



- **Figure 62 shows the increase in percentage of vulnerable households engaged in food security and economic strengthening activities across seven communities: Chingwenya, Toleza, Chanthunya 1 and 2, Kadyalunda, Mpeya, and Malembo.**

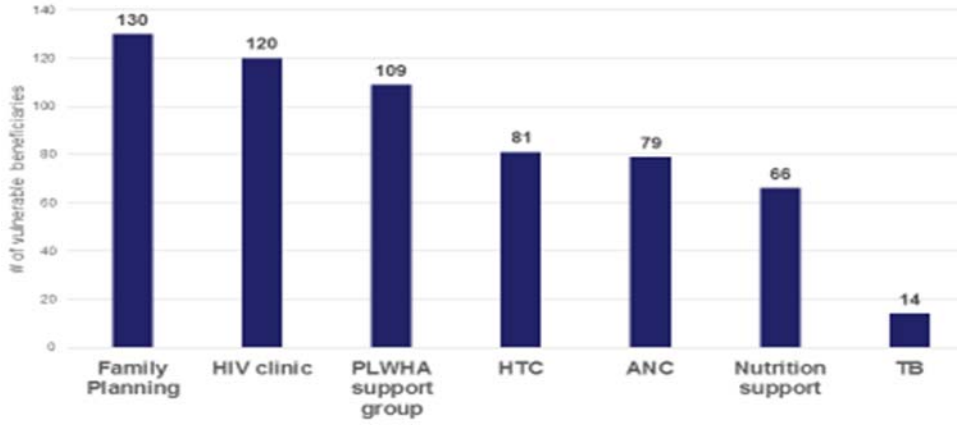
Figure 62: Malawi | Percentage of village households engaged in food security and economic strengthening activities, 7 communities (Jan – Sept 2015), n=696



Linkages to health services

- **In an effort to comprehensively support vulnerable families in these two districts and align the improvement work with PEPFAR 3.0 key agendas, the MOGCDSW and USAID ASSIST supported the community teams to reach out to vulnerable families and their children in an effort to improve their access to and utilization of health services in their catchment area to maximize the impact of services** (Q3). Community teams were encouraged and taught how to integrate health services in the existing improvement work by intensifying counselling, discussions, guidance, and referrals of vulnerable families to appropriate health services according to their needs. A specific improvement aim was not developed for this intervention. All 10 communities have started counselling vulnerable families on the importance of accessing health services such as PMTCT, ART, TB screening, HTC (including pediatric HTC), family planning, malnutrition screening, antenatal care, and positive living support group therapies.
- **Figure 63 shows the results of these efforts in terms of the referrals made to health services, including family planning, HIV testing, antenatal care, HIV clinic, nutrition support and TB services.**

Figure 63: Malawi | Number of vulnerable beneficiaries referred for health services from 6 communities, Balaka and Mangochi districts (Apr – Sept 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (April 2015)	September 2015	Last value	Change (percentage points)
Improve the quality of services for vulnerable children in Malawi	**% of vulnerable children 6-17 years passing termly exams**	54% (15 schools)	69% (15 schools) Apr- Sept 2015 5 community QI	69% (15 schools) Apr- Sept 2015 5 community QI	15
	% of vulnerable households linked to NGOs supporting HES activities	1% (2 communities)	28% (7 communities)	28% (7 communities) Jan – Sept 2015	27
	% of VHHs established kitchen gardens	1% (2 communities)	29% (7 communities)	29% (7 communities) Jan – Sept 2015	28
	% of VHHs linked to VSLA	2% (2 communities)	66% (7 communities)	66% (7 communities)	64
	% of VHHs practicing modern methods of farming	5% (2 communities)	52% (7 communities)	52% (7 communities) Jan – Sept 2015	47
	% of VHHs involved in wetland farming	3% (2 communities)	35% (7 communities)	35% (7 communities)	32
	% of VHHs engaged in small-scale business	2% (2 communities)	11% (7 communities)	11% (7 communities) Jan – Sept 2015	9
	% of VHHs engaged in small-scale livestock production	2% (2 communities)	42% (7 communities)	42% (7 communities)	40
	# of vulnerable beneficiaries referred for health services	No documentation of referrals	599 (6 communities)	599 (6 communities) April - Sept 2015	--

Activity 2. Improve the quality and safety of VMMC

OVERVIEW

In March 2007, the World Health Organization (WHO) along with the Joint United National Program on HIV/AIDS recognized male circumcision as an effective intervention for HIV prevention in regions with high HIV prevalence and low male circumcision rates, such as the Sub-Saharan Africa. VMMC has shown to be 60% effective in reducing the risks of transmission of HIV. However, as a country poised to scale up VMMC as a prevention strategy for HIV, health facilities in Malawi offering the services need to be ready to provide safe and quality services.

The MOH in Malawi in its National Strategic Plan (2011-2016) endorsed VMMC as one of the country's HIV prevention strategies. Since then, notable achievements have been observed, such as the development of Standard Operation Procedures (SOPs), a national policy, and a communication strategy on VMMC. In FY15, USAID Malawi requested ASSIST to improve the quality of VMMC services being provided across the country.

In October 2014, ASSIST Malawi started work on improving quality of VMMC services. ASSIST provided TA to the MOH to ensure quality services were delivered to all VMMC clients at all times. ASSIST supported three USAID implementing partners that are providing VMMC services in 13 sites in seven districts in the southern region. The MOH, with support from ASSIST, trained service providers and supported them to initiate improvement work in their sites. ASSIST also supported the

District Health Officers to conduct quality improvement coaching sessions.

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST conducted gender integration and gender analyses (please see Table 23 in the Knowledge Management section for more details).**
- **Participated in a USAID External Quality Assessment exercise** led by USAID to the seven VMMC districts being supported by Jhpiego, PSI, and BLM in the Southern Region (Feb 10-19, 2015).
- **The MOH and USAID implementing partners, with support from ASSIST, conducted baseline assessments on VMMC services** (Apr 26–May 1 and Jun 7-16, 2015). The assessments were conducted in 13 facilities supported by USAID implementing partners Jhpiego, PSI and BLM in the following seven service areas: 1) management systems; 2) supplies, equipment, and environment; 3) registration group education and IEC; 4) individual counseling and HIV testing; 5) male circumcision surgical procedure; 6) monitoring and evaluation; and 7) infection prevention. The results of the assessments revealed significant gaps in 12 of the 13 sites including Zomba police, Thyolo, Makhwira, Bangwe, Maravi, Migowi, Chisitu, Thembe, Malambwe, Dziwe, Sakata and Chimwala.
- **Based on the findings of the baseline assessments, MOH with technical assistance from ASSIST Malawi and Uganda, oriented a total of 28 VMMC service providers from the three implementing partners and 13 VMMC sites in quality improvement** (Q3). As a result, a total of 13 QI teams were formed, and these were supported facilities to design and implement improvements in all their sites.
- **Conducted QI coaching in VMMC sites** (Q3). After collecting the baseline data, MOH with support from ASSIST began working with the VMMC service providers to address the gaps identified during the baseline assessment. ASSIST conducted onsite visits to support service providers on their improvement plans and how they would address service delivery gaps identified during the baseline assessment.
- **Results on VMMC baseline assessment. Table 2** shows a dashboard showing results of the VMMC baseline assessment conducted in 13 sites. A follow-up assessment is due at the end of October 2015 where teams will be assessed to determine whether they have improved on the indicators.

Table 2: Malawi | Results of the VMMC baseline assessment conducted in 13 sites supported by BLM, PSI, and Jhpiego (May-June 2015)

MALAWI VMMC BASELINE ASSESSMENT RESULTS							
Dashboard Key	>=80%		Collaborative support				
	50% - <80%		Light support				
	<50%		Intensive support				
	Not observed						
	Management systems	Supplies, equipment & environment	Registration group education and IEC	Individual counseling & HIV testing	Male circumcision surgical procedure	Monitoring & evaluation	Infection prevention
Zomba police	27.3	33.3	25	0	66.7	50	54.5
Thyolo	36.4	50	50	NO	50	78.6	83.3
Makhwira	45.5	33.3	0	50	33.3	0	60
Bangwe	54.5	33.3	100	66.7	40	64.3	60
Maravi	45.5	33.3	66.7	72.2	74.2	71.4	70
Migowi	36.4	50	100	88.9	56.7	21.4	100
Chisitu	27.3	33.3	50	17.6	28.1	78.6	54.5
Thembe	18.2	66.7	80.7	66.7	42.9	71.4	77.8
Malambwe	18.2	83.3	50	66.7	50	28.6	77.8
Dziwe	63.6	83.3	66.7	88.9	78.8	85.7	66.7
Sakata	90.9	66.7	83.3	72.2	75.8	21.4	87.5
Chimwala	54.5	83.3	83.3	61.1	90.6	28.6	77.8
Namwera	63.6	83.3	66.7	72.2	71.9	71.4	88.9

SUSTAINABILITY AND INSTITUTIONALIZATION

At the national level, the USAID ASSIST Project is supporting the MOGCDSW to build capacity of 10 model teams in improvement work to compile effective ways of improving wellbeing of vulnerable children in education, household economic wellbeing, and health. Learning from the 10 communities, the MOGCDSW will expedite the spread of improvements in new communities and districts in FY16. During the past two quarters, the MOGCDSW facilitated coaching and peer-to-peer learning sessions of the teams in improvement work.

At district and community levels, the MOGCDSW, with support from USAID ASSIST, supported district social welfare officers, child protection workers, health surveillance assistants, agriculture extension officers, primary school heads and teachers, group village heads, and area and village development committee representatives in continuous quality improvement processes to enhance their capacity to lead and manage improvement work at community and district levels.

MALI

BACKGROUND

ASSIST began working in Mali in May 2013 by building on the work of HCI. Upon the request of the MOH to USAID Mali, ASSIST is working to: 1) improve evidence-based maternal and newborn care and postpartum family planning services at facility and community levels in eight target districts in the Kayes Region; and 2) improve delivery of evidence-based interventions aimed at reducing anemia among pregnant women and infants at facility and community levels in the Bougouni District of Sikasso Region. The project is also supporting implementation of the World Health Organization (WHO) Safe Childbirth Checklist (SCC) as well as people centered integrated health services (PCIHS), including postpartum family planning, in a sample of maternities.

By focusing on results and addressing key cross cutting MNCH service issues, the project is contributing to improve pregnancy, delivery, and newborn care as well as supporting system functions at facility and community levels in the regions of Kayes and Sikasso.

The activities are aligned with the current health strategy of USAID Mali focusing on key areas of population needs in health to build a strong community based MNCH program with responsive facility-based services – Community Health Center (CSCOM/*Centre de Santé Communautaire*) and Referral Health Center (CSREF/*Centre de Santé de Référence*), promoting compliance to norms and standards for better health outcomes in the health centers.

Scale of USAID ASSIST's Work in Mali

Maternal and Child Health
Family Planning/POP
Water and Sanitation (including Nutrition)

MOH, 3 (1 National Direction of Health and 2 Regional Direction teams)

9 out of 18 districts

244 facilities

66 communities

244 QI teams

1,943,093 out of 2,941,285 million

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Improvement of EONC intervention at the facility and community levels (Kayes Region)	
• Improve the delivery of high-impact evidence-based maternal and newborn care, and PPFP services at facility and community levels in target districts (Kayes Region) • Improve the compliance of health-care workers with best practices around the time of childbirth by using Safe Childbirth Checklist (SCC) in 2 districts of Kayes (39 sites)	• Regions: 1 out of 9 • Districts: 8 out of 8 in 1 region • Facilities in selected districts: 87% (202 out of 233) • Communities: 10 out of 28 health areas in 1 district • Catchment population in facilities served: 1,858,319 out of 2,373,968
2. Improvement of anemia prevention and control activities in Bougouni District (Sikasso Region)	
• Improve the delivery of evidence-based interventions to reduce anemia among pregnant women and infants at the facility and community levels in Bougouni District (Sikasso Region)	• Regions: 1 out of 9 • Districts: 1 out of 10 in 1 region • Facilities in selected districts: 100% (43 out of 43) • Communities: 56 out of 506 • Catchment population facilities served (42 health areas): 567,317 out of 567,317 • Catchment population communities served (4 health areas): 84,774 out of 567,317

Activity 1. Improvement of EONC intervention at facility and community levels (Kayes Region)

OVERVIEW

Maternal mortality has modestly declined over the past 10 years in Mali. Nonetheless, the maternal mortality ratio (MMR) remains unacceptably high at 368 deaths/100,000 live births (DHS 2012-2013). Obstetric haemorrhage is still one of the main causes of maternal death in the country. Skilled birth attendance reported at 59% can significantly reduce maternal mortality due to haemorrhage, with the application of evidence-based interventions such as active management of the third stage of labor (AMTSL). Currently, 74% of pregnant women receive antenatal care (ANC) (at least one visit), yet only 47% pregnant women receive tetanus toxoid vaccines, and 41% are informed on danger signs during pregnancy and delivery (DHS 2012-2013). The improved ANC validated at national level is facing a lot of challenge for implementation. USAID ASSIST will contribute to improve the implementation of ANC in the project impact areas.

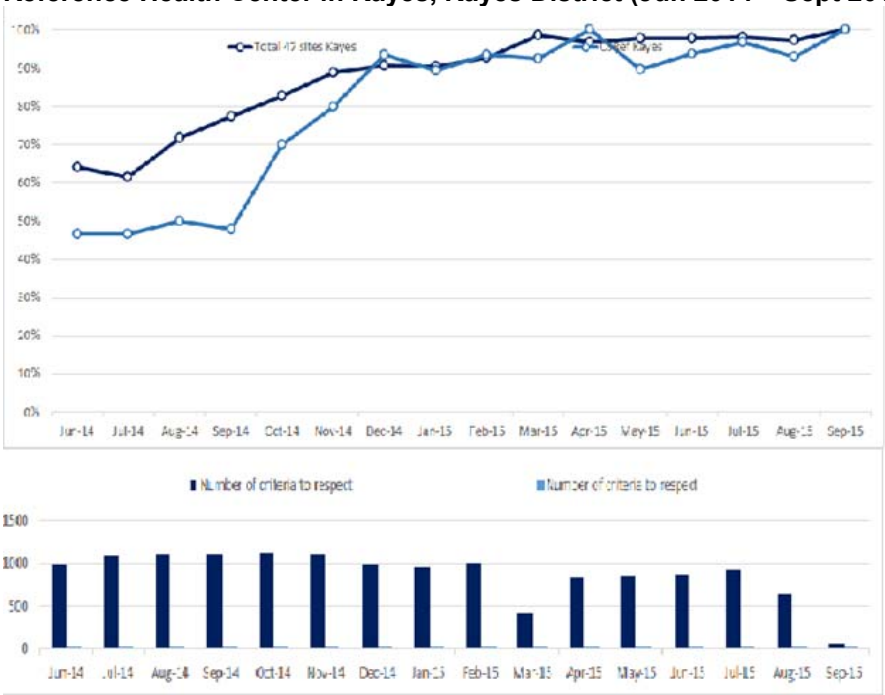
Mali has a high total fertility rate (TFR) of 6.1 and a low contraceptive prevalence rate (CPR) of 10% for modern methods (DHS 2012-2013). The unmet need for family planning (FP) in Mali is 26% among all women of reproductive age (DHS 2012-2013). While postpartum family planning with Healthy Timing and Spacing of Pregnancies (HTSP), the lactation amenorrhea method (LAM) and a transition to other modern family planning methods is included in Mali's Policies, Norms, and Protocols (PNPs), there is still a need to emphasize the role of longer-acting methods in helping women to achieve appropriate pregnancy spacing.

The rollout of the essential newborn care (ENC) package is yet to reach expected results in the quality of services provided for newborns after delivery. Newborn resuscitation remains a big challenge for providers besides the training received and the need for improving this service is critical. ASSIST will work with the National Direction of Health and partners to improve the competence of providers and to contribute to refining the package of newborn resuscitation at the facility level.

KEY ACCOMPLISHMENTS AND RESULTS

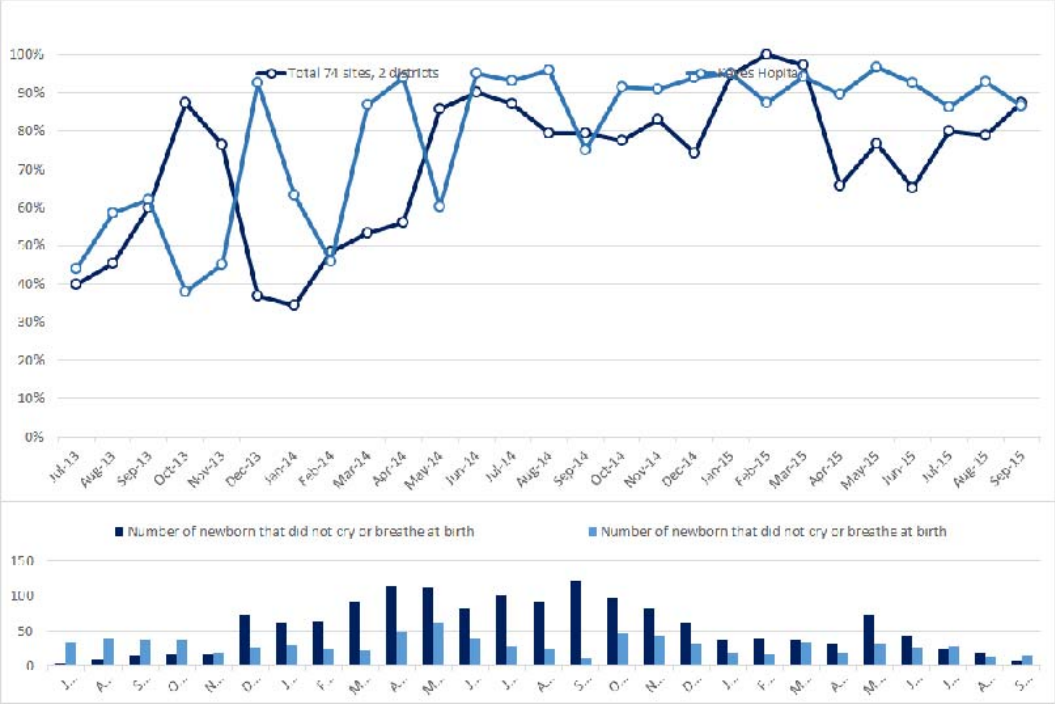
- **Provided technical support to strengthen and scale-up of EONC best practices and spread package (AMTSL, ENC, PEE, HBB, ANC and PPFP) in 202 facilities in eight out of eight districts of Kayes** (Oct 2014-Sept 2015): ASSIST through a cascade training model and parallel sessions facilitated by regional and districts coaches has continued to build the competencies of providers to comply to the norms and standards for appropriate life-saving maternity care at the facility level. To achieve this task, the project has continued to train regional and districts coaches as well as providers from facilities supported by the project in Kayes and Sikasso regions.
- **Provided support for coaching visits in 155 facilities of six out of eight districts of Kayes** (Nov – Dec 2014). To increase delivery of appropriate lifesaving maternity care within facilities, USAID ASSIST continued to provide support to QI teams to ensure that standard care during the antenatal period (birth preparedness, ITP, iron folic acid, danger signs), delivery (using AMTSL and ENC), and immediate PP counseling and or services (post-natal care within two days of child birth; offering family planning) are implemented at all sites. Ten regional and 18 district coaches in addition to project technical staff were involved in these visits. In three districts (Kayes, Diema, Yelimane) 91 QI teams were coached and follow-up visits were conducted with 178 providers to make sure they were using the skills obtaining during the training on improved ANC. Sixty two QI teams were followed on AMSTL/ENC, PE E and PPFP in the Nioro, Bafoulabe, Oussoubidiagna districts.
- **Provided TA for the learning sessions and identification of best practices on ANC and HBB for 133 sites in five out of eight districts** (Jan-March 2015). To increase the number of pregnant women in the targeted sites benefiting from preventive, screening, and curative care during antenatal visits, ASSIST provided TA to 133 QI teams to implement changes and learn lessons that will allow the scale up of best practices in the region. Learning sessions were facilitated by the ASSIST team and regional coaches. Both are helping QI teams to evaluate the implementation of proposed changes and determine lessons to be included into the best practices list. Providers (279) participated in the learning session on ANC and Helping Babies Breathe (HBB) during this period.
- **Result: Increase in delivery of preventive care systematically by providers during ANC by March 2015** (**Figure 64**).

Figure 64: **Mali | Compliance rate for preventive care during antenatal period, 47 sites and Reference Health Center in Kayes, Kayes District (Jun 2014 – Sept 2015)**



- **Result: Increase compliance to essential newborn care at facility level from July 2013 to March 2015 (Figure 65).**

Figure 65: Mali | Percentage of newborns successfully resuscitated, 74 sites and Kayes Hospital, 2 districts (July 2013 – Sept 2015)

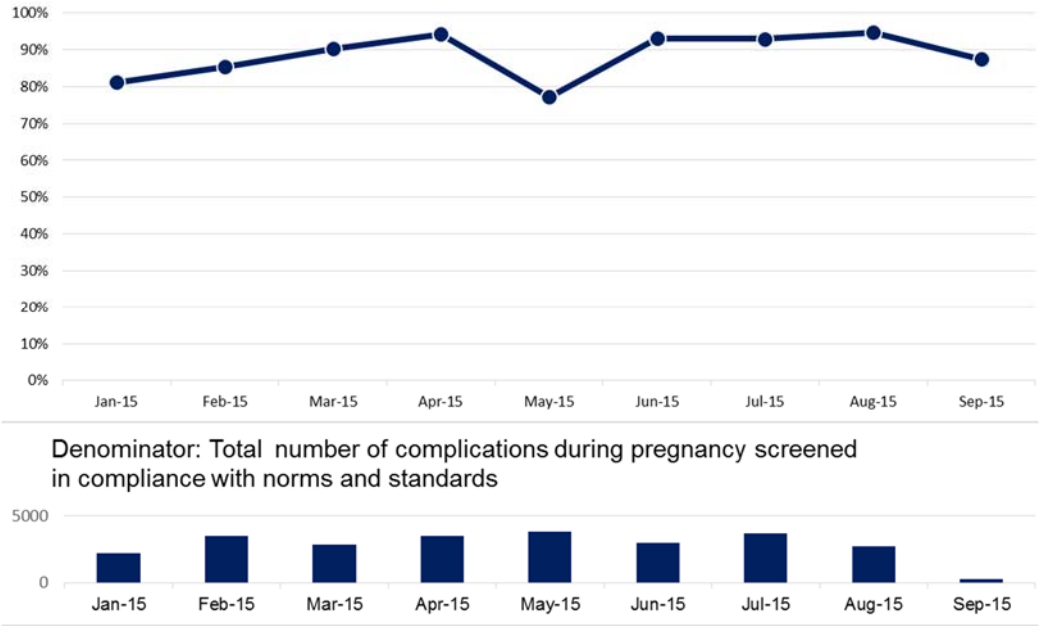


- **Organized a refresher training to providers on PEE and improved ANC** (May-Sept 2015)**.** A total of 88 providers, 63 women and 25 men participated in these trainings in four districts.
- **Conducted training on PPFP** (Jul 2015). Twenty-five coaches (17 women and eight men) were oriented on PPFP counseling, coaching visits, and QI process in Kayes. Those achieving an acceptable level of performance after this orientation increased from 64% during pre-test to 95% in the post-test conducted immediately after. One hundred and thirty-two providers (128 women and four men) from four districts were also oriented on PPFP. The proportion achieving an acceptable level of performance increased from 60% in the pre-test to 90% in the post-test. Regarding LAM provision, 53 providers (44 men and 9 women) were oriented in the two districts. The training was more practical to allow each participant to perform as requested by the norms. The proportion of providers reaching an acceptable level of performance for LAM increased from 60% in the pre-test to 80% in the post-test.
    - Fourteen HMIS managers were oriented by the project team on a QI data collection system and data analysis to illustrate changes and improvement per site. Participants completed a practical session on data review, analysis, and production of graphs to measure progress and discuss challenges during this orientation. HMIS managers were also oriented on new indicators like inclusion and on validation of data per site. Seven new district advisors to the project and four new staff from Kayes Regional Directorate of Health have were oriented on QI and collaborative approaches applied to EONC technical content.
- **The ASSIST team, in collaboration with the Kayes Regional Health team, trained 15 trainers on the WHO Safe Childbirth Checklist (SCC) which was adapted to Mali** (Jun 2015). To improve the quality of the training, the training was facilitated by two national master trainers on EONC. The session was more practical to facilitate the learning process on site. Following the training of trainers, four training sessions were organized to train providers on the SCC in two districts of Kayes Region. A total of 127 providers were trained (58 in Kita and 69 in Kenieba).

- ASSIST carried out monthly coaching visits for capacity assessment of providers and compliance to norms and standards for the use of checklist in targeted facilities
- One learning session was conducted in July 2015 with 23 QI teams to gather best practices and challenges linked to the use of the SCC.

- **Participation in WHO evaluation process of facilities using the SCC (27 facilities):** Twenty-seven sites participated in a preliminary evaluation to report on the use of the SCC for deliveries at the facility level in June 2015. WHO has developed and validated a standard questionnaire that has been sent to the Mali team for administration to sites and QI teams. The project team has translated the questionnaire and facilitated its administration in sites and with QI teams in collaboration with regional and district teams. The project team helped to compile the information and sent the document to WHO with the copies of questionnaires. The evaluation report will be done by WHO and shared with the project team in country.
- **ASSIST supported integrated coaching visits in collaboration with the Regional Director of Health and district coaches in order to assess the sites' performance in 202 facilities of 8/8 districts of Kayes and 42 facilities of one district in Sikasso** (Jun-Sep 2015): Twenty-two sites were assessed for AMTSL/ENC and PPFP technical content. Sixteen QI teams were found to perform well in the three technical content areas. Six of the non-performing QI teams developed and implemented improvement plans. One hundred and forty-five QI teams of five districts were visited by district coaches and project district technical advisors. The visited QI teams, showed a performance of 95% for AMTSL/ENC and PPFP.
  - Sixty-seven sites in three districts were checked for improved ANC performance in Kayes and Sikasso resulting in a level of achievements of 90%. Regarding HBB, 50 sites were visited; the level of performance varied from 83%-90%.
- **Improvement in compliance rates for screening for complications during pregnancy.** With regular coaching visits, learning sessions, and a continuing process of capacity building of providers during coaching visits, teams have maintained a high level of compliance with screening for complications of pregnancy (**Figure 66**). In May 2015, due to the stock-out of some products (malaria rapid diagnosis test) and malfunction of some equipment within sites (thermometer, blood pressure measurement), the performance of the sites decreased. Through coaching visits, the ASSIST team has helped the site QI teams define their needs and report to the regional health management team for solutions.

Figure 66: Mali | Compliance rate for screening for complications during pregnancy, 70 sites, Kayes Region (Jan – Sept 2015)



Activity 2. Improvement of anemia prevention and control activities in Bougouni District (Sikasso Region)

OVERVIEW

Mali's under-five mortality rate remains high at 95 deaths per 1,000 live births (DHS 2012-2013). With 38% of Malian children under-five stunted and 26% under-weight (DHS 2012-2013), under-nutrition is a key underlying cause of death that needs to be addressed. Currently, nutrition and nutrition sensitive activities are national priorities for the country and nutrition issues are being addressed by different actors primarily focused on cases management, promotion, and prevention. The current nutrition national guideline is promoting an integrated nutrition, and water, sanitation and hygiene (WASH) package of services, but few anemia prevention and control activities are being implemented. Eight out of 10 or 85% children suffer from anemia in Mali, a condition which increases child mortality, impairs physical and cognitive development, and has long term impacts on individual and even national economies. ASSIST is providing technical assistance to the MOH Division of Nutrition and its partners to develop and implement a package of services regarding anemia control and prevention at both facility and community levels.

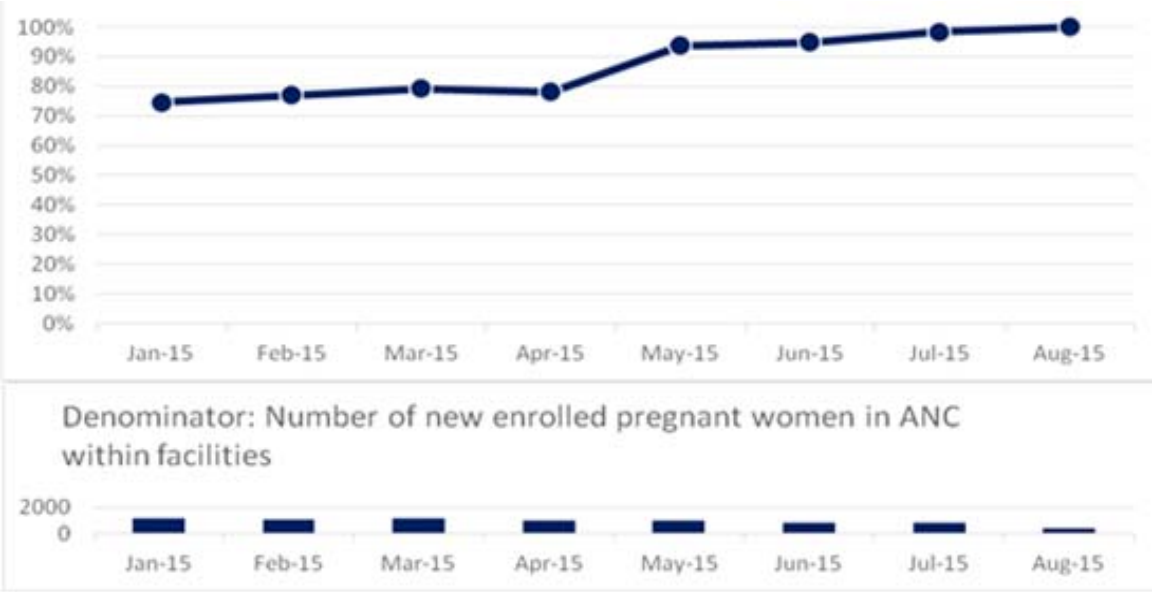
KEY ACCOMPLISHMENTS AND RESULTS

- **Provided technical support to strengthen and scaled up anemia prevention and management best practices in 43 facilities in one of 10 districts in the Sikasso Region** (Oct 2014-Aug 2015). Capacity building for coaches and providers continued to maintain their skills and facilitate the implementation of activities. Fifteen new coaches were identified and trained on coaching techniques to support the project activities. The training was facilitated by the district and regional coaches from Sikasso under the supervision of the project team. Non-performing old coaches were included in the training in order to improve their performance. Refresher training of community committees was organized in 42 communities and brought together over 2,000 participants: 2035 community committee members, 51 community volunteers, 18 chiefs of village, 14 ASCs, and six matrons. Additionally, 123 community providers (75 men and 48 women) were trained on essential messages to deliver to the community regarding anemia prevention.
- **Provided support for coaching visits in 43 facilities in one of 10 districts in Sikasso** (Nov 2014 - Mar 2015, Jun-Aug 2015). Coaching visits were conducted in 43 sites, in collaboration with the Referral Health Center (CSRef) to assess the performance of all sites in anemia technical content. During the coaching visits, 39 QI teams were found to comply with performance criteria. Four non-performing QI teams developed an improvement plan to be followed further. The project team has worked with the CSREF's health management information system (HMIS) to review and complete data for the entire district before processing for analysis and validation. Data consistency is checked during coaching visits for health centers. A regional meeting for data validation for all health facilities was organized. Three coaching visits were conducted in 79 community committees to check the progress of their planning and collect data recorded for pregnant women in their communities. A best practices list was developed and used during the learning sessions.
- **To strengthen the management of anemia through ANC, ASSIST's technical team supporting training of 111 Bougouni health providers on provision of quality ANC services, including anemia prevention and management** (Jul 2015). The goal of this training was to improve the provision of quality of services for pregnant women during the first quarter of pregnancy to prevent and or manage anemia during this period. These sessions were facilitated by the Regional Department of Social Development, Women, and Family Welfare.
- **Provided technical assistance for the learning sessions and identification of best practices on anemia prevention and management in 43 sites in one district out and 44 community committees** (Dec 2014 – Jan 2015, July-Aug 2015): To increase the number of pregnant women in the targeted sites benefiting from preventive, screening and curative care during their antenatal visit and to improve delivery outcomes, ASSIST provided technical assistance to 44 community committees to implement changes and learn lessons that will allow the scale-up of best practices in the district. Learning sessions were facilitated by the USAID ASSIST team and district coaches who are helping committees to evaluate the implementation of proposed changes and determine

lessons to be included into the best practices list. Three learning sessions from December 2014-Janauary 2015 were implemented with 279 participants to identify lessons learned and validate best practices to scale up in new sites.

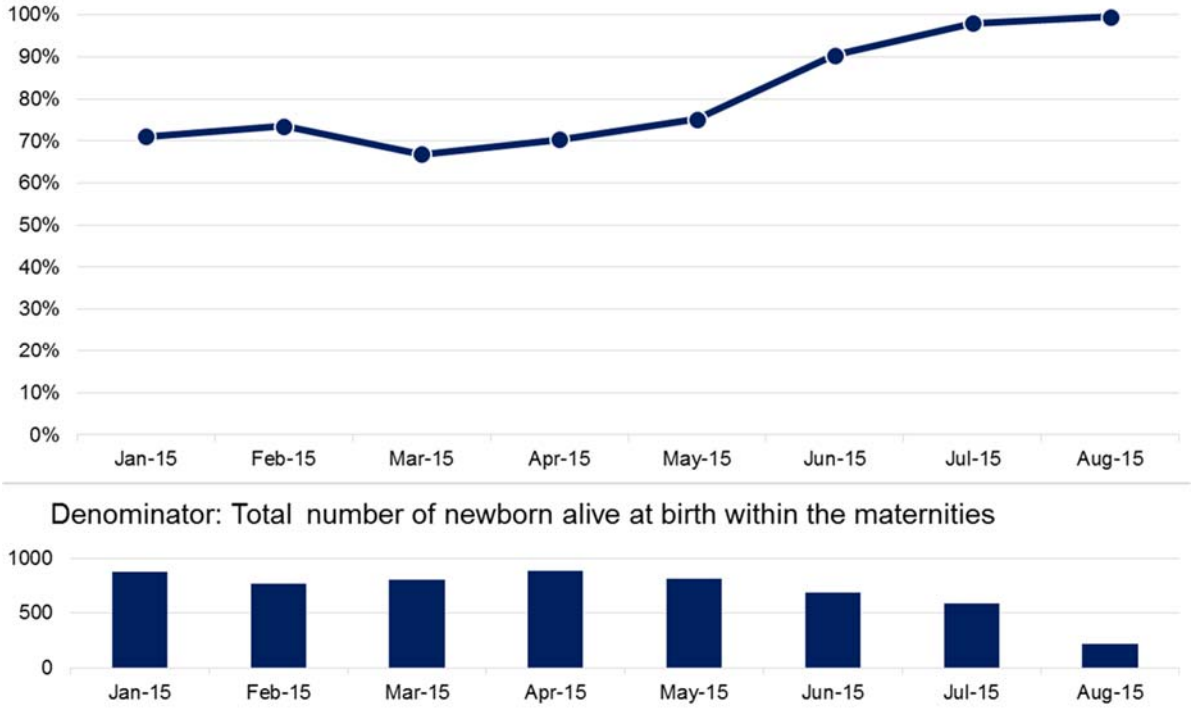
- From July to August 2015, **a best practices session was organized at the facility level to consolidate best practices and validate them for inclusion into a guideline for anemia**. The session was attended by 17 participants, five women and 12 men. A community-level best practices session also took place and was facilitated by the project technical team and district coaches. This session brought together 50 participants (26 women and 24 men).
    - Eleven of 43 health centers were visited by ASSIST and a CSREF team member to assess the work environment and existence of processes for care provision and staff management. The ASSIST team has actively worked with regional partners to build a partnership for nutrition, which they expect will result in better coordination of actions at the regional level.
- **Community committees continued to sensitize and enroll pregnant women within the project sites**. Health centers have seen an increase in the use of antenatal services which facilitate the access to iron folate provision to women. Women are receiving the same messages from CHWs, committees' members and health providers which also helped to increase the compliance to iron folate uptake (**Figure 67**). Mothers-in-law were engaged into the follow-up of health providers' recommendations received during ANC at home to make sure women are taking their iron pills.

Figure 67: Mali | Percentage of newly enrolled pregnant women in ANC receiving iron folate, 43 sites (Jan – Aug 2015)



- **The same efforts of sensitization of women during antenatal care as well as providers on the importance and benefits of exclusive breastfeeding have also helped to achieve improvement in breastfeeding rates (Figure 68).** Decisions makers at community level such as grandmothers and mothers in law have been targeted and involved into the follow up of women for pregnancy and delivery in each sites. As a result, health providers were able to comply with ENC norms regarding immediate breastfeeding.

Figure 68: Mali | Percentage of newborns alive at birth within maternities who are breastfed immediately within 30 minutes after birth (Jan – Aug 2015)



- **ASSIST organized three meetings were organized at regional level to strengthen coordination and partnership regarding nutrition activities** (May, June and Aug 2015). These meetings were led by the regional direction of health with technical assistance from the project. The coordination was done among USAID-funded projects and with others nutrition partners like UNICEF, Born Fonden etc. A regional roadmap for nutrition was developed with the role and responsibilities of each member as well as a summary of partners activities per domain and per district in order to avoid duplication and promote complementarities.
- **Training in knowledge management**: The project received technical assistance from regional office and headquarters for a knowledge management (KM) training in May 2015 which helped staff build their understanding of knowledge management concepts and techniques that they can use in their improvement work, as well as to plan for the development of knowledge products. Nineteen technical staff attended the two-and-a-half day long training. There was also four staff that attended the francophone KM training in Abidjan in 2013 and helped throughout the week. The training was developed based on previous trainings in Durban, Abidjan, and Kenya with an incorporation of learning from those experiences to improve the Mali session. Knowledge management plans were developed at the end of the training per level of interventions and implement within the project during the period of follow up. Guidance on how to improve quality of health care services, in the form of a change package and a documentary and in the form of job aides, best practices, and videos, was developed along the activities related to anemia and EONC in both regions.
- **Development of knowledge products**: A draft guide on quality improvement applied to AMTSL/ENC was developed and shared with the Regional Office in Niger and headquarters for feedback and will be finalized for dissemination in FY16. Achievements at community level in Bougouni were documented, and a video produced to illustrate results at village level. The list of best practices was also developed and will be use to continue develop other knowledge products for better illustration of results at all levels of the project.

IMPROVEMENT IN KEY INDICATORS

Activity	Indicator	Baseline	Last value	Change (percentage points)
Improvement of EONC intervention at facility level in Kayes Region	Compliance with 3 key AMTSL norms	0% (Nov '09) 17 sites	99% (Sept '15) 110 sites	99
	PPH rate	1.2% (Nov '09) 17 sites	0.27% (Sept '15) 109 sites	.93
	Compliance with ENC norms	39% (Nov '09) 17 sites	99% (Sept '15) 109 sites	60
	Compliance with PE/E diagnostic standards	25% (Nov '09) 17 sites	95% (Sept '15) 73 sites	70
	Compliance with PE/E treatment standards	0% (Nov '09) 17 sites	88% (Sept '15) 73 sites	88
	Newborn with successful resuscitation	25% (June '13) 47 sites	90% (Sept '15) 74 sites	65
	Compliance with ANC standards	40% (June '14) 17 sites	95% (Mar '15) 70 sites	55
Improvement of anemia prevention and control activities in Bougouni district (Sikasso Region - Mali)	% of pregnant women for whom pallor and/or hemoglobin are checked at ANC visits	0% (Jan'13) 13 sites	99% (Sept '15) 43 sites	99
	% of pregnant women who received good counseling on how to prevent anemia during ANC visits	0% (Jan '13) 13 sites	97% (Sept '15) 43 sites	97
	Immediate breastfeeding	27% (Jan '13) 13 sites	100 % (Sept '15) 43 sites	73
	Provision of iron	68% (Jan '13) 13 sites	100% (Sept '15) 43 sites	32
Increasing access to ANC for pregnant women thanks to community members	# of pregnant women identified by committee members	0 (Oct '13)	1752 (Sept '15)	1752 (number)
	# of pregnant women receiving an ANC visit during the first quarter of their pregnancy	0 (Oct '13)	504 (Sept '15)	504 (number)

Gender activities

- **A technical advisor from headquarters provided a four-day gender integration in improvement training** (Jun-Jul 2015). The USAID ASSIST Mali technical staff and those focusing on maternal health and family planning, anemia, knowledge management, and M&E participated. The components of the training included defining gender and related concepts; understanding steps to conduct gender analysis; understanding how to develop, analyze, and report on sex-disaggregated data and gender-sensitive indicators; identifying and addressing gaps and issues related to gender in ASSIST activities; and gender-sensitive program planning.

The training included interactive gender sensitization activities, designing a problem tree, a driver diagram, and strategic planning related specifically to MNCH, FP, and nutrition and anemia.

- **After building the capacity of the field office staff to critically analyze gender issues, the training focused on conducting a gender analysis as a team.** This included reviewing and critically analyzing gender assessments already conducted for Mali and reviewing relevant data. The team critically analyzed gender issues related to ASSIST's technical areas and goals across five different USAID recommended domains: 1) laws, policies, regulations and institutional practices; 2) cultural norms and beliefs; 3) gender roles, responsibilities and time used; 4) access to and control over assets and resources; and 5) patterns of power and decision-making.
- **The team identified gender issues affecting the ability to achieve program outcomes at the household, community, and health facility levels.** Based on the gender analysis issues identified, the nutrition and anemia group and the maternal and newborn health and family planning group discussed additional information needed, the challenges and the opportunities to achieving targeted health outcomes and promoting gender equality. Further, the teams selected gender-related issues that were under ASSIST's mandate to address and that were feasible to respond to. Teams identified activities and indicators were proposed to measure change.
- **Following the gender assessment and analysis conducted in FY15, the project has integrated some key activities to facilitate gender reporting and compliance.** ASSIST is working to improve equitable access to quality health services, to food, information, and decision making through ASSIST improvement work both at the community and facility levels in Kayes and Bougouni. The work in Bougouni and Kayes on antenatal care has sought to increase the number of men engaged in contributing financial support for transportation to the health center for ANC and delivery for better health outcomes. Changes defined will be tested in two districts in order to get more women using ANC services and prepare for delivery at facilities. The project has started with the preparation of the training of providers on gender which will be combined with the other training topics in FY16 for better integration.

ANNUAL INDICATORS REFLECTING CUMULATIVE PROGRESS DURING FY15

Indicator	FY15 Q4 Achievement	FY15 Targets	FY15 Achievement (Total)	Comments
MATERNAL AND CHILD HEALTH				
# of USG-supported facilities that provide appropriate life-saving maternity care	**208**	**515**	**453**	ASSIST is working in 8/8 districts of Kayes region implementing MNCH/FP activities and 1/10 districts in Sikasso for nutrition. The district of Kita which is new to quality improvement activities will be included with MNCH activities but total coverage will be done in FY16 to achieve this target.
% of deliveries in health facilities using AMTSL and ENC	**99%**	**100%**	**99%**	ASSIST is working in 6 districts on the integrated AMTSL/ENC package in Kayes since 2009, the mature technical content has been spread in 2 additional districts so the target for the project became high to achieve quality results
Numerator: # of deliveries in health facilities using AMTSL and ENC in the 6 districts	3911		10567	
Denominator: # of deliveries in health facilities in the 6 districts	3941		10642	

Indicator	FY15 Q4 Achievement	FY15 Targets	FY15 Achievement (Total)	Comments
# of babies who receive PNC within 2 days of child birth in USG-supported programs	**3844**	**19260**	**15609**	Through the ENC and HBB works in the 6 districts of Kayes ASSIST is collecting this data from health centers for deliveries which followed the quality criteria based on national norms and standards. Data is a compile per health center through the existing HMIS
Number of boys	1977		7753	
Number of girls	1867		7906	
# of newborns not breathing at birth who were resuscitated in USG-supported programs	**136**		**342**	For HBB ASSIST has worked in 2 districts since 2014 and achieved the target higher. The project is scaling up the intervention in 6 others districts this year.
FAMILY PLANNING AND REPRODUCTIVE HEALTH				
% of USG-assisted service delivery sites offering PF counseling and or services	**100%**	**100%**	**100%**	All facilities covered by the project in Kayes are offering postpartum family planning counseling as recommended by the norms and standards
Numerator: # of USG assisted service delivery sites providing FP information and /or services	183		219	
Denominator: # of SDPs planned to receive USG assistance over life of project	183		219	
# of new users of modern FP methods among women between 15-49 years age	**3044**	**4570**	**8142**	These data are taking into account only women in postpartum period which is the focus of the project for quality improvement
# of additional USG-assisted CHWs providing FP information and/or services during the year	**88**	**NA**	**88**	The project is working in partnership with MCSP project to include ASCs into the follow up activities for FP uptake at community level
NUTRITION				
# of households with soap and water at a hand washing station used by family members in USG supported		**360**	**298**	The project has integrated WASH activities only in FY15 in addition to nutrition anemia program. The data for this

Indicator	FY15 Q4 Achievement	FY15 Targets	FY15 Achievement (Total)	Comments
programs				indicator will be reported in Q2. The project is working with PHN and others partners in order to define the data to be reported and avoid duplication.
# of children under-five who received vitamin A from USG-supported programs	**8189**	**21630**	**21500**	All children received for preventive and cases management activities at the 43 health center (CSCOMs) and CSREF benefit from systematic Vit A supplementation.
Number of boys	4001		10671	
Number of girls	4188		10829	
# of people trained in child health and nutrition under USG supported program	**2177**	**2000**	**2720**	ASSIST is organizing training and refresher sessions for providers on anemia prevention and management.
Number of Men	341		556	
Number of Women	1836		2164	
# of children under-five reached by USG supported nutrition programs (anemia prevention and management)	**20411**	**67352**	**60333**	Children under five and their mothers are receiving counseling and cases management on anemia in the 43 sites.
Number of boys	10353		30235	
Number of girls	10058		30098	
HEALTH				
"# of policies and guideline documents developed or updated with USG assistance"	**1**	**NA**	**1**	Advocacy tools for nutrition "Profiles Mali" updated to include new data for nutrition and priorities through the SUN activities.
% of providers complying with national guidelines/standards for labor and delivery visits at USG-supported facilities	**98%**	**100%**	**98%**	Within the 208 facilities working with the project 98% of all providers are complying with the norms and standards regarding labor and delivery visits.
Numerator: Average # of task completed in compliance with national guidelines/standards for labor and delivery visits	360		360	
Denominator: # of task in the national guidelines/standards for labor and delivery visits	368		368	

SUSTAINING AND INSTITUTIONALIZING IMPROVEMENT

By building the capacity of MOH managers, decisions makers, and technical staff as well as other USAID-funded implementing partners, the project is facilitating the rollout of quality improvement processes within their respective programs for more sustainability. Best practices and lessons learned are gathered into technical materials that are disseminated among partners through the training-of-trainers (TOT) and training of providers for more leadership and ownership of capacities. The project has achieved an important step by employing ongoing advocacy with decision makers at the MOH, particularly with the Department of Quality, to sensitize and help them understand the need for the development of a national quality improvement strategy that can lead the total integration of QI within the health system in Mali.

During FY15, ASSIST scaled up EONC best practices for AMTSL, ENC, PE/E, HBB, ANC, and PPFP to all eight districts in Kayes Region (covering 202 out of the 233 EONC facilities in the region) and introduced the EONC interventions in Bougouni District of Sikasso Region, covering 42 out of 43 facilities.

The anemia prevention and control work in Bougouni District has now covered all 43 facilities in the district, which is one of nine districts in Sikasso Region. Community-level anemia prevention activities now reach 56 communities (out of approximately 500 communities) in four of the 43 health areas that make up Bougouni District.

In FY16, the EONC interventions will be scaled up to the remaining 31 facilities in Kayes Region and introduced in 109 out of 229 facilities in four of the 10 districts of Sikasso Region. The target facilities include peripheral facilities (338), district hospitals (14), and a regional hospital (1). Community EONC interventions will be implemented in communities linked to 47 peripheral facilities in Kayes Region.

ASSIST also plans to package the knowledge learned about how to improve EONC interventions to spread these best practices to sites of districts targeted by other USAID-funded projects.

The knowledge products will expand over time in terms of technical contents. MOH coaches and managers from ASSIST-supported districts will be mobilized to support the scale-up of best practices to other districts. By doing so, their capacity will be strengthened, and we will be able to achieve a larger coverage.

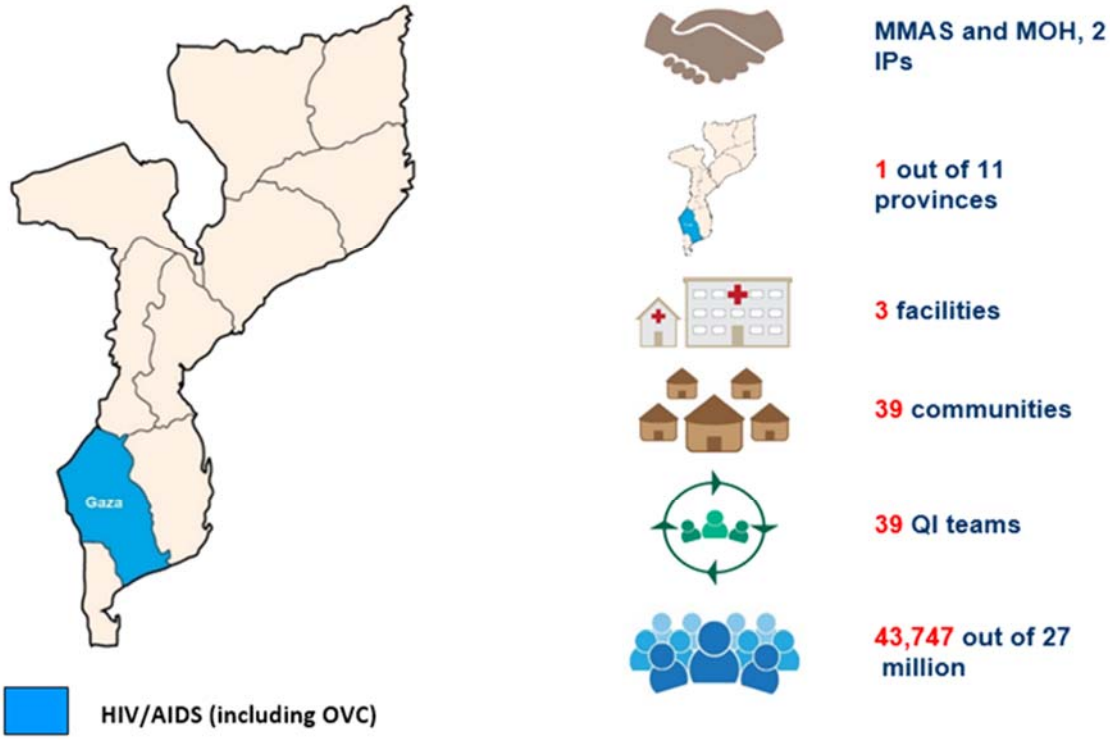
The project plans to elaborate these knowledge products in various formats. Scale-up strategies to leverage these knowledge products and experienced coaches and managers to support the scale-up process will be defined at district, regional, and national levels.

MOZAMBIQUE

BACKGROUND

Starting in June 2013, ASSIST began providing technical assistance to the Government of Mozambique and implementing partners to improve the quality of services offered to vulnerable children and families affected by HIV and to implement approved standards. This work is building on previous OVC work implemented since 2010 in Mozambique under HCI. ASSIST also supported the MOH to draft standards for home-based care and supported PHFS activities at the community level.

Scale of USAID ASSIST's Work in Mozambique



PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Improve care and support of vulnerable children and their families	
• Improve the quality of OVC services through distribution of national service standards in 11 provinces • Identify and address critical barriers in scaling up and sustaining effective, high-impact interventions for vulnerable children and their families	Distribution of standards to 11 provinces 80 implementing partners adopting and integrating the standards into their work plans 1 district in each of two provinces, sites to be determined in collaboration with Ministry of Women and Social Action and USAID
2. Partnership for HIV-Free Survival (PHFS)	
• Quality improvement technical assistance for community-level activities to improve uptake of PMTCT and retention in care	Provinces: 1 out of 11 Districts: 1 (Bilene) out of 11 in 1 province Facilities in selected district: 3 health centers (Licilo, Chissano, and Incaia) Communities: 39 Catchment population facilities/communities served: 43,747

Activity 1. Improve care and support of vulnerable children and their families

No additional funds were provided by the USAID/Mozambique Mission for additional activities to provide technical assistance to the Ministry of Women and Social Action (MMAS) or apply the standards in two districts. ASSIST facilitated the printing of the OVC standards by providing three competitive printing bids to the mission, which printed the standards directly.

Activity 2. Partnership for HIV-Free Survival (PHFS)

OVERVIEW

ASSIST received initial funding from PEPFAR in 2013 and additional funds from USAID Mozambique in 2015 to support community-level improvement activities in the catchment area of facilities participating in the PHFS initiative, to improve postnatal PMTCT care for HIV-infected mothers and their infants to maximize HIV-free survival of infants. In December 2013, ASSIST began to provide technical support for community-level improvement to the Ministry of Health of Mozambique. The goal of the PHFS Community Demonstration Project was to contribute to the elimination of mother-to-child transmission through increased community awareness, improved community-facility linkages, and increased access to services for pregnant women. ASSIST provided limited training to PHFS partners in Sofala and Zambezia provinces in the community health systems strengthening model, quality improvement, and coaching. In Gaza Province, ASSIST provided direct technical support to Bilene District and Chissano, Incaia and Licilo health centers and their respective catchment areas totaling 39 communities.

In the ASSIST-supported sites, communities focused on organizing the community system by engaging and educating community groups in supporting pregnant women and developing a process for information and data exchange with the facility nurse coach. The communities then began to promote care for pregnant women, seeking to increase the number of pregnant women identified by the community; increase the percent of women who were accessing ANC services; increase the percent of pregnant women tested for HIV; and increase the percent of HIV-positive pregnant women who are put on treatment. These improvement areas are not comprehensive PMTCT activities, but represent the first steps in getting pregnant women connected to and comfortable with facility-level care as early as possible. Given the funding and short timeframe for implementation, these were realistic initial aims. The community plays a critical role in influencing care-seeking behavior.

KEY ACCOMPLISHMENTS AND RESULTS

ASSIST received its final obligation for this activity from USAID/Mozambique. ASSIST closed out its activities and office in Mozambique in March 2015.

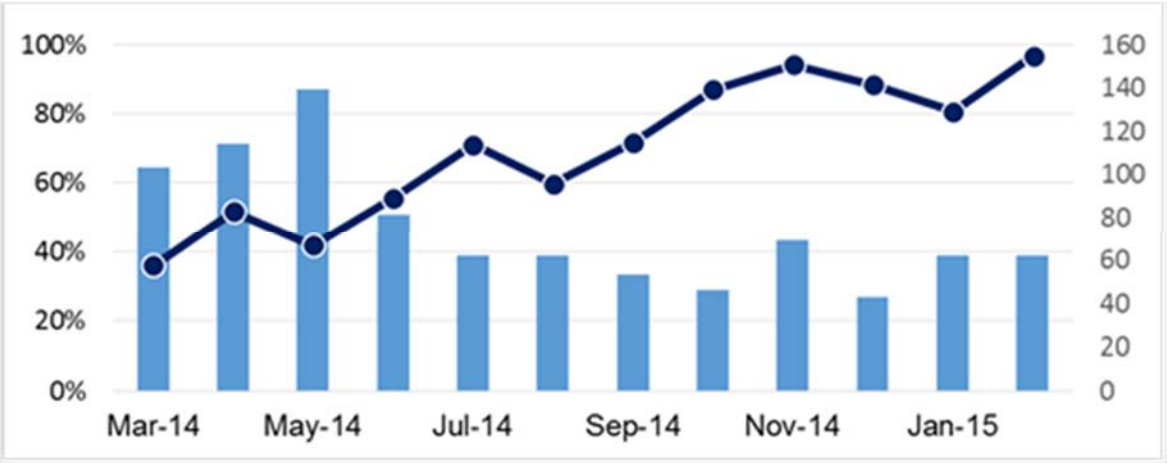
- **Provided coaching visits monthly to all 39 communities and three health facilities participating in the activity** (Oct 2014 – Mar 2015). Coaching was conducted primarily at the health facility level to the health committees, which consisted of representatives from each of the communities. However, intensive coaching was conducted in Chissano and Incaia to find additional community groups interested in participating in the community system to support pregnant women. This coaching was successful, resulting in 95 community groups participating in Licilo, 68 in Chissano, and 77 in Incaia. Technical assistance focused not only on identifying community groups, but supporting the community-based committees that functioned as QI teams to review their data on who was identified and who had been to ANC, the gap, and how to address the gap in care.
- **Provided technical assistance to Sofala PHFS partner** (Dec 1-4, 2015).The ASSIST community advisor consultant traveled to Dondo, Sofalo to provide technical support to FHI 360, another PHFS partner in Mozambique. The community advisor worked with FHI 360 staff and CHWs whom they support on organizing a community system using existing community groups.
- **Conducted final harvest meeting** (Mar 5, 2015). ASSIST staff conducted a harvest meeting with 55 participants, including representatives from each of the 39 communities, CHWs, nurse coaches, and district level officials. The harvest meeting focused on how the community system was organized and the processes that were created to identify pregnant women, encourage them to go to ANC, and follow up with those who did not attend. The results of this meeting will be compiled into a final technical report detailing the experience and learning from this activity.
- **Documented the process design that occurred at the community level** (Mar 2015). The primary change that took place in each of these communities was the design or creation of a new system for information and data exchange and review between existing community groups and the health facility. In each *bairro* (village), community groups were invited to participate in supporting health workers and pregnant women. A *bairro*-level committee served as the village QI team, consisting of a representative from each of the active community groups. Since the nurses

at the health center were unable to travel to each *bairro* due to workload, a second tier of a QI team was created at the health facility, called the Health Committee, to review the pregnant women identified in each community, compare the list of identified women with those who went to ANC, and discuss strategies or changes to encourage pregnant women to come to ANC. The Health Committee also served as the mechanism for the nurse to share critical health messages, which needed to be passed on to community members. The nurse at each health center, district staff, and ASSIST staff provided training on key health messages around the importance of ANC for pregnant women and treatment for HIV-positive pregnant women to prevent transmission to their children. Health Committee members brought this information to *bairro* committee members who in turn brought it to their respective community group members and their families. Each community group agreed to set aside time during their regular meetings to discuss health issues. The community groups gathered the names of their family and neighbors who were pregnant and brought that information to the *bairro* committee, which subsequently passed it to the Health Committee and nurse. The nurse would review who had and had not been to ANC with the Health Committee members, and they would discuss strategies for encouraging women to come to the facility. Health Committee members would share this information back down the chain, and *bairro* committees would determine strategies to encourage women to go to ANC. They found that one of the most effective strategies was targeting messages to mothers-in-law, since many of the men were working in mines in South Africa. They also used different strategies for following up with women who did not attend ANC based on the particular family, including asking the CHW, religious leaders, community leaders, or other community group members to meet with her.

Results from Licilo Health Center:

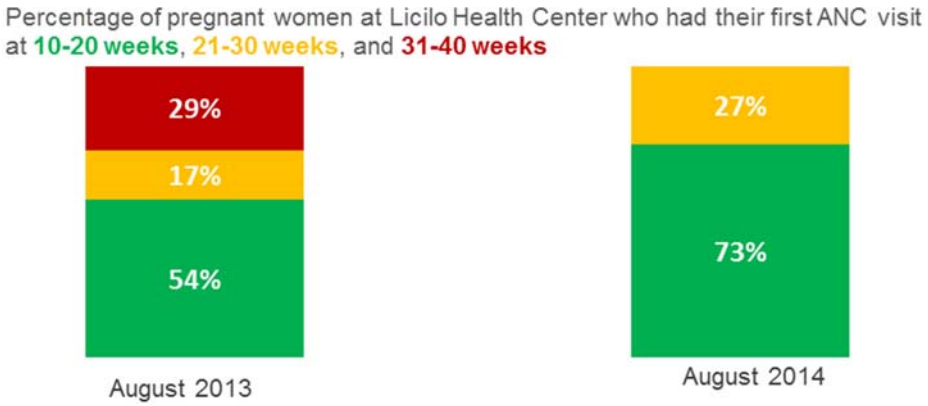
- Licilo Health Center had the largest catchment area of the three sites and had the most success of the three health centers. Licilo Health Center and its associated *bairros* were the most receptive to the PHFS activity and interested in the community health systems model. In total, 95 community groups in the 15 *bairros* were identified and actively participating in supporting pregnant women. When community groups began identifying pregnant women in Licilo, we saw an initial spike of pregnant women, as the community identified all of the currently pregnant women who may be at any gestational age. As time went on, the numbers identified leveled off to be a steady stream of newly pregnant women in their first and early second trimesters. In total, the community groups in the catchment area of Licilo Health Center identified a total of 896 pregnant women between March 2014 and February 2015 **(Figure 69).**
- **The work of the Licilo Health Committee and the *bairro* committees resulted in an increase from 36% to 97% (March 2014 – February 2015) of community-identified pregnant women who had their first ANC visit in the same month** (**Figure 69**). Over 12 months, the cumulative percent of women who went to ANC was 64%.

Figure 69: Mozambique | Number of pregnant women identified by all community groups and percent of community-identified pregnant women who received first ANC in the same month, 15 *bairros*, Licilo Health Center (March 2014 - Feb 2015)



- Anecdotal reports from the nurse and Health Committee members that women were coming in earlier for care led to a record review of the gestational age for first ANC, comparing charts from August 2013 and August 2014. This chart review reflected a shift in women appearing for earlier ANC **(Figure 70).**

Figure 70: Mozambique | Pregnant women attending first ANC by weeks of gestation, Licilo Health Center (Aug 2013 and Aug 2014)

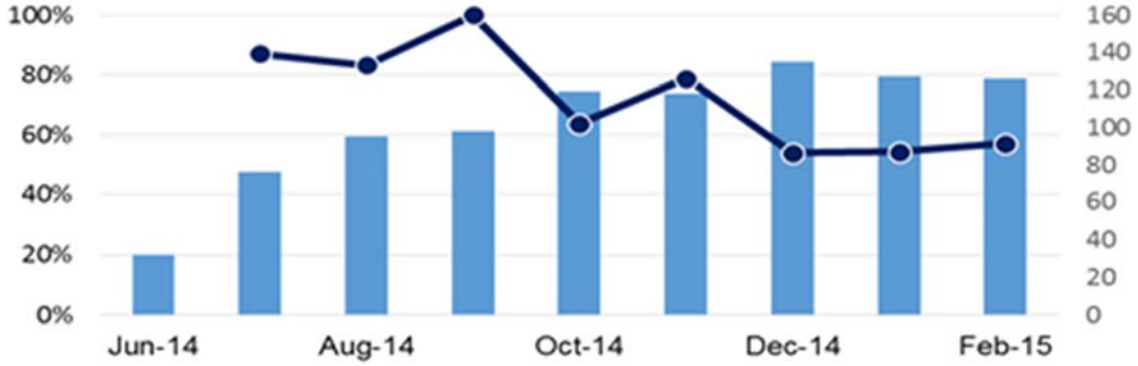


- Throughout the activity, the health center nurse was also tracking the percent of women tested for HIV out of those who received ANC and the percent of pregnant women found to be HIV-positive who were put on treatment. The median percent tested for HIV was 97%, and the median of HIV-positive women put on treatment was 100%. Therefore, the conclusion can be made in Licilo that if women are connected with ANC services, they will receive the appropriate initial care to prevent HIV transmission to their baby.

Results from Chissano Health Center:

- The Chissano Health Center and the associated *bairros* were slow in getting on board because they were not interested in the volunteer nature of the activity. As of June 2014, Chissano only had three active community groups for the whole area. Intensive support and discussions with this community led to the involvement of 68 community groups, and to additional coverage of the communities and more identification of pregnant women. In total, the Chissano community groups identified 715 pregnant women. Between October 2014 and February 2015, the community groups appear to have reached a consistent level of identification of new cases of pregnant women. The ANC coverage, however, declined with the increase in identified pregnant women. Both Health Committees and the nurse from the health center said that increased workload from increased demand had led to longer wait times. **Figure 71** shows that there was demand created but that there was not similar work within the facility to address the supply side.

Figure 71: Mozambique | Number of pregnant women identified by community groups per month and percent of community-identified pregnant women who received first ANC in the same month, Chissano Health Center (11 *bairros*) (June 2014 - Feb 2015)



- The Chissano Health Center had a median of 92% coverage of HIV testing for the period of June 2014 to February 2015, ranging from 86 to 100%, and 100% of women found to be HIV-positive were put on treatment. The intervention does not appear to have impacted the testing and treatment rates, as these were already high.

Results from Incaia Health Center:

- Like Chissano, the 13 *bairros* under the Incaia Health Center catchment area took time to begin implementing the activities around supporting pregnant women. Over time, they were able to successfully engage 77 community groups to participate and identify 409 women. Between September 2014 and February 2015, the percent of community-identified pregnant coming for ANC in the same month ranged from 82% to 100%. Due to early data collection problems, we do not have an accurate baseline. As with the other two sites, Incaia Health Center had good rates of HIV testing, ranging between 87% and 94% during the period of September 2014 – February 2015. All women found to be HIV-positive were put on treatment.

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (March 2014)	Last value (Feb 2015)	Change (percentage points)
PHFS Licilo – 15 sites Chissano - 11 sites Incaia – 13 sites Total – 39 sites	Total # of pregnant women identified for ANC services	Licilo – 103 (Mar 2014) Chissano- 32 (Jun 2014) Incaia – 18 (Jun 2014)	Licilo – 896 Chissano- 926 Incaia – 409	Licilo: 793 Chissano: 894 Incaia: 391 (# pregnant women identified for ANC)
	% of identified pregnant women receiving ANC services at the health facility in the same month as identification	Licilo – 36% (Mar 2014) Chissano- 87% (July 2014)* Incaia – 89% (Sep 2014)*	Licilo – 97% Chissano- 57% Incaia – 99%	Licilo: 61 Chissano: 30 Incaia: 10
	% of identified pregnant women tested for HIV in the same month	Licilo – 36% (Mar 2014) Chissano- 80% (July 2014)* Incaia – 77% (Sep 2014)*	Licilo – 95% Chissano- 53% Incaia – 90%	Licilo:59 Chissano: -27 Incaia: 13
	% of pregnant women who tested HIV-positive and who were initiated on treatment (39 sites)	100% all sites	100% all sites	0

**Problems in initial data collection in early months led to incorrect data on ANC attendance in early months of activity and later baseline figures. Given that the teams had been working for several months, these figures do not represent the pre-intervention baseline.*

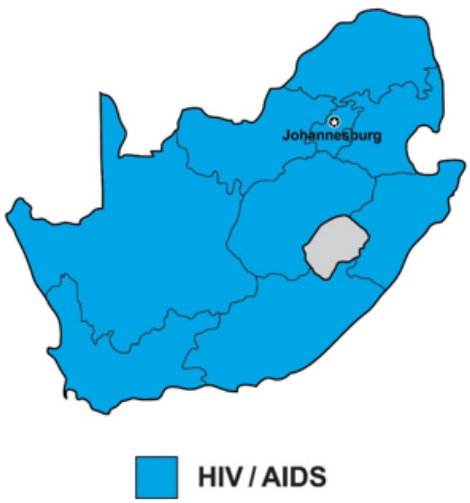
ASSIST's work aimed to institutionalize OVC standards, which had been developed together with all the key stakeholders, within the policies of the Government of Mozambique to guide future OVC programming, budgeting, and evaluation. The PHFS community system work created a sustainable platform, as it was centered on involving existing formal and informal community groups and networks in supporting pregnant women and connecting them to the health facility.

SOUTH AFRICA

BACKGROUND

South Africa faces a high burden of disease. HIV infection ranks the highest with almost 5.7 million people living with HIV and 18% of adults aged between 15 and 49 being infected with the virus. Approximately 1,000 adults are infected with HIV daily. A 2011 review of the National Strategic Plan 2007–2011 by the South African National Department of Health (DOH) shows mixed achievements: much headway has been made, however there are key challenges that should be addressed in order to scale up HIV prevention, treatment, care, and support in the country. URC has worked since 2000 in South Africa through the QAP and its follow-on, the HCI Project. ASSIST started activities in South Africa in October 2013. ASSIST is continuing to work in the five priority provinces at the provincial and district level to improve the quality of care through providing support and mentorship in planning, implementation, evaluation, and documentation. In addition, starting in May 2014, ASSIST began working with approximately 122 PEPFAR-supported sites in all nine provinces of South Africa to improve the quality and safety of medical male circumcision (MMC) services.

Scale of USAID ASSIST's Work in South Africa



DOH, PEPFAR VMMC Implementing Partners

5 out of 9 provinces (ART)
9 out of 9 (VMMC)
30 out of 52 districts

122 health facilities

21 QI teams

25,000,400 out of 54 million

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Increase quality of HIV prevention, care, and treatment services	
• Reduce time to ART initiation for HIV+ clients by 20% • Increase retention of HIV+ clients on ART in care by 30%	Provinces: 1 out of 9 Districts: 1 Facilities in districts: 12 of 30 QI teams: 5
2. Build capacity of Department of Health staff	
• Build capacity of key DOH staff (primary health care supervisors and facility managers) in all provinces in strategic planning, supervision, program review, training, and mentorship	Provinces: 5 out of 9
3. Integrate continuous quality improvement (CQI) for VMMC activities	
• Improve the quality and safety of VMMC services by applying CQI methodology	Provinces: 9 Facilities: 122 QI teams: 21

= Improvement Activity = Cross-cutting Activity

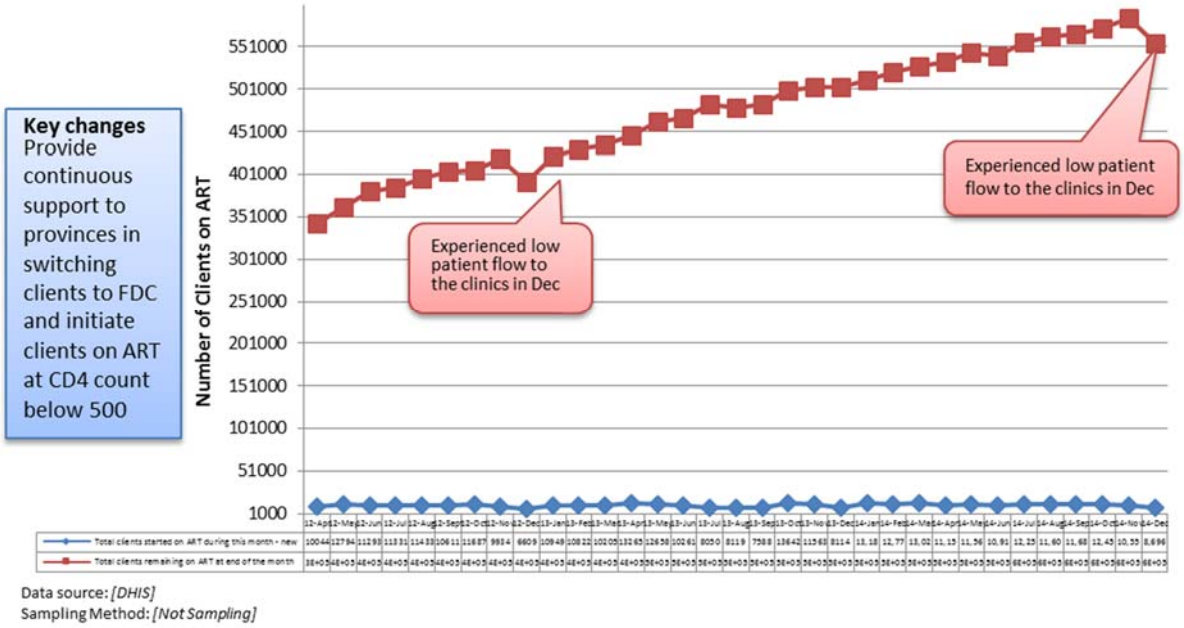
Activity 1. Increase quality of HIV prevention, care, and treatment services

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST provided support for mentoring visits in 10 districts in three provinces** -- Eastern Cape (EC), Mpumalanga (MP) and Limpopo (LP). (Q1) To improve ART uptake and retention, ASSIST continued to provide technical support at above site level in the form of quarterly HIV, AIDS, Sexually Transmitted Diseases and TB (HAST) planning meetings, data reviews, and CQI plan development for HAST Program Managers at the district level. ASSIST, together with District HAST Program Managers, visited some of the sites (eight in MP; seven in LP for support and coaching visits, as well as for data verification 17 in EC).

- **Figure 72** shows the data reflecting the number of patients on ART as of Dec 2014. In brief:
  - The number of clients initiated on ART has been increasing at an average of 10% per quarter.
  - Although no data is shown, the TB/HIV co-infected on ART in LP improved slightly: In Sekhukhune the percentage on ART increased from 54.5% in Q1 to 57.2% in Q2, while in Waterberg, it increased from 64.1% to 67.3% during the same time period. The target is 85%, and there is a concern about the recording of ART data in TB registers.
  - In MP, the viral load completion rate was 47%, and the viral load suppression rate was 76%.

Figure 72: South Africa | Number of patients on ART (ART starts and remaining) in Mpumalanga and Limpopo (Apr 2012 - Dec 2014)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (#s)
Increase quality of HIV prevention, care, and treatment services	# of individuals remaining on ART at the end of the month (cumulative)	405,086 (October 2012)* Eastern Cape an Mpu	554,745 (December 2014) ** EC and MP only*	149,659
Increase quality of HIV prevention, care, and treatment services	# of individuals remaining on ART at the end of the month (cumulative)	38,908 Sekhukhune District (Limpopo)	42,080 Sekhukhune District (Limpopo)	3172

Activity 2. Build capacity of Department of Health staff

OVERVIEW

At the request of the Department of Health (DOH), ASSIST has been working to strengthen the capacity of district, sub-district, and facility staff to deliver good quality health care services through provision of ongoing participatory orientations and mentoring.

KEY ACCOMPLISHMENTS AND RESULTS

- **Conducted two formal Sexual and Reproductive Health trainings in KwaZulu-Natal, where 25 nurses were trained** (13 from UThungulu, and 12 at UMzinyathi) (Oct-Nov 2014) (Q1). Trainings were 2.5 days each with a pre-test conducted on day 1 of the training and a post-test on day 3. The pre training test score results were 26% at UThungulu and post-test score was 70%. At UMzinyathi the pre-test score was 30% and post-test score, 90%.
- **Conducted pediatric and adolescent clinical stationery training (25 nurses) for Mbombela sub district managers in MP** (Oct 2014) (Q1). The stationery training is aimed at providing guidance to nurses and enable them to manage ART patients well.
- **Conducted supervision training in Nkomazi sub district for supervisors and the program coordinators (total 14)** (Oct 2014) (Q1). The practical supervision exercise in four PHC facilities was conducted using the following supervisory tools: Red flag, Regular review, HAS quarterly review and the comprehensive HIV, AIDS treatment program support visit tool.
- **Supported and mentored 76 facility managers during training workshops on the development of operational plans at the following sub districts:** Bushbuckridge, Mbombela, Thabachweu, and Nkomazi (Nov 2014 – Jan 2015) (Q1)**.**
- **At least 40 district management personnel have been mentored by ASSIST staff and 20 PHC supervisors have been involved in supervision capacity building activities led by ASSIST.** (Q 3-4) The ASSIST staff have also participated in quarterly HAST meetings in all supported districts.

Activity 3. Integrate continuous quality improvement (CQI) for VMMC activities

OVERVIEW

ASSIST has been recognized by the DOH and PEPFAR as the partner specialized in quality. Throughout FY15, the project has been focused on providing CQI support to strengthen the capacity of DOH and PEPFAR-funded implementing partners to deliver high-quality VMMC services. Working with 127 health facilities, supported by nine PEPFAR IPs, significant progress has been achieved since the onset of CQI support in 2014.

KEY ACCOMPLISHMENTS AND RESULTS

- **Conducted two CQI VMMC learning sessions with DOH and IP staff (Apr & Sept 2015).**
- **The strong support from PEPFAR and the DOH facilitated the success and uptake of CQI initiatives in facilities with improvement in most indicators such as leadership, management, M&E, group education, counseling, surgical performance, and infection prevention.** The VMMC CQI dashboards in **Figures 73-74** show results from Jun 2014 -Oct 2015 for sites supported by USAID and CDC, respectively. The data includes all 127 sites supported by both CDC and USAID funded implementing partners:

Figure 73: South Africa | Dashboard for USAID sites receiving CQI support, 77 sites (June 2014 – Oct 2015)

Baseline: Jun – Sep 2014 | **2nd Assessment: Feb – May 2015** | **3rd Assessment: Jul – Oct 2015**

Site #	Leadership	Management	M&E	Group Education	Individual Counseling	Infrastructure	Surgical procedure	Infection Control
1	37.5	67.5	88	100	89.7	88.8	82.7	89.3
2	100	80.3	83.8	81	89.5	84.3	91	80.3
3	38	60	71	92	81	94	72	70
4	83	94.5	91.8	96.3	84.3	88.3	82.8	58.3
5	50	74.5	43.7	54.5	100	59.3	53.5	77.3
6	41.7	68.7	81.8	66	82.5	56.5	70.8	89.8
7	100	100	61.3	61.5	79.2	95.8	95	94.8
8	54	59.8	80					54.3
9	100	96	88	96	88	87	46	74
10	0.8	46.7	72.8	79.5	57.2	79.5	55.1	75.1
11	100	65.5	52.7	31.8	50	66	98	86.8
12	50	71.3	89.5	74.8	90.7	83.5	84	90.2
13	25	58.3	88.8	81.8	85.5	80.2	79.2	75.8
14	37.5	74.3	87.7					
15	63	83	90	84	75	81	75	78
16	25	26.8	87.3			95.8		
17	25	53.3	48	84.3	91.7	81.8	84.8	65.8
18	12.5	50.3	58.8	100	92.5	80.2	74.8	68.3
19	81.3	72.4	87.3	87	100	71.2	92.5	88
20	38	47.8	81.8	80.2	50.2	31.2	66.7	77.3
21	25	53	48	84	92	33	78	60
22	12.5	74.7	65.8	71.3	69	71.3	60.5	84.3
23	66.5	75.1	57.5	67.8	98.2	90.8	34.3	51.4
24	46	64	90	84	78	84	96	80
25	75	78	47	88	81	81	76	75
26	58	84.5	89.5	91.8	81.2	84		88.3
27	38	74.8	71.8	75	57.3	75.8	88.8	84.3
28	70.8	83.4	50.7	91.7	78.1	75.8	72.8	76
29	87.5	83.1	91.8	80.3	75.7	71.3	96.7	95.8
30	50	71.8	91.8	75	79.8	65.5	73.9	76.3
31	12.5	37.8	80.3			66.8		
32	38	72.6	70.5	77.8	95	72.5	56.5	91.8
33	12.5	70	70.5	100	91.8	72	88.8	78.4
34	25	73.7	74	31.8	85.5	82	80.8	62.9
35	12.5	38	55	84	82	33	70	88
36	37.5	53.8	76.2	76.2	97.5	100	58.2	67.1
37	83.3	68.2	70.8			83.3		
38	50	66.3	76.2	62	77.5	84.8	77.3	91.8
39	12.5	73.8	74.5	77	67	79.3	55.6	51.8
40	25	57.5	59	100	95.8	84.8	82.2	82.8
41	12.5	50.4	46.3	78.8	57.8	77.5	65.4	55.7
42	54	54	83.5					
43	13	68	71	98	89	52	94	98
44	54	74.4	67.3	79.3	84.2	98.3	68.5	53.8
45	66.5	51.3	57.7			94.3		
46	12.5	90.3	69.5	100	98.3	85.3	72.1	91.8
47	66.5	87.4	78.8	63.5	50	100	74.5	90.3
48	50	51	63	43	42	73	68	50
49	25	40.8	91.5	90.3	77	75.8	83.8	64.9
50	75	91.8	95.2	100	92.5	71.8	89.1	83
51	54	69	50.3	95.8	80.7	96.3	87.3	91.7
52	66.5	78.4	92.5	46	72.7	85.5	80.4	46.3
53	12.5	65.8	42.8	61	78.7	88.3	75.9	52.8
54	41.5	65.8	47.7	81	95.3	91	67.5	91.3
55	25	75.1	90.5	81.3	94.2	23.3	95.9	89.3
56	46	50	90	35	47	63	48	77
57	50	84.5	95	97.5	91.8	84.3	95.2	81
58	37.5	57.3	46.7	87	88.8	81.3	81.8	81.3
59	38	60.4	56	91.8	53	88.8		
60	66.5	69.9	68.2	61.5	55.2	63	88.8	67.3
61	66.5	81.3	82	81.8	75.7	88.8	78.8	82.3
62	50	84	95	98	92	73	84	84
63	25	78.1	76.8	88.8	98.5	83.8	69.2	71.1
64	25	30.8	46.8					
65	87.5	86	91.8	71.3	73.8	81	81.8	65.8
66	12.5	50	48	88	38	58	60	74
67	41.5	78.1	88.8	73.3	50.2	77.8	82.4	89.3
68	50	69.9	82.3	93	84.7	91.3	84	83
69	66.5	77.1	92.8	100	100	81.3	71.4	75.5
70	12	78.3	95.3	89.4	82.5	95.3	87.3	93.8
71	38	48	48			61.3		
72	12.5	77.4	72.7	96.8	97.5	88	80.8	80.3
73	25	83.3	91	75	76.7	88.3	88.2	83.3
74	83	85.7	87.3	94.3	82.7	70.8	83.1	70.4
75	83	83.5	91.8	90.3	88.5	69.5	83.8	98
76	66.5	83.3	87	82.8	73.3	91.3	91.2	88
77	38.7	80.3	82.4	83.3	84.3	88.8	91.1	91.3
Total	44.8	69.4	73.8	86.1	78.3	78.4	71.8	76.2

Site #	Leadership	Management	M&E	Group Education	Individual Counseling	Infrastructure	Surgical procedure	Infection Control
1	41.7	84.8	88.8	100	90.5	98.8	93.8	99.1
2	33.3	74.3	77.1	96.8	63.8	84.3	94.8	73.6
3	83.3	96.8	93.3	86.7	85.8	98.8	89.1	98.1
4	50	81.8	95.8	97.2	91	90.6	95.1	99
5	25.0	66.2	77.4	72.2	90.7	91.7	79.2	73.6
6	16.7	89.8	91.5	80.8	98.5	87.8	89.7	73.6
7	100	99.1	93.8	95	86	93	92.7	98.3
8								
9	50	96.1	80.3	89.4	89.7	98.8	95.7	100
10	50	54.8	71.2	94.7	86	83.7	80.7	89.6
11	50	83.9	92.2			90.3		73.6
12	58.3	90.7	90.3	97.2	94.4	92.1	95.8	98.3
13	66.7	79.4	83.9	100	95.8	98.3	91.5	92.5
14	83.3	98.1	78.4	100	100	98.9	96.3	99.1
15	66.7	95	88.1	96.9	78.7	98.8	98.8	95.5
16	25	82	53.6	61.7	63.6	95.3	73.3	87.3
17	91.7	97.8	97.8	88.1	97.7	97.7	80.8	84.1
18	83	90.7	88.7	100	88.7	92.8	88.8	88.3
19	66.7	83.3	63	87.3	61	96.4	74	95.3
20	92.8	91.8	95.5	91.8	85.3	98.3	83.4	92.8
21	50	61.5	61.5	67.4	84.7	98.8	86.8	94.8
22	50	84	82	94.7	96.1	75.4	73.9	84.6
23	83	81	74.6	97.8	90	84.3	92.1	95.3
24	41.7	83	94.8	71.7	78.1	87.8	93.2	89.8
25	83.3	94.8	97.8	100	95	92.3	91.5	93
26	50	87	81.1	79.2	83.3	94.8	94.1	88.8
27	50	84.3	93.1	83	86.8	80.2	82.7	92.8
28	83.3	91.3	82.4	92.8	81.2	87.7	88.8	95.2
29								
30	66.7	94.8	78.7	96.9	96.1	95.3	98	100
31	25	82.6	54.6	88.8	59	97.7	85.1	98.4
32	66.7	95.8	89.8	100	98.8	98.2	95.1	94.8
33	66.7	90.4	94	88.7	59.5	94.2	95.3	97.7
34	83.3	90.8	94.8	94.7	88.8	97.7	95	95.8
35	50	78	53.3			92.8		
36								
37	83.3	94.8	72.2			98.8		
38	50	83.8	63.3	92.8	80.8	94.3	88.8	96.8
39	41.7	85	83.8	77.8	81.7	88.8	91.5	93.5
40	66.7	92.2	71.8	78.8	100	98.8	89.8	84.3
41	50	78.5	78.8	83.2	80.4	94.3	85.2	91.3
42	54	54	63.5	89.2	88.8	82.8	79.7	94.4
43								
44	45.7	89.1	71	80.8	86.2	72	88.2	73.6
45	41.7	81.3	75.2	95	86.5	95.3	91.3	96.2
46	58.3	88.8	87.2	100	99.3	92.9	97.8	94.7
47	25	95.4	96.3	100	95.8	95.8	96.6	96.1
48	69	70.8	76.5	72.3	81.5	88	78.9	89.2
49	33.3	90	96.1	91.7	100	84.3	85.1	97.3
50								
51	50	73.5	65.1	100	94.6	96.4	94.7	95.5
52	83	88.7	89.7	88	78.4	85.3	78.6	85
53	21.4	71.9	78	86.1	82.1	70.9	93.1	84.6
54	25	85.2	71.5	71.9	100	98	99.1	94
55	38.7	80.4	89.3	88.8	83.5	90.4	89.7	81.2
56	50	80.7	83.8	72.2	85.7	81.8	97	83.1
57	41.7	95.6	91.1	91.2	78	96.6	89.6	89.4
58	100	95.5	95.5	100	90.7	91.9	99	86.1
59	100	98.3	97.8	71.8	94.4	80.7	88.7	80.5
60	16.7	84.5	82.8	92.5	87.3	96.4	85.2	74.1
61	50	90	100	100	95	98.8	100	97.5
62	75	91.1	82.3	97.2	93.8	90.2	91.1	97.8
63	83.3	75	83.3	75	69	82.1	88.5	88.3
64	33.3	78.8	82.8	97.5	81.8	99.1		
65	33.3	88.5	90.8	97.8	92.8	94	91.8	88.8
66								
67	90	100	92.8	97.5	94.6	98.2	95.2	95.4
68	58.7	71.3	88.1	81.1	75.2	98.3	84.4	81.7
69	50	84.3	88.8	96.8	100	98.8	90.4	90.4
70	83.3	75.2	92.5	87.5	78.4	88.8	78.4	78.8
71								
72	41.7	88.4	90	97.5	100	83.2	77.8	83.2
73	58.3	96.3	91.1	80.8	88.8	93	96.7	91
74	83.3	87	87.5	97.2	91.7	88.1	87.4	98.4
75	58.3	93.5	97.8	75.1	87.3	83.1	72.7	84.5
76	66	90.7	93.1	100	87.5	94.8	94.4	97.3
77								
Total	55.1	84.3	83.3	88.8	84.5	91.8	88.8	89

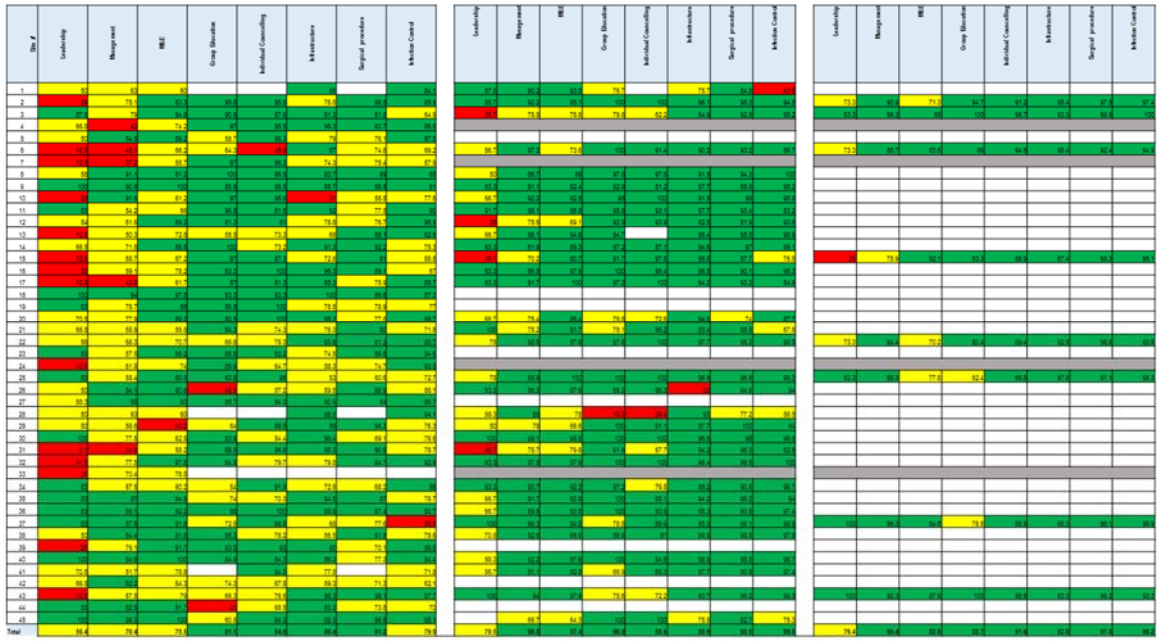
Site #	Leadership	Management	M&E	Group Education	Individual Counseling	Infrastructure	Surgical procedure	Infection Control
1								
2	83.3	86.7	88.4	89.2	70.4	94.2	95.1	93.7
3								
4								
5	73.3	86.7	92.1	97.2	93.2	92.8	98.6	96.4
6								
7								
8								
9								
10	83.3	93.1	93.1	82.2	70.6	98.8	91.7	97.4
11								
12								
13								
14								
15								
16								
17	83.3	89.1	92.1	79.2	83.2	89.6	87.3	73.6
18	83.3	94.8	93.8	97.8	100	98.3	97.4	97.4
19								
20								
21								
22	66.7	99.1	97.4	100	93.1	98.8	89.2	98.1
23								
24	58.7	97.2	93.6	97.2	95	91.3	98.1	70
25	66.7	94.8	93.8	97.2	94.4	100	98.7	93.1
26								
27								
28								
29								
30								
31								
32								
33								
34	90	98	96.8	100	98.8	98.4	95.3	98.1
35								
36								
37								
38	50	73.7	87.8	100	98.4	98.8	98.4	98.1
39	83.3	82.8	83.3	75.3	74.2	94.8	92.1	94.4
40								
41	58.7	83.3	93.8	86.8	88	93.8	90.8	87.4
42								
43								
44	75	93.8	79.3	91.8	89.2	98.1	93.2	88
45								
46								
47								
48	100	90.8	94.8	63.8	74.3	93.7	97.3	100
49	58.7	88	94.3	91.7	88.8	90.8	90.8	95.8
50								
51								
52	91.7	95	82.8	87.5	92.8	89.7	94.4	97.8
53	66.7	85.4	89.2	97.5	93.8	94.3	93.8	94.3
54	70.8	92.2	88.1	96.8	96.4	96.4	95.3	97.4
55								
56								
57	91.7	93.7	95	100		92.2	92.5	97.2
58	66.7	77.2	80.1	89.2	84.3	94.2	94.7	83.1
59	50	85.4	77.4	96.8	91.8	100	97	81.7
60	90	94.1	92.5	91.7		88.7	81.8	81.2
61	66.7	89.8	98.3	100	100	93.7	87.8	96.7
62	83.3	97.9	89	97.2	93.8	95.3	98.1	81.3
63	80	93.8	88.1	72.5	91.8	97	94.1	88
64								
65								
66								
67	83.3	93	90	97	94.4	91	91.8	73.1
68	83.3	98.1	91.8	80.8	74.8	94.8	96.3	100
69								
70								
71								
72								
73								
74								
75								
76	66.7	97.8	100	100	92.1	98.8	98.3	100
77								
Total	72.8	90.1	89	91.3	88.8	94.8	93.5	91.7

Figure 74: South Africa | Dashboard for CDC sites receiving CQI support (June 2014 – Oct 2015)

Baseline: Jun – Sep 2014

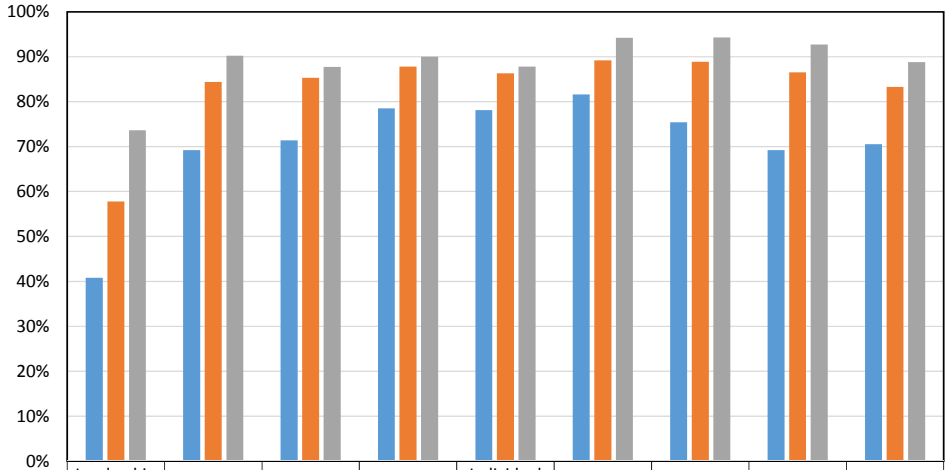
2nd Assessment: Feb – May 2015

3rd Assessment: Jul – Oct 2015



- **Figure 75 shows baseline and re-assessment at 5-12 months for sites receiving three assessments between June 2014 and June 2015.** This data has been extracted from selected 36 sites that completed all three assessments.

Figure 75: South Africa | Baseline and re-assessment at 5-12 months for sites receiving three assessments (n=36)

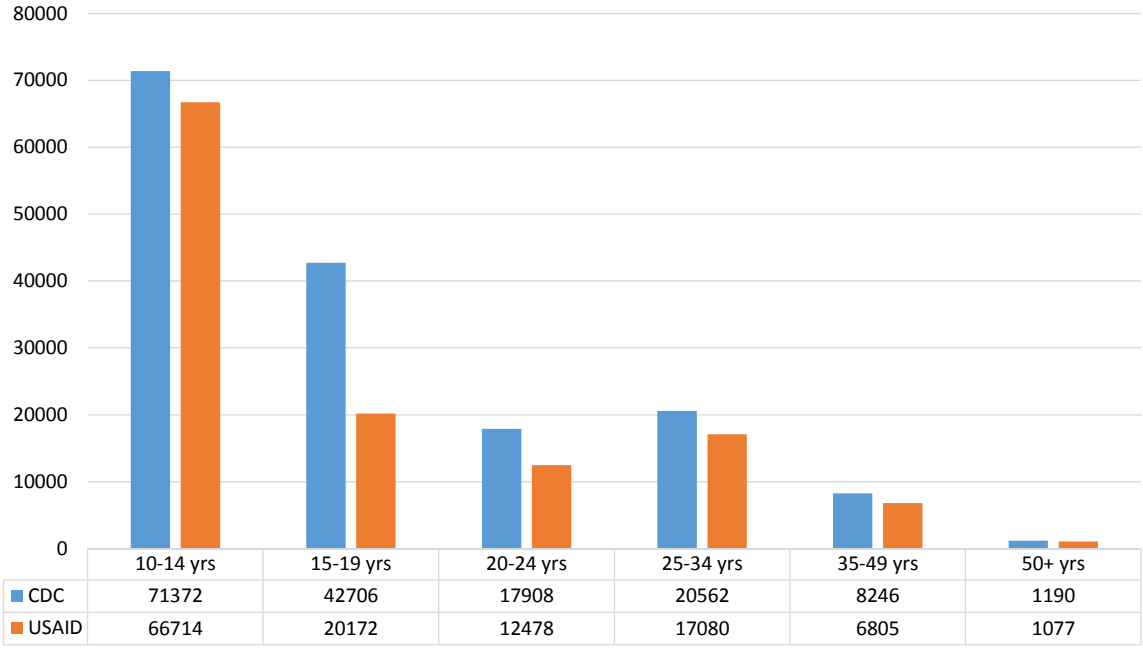


	Leadership and Planning	Management systems	M&E	Group education	Individual Counselling &HCT	infrastructure	surgical procedure	Infection Control	Overall
Baseline	40.8	69.2	71.4	78.5	78.1	81.6	75.4	69.2	70.5
2nd Asessment(5-9 Months)	57.8	84.4	85.3	87.8	86.3	89.2	88.9	86.5	83.3
3rd Aessments(8-12 Months)	73.6	90.2	87.7	90	87.8	94.2	94.3	92.7	88.8

- **Figure 76 shows the number of clients circumcised at approximately 122 sites supported by USAID and CDC IPs between June 2014 and June 2015.** This data has been extracted from

the DHIS, and is used on a monthly basis to make correlations between CQI support being provided and site-level increases in numbers of VMMCs provided.

Figure 76: South Africa | Number of clients circumcised in USAID and CDC sites, 122 sites (Oct 2014 - Jun 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (July-Sept 2014)	Last value (Sept 2015)	Change (#s)
Improve the quality and safety of MMC services by applying CQI methodology	# of MMCs performed Aggregated quality standards score	42,278 74%	155,677 (cumulative) 88%	113,399
Build capacity of key DOH staff and implementing partners on CQI	# of individuals trained on CQI	0	136	136

SUSTAINABILITY AND INSTITUTIONALIZATION

The USAID ASSIST Project is building the capacity of DOH staff at district, provincial, and national levels to continue with quality work through formal QA/QI training sessions and provision of mentorship and technical assistance in HIV prevention. In support of MMC programs, ASSIST will work with each of the provinces and districts to build IP and DOH capacities in order to be able to utilize continuous CQI methodologies and programmatic data to identify priority areas, gauge performance, and plan for scale-up of services. ASSIST is also supporting the DOH and nine PEPFAR IPs to standardize MMC tools and develop QI indicators. In addition, ASSIST is working with District Management Teams to support MMC supervision and advocate for the integration of the MMC program into overall primary health care (PHC) service provision.

SWAZILAND

BACKGROUND

Tuberculosis (TB) is one of the major public health problems currently confronting Swaziland. According to the Swaziland Ministry of Health, despite interventions to control TB transmission and improve treatment outcomes, TB still accounts for approximately 10% of in-patient morbidity in the country and is responsible for 20% of in-patient deaths (NTCP Q3 report 2014). The high TB/HIV co-infection and multidrug resistant (MDR) TB rates adversely affect TB case detection as well as treatment outcomes. While Swaziland has made great strides in the control of TB and MDR-TB and integration of TB/HIV, there is still a need to meet the WHO targets for TB and MDR-TB case finding and treatment success.

With funding from PEPFAR and partnering closely with the Swaziland MOH, the National Tuberculosis Control Program (NTCP), the Swaziland National AIDS Program (SNAP), and the National Quality Management Program (NQMP); the ASSIST project has worked closely with communities, healthcare workers and health system leadership to improve performance of TB, TB/HIV and MDR-TB services and treatment outcomes across the country.

ASSIST began working in Swaziland in October 2012 by building on the work done by HCI from 2008, and continuing to support institutionalization of modern quality improvement in health care; building the capacity of health care workers and QI mentors on quality improvement; and improving health care performance measurement at all levels of the health system. Strengthening the use of data to inform areas of intervention or improvement at the facilities and building capacity of regional and program staff to monitor performance indicators has led to improvements in the outcomes for TB/HIV and MDR-TB patients.

Between April and June 2015, transitioning activities were carried out as ASSIST was closing out at the end of June with the exception of the in-service training coordination and improving Option B+ laboratory and treatment monitoring.

Scale of USAID ASSIST's Work in Swaziland

MOH

3 out of 4 regions

87 TB facilities
121 Rural PHC facilities

42 QI teams

841,752 out of 1.141 million

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Support the MOH and implementing partners to institutionalize modern quality improvement approaches	
• Improve national capacity health care QI planning, implementation and evaluation • Build the capacity of health care workers, and QI mentors on quality improvement • Improve health care QI performance measurement, at national, regional and health facility levels	• Countrywide • 62 TB diagnostic clinics out of 87 • 42 QI teams
2. Establish integrated TB/HIV/NCD model clinics and centers of excellence for MDR-TB clinics to improve implementation of the essential health care package (EHCP)	
• Establish integrated TB/HIV/NCD health services • Implement the EHCP	• Regions: 3 out of 4 (Hhohho, Manzini, Lubombo) • Facilities: 10 • Hhohho Region 7 out of 67 • (3 model clinics and 4 TB/HIV comprehensive care clinics) • Manzini Region • (1 TB/HIV comprehensive care clinic) • Lubombo Region: 2 out of 45 • (2 TB/HIV comprehensive care clinics):
• Establish the MDR-TB hospital and TB center as centers of excellence	• Manzini Region (TB hospital Moneni and TB center clinic Manzini)
3. Implement high quality DOTS expansion for TB & MDR-TB and strengthen implementation of integrated TB/HIV prevention, care, and treatment	
• Increase case detection of TB • Increase TB treatment success • Increase TB/HIV integrated management • Ensure proper management of MDR-TB • Strengthen TB infection control • Increase research and use of evidence in designing in priority areas interventions and policies	• Focus regions: 3 out of 4 regions. Part-time support to Shiselweni region • Target population: 841,752 • Facilities: 52 • Hhohho Region: 21 health facilities (2 hospitals, 2 health centers and 17 primary health clinics). Population: 309,184 • Manzini sub region: 24 facilities in (2 hospitals, 4 specialized clinic and 18 primary health clinics). Population: 352,568 • Lubombo Region: 16 facilities in (1 hospital, 3 private industrial clinics and 12 primary health clinics). Population: 180,000
4. Implement advocacy, communication and social mobilization (ACSM) interventions to improve HIV and MDR-TB services uptake and outcomes	
• Strengthen the capacity of NTCP to develop and implement a TB ACSM strategy • Improve the early detection of TB, TB/HIV and MDR-TB health facilities and communities	• 87 health facilities in 4 regions

What are we trying to accomplish?	At what scale?
• Increase community engagement in support TB patient treatment adherence	
5. National Framework for In-service Training	
• Design and implement a national framework for in-service training in Swaziland	• National • All implementing partners with in-service training programs (19 facilities out of 287 facilities) • Facility in-service training coordinators
6. Improve Option B+/ART laboratory related care and treatment monitoring	
• Strengthen National Sample Transportation Services (NSTS) services to enable facilities access viral load testing for pregnant women and improve turn-around time for viral load and DBS results of pregnant women and HIV exposed infants; Establish m-health options patient feedback system to ensure they return to the facility once laboratory results are available; conduct operational research for TB screening among pregnant women	• National • NSTS: 3 out of 4 regions (121 health facilities) • 28 clinics in Hhohho • 51 clinics in Manzini • 42 clinics in Lubombo • National: An mHealth system for Viral Load • SMART study in 3 clinics

= Improvement Activity = Cross-cutting Activity

Activity 1. Support the MOH and implementing partners to institutionalize modern quality improvement approaches

OVERVIEW

Institutionalization of modern QI approaches provides sustainable and efficient long-term improvements in the quality and cost of health services in Swaziland. The ASSIST project in Swaziland uses this approach to enable the MOH to meet its health goal of improving the health and social welfare of the Swazi population by providing preventive, curative, and rehabilitative services that are of high quality, relevant, accessible, affordable, equitable, and socially acceptable. Project interventions include: building capacity of health care workers (HCWs) for QI implementation at national, regional, and facility levels; engaging HCWs, health care program managers, Regional Health Management Teams (RHMTs) for scaling up QI activities and lessons, and using health data to inform improvements.

KEY ACCOMPLISHMENTS AND RESULTS

- **Conducted QA/QI training of trainers (TOT)** (Q1-2). Following the success of the first QA/QI TOT training, a second QA/QI TOT was conducted in collaboration with the Quality Management Program in December 2014 at Esibayeni Lodge with 21 participants from health facilities. From January- March 2015, clinical mentoring and supportive supervision was conducted with 15 of the 21 QA/QI trainers. All the participants visited were able to conduct facility based QA/QI trainings and implement QIPs. At Emkhuzweni Health Centre, one trainer was observed conducting an on-site training to 23 participants. The third and final TOT session took place in the third quarter 2015 in May for 21 participants.
- **Conducted clinical mentoring and supportive supervision for QA/QI** (Q1-2). ASSIST in collaboration with the MOH provided mentoring and supportive supervision to 148 HCWs (facility QA focal persons, QA committees, and QA/QI trainers) from 11 health facilities to build their capacity on QA/QI methodologies.

- **Conducted regional TB QRM workshop** (Q1). The project supported a quarterly review workshop for health facilities' QI focal persons to discuss, learn, share best practices, and build their capacity and skills to utilize their data to identify gaps, develop specific quality improvement plans (QIPs), and inform health care service delivery.
- **ASSIST supported the MOH Quality Management Team to conduct a national collaborative learning session** (Q2). Eleven facilities and 47 participants from the four regions participated. Nine facilities shared progress on their quality improvement projects.
- **The project continued to support facility-based QI learning sessions where departments presented their QI projects** (Q1-3).
- **Feedback on performance in TB/HIV indicators and coaching on quality improvement plan.** (Q1) The ASSIST team conducted a meeting in October 2014 with Cabrini Ministries Mission Clinic's HCW to assess the implementation of key themes in the facilities' quality improvement plan, which was developed from January-March 2014. The exercise reached 17 HCWs
- **Finalized National TB Hospital Strategic Plan 2015-2017** (Q2) through provision of TA and funding by ASSIST for a consultant to work with the TB hospital management on the strategic plan. The National TB Hospital Strategic plan was finalized, printed, and shared to all key stakeholders. The document guides and supports the delivery of services at the National TB Hospital. It will be used as a guide and tool for resource mobilization. At the programmatic level, it is hoped that implementation of the activities in the strategic plan will contribute to the reduction of DR-TB incidence and prevalence in the country.
- **Finalized QA/QI customer care framework development** (Q2). The health facilities' Customer Care Framework was finalized in December 2014 during a two-day workshop at the George Hotel. ASSIST provided TA, facilitated the consultative meetings and report writing. The framework was developed to prepare for the TB/HIV client satisfaction surveys to be carried out in 10 sites. The 10 sites were identified and a data collection tool developed. Eleven customer care officers from nine health facilities participated.
- **Client satisfaction survey** (Q2). A client satisfaction survey was conducted in six facilities (Mbabane Government Hospital, Piggs Peak Government Hospital, Emkhuzweni Health Centre, Ezulwini Satellite Clinic, Horo Clinic and Ngowane Clinic) by ASSIST project staff and health facility customer care committee staff members. The exit survey targeted various service delivery points, including the VCT/ART clinic, TB clinic, pharmacy, public health unit, laboratory, and general outpatient department. Report analysis and writing is was finalized in May 2015.
- **Due to the transition of this support to the MOH CDC Cooperative Agreement in April 2015, ASSIST did not support any activities in Q 3-4.**

Activity 2. Establish integrated TB/HIV/NCD model clinics and centers of excellence for MDR-TB clinics to improve implementation of the essential health care package (EHCP)

OVERVIEW

The MOH launched the EHCP to be used to improve health care service delivery. In line with this, ASSIST in consultation with the EHCP Coordinator, National TB Control Program, and RHMTs in Hhohho and Manzini regions, developed a plan to use model clinics and COE for rolling out the TB/HIV and MDR-TB services in Swaziland. At the COEs, the project focused on development of high quality MDR-TB management practices, implementation of the FAST strategy, and capacity building of the TB hospital and TB Center as training centers in Manzini Region. The project further worked to increase support towards implementation of the entire continuum of HIV/TB care with the eventual goal of implementing the EHCP in three model clinics in the Hhohho Region.

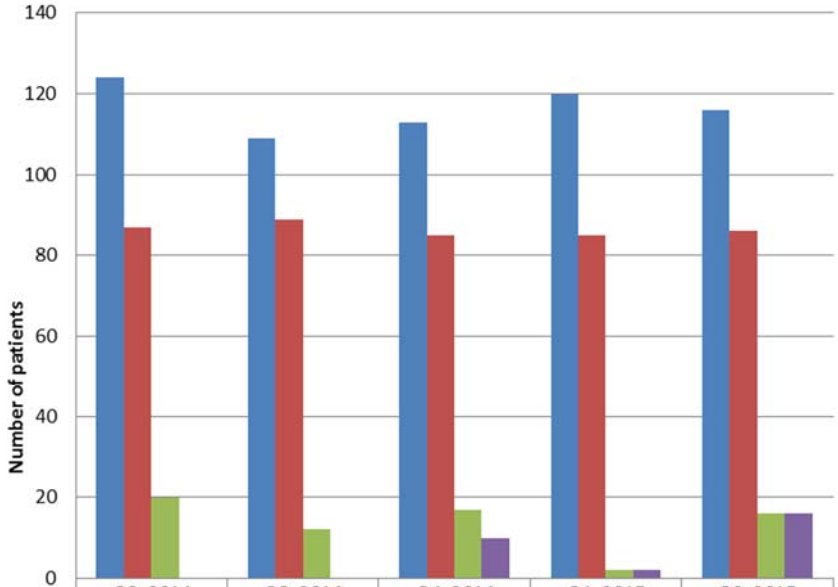
KEY ACCOMPLISHMENTS AND RESULTS

- **Held collaborative learning sessions** (Q2)**.** ASSIST conducted a collaborative learning session for model clinics to track progress and address challenges that cut across all facilities. Thirteen HCWs from Ngowane clinic, Ezulwini satellite clinic, and Horo clinic attended the sessions.
- **Model clinics participated in regional collaborative learning sessions** (Q2). Focal persons from the model clinics participated in regional collaborate learning workshops such as Regional

TB Quarterly Review Meetings, and also in Regional Semi-Annual Reviews (RESAR). The RESAR was attended by 116 participants from health facilities.

- **Between February and June 2015, the patient appointment system at the National TB Hospital was redesigned by ASSIST to accommodate patients with similar regimens, and demographics** (Q2-3). The ASSIST MDR-TB Systems Improvement Advisor in conjunction with TB hospital staff implemented the new system and ASSIST provided funding for printing new appoint registers and forms. The system has improved the tracking of patients who miss appointments with rates of missed appointments reducing from 20% to 10%.
- **The model clinics and centers of excellence were handed over to the incoming implementing partner** (Q3). The documentation included facility summary, progress on key performance indicators and quality improvement projects. Figures 1-2 illustrate the performance of the selected model clinic and Centre of Excellence on selected indicators:
- **Introduction of Option B at the Ezuliwini Satelite Clinic** (Q3) The model clinics were assisted to integrate prevention of mother to child transmission option B+ (life long ART) for pregnant and lactating mothers. **Figure 77** shows the increase in numbers of HIV-infected pregnant women initiating Option B+ at Ezulwini Satellite Clinic.

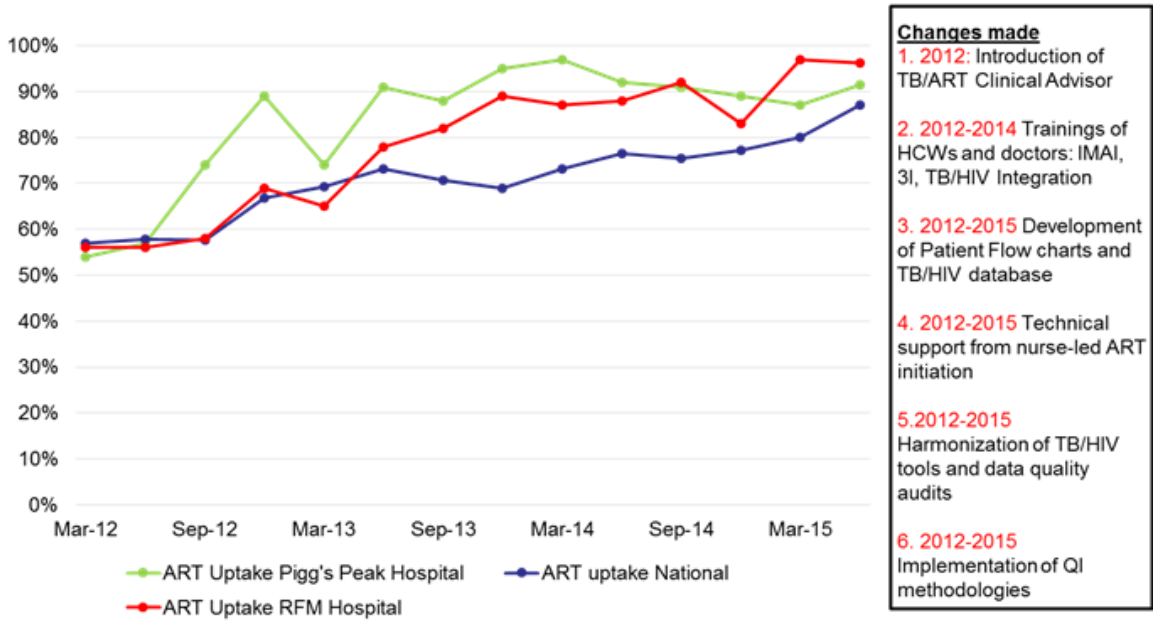
Figure 77: Swaziland | Number of HIV-infected pregnant women enrolled in Option B+, Ezulwini Satellite Clinic (April – June 2015)



	Q2, 2014	Q3, 2014	Q4, 2014	Q1, 2015	Q2, 2015
# Pregnant women seen (1st attendants)	124	109	113	120	116
# tested for HIV	87	89	85	85	86
# HIV positive	20	12	17	2	16
# Initiated on Option B / B+	0	0	10	2	16

- **ART update in TB patients** (Q 2-3). **Figure 78** shows that the Centers of Excellence performed better than the national average for ART uptake among TB patients living with HIV.

Figure 78: Swaziland | Trends in ART uptake at two Centers of Excellence, Raleigh Fitkin Hospital and Pigg's Peak Hospital vs. national average (March 2012 – June 2015)



- **The ASSIST team addressed gender-related challenges to strengthen implementation of TB/HIV prevention, care, and treatment** (see Table 23 in the Knowledge Management section for more information)**.**

Activity 3. Implement high quality DOTS expansion for TB & MDR-TB and strengthen implementation of integrated TB/HIV prevention, care, and treatment

OVERVIEW

DOTS (directly observed treatment, short-course) was recommended by WHO since 1994 as an important Stop TB strategy to help people during their treatment. In 2003, Swaziland initiated a DOTS program for smear-positive patients, and extended coverage for other patients gradually. Currently, all patients undergoing TB medication are under DOTS. Swaziland also pursues DOTS plus as well for MDR-TB patients. A drug resistance survey showed multidrug resistance rate of 7.7% in all new TB cases and 33.9% in retreatment cases (DR-Survey Report, 2009). The prevention of MDR-TB is paramount to curtailing the MDR-TB outbreak in Swaziland, and that necessitates effective TB case finding and holding for drug sensitive TB as well as reducing the transmission if MDR-TB from established MDR-TB cases in the community. Surveillance of quality of DOTS implementation has been institutionalized in the country.

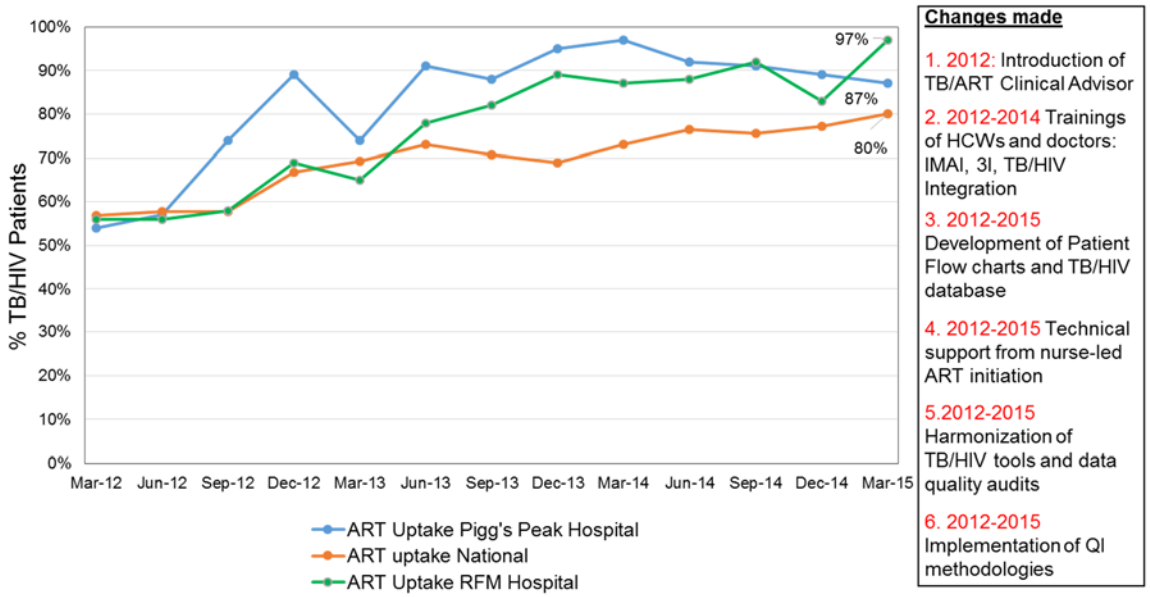
KEY ACCOMPLISHMENTS AND RESULTS

- **Conducted community multi-drug resistant tuberculosis outreach** (Oct 2014–Mar 2015). ASSIST through the MOH TB hospital community MDR-TB outreach program conducts home assessments, contact tracing, and links patients to care. The project further provides health education on TB and MDR-TB to TB and MDR-TB patients, their families, and neighbors. Between October 2014 – March 2015, 107 home assessments were conducted; 49 people linked to care; and 322 people reached through health education.
- **Capacity building of HCWs to implement integrated TB/HIV management**
  - **IPT onsite trainings** (Nov 2015)**.** ASSIST successfully conducted on-site trainings in two health facilities (Siphofaneni clinic and FLAS clinic, with 15 and 12 participants, respectively).
  - **Basic TB management training** (March 2015)**.** Conducted two-day basic TB management training at Zombodze clinic to 16 health care workers (HCWs). Training objectives were: to provide knowledge on TB management to the facility's HCWs; to increase access to care of TB services by decentralizing to the clinic; and to increase index for suspicion of TB patients.

- **HIV guidelines dissemination training management for health care workers** (March 2015). ASSIST conducted a four-day training for 30 HCWs on the new HIV guidelines. The objectives of the training were to: orient health care workers from all health facilities in Manzini on the integrated HIV management guidelines; and update the HCWs on the changes in the new integrated HIV guidelines.

- **ASSIST continued to provide resources and technical assistance to Piggs Peak and RFM Hospitals to strengthen provision of ART for TB/HIV co-infected patients. The two hospitals have demonstrated improvement of ART provision** with Piggs Peak Hospital at 87% and RFM Hospital at 97% in Q1 FY15 compared to 80% performance at national level (**Figure 79**).

Figure 79: Swaziland | Comparison of national uptake to two hospitals' ART uptake (March 2012 – March 2015)



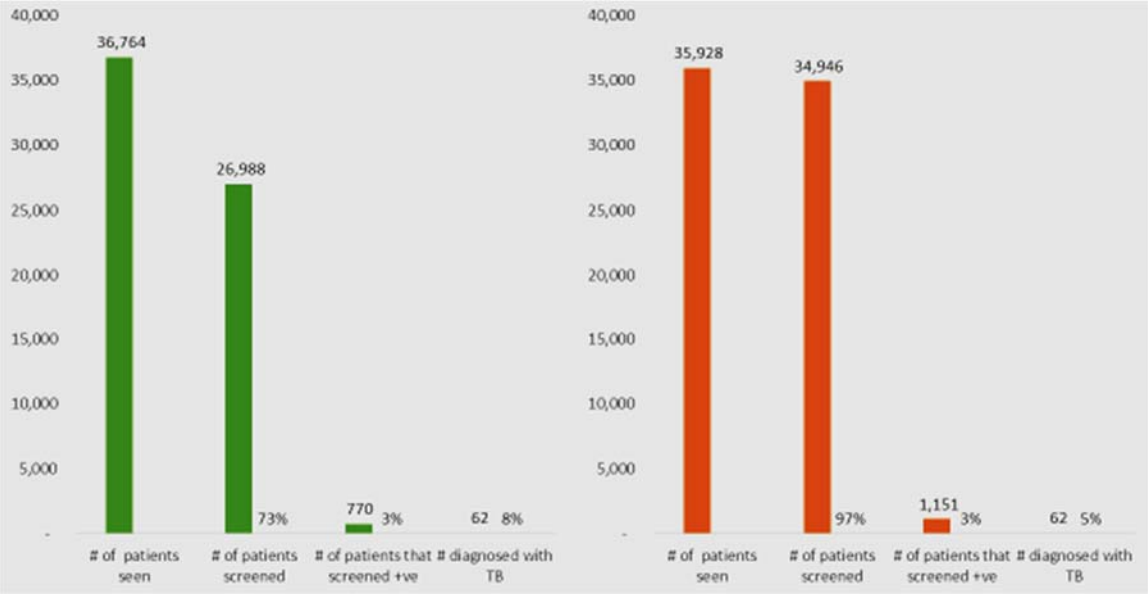
- **ASSIST in partnership with the NTCP collaborated in training health care workers (nurses) on DR-TB clinical management of patients** (Oct 2014). The objectives of the training were to: provide knowledge to nurses on TB/HIV and DR-TB Management in the country, share experiences in health facilities and come up with standard operational procedures with all the facilities involved, and share with the participants on best practices in other countries.
- **Conducted TB/HIV sensitization and screening campaign** (Oct 2014). ASSIST through the TB in the mines project sensitized and screened mineworkers from the Maloma coalmine for TB and also tested them for HIV. Of the 248 miners screened for TB, 96 screened positive for TB, 58 had lab tests for TB, 108 miners tested for HIV, and seven miners tested positive for HIV.
- **Worked to strengthen and ensure sustainability of the infection prevention and control structure at national, regional and facility level to improve infection control practices**
  - **Conducted assessments to look at infection prevention and control (IPC) practices in health care facilities, to track device associated health care infection, and to establish a database for health care associated infections** (Q1-2, FY15). Conducted assessments at Good Shepherd Hospital, Cheshire Homes, and Mbabane Government Hospital.
  - **IPC site visit** (Dec 2014). ASSIST's IPC specialist provided technical support and TB IPC assessment to Good Shepherd Hospital to prepare for the MDR-TB treatment initiation at the newly accredited site. Some of the key findings and follow-up actions are shown in **Table 3**.

Table 3: Swaziland | Key findings and recommendations from TB IPC assessment at Good Shepherd Hospital

Key findings	Issues for follow-up and recommendations
• TB, MDR TB patients and all other patients mixed at the outpatient department while queuing at the X-ray, laboratory, and ultra sound departments. (No safe separation of TB and MDR-TB patients) • TB screening conducted at outpatient department but clients who were positive to screening tool were not issued surgical masks. • Presumptive TB clients not given surgical masks while waiting at the laboratory and ultra sound room • Outpatient department, radiography department, and ultra sound room poorly ventilated. • Narrow passages used as waiting areas	• Safe separation of presumptive TB and MDR TB clients at radiology and all other departments. • Alternative waiting area • TB screening of employees every six months (documented proof) • Provision of an outside or alternative shelter for MDR-TB, TB and presumptive TB clients • Offering surgical masks to the MDR TB, TB and presumptive TB clients, even at the other departments (X-ray, laboratory, ultrasound room)

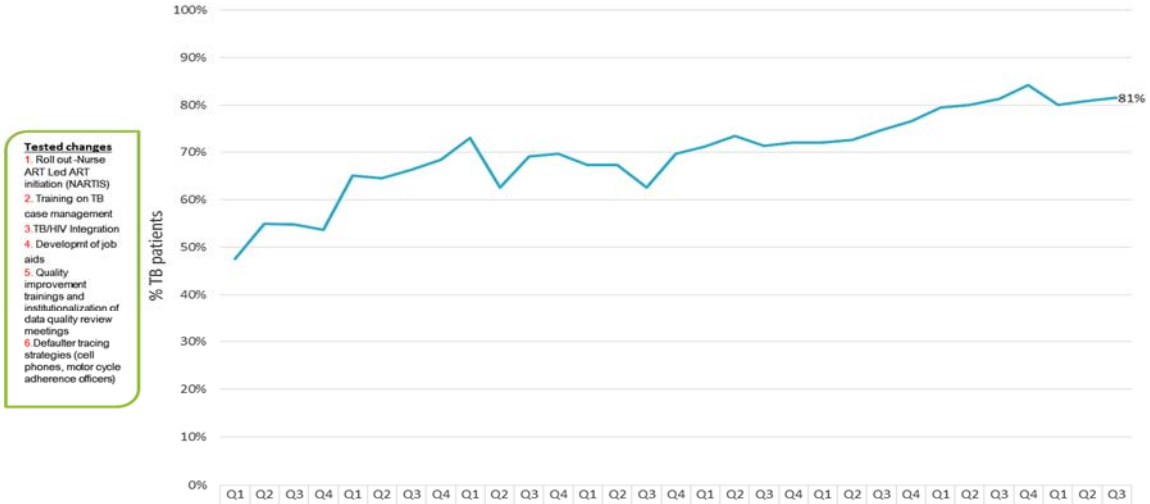
- **ASSIST conducted a quarterly review meeting for cough screening officers** (Q3). The meeting reviewed the performance of TB screening and diagnostic cascades **(Figure 80)**, bottlenecks, and lessons learned. A total of 44 officers from 38 health facilities attended this meeting.

Figure 80: Swaziland | TB screening, 38 health facilities, Lubombo Region (April – July 2015)



- **Conducted handover of the Matsapha Prison TB clinic** (Q3). ASSIST provided a mobile home that was designed as a clinic with a side laboratory that accommodated a GeneXpert MTB Rif. The clinic was handed over to the correctional services administration and the Minister of Justice. In attendance were the National TB program manager, the Deputy Director Public Health services, the USAID Country Director, and members of the press.
- **Improved and sustained TB treatment success rate to 81% at national level** (Q1-4).This is below the WHO recommended target of 85% but over the reporting period, some ASSIST-supported health facilities achieved the WHO target **(Figure 81).**

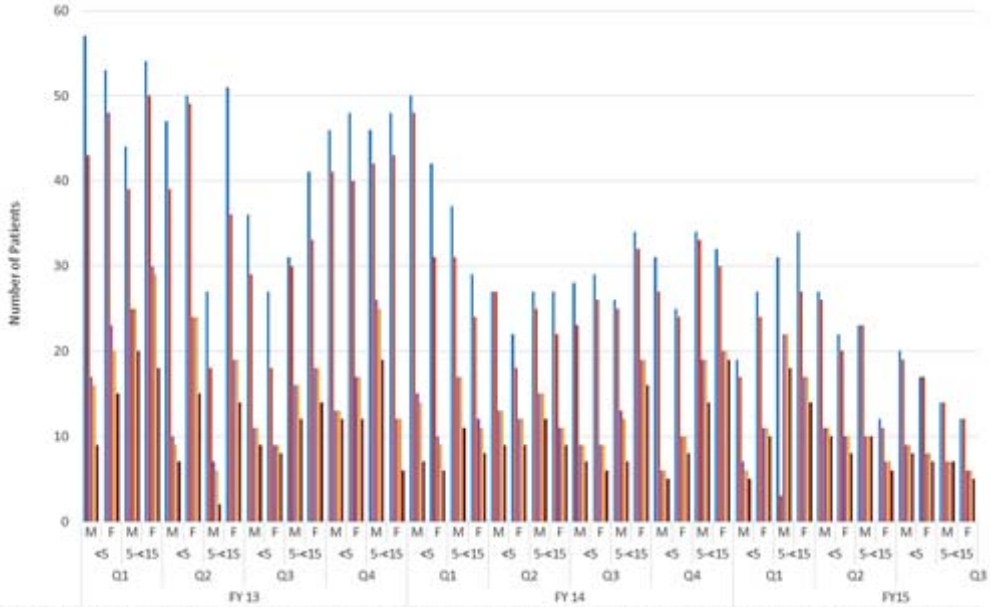
Figure 81: Swaziland | National TB treatment success rates (Oct 2007 – June 2015)



	Q1 FY08	Q2 FY08	Q3 FY08	Q4 FY08	Q1 FY09	Q2 FY09	Q3 FY09	Q4 FY09	Q1 FY10	Q2 FY10	Q3 FY10	Q4 FY10	Q1 FY11	Q2 FY11	Q3 FY11	Q4 FY11	Q1 FY12	Q2 FY12	Q3 FY12	Q4 FY12	Q1 FY13	Q2 FY13	Q3 FY13	Q4 FY13	Q1 FY14	Q2 FY14	Q3 FY14	Q4 FY14	Q1 FY15	Q2 FY15	Q3 FY15
	FY08				FY09				FY10				FY11				FY12				FY13				FY14				FY15		
# Completed	120	124	120	151	228	134	112	150	196	141	167	119	149	150	155	215	173	168	100	139	149	126	108	134	121	115	97	130	110	93	72
# Cured	205	244	207	254	314	381	364	418	399	344	431	521	480	482	738	358	361	304	226	344	305	350	292	359	300	361	347	373	281	390	399
Treatment Success Rate	48%	55%	55%	54%	65%	65%	66%	68%	73%	63%	69%	70%	67%	67%	63%	70%	71%	73%	71%	72%	72%	73%	75%	77%	79%	80%	81%	84%	80%	81%	81%
# of cases registered	683	670	596	755	833	798	717	830	815	774	864	918	934	939	1425	822	749	643	457	670	630	655	535	644	530	595	546	598	489	598	578

- **Narrowed of the gap between children tested for HIV and receiving HIV treatment:** Childhood TB is confronted with the challenge of diagnosing TB among children, and for those who are HIV positive, accessing ART because most of them would have been orphaned. ASSIST is working with Baylor and other partners to address this challenge through training, advocacy, and clinical systems improvement. The results of the Apr-June 2015 quarter show a significant narrowing of the gap between the number of children tested positive for HIV and the number initiated on ART (**Figure 82**).

Figure 82: Swaziland | National trends in the TB/HIV cascade among children less than 15 years disaggregated by age and sex between (Oct 2012 – Jun 2015)



# cases registered	57	53	44	54	47	50	27	51	36	27	31	41	46	48	46	48	50	42	37	29	27	22	27	27	28	29	26	34	31	25	34	32	19	27	31	34	27	22	23	12	20	17	14	12
# tested for HIV	43	48	39	50	39	49	18	36	29	18	30	33	41	40	42	43	48	31	31	24	27	18	25	22	23	26	25	32	27	24	33	30	17	24	3	27	26	20	23	11	19	17	14	12
# HIV positive	17	23	25	30	10	24	7	19	11	9	16	18	13	17	26	12	15	10	17	12	13	12	15	11	9	9	13	19	6	10	19	20	7	11	22	17	11	10	10	7	9	8	7	6
# on CPT	16	20	25	29	9	24	6	19	11	9	16	18	13	17	25	12	14	9	17	11	13	12	15	11	9	9	12	19	6	10	19	20	6	11	22	17	11	10	10	7	9	8	7	6
# on ART	9	15	20	18	7	15	2	14	9	8	12	14	12	12	19	6	7	6	11	8	9	9	12	9	7	6	7	16	5	8	14	19	5	10	18	14	10	8	10	6	8	7	7	5

- **A handbook was developed to assist in the transfer of information to the new implementing partners.** The handbook had a summary of activities that have been implemented under ASSIST pertaining to TB, TB/HIV and MDR-TB. The handbook was completed at the end of May and shared in June during the handover.
- **Published short report "Decentralizing TB Services to Improve Access to Treatment in Swaziland"** (Jun 2015) (https://www.usaidassist.org/resources/decentralizing-tb-services-improve-access-treatment-swaziland)
- **Published short report "Mapping Mine Workers in Nkwene, Swaziland to Improve Access to TB Diagnosis and Treatment Services"** (Jul 2015) (https://www.usaidassist.org/resources/mapping-mine-workers-nkwene-swaziland-improve-access-tb-diagnosis-and-treatment-services)
- **Published short report "Strengthening Infection Prevention and Control in Swaziland"** (Sept 2015) (https://www.usaidassist.org/resources/strengthening-infection-prevention-and-control-swaziland)

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (Sept 2013)	Dec 2014	June 2015	Change (percentage points)
Implement high-quality DOTS expansion for TB & MDR-TB and strengthen implementation of integrated TB/HIV prevention, care, and treatment	TB case notification	1782 (83 sites)	1259 (87 sites)	941 (87 sites)	---
	TB treatment success rate	77% (83 sites)	80% (87 sites)	81% (87 sites)	4
	HTC uptake	96% (83 sites)	97% (87 sites)	95% (87 sites)	-1
	CPT uptake	98% (83 sites)	98% (87 sites)	99% (87 sites)	1
	ART uptake	69% (83 sites)	80% (87 sites)	88% (87 sites)	19
	MDR-TB case enrollment	76% (6 sites)	76% 8 sites	32% (8 sites)	-44
	MDR-TB 6 months interim outcome	68% (7sites)	65% (8 sites)	68% (8 sites)	0
	MDR-TB treatment success rate	59% (6 sites)	55% (8 sites)	49% (8 sites)	-10

Activity 4. Implement advocacy and social mobilization interventions to improve HIV and MDR-TB services uptake and outcomes

OVERVIEW

ASSIST continues to work towards building the capacity of the NTCP through implementing the TB ACSM. This strategy was developed in collaboration with NTCP and other supporting partners and is being carried out in conjunction with the STOP TB partnership in Swaziland and Communication Behavioral Impact (COMBI) strategy. The strategy is aimed at implementing advocacy and social mobilization interventions to improve TB, TB/HIV and MDR-TB services uptake and outcomes.

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST continued to provide technical support to NTCP to review, finalize, and disseminate the ACSM strategy using local evidence** (Q1-3). The national ACSM strategy

was finalized in June 2015. Twelve billboards have been placed around the country. The billboards were themed: Find TB, Treat TB, Cure TB, Kick TB, and Stop TB.

- **Conducted advocacy, communication, and social mobilization event** (Q1-2). During the reporting period the project managed to support a number of community activities including: TB IPC sensitization for public transport operators, MoLeSwasa campaign addressing TB among returning miners from neighboring countries for Christmas, and World AIDS Day at Siteki Sports ground in the Lubombo Region.
- **Held TB IPC campaign in collaboration with NTCP** (Q2). Held at Mbabane Bus Rank with 700 people attending and receiving health services. The event was aimed at: providing TB, HIV services, screening of non-communicable diseases (hypertension and diabetes) including health education; disseminating TB infection control messages in the form of pamphlets and stickers to be displayed in the public transport vehicles (i.e., open window stickers); and actively finding TB and DR-TB cases and linking TB suspects to the nearest hospital for sputum examination.
- **Conducted TB IPC awareness campaign** (Q1). ASSIST conducted a TB IPC awareness campaign at Manzini bus rank in collaboration with the Ministry of Health, National TB Control Program, and Swaziland Commercial Amadoda Transportation Corporation. The purpose was to educate the general public on TB/HIV, TB IPC, and non-communicable diseases (NCDs). About 200 health care workers, 310 members of the public,and 100 members of the Royal Swaziland Police force attended. The success of the event was demonstrated by 96 people being screened for TB, of which 46 were positive and 28 sputum samples were sent to the laboratory. In addition, educational materials were shared and approximately 1000 *Open Windows Stickers* distributed; and people were screened for hypertension, HIV, and diabetes mellitus.
- **World TB Day** (Q1)**.** World TB Day was commemorated at Maseyisini in the Shiselweni Region where the military, police, mineworkers, factory workers, and the general public were targeted. More than 900 people were present during the event, 500 received IEC materials including information packs from URC Laboratory project and ASSIST, 300 screened for TB, with the first person being screened was the Minister of Health. Forty-two people screened positive for TB and were linked to care.
- **World AIDS Commemoration day** (Q1). The National TB Control Program, ASSIST, and University Research South Africa as supporting partners joined the Swaziland National AIDS Program in the Lubombo Region Siteki sports ground to celebrate those lives that have been saved and improved in the country and recommit to the fight against HIV/AIDS. The 2014 World AIDS Campaign's theme was "***Getting to Zero in Africa: Zero New HIV infections, Zero discrimination, and Zero AIDS related deaths"***. The objectives for the World AIDS day commemoration were to raise and strengthen HIV and AIDS awareness, to call for action and commitment to HIV and AIDS national response, and to review progress in the national response to HIV and AIDS. About 1500 people from all over the country attended the world AIDS day commemoration.
- **Training on TB, TB/HIV, and DR-TB among prisoners** (Q2), ASSIST conducted a training on TB, TB/HIV, and DR-TB for inmates at Big Bend Correctional Institution. Sixteen male inmates who had not received any TB screening since incarceration were screened for TB. Nine of them screened positive for TB, and they were linked for diagnosis, care, and treatment in the onsite clinic. Twelve male inmates who did not know their HIV status were tested for HIV, and six of them tested HIV positive. The inmates that tested HIV-positive were linked successfully to care and treatment in the prison's clinic.
- **The evaluation report for the TB screening project for HCWs that was implemented by the Wellness Centre from October 2012 to March 2015 was finalized and printed** (Q3). The evaluation report found that the occurrence of TB among healthcare workers was lower than in the general population although at facility level analysis, some facility wellness centers had a higher than general population occurrence of TB.
- **A handwash campaign was conducted at the TB Centre clinic** (Q3). Twenty participants were educated through presentation, video and demonstration and discussions.
- **A TB sensitization campaign was conducted at the Phocweni military barracks** (Q 3). A total of 350 soldiers were in attendance, the soldiers were from 7 barracks: Nsingizini Army Barracks, Nkoyoyo, Bethany, Bethany, Mbuluzi, Mbutfu, St Georges and Phocweni. The event

was graced by the Brigadier general of the Army. HIV, TB and Diabetes Mellitus testing and education stations were placed for the soldiers to visit; 283 soldiers received TB screening and educational materials.

- **Published short report "Providing TB Services to Health Care Workers in Swaziland through Wellness TB Screening"** (May 2015). Available at: https://www.usaidassist.org/resources/providing-tb-services-health-care-workers-swaziland-through-wellness-screening.

Activity 5. National Framework for In-service Training (IST)

OVERVIEW

Implemented under the MOH Training Unit, the IST project started in January 2014. The aim of the IST project was to improve the quality and effectiveness of the IST for HCWs through improved design, delivery, coordination, and tracking of all IST. ASSIST worked with the MOH planning unit training department to ensure that the current trainings in the Ministry are well coordinated.

KEY ACCOMPLISHMENTS AND RESULTS

- **With the aim of improving training information management to enhance tracking and staff development planning, standard training registers were developed and started being piloted in 19 health facilities** (Q 2-4)**.** Facilities include seven hospitals, five health centers, and four public health units selected from across the country, plus the three pilot programs (i.e., SNAP, NTCP, SRH). A software developer was hired and is currently developing a computerized Training Information Management System that will be used to track trainings and trainees and generate training reports for improved decision-making. The system will be operational in the next quarter producing report for facility, regional and national level managers, as well as partners.
- **The IST improvement advisor has continued to provide technical support to different MOH programs as listed below** (Q1-4)
  - *Quality Program:* In December 2014 QI/QA TOT identified areas of improvement in the program and made recommendations
  - *Environmental health program:* In February 2015, ASSIST was requested by the Environmental Health Program to be part of the team evaluating consultants to develop the health care waste management training manual.
  - *Swaziland Health Laboratory Services.* In February 2015, ASSIST provided technical assistance in conducting a training needs assessment for all SHLS staff. Training Needs Assessment (TNA) tool has been developed and submitted for approval
  - *Swaziland Nazarene University:* Guidance on MDR TB curriculum review process (March 2015)
  - The project developed standard guidelines for conducting effective trainings in the MOH. This will help improve the quality of training. The guidelines were presented to the MOH Senior Staff on 14th September 2015 and currently in the Office of the Principal Secretary MOH awaiting approval.
- **Held IST coordination mechanism workshop** (Q1). The in-service workshop was successfully held at Esibayeni Lodge with the following objectives: orient participants on IST coordination mechanism; finalize training and recording tools; and develop IST coordination calendar for the pilot programs (i.e., NTCP, SNAP, and SRHU). The workshop was attended by 18 participants who included facility IST coordinators, program training focal persons, program thematic area coordinators (from NTCP, SNAP, SRHU, MOH training unit, Ministry of Public Service), and training focal persons from partners supporting the three mentioned programs.
- **ASSIST supported the MOH training office to coordinate the development of in-service training calendars by each of the priority health programs being piloted for IST coordination: TB, HIV and SRH programs** (Q3-4)**.** The developed IST calendars were then printed, and disseminated by ASSIST. During the reporting period, two quarterly IST coordination calendars were produced and disseminated.

- **ASSIST supported the MOH training office to conduct an assessment to establish the utility and usability of the standard training register and offsite facility feedback form** (these are training recording tools that have been under pilot since January-June 2015).
- **ASSIST supported the HMIS, HRD and the training departments of the MOH to develop and pilot an electronic training information management system for the MOH to improve training information management and use of training data to inform HRH development strategies and decision-making** (Q3-4).
- **An assessment was conducted to find out how effective the coordination of training was conducted and the results were satisfactory** (Q2-4). The MOH senior management recommended that the IST coordination mechanism be scaled up to include all MoH programs and department. The scale up process also started with a meeting to orient all programs to the coordination mechanism, the training office is currently receiving training calendars from each program for consolidation into one Ministry calendar.
- **Published short report "Improving Efficiency, Effectiveness, and Sustainability of In-Service Training in Swaziland"** (Jun 2015). Available at: https://www.usaidassist.org/resources/improving-efficiency-effectiveness-and-sustainability-service-training-swaziland.

Activity 6: Improve Option B+/ART laboratory-related care and treatment monitoring

OVERVIEW

With a global move towards an AIDS-free generation, Swaziland has adopted a test and treat strategy for pregnant and lactating women; better known as Life Long Antiretroviral therapy for Pregnant and Lactating women (LLAPLa). Antiretroviral therapy suppresses viral replication and hence viral load monitoring is an essential follow up for these women. Measures of CD4 cell count are not useful in this situation since women are initiated on treatment regardless of the count. Within a few months of implementing LLAPLa, challenges surrounding the delivery of viral load testing results arose with long delays in patients receiving the results if at all. Retaining mothers in care was another bottleneck as well retaining both mother and baby in care after delivery. ASSIST provided support to increase the capacity of the National Sample Transport System (NSTS) to service peripheral clinics more regularly and frequently to ensure specimen transportation for viral load testing for the clients. To improve results delivery and retaining mothers and their babies in care, an mHealth activity was initiated. The activity will register mothers at their first visit and keep them engaged in care through informing them when results are available at their clinic and reminding them of all clinic appointments. Their babies will be tagged to their unique identifier, and mother and baby scheduled together for clinic visits until the baby is 24 months. The system will also provide reminders to the health care workers for retesting of both the mother and their babies.

KEY ACCOMPLISHMENTS AND RESULTS

- **Strengthen National Sample Transportation Services (NSTS) to enable facilities access viral load testing for pregnant women and improve turn-around time for viral load and DBS results of pregnant women and HIV exposed infants** (Q2). In order to increase the NSTS coverage and frequency the project has procured five additional vehicles. The vehicles were remodeled to suit the requirements of safe storage and transportation of hazardous samples and handed over to the Minister of Health by the US Ambassador on the 16th July 2015.
- **Conduct operational research for TB screening among pregnant women** (Q2). The full study protocol was drafted with inputs from ASSIST, URC headquarters, SHLS, CDC Atlanta, CDC Swaziland, and USAID. The protocol, entitled "Screening in Maternity to Ascertain Tuberculosis Status (SMART): an evaluation of the sensitivity of the WHO-recommended symptom screening algorithm compared to enhanced screening algorithms in detecting TB cases among pregnant and lactating women in Swaziland" has been submitted to and approved by the URC IRB. It was also submitted to CDC IRB and the national scientific and ethics committee and is awaiting approval before data collection can begin. The study data collection will likely begin in May 2015, upon procurement of supplies and necessary human resources.
- **The pilot for the mhealth system for improving systems for viral load results delivery for pregnant women using short message service was underway by September 2015 and in**

addition ASSIST is conducting an evaluation of the TB screening process among the pregnant and lactating women (Q3). The Screening in Maternity to Ascertain TB Status (SMART) study was initiated in July 2015. Data collection began August 2015 and to date 500 eligible women have been screened in three study sites.

SUSTAINABILITY AND INSTITUTIONALIZATION

The MOH, through the NTCP, the SNAP, the QMP, and the Swaziland Health Laboratory Services, with support from ASSIST is applying lessons learned from established TB, HIV and AIDS quality improvement activities and capacity building initiatives to spread integrated service delivery models and algorithms for health facilities and providers in Swaziland.

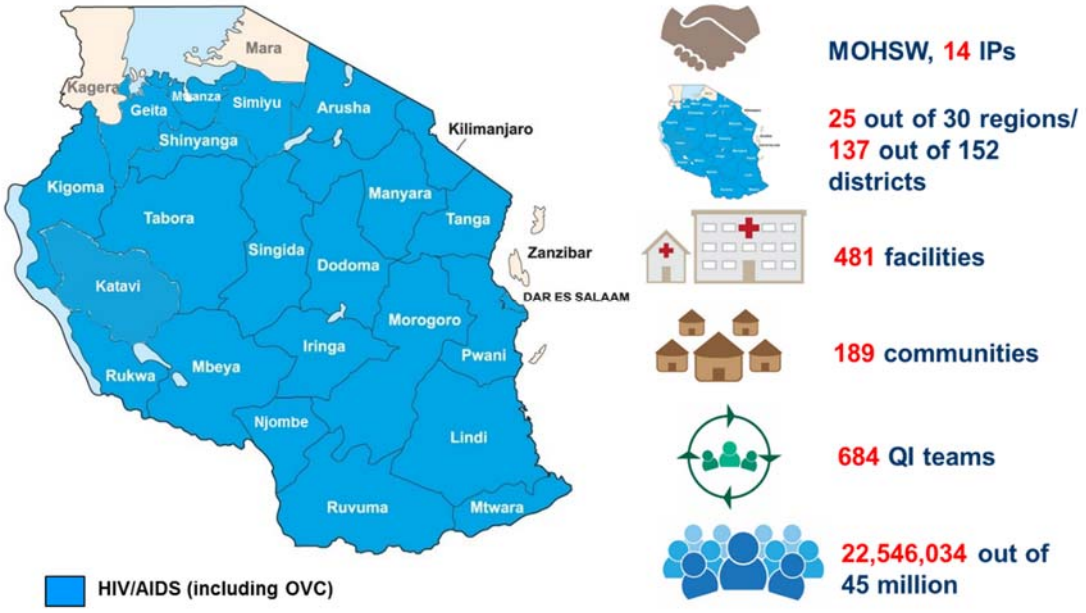
ASSIST continued to provide resources and technical expertise to engage health facility managers, regional supervisors, as well as frontline workers in implementing continuous QI. This was achieved through training, post training mentoring and coaching. Collaborative learning sessions enabled the sharing of best practices.

TANZANIA

BACKGROUND

For FY15, ASSIST in Tanzania continued supporting the Ministry of Health and Social Welfare (MOHSW) and PEPFAR ART/PMTCT implementing partners in building capacity to improve the quality of HIV/AIDS care. This work built on activities begun under the Quality Assurance Project (QAP) in 2003 and continued under HCI up to 2012. In FY15, ASSIST supported activities focused on strengthening access, retention, and effectiveness of ART/PMTCT care, protection of Most Vulnerable Children (MVC), and community-based services including community-facility linkages support. In addition, with the Partnership for HIV-Free Survival (PHFS) initiative. ASSIST also supported activities aimed at eliminating HIV infection in children and reducing deaths among HIV-infected mothers. These included national scale-up of PMTCT Option B+, supporting efforts to improve the quality of ART care to infants and children exposed or infected with HIV through provider-initiated HIV testing and counseling (PITC), and improving the quality of Voluntary Medical Male Circumcision (VMMC). Additionally, innovations created during the PHFS implementation were being integrated into maternal, neonatal, and child health (MNCH) programs. These interventions are aligned to WHO and PEPFAR goals of reducing HIV transmission through improving the quality of ART, VMMC, PMTCT, MVC, and MNCH services.

Scale of USAID ASSIST's Work in Tanzania



PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Strengthen the capacity of the MOHSW and IPs to continuously improve the quality of PMTCT care and support scaling up PMTCT Option B+ countrywide	
• Strengthen MOHSW leadership to facilitate institutionalization of QI as a tool towards achievement of e-MTCT • Support MOHSW, Regional and Council Health Management Teams (R/CHMTs) and IPs to increase access to HIV prevention, testing, care, treatment and support to pregnant, postnatal women, HIV-exposed and infected children • Support R/CHMT, facility improvement teams and IPs to improve retention to HIV care for infected women and their exposed infants • Support R/CHMT, facility improvement teams and IPs to improve wellbeing of the infected pregnant and breastfeeding women and their families	• National • New regions: 3 out of 30 (Ruvuma, Rukwa and Katavi). 13/13 districts; and 38 high-volume sites out of 526 sites • Old regions: 21 out of 30 regions; 116 out of 152 districts; 443 high-volume sites out of 4010 sites
2. Support the MOHSW and IPs to scale up improvement activities for ART services to achieve sustainable patients coverage, retention and clinical outcomes	
• Support MOHSW, R/CHMTs and IPs to scale up HIV/AIDS care improvement efforts to 4 new regions • Provide TA to MOHSW, R/CHMTs in integrating essential services with ART program • Strengthen follow-up of ART patients for retention and clinical outcomes	• New regions: 3 out of 30 (Ruvuma and Rukwa). 13/13 districts; and 38 high-volume sites out of 526 sites • Old regions: 21 out of 30 regions; 116 out of 152 districts; 443 high-volume sites out of 4010 sites
• Strengthen patient-cantered care and treatment	• 2 districts in Morogoro; 14 facilities
3. Support the MOHSW, IPs and local structures to strengthen quality of care, support and protection to most vulnerable children (MVC) through improvement approaches	
• Support the Department of Social Welfare (DSW) of the MOHSW and MVC IPs in improving and strengthening the MVC care response system	• National
• Strengthen families and households of MVC to improve care, support, and child protection.	• 5/30 regions: Tanga, Pwani, Iringa, Njombe and Shinyanga • 8/30 districts • 56/187 wards
• Strengthen service integration and community linkages	
• Implement a comprehensive care package addressing child protection and wellbeing in a model district	
4. Support the MOHSW, local government authorities, and community-based IPs to strengthen structures and mechanisms used by communities to maximize linkages and coordination of home-based care and social protection	
• Support MOHSW and IPs to scale-up utilization of home-based care (HBC) standard operating procedures (SOP) nationwide	• Nationwide
• Support R/CHMT and IPs to integrate HBC, MVC services and clinical services across a continuum of care • Support MOHSW and IPs to strengthen M&E system	• 7/33 wards in Muheza District • Tanga City 14 wards
5. Support MOHSW and IPs to improve access to testing and linkage to HIV/AIDS care and services for infants and children below 15 years	
• Increase the proportion of HIV-exposed infants and children seeking outpatient and inpatient care	• 4/30 regions: Njombe, Tabora, Shinyanga and

What are we trying to accomplish?	At what scale?
• Increase the proportion of HIV-exposed children who receive HIV DNA/PCR test results within four weeks of sample collection • Increase proportion of HIV-positive infants and children who initiated ART • Increase the proportion of HIV-infected infants and children who are retained on ART	Morogoro • 22/24 districts • 42/222 health facilities
6. Work with MOHSW and IPs to improve safety, increase quality and the level of integration of VMMC services	
• Support the MOHSW in improving access, safety, and quality of male circumcision for adults above 10 years and children below 60 days • Support IPs and facility providers to reduce adverse effects resulting from male circumcision • Support the MOHSW frontline workers to improve VMMC logistics and supplies • Increase the capacity of health care providers and IPs to provide high-quality male circumcision services	• 5/30 regions: Njombe, Iringa, Mbeya and Shinyanga, Tabora • 26/66 districts/councils • 260/1027 health facilities • 50 MMC national and regional Trainers for 5/12 priority regions • Establish 26 district/council QI teams working with early infant male circumcision (EIMC) & VMMC • VMMC target 1,518,683 in 5 regions • EIMC target: 2000 in 4 regions
7. Work with MOHSW and IPs to improve effectiveness, efficiency and safety of PITC services	
• Strengthen integration of provider-initiated testing anc counselling (PITC) within primary care services	• 4/30 regions: Njombe, Tabora, Shinyanga and Morogoro • 22/24 districts • 42/222 health facilities
• Support the MOHSW frontline workers to improve HIV testing, safety and referral, logistics and supplies	
8. Support MOHSW and IPs to improve continuum of care and retention of PLHIV through strengthening of linkages between community and facility actors	
• Improve coordination and collaboration of facility and community providers to provide seamless link from HTC to ART for all clients	• 4/30 regions - Tanga, Shinyanga, Iringa, Njombe • 5/25 districts - Muheza, Ushetu DC, Shinyanga DC, Mufindi and Njombe Town Council • 7149 Health facilities • 47 communities
• Promote clients and community involvement in HIV care linkages through tasks sharing and support	
• Support the R/CHMTs to improve the information systems to inform on program progress	
9. Support MOHSW and IPs to improve quality of integrated PMTCT services in MNCH settings	
• Support MOHSW, IPs, R/CHMT in the development and implementation of integrated care package for PMTCT and MNCH services	• 4/30 regions: Katavi, Ruvuma, Rukwa, and Shinyanga • Districts 13/19 • Facilities 38/731
• Support MOHSW, IPs, R/CHMT in integrating TB/HIV inventions in MNCH settings	

= Improvement Activity

Activity 1. Strengthen the capacity of the MOHSW and IPs to continuously improve the quality of PMTCT care and support scaling up PMTCT Option B+ countrywide

OVERVIEW

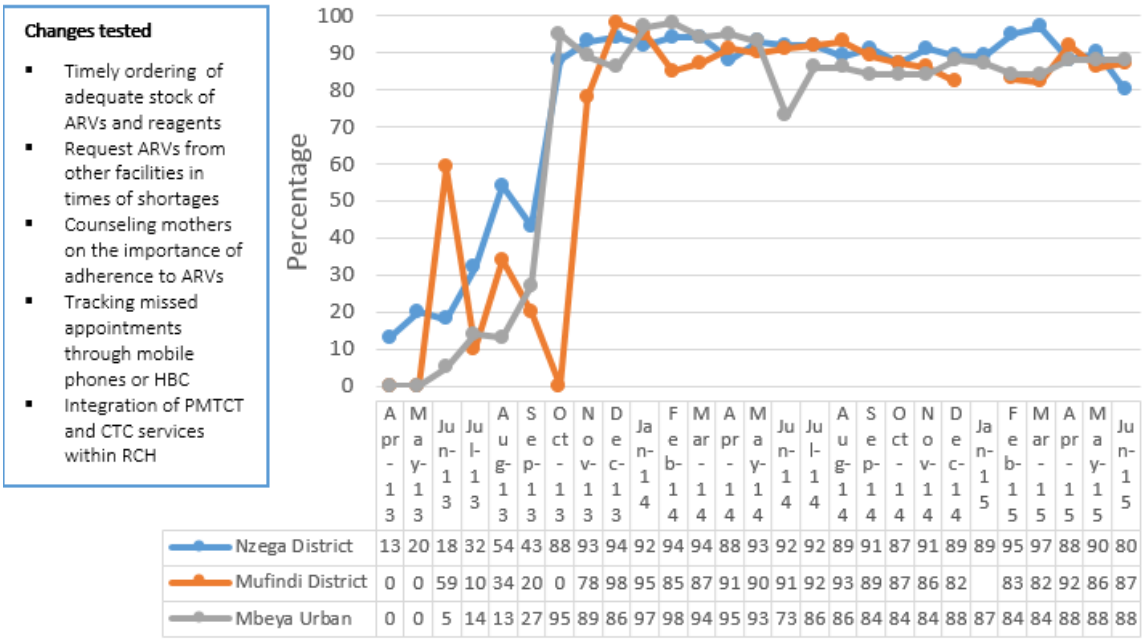
ASSIST continued to support the MOHSW, regional IPs, RHMTs, and CHMTs to improve the quality of PMTCT services and scaling up of PMTCT option B+ to all regions. Through working with the MOHSW and partners in intervention districts, HIV+ pregnant and breastfeeding women were provided with quality PMTCT services that ensure continuous availability of ARVs, clinical monitoring of opportunistic infections (OIs), DNA/PCR testing, and improved access to timely HIV test results for exposed babies. PHFS, as part of PMTCT, was geared to improve retention, nutrition support, HIV testing care and treatment for pregnant as well as post-natal women, and HIV exposed infants. ASSIST in collaboration with RHMTs, CHMTs, and regional IPs continued to support the regions across the country to improve retention in care, identification of infected HIV-exposed infants and monitoring of the well-being of both mothers and their babies. The data support system was revisited to improve linking mother-infant pairs in the medical record system and improve male involvement in PMTCT activities. ASSIST also facilitated the use of dashboards to monitor district level performance in the intervention districts, which will be spread to all other districts. Lessons learned from this monitoring process were documented in the form of knowledge products, such as success stories and a PMTCT Option B+ knowledge asset.

KEY ACCOMPLISHMENTS AND RESULTS

PHFS sites in Tabora, Mbeya, and Iringa regions:

- Sustaining gains in keeping HIV-positive pregnant women on ART in the 30 initial PFHS sites (**Figure 83**).

Figure 83: Tanzania | Proportion of HIV-positive pregnant women currently on ART, 10 sites each in the three demonstration districts of Nzega, Mufindi, and Mbeya



	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
Nzega District	13	20	18	32	54	43	88	93	94	92	94	94	88	93	92	92	89	91	87	91	89	89	95	97	88	90	80
Mufindi District	0	0	59	10	34	20	0	78	98	95	85	87	91	90	91	92	93	89	87	86	82		83	82	92	86	87
Mbeya Urban	0	0	5	14	13	27	95	89	86	97	98	94	95	93	73	86	86	84	84	84	88	87	84	84	88	88	88

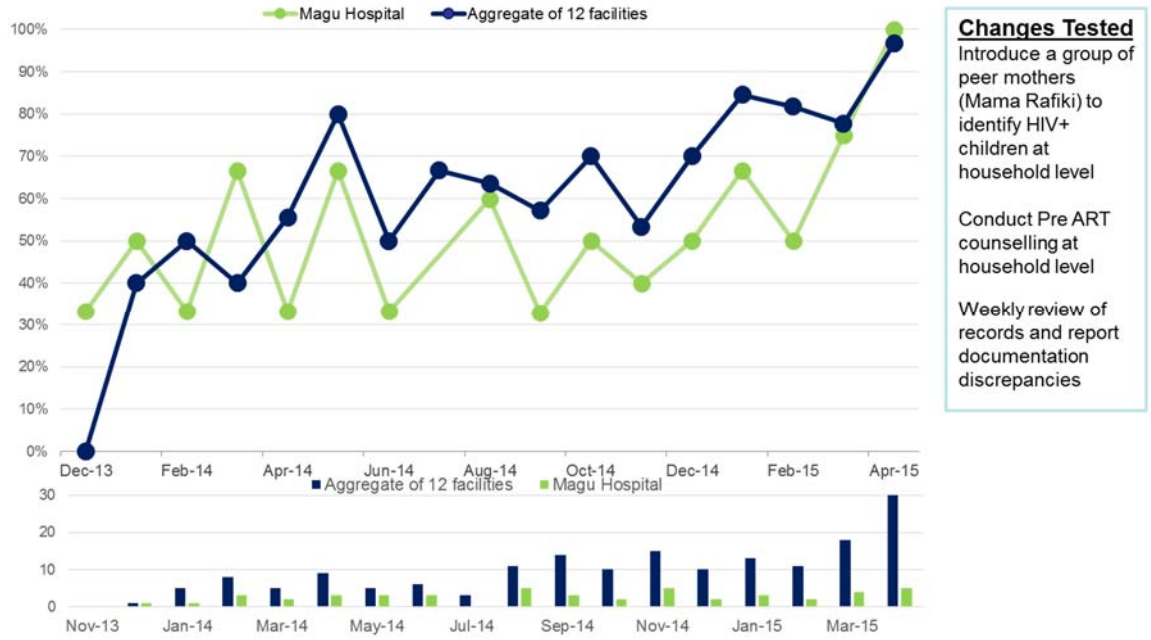
- **A baseline assessment was conducted at 60 scale-up sites in the three PHFS districts to obtain information that will guide the design and implementation of QI activities on nutritional services and retention of mother-baby pairs into PMTCT services** (Jun 22-27, 2015). Learning sessions were conducted between April-August 2015 where 60 participants were trained in how to initiate QI in their health facilities and formation of facility QI teams. Participants also developed three monthly follow-up work plans. In Mbeya and Mbozi district councils, a baseline assessment of ten high volume health facilities was initiated ahead of a planned study to

investigate factors associated with increased engagement, adherence to ART and retention to care (Sept 14-30, 2015).

Mwanza Region:

- In Magu District of Mwanza Region, ASSIST conducted a third learning session for CHMT and health providers from 33 PMTCT sites, focusing on supporting QI teams to overcome challenges encountered (May 2015). Two RHMT and eight CHMT members and 140 PMTCT providers participated in the learning session. Sites reported increases in HIV testing for pregnant women and subsequent initiation of ARV treatment for those found positive in all RCH clinics and initiation of ART to children below two years (**Figure 84**).

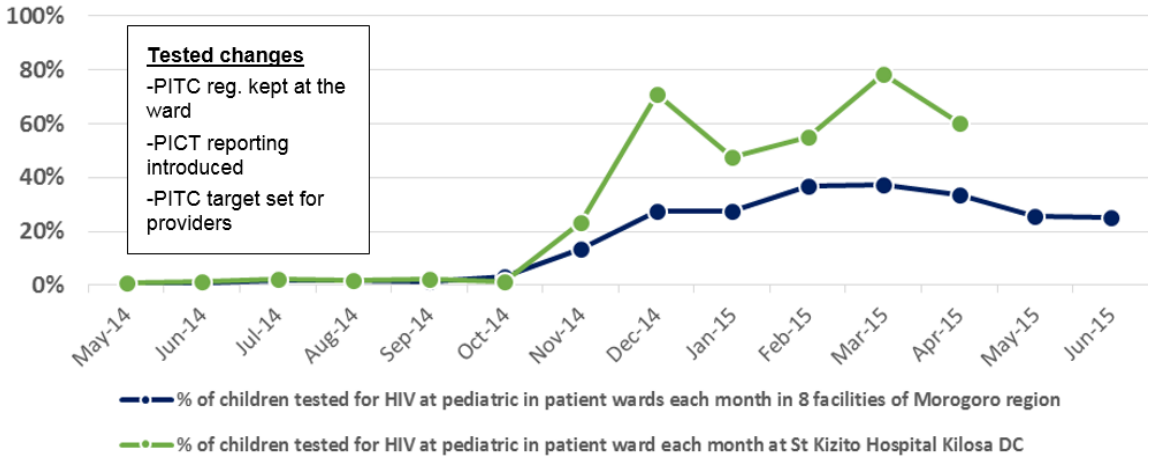
Figure 84: Tanzania | Percentage of HIV+ children below 2 years of age started on ART each month, 12 facilities, Magu District, Mwanza Region (Nov 2013 – April 2015)



Singida, Morogoro, and Arusha regions:

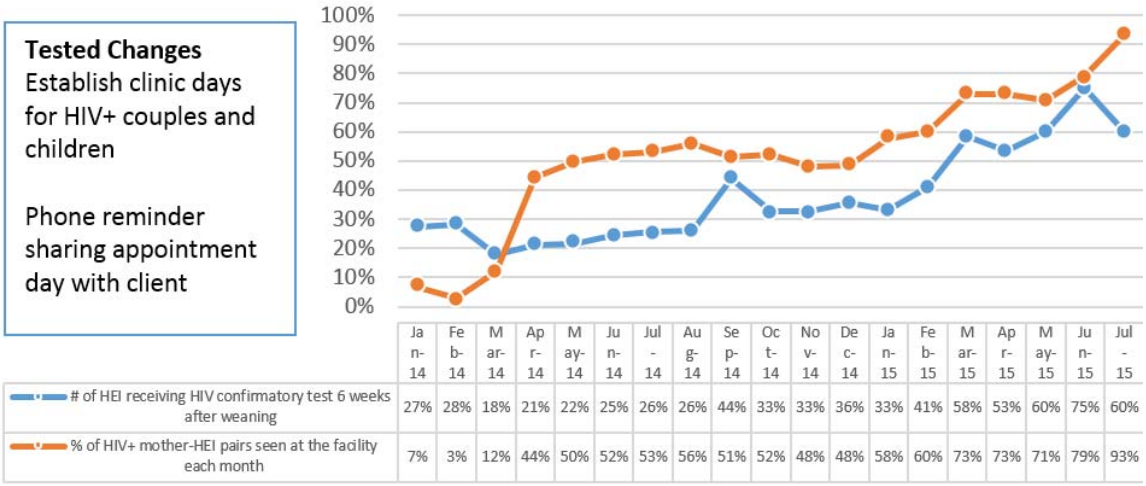
- **Conducted coaching and mentoring.** ASSIST supported 100 QI teams from Singida (24 sites), Morogoro (22 sites) and Arusha (24 sites) from where a total of 360 service providers were coached and mentored to improve access, retention and wellbeing of HIV-positive pregnant and breastfeeding mothers and their exposed infants (Dec 2014 – March 2015). From May to July 2015 a total of 190 service providers were supported through coaching in Singida (87) and Morogoro (103) regions. IPs, RHMT, CHMT, and QI teams from these regions were oriented on how to analyze systems and processes of care, identify gaps, and test changes to improve access, retention to care and wellbeing of HIV positive pregnant and breastfeeding women. QI teams were also oriented on how to work with HBC, PLHIV, local government associations, religious leaders, and other community groups to advocate for first trimester ANC booking to enable early initiation of ARVs to HIV-infected pregnant women, advocacy for male involvement, and ensuring mother-baby pairs are seen at the same time by the same provider.
- **Improvement was observed in HIV testing for children below 15 years at inpatient wards.** (**Figure 85**).

Figure 85:Tanzania | Improving access to HCT for infants and children below 15 years, 8 facilities in Morogoro Region and St. Kizito Hospital (May 2014 – Jun 2015)



- **Data validation was conducted in Morogoro Region focusing on completeness and accuracy of documentation of client records and registers, transcription, collection and compilation of QI data, concurrency of client's records and the electronic database and storage of client's records** (Aug 10-12, 2015). Results of the validation revealed: adequate documentation, data base in concurrence with client cards and data is adequately stored to ensure confidentiality.
- **A learning session was organized and facilitated by IP, RHMT and CHMT was conducted for 25 high-volume sites in the Arusha Region** (Jun 10-12, 2015).
- **The USAID Mission in Tanzania and ASSIST conducted a joint support visit to 7 QI sites in Arusha Region** (Sept 2-5, 2015). During the visit, site teams performed data processing and identification of performance gaps. Teams in Arusha exhibited improvement in HEI receiving HIV confirmatory tests six weeks after cessation of breastfeeding and in HEI mother-baby pairs seen together (**Figure 86**).

Figure 86: Tanzania | HEI receiving HIV confirmatory test six weeks after cessation of BF and HEI mother-baby pairs seen together, 18 sites, Arusha Region (Jan 2014 – July 2015)



	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15
# of HEI receiving HIV confirmatory test 6 weeks after weaning	27%	28%	18%	21%	22%	25%	26%	26%	44%	33%	33%	36%	33%	41%	58%	53%	60%	75%	60%
% of HIV+ mother-HEI pairs seen at the facility each month	7%	3%	12%	44%	50%	52%	53%	56%	51%	52%	48%	48%	58%	60%	73%	73%	71%	79%	93%

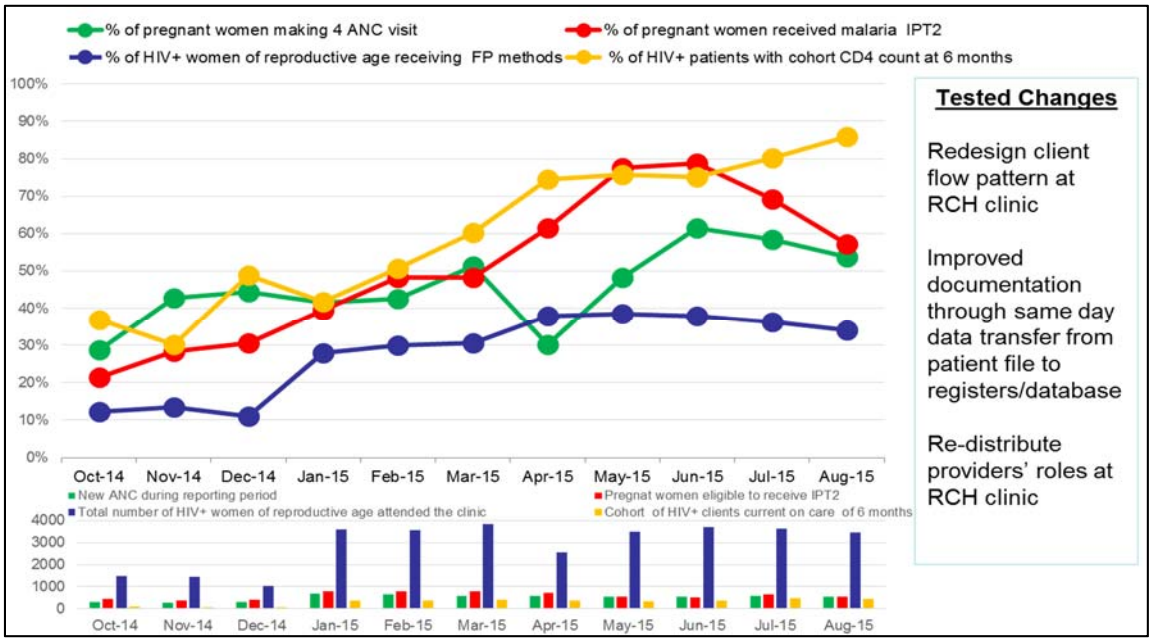
<u>Mtwara and Lindi regions:</u>

- **ASSIST provided technical support to QI stakeholders (EGPAF and CHMTs) in the Lindi and Mtwara regions to conduct mentoring and coaching to support ART/PMTCT scale-up**

(May 4-15, 2015). Ten newly recruited EGPAF field staff and 14 CHMT members participated in the coaching session. New staff were oriented on how to support facility teams in conducting process analysis, developing a change package, use the SES journal and plotting data to monitor performance.

- **Figure 87 shows improved performance in 26 PMTCT sites.** The review of the improvement journals in 26 sites in Lindi Region revealed that the percent of HIV-positive pregnant and breastfeeding women receiving life-long ART for PMTCT increased from 74% to 76%. The number of pregnant women making four ANC visits increased from 29% to 54%. Meanwhile, pregnant women receiving a second malaria prophylaxis increased from 21% to 57%; HIV-positive women of reproductive age receiving family planning methods increased from 12% to 34%; and pediatric HIV testing at in-patient department increased from 6% to 25%.

Figure 87: Tanzania | Improving performance in 26 PMTCT sites through integration of services, Lindi Region (Oct 2014 – Aug 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
Strengthen the capacity of the MOHSW and IPs to continuously improve the quality of PMTCT care and support scaling up PMTCT Option B+ countrywide	% of pregnant women tested and counselled for HIV during ANC period in Magu District, Mwanza	63% (Aug 2013) 11 sites	77% (April 2015) 28 sites	14
	% of HEI testing for 1st DNA/ PCR between 4-6 weeks each month in Magu District	11% (Oct 2013) 8 sites	95% (April 2015) 25 sites	84
	% HIV-positive pregnant and breast feeding women who receive ARVs treatment for PMTCT and their health in Arusha Region	0% (Oct. 2013) 6 sites	95% (July 2015) 4 sites	95
	% HIV-positive women (pregnant and breast feeding) receiving lifelong ART for PMTCT and for their health, Lindi Region	27% (Jan 2014) 6 sites	76% (Aug 2015) 26 sites	49
	% of pregnant women making 4 ANC visit in Lindi region	29% (Oct 2014) 16 sites	54% (Aug 2015) 26 sites	25

Activity	Indicators	Baseline	Last value	Change (percentage points)
	% of PLHIV of reproductive age receiving FP methods in Lindi region	12% (Oct 2015) 10 sites	34% (Aug 2015) 26 sites	22
	% of pregnant women received IPT2 in Lindi region	21% (Oct 2015) 14 sites	57% (Aug 2015) 26 sites	36
	% women from ANC who bring partner in for HIV testing in Kilimanjaro Region	16% (Sept 2011) 13 sites	50% (Aug 2015) 12 sites	34
	% HIV clients on ART with follow-up CD4 testing (12-month cohort) in Kilimanjaro Region	30% (Jan 2013) 12 sites	65% (June 2015) 8 sites	35

Activity 2. Support the MOHSW and IPs to scale up improvement activities for ART services to achieve sustainable patients' coverage, retention and clinical outcomes

OVERVIEW

In FY15, ASSIST continued to support the MOHSW, IPs, RHMT, and CHMTs in initial regions of Morogoro, Arusha, Mtwara, Lindi, Mbeya, Njombe, Tabora, Arusha, Kilimanjaro, Pwani and Dares-Salaam and scale up ART improvement efforts to new regions in Ruvuma, Rukwa, and Katavi. In these regions, ASSIST has been working in selected high-volume facilities to create a learning platform to help partners to scale up to other facilities. These facilities were supported to review processes of HIV care, ART uptake, and assessment of adherence status, retention, family planning, follow-up CD4 count, and caring of TB/HIV patients and also supported during coaching and mentoring in integration of PMTCT/ART services in MNCH settings and a second learning session in Mtwara and Lindi**.**

KEY ACCOMPLISHMENTS AND RESULTS

Ruvuma and Rukwa regions:

- **ASSIST organized QI orientation meetings with the RHMTs, CHMTs, and regional IP – Henry Jackson Foundation Medical Research Institute/Walter Reed Program (HJFMRI/WRP)** (Feb 24–Mar 3, 2015). During these meetings, participants were introduced to the ASSIST Project in Tanzania and also discussed ART/PMTCT program challenges and agreed on priority areas that need to be improved. These included: access to pediatric ART; integration of TB and HIV services; retention of PLHIV on ART; integration of PMTCT and MNCH services; scaling QI to lower level facilities; and clinical monitoring of patients on ART.ASSIST, RHMTs, CHMTs, and the IP identified 11 high-volume facilities in each region and visited them for pre-work (March 2015). The pre-work involved forming and strengthening council and facility improvement teams, collecting baseline data for the agreed improvement areas, and introducing standard tool for documentation of quality improvement work.
- **Pre-work was conducted at Katavi Region from which involved establishment and strengthening of QI teams, collection of baseline data for agreed improvement areas and development of improvement plan** (Jun 23–Jul 2, 2015)
- **Learning session was conducted in in Ruvuma for 56 participants from 6 priority districts** (Sept 1-3, 2015).
- **Coaching and mentoring was conducted for R/CHMT and healthcare providers of 11 sites of Rukwa region to support facility QI teams on process analysis, developing/testing changes, monitoring improvement using run charts** (Sept 7-18, 2015).

Morogoro Region:

- **ASSIST supported four RHMT members, seven CHMT members, and three staff from IP Tunajali and four QI champions from health facilities to conduct two coaching and mentoring sessions to 22 QI teams** (Oct 2014; Feb 2015). During these sessions, 70 facility QI team members were supported in the first session, and 173 members were reached in the second coaching. Coaching focused on initial and six-month follow-up CD4 testing; enrolling and

testing for CD4 to all HIV-infected children below 15 years; and supporting caretakers to ensure retention of these children to care. In-between coaching, the IP for Morogoro Region and ASSIST conducted on-site support visits to revive weak teams and supported them on documenting changes in the Standard Evaluation System team journal tool. During this coaching, it was observed that Turiani Hospital has made great improvement on ppediatric PITC, with up to 90% of children being tested for HIV at RCH. Mtibwa Sugar Factory Hospital has started involving HBC providers to track lost-to-follow-up (LTFU) clients after observing that the LTFU numbers had increased following the false belief that the clinic closed as the factory closed.

- **A one-day meeting was held with 45 peer mentors who continue to provide support in 13 facilities implementing patient self-management (PSM) interventions** (Oct 2014). With time, ASSIST is reducing support to the PSM sites in Morogoro, where peer mentors appear to perform well. In recognizing and supporting peer mentors' work, TUNAJALI is working with their HQ to devise a mechanism of supporting the peer mentors to sustain their services. During the meeting, peer mentors were also reminded on ethical issues pertaining to service provision. The importance of linkage and collaboration with other HBC providers supported by other partners was emphasized.

Dodoma Region:

- **ASSIST and Tunajali conducted a coaching and mentoring session with 10 health facilities in Dodoma Region** (Nov 2014). ASSIST, Tunajali and R/CHMT worked with 66 service providers and managers from these facilities. The teams helped the QI teams to review the site work plans to establish the current improvement performance status and document gaps and develop new improvement plans to address gaps. During the same coaching, ASSIST and Tunajali introduced a new activity on Human Resource Management and Leadership to the RHMT and CHMT. Teams were facilitated to develop work plans on agreed areas.
- **In Dodoma Region ASSIST conducted a learning session** for R/CHMT and healthcare providers from 10 sites of Dodoma municipal council focused on sharing QI teams experiences in the QI implementation process (June 10-12, 2015).

Singida Region:

- **Two staff from TUNAJALI, two RHMT members, and four CHMT members were supported by ASSIST to coach and mentor 24 QI teams where 61 team members participated, in Iramba District.** Most of the Singida QI teams were functional, and they conduct team meetings, except three teams which were supported on how to conduct QI team meetings. Teams were advised to work closely with HBC and other CHWs and even include this cadre in their QI teams and invite them during QI meetings, as they are tracking LTFU and supporting PLHIV in the community.

Arusha Region:

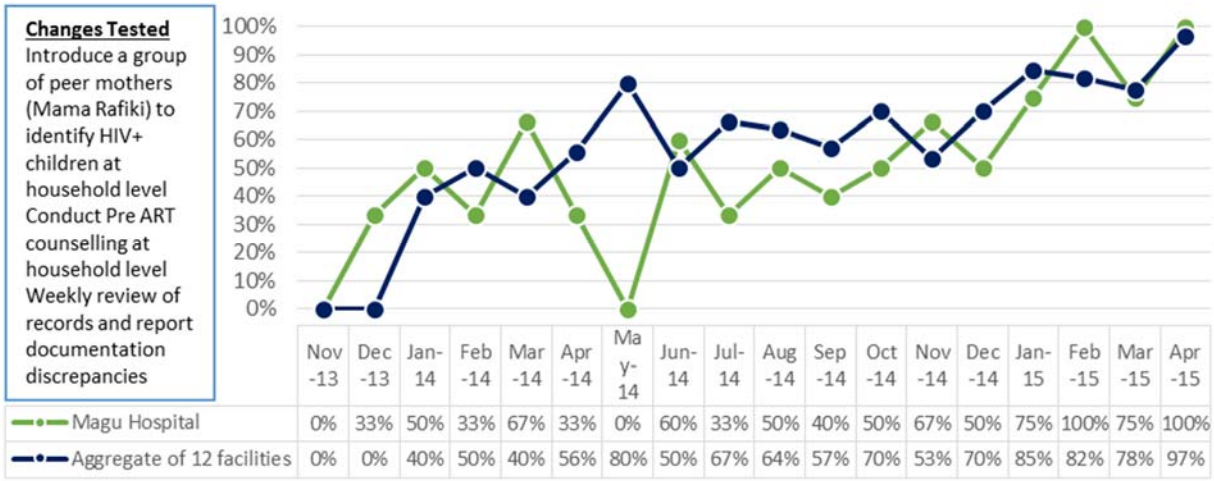
- **ASSIST and EGPAF conducted coaching to all 24 health facilities** (March 2015)**.** The facilities are working to improve areas that address ART services for adults and pediatric clients. All facility improvement teams were supported on development of site-level work plans for the missing key service areas of pediatric care, like follow-up of exposed children for HIV confirmation status, HIV testing among non-exposed children attending reproductive and child health (RCH) and outpatient delivery (OPD, and facilitating linkage of HIV-infected children under 15 years into HIV care and ART service. The changes being tested in Arusha include giving PITC to all admissions through allocation of one staff to conduct the PITC, community sensitization meetings to enhance early bookings and male involvement in care, male partners' invitations, promotion of mother-to-mother groups, screening out admissions to check out for all under 15 and promote PITC to this group, and printing monthly lists of clients who are lost to follow-up. Same day appointment for mothers and babies attending RCH/care and treatment center (CTC) services is done to address retention of services and all HEI are documented in HEI cards and linked to their mother's information in the database.
- **A learning session was conducted from for 25 high-volume sites in Arusha Region, organized and led by IP, RHMT and CHMT** (June 10-12, 2015). The USAID mission visited Arusha sites during the partner's supervisory activity. During this session five sites of Arusha Municipal council and Meru District Council were visited and providers supported on data

collecting and identification of gaps. Coaching was conducted at seven sites. QI teams invite Expert Patients and HBC providers to attend their QI meetings, building facility community linkages.

Results: HIV testing for children admitted to pediatric wards increased from 5% to 15% from January 2014 to February 2015 in 12 facilities of Arusha; the percentage of HIV-exposed children receiving HIV confirmatory test after cessation of breastfeeding increased from 11% in January 2014 to 68% in February 2015

- **In Magu District of Mwanza, ASSIST conducted a third learning session for CHMT and health providers from 33 PMTCT sites, focusing on supporting QI teams to overcome challenges encountered during QI implementation** (April – Sept 2015). Two RHMT and eight CHMT members and 140 PMTCT providers participated in the learning session. Sites reported increases in HIV testing for pregnant women and subsequent initiation of ARV treatment for those found positive in all RCH clinics and initiation of ART to children below 2 years
- **Results**: HIV-positive mother-baby pair retention increased from 7% in January 2014 to 64% in February 2015, while provision of ARV to HIV-infected children increased from 82% in January 2014 to 94% in February 2015 (**Figure 88**).

Figure 88: Tanzania | Improved uptake of ARV prophylaxis by newborns, 29 sites, Magu District, Mwanza Region (Nov 2013-Apr 2015)



	Nov -13	Dec -13	Jan-14	Feb -14	Mar -14	Apr -14	May-14	Jun-14	Jul-14	Aug -14	Sep -14	Oct -14	Nov -14	Dec -14	Jan-15	Feb -15	Mar -15	Apr -15
Magu Hospital	0%	33%	50%	33%	67%	33%	0%	60%	33%	50%	40%	50%	67%	50%	75%	100%	75%	100%
Aggregate of 12 facilities	0%	0%	40%	50%	40%	56%	80%	50%	67%	64%	57%	70%	53%	70%	85%	82%	78%	97%

Mtwara and Lindi regions:

- **ASSIST provided technical support to EGPAF and CHMTs in Lindi and Mtwara regions in conducting mentoring and coaching** (May 12- 15, 2015)**.** The goal was build QI capacity for IP, RHMT and CHMT which would support scale-up of ART/PMTCT improvement efforts in the regions.
- **A learning session was conducted for 200 participants from 42 sites in Lindi and 34 sites in Mtwara** (Sept 28-30, 2015). The following improvements were observed: In Mtwara, retention of clients to ART 12 months after ART initiation increased from 65% in October 2014 to 71% in August 2015 in 24 facilities. In the Lindi Region, retention of clients on ART 12 months after ART initiation increased from 68% in October 2014 to 75% in August 2015 (25 facilities). Six month follow-up CD4 count in clients on ART increased from 37% in October 2014 to 86% in August 2015 at 26 facilities.

Kilimanjaro Region:

- **A learning session was conducted with participants from 15 old sites and 11 scaled up sites in Kilimanjaro Region** (Sept 29–Oct 1, 2015). The focus was on data sources, analysis and reporting, process analysis and updates in management of pediatric HIV.

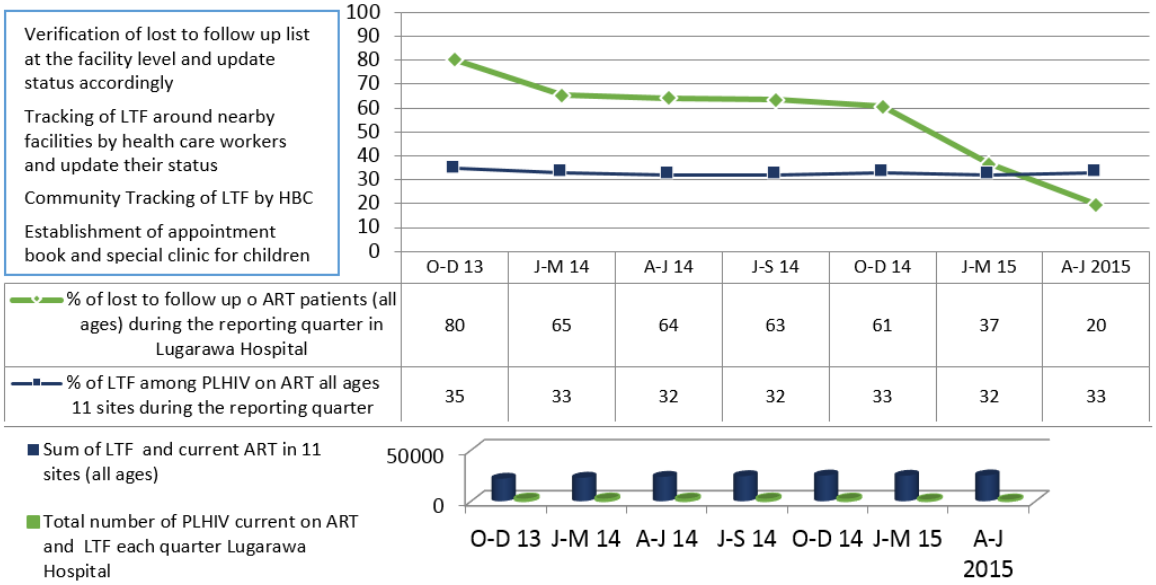
Njombe Region:

- **Coaching and mentoring on QI in ART services were also conducted in sites in Njombe**

Region (Sept 14-22, 2015) (**Figure 89).**

- **Lost-to-follow up tracking:** Health providers were assisted on how to verify and update the LTFU from the database. Providers tracked back the LTFU patients from nearby facilities by using tacking forms and updating the database**.** HBC tracked back LTFU from the community.

Figure 89: Tanzania | Reduced LTFU among PLHIV during the reporting quarter, Lugarawa Mission Hospital as compared with 11 sites in Njombe Region (Oct 2013 – June 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
Support the MOHSW and IPs to scale up improvement activities for ART services to achieve sustainable patients coverage, retention and clinical outcomes	**Number of new sites with quality improvement teams**			
	Singida Region	0 sites, Oct 2013	35 sites, Aug 2015	-
	Ruvuma Region	0 sites, Oct 2014	16 sites, Sept 2015	-
	Rukwa Region	0 sites, Oct 2015	12 sites, Aug 2015	-
	Katavi Region	0 sites, April 2015	10 sites, Aug 2015	-
	Mtwara Region	24 sites, Oct 2014	34 sites, Aug 2015	-
	Lindi Region	24 sites, Oct 2014	42 sites, Aug 2015	-
	All other old regions	443 sites, Sept 2014	684 sites, Oct 2015	-
	Indicators	**Baseline**	**Last value**	
	% of HIV-positive clients with 6-month CD4 count (6 months cohort)	37% (Oct 2014) 26 sites	86% (Aug 2015) 26 sites	49
	% of HIV-positive pregnant and breastfeeding women initiating ART who are prescribed an appropriate first-line ART regimen in Magu District, Mwanza	27% (Jan 2014) 6 sites	89% (April 2015) 19 sites	62
	% of HIV-infected infants initiated on ART (10 sites in each district)			
	Mbeya City Council	0% (July 2013)	100% (Aug 2015)	100
	Nzega District	33% (April 2013)	100% (Aug 2015)	67
	Mufindi District	25% (July 2013)	100% (Aug 2015)	75
	% of HIV mother-baby pairs LTFU and then tracked back to care in Nzega Region	0% (Oct 2013)	67% (June 2015)	67
	% of HIV-positive regnant women counselled for FP at CTC in Kilimanjaro	64% (Sept 2011) 11 sites	84% (Aug 2015) 11 sites	20
	Shinyanga (5 sites)	50% (May 2014)	75% (Aug 2015)	25

Activity 3. Support the MOHSW, IPs, and local structures to strengthen quality of care, support and protection to most vulnerable children through improvement approaches

OVERVIEW

ASSIST is working with IPs and the Department of Social Welfare (DSW) to support CHMTs to apply improvement approaches in identifying performance gaps. and testing changes to implement priority areas in care support and protection of most vulnerable children (MVC). In FY15, ASSIST supported DSW and other IPs to strengthen the community child protection improvement in Mkuranga and Bagamoyo districts of the Pwani Region. The aim was to support community structures and systems to improve the quality of services for MVC and protect them from abuse, neglect, and exploitation.

KEY ACCOMPLISHMENTS AND RESULTS

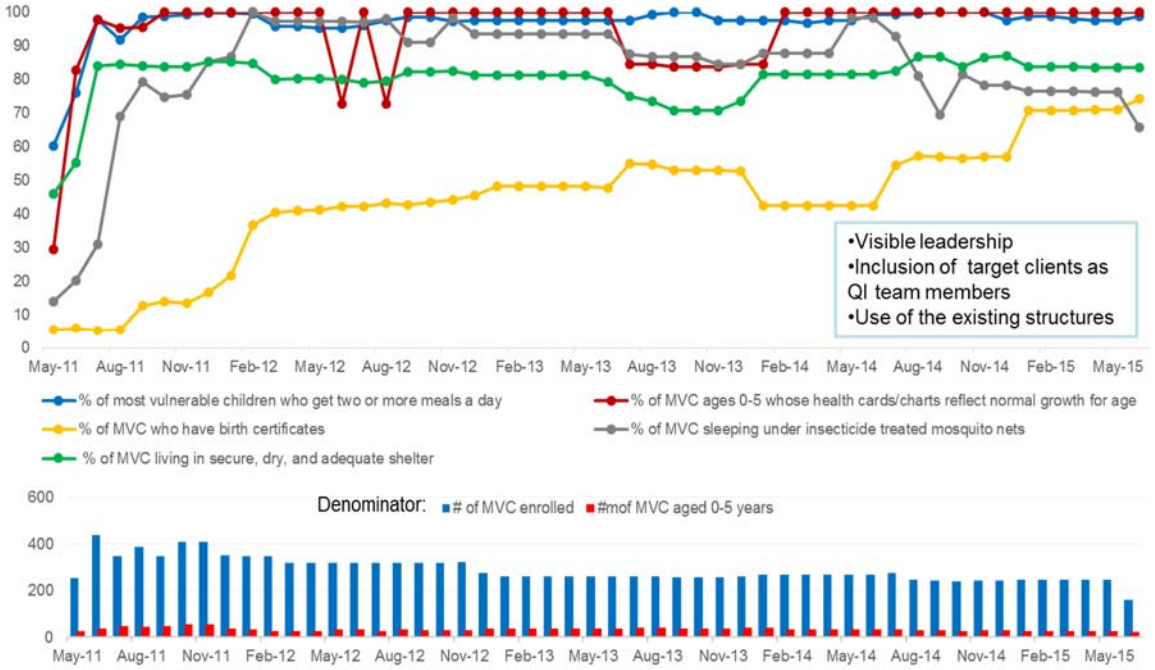
Mkuranga District:

- **A coaching session was conducted to 21 teams in the three wards** (Dec 2014).
  - Teams have continued to mobilize MVC caregivers to join savings and internal lending committees (SILC) which encourage them to save and borrow money to support their basic needs. Through SILC, the caregivers have allocated some amount of money to support most vulnerable children.
  - Teams have provided different services to most vulnerable children, including visiting them at home, conducting nutritional assessment, and providing referrals to those who were found to have nutritional problems. In addition, various services were provided by teams and other providers, ranging from schools supplies, school fees, food, insecticide-treated bed nets, and in the care of one MVC household, construction of a house.
  - Teams and village authorities have started to plan and utilize local available resources in support of vulnerable children and families. For example, the village authority in Hoyoyo has committed to support 10 vulnerable children who will join secondary school each year starting January 2015. Also a village authority in Magoza has allocated a place to start a preschool class. The teacher for the class will be employed and paid by through revenues collected from within the village.
- Various cases of abuses, neglect, and exploitation have been reported to relevant authorities, and actions are taken to make sure children are protected. **ASSIST also supported Mkuranga District Council to mark a Child Protection (CP) week from February 9-16, 2015.** CP team members conducted a number of awareness creation activities related to CP issues. Twelve CHMT and 22 CMT members participated in meetings organized by the CP team at district level to discuss planning and allocation for resources to support CP activities. At the community level, 17 out of 18 wards were reached, and awareness-raising activities were carried out in some selected primary schools and villages. A total of 1686 pupils and 722 adults (teachers, ward, village and hamlet leaders) participated. They were reminded of the rights of children and the importance of preventing and responding to abuse, violence, exploitation, and neglect.
- **ASSIST, DSW, and Mkuranga District conducted coaching sessions for three wards of Mkuranga, Kiparang'anda and Kimanzichana on preventing and responding to child abuse, violence, exploitation and provision of quality services to MVC** (Jul 20-24, 2015)**.** As a result some local leaders and teams from three villages (Kimanzichana, Dunsany and Hoyoyo) have started mobilizing MVC caregivers to join SILC with the aim of utilizing the funds to support MVC in education, health, and other needs. The majority of parents who joined SILC are supporting MVC by providing scholastic materials, food and medical requirements.

Bagamoyo District:

- **ASSIST supported Bagamoyo District Council to conduct a coaching session in three wards on preventing and responding to child abuse, violence, exploitation and provision of quality services to MVC** (Jun 23-26, 2015)**.** Teams have sustained results of improvement in the areas of birth certificates, access of two meals per day, living in adequate shelter, sleeping under Insecticide treated mosquito nets and MVC aged 0-5 progressing well as per health cards/charts (**Figure 90**).

Figure 90: Tanzania | Sustaining improvement gains of MVC services by Bagamoyo District in 25 sites (May 2011 – June 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
Support the MOHSW, MVC, IPs & local structures to strengthen quality of care, support and protection to MVC through Improvement approaches	**25 sites (Bagamoyo District)**			
	% of MVC with access to 2 meals in a day	60% (May 2011)	(99% June 2015)	39
	% of MVC with access to adequate shelter	46% (May 2011)	(84% June 2015)	38
	% of MVC with access to Community Health Fund	0% (May 2011)	(23% June 2015)	23
	% of MVCs enrolled and attending school	77 % (May 2011)	(85% June 2015)	8
	% of MVC reporting to have slept under insecticide-treated bed nets the previous night	14% (May 2011)	(66% June 2015)	52
	Proportion of MVC with birth certificates	6% (May 2011)	(74% June 2015)	68

Activity 4. Support the MOHSW, local government authorities, and community-based IPs to strengthen structures and mechanisms used by communities to maximize linkages and coordination of home-based care and social protection

OVERVIEW

In FY15, the Tanzania USAID Mission invited ASSIST to support the MOHSW and IPs to improve continuum of care and retention of PLHIV through strengthening of linkages between care sites, community actors, referrals and feedback systems in one district in each of Njombe, Iringa, Shinyanga and Tanga regions. In each intervention site, ASSIST applied improvement methods to

strengthen coordination, communication, and collaboration between facility and community actors to proactively link clients from HIV testing and counselling (HTC), initiation of ART for all HIV-positive clients as well as retention in care. In addition, ASSIST supported RHMTs and CHMTs in respective regions to improve the information systems to inform to program progress and benchmark performance.

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST conducted coaching and mentoring sessions for CHMT, Mkuzi health center, District Hospital CTC staff, 12 HBC providers, and PLHIV groups on documentation of referral, linkage of home-based care services, and tracking LTFU using available systems in improving retention to HIV care and access to other social services** (Mar 2015). Emphasis was given in linking clients to community HBC providers during pre-ART and after initiation of ART to ensure clients' continuity on uptake of HIV services, both at facility and community levels.
- **Conducted mapping of systems and structures to additional new five wards and one high-volume facility (Muheza District Hospital)** (Mar 2015). The goal was to explore process-related gaps related to retention to care and access of HIV services for both adults and children. A client 'journey' from community to facility and vice versa was closely examined focusing on identifying linkage, coordination, and collaboration gaps among facility and community systems contributing to poor retention. In general, facility inter-departmental linkages, community-based as well as facility-community linkages, collaboration and coordination mechanisms were found to be weak. A review was done to a sample of 123 HIV-positive clients enrolled into care and treatment from October-December 2013 to October-December 2014. Out of these:
  - 100 HIV-positive clients (81%) received baseline CD4 count
  - 19 HIV-positive clients (15%) received 6- month CD4 Count
  - 10 HIV-positive clients (10%) had 12-month CD4 Count
  - 22 HIV-positive clients (18%) missed appointment on first visit
  - 33 HIV-positive clients (27%) were LTFU

  Based on these findings, ASSIST in collaboration with RHMT and CHMT, designed and implemented a CQI intervention aimed at building the capacity of service providers to identify, analyze, test and changes implement changes to ensure ART clients are retained in care, pre-ART clients are initiated on ART, and linked with community HBC services and other systems such as CBOs and PLHIV groups in maintaining their welfare. The capacity building exercise acted as on-job-training for the RHMT and CHMT to plan better ways to support both facility and community- based HBC services in the district.
- **ASSIST shared the preliminary data collected at Muheza District Hospital and supported teams to analyze existing performance gaps** (Aug 16 – 29, 2015). The major findings were: Inadequate adherence counselling for PLHIV, stigma and discrimination for PLHIV and MVC at household, family, and community levels, and lack of coordination between facility and leaders at ward and village levels. To address these, participants were guided on forming teams at the village level. In their teams, members discussed issues related to HIV/AIDS, sensitizing household members for HIV testing, and "back to care and treatment" messages.
  - During the reporting period a total of 1125 adults were counselled and tested at Mkuzi ward; 11 were found to be HIV-positive and started on ART. The project improved HIV counselling and testing among MVC and subsequent initiation of ART; 214 MVC have been tested for HIV; 30 were found to be HIV-positive and were referred for ART. Additionally successful referrals from community to facility increased: from 38 clients identified as LTFU by Mkuzi Health Centre, 28 (73.6%) were tracked back to care by community home-based care providers, and 5 (13%) were found to be dead.
- **The USAID Mission and ASSIST conducted support visits to the Muheza community linkage project to learn how the model operates** (Sept 28-30, 2015). This visit was also an opportunity to learn about the Mission's direction for community linkages.

Activity 5. Support MOHSW and IPs to improve access to testing and linkage to HIV/AIDS care and services for infants and children below 15 years

OVERVIEW

In FY15, ASSIST began providing TA to MOHSW, RHMTs, CHMTs, and IPs in reducing pediatric ART coverage gaps. ASSIST is supporting MOHSW and IPs to apply QI methodologies at 10 high-volumes sites from each of the four regions: Tabora, Shinyanga, Morogoro, and Njombe. ASSIST supported the sites to test changes and accelerate quality of pediatric ART services in order to address low HIV testing rates among exposed and non-exposed children, weak linkages of HIV-infected children to CTC, and poor retention of both pre-ART and ART children under 15-years-old in these regions. Partners involved included AGPAHI, Tunajali, EGPAF, RHMTs, CHMTs, facility management, and the facility-level QI teams.
Baseline assessments conducted from May to July 2014 in all four focus regions revealed low performance in: HIV testing for children below 15 years, HIV first test at 4-6 weeks after birth, HIV confirmatory testing for exposed children six weeks after weaning, and linking and retaining HIV-infected children to care and treatment services.

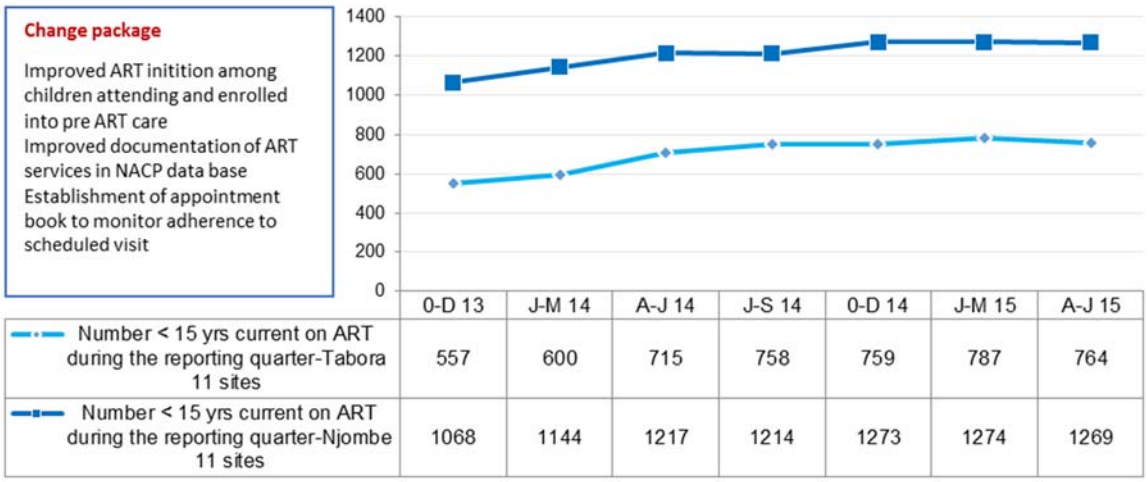
KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST conducted three learning sessions** in Tabora, Njombe and Morogoro regions. In Morogoro Region, a total of 72 members (four RHMT members, 12 CHMT members, six TUNAJALI staff, and 50 service providers) participated from 13 high-volume health facilities in November 2014. Members from sites implementing QI for pediatric ART from Tabora and Njombe shared experiences in increasing access to HIV testing among children at the sites of Ilembula, Njombe Town health center, Makambako Hospital, Nkinga Mission Hospital, Kitete Regional Hospital, Urambo District Hospital, and Sikonge District Hospital (Dec 2014).
- **A total of four coaching and mentoring sessions for pediatric ART regional partners to build their capacity on improving services to reduce the performance gaps were done** (Oct 2014 – March 2015). Providers were supported in tracking the PMTCT pathway, identifying intervention points for HIV testing in HIV-exposed infants and children seen at RCH and other service delivery points, specifically focusing on children below five years of age. In Shinyanga region, about 80% of the 10 QI teams had followed up at least one indicator, the teams were supported by CHMTs, RHMT, ASSIST and AGPAHI to develop new work-plans for priority areas using the SES journal. A total of 22 sites in two regions of Njombe and Tabora were also coached in March 2015. In September 2015, ASSIST supported coaching and mentoring at 33 sites in Morogoro, Njombe and Tabora regions.
- **Service providers in all the four regions tested the following changes:**
  - Keeping PITC registers for children at these service delivery points and orienting all providers at OPD, IPD, and RCH to testing for HIV in all children below 15years attending for services.
  - Report on children tested, those not yet tested, linking HIV-infected children to HIV care, and access to CD4.
  - Conducting Early Infant Diagnosis for all HIV-exposed children and escorting HIV-positive children for enrollment to CTC.
  - QI networking group was initiated through WhatsApp social media to facilitate communication between QI teams IPs, R/CHMT members sharing challenges and successes, and calling for support during shortage of supplies.
  - Documenting date for HIV confirmatory test in CTC1&2 cards, mother-child follow-up register, and informing mother of importance of the date and that she should also play a part by reminding the provider about the confirmatory test.
- **ASSIST in collaboration with AGPAHI, RHMT, and CHMTs in Shinyanga, conducted a third coaching and mentoring session on pediatric ART QI at 10 high-volume sites** (Mar 2015).
- **The activities Igunga District Hospital tested to increase uptake of HIV testing in pediatric ward included:**
  - On-site mentoring among trained PITC staff
  - Sharing information about testing of children during shifts of staff

- Pre-work done by ASSIST in collaboration with IPs, CHMTs, and RHMT included developing work plans
- PITC/ ART focal person shared PITC performance for children in morning clinical meetings
- Testing children established as part of admission and during ward round procedure

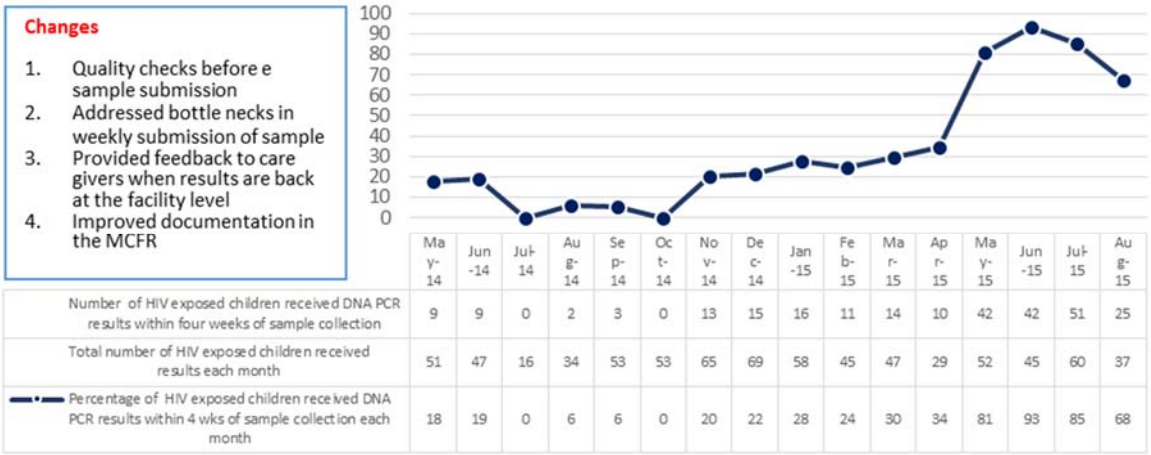
- **Results:** Sites have achieved increases in the number of HIV-infected children initiated on ART 2015 in Njombe and Tabora regions (**Figure 91**).
- **ASSIST supported and organized the first National Pediatric ART QI forum where experiences, successes, and challenges were shared** (Jun 18-19, 2015).

Figure 91: Tanzania | Increased number of HIV-infected children under 15 yrs. currently on ART each quarter at 11 sites in Njombe Region and 11 sites in Tabora Region (Oct 2013 – June 2015)



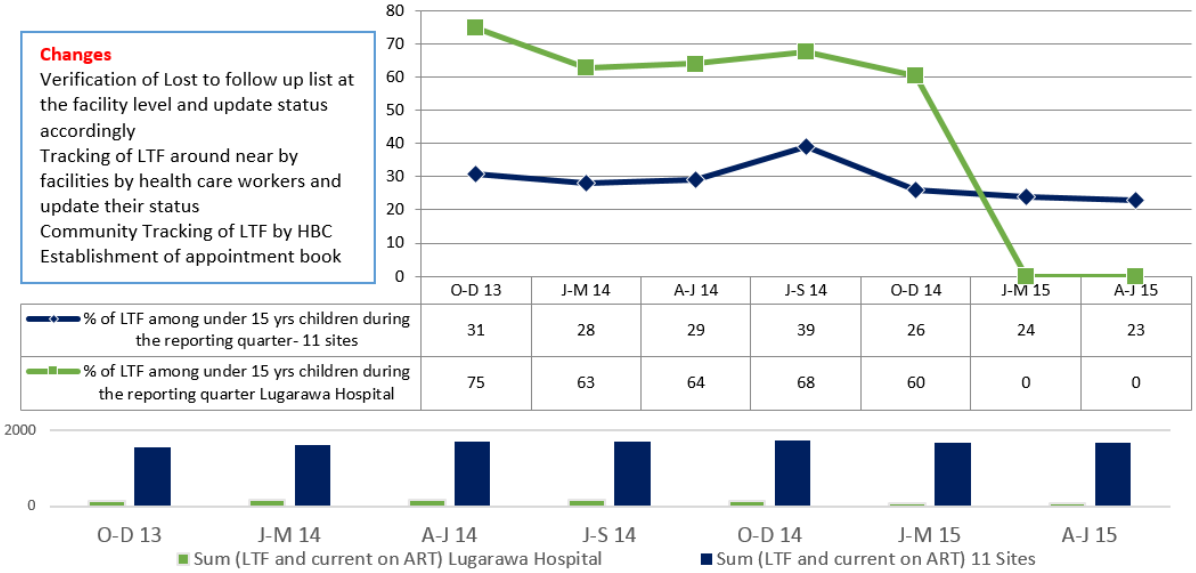
- **In addition, sites in Njombe Region increased the percentage of HIV-exposed children receiving DNA PCR results within four weeks of sample collection from 18% in May 2014 to 68% in August 2015** (**Figure 92**), mainly through improved documentation of the children' records and tracking the care-givers using mobile numbers when the results are back at the health facility. Sites have also reduced lost to follow-up (LTFU) among HIV-infected children on ART from 33% May 2014 to 21% August 2015, through tracking of those children who are lost to follow-up and use of an appointment book at each health facility.

Figure 92: Tanzania | Increase percent of HIV-exposed children receiving DNA/PCR results within four weeks after sample collection, Njombe Region (May 2014 – Aug 2015)



- **In Lugarawa Hospital, LTFU was reduced from 75% October-December 2013 to 0% in April-June 2015 (Figure 93).**

Figure 93: Tanzania | Loss to follow-up among HIV-infected children on ART, 11 sites and Lugarawa Hospital, Njombe Region (Oct 2013 – June 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (May 2014)		Last value (Aug 2015)	
Support MOHSW and IPs to improve access to testing and linkage to HIV/AIDS care and services for infants and children below 15 years	**Tabora Region (11 sites) and Njombe Region (11 sites)**				
	HIV testing among exposed children with 4-6 weeks Tabora and Njombe regions	**Tabora**	**Njombe**	**Tabora**	**Njombe**
		54%	29%	42%	67%
	LTFU among exposed children 12 months after birth and for those registered at the facility for PMTCT care (cohort performances on monthly basis)	56%	67%	53%	46%
	HIV status confirmation among exposed children after cessation of Breast milk (cohort performances on monthly basis)	21%	32%	23%	62%
	DNA PCR results to exposed children on time	0%	18%	75%	68%
	HIV testing among children under 15 yrs. attending OPD services	3%	1%	8%	6%
	HIV testing among children under five attending RCH services	1%	0%	9%	8%
	HIV testing among children under 15 yrs. admitted in inpatient pediatric wards	12%	7%	64%	15%
	HIV care linkages among HIV infected children diagnosed	71%	17%	38%	64%
	Baseline CD4 percent among newly HIV care registered children	19%	44%	63%	75 (July 2015)
	LTFU among children under 15 yrs. (quarterly performances)	33% (Oct-Dec 2013	31% (Oct-Dec 2013)	31% (Apr-Jun15)	23 (Apr-Jun 2015)
	LTFU among all ages (quarterly performances)	35% (Oct-Dec 2013)	35% (Oct-Dec 2013)	30% (Apr-Jun 15)	31% (Apr-Jun 15)

Activity	Indicators	Baseline (Apr- May 2014)		Last value (Apr-Aug 2015)	
Support MOHSW and IPs to improve access to testing and linkage to HIV/AIDS care and services for infants and children below 15 years	**Shinyanga Region (10 sites) and Morogoro Region (11 sites)**				
	HIV testing among exposed children with 4-6 weeks Shinyanga and Morogoro regions	Shinyanga	Morogoro	Shinyanga	Morogoro
		0%	**-**	**63%**	**-**
	LTFU among exposed children 12 months after birth and for those registered at the facility for PMTCT care tracked to care	37%	-	70%	-
	HIV status confirmation among exposed children after cessation of breast milk (cohort performances on monthly basis)	2%	0%	19%	17%
	DNA PCR results to exposed children on time (within 4 weeks)	0%	%	63%	16%
	HIV testing among children under 15 yrs. attending OPD services	8%	0%	7%	31%
	HIV testing among children under 15 yrs. admitted in inpatient pediatric wards	7%	23%	23%	27%
	HIV care linkages among HIV infected children diagnosed	77%	58%	67%	100%
	Baseline CD4 percent among newly HIV care registered children	5%	36%	44%	50%
	LTFU among children under 15 yrs. (quarterly performances)	22%	49%	15%	29%
	Under 15 years started on ART	50%	88%	75%	100%

Activity 6. Work with MOHSW and IPs to improve safety, increase quality and the level of integration of VMMC services

OVERVIEW

ASSIST is supporting the MOHSW and IPs to apply improvement approaches to strengthen the delivery of safe, high-quality, and integrated VMMC services in Mbeya, Njombe, Iringa, Tabora, and Shinyanga regions. In July and August 2015, ASSIST provided technical support to providers and managers to enable them test changes to optimize compliance to the global male circumcision standards covering seven areas: Management Systems; Supplies, Equipment and Environment; Registration, Group Education and IEC; Individual Counselling and Testing; Circumcision Procedure; M&E; and Infection Prevention.

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST staff attended the preliminary meeting on VMMC in Durban, South Africa and Uganda to share experiences on VMMC** (Nov 2014).
- Thereafter ASSIST, MOHSW and IPs hosted and co-facilitated a meeting of 20 participants to review and revised the National VMMC and HIV QI guidelines to incorporate VMMC quality improvement.
- **Based on global VMMC standards, a National Quality Assessment tool (External Quality Assessment/IQA) and the various SOPs were developed. ASSIST supported the MOHSW and IPs in prototyping and finalizing the VMMC QI materials**.
- Between 19th July and 14th August 2015, **ASSIST, MOHSW and R/CHMTs conducted baseline assessments of VMMC quality focusing on the above areas using the EQA tool at 55 sites in 32 districts.** Today the project is working with service providers in developing work plans to bridge the gaps identified.
- **Results**: The result of baseline are shown in **Table 4** using a color-coded scoring system.

Table 4: Tanzania | Baseline Assessment of VMMC QA findings in high- volume facilities from PEPFAR priority districts in five region of Tanzania (Jul –Aug 2015)

80% or more= Good	50-80%= Fair	Less than 50%=Poor	Not assessed

Region	Districts	Site	Manag-ement	Supplies	Reg.	Ind. HTC	MC	M&E	IPC	Overall
Njombe	**Njombe TC**	**Kibena Hosp**	**50**	67	100	42	80	79	58	57
	Njombe TC	Anglican HC	80	66	50	58	77	0	42	55
	Wanging'ombe DC	Wang'ingombe	60	83	83	50	70	86	58	68
	Wanging'ombe DC	Ilembula Hosp	50	83	100	50	45	57	62	48
Iringa	Iringa MC	Iringa R R H	50	83.3	100	100	100	64	92.3	84
	Iringa MC	Frelimo Hospital	40	66.7	100	61	70	78.6	92.3	72
	Iringa MC	Ngome H/C	78	100	100	94	80	100	92	92
	Mufindi DC	Lugoda H	80	83.3	100	94	85	85.7	92	88
	Mufindi DC	Usokame DDH	50	67				85.7	92.3	76.7
	Mufindi DC	Kasanga H/C	40	66.7	75	83.3	70	78	92.3	60.8
	Iringa DC	Ilula DDH	50	83.3	100	72	76.6	92.8	92.3	81
Tabora	Tabora MC	Tabora RH	50	50	83	33	45	79	77	59
	Nzega DC	Nzega DH	40	50	100	67	45	86	77	65
	Igunga DC	Igunga DH	40		100	72	57	64	90	56
	Shinyanga MC	Shinyanga RH	80	83	83	83	91	92	92	
Shinyanga	Kahama DC	Ushetu HC	60	83	100	100	92	64	77	82
	Kahama DC	Bulungwa HC	80	83	100	89	76	100	92	88
	Kahama	Ukune HC	70	67	75	83	100	100	100	85
Mbeya	Kyela DC	Kyela D.H	30	83				50	67	55
	Rungwe DC	Igogwe Hosp	40	50				79	77	65
	Mbarali DC	Chimala-Hosp	30	83	100	100	70	86	73	76
	Mbeya MC	Mbeya Reg.Hosp	60	50	83	67	47	79	73	57
	Mbozi DC	Momba, Tunduma HC	80	100	100	83	100	79	85	89
	Mbeya DC	Mbalizi DDH,	20	29	33	50	57	36	38	45
	Chunya DC	Mwambani Hosp	70	83	100	33	87	46	100	79
	Chunya DC	ChunyaD.H	40	17				8	23	21
	Mbeya MC	Mbeya ZRH, Nane Nane Clinic	100	100	100	100	80	100	100	94
	Mbozi DC	Vwawa D.H	70	50	83	67	93	57	85	72
	Mbeya MC	Igawilo HC	50	33	50	0	52	71	9	36

Following these assessments, the QI teams have been testing changes in order to improve quality of VMMC. ASSIST will support the sustainability phase of the VMMC program.

Activity 7. Work with MOHSW and IPs to improve effectiveness, efficiency and safety of PITC services

OVERVIEW

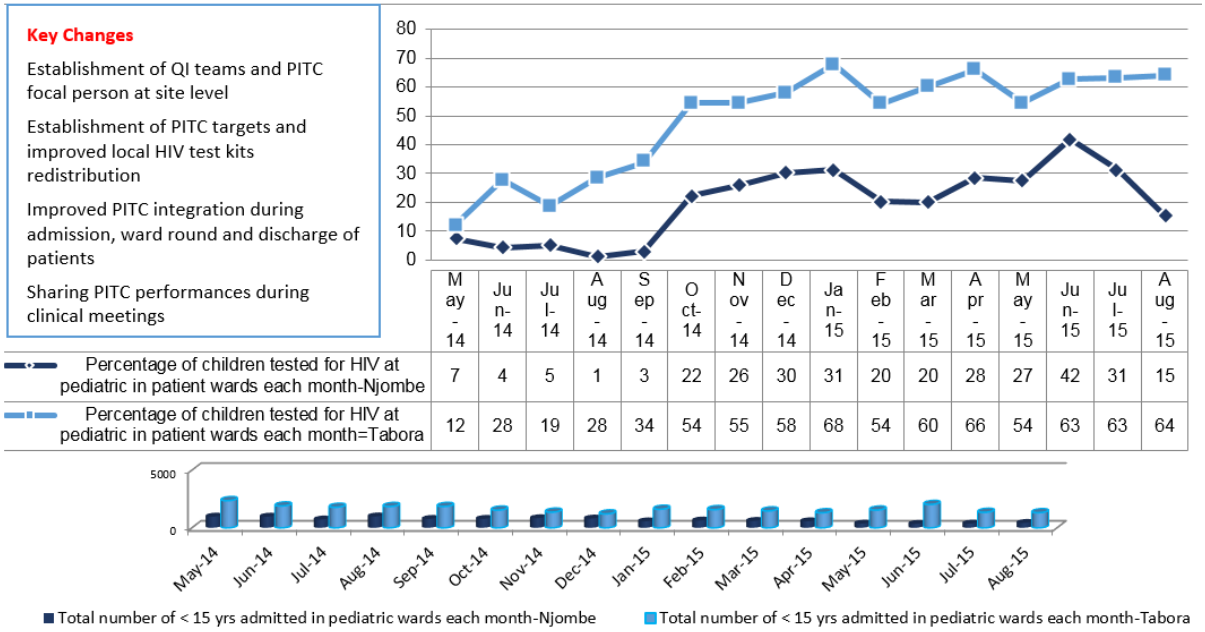
In FY15, ASSIST supported the MOHSW and IPs in designing and managing QI programs for accelerating PITC to achieve local and national PITC targets in priority districts in Njombe, Tabora, and Morogoro regions. In line with the new PEPFAR vision of an AIDS-Free Generation, interventions

will be targeted to high-yield sites to ensure efficiency and impact. ASSIST worked with MOHSW structures, IPs, and other technical groups (e.g., lab QA teams, PITC IPs, and related programs, including pediatric ART, PMTCT, VMMC, etc.) for effective and efficient outcomes. Applying improvement science, PITC implementation processes were analyzed to establish implementation gaps following which health care providers were empowered to test changes and measure and close the performance gaps.

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST supported MOHSW, IPs in the development of draft HTC QA standards tools** (Sept 7-11, 2015). The tool was field tested at 11 sites in Njombe to measure compliance in leadership and management, environment and supplies, group education and IEC, individual HTC, IPC practices, and M&E.
- **ASSIST supported HTC QI teams from 11 sites in Njombe to develop work plans and interventions in addressing the gaps identified focusing on the priority areas to achieve improvement objectives** (Sept 14-22, 2015).
- **ASSIST in collaboration with RHMT, CHMTs, and EGFAF, conducted HTC QA/QI mentoring and coaching in 9 high-volume sites from Tabora** (Sept 23-30, 2015).
- **Results:** These two interventions increased access to HIV testing among children attending service at IPD and OPD in Njombe and Tabora as well as increased linkage into HIV care among HIV-positive diagnosed children in Njombe Region (**Figure 94**).

Figure 94: Tanzania | Increased access to HIV test among IDP and ODP admitted children <15 years, 9 sites in Njombe Region and 9 sites in Tabora Region (May 2014 – Aug 2015)



Activity 8. Support MOHSW and IPs to improve continuum of care and retention of PLHIV through strengthening of linkages between community and facility actors

OVERVIEW

In FY15, ASSIST supported the MOHSW and IPs to improve continuum of care and retention of PLHIV through strengthening the linkages between care sites and community actors as well as systems of feedback and referrals in one district each in Njombe and Iringa regions and two districts in Shinyanga Region. ASSIST worked to strengthen coordination, communication, and collaboration of facility and community actors to provide seamless care from HTC to ART for all HIV-positive clients, promote clients and community involvement in HIV care linkages through tasks sharing, and support the R/CHMTs to improve the information systems to inform on program progress. In this

context, ASSIST, MOHSW, R/CHMT and implementing partners in Mufindi District continued supporting efforts of facility-community linkages to improve access to HIV services for MVC. Specifically MVC will be better reached with HIV testing and counselling, enrolment to care and treatment as well as better retention to care and support. They will also receive improved attention as regards to protection against violence, exploitation, negligence, and abuse. Lessons learned from these sites will guide spread to other districts in Iringa, Njombe, and Shinyanga regions.

KEY ACCOMPLISHMENTS AND RESULTS

- **R/CHMTs were oriented on facility-community linkages methodologies and on supporting and protecting MVC in Mufindi District. In addition, representatives from four wards and key actors/structures involved in supporting PLHIV and MVC services were also oriented on this topic** (Aug 2015). Each team identified community linkage activities geared toward supporting and linking MVC and adolescents to HIV services. Teams also made plans to ensure that MVC have access to other social services, such as education, food, and psychosocial support, and that caregivers are linked to household economic strengthening activities.
- **Initial community mapping was conducted in three wards in Njombe and one ward in Ushetu District in Shinyanga to map available community resources for strengthening community linkage activities focusing on MVC** (Jun and Aug, 2015). The following performance gaps were identified; community members have low awareness of how to support MVC; weak communication between the village governments and other groups/committees regarding MVC care; stigma; child abuse and exploitation; poor documentation of MVC activities; weak functionality of MVC Committees (MVCCs); and a lack of updated MVC data. Orientation sessions were carried out in the same period for key actors/structures involved in supporting PLHIV and MVC activities in villages on implementation of facility-community linkage activities to improve retention to care for PLHIV including MVC and adolescents.
- **Coaching and mentoring of facility and community teams in Tinde ward was conducted in Ushetu District in Shinyanga Region** (Aug and Sept 2015)**.**

Activity 9. Support MOHSW and IPs to improve quality of integrated PMTCT services in MNCH settings

OVERVIEW

In FY15, ASSIST supported the MOHSW, IPs, RHMT, and CHMTs in improving quality of integrated PMTCT services in MNCH settings in four regions (Rukwa, Ruvuma, Katavi, and Shinyanga).

KEY ACCOMPLISHMENTS AND RESULTS

- **The implementation of this activity started in the first half of FY15 by conducting a quick assessment in seven facilities in Rukwa Region to answer the following questions:** Where is each component of the package provided, if not at RCH, what are the linkages and referrals between RCH and where is the service available, and who is responsible at every service delivery point. A quick analysis of the findings revealed that most of the components of the integrated PMTCT and MNCH care package are available at RCH except for TB services and ART services for HIV-positive children. Children identified at RCH as HIV-positive are referred to the CTC unit. As such, an HIV-positive women receiving ART services at RCH under PMTCT option B+ with an HIV-positive child has to attend two different clinics—one at RCH and another one for the child at CTC. Screening for TB is only done for HIV-positive women at RCH. HIV-exposed children are not screened for TB and are not provided with Isoniazid Preventive Therapy as per national guidelines. HIV testing of women of reproductive age receiving family planning was only done for 7% (243/3302) of women seen from October 2014 to February 2015 in the facilities.
- **ASSIST conducted a learning session in Ruvuma for 56 participants from six priority districts** (Sept 1-3, 2015). During the session, the performance of clinical indicators on integrated services was assessed and showed improvement.
- **Generally, facilities have managed to increase the percentage of eligible HIV-positive women of reproductive age receiving family planning methods** from 18% in October 2014 to

75% by August 2015. HIV-positive pregnant and breastfeeding women who were screened for TB at RCH increased from 71% in October 2014 to 100% by August 2015.

- **A six-month cohort of HIV-infected children enrolled into care and treatment who received CD4 test increased from 50% in October 2014 to 100% August 2015.** Children tested for HIV at the pediatric inpatient ward increased from 14% Oct 2014 to 48% by Aug 2015 while children who were tested at RCH increased from 0% in October 2014 to 28% by August 2015. HEI receiving confirmatory tests after cessation of breast milk increased from 34% October 2014 to 75% by August 2015.
- **In Rukwa, ASSIST provided technical support to RHMT, CHMT and the IP to improve the integration of PMTCT services in MNCH settings.** Coaching and mentoring were provided to 12 sites in Rukwa Region from Sept 7-18, 2015 focusing on PEPFAR priority districts. (Sumbawanga Municipal and Sumbawanga DC). The activity involved two RHMT members and 12 CHMT members (two from each district). RHMTs and CHMTs received technical support on how to conduct process analysis, develop changes for improvement, and use of run charts to guide improvement decisions.
- **In Katavi, ASSIST staff, with R/CHMT and the regional IP, conducted a baseline assessment on the quality of ART/PMTCT services and integration of PMTCT services in MNCH settings** (Jun 23-Jul 2, 2015). **A set of ART/PMTCT indicators were developed by QI teams of 10 high-volume facilities.** ASSIST guided the formation and strengthening of QI teams in each facility and supported them to develop work plans.

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
To support MOHSW and IPs to improve quality of integrated PMTCT services in MNCH settings	% of new pregnant and breastfeeding women screened for TB at RCH Ruvuma Region	71% (Oct 2014) 9 sites	100 % (Aug 2015) 9 sites	29
	% HIV-positive pregnant and lactating women receiving ART	59% (Oct 2014) 9 sites	76% (Aug 2015) 9 sites	17
	% of HIV-infected children enrolled into care and treatment with 6-month cohort CD4 test	50% (Oct 2014) 10 sites	100% (Aug 2015) 10 sites	50
	% of children tested for HIV at RCH	0% (Oct 2014) 10 sites	28% (Aug 2015) 10 sites	28
	% of eligible HIV-positive women of reproductive age receiving family planning methods	18% (Oct 2014)	75% (Aug 2015)	57
	% HIV-positive pregnant and breastfeeding women who were screened for TB at RCH	71% (Oct 2014)	100% (Aug 2015)	29
	% of children tested for HIV at pediatric in patient ward	14% (Oct 2014)	48% (Aug 2015)	34

SUSTAINABILITY AND INSTITUTIONALIZATION

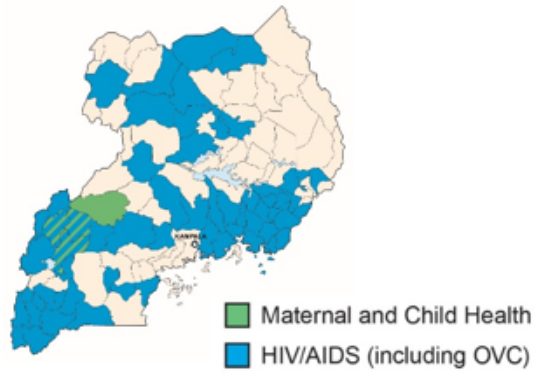
ASSIST's approach is to build the capacity of Regional and Council Health Management Teams to coach and mentor facility-based quality improvement teams in analyzing service delivery processes to identify performance gaps and testing changes that will improve access and retention to care. To facilitate the process, ASSIST will continue working with the MOHSW and other stakeholders to develop policies, QI strategic plans, procedures, and tools to support frontline workers.

UGANDA

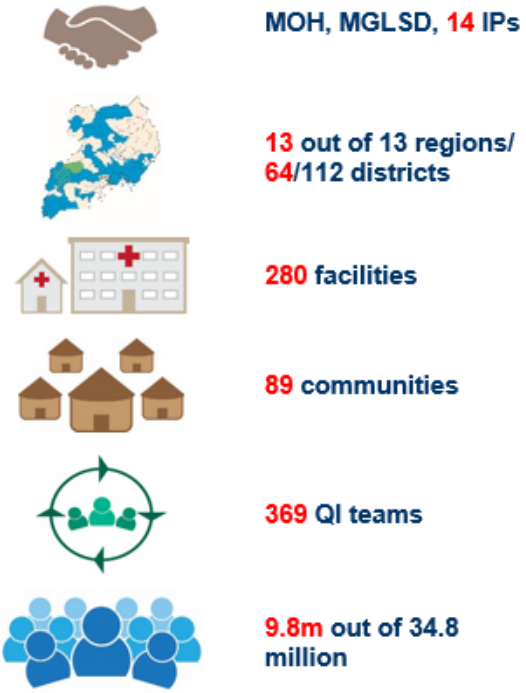
BACKGROUND

ASSIST began working in Uganda in October 2012 by building on the work of the QAP and HCI projects. ASSIST in Uganda is supporting the MOH, districts, IPs, and health facilities to improve the HIV continuum of response, improve the quality of safe male circumcision services, improve TB case detection and treatment, and implement the PHFS initiative. The project also supports the MOH to use improvement methods to improve maternal and newborn health services, integrate family planning services into primary care and referral facilities, and apply lessons learned from pilot facilities to other sites. In addition, ASSIST is working with the Ministry of Gender, Labor and Social Development (MGLSD) and IPs to apply standards to improve services for orphans and vulnerable children. In all the Uganda work, gender considerations are being integrated, as illustrated in **Table 23** in the Knowledge Management section.

Scale of USAID ASSIST's Work in Uganda



Scale of USAID ASSIST's Work in Northern Uganda



PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Support MOH to coordinate and institutionalize quality improvement in the health sector	
• Support the institutionalization of QI into the health sector through providing direct technical support to the Quality Assurance Department (QAD) of MOH in overseeing and coordinating QI activities	• National
2. Support to the MGLSD to coordinate and oversee implementation of national OVC quality improvement plans and strategies	

What are we trying to accomplish?	At what scale?
• Improve coordination of QI activities in MGLSD • Support MGLSD in supervising and mentoring district and lower structures, implementing and monitoring use of the national toolkit for OVC quality assessments, and instituting quality improvement interventions • Train district, sub county, and lower level committees to deliver quality OVC services	• National, 14 districts
3. Build capacity of USG implementing partners to improve quality of HIV and AIDS, TB, MNCH, nutrition, and OVC services	
• Build capacity of IPs for delivery of quality HIV and AIDS Continuum of Response (COR) interventions through basic training, joint work plans, joint coaching, and learning sessions • Build capacity of IPs for delivery of quality safe male circumcision services • Build capacity of IPs to deliver quality EMTCT and nutrition services (PHFS) • Build capacity of IPs to deliver quality TB services • Build capacity of IPs to deliver quality maternal and newborn services under the Saving Mothers Giving Life (SMGL) initiative • Build capacity of partners to integrate family planning (FP) into SMGL activities • Build the capacity of USG implementing partners and civil society organizations (CSOs) to deliver quality OVC services	• 8 USG IPs in 56 health facilities (HFs), 30 villages and 45 districts • 10 IPs in 49 HFs and 40 districts • 4 USG IPs in 22 HFs in 6 districts in the demonstration phase and 47 COR sites • 1 IP in central region and 16 HFs • 15 IPs in 20 high-volume HFs in the demonstration phase and 10 additional sites and one new IP in the scale-up phase • 15 IPs in 18 sites in the SMGL demonstration districts • 2 IPs and nine CSOs in the four demonstration districts and same two IPs and another nine CSOs in 10 scale-up districts
4. Improve HIV Continuum of Response	
• Improve the processes of HIV testing, linkage to pre-ART care, ART eligibility assessment, ART initiation, and ART retention • Support roll-out of QIF&S • Ensure that HIV-positive adults and children are retained in care, including the TB/HIV co-infected and receive standard treatment through better care organization, health workers' decision support systems, and patient self-management. • Document and share improvement work	• 8 USG implementing partners in 56 facilities within 45 districts • 1 health region • 30 villages in 3 districts and three health facilities implementing HIV CoR activities
5. Improve quality and safety of safe male circumcision (SMC)	
• Support MOH efforts to improve the quality of SMC services • Generate and share new knowledge related to SMC through conducting research to understand gender integration in SMC and value-added of knowledge management strategies, and developing change packages, success stories, cases studies and blogs	• 49 health units in 40/112 districts located in all the regions of the country
6. Ensure that HIV-exposed babies are alive, thriving and free from HIV at 18 months of age	
• Ensure that HIV-exposed babies are alive, thriving and free from HIV at 18 months of age • Generate, document, and share new knowledge on PHFS	• 22 facilities in six districts, 47 CoR sites

What are we trying to accomplish?	At what scale?
7. Improve the quality of TB care	
• Improve the process of intensified case finding (ICF) to identify TB suspects, evaluate TB suspects, and screen household contacts for active TB • Ensure every TB patient receives a complete TB care package at USAID ASSIST-supported health facilities • Increase the proportion of TB patients that receive a complete TB and or TB/HIV care package that includes: standard TB drugs, HIV testing, drug adherence assessment, and treatment response assessment. • Generate new knowledge regarding improving TB care through harvesting and systematically documenting best practices	• Central region in 16 KCCA health facilities. • (Phase 1 in 6 and Phase 2 in 10 facilities) • 16 QI teams.
8. Reduce maternal and newborn morbidity and mortality	
• Improve early detection and management of prolonged and obstructed labor using a partograph • Improve routine delivery of the essential newborn care package, targeting early neonatal infection, hypothermia, hypoglycemia, and bleeding. • To implement Kangaroo Mother Care (KMC) and the use of Antenatal Corticosteroids (ACS) in preterm births • To develop and disseminate knowledge management products	• 20 intense-support and 10 light-support facilities in four Saving Mothers Giving Life (SMGL) learning districts, and 10 facilities in the 6 SMGL scale-up (phase II) districts.
9. Integrate family planning into MNCH and ART services	
• Improve health education and individual counseling • Improve availability of FP contraceptives, skilled health care workers, and privacy for counseling and dispensing of contraceptive methods	• 18 sites in 4 SMGL districts of western Uganda • Working with the MNCH, maternity, OPD, and ART clinics, targeting women 15-49 years
10. Improve the wellbeing of vulnerable children	
• Improve the quality of OVC care	• 4 demonstration and 9 scale-up districts; 45 villages
11. Northern Uganda Program	
• Improve HIV/AIDS Continuum of Response • Improve the quality of TB care • Improve quality of malaria prevention and treatment services • Improve PMTCT services • Increase access to family planning services • Improve the nutrition status of people infected and affected by HIV • Improve the quality of SMC services • Improve laboratory services • Improve community services to HIV, PMTCT, MNCH/FP, malaria and TB	• 15 districts • 131 facilities • 49 high-volume facilities • 82 low-volume facilities
12. SMGL Program in Northern Uganda	
• Reduce maternal and newborn morbidity and mortality	• 20 sites in phase I

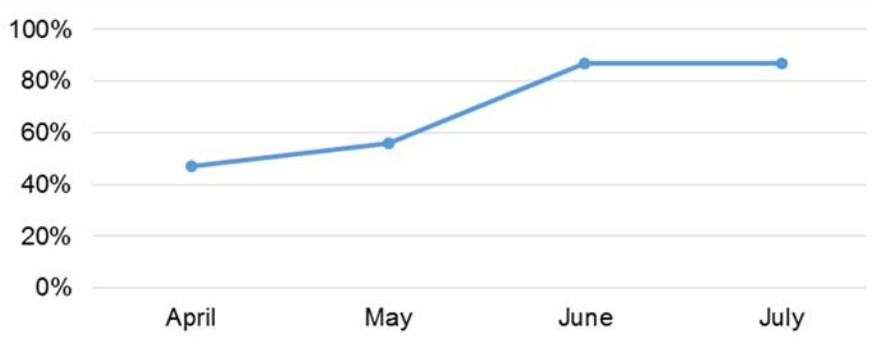
= Improvement Activity = Cross-cutting Activity

Activity 1. Support MOH to coordinate and institutionalize quality improvement in the health sector

KEY ACCOMPLISHMENTS AND RESULTS

- **Held a harvest meeting to systematically capture experiences of the district QI committees (QICs) in implementing quality improvement through the structures of the National Quality Improvement Framework (NQIF)** (Nov 2014). The information captured is to be used to develop a guide for NQIF implementation at district level and a set of case studies on functionalization of district QICs.
- **Conducted a regional QI coordination meeting for the Rwenzori Region** (Feb 2015). During the meeting, regional QI roles were discussed to create common understanding in reaction to the observations made at the harvest meeting in November 2014. A positive development was the fact that Kabarole District included a session on the QI strategy in the induction training for 80 new health workers in February 2015.
- **ASSIST supported the MOH Quality Assurance Department to hold a quarterly QI coordination meeting** (Feb 2015). During the meeting, the Ministry was able to review the composition of the membership; some inactive members were replaced and new members seconded to the committee. ASSIST presented the findings and recommendations from the health care improvement information market research study to the MOH QAD technical working group (TWG). The next step is for these recommendations to be approved by the eHealth TWG.
- **ASSIST worked with the MOH to take stock of certified national QI trainers.** Uganda now has 84 certified national QI trainers.
- **ASSIST supported the MOH to conduct technical support supervision for two quarters in Northern and Eastern Uganda** (Oct-Mar 2015). All three regional QI committees have been formed. All 27 districts have formed district QI committees. About 46.5 % (194/417) of the targeted health facilities have QI teams; however most of these QI committees are not functional (i.e., could not access the minutes of meetings, very few had selected QI projects and were monitoring them on documentation journals).
- **National level leading spread of PHFS guidance documents.** At the national level, the MOH took the lead in sharing the three PHFS guidance documents/change packages that had been developed by ASSIST in 2014 and in getting buy-in from PMTCT stakeholders. The change packages were shared with the MCH technical working group in the MOH and subsequently with District Health Officers (DHOs) at the national PMTCT stakeholders' meeting held from 26-28 February 2015.
- **Regional quality improvement committee in the Rwenzori Region convened and reviewed progress on the implementation of the regional QI project for increasing access to chronic care for hypertension and diabetes mellitus (DM).** By July 2015, nine out of the 16 health sub districts spread across the seven districts in the region had at least one newly established hypertension/DM clinic, with a total of about 420 registered new clients. Additional improvements were also seen in other service areas, such as malaria management and nutrition. For instance, at Rukunyu HC IV in Kuibale District, the proportion of children between 6 and 59 months of age seen at the outpatient department who were assessed for malnutrition increased from 47% in April 2015 to 87% by end of July 2015 **(Figure 95).**

Figure 95: Uganda | Percentage of children 6-59 months seen at OPD assessed for malnutrition, Rukunyu Health Center (April – July 2015)



- **Consulting MOH-QAD: Institutionalization of QI in the health sector.** MOH-QAD provided technical support/coaching in April 2015 to South Western districts of Uganda and Karamoja districts. Some of the noted practices included: Most of the districts, health sub districts, and health facilities have quality improvement teams; all facilities have an improvement aim they are working on; most of the DHOs are conducting quarterly performance review meetings and they possess the relevant policies such as NHPII, HSSIP and M&E for HSSIP, UCG 2012, HMIS forms and the NQIF.
- **National QI capacity-building meetings** (Jun 2015): Supported QAD in the following capacity-building meetings: Collaborated with Save the Children to hold national QI trainings for 32 health workers in the districts of Bundibugyo, Ntoroko, and Kasese. Supported the QAD in carrying out CQI training for 28 mid-level managers from facilities supported by the Uganda Health System Strengthening Project (UHSSP). Also supported a training of district leaders on the Health Facility Quality of Care Assessment Program that is being undertaken by the QAD.
- **QAD supported the process of the review of the 2010/11-2014/15 NQIF and Strategic Plan led by Professor John Ovretveit** (Aug 2015). This involved the planning and coordination of all the field visits to health facilities across the north, east, west, and central regions of the country. The exercise also involved coordination of the meetings that the consultant held with all the major national stakeholders in QI initiatives in the country.
- **During the reporting period, ASSIST supported and actively participated in a Technical Working Group of the MOH that is developing an information system to support the WHO code reporting on migration of health workers.** The system is to track Ugandan health workers from the training institutions, their stock, and their attrition, together with the dynamics of the health workforce.

Activity 2. Support to the MGLSD to coordinate and oversee implementation of national OVC quality improvement plans and strategies

KEY ACCOMPLISHMENTS AND RESULTS

- **Facilitated a partners' meeting** (Oct 2014): chaired by the MGLSD and attended by Sustainable Comprehensive Responses (SCORE), Uganda Private Health Support Program (UPHS), ASSIST, and SUNRISE, the partners discussed spread of OVC improvement activities to 10 new districts. A joint work plan for the quarter was agreed on, and the partners and Ministry committed to participation.
- **Conducted a stakeholders' meeting targeting local government leaders from the 10 spread districts** (Oct 2014). The meeting was attended by 37 local government leaders, three officers from UPHS and SCORE, and four MGLSD officers. ASSIST discussed the QI spread strategy and roles of all the stakeholders, and the district teams committed to participating in the QI activities and allocation of resources whenever possible.
- **Districts:** ASSIST engaged the districts to activate the district improvement teams to work on improving reporting through the OVC MIS and selected performance indicators. Teams were supported to make improvement plans to ensure better coordination of the service providers and compile performance indicators to inform the district about services for vulnerable children.

Districts that have improved in reporting have used the quarterly service providers' meeting, phone calls, and supervision to get the reports from CSOs (Bugiri and Nakasongola). Other districts have used the chief administration's office to write to CSOs to remind them of their obligation to report.

- **Institutions:** ASSIST conducted one quarterly assessment and developed performance indicators for improving processes of care for children in institutions. Work at the four institutions focused on improving adherence to national standards, and we have moved on to work with institution teams to improve process of care to ensure children are resettled back to communities in at least six months.
- **USAID ASSIST held a planning meeting with the MGSLD to review the QI plans in relation to MGLSD priorities (May 2015).**
- **Together with the MGLSD, met with the two new regional OVC implementing partners (CRS and World Education) to discuss the implementation of QI activities (July 2015).**
- **Facilitated support supervision field visits by the commissioners in the Department of Children and Youth to the districts and communities to share progress and encourage buy-in by leadership.**

Activity 3. Build capacity of USG implementing partners to improve quality of HIV and AIDS, TB, MNCH, nutrition, and OVC services

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST staff participated in organizing a QI workshop for six Strengthening Decentralization for Sustainability supported districts (Feb 2015).** During the two-day workshop, ASSIST shared with the project's supported districts the experience of QI implementation with specific emphasis on the district coordination role. The participants were introduced to key QI tools such as the documentation journal, the QI reporting template, QI minutes template, the team evaluation form, and action planning template. It is hoped that the IP will continue to support the districts to utilize the tools for QI implementation.
- **On-site coaching, peer-to-peer learning sessions, and meetings were conducted for the different technical areas** (Apr-Sept 2015). These were jointly carried out with the respective implementing partners and helped to build capacity of the USG partners in implementing QI activities.

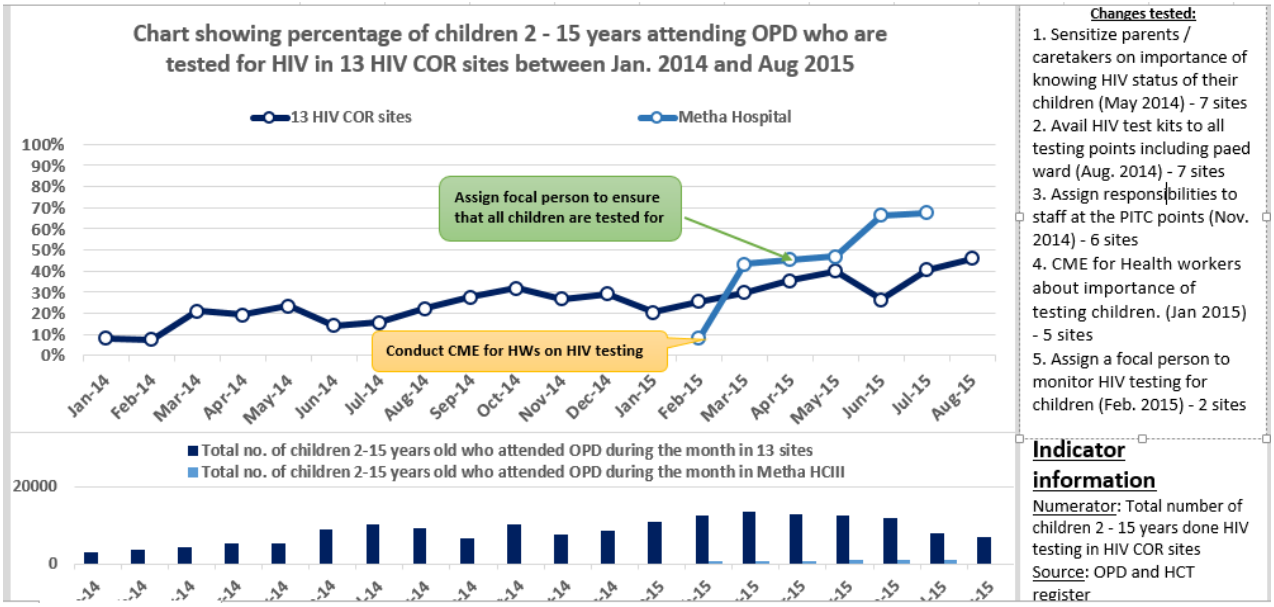
Activity 4. Improve HIV Continuum of Response

KEY ACCOMPLISHMENTS AND RESULTS

- **Conducted joint coaching visits:** ASSIST conducted three facility-level coaching visits in 50 facilities with the IPs and the DHTs in the 43 districts of Uganda (Dec 2014- Feb-2015). However, in the six new UPHS facilities in March 2015, only one joint coaching was conducted with the partner. Between April and August 2015, ASSIST supported four rounds of joint coaching activities in 56 facilities in 45 districts. The emphasis was to improve the provision of the standard care package of ART offered to clients by health workers. The package includes MUAC and weight measurement, CD4 monitoring, and adherence assessment for ARVs and Cotrimoxazole, with the aim being to promote delivery of the highest possible quality of care and equitable access to diagnosis, medical care, and supportive services. Proper documentation of the HIV Care cards by facility staff was emphasized as well**.** Thirty-three (33) of 56 sites have been engaged and have improvement projects to address the above areas identified as gaps.
- **Learning sessions: ASSIST supported four joint learning sessions for the facility QI teams and a two-day harvest meeting.** Fifty-nine (59) QI teams members representing 31 health facilities participated. ASSIST worked with the 6 regional IPs, and a total of 195 health workers participated in the learning sessions
- **Conducted the one-day stakeholders' meeting**, attended by 113 participants, including the IPs, MOH, DHOs, and health facility in-charges in the HIV COR collaborative sites and the representatives of the facility QI teams. We shared the four summarized HIV COR change package brochures: The purpose of sharing these briefs was to provide a day-to-day guide to health workers on implementing CQI of these parameters within their respective health facilities.

- **For the community level work, ASSIST conducted coaching visits in 18 villages and three health facilities in three districts (Kamuli, Bugiri and Mitooma) in East Central and South Western regions** (Nov 2014-Sept 2015). ASSIST and IPs worked with expert patient teams in three health facilities to improve linkage of patients to community-level resources and appointment-keeping. Community-level teams were facilitated to improve pre-appointment follow-up visits for patients on ART. As a result; 112 Village Health Team (VHT) members and 30 facility-based expert clients and linkage facilitators were reached with improvement skills. ASSIST also worked with community-level improvement teams in 18 villages to improve community-level follow-up for HIV patients on ART. At health facilities, ASSIST staff worked with expert patient teams to improve appointment-keeping and linkage of HIV patients to community level resources.
- **Conducted a learning session for 13 community improvement teams in two districts in East Central region. 55 participants attended, 36 of whom were community-based personnel comprising VHTs and expert patients/community support agents (May 2015).** Two villages shared changes tested to improve community-based self-management support for patients and retention of mother-baby pairs in eMTCT. As a result, the self-management changes were adopted by 11 additional villages.
- **Held a knowledge handover for 12 spread communities in East Central region in which practices on linking patients on ART and pre-appointment follow-up visits were shared** (Jul 2015). 22 VHTs, 36 expert patients, 12 local leaders, and 8 health workers benefited.
- **Improving HIV testing among children** As shown in **Figure 96**, site teams have been supported to start testing changes to improve HIV testing for children under 15 years in outpatient departments (OPD) and the pediatric wards so as to improve identification of HIV-positive children and initiate them on ART. The ASSIST staff supported the facility teams to identify gaps, collect baseline data, and identify changes to be tested. The facility teams tested the changes, and the implementing partners provided logistics like the HIV test kits. This work has been done in 13 sites: Irongo HCIII, Iganga Hospital, Kigandalo HCIV, Magada HCIII, Kamuli Hospital, Namwiwa HCIII, Nankandulo HCIV, Bugiri Hospital, Kitwe HCIV, Metha Hospital, Masafu, Daban, and Busia HC IV. Following the implementation of some changes, HIV testing among children under 15 years in Metha Hospital improved by 60% between Feb 2015 and July 2015, while in the 13 sites a 20% improvement was observed **(Figure 96).**

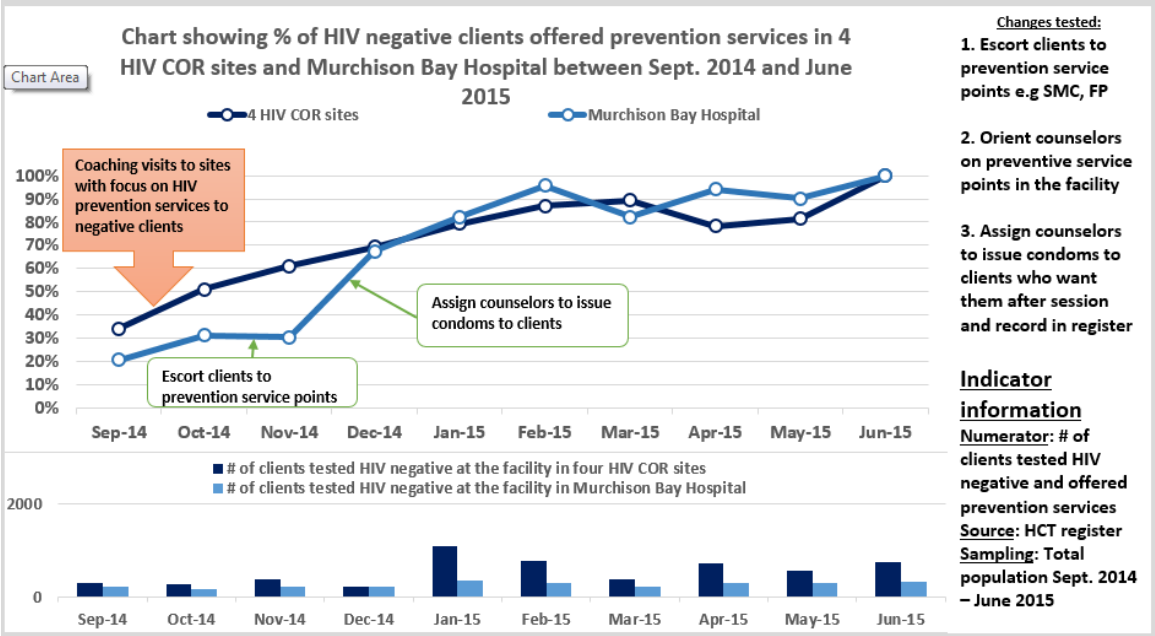
Figure 96: Uganda | Percentage of children 2-14 years attending OPD who had an HIV test, 13 HIV COR sites and Metha Hospital (Jan 2014 – Aug 2015)



- **Improving preventive care among HIV-negative clients**. The HIV Continuum of Response can only be completed if HIV-negative clients are provided with preventive services to remain

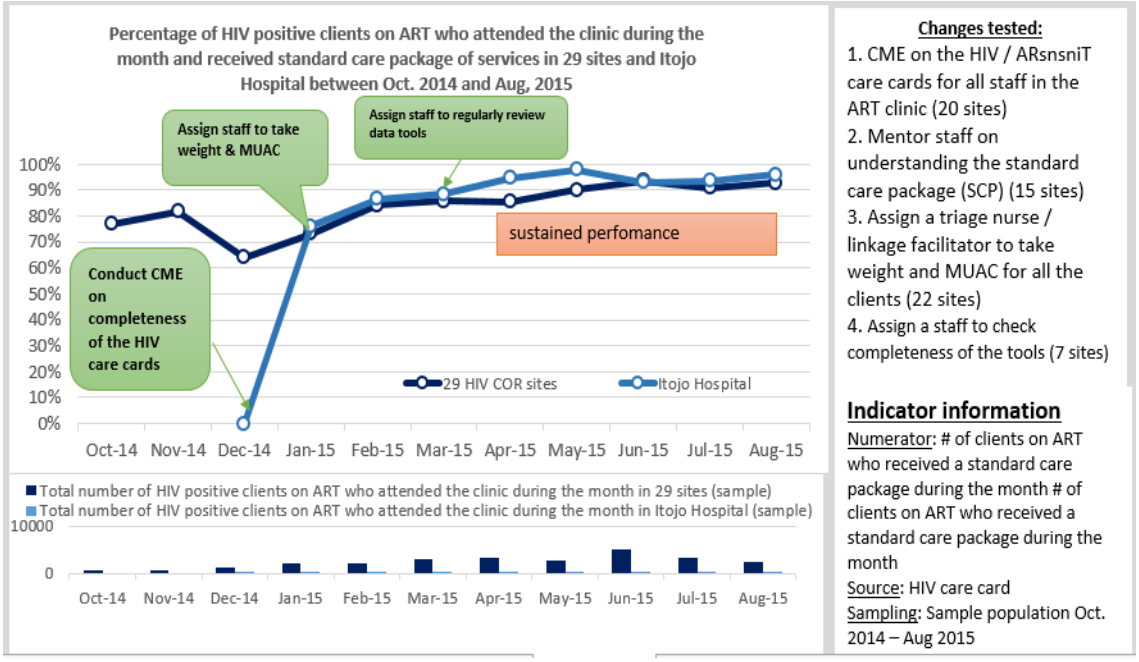
negative. Services include condom distribution, VMMC, and youth corner and post-test clubs where behavior change activities are conducted. **Figure 97** summarizes the result from four COR sites (including Murchison Bay) compared with the results for Murchison Bay Hospital.

Figure 97: Uganda | Percentage of HIV-negative clients provided with prevention services, Kuluva, Buginyanya, Murchision Bay, and Kasanda hospitals (Jul 2014- June 2015)



- **Improvement of HIV-positive clients on ART in clinic atte ndance who received a standard care package.** The percentage of HIV positive clients on ART who attended the clinic and received a standard care package of services in 29 sites improved from 77% in October 2014 to 93% in August 2015 as shown in **Figure 98.**

Figure 98: Uganda | Percentage of HIV-positive clients on ART who got standard care package of services in 29 sites and Itojo Hospital, (Oct 2014-Aug 2015)



- **Figure 99 shows the results of following up HIV patients on ART in the community.** As a result of the improvement work: 1) 180 community personnel and 30 facility-based expert clients were reached with improvement skills; 2) the number of PLHIV linked to community level care and support improved from 181 in Oct. 2014 to 842, of whom 798 (95%) are still active on ART. Pre-appointment follow-up visits and appointment-keeping for patients in the targeted communities also improved.
- Retention of patients on ART at 12 months after enrollment also improved **(Figure 100).** This is mainly due to linkage of patients scheduled for ART appointments to community personnel, community pre-appointment follow-up reminders, and development of self-management plans to address retention barriers, e.g., nutrition, lack of transport.

Figure 99: Uganda | Percentage of HIV patients on ART followed up in the community, 18 villages, and 3 districts (Oct 2013 – Aug 2015)

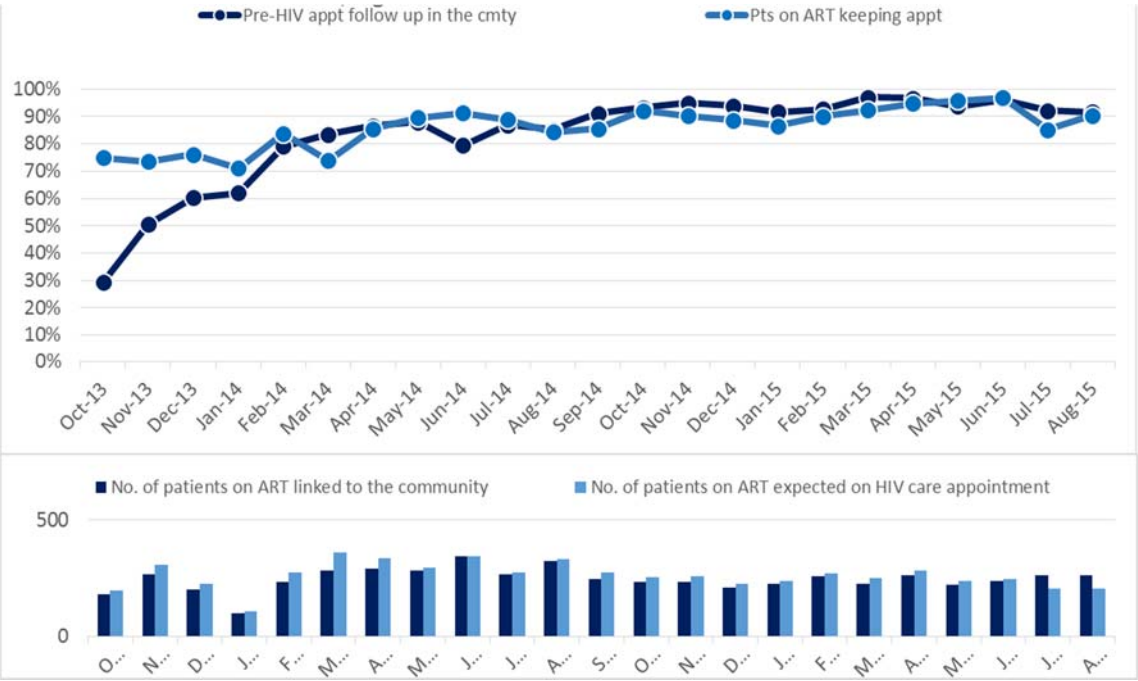
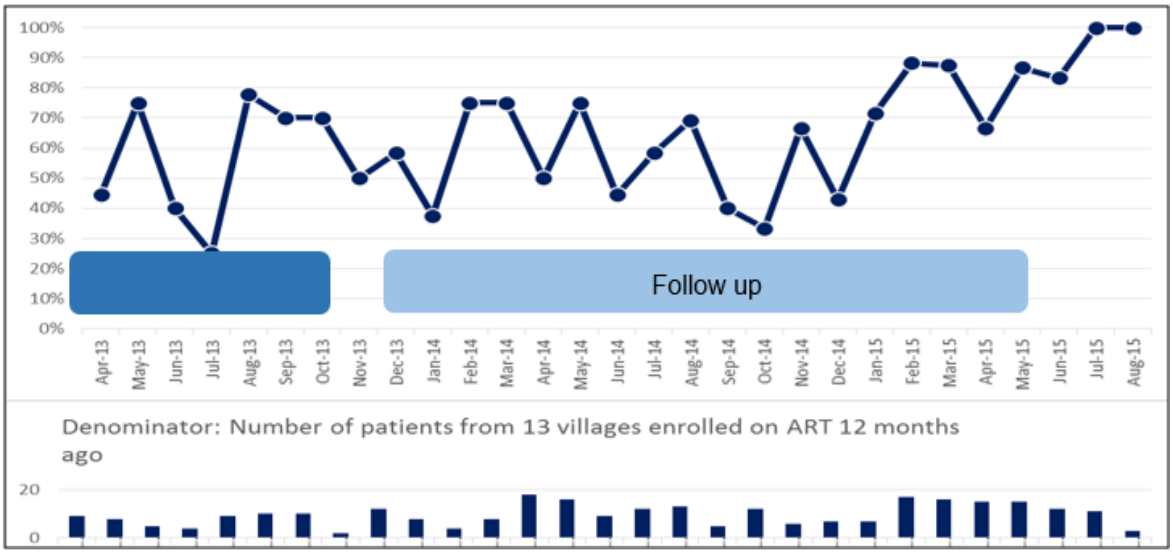


Figure 100: Uganda | Percentage of patients on ART retained 12 months after enrollment in 13 villages targeting 2 hospitals in 2 districts (April 2013-Aug 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
Improve HIV continuum of response (facility)	% of newly tested HIV-positive linked and enrolled into HIV care, during review period	70% (May 2013)	76% (Aug 2015) 53 sites	6
	% of HIV-positive pre-ART clients started on ART in a month (15+ yrs)	79% (May 2013)	93% (Aug 2015) 53 sites	14
	% of HIV-positive pre-ART clients started on ART in a month (0-14 yrs)	40% (May 2013)	100% (Aug 2015) 53 sites	60
	% of HIV-positive on ART that have been retained in care (15+ yrs)	77.1% (May 2013)	78% (Aug 2015) 54 sites	.9
	% of HIV-positive on ART that have been retained in care (0-14 yrs)	84% (May 2013)	83% (Apr 2015) 54 sites	-1
	% of HIV-positive on ART that are clinically well (0-14 yrs)	50% (Mar 2014)	69% (Aug 2015) 53 sites	19
	% of HIV-positive on ART that are clinically well (15+ yrs)	65% (May 2013)	73% (Aug 2015) 54 sites	8
	% of TB/HIV co-infected clients that are on ART	63% (May 2013)	93% (Aug 2015) 54 sites	30
	% of TB/HIV co-infected clients completing TB treatment	41% (May 2013)	73% (Aug 2015) 54 sites	33
	% of HIV-positive pregnant mothers keeping clinic appointments	88% (May 2013)	90% (Aug 2015) 54 sites	2
	% of HIV-positive lactating mothers keeping clinic appointments	85% (May 2013)	91% (Aug 2015) 54 sites	6
Improve HIV continuum of response (community)	% of HIV patients on ART linked to community services	0% (Sept 2013)	96% (June 2015)	96
	% of HIV patients on ART followed up for appointment reminders in the community	29% (Oct 2013)	96% (June. 2015)	67
	% of HIV patients on ART in the targeted villages who kept HIV appointments per month	54% (Oct 2013)	97% (June. 2015)	43
	% of HIV patients on ART with challenges that set self-management plans	0% (Feb 2015)	49% (June 2015)	49
	% of HIV patients on ART who set self-management plans and addressed challenges *. **data for 2 villages testing changes*	0% (Feb 2015)	26% (April 2015)	26
	Number of HIV patients ever enrolled into community care	858 (March 2015)	886 (June 2015)	-

Activity 5. Improve quality and safety of safe male circumcision (SMC)

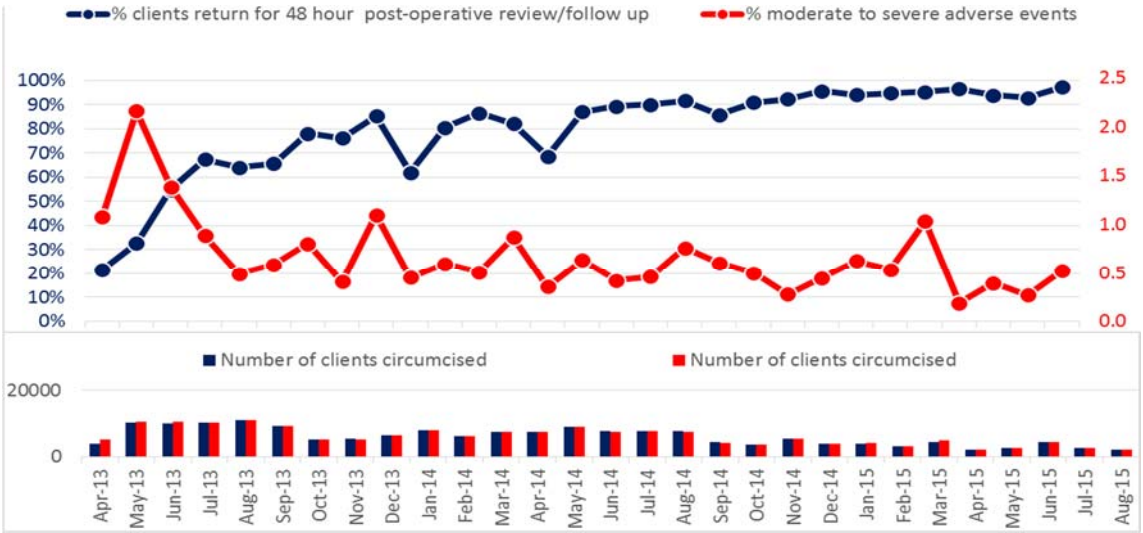
KEY ACCOMPLISHMENTS

The VMMC component of the ASSIST HIV prevention work started in December 2012. At the beginning, ASSIST provided intensive technical support to the MOH and to three facilities supported

by each of 10 USG IPs (30 sites in all). Since beginning the work, the number of SMC IPs has been reduced to eight because one closed and one had its funding suspended. In June 2014, we expanded our intense support to 19 additional health facilities, totally 49 facilities receiving intensive technical support from ASSIST.

- **Improved the follow-up of clients at 48 hours post-operatively and reduced the rate of adverse events.** At the beginning of the QI support, only 10% of clients were returning for review. This was so because the service providers did not think it was important and thus did not inform the clients to return for review. The providers were sensitized on the importance of follow-up and thus changed the message from return if you have a problem to come back for bandage removal and review of the wound. **Figure 101** shows that the percentage of clients who returned for review within 48 hours after circumcision improved from 32% in February 2013 to 100% in August 2015. The figure also shows the percentage of clients who experience moderate to severe adverse events (AE) after circumcision. At the start of technical assistance, few AEs were identified because staff did not know how to grade them and would only record the severe AEs. After sensitization and mentorship in recognition, grading, and reporting of AEs, the rate of AEs rate worsened (April – May 2013). Teams tested changes including reviewing each adverse event to understand why it occurred and how it could be prevented from recurring, improving client follow-up, and conducting health education for minors. The rate since July 2013 has been maintained below 1%. There is an inverse relationship between client follow-up and rate of adverse events.

Figure 101: Uganda | Percentage of clients reviewed within 48 hours and number of clients who experience moderate to severe adverse events after circumcision in 30 sites (April 2013 – Aug 2015)



- Improved percentage of SMC clients who returned for follow-up at initial and scale-up sites. **Figure 102** shows the scale-up of technical support provided from 9 health units to 13 health units in Northern Uganda. It shows that whereas improving client follow-up at the phase I sites took time, at the phase II scale-up sites, it took a much shorter time, which is consistent with other literature on scale-up. The rapid improvement in the phase II sites was achieved through sharing the lessons learned from the phase I sites.

Figure 102: Uganda | Percentage of SMC clients who return for follow-up, 9 phase I sites and 4 phase II sites in Northern Uganda (Jan 2013 – Jan 2015)

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
Improve quality and safety of safe male circumcision (SMC)	% of SMC that meet the minimum quality standards at 30 health units supported by ASSIST	10% (May 2013) N.B This was from 4 sites	70% (May-15)	60
	% of SMC that of clients that experience moderate to severe adverse events at 30 health units supported by ASSIST	0.5% (Oct 2012) N.B This was from 8 sites	0.5% (30 initial sites) 0.4% (20 scale up sites)	-
	% of clients that counselled tested and receive HIV test result within SMC setting	73% (Oct 2012)	100% (30 initial sites) 99% (20 scale up sites)	27
	% of clients that are assessed for sexually transmitted infection prior to circumcision at 30 health facilities supported by USAID ASSIST	81% (Jan 2013)	100% (30 initial sites) 100% (20 scale up sites)	19
	% of SMC clients with documented informed consent prior to circumcision at 30 health facilities supported by USAID ASSIST	83% (Jan 2013)	100 % (30 initial sites) 100% (20 scale up sites)	17
	% of clients of safe male circumcision that return for review within 48 hours after circumcision at 30 health facilities supported by USAID ASSIST	58% (Oct 2012)	97% (30 initial sites) 91% (20 scale sites)	39

Activity 6. Ensure that HIV-exposed babies are alive, thriving, and free from HIV at 18 months of age

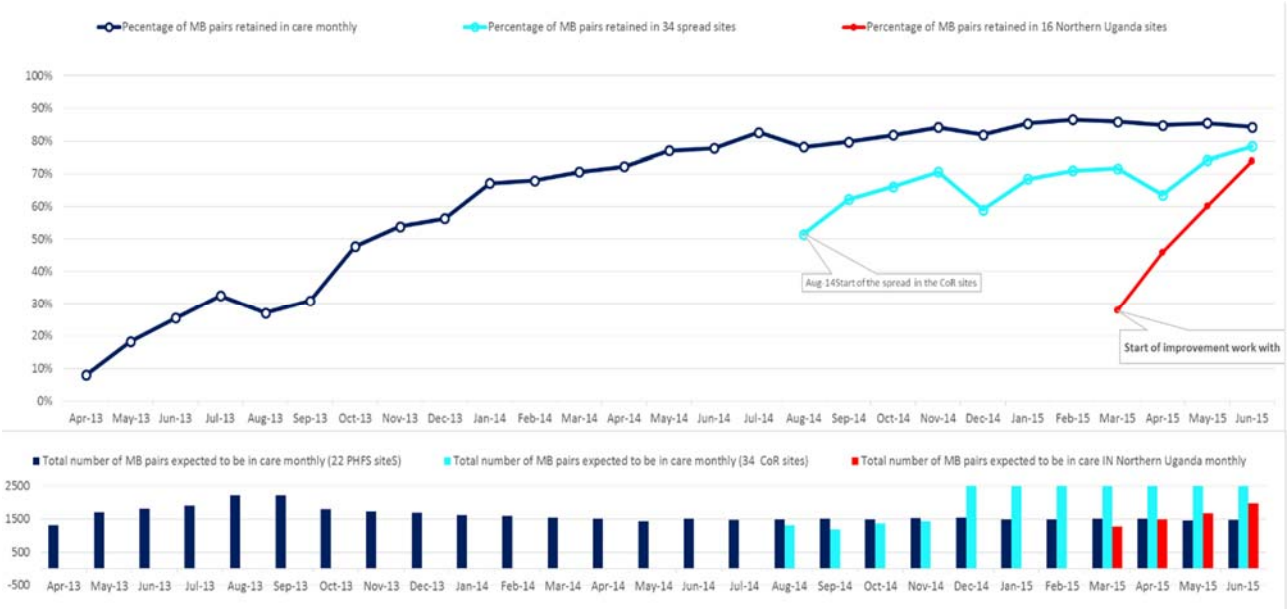
KEY ACCOMPLISHMENTS AND RESULTS

- **Supported IPs TASO and SPRING to spread the PHFS work to additional sites within the six demonstration districts (Oct 2014 – present).** The IPs have been supported to scale up

PHFS to additional sites. The IPs were provided with the change packages and a list of coaches to support the sites. ASSIST has also provided direct support by facilitating learning sessions and knowledge handover meetings between the old and new sites. Currently SPRING has spread the PHFS work to 31 sites in three districts, and TASO has spread to 39 sites in three districts.

- **ASSIST is spreading the key learnings from the PHFS work directly to health facilities supported under the Continuum of Response** (Oct 2014 – present). The change packages have been shared with the improvement teams at these sites, and 34 of these focused on the retention of mother-baby pairs in care. The progress made in improving the retention of mother baby pairs in the 22 demonstration sites, 34 COR spread sites, and 16 spread sites in Northern Uganda is demonstrated in **Figure 103** below.

Figure 103: Uganda | Percentage of mother-baby pairs retained in care at 22 demonstration sites, 34 COR sites, and 16 Northern Uganda spread sites (Apr 2013- Jul 2015)



- **Held PHFS coaches' meeting on spread** (Oct 2014). The meeting was attended by both district and regional coaches, the MOH, and implementing partners. The purpose of the meeting was to determine the roles of the coaches in the spread phase, agree on what indicators would be measured for spread, and understand how the change package was going to be applied in the spread phase.
- **Harvest meeting on the special visits:** Since October 2014, PHFS sites have been supported to improve the care provided at special visits at 6 weeks for the 1st dried blood spot (DBS), the 6 weeks post-breastfeeding cessation test, and the final rapid test at 18 months. In July 2015 a harvest meeting was held for the 22 PHFS demonstration sites to synthesize the changes which led to improvement in these three areas. **Figures 104-106** show the progress made by all the 22 sites to improve monitoring the status of HIV-exposed babies at the different stages.

Figure 104: Uganda | Percentage of HIV-exposed babies who receive their first DNA/PCR test at 6 weeks, 22 PHFS sites (July 2012-July 2015)

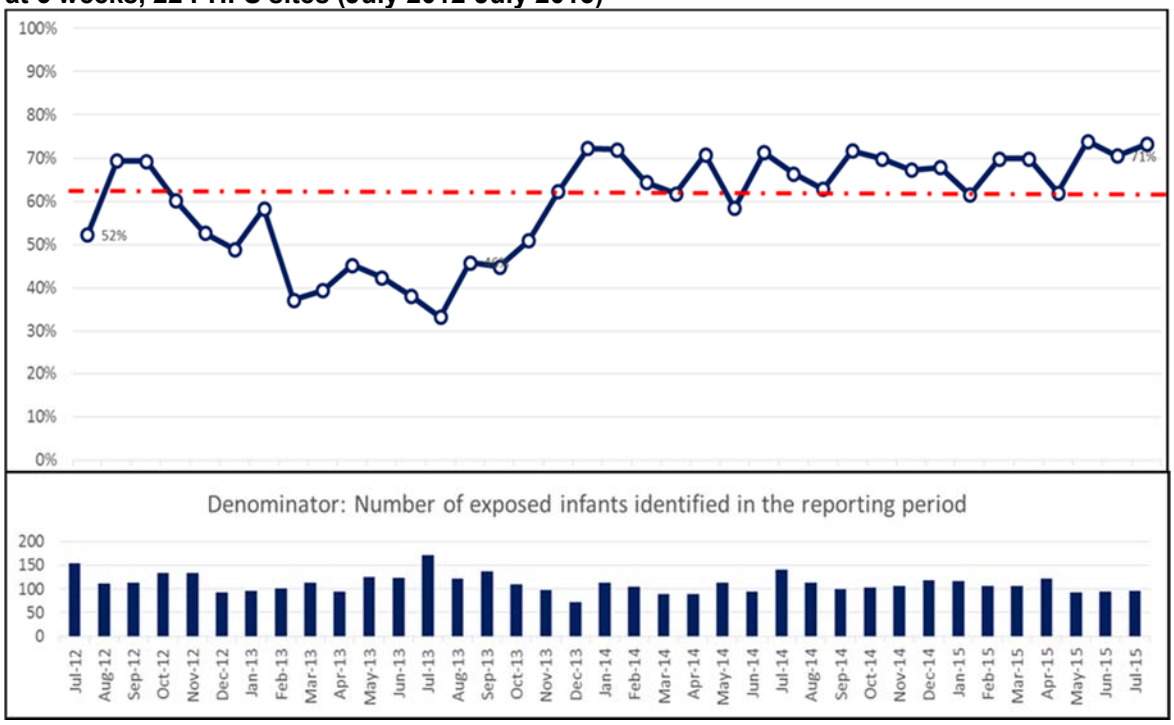
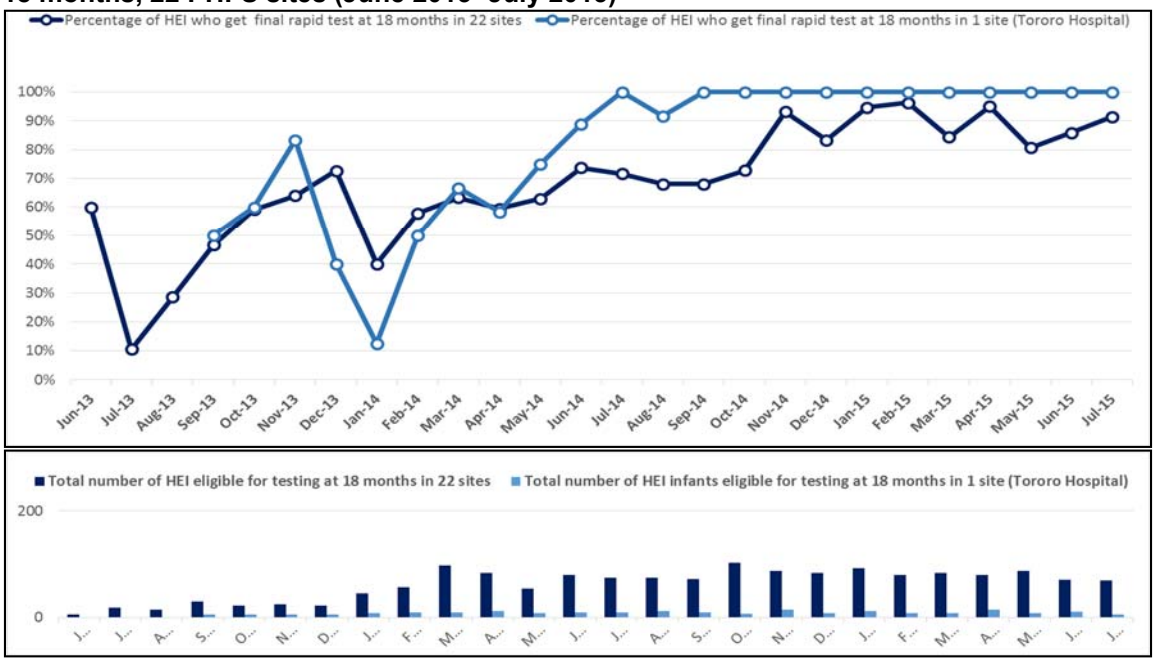


Figure 105: Uganda | Percentage HIV-exposed babies who receive their second DNA/PCR test, 22 PHFS sites (Sept 2013 – Jul 2015)

Figure 106: Uganda | Percentage of HIV-exposed infants who get their final rapid test for HIV at 18 months, 22 PHFS sites (June 2013- July 2015)



- In order to improve "special visits" where specific services are offered to HIV-exposed infants at specific times (i.e., at 6 weeks - 1st DBS, 13.5 months - 2nd DBS, and at 18 months - HIV rapid test), improvement teams should:
  - Set up a system that enables the health worker to identify which babies are due for the different tests (e.g., generate a list of babies due for testing each month, indicate in the EID register when the baby will be due)
  - Set up a system that supports HIV-positive mothers to bring their babies back for testing (e.g., giving the exact appointment dates, giving mothers cards with dates)
  - Have a mechanism for finding mother-baby pairs who miss tests (e.g., use of expert clients and mentors to find babies who miss their appointments, set up phone calls reminders to mothers, etc.).

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (April 2013)	Last value (July 2015)	Change (percentage points)
Ensure that HIV exposed babies are alive, thriving and free from HIV at 18 months of age	% of HIV-negative women retested for HIV as per national guidelines	12% 5 sites	82% 22 sites	70
	% of HIV-exposed babies who were given ART prophylaxis	12% 15 sites	100% 22 sites	88
	% of HIV-positive pregnant women initiated on ART	83% 20 sites	100% 22 sites	17
	% of HIV-positive mothers who receive feeding counselling at each visit	23.7% 15 sites	99.7% 22 sites	76
	# of HIV-positive mothers who receive maternal nutrition counselling at each visit	23.3% 15 sites	100% 22 sites	77.7
	% of exposed infants reporting to be	73.3%	97.5%	24.2

Activity	Indicators	Baseline (April 2013)	Last value (July 2015)	Change (percentage points)
	adhering to recommended IYCFpractices	20 sites	22 sites	
	% of HIV-positive pregnant and lactating mothers who receive nutrition assessment every month	20.4% 19 sites	99.6% 22 sites	79.2
	% of exposed infants who receive nutrition assessment every month	32.4% 16 sites	99.3% 22 sites	66.9
	% of HIV-positive mothers who are found to be malnourished	0.88% 11 sites	0.4% 22 sites	-0.48
	% of exposed infants found to be undernourished and receive therapeutic or supplementary feeding support	100% 3 sites	67% 22 sites	-33
	% of HIV-positive mothers found to be undernourished and receive therapeutic or supplementary feeding support	0% 1 site	28.6% 22 sites	28.6
	% of exposed infants who are found to be malnourished	5% 1 site	0.48% 22 sites	-4.52
	% of mother-baby pairs retained in care each month	7.9% 1 site	88% 22 sites	80.1

Activity 7. Improve the quality of TB care

KEY ACCOMPLISHMENTS

- **TB case identification was enhanced at phase II sites by screening patients using intensified case finding (ICF) tools at all waiting areas at the health facility.** In the community, household contacts of TB patients in the intensive phase were targeted. Community case identification through screening all household contacts in the community by visiting contacts at their homes and organizing community meetings/outreaches was done by community supporters. They also carried out sputum sample collection from the communities during outreach and delivered them to the health facility laboratory for evaluation. The combined effort of health providers and community supporters led to an increase in the proportion of household contacts evaluated for active TB from 0% to 62%.
- **Monthly coaching was done at all 16 facilities to support teams that strengthen TB/HIV co-management and ensure that TB patients who start treatment, complete it and are cured of TB** (Jun–Aug 2015). Facility-implemented changes for treatment initiation are put in practice every time patients are due for two, five, six, and eight follow-up sputum examinations. These changes include setting up phone call reminders to patients and reminding them about the dates they are due for a follow-up test. Health workers shared educational messages in the community and at the health facility to patients about the dangers of not completing TB treatment. During coaching, with the support of a regional coach, teams were also supported to roll out isoniazid (INH) preventive therapy so they can minimize spread of TB among TB contacts. On some occasions, telephone coaching was done to support teams improve TB care.
- **TB frontline health workers at 16 health facilities were trained on site by ASSIST staff working with TRACK TB and KCCA trainers on isoniazid preventive therapy** (May 2015). This specifically focused on how to use the QI methodology to incorporate INH in TB care as a preventive measure.
- **ASSIST facilitated a one-day quality improvement orientation for TRACK TB project officers and KCCA mentors engaged in supporting sites improve TB care services** (Aug 2015). The purpose of this workshop was to support building knowledge and skills of the participants in QI methods so they can conduct independent, focused coaching. About 15 staff participated in the training and developed improvement plans to support sites better. The project

supported TRACK TB to conduct the 2nd learning session for all 16 health facilities engaged in improving TB care in June 2015.

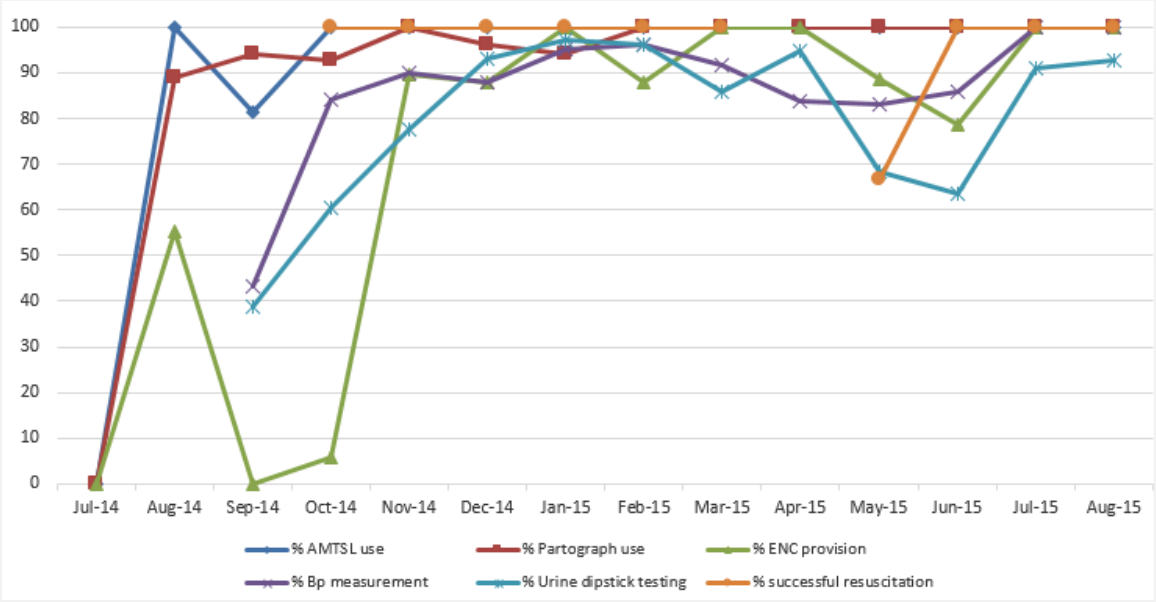
- **Starting in September 2014, health providers from Kisugu HC III started discussion with two community supporters about how they could get involved in identifying and screening household contacts to patients enrolled in TB care** (Sept 2014). This was later scaled up to all the other facilities. Community supporters conduct home visits and education and conduct TB screening of household members; those confirmed to have TB are enrolled on treatment. Sometimes they collect sputum samples from the community from the TB suspects and take it to the laboratory for testing. This change is being implemented in all sites.

Activity 8. Reduce maternal and newborn morbidity and mortality

KEY ACCOMPLISHMENTS AND RESULTS

- **Conducted coaching visits:** District coaches conducted two independent coaching visits in December 2014 and January 2015 to 30 facilities of the four SMGL implementing districts of Western Uganda. USAID ASSIST conducted one joint coaching visit with the district coaches in the 20 facilities of the four SMGL implementing districts in November 2014. QI teams were supported to perform maternal and perinatal death reviews during the site visits. Teams were supplied with Maternal and Perinatal Death Review books from the MOH and supported to report to the MOH through the DHOs.
- **Conducted three monthly QI TWG meetings** involving Baylor Uganda, PACE, IDI, UHSC, and ASSIST (Oct. and Nov. 2014, Jan 2015). ASSIST shared MOH QI tools (documentation journals and reporting forms) with the partners and conducted a joint coaching visit in 8 facilities of Kibale District with IDI (Nov 2014).
- **Conducted a peer-to-peer learning/stakeholders meeting involving facility and district health leaders in SMGL improvement work** (Feb 2015). This involved frontline health care providers, facility in-charges, and DHO representatives. During this meeting, knowledge cafes were organized, and successful changes harvested with evidence of improvement from the 30 demonstration facilities.
- **Conducted a SMGL stakeholders meeting for the six SMGL scale-up districts of Northern Uganda** (Feb 2015). This involved the technical and political leadership of the 6 SMGL phase II implementing districts. Leaders were oriented about the SMGL initiative, discussed the mode of implementation, and the roles of the different stakeholders in the SMGL initiative.
- **Capacity building of staff in MNCH services** (Mar 2015). Trained 10 medical officers and 96 midwives from 20 facilities of the 6 SMGL districts of northern Uganda in essential obstetrical and newborn care integrated with quality improvement approaches during two five-day trainings in the first two weeks of March 2015.
- **After two and half years of improvement work in 20 demonstration facilities of the four SMGL implementing districts of western Uganda, a harvest meeting was conducted in June 2014 and a package of best practices and lessons learned was developed.** These were scaled up to 10 HCIIIs in the same four SMGL implementing districts. This package included: application of all the three components of 3rd stage of labor to prevent PPH, adherence to partograph use to detect and manage prolonged/obstructed labor, routine screening for pre-eclampsia through blood pressure measurement and urine dipstick for proteinuria, routine delivery of a package of essential newborn care, and resuscitation of all asphyxiated babies at birth. This was spread in a phased approach.
    - **Figure 107** shows the progress achieved in one of the spread sites in Kyenjojo District. Butunduzi HCIII has exhibited a faster uptake of best practices through monthly onsite support of the local district coaches and replication of best practices from the demonstration facilities.
- The northern region of Uganda, where SMGL phase II is being implemented, has a facility-based maternal death rate of 143/100,000. Like the rest of the country, the top causes of maternal deaths are postpartum hemorrhage, hypertensive disorders of pregnancy, and uterine rupture.

Figure 107: Uganda | Successful spread of MNCH best practices at Butunduzi HC III (July 2014 – Aug 2015)



- **The ASSIST SMGL Phase I work focused on tackling these same problems and has evidence-based and tested changes that have led to prevention of maternal and newborn deaths.** Starting in February 2015, USAID ASSIST built on the learning gained on what was effective in terms of improvement in SMGL phase I and is supporting improvement teams in northern Uganda to adopt the changes that led to improvement and also test new changes to attain further improvements and impact.
- **In improving the quality and completeness of antenatal care package including detection and management of pregnancy related conditions, ASISST carried out the following activities:**
  - Meeting with the contact person at the MOH and the Jinja District Health Office to share plans and gain a buy in for the work
  - A training of eight data collectors has been carried out to introduce them to the indicators for monitoring improvements made in antenatal care and also to the data tools that are to be used in during the data collection process.
  - A situation analysis on the quality of antenatal care and complications management; skilled providers' knowledge and confidence in managing pre-eclampsia and eclampsia conditions and logistics availability was done. Clients attending antenatal care were also interviewed to assess their understanding of the different procedure done by the skilled providers and benefits during antenatal clinics. This was carried out at 19 health facilities (10 intervention and 9 non-intervention sites) within Jinja District.

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
Reduce maternal and newborn morbidity and mortality	% application of AMTSL during delivery	5% (Jan 2012) 10 sites	99% (Aug 2015) 29 sites	94
	% use of a partograph for labor monitoring	4% (Jan 2012) 10 sites	88% (Aug 2015) 28 sites	84
	% delivery of a complete package of ENC	1% (Jan 2012) 10 sites	92% (Aug 2015) 29 sites	91

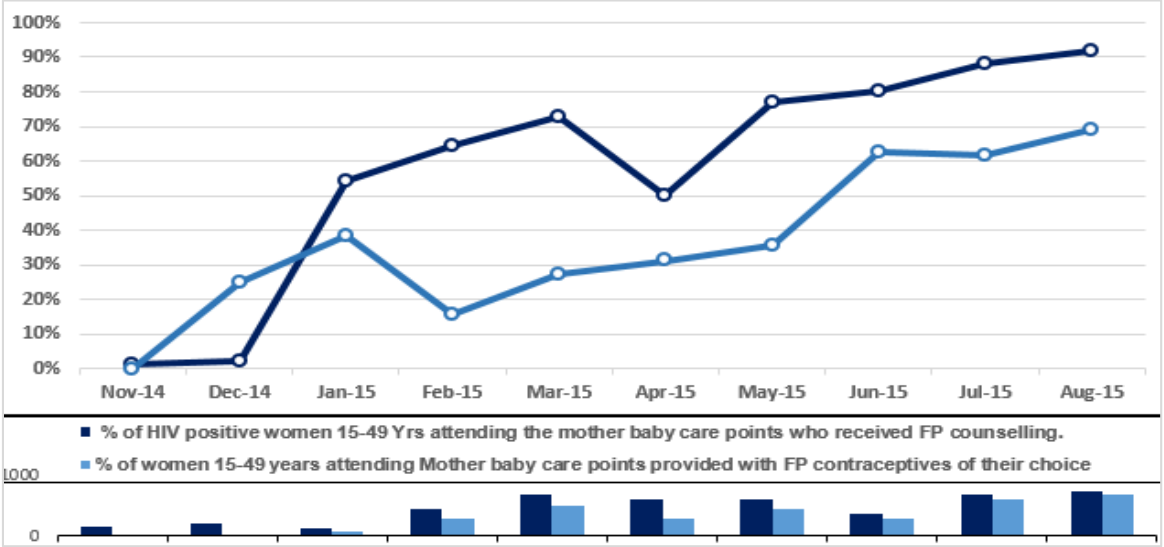
Activity	Indicators	Baseline	Last value	Change (percentage points)
	% of asphyxiated babies successfully resuscitated	67% (Aug 2013) 20 sites	90% (Aug 2015) 29 sites	23
	% screening for pre-eclampsia during labor/delivery	48% (Nov 2013) 20 sites	90% (Aug 2015) 25 sites	42

Activity 9. Integrate family planning into MNCH and ART services

KEY ACCOMPLISHMENTS AND RESULTS

- **During the past six months, 18 sites have been supported to test and implement changes aimed at improving provision of family planning counselling and contraceptives to HIV-positive mothers attending the mother-baby care points.** However, only 10 out of 18 of these facilities implemented the changes. At the FP harvest meeting held in July 2015, ASSIST staff and facility health workers who had tested these changes reaffirmed to others the importance of integrating family planning services into HIV care. Ten sites demonstrated great improvement within the six months of introduction of these changes. Changes introduced included: group education/counselling on use of modern contraceptives to HIV-positive mothers at the mother-baby care points; assigning experienced VHTs who double as peer mothers (women using FP contraceptives in the EMTCT program with HIV-negative babies) working in the MNCH department to carry out group education at the mother-baby care points and share their experiences and success in using FP contraceptives; dispensing short-term contraceptive methods at the mother-baby care points before ARV refills are made; and having peer mothers escort HIV-positive mothers from the mother-baby care point to the family planning clinic for long-term contraceptives.
- **Key results:**
  - 78% (14/18) of ASSIST-supported sites have fully integrated family planning services into HIV care through the mother-baby care points.
  - 100% of the participating sites have not run short of family planning contraceptives for the past six months.
  - 78% (14/18) of the supported sites currently have more than five staff trained and are providing all temporally family planning contraceptives including long term methods; 23% (4/18) have a minimum of three staff trained and able to provide FP contraceptives.
- **Figure 108 shows that the proportion of women receiving FP counselling at 10 mother-baby care points stands at 92% (680/740) by the end of August 2015 compared to 30% at the end of March 2015. The proportion of women provided with a family planning method of their choice at the mother-baby care point has improved from 10% in Jan 2015 to currently 69 % (469/680) by end of August 2015.**

Figure 108: Uganda | Percentage of HIV-positive women attending mother-baby care points who received FP counselling and FP method of choice, 10 sites of 4 SMGL districts, Western Uganda (Nov 2014-Aug 2015)



- Changes introduced to improve family planning education/counselling among women attending the immunization and postnatal clinics included:
  - Provision of FP/RH health services at the immunization clinic before vaccination of the babies starts (this change was introduced in April 2014 at all the supported sites).
  - Use of village health team members who are already using family planning contraceptives to conduct group education and share their experiences in using contraceptives starting May 2014.
  - Conducting two group education talks to reduce on those who miss the morning session started in June 2014 across all sites.
  - Provision of family planning contraceptives during the EPI outreach activities starting July 2014
  - Conducting community sensitization and education sessions aimed at addressing the misinformation regarding the use of modern contraceptives starting August 2014.
  - Allocation of midwives to provide family planning/reproductive health services to women referred from the immunization and postnatal clinics in October 2014.
  - In November 2014, FP contraceptives were dispensed at the same service point as immunization.

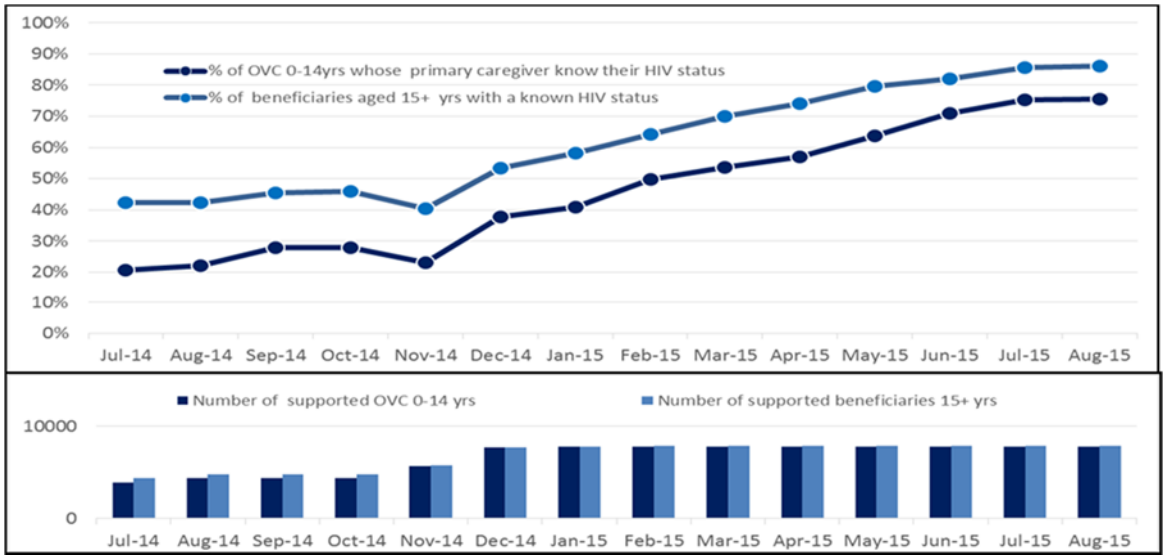
  As a result, the percentage of women 15-49 years attending the immunization and postnatal clinics who received FP counselling and were provided with a modern contraceptive method of their choice improved from 41% in Sept 2014 to 67% in March 2015 in 13 SMGL participating sites.

Activity 10. Improve the wellbeing of vulnerable children

KEY ACCOMPLISHMENTS AND RESULTS

- **Conducted three coaching sessions to both demonstration and spread CSOs** (Apr, Jun and Aug 2015). At both the demonstration and spread CSOs, focus was on increasing the percentage of supported beneficiaries with known HIV status through spreading of emerging changes associated with improvement across all CSOs as well as supporting CSOs to spread the changes from ASSIST-supported sub-counties to more areas of operation. Ten improvement teams (KIFAD, Agape, SEPSPEL, KORD, RUDFA, IDO, Katente, AOET, Comboni, and COVOID Bushenyi) have registered improvements in this area as shown in **Figure 109**.

Figure 109: Uganda | Percentage of OVC 0-14 yrs. and 15+ yrs. beneficiaries with known HIV status at 10 CSOs (July 2014 - Aug 2015)



- **Support for the improvement teams focused on spread of changes from three CSOs to all other CSOs as well as increasing access to HCT services among OVC 0-14 years.** By end of August 2015, 10 CSOs had registered significant increase in percentage of OVC 0-14 years whose primary caregiver knew their HIV status to 76% (5,908/7,820) from 54% (4,188/7,820) in March 2015. Similarly among the supported beneficiaries 15+ years, the proportion with known HIV status increased from 70% (5,474/7,827) in March 2015 to 86% (6,739/7,829) in August 2015. The gap between children 0-14 years and beneficiaries 15+ years with known HIV status has decreased from 16% in March 2015 to 10% in August 2015. Changes tested include: tracking those not tested through VSLA; making a written referral to the nearest testing unit (SEPSPEL), asking mother to bring along their children for community immunization outreaches (COVOID), use of VHTs to refer and follow OVC to testing centers (Katente), conducting HCT during weekends (Comboni), and conducting HCT in schools (AOET).

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
To improve the wellbeing of vulnerable children	% of OVC with birth registration certificates	3% (July 2013) 2 CSOs	60% (Aug 2015) 12 CSOs	57
	% of OVC 0-14 years whose primary caregiver knows their HIV status	18% (Aug 2014) 4 CSOs	60% (Aug 2015) 18 CSOs	42
	% of beneficiaries 15+ years with a known HIV status	42% (Aug 2014) 4 CSOs	72% (Aug 2015) 17 CSOs	30
	% of vulnerable households in saving groups saving regularly (spread CSOs)	48% (Aug 2014) 5 CSOs	92% (Aug 2015) Eight CSOs	44

Activity	Indicators	Baseline	Last value	Change (percentage points)
	% of vulnerable children identified and linked to needed services by the Vulnerable Child Protection Committees (VCPCs) in demonstration sites	4% (Aug 2013) 2 villages	73% (July 2015) 26 villages	69
	% of vulnerable children linked and received needed services by VCPCs in spread sites	1% (Oct 2014) 13 villages	42% (July 2015) 54 villages	41
	% of children out of school re-enrolled back to school by VCPCs in demonstration sites	3% (Aug 2013) 2 villages	88% (July 2015) 26 villages	85

Activity 11. Northern Uganda Program

KEY ACCOMPLISHMENTS AND RESULTS

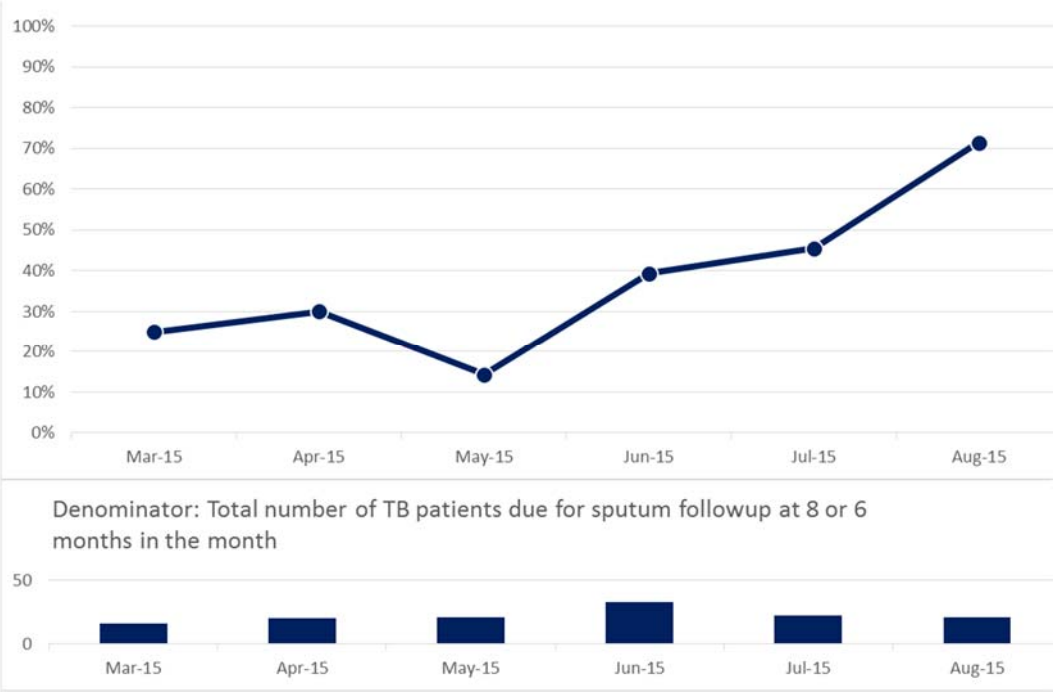
Improve HIV/AIDS care and treatment: ASSIST partnered with the MOH to improve service delivery with the aim of ensuring that all people with HIV in 15 districts of Northern Uganda access the care and treatment they require to remain clinically well. Working with 10 collaborative sites and 9 COR sites, the continuum of response model ensures that prevention, care, and treatment services are delivered along the HIV care cascade.

- ASSIST trained 14 regional trainers in pediatric and adolescent HIV care and treatment and organized a regional stakeholders meeting to scale up these services within the region. As a result, HIV collaboratives were established with 10 sites. Two learning sessions were held with these 10 sites in the HIV collaborative and one for the 9 COR collaborative sites.
- Monthly integrated coaching visits to the 49 intense support sites have been ongoing. By end of August 2015, 49% (35 sites) of clients who were due for a CD4 testing received the test, an increment from 22% (27 sites) in March 2015.
- Data quality improvement was initiated at 82 light support sites through quarterly coaching visits.

Improve the quality of TB care: ASSIST is working in collaboration with the district health leadership to improve TB care services in 15 districts of Northern Uganda, specifically to increase TB case notification and case detection rate through improved processes for intensified case finding (ICF) at facility and community level; increase TB treatment success rates; and improve TB-HIV collaboration. Efforts to achieve these objectives are being directed to 49 intense and 82 light support facilities across the 15 districts by leveraging the community, laboratory and HIV clinical care structures.

- Established functional QI teams in 12 TB collaborative facilities, and all teams have received targeted TB coaching visits as well as one TB learning session. At these facilities, clients are educated about the dangers of TB, importance of adherence, appointment keeping, and routine and timely TB sputum analysis. Missed appointments are followed up by the community linkage facilitators. At the facility, clients are counselled every time they visit and reminded about their next appointment dates. Clients due for sputum monitoring at 8 months are routinely generated and linked to the laboratory. **Figure 110** shows improvements in TB cure rates that are also reflective of improved data management.
- Improving TB-HIV data quality at the ASSIST-supported sites was done through monthly integrated coaching visits to the 49 intense sites and quarterly coaching to 82 light support sites.

Figure 110: Uganda | TB cure rates in 5 TB collaborative sites in Apac, Lira, and Dokolo districts, Northern Uganda (May-Aug 2015)



Improve the quality of malaria prevention and treatment services: ASSIST focused on reducing the malaria epidemic in Northern Uganda that started in March 2015 with specific emphasis on diagnosis and management of malaria cases. This involved capacity building for health workers in the 15 districts, training 566 frontline health care workers in integrated management of malaria (IMM) and 60 in rapid malaria diagnostic test (RDT) use. To have a sustained response at the community level, 257 health worker master trainers were trained, who later trained 7964 VHTs on mass fever treatment (MFT) in 72 high-prevalence malaria sub counties across the 10 post-IRS districts. ASSIST is currently conducting VHT mentorship to ensure quality of mass fever treatment.

- At the facilities, malaria case management involved supporting 10 post-IRS districts to quantify and distribute two rounds of 50,760 doses of artmether/Lumefantrine, 4494 Artesunate injectable vials, 25950 RDTs, emergency malaria drugs, and commodities.
- Malaria improvement work spread to 10 additional intense sites. Six sites set up 'RDT corners' at ANC to scale up testing for pregnant women and prompt treatment for confirmed cases. Children under five children receiving diagnosis and treatment of malaria were managed, with emphasis on the triage system.
- **Improving improving malaria case management for under-fives at Dr. Ambrossoli Hospital:** The malaria QI team at the OPD at Dr. Ambrossoli Hospital in Kalongo observed that due to a lack of a triage system for children under five presenting with signs and symptoms of malaria in OPD, a number of under-fives presenting with danger signs developed complications such as seizures while waiting in line. A number of changes including, orientation of all OPD staff on assessment of malaria danger signs, recording of temperature for all under-fives on arrival to promptly identify hyperpyrexia, issuance of red cards to all mothers with under-fives to ease identification and immediate linkage to a clinician, and introduction of a counter book to record all identified under-fives linked to a clinician. These changes led to an increase in under-fives attending OPD that are promptly linked to a clinician for review from 0% in April 2015 to 84% in August 2015.

Improve PMTCT services: The program supports 49 intense support sites and 82 light support sites with a focus on 15 PMTCT/EID collaborative sites. The teams have prioritized areas for improvement using the PHFS change package to improve retention of mother/baby pairs in care and reduce

incidence of HIV amongst exposed infants.

- Supported setting up of functional mother-baby care points in the facilities and ensuring that testing is done within the ANC clinic. This led to an improvement in mother-baby pair retention.
- A total of 1,188 infants who were born to HIV-positive women in cohort May to September 2015 received a virological HIV test with 1.9% positivity rate.
- Option B plus weekly reporting has markedly improved from 24% to 92% reporting.
- Two peer-to-peer learning sessions for improvement teams in 15 collaborative sites were held. The purpose of these learning sessions was to facilitate spread of lessons learnt from the PHFS initiative and enable teams to prioritize areas for performance. Coaching visits to intense and light support sites were held monthly and quarterly, respectively.
- 12 sites are pre-testing the longitudinal ANC register which will be rolled out to other health facilities.

Reduce maternal and newborn morbidity and mortality: ASSIST is working in 20 collaborative sites using high-impact, low-cost, evidence-based interventions: active monitoring of progress of labor, AMTSL, and prompt management of complications such as hemorrhage, prolonged/obstructed labor, pre-eclampsia/ eclampsia, abortion complications, and infection.

- Improved neonatal outcomes at general hospitals in the region (Anaka and Apac hospitals and Dokolo HC IV) by establishing neonatal care rooms/areas within the maternity units with the existing resources and equipment. ASSIST has worked with the facility staff to identify these areas to manage sick newborn babies and premature babies that need special attention and care. We also provided protocols, guidelines, and job aids for maternal and neonatal care in the facilities.
- Improved maternal outcomes with reduction in postpartum hemorrhage through onsite coaching/ mentorship on AMTSL and provision of oxytocic drugs to all mothers within one minute of delivery. This was possible by finding alternative methods of storing oxytocin in units that didn't have refrigerators.
- Improved partograph use among the collaborative sites (from 31% in Feb – 55% in August 2015) has led to better and earlier recognition and prompt management of obstetric complications. Obstructed labor cases have reduced from 6% in Feb. 2015 to 3.1% in August 2015, and use of AMTSL has increased from 55% in Feb to 94% in Aug 2015.
- Improved maternal outcomes with functional theaters at three health centers in the region (Ogur, Amach, and Lalogi HC IV). The final inspection of the two theatres was done and are now ready for use. Staff from these facilities have been re-oriented at Lira Regional Referral Hospital to enhance their skills and knowledge needed to functionalize the theatres.

Increase access to FP services: ASSIST carried out a situational assessment in 23 sites of nine districts to determine the scale of FP services provided in Northern Uganda. The assessment showed that these sites provide the whole range of modern FP methods, however none of the sites offered integrated FP services at the different entry points (PNC/YCC, Maternity ward, Gynecology ward, mother-baby care points, and HIV clinics). In addition, less than 20% of the staff in these facilities had received a refresher FP training in the past one year. ASSIST plans to support facilities to integrate FP services at the five different entry points mentioned above.

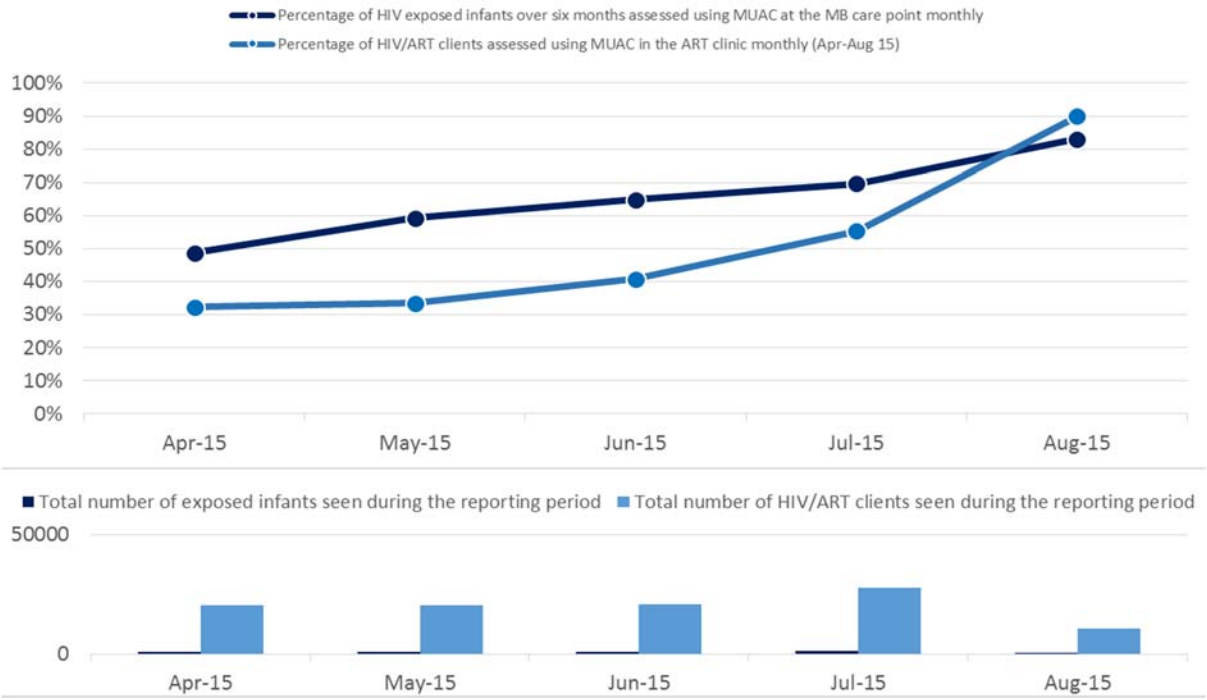
Improve the nutrition status of people infected with and affected by HIV: ASSIST is supporting NACS in selected health facilities in Northern Uganda.

- ASSIST has established 11 nutrition collaborative sites.
- ASSIST has conducted a series of coaching and mentorships whereby regional and district coaches visit health facilities on a monthly basis. Between July and October 2015, a total of 417 health workers received on-job training on how to provide NACS during the monthly coaching visits.
- ASSIST facilitated three peer-to-peer learning sessions amongst sites teams, and these were attended by 42 health workers and 20 district nutrition focal persons.
- Technical support was provided to USAID/PIN-supported sites to build capacity of health workers in integrated management of acute malnutrition. In September 2015, coaching and mentorship

focusing on integrated management of acute malnutrition (IMAM) was conducted in seven health facilities that receive RUTF from PIN with support from USAID, reaching 35 health workers.

- Services provided: Nutrition assessment using MUAC is taking place at key contact points mainly ANC clinic, ART clinic, and EID care points since April 2015. Between April and September 2015, 47,190 pregnant women received nutrition assessment; 64,851 PLHIV received nutrition assessment in the ART clinics, and 3,757 children received nutrition assessment at the mother-baby care points in 36 health facilities. Clients who are identified through routine nutrition assessment as having severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) with HIV/TB receive RUTF for treatment of malnutrition. A total of 2,567 malnourished clients in 36 health facilities have received treatment for malnutrition between April and September 2015. Nutrition counseling on both maternal and infant and young child feeding is done and recorded in integrated nutrition registers. During August –September 2015, 3,125 mothers in 18 health facilities received maternal nutrition counselling, and 2476 received infant and young child feeding counseling.
- **Figure 111** shows how as a result of the above interventions health workers are increasingly assessing HIV-exposed infants using MUAC as well as HIV/ART clients.

Figure 111: Uganda | Percentage of HIV-exposed infants over six months and HIV/ART clients assessed using MUAC in 34 sites in Northern Uganda (Apr – Aug 2015)



Improve the quality of SMC services: ASSIST supports districts to initiate, coordinate, and spread SMC QI activities to all sites providing these services.

- SMC coaching visits to 20 health facilities were conducted to support site-level SMC QI teams to address quality gaps and develop improvement projects. Twenty-six district-based SMC QI coaches were also trained to support sites providing the service in their respective districts.
- To improve compliance to the minimum standards of SMC as prescribed in the SMC quality standards, ASSIST provided copies of relevant policy guidelines and reference documents (SMC policy, patients' charter, health sector quality improvement framework and strategic plan, the national safe male circumcision health care waste guideline, toolkit for VMMC health care waste, emergency response protocols for SMC, adverse event guidelines for SMC, SMC for HIV prevention communication strategy and client feedback assessment forms).

Improve laboratory services: ASSIST has built the capacity of hubs and provides on-site technical

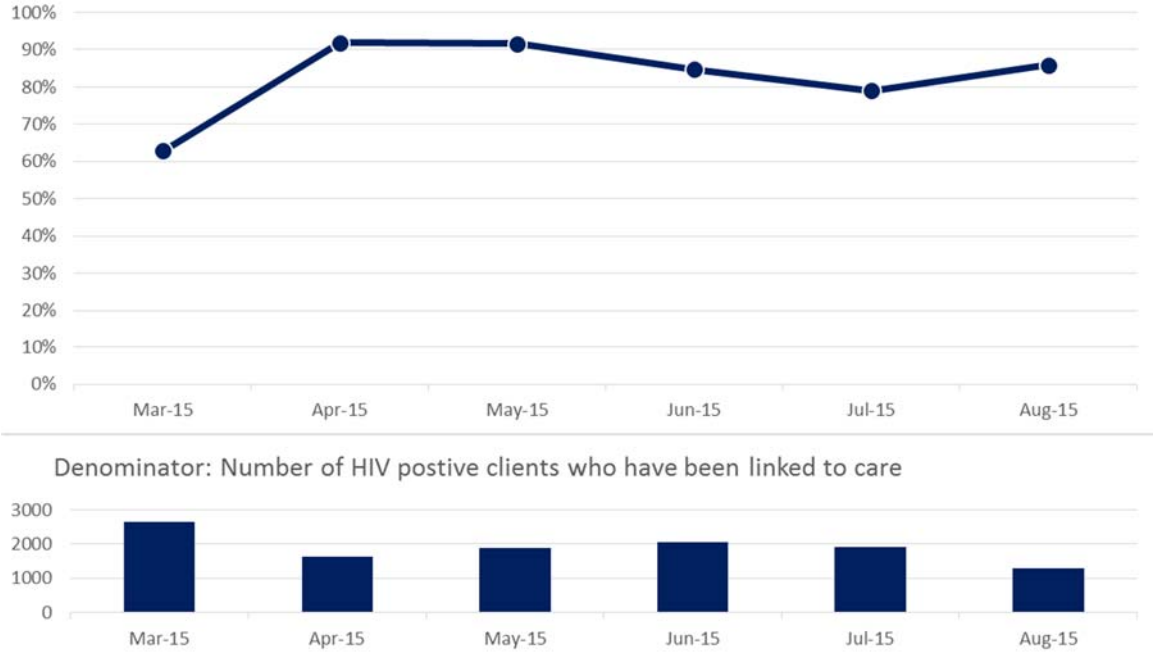
assistance to improve the quality of laboratory services provided at the lower level laboratories in accordance with the national standards.

- A total of 11 hubs (6 established and 5 designated) have been provided with targeted training on use of high output equipment, mentorship based on Strengthening Laboratory Management towards Accreditation (SLAMTA) approaches, and collaborative-based coaching.
- High output FACs count CD4 machines were installed and are in use at 4 of 5 (75%) established hubs. The percentage of hub-supported health facilities whose samples were run at the hub laboratories increased from 43% in April to 54% in August 2015.
- The project improved lab function through training in CD4 testing using the FACs count CD4 machine for four established hubs: in all 445 health frontline workers from 15 districts were trained on viral load DBS sample collection and packaging in collaboration with MoH – Central Public Health Laboratories (CPHL). This has translated to improved assessment and monitoring of PLHIV: 8,817 viral load samples have been collected for PLHIV on ART out of a targeted 7,722 as of early September 2015.
- Increase in CD4 tests done from 376 in March to 1944 in July 2015 across 35 intense support sites supported by the six established hubs.
- Laboratories in the region need accreditation, therefore two regional SLAMTA mentors and 23 laboratory personnel from the 11 collaborative sites participated in SLAMTA training in collaboration with MOH – CPHL to improve the functionality and quality of tests. They have so far conducted two follow-on SLAMTA mentorship visits to 11 hubs.

Improve community services: ASSIST conducted collaborative community-based coaching and learning sessions to improve enrollment and retention of PLHIV into care and treatment as well as to increase access to prevention and curative services through improved client/patient knowledge.

- A total of 10 community collaborative sites were established with functional QI teams.
- Two targeted coaching visits to the community collaborative sites were conducted, and one community collaborative learning session was held.
- There has been an increase in mother-baby pair retention. A case in point is Mucwini HCIII's story. At Mucwini HCIII, the community QI team observed that there was high number of lost mother-baby pairs. They agreed to serially test the following changes: 1) generate of a list of lost mother-baby pairs for follow-up by linkage facilitators; 2) issue all reached mother-baby pairs new appointment dates; and 3) document all follow-up outcomes. In July 2015, 23 mother-baby pairs expected to be in care were lost after routinely generating a list of mother-baby pairs for follow-up by the linkage facilitators; as agreed, these were duly followed up through home visits. Eleven mother-baby pairs returned to care at the facility, yielding a 48% return-to-care rate after follow-up for the month of July. For those mother-baby pairs that did not return, two HIV-exposed infants were found dead, four mother-baby pairs had moved homes, and six didn't return despite follow-up, allowing the facility to account for each pair.
- **Results**: Improved linkage of HIV-positives into care (63% in March to 86% in August 2015) (**Figure 112**), and higher retention of PLHIV on ART, rising from 84% (March 2015) to 86% (June 2015).

Figure 112: Uganda | Percentage of PLHIV linked to care in 137 sites in Northern Uganda (Mar – Aug 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
Northern Uganda Program	% of pregnant mothers assessed using MUAC in ANC	64% (Apr 2015) 31 sites	87% (Aug 2015) 10 sites	23
	% of clients assessed in ART clinic using MUAC	32% (Apr 2015) 31 sites	89% (Aug 2015) 10 sites	57
	% of HEI above 6 months assessed using MUAC	48.7% (Apr 2015) 31 sites	83% (Aug 2015) 10 sites	34.3
	Partograph use	31% (Feb 2015) 18 sites	69% (Aug 2015) 20 sites	38
	% of newborns successfully resuscitated	63% (Feb 2015) 19 sites	86% (Aug 2015) 20 sites	23
	% of newborn cases that get ENC package	57% (Feb 2015) 18 sites	82% (Aug 2015) 20 sites	25
	% of mother-baby pairs retained in care	36% (Mar 2015) 30 sites	76% (Aug 2015) 22 sites	40
	% of TB clients with accurate and complete data in the TB register	0% (Mar 2015) 5 sites	73% (Aug 2015) 5 sites	73
	% of pulmonary TB cases provided follow-up sputum test at 2 months	56% (Mar 2015) 5 sites	80% (Aug 2015) 5 sites	24

Activity 12. SMGL Program in Northern Uganda

KEY ACCOMPLISHMENTS AND RESULTS

Ensuring quality of maternal, neonatal, and child health content: Conducted monthly onsite technical and quality improvement coaching visits using a team of regional mentors and coaches (gynecologists, pediatricians, improvement coaches and district health team representatives).

- Two regional mentorship teams from the regional referral hospitals of Gulu and Lira and consultants from Gulu University and Lira University have been set up and are supported by USAID ASSIST to conduct monthly mentorships in their catchment area (districts and health facilities).
- Forty district-based coaches in the six districts were trained and engaged in monthly coaching visits to build their coaching skills and act as spread agents during the scale-up phase.
- Five onsite mentorship visits were conducted to address knowledge and skill gaps in maternal and newborn care services, focusing on clean and safe deliveries, active labor monitoring, active management of third stage of labor, routine screening and management of pre-eclampsia, resuscitation of asphyxiated babies, provision of an essential newborn care package, and preterm care.
- Established three Neonatal Intensive Care Units (NICUs) in Lira and Gulu Regional Referral Hospitals (RRHs) and Lacor Hospital to address skills gaps through onsite mentorship visits. In addition, supported the establishment of four additional NICUs at Anaka Hospital, Apac Hospital, PAG HCIV and Kwera HCIII.
- Organized a placement for two theatre teams of Ogur and Amach HCIVs of Lira District consisting of a medical officer, midwife, anesthetist, theatre nurse, theatre assistant, and theatre cleaners from each facility to Lira RRH lasting five days. This was aimed at freshening their surgical skills and theatre standard operating procedures.

Improving processes of MNCH service provision: Improvement teams at the 20 sites were supported to adapt changes from SMGL phase I, test, and implement changes through monthly onsite coaching visits.

- Three onsite coaching visits were conducted to address process gaps in maternal and newborn care services in the 20 facilities of the six SMGL northern districts. Focus was put on supporting teams to adapt best practices from SMGL phase I and test additional changes that will lead to improvement in maternal and newborn care processes.
- One peer-to-peer learning session was conducted for 20 SMGL facilities to share best practices and spread learning among participating teams.
- ASSIST supported the distribution of maternal and perinatal death audit books from MOH to 10 health facilities of SMGL northern districts and supported the improvement teams in the 20 supported health facilities to conduct maternal and perinatal death reviews. USAID ASSIST provided technical support to the district MPDR committees of Apac and Gulu districts.

Ensuring an effective health system support structure: ASSIST established QI structures at the health facility levels in line with the national QI framework and strategic plan. Capacity of these structures was strengthened, and they are being used in mentoring and coaching to ensure quality health services are provided and sustained.

- Twenty facility improvement teams have been established in the 20 supported facilities to lead the improvement of maternal and newborn care services. The teams have initiated improvement projects and are monitoring indicators to assess their own performance.
- The six SMGL districts meet monthly to review HMIS and Maternal and Perinatal Death Review (MPDR) reports from facilities and are developing action plans to address identified gaps.
- Functionalizing Health Center IVs: A team consisting of DHO Gulu, Director of Gulu RRH, Gulu RRH theatre team, and the USAID ASSIST team visited Lalogi HCIV, Gulu District, to identify and address factors hindering the functionality of the theatre. During the visit, a roadmap was developed that will lead to initiation of operations at Lalogi HCIV.

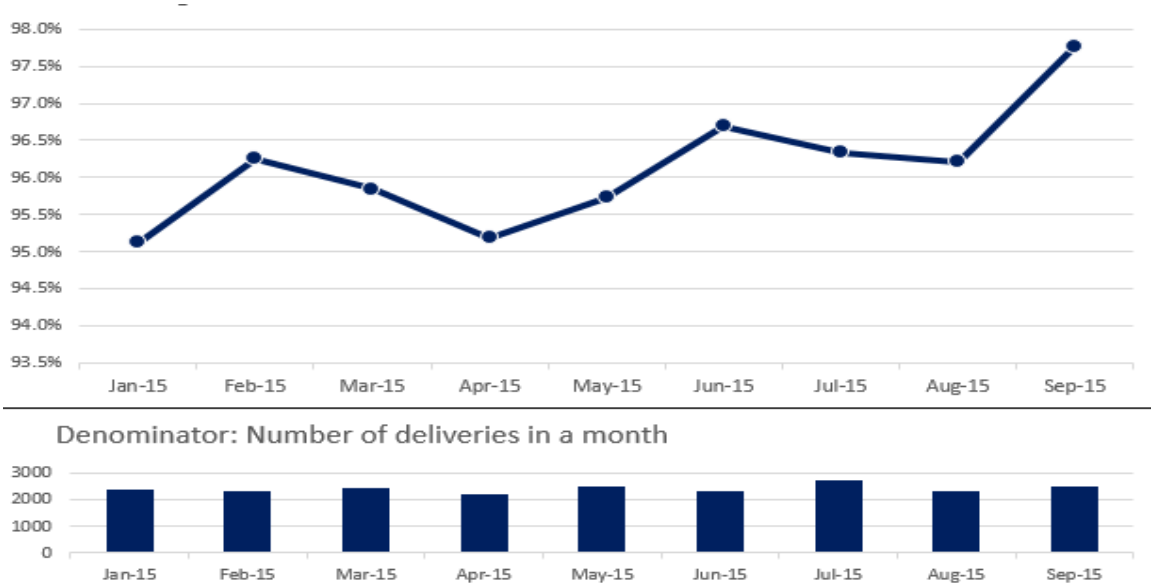
Human performance: Engaged the district and facility leadership of the six districts through joint on-site coaching visits to provide supportive supervision to MNCH staff in health facilities.

- The competences of staff have been strengthened through onsite mentorships to build key skills in maternal, newborn, and child health services.
- Facility teams have been empowered to schedule and conduct continuous professional development sessions to continually build staff knowledge and skills.
- Facility in charges have also been supported to redistribute drugs from other neighboring sites with adequate stocks in case of stock-outs.

Health system gaps and linkages: USAID ASSIST has collaborated with the Child Health and Reproductive Health divisions of the Ministry of Health through sharing reports and participating in technical working groups to provide guidance from the ASSIST-supported MNCH improvement work in the SMGL initiative.

- Nationally, ASSIST has engaged the Reproductive Health Division of the MOH to support the MNCH work in the six SMGL implementing districts of Uganda.
- At the district level, the leadership of the six districts has been engaged through joint onsite coach visits to identify and address system gaps in MNCH services.
- At facility level, ASSIST has strengthened the quality of data collected to track progress and monitor quality of care, including maternal and perinatal death reviews.
- There is a steady increase in the proportion of deliveries resulting in live births in the 23 health facilities from 95% in January to 98% in September (**Figure 113)**. This trend is mainly due to strengthened focus on partograph use in health facilities and on clean and safe delivery practices through onsite mentorships.

Figure 113: Uganda | Percentage of live births delivered in 23 health facilities, 6 SMGL districts, Northern Uganda (Jan – Sept 2015)



- With focus on building skills in neonatal resuscitation, there has been an increase in the proportion of babies born with birth asphyxia who are successfully resuscitated, as shown in **Figure 114.**
- **Figure 115** shows that use of utero-tonic drugs within the 1st minute of birth has increased by 18 fold from an average of 1,716 deliveries in January 2015 to 2,469 deliveries by the end of September 2015.

Figure 114: Uganda | Proportion of newborns not breathing at birth successfully resuscitated, 20 sites, 6 SMGL districts in Northern Uganda (Feb- Aug 2015)

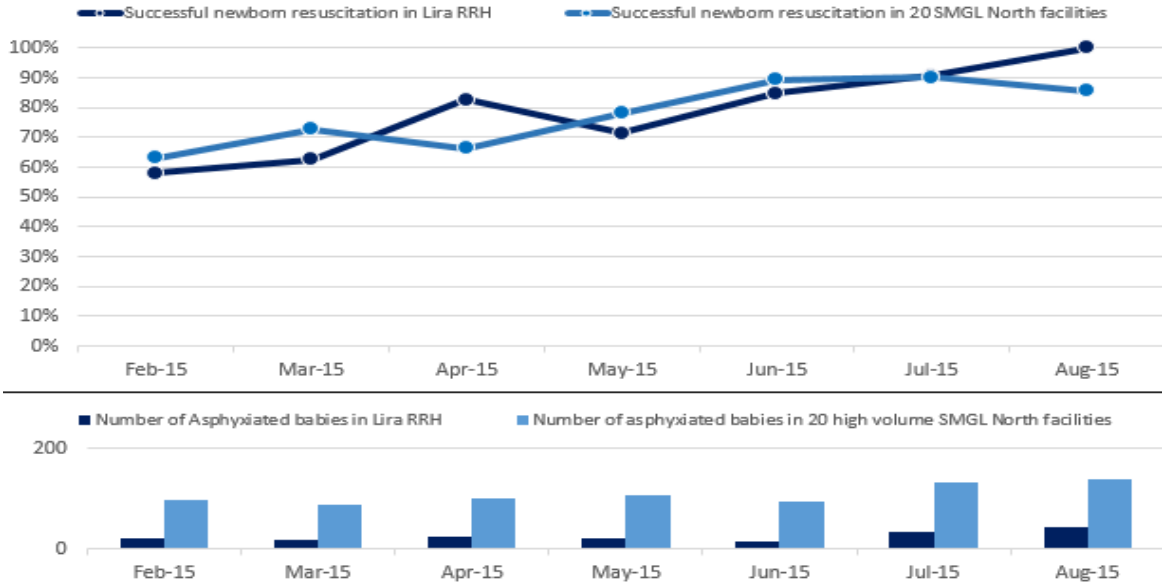
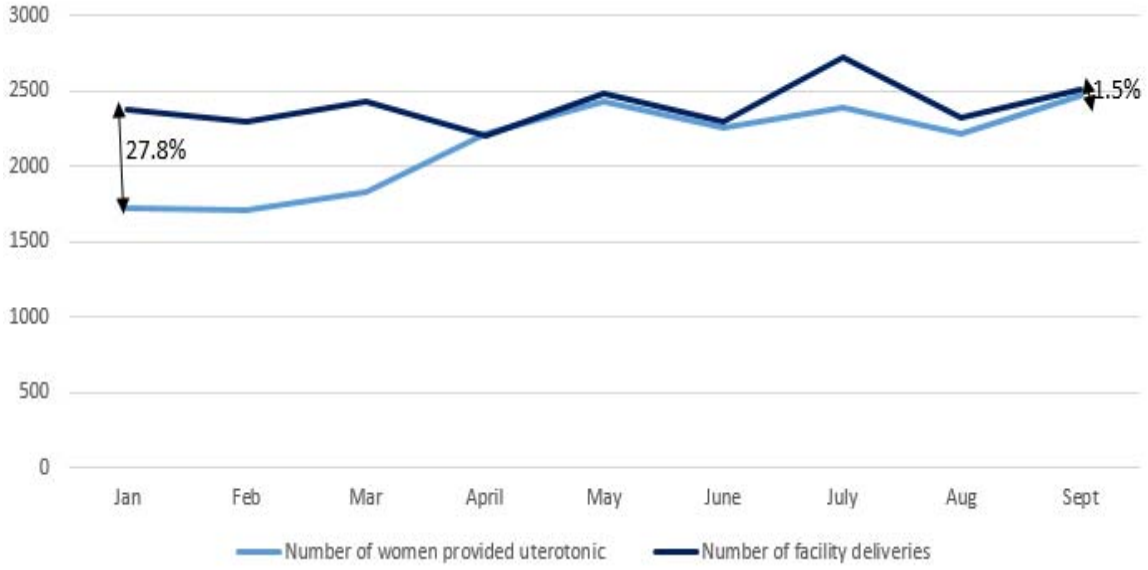


Figure 115: Uganda | Administration of a utero-tonic drug at delivery to prevent PPH, 23 facilities (Jan 2015-Sept 2015)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last value	Change (percentage points)
SMGL North	% application of AMTSL during delivery	56% (Feb 2015) 19 sites	94% (Aug 2015) 20 sites	38
	% use of a partograph for labor monitoring	31% (Feb 2015) 18 sites	69% (Aug 2015) 20 sites	38

Activity	Indicators	Baseline	Last value	Change (percentage points)
	% delivery of a complete package of ENC	57% (Feb 2015) 18 sites	82% (Aug 2015) 20 sites	25
	% successful resuscitation of asphyxiated babies	63% (Feb 2015) 19 sites	86% (Aug 2015) 20 sites	23
	Postpartum hemorrhage rate	0.7% (Feb 2015) 18 sites	1.0% (Aug 2015) 20 sites	0.3
	% of obstructed/prolonged labor cases	6% (Feb 2015) 18 sites	3.2% (Aug 2015) 20 sites	-2.8
	% screening for pre-eclampsia during labor/delivery	30% (Feb 2015) 18 sites	52% (Aug 2015) 18 sites	22

SUSTAINABILITY AND INSTITUTIONALIZATION

ASSIST is supporting the MOH in Uganda to coordinate and institutionalize quality improvement in the health sector. To do this, ASSIST helps to convene national quality improvement (QI) coordination committee meetings to provide a strategy for institutionalizing QI; supports the review, development, and rollout of the national quality improvement framework and strategic plan (QIF&S) (2011-2015); and is working to develop a new QI framework for the MOH. ASSIST is also working with the MOH to develop a national QI performance monitoring plan and indicators and support the development of a national QI training manual and curriculum. At the district level, ASSIST continues to support the MOH by coordinating quarterly mentorship and support supervision visits as well as gathering best practices from the field.

ZAMBIA

BACKGROUND

Building on HCI's project experience supporting nutrition services for HIV clients in Uganda, Kenya, and Malawi, ASSIST is supporting the continued adoption, adaptation, and scale-up of nutrition assessment, counselling, and support (NACS) as a standard of care within the national HIV/AIDS program in Zambia. NACS services seek to improve the health and quality of life for PLHIV, their families, and vulnerable children by improving nutritional status, reducing household food insecurity among families and children affected by HIV, and strengthening the integration of nutrition support with health systems at the clinic and community levels. ASSIST's work in Zambia, which began in September 2014 after transitioning from HCI, is being conducted in collaboration with two other centrally funded projects in Zambia – Livelihoods and Food Security Technical Assistance II Project (LIFT II) and Food and Nutrition Technical Assistance III Project (FANTA III).

Scale of USAID ASSIST's Work in Zambia

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Integrate nutrition services into HIV clinics to improve nutritional status of HIV clients	
Improve management and nutritional status of malnourished PLHIV	Integrate NACS in 13 selected facilities in Kitwe and Mkushi districts; spread to 26 remaining sites in Kitwe/Mkushi by May 2016

Improvement Activity

Activity 1. Integrate nutrition services into HIV clinics to improve nutritional status of HIV clients

OVERVIEW

ASSIST supports NACS implementation and scale-up by applying QI techniques to strengthen health systems that deliver nutrition services for people living with HIV/AIDS (PLHIV). Through delivery of NACS services, ASSIST aims to get all HIV infected patients assessed and categorized for malnutrition and referred to services that provide therapeutic or supplementary foods, with the ultimate goal of managing and reducing malnutrition among PLHIV.

KEY ACCOMPLISHMENTS AND RESULTS

- **Provided support for coaching visits in eight health facilities** (Oct 2014 – Sept 2015)**.** To improve the assessment and categorization of PLHIV, ASSIST continued to provide coaching to ensure that the standard package of care for all PLHIV clients (including HIV care and support, nutrition assessment, and an appointment for the next visit) is being implemented at all eight health facilities.
- **Held second and third learning session** (Dec 3-4 2014 and Apr 14-15, 2015). The session was facilitated by Ms. Linley Hauya, Nutrition Advisor for ASSIST Malawi, and Mr. Robert Musopole, Resident Advisor for ASSIST Zambia. The objectives were to review improvement plans on assessment and categorization and to promote peer-to-peer learning on what worked and what did not work. The facility teams also developed action plans for their sites.

- **ASSIST gender specialist Elizabeth Silva of WI-HER LLC traveled to Zambia to provide gender technical support to the NACS work** (Mar 2015)**.** Activities conducted by the gender specialist and ASSIST's Resident Advisor in Zambia, Robert Musopole, included:
  - TA in sex-disaggregated data collection and analysis
  - Conduct a gender integration in improvement workshop at Copperbelt University
  - Meeting with FANTA and LIFT representatives to brief them on ASSIST's gender integration approach and the importance of integrating gender into NACS activities
  - Providing guidance to FHI 360 Social and Behavior Change Advisor Mary Packard to integrate gender into a two-day FHI 360 workshop that took place the week of March 23
  - Meeting with ASSIST partner Thrive's Chief of Party (COP) Rick Henning to brief him on gender issues in NACS and ASSIST's innovative gender approach and to discuss how ASSIST and Thrive can collaborate to improve NACS services for women, men, girls and boys.
- **Held the QI orientation for Mkushi** (Aug 30 – Sept 5, 2015). This was a joint orientation for NACS, referral systems, and QI. The orientation was facilitated by officials from the MOH, Earnest Muyunda, Project Manager for FANTA III, Joackim Kasonde, Technical Specialist/Country Coordinator for LIFT II and Robert Musopole, Resident Advisor for ASSIST Zambia. The objectives were to empower health care workers with skills in NACS, referral /linkage systems and QI. The facility teams also developed action plans for their sites.
- **Figure 116** shows the increase in percentage of HIV clients seen, assessed and categorized from June 2014 to September 2015 in eight sites as well as the Mulenga health center and the key changes that were implemented to yield improvement. **Figure 117** shows that the number of HIV clients who have severe or moderate acute malnutrition (new cases) in the eight sites has declined from August 2014 to September 2015 in proportion to those that have been assessed. **Figure 118** shows a reduction in clients who have moderate or acute severe malnutrition in eight sites in Kitwe.

Figure 116: Zambia | Percentage of clients assessed and categorized for nutrition status, 8 sites and Mulenga health center, Kitwe District (June 2014 – Sept 2015)

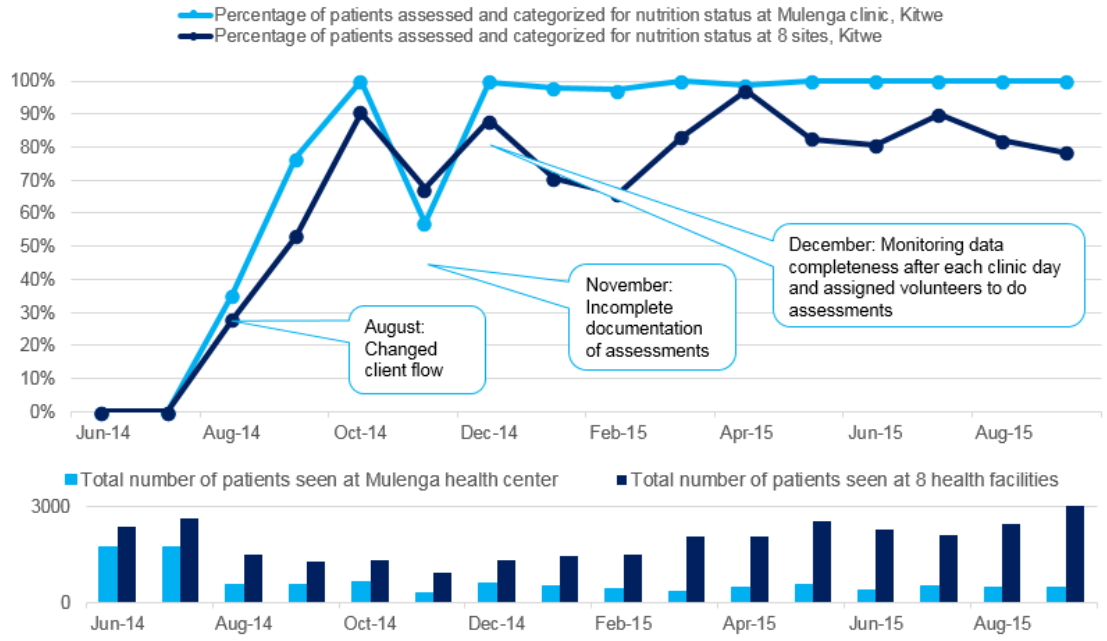
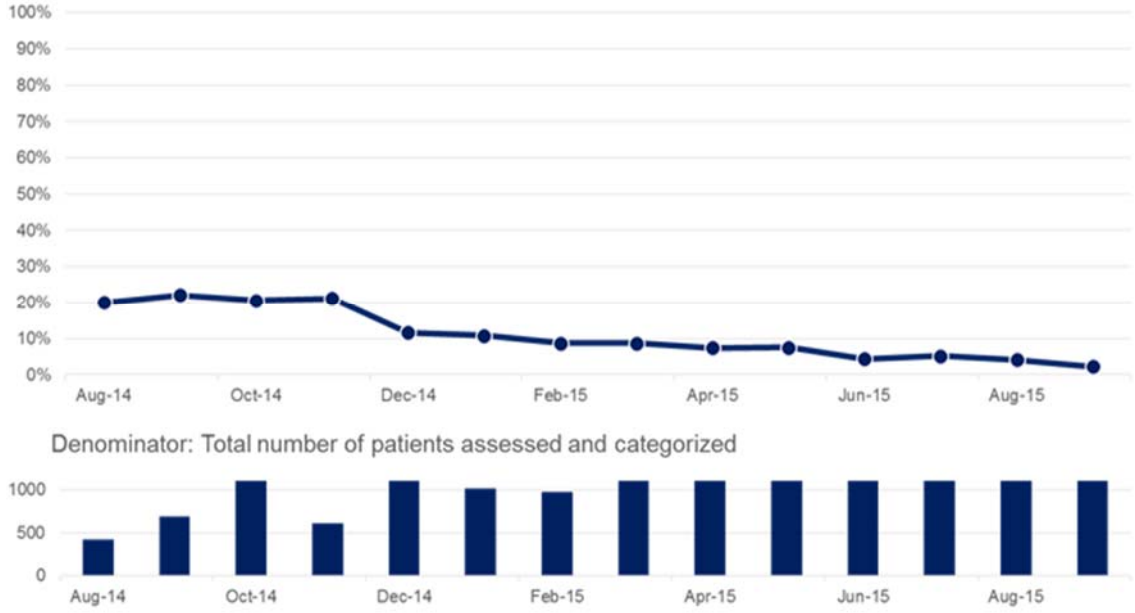


Figure 117: Zambia | Number of clients who have severe or moderate acute malnutrition (SAM or MAM), 8 sites, Kitwe District (July 2014– Sept 2015)

Figure 118: Zambia | Percentage of patients assessed for nutritional status who have moderate or severe acute malnutrition, 8 sites, Kitwe



IMPROVEMENT IN KEY INDICATORS

We are currently working in the 13 sites from Kitwe and Mkushi districts. The results below are from eight sites in Kitwe.

Activity	Indicator	Facility	Baseline (June 2014)	Last Value (Sept 2015)	Change (percentage points)
Improve management and nutritional status of	% of patients assessed and categorized for nutrition status.	Kamitondo	0% (0 out of 316)	86% (285 out of 330)	86
		Ipusukilo	0% (0 out of 134)	100% (195 out of 195)	100
		Tinna Medical Center	0% (0 out of 72)	82% (62 out of 76)	82

Activity	Indicator	Facility	Baseline (June 2014)	Last Value (Sept 2015)	Change (percentage points)
malnourished PLHIV	Denominator: Total # of patients seen at the facility during the reporting period.	Kawama Clinic	0% (0 out 207) (Feb 2015)	72% (576 out of 803)	72
		Mindolo I Clinic	0% (0 out 35) (Feb 2015)	59% (531 out 902)	59
		Copperbelt University Clinic	0% (0 out of 81))	100% (59 out of 59)	100
		Mulenga	0% (0 out of 1,716)	100% (470 out of 470)	100
		Kamfinsa	0% (0 out of 120)	96% (202 out of 207)	96

- **Preliminary gender issues were identified during the March 2015 TA visit:**
  - Health-seeking behaviors of males make them less likely to access services, but they experience improved nutrition substantially quicker than women once in treatment due to food allocation within families.
  - Women can be more likely to share food supplements with family members.

  These findings were derived from the sex-disaggregated data analysis done and the follow-up interviews with the health care workers and volunteers.

  ASSIST will continue to collect and analyze sex-disaggregated data where feasible and appropriate to identify gaps in how males and females access and benefit from nutrition services, to identify differences in the rates of malnutrition among males and females, and to respond appropriately towards improving nutrition and health outcomes.

SUSTAINABILITY AND INSTITUTIONALIZATION

The starting point for the quality improvement model is for the facility teams to define the problems in their work and develop solutions that would improve services to patients. This model by design strengthens staff capabilities and system capacity to continuously improve, thereby increasing sustainability of improvement work. The role of the MOH's national and district coaches will be to continuously provide support to facility teams via monthly coaching visits. ASSIST will strengthen the capacity of these coaches to be able to plan and conduct visits to support the teams using the available government resources.

ASSIST conducts all its work in partnership and collaboration with the ministry of health (MOH). Working with the MOH and partners, ASSIST will work on a process to include nutrition indicators into the data system, which will be managed by the MOH. ASSIST is working with the MOH to enhance the reporting structure and use of data from the system.

ASIA

CAMBODIA

BACKGROUND

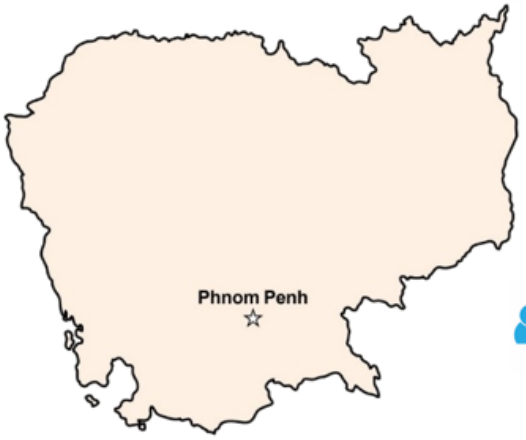
In the health system of Cambodia, five health professions are regulated by independent councils established by Royal Decree between 2000 and 2010. This legislation and other related legislative instruments, Sub-decrees and Prakas currently provide the framework for the establishment and delivery of health professional regulation in Cambodia. The five councils are the Medical Council of Cambodia (MCC); Dental Council of Cambodia (DCC); Cambodian Midwives Council (CMC); Cambodia Council of Nurses (CCN); and the Pharmacy Council of Cambodia (PCC). Together with the Ministry of Health (MOH) Human Resource Development Department (HRDD), they seek to ensure that health professionals meet minimum standards for qualification; fitness to practice (health and professional conduct); and competence to provide safe, ethical and effective care.

In February 2014, ASSIST was requested by the USAID Mission Cambodia to provide TA to strengthen the regulation of the medical profession in Cambodia. This requested activity scope was subsequently broadened in consultation with the USAID Mission Cambodia and key stakeholders to holistically strengthen the system of regulation for all five health professions. Broadening the scope of this project allows ASSIST to contribute to building the capacity of Cambodia's health care system to improve the effectiveness, efficiency, client-centeredness, safety, accessibility, and equity of the health care services provided.

The principles underpinning this ASSIST activity include co-design; on-going development of the activity; enabling improvements rather than implementing them; and encouraging systems and processes to better utilize and/or mobilize available resources within the system. It is anticipated that these principles will:

- Strengthen stakeholder ownership and capacity to develop, test, lead and implement sustainable solutions
- Harness Cambodian expertise and draw from lessons learned
- Connect stakeholders with the best international technical expertise
- Support the development of relationships and collaboration with regulatory peers regionally and globally

Scale of USAID ASSIST's Work in Cambodia



All health profession Councils:

Medical (Est. 2000); Dental (Est. 2005); Midwives (Est. 2006); Nurses (Est. 2008); & Pharmacy (Est. 2010)

Population of Cambodia: 15,707,673

Number and percentage of health professionals registered* by Council as at Dec. 31, 2014

**primarily public health sector only*

Council	Number of registered health professionals	Percentage of estimated total number
MCC	2498	41.63%
DCC	610	Not known
CMC	4695	86.83%
CCN	6424	43.00%
PCC	1821	86.43%
TOTAL	16,048	

Estimated total number of health professionals (public & private sectors): 20,000+

PROGRAM OVERVIEW

Program Goal: - Strengthening the system of health profession regulation in Cambodia

What are we trying to accomplish?	At what scale?
1. Create a national five-year strategic plan to strengthen health profession regulation	
• Strengthen the system of health profession regulation for all five health profession councils through a shared 2015-2020 strategic plan • Inform the FY15 ASSIST activity design	Focus on all health professions and the public at all levels - national; regional; and provincial (25 provinces in Cambodia)
2. Establish and implement a plan of action for the councils' three priority strategic objectives	

What are we trying to accomplish?	At what scale?
Establish and implement a plan of action for the strategies of three of the councils' strategic goals*: • **Strategic Goal #1: Organizational Redesign** • **Strategic Goal #2: Legislative Review and Reform** • **Strategic Goal #3: Registration**	Focus on all five health profession councils at national, regional and provincial levels

**Health Profession Councils National Strategic Plan 2015-2020 (June 8, 2015)*

Cross-cutting Activity

Activity 1. Create national five-year strategic plan for health profession regulation

OVERVIEW

The creation of a shared five-year national Strategic Plan 2015-2020 for all five health profession councils, in partnership with the MOH, is intended to guide the implementation and evaluation of priority improvements for health profession regulation in Cambodia. This Strategic Plan determines the required strategic objectives with associated strategies and timeframes to improve the councils' regulatory performance in assuring safety and quality and to address the following areas:

1. Legislation (advocacy and responsiveness)
2. Organizational (and internal governance)
3. Public Accountability (and external governance)
4. Responsibilities and Functions

The Strategic Plan provides for a shared understanding between the councils, the Ministry of Health HRDD, and key stakeholders of the key priorities required to strengthen health profession regulation in Cambodia, informs the ASSIST activity design for FY 2015 and beyond, and facilitates the opportunity for health development partners to understand the approach and contribute to strengthening the system of health profession regulation that meets the needs of Cambodia.

KEY ACCOMPLISHMENTS AND RESULTS

- **A two-day, interactive National Consultation Workshop** on October 13-14, 2014 with approximately 165 participants from Phnom Penh and the provinces presented the findings of the rapid baseline assessment along with international experiences and Cambodian stakeholder perspectives to facilitate stakeholders' understanding of the regulatory issues and the regulatory situation in Cambodia, and develop the strategy content.
- **A meeting hosted by the Office of the WHO Representative in Cambodia and the councils with health development partners** on October 21, 2014 provided the opportunity to share the outcomes of the National Consultation Workshop; the councils' progress to date in developing a shared national strategic plan; health development partners current role and activities and to discuss with health development partners on the suggested next steps for strengthening health profession regulation in Cambodia.
- **Unanimous agreement by the five health profession councils** in December 2014 to commit to a partnership with a strong, single voice to promote and collaboratively strengthen the system of health profession regulation by all councils in Cambodia.
- **Official launch of the *Health Profession Councils' National Strategic Plan 2015-2020*** (June 8, 2015) by the Minister for Health, His Excellency Mam Bun Heng. This was attended by 165 participants from Phnom Penh and the provinces with distribution of the *Councils' National Strategic Plan 2015-2020* in both Khmer and English.

Activity 2. Establish and implement a plan of action for the councils' three priority strategic objectives

OVERVIEW

The establishment and implementation of a detailed action plan for each of the councils' three priority strategic objectives for FY15 provided the mechanism by which technical assistance is provided for

the various health profession regulatory system reforms required that are effective, efficient, and sustainable. Councils are able to share these action plans with the Royal Government of Cambodia, all health development partners, and stakeholders to obtain the required support and assistance to achieve the desired outcomes.

KEY ACCOMPLISHMENTS AND RESULTS

Strategic Goal #1: Organizational Redesign: Review and redesign the health profession councils' governance arrangements and organizational structure with sound financial modelling to deliver the five councils' regulatory systems and processes over a three to five-year timeframe.

ASSIST is providing technical advice and guidance to the health profession councils, in partnership with the Ministry of Health, to develop a comprehensive business plan. The Business Plan will provide clear financial requirements and identify potential sources for funds to establish a shared office and employ sufficient number and quality of staff to deliver efficient and effective business and regulatory systems and processes for the five health profession councils during the next three years. The ultimate aim is for the councils to be self-funding within five years.

- **ASSIST partner, Encompass LLC was contracted in May 2015 to develop a business plan that includes the financial arrangements required to support a shared secretariat for all five councils.** In July 2015, Encompass LLC consultant Anne Rooney travelled to Phnom Penh to meet with representatives from all five councils, the MOH, and other key stakeholders to gather baseline information to inform the development of the business plan and the business case. A structured questionnaire was used to interview the five councils to inform the organizational re-design and financial arrangements. Representatives from the MOH and other key stakeholders including the USAID Mission Cambodia, Office of the WHO Representative in Cambodia, the United Nations Population Fund (UNFPA), and the University of Health Sciences were also interviewed.
- **A one-day retreat with representatives from all five health profession councils was conducted by Anne Rooney to present the preliminary findings of her interviews to the councils and obtain consensus on the strengths and issues that need to be addressed in the proposed business plan** (Aug 5, 2015). The preliminary findings showed that the councils were supportive of a shared secretariat for the administrative and business functions and where appropriate, regulatory functions. They supported the need to maintain the independence of each council in relation to profession specific regulation matters. In addition, a sound financial system with accountability and regular reporting was identified as an important foundation for the councils' future viability. It was recognized that without a robust financial accounting system for all councils, the opportunity to receive external funds from the Royal Government of Cambodia and other sources to establish the councils new secretariat function will be limited.

Strategic Goal #2: Legislative Review and Reform. Review of the existing laws and preparation of amendments or development of a new law for all health profession councils over a two-year period; FY15 - FY16.

- **ASSIST developed an options paper for the councils and the MOH and select stakeholders to consider and determine the extent of legislative reform that is required to effectively regulate the five health professions and meet the needs of Cambodia** (April 2015).
- **The Japan International Cooperation Agency (JICA), in partnership with the MOH Human Resource Development Department secured the Minister for Health's support to immediately draft new legislation to address the absence of health practitioner licensure and the necessary enforcements.** The urgent need to develop this new Law on *Regulation of Health Practitioners* was to enable the outcomes of a five-year JICA/HRDD project to be implemented for the nursing and midwifery professions and was subsequently expanded to include all five health profession Councils.
- His Excellency Professor Thir Kruy, Secretary of State, informed ASSIST on March 13, 2015 that the MOH had decided to develop a new law on health professionals to ensure the quality of health professionals in public and private sectors. On completion of the five-year JICA/HRDD project in mid-June 2015, the Ministry of Health considered its options with regards completion of

the drafting of the new Law on *Regulation of Health Practitioners.* The Ministry of Health subsequently requested the Office of the WHO Representative in Cambodia to support the completion of the new law.

- ASSIST discontinued its nearly completed negotiations to contract an ASSIST partner, WHO in Geneva, Switzerland for a legal expert in health profession regulatory law. ASSIST focused on providing technical advice to the councils and feedback to the legal team from Sithisak Law Office in Cambodia on the various drafts of the proposed law and participated in six-day all-day consultation forums conducted by JICA/HRDD and WHO/HRDD.
- The drafting of the new *Law on Regulation of Health Practitioners* was completed by the Ministry of Health in consultation with health profession Councils, the Office of the WHO Representative in Cambodia and USAID ASSIST on July 31, 2015. It addressed regulatory gaps relating to the initial and renewal of license to practice, penalties for practicing without having registration and/or license to practice as well as disciplinary sanctions for professional misconduct.
- The content of the proposed law has been finalized following two additional all-day consultation forums in August/September 2015 with representatives from the Council of Jurists. Following a consultation meeting with the Deputy Prime Minister, the draft law will then be first presented to the Council of Ministers for consideration and subsequent passage through the National Assembly to become law.

Strategic Goal #3: Registration. Achievement of full compliance with registration requirements and full awareness amongst stakeholders and health professionals of registration requirements and obligations over a two-year period; FY2015 - FY2016. ASSIST is providing technical assistance to support the five councils in the development and trial of a harmonized system and process for registration of all health professionals that is robust, cost-effective and timely with the target of 100% of health professionals being registered by 30 September 2016. This includes shared policy and procedures; standardized forms; a communications plan and monitoring and evaluation of the outcomes.

- **Representatives were identified from each council to work with ASSIST to map the registration process for each health profession** (April - Aug 2015).
- **The ASSIST team has mapped the registration process for all health profession councils to understand each council's process, the barriers, and opportunities for improvement.** The registration activities are overall behind schedule. This may now be accelerated should additional resources be obtained for staff to be employed by councils to do the essential work of registration. This an important pre-cursor to the new law with the introduction of a mandatory, renewable license to practice that requires the health professional to be registered with the respective council prior to obtaining a license to practice.

SUSTAINABILITY AND INSTITUTIONALIZATION

The reliance on volunteer council members to execute the business and administrative functions and the regulatory functions in accordance with the existing law; the lack of adequate staff resources for each council; the absence of enforcement within the existing law to ensure mandatory registration of all health professionals; the absence of a renewable license to practice; the three levels for each council (national, regional and provincial); and the absence of establishment funds have severely compromised each council's ability to:

- Secure the necessary funds to establish and sustain operations until registration fees, and in the future license to practice fees, provide a sustainable revenue;
- Develop efficient and effective systems and processes for the business, administrative and regulatory functions.

Discussion with the Deputy Director of Planning and Health Information at the MOH provided considerable insight into processes for strategic, operational, and budgetary planning for health system strengthening within the MOH that may positively impact on the sustainability of a shared regulatory secretariat in the future.

The proposed new law on *Regulation of health practitioners* is an important step forward. It addresses some of the identified gaps and omissions in the existing regulatory law, particularly relating to health

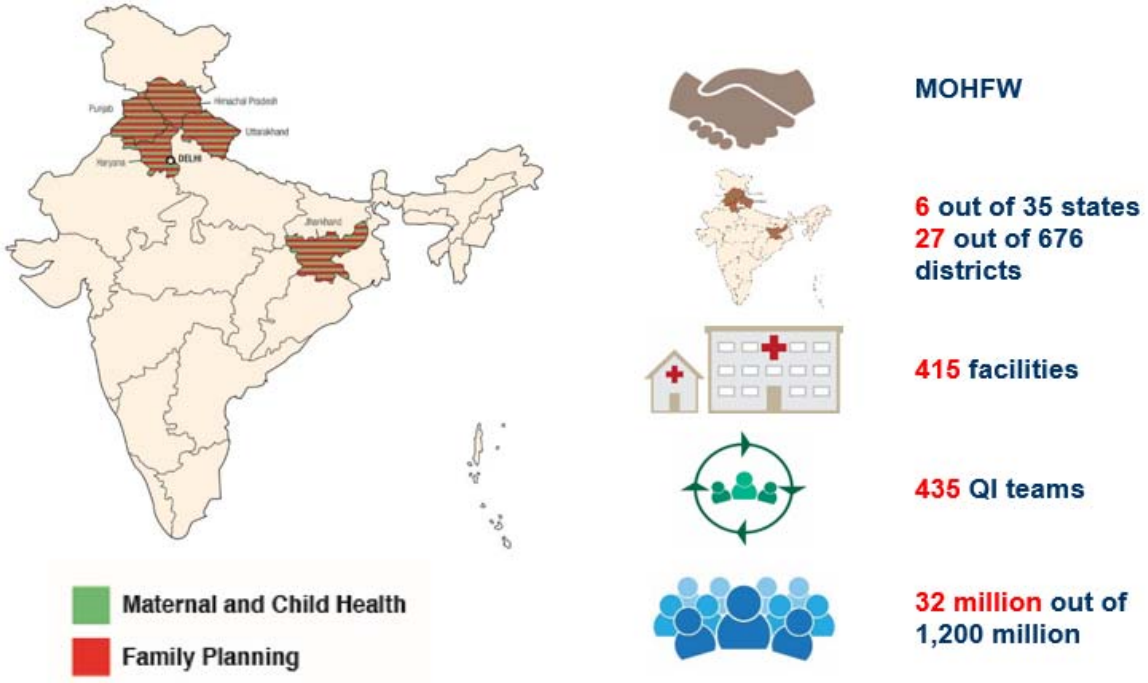
professional registration, licensure and associated penalties; professional standards and scopes of practice; and investigation of complaints relating to health, performance and professional conduct of health professionals with the power for councils to take protective action (health matters) or apply sanctions (performance and conduct matters) on the health professional. However, the proposed new law does not comprehensively address all the challenges identified in ASSIST's review of the current legal instruments for regulating health professions in Cambodia. The existing instruments are missing many rules and controls that would be expected in a modern system for regulating health professions. For example, they do not provide the councils with a mandate to implement standards or assess the standards of pre-service education or provide sustainable governance arrangements for each council that meet the needs of Cambodia. Further work in these areas will be needed in the future.

INDIA

BACKGROUND

USAID ASSIST started working in India in August 2013. The project is working in the six USAID-supported states to build improvement capability by enhancing the commitment and capability of leaders at the national, state and district levels to lead health care improvement. In addition, the project is working to develop the capacity to conduct improvement among health care workers, at national, state, and district levels, in public and private facilities, and at community levels along the continuum of reproductive health, maternal, neonatal, child, and adolescent health (RMNCH+A).

Scale of USAID ASSIST's Work in India



PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Enhance improvement capability in the Indian health system through conducting improvements in the "RMNCH+A" continuum in public and private entities	
• Improve care along the R-MNCH+A continuum in priority USAID districts • Develop the capacity to conduct improvement among healthcare workers at community, facility, district, state and	6 USAID-supported states, all 27 of the USAID-supported districts, and one "block" in each of the selected districts: • Delhi: 2 districts, 2 blocks • Himachal Pradesh (HP): 4 districts, 6 blocks

What are we trying to accomplish?	At what scale?
national levels • Enhance commitment and capability of leaders at the community, facility, district, state and national levels to lead health care improvement	• Punjab: 5 districts, 5 blocks • Uttarakhand: 3 districts, 3 blocks • Jharkhand: 6 districts, 10 blocks • Haryana: 7 districts, 7 blocks Total number of facilities: 435

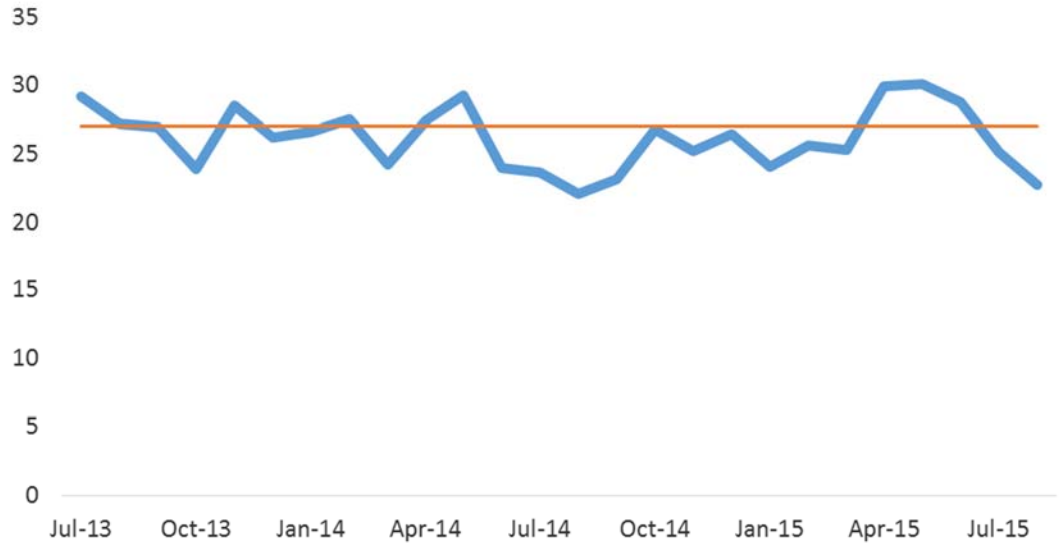
Improvement Activity

Activity 1. Enhance the improvement capability in the Indian health system through conducting improvements in the "R-MNCH+A" continuum in public and private entities

KEY ACCOMPLISHMENTS AND RESULTS

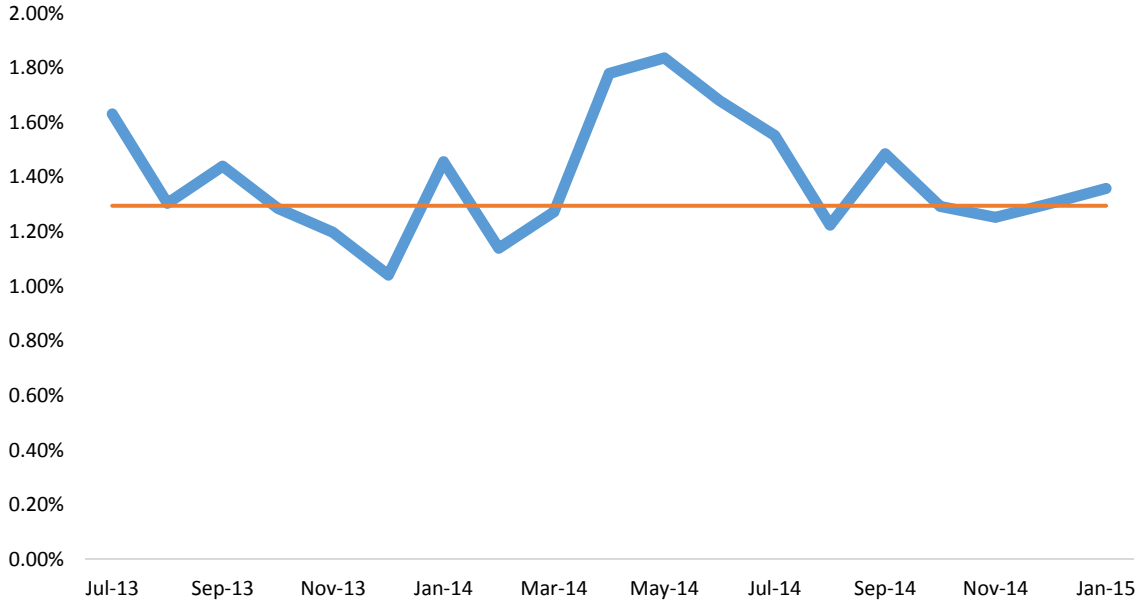
- **Overall perinatal mortality has decreased 5.0% in the intervention period compared to the six-month baseline period before we started the project (Figure 119)** (Q1-4). This is due to a 13.6% reduction in neonatal mortality and a 2.6% reduction in stillbirths. This is the equivalent of 22 deaths being prevented each month. There was an increase in mortality over the baseline median in April to June 2015. We believe that this was partially due to an ambulance strike in one state. It is also possible that there is some seasonal variation in still births and neonatal mortality. This has been reported previously in other countries. We are continuing to analyze these data to better understand the variation.

Figure 119: India | Changes in perinatal mortality in approximately 15,000 deliveries per month in approximately 120 facilities in six states (stillbirths and in-hospital neonatal deaths per 1000 births) (July 2013 – July 2015)



- **In Quarter 2, we examined the stillbirth rate in the districts in Punjab in which we worked and compared the rates in ASSIST-supported sites to sites without ASSIST support.** Reporting of stillbirths and neonatal deaths was 100% concurrent with observed data (five stillbirths and one neonatal death) in 461 deliveries. Anecdotally, we know that there are issues with neonatal deaths being misclassified as stillbirths, which is why our main indicator of interest is perinatal mortality. **(Figure 120).**

Figure 120: India | Percentage of stillbirths in all private and public facilities, 5 districts, Punjab (July 2013 – Jan 2015)

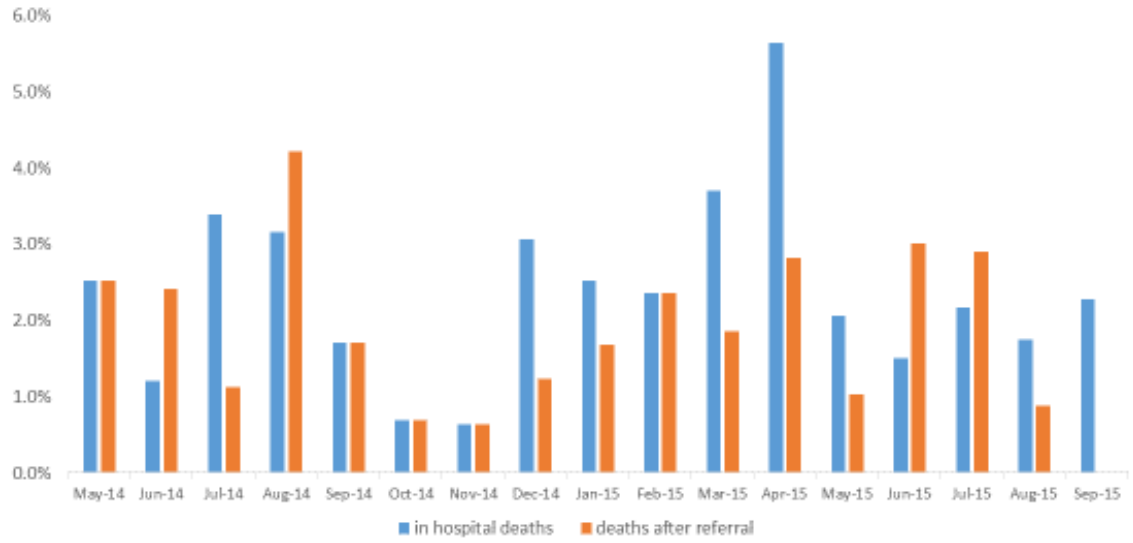


- **In addition to fewer deaths in ASSIST-supported facilites compared to baseline, these facilities are also referring out fewer neonates (Figure 121).** Anecdotally, this is due to staff in these facilities being better able to manage complications.

Figure 121: India | Sick neonates being referred out from all 150 ASSIST-supported facilities delivering babies in India (July 2013 – Aug 2015)

- **ASSIST support is leading to improved survival:** In addition to a reduction in mortality across all ASSIST-supported facilities, we have compelling evidence from individual facilities that ASSIST support has contributed to improved perinatal survival. For example, in Jama Community Health Center in Jharkhand, since the team started working on better identification of danger signs during labor and on improving neonatal resuscitation, they have seen a 24% reduction in perinatal mortality from May 2014 to September 2015. Mortality has decreased from 2.4% for babies who died in the hospital or after referral before the improvement work, to 2.2% of babies who died in the hospital and 1.5% after referral after the improvement work. The bulk of this improvement is due to the facility staff managing prolonged labor and asphyxia better at their facility **(Figure 122).**

Figure 122: India | Perinatal mortality rate at Jama Community Health Center (May 2014 – Sep 2015)



Baseline:
2.4% of babies died in hospital
2.4% of babies died after referral

Intervention:
2.2% of babies died in hospital
1.5% of babies died after referral

- **Scaling up** (Q1-4): Based on the improvements in processes and outcomes and feedback from staff at the facilities supported by USAID ASSIST staff, all districts in which we work have requested support from us to develop strategies to scale up improvement work through their own systems. Five districts have already started providing support to 159 facilities using their own staff as coaches and supervisors instead of ASSIST staff.
- **Illustrative examples of progress in 38 facilities in Chamba District in improving ANC and intrapartum care and in 90 clinics in Jharkhand in improving institutional delivery rates are shown in Figures 123-124.**

Figure 123: **India | Improvements in ANC and intrapartum process measures in 38 facilities supported by government coaches in Chamba District, Himachal Pradesh (June 2014 – Aug 2015)**

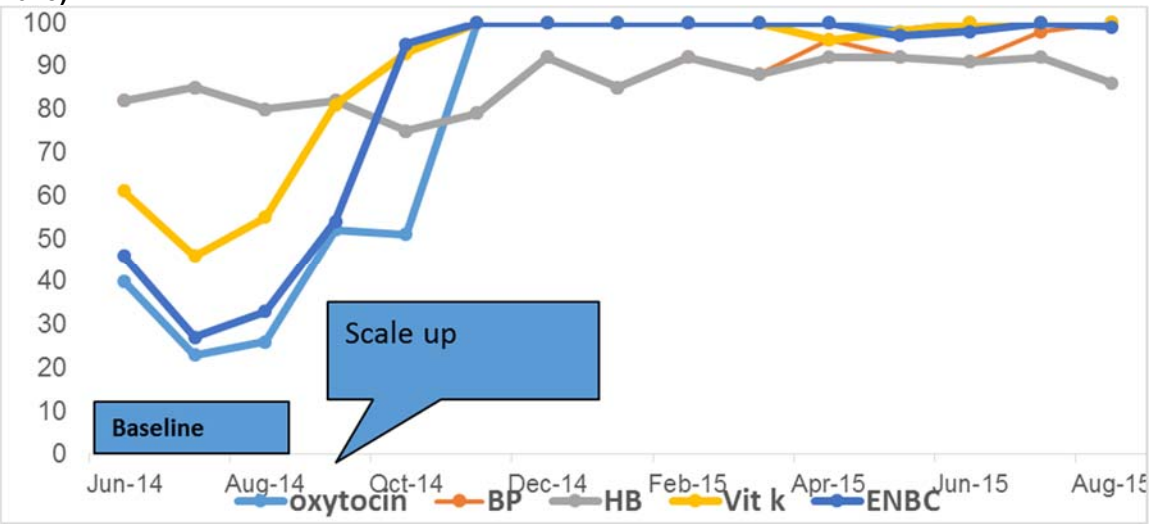
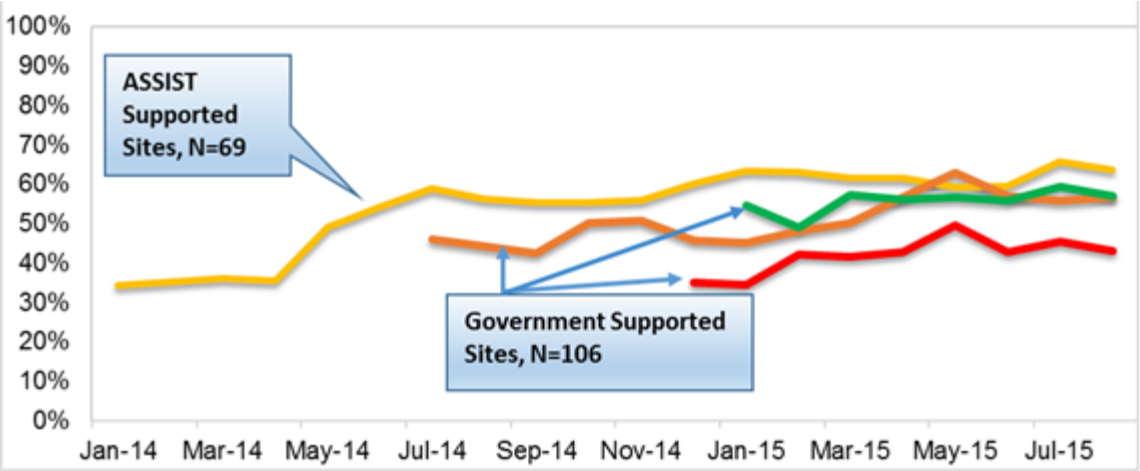


Figure 124: India | Improvements in early ANC registration in 106 clinics supported by government coaches in Jharkhand state compared to 69 clinics with direct ASSIST support (Jan 2014 – July 2015)

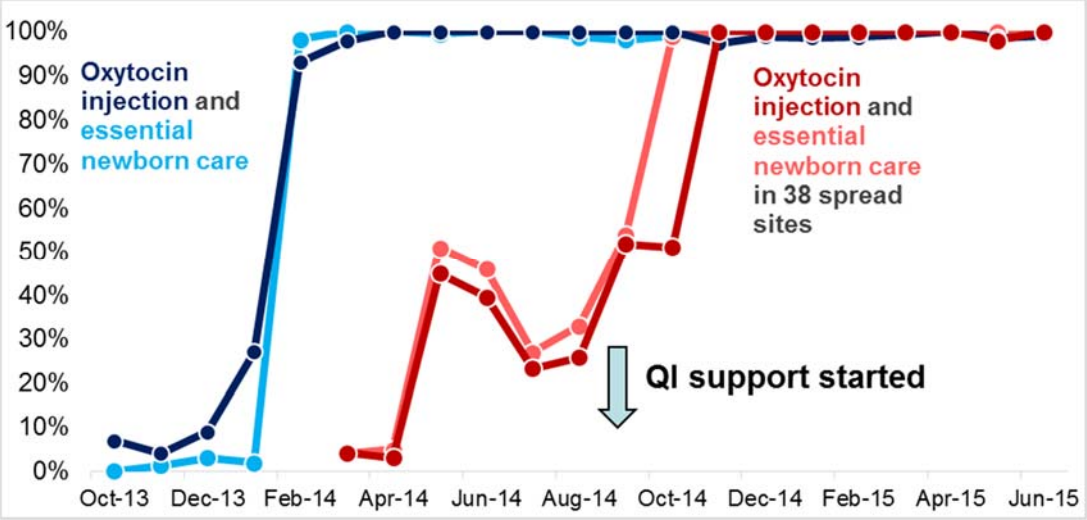


- The pattern of the improvement is also of interest. In Chamba, ASSIST support started in December 2013. By May 2014, the district government saw the results and wanted to scale up the improvement work. Between June to September, ASSIST helped them plan to scale up. During this time the sites that the government was going to scale up to were trained on intrapartum and neonatal care and asked to submit monthly data on process indicators (percentage of women receiving oxytocin within one minute of delivery and percentage of babies receiving essential newborn care). Training and increased monitoring led to moderate non-sustained improvement but it was only when teams started using QI methods that they were able to get good, sustained results. In the words of one of the nurses at one of the scale-up facilities,

  "On instructions of our Senior Medical Officer, we started giving oxytocin to mothers after delivery and vitamin K to newborns. There was a lot of improvement but for some reason, we were unable achieve the high levels of results as in the QI facilities. The SMO was keen to get the ASSIST Project working with us."

- This pattern is reflected in data from the 38 scale-up sites, which showed non-sustained moderate improvement after the facility staff were trained and had increased monitoring, but only when QI was introduced did they get significant improvement **(Figure 125).**

Figure 125: India | Improvements in intrapartum care in 5 clinics supported by ASSIST and 38 clinics supported by government coaches (Oct 13 - Jun 15)



- **Developed country- and state-wide change idea documents** (Q3-4). The change ideas were shared in a series of ten documents that compiled tested changes that showed success in improving maternal and newborn care processes. These change ideas were successfully implemented in a select group of facilities in 27 high priority districts in six states where the ASSIST project was providing technical support to the state governments in improving quality of maternal and newborn health services. The change ideas shared are aligned with Government of India's guidelines for maternal and newborn care.
- **Research studies:** The following research studies were conducted through FY15:
  - Field test of indicators to assess and improve their performance
  - Field test of change packages to assess their performance in a real world setting
  - Qualitative study among community health workers to identify barriers and challenges to their work performance through a multi- level perspective
  - Validation study of medical record data and self- assessment data of QI teams
  - Study to investigate whether QI practices improve data quality
  - QI culture study: Three papers from the research studies are currently under peer review. Three more are in the process of submission, while two reports for internal use are currently being finalized.

Summary of QI culture study

While research into QI outcomes and factors affecting success of QI are widely available, none has comprehensively and qualitatively looked into what actually changes in work culture after QI implementation. A qualitative study was conducted in December 2014 and January 2015 among 18 health care staff and six district coaches from ASSIST-supported facilities in order to understand: 1) perception of staff about QI; 2) changes in work practices as a result of QI; and 3) factors influencing these changes. In-depth interviews were conducted and data were analyzed through a grounded theory method. It was found that key changes in work practice after QI implementation included more patient-centered care, more structured and systematic way of working, teamwork, and accurate documentation of clinical practices. Factors that enabled these changes included leader support in solving problems of resources and supplies, mentorship, skill enhancement through peer learning, and sense of empowerment facilitated by non-punitive behavior of leaders. The staff perceived these changes in a positive light, reporting that work has now become easier, time saving, routinized and systematic while they reported being more confident and motivated due to increased faith among patients.

IMPROVEMENT IN KEY INDICATORS

Indicators α = proportion χ = average	**Baseline (Dec 2013) Approx 100 sites**	**Aug 2015 Approx 150 sites**	**Change (percentage points)**
α of newborns who were assisted for breathing out of total newborns reviewed*	17% *	2%	-15
α of newborns made dry and provided warmth immediately after birth out of total newborns observed	47%	100%	53
α of newborns who were provided sterile cutting and clamping of cord out of total newborns reviewed	47%	100%	53
α of newborns breastfed within one hour of birth	87%	88%	1
α of newborns given injection of vitamin K at birth	55%	98%	43
α of vaginal deliveries for which oxytocin was administered within one minute of birth of baby	16%	99%	83
χ number of times vitals (both blood pressure and pulse) checked and recorded within first 6 hours PP	0.8	3.4	2.6

Indicators α = proportion χ = average	Baseline (Dec 2013) Approx 100 sites	Aug 2015 Approx 150 sites	Change (percentage points)
α of ANC visits during which hemoglobin of pregnant woman was checked and documented	59%	88%	29

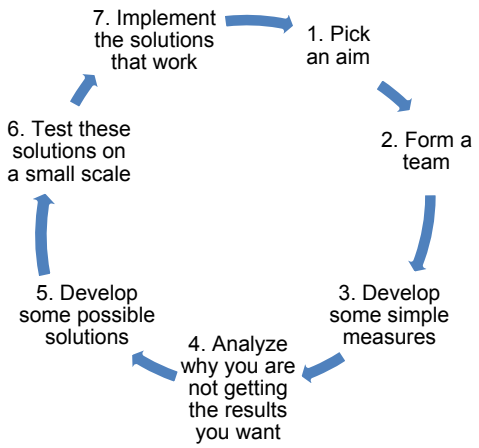
SUSTAINABILITY AND INSTITUTIONALIZATION

Twenty-five of 27 districts have requested support for scaling up improvement activities, and five districts have started using their own resources to scale up improvement support to 159 facilities. ASSIST is providing technical assistance as they build their capacities to do this independently. In addition, we have had a request from the All India Institute of Medical Sciences (AIIMS), the largest medical college in India, to help them set up a system to support quality improvement in their institution as well as from the Indian Academy of Pediatrics to teach them about QI.

ASSIST has also been asked by USAID to teach a local NGO – IPE Global – how to continue the QI work started under ASSIST after we close in December 2015.

- **ASSIST is providing additional support to the Himachal Pradesh government that wants to scale up improvement work to all districts in the state and make quality improvement a key component of their strategy to deliver better care** (Q4). We have advised them on developing a three-pronged strategy for improvement work:
  1) Health care improvement should be led from the top. Leaders need to provide strategic direction, support execution and build system capacity to understand and manage improvement activities.
     a. To build the capacity of leaders at the state level, the state has formed a QI resource team composed of senior staff in the MOH as well as senior doctors from the medical colleges in the state. They will be undertaking a self-directed, two-year plan to learn about team-based QI and how to design and implement QI programs. ASSIST is helping them to develop the plan.
     b. To build capacity on improvement throughout the system, the state has also recruited one Quality Consultant in each district who will serve as a resource for the district to train and support line managers and front line workers in quality improvement.
  2) Front line health workers should be trained and supported to use quality improvement methods to fix problems at their level.
     a. ASSIST is supporting Himachal Pradesh to develop plans to train staff in facilities across the state. The approaches will differ between districts where ASSIST has been working and new districts.
  3) Support for front line health workers to run quality improvement projects will be integrated into existing line management systems.
     a. Coaches for improvement projects will be existing supervisors of facilities.
     b. In addition to supporting teams to learn and manage quality improvement projects, line managers will also be responsible for helping teams fix problems that are not fixable at their level.
- **In addition to working through the government system, in the fourth quarter of FY15 we started providing support to the All India Institute of Medical Sciences** (Q4). AIIMS has been the best ranked hospital in India for 11 of the past 12 years and provides care to 3.5 million patient visits per year. It is also the leading academic and training facility in the country. After seeing some of our work, they invited us to come and present to their faculty and residents. After the presentation they asked us to come back and help them train their teams from different departments that were interested in undertaking quality improvement projects. We met with Dr Ashok Deorari, the Professor of Neonatalogy who spearheaded this initiative, three times over a period of two weeks to develop a training and implementation plan.

- On August 22, 2015, ASSIST staff, an Institute of Healthcare Improvement consultant, and AIIMS staff led a two-hour session on the basics of improvement to staff from ophthalmology, obstetrics, pediatrics, the trauma ICU, the emergency department and the administration. We went over seven steps of improvement and focused on helping them pick initial aims, think about who needs to be on the team, and come up with some outcome and process measures. After 10 days, we met again. All teams had started work and some had initial results (for example, the ophthalmology team had reduced waiting time for their pediatric retinal surgery service by 40%). We reviewed their work and discussed how to analyze systems and develop change ideas.



- Twenty days later we met again. All teams had made progress, and a seventh team also came along (see **Table 5** for results of improvement work by the department). Staff from the NICU had heard about this initiative and had started their own improvement project to increase the proportion of babies in the NICU who were exclusively breast fed. We are continuing to work with AIIMS to help them plan how to set up an effective and sustainable quality management program throughout the institution.

Table 5: India | Results of improvement work by department, All India Institute of Medical Sciences, September 2015

Department	Results at 30 days after initiation
Ophthalmology	87% reduction in waiting time to enter pediatric retinal surgery operating theatre
Obstetrics	% of babies born to low risk women receiving immediate skin to skin care increased from 0 to 100%
Pediatrics	50% reduction in time to administer first fluid bolus to children coming to the emergency department in shock
Trauma ICU	Increase in compliance with hand hygiene from 30% to 80%
Emergency department	Increase in the % of patients being triaged correctly from 59% to 76% (around 800 patients come to emergency department each day)
Administration	Improved toilet hygiene protocol implemented in one ward
NICU	% of babies exclusively breast fed at 5 days increased from 5 to 60%

INDONESIA

BACKGROUND

In January 2014, ASSIST began working with local partners at the University of Indonesia (UI) Center for Family Welfare (CFW) to conduct a mid-term and end line evaluation to compare the quality of care provided in hospitals accredited by the Joint Commission International (JCI) with that in hospitals accredited by the Indonesian Hospital Accreditation Commission (KARS -- Komisi Akreditasi Rumah Sakit) and those not undergoing hospital accreditation (NHA). This study is known as the Hosptial Accreditation Process Impact Evaluation (HAPIE). The study is being conducted in three phases: baseline (completed August 2013), mid-line (current report) and end-line (data collection planned for January 2016). This report covers activities between April and September 2015 and includes the dissemination of results to the hospitals, completion of translation of the executive summary into Bahasa Indonesia, and preparation for dissemination within Indonesia and internationally.

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Hospital Accreditation Process Impact Evaluation	
• Evaluating the quality of care provided in hospitals undergoing Joint Commission International and the Indonesian Hospital Accreditation Commission or *Komisi Akreditasi Rumah Sakit* accreditation in Indonesia	**9 hospitals in 3 provinces:** 3 hospitals are pursuing JCI accreditation 2 hospitals are pursuing KARS accreditation 4 hospitals are not seeking hospital accreditation until 2015 (NHA)

Cross-cutting Activity

Activity 1. Hospital Accreditation Process Impact Evaluation

Given the major effort underway of the last three years on reforming and improving the function of the hospital accreditation system in the country, the HAPIE study is of great importance to the Ministry of Health of Indonesia, the USAID Mission, the World Health Organization, and other stakeholders. The organization primarily responsible for hospital accreditation, KARS, is undergoing changes reflected in the results of this study. Further, the future of the quality of hospital care in the larger facilities in the country will be influenced by KARS reforms and the HAPIE study's result..

KEY ACCOMPLISHMENTS AND RESULTS

- **Analysis of data collected in FY14 for the midline assessment was completed, and the first draft of the write-up was submitted to the USAID contact for initial comments** (Q1). A Bahasa Indonesia version of the report summary was developed and will likely be the write-up most widely circulated in Indonesia.
- **ASSIST translated the Executive Summary into Bahasa Indonesia and distributed it to USAID/Indonesia** (Q3).
- **The UI/CFW team submitted an abstract to the Asia-Pacific Academic Consortium for Public Health (APACPH) for their conference in October, 2015, which was accepted for a presentation planned for the October 21-23 conference in Bandung, Java, Indonesia.** This was part of the dissemination plan that was encouraged by the USAID/Indonesia Mission.
- **The UI/CFW team traveled to all nine participating hospitals to disseminate the results of the study, specifically focusing on the changes seen in key indicators from baseline to mid-line** (Apr–June 2015)**.** This was also part of the dissemination plan previously agreed to encourage participating hospitals to maintain their cooperation for the final stage of the study, which is set to commence in Q1, FY16.
- **The UI/CFW team met with the administrators of Indonesia's social security system (Badan Penyelenggara Jaminan Sosial – BPJS) to discuss how the results from the HAPIE study may be useful to inform implementation of the nationwide single-payer health insurance system, JKN** (Q4).
- **Planning for the final data collection commenced.**

EUROPE AND EURASIA

GEORGIA

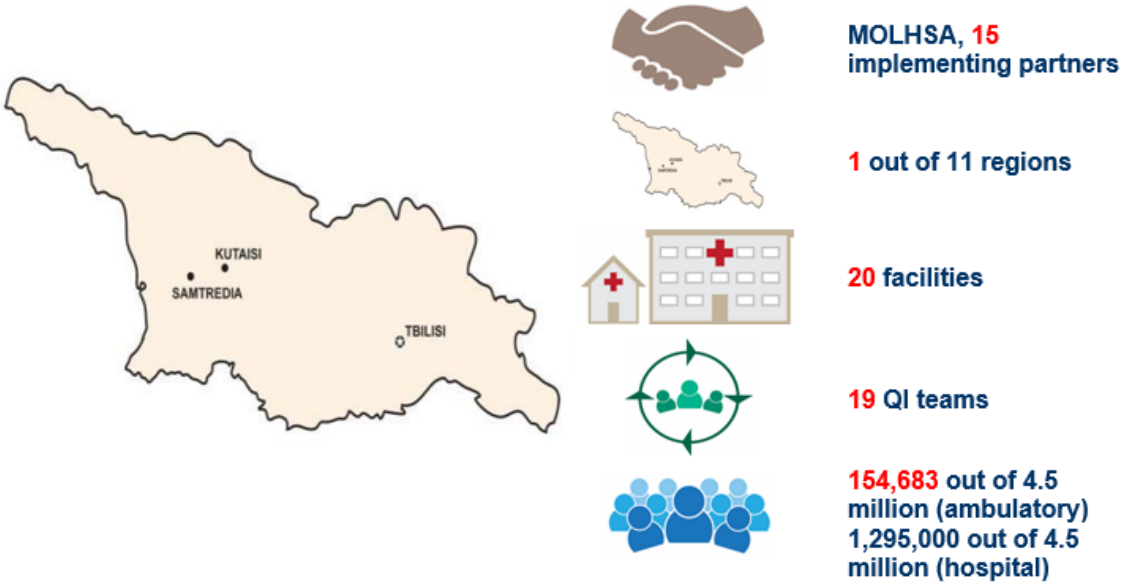
BACKGROUND

The ASSIST project started full-scale activities in Georgia in August 2014, building on work carried out under the HCI from 2011-2014. ASSIST worked with the Ministry of Labor, Health, and Social Affairs (MoLHSA) and other stakeholders in Georgia to address quality, consistency, and continuity of medical care; to improve access to and use of evidence-based medical information by physicians; and to enhance the availability of modern, evidence-based treatments in one region. In Imereti Region, the project supported hospital and primary care health facilities to improve the quality of

cardiovascular disease, asthma, pneumonia, and chronic obstructive lung disease prevention and treatment in adults and acute respiratory tract infections and asthma in children. (Respiratory tract infections are the most frequent cause of seeking medical care in children in Georgia.)

In Georgia, the ASSIST team supported institutionalization of best practices though use of different policy, regulatory, and financial tools nationwide. These included: incorporating high-impact best practices in public and private programs/benefit packages; developing national protocols with audit criteria; and supporting medical record standardization at the national level. These efforts were aimed at creating the capacity of medical facilities in the country (particularly those involved in the project) to implement quality improvement activities without external assistance and to make improvement a permanent, integral part of their health care services.

Scale of USAID ASSIST's Work in Georgia



PROGRAM OVERVIEW

What did we try to accomplish?	At what scale?
1. Improve quality, consistency, and continuity of medical care	
• Improve timeliness, continuity, effectiveness, efficiency, and patient-centeredness of provided services and their consistency with clinical guidelines through application of the collaborative improvement approach in one demonstration region • Strengthen capacity of medical providers to provide safe, timely, continuous, effective, and efficient medical care • Improve awareness on quality improvement experiences countrywide • Strengthen health information system to support development of evidence-based decisions on improvement quality of medical care • Ensure equitable access to priority "best-buy," high-impact medical services in one demonstration region	• Regions: 1 out of 11 (Imereti) • Facilities in catchment area: 20 - 3 out of 40 hospitals - 4 out of 42 polyclinics - 13 out of 212 village doctors • Catchment population facilities/communities served: - 154,683 out of 4.5 million (ambulatory) - 1,295,000 out of 4.5 million (hospital) • QI teams: 19
2. Improve access to and use of evidence-based medical information and treatments	
• Improve access to evidence-based medical literature (guidelines, manuals, pathways, protocols) for Georgian physicians	• Dissemination of evidence for priority conditions to all physicians countrywide

What did we try to accomplish?	At what scale?
• Enhance the use of evidence-based clinical guidelines, protocols, and pathways in clinical practice • Strengthen capacity of professional associations in developing and adapting international guidelines and evidence-based literature to Georgian context	

= Improvement Activity = Cross-cutting Activity

Activity 1. Improve quality, consistency, and continuity of medical care

OVERVIEW

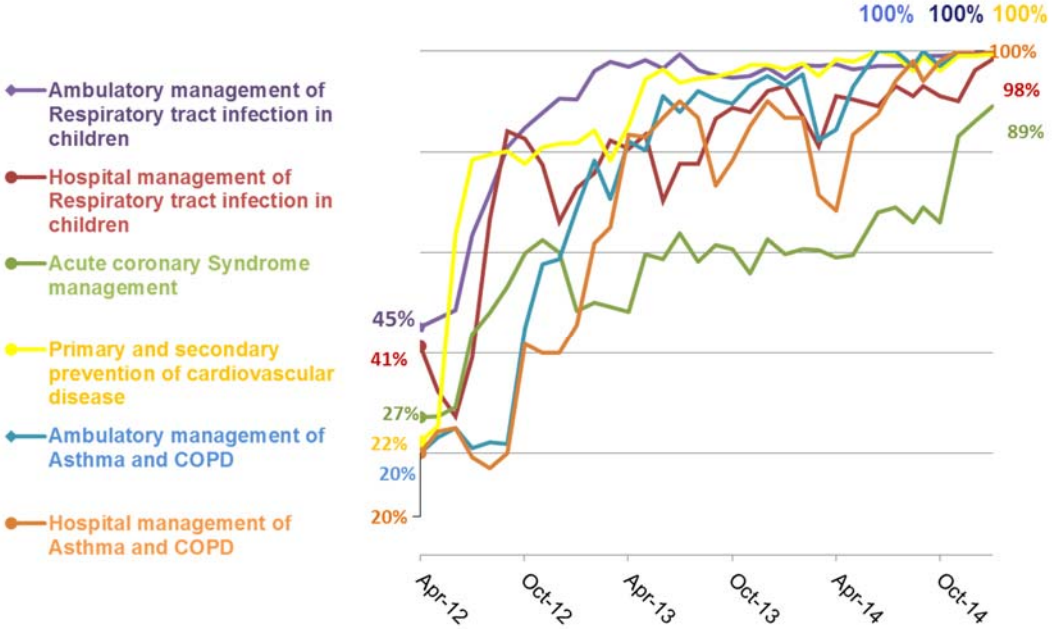
ASSIST worked to improve the quality, consistency, and continuity of clinical care in 17 ambulatory clinics and village solo practices and three hospitals in Georgia's Imereti Region, with a population of almost 700,000 people. The clinical focus areas were: *Adult*: Cardiovascular disease (CVD), chronic obstructive pulmonary disease (COPD), asthma and their cross-cutting behavioral and physiological risk factors; *Child*: respiratory tract infections (RTI) and asthma. This activity supported the Government of Georgia's strategic priority to improve the quality of medical services in the country.

To spread and scale up improvement practices from one region to the whole country, as well as expand the priority clinical content areas, the ASSIST team shared the QI initiatives, tools, interventions, and experiences through several communication channels (including project website and Facebook page and stakeholder meetings. In addition, the ASSIST team continued the successful collaboration with medical corporations (Geo-Hospitals and EVEX) that own more than two-thirds of hospital facilities in Georgia, including three hospitals and one ambulatory facility supported by the project. By providing regular feedback to the corporations' management teams on progress made in project-supported facilities and involving their quality improvement structures, working with all facilities of the corporations in project interventions, ASSIST initiated the spread of QI practices throughout these medical networks.

KEY ACCOMPLISHMENTS AND RESULTS

- **Provided clinical, quality improvement, and other needs-based training and coaching of ASSIST-supported medical facilities** (Oct 2014-Mar 2015). The ASSIST team continued support to QI teams of facilities in the Imereti Region to test and implement changes in their care processes to improve prevention and treatment of CVD, asthma, COPD, and RTIs. From October 2014 – March 2015, the ASSIST team conducted three field trips and delivered 488 provider-hours of training, including:
  - 60 provider-hours in quality improvement
  - 197 provider-hours in CVD risk factor screening and modification, including secondary prevention in patients with coronary artery disease
  - 128 provider-hours in acute coronary symptoms (ACS) management
  - 62 provider-hours in pediatric pneumonia/acute RTI management
  - 84 provider-hours in asthma/COPD management
- **After 34 months of project QI interventions, routine monitoring showed sustained improvement of best care practices in all project priority clinical areas from baseline (Apr 2012 – Jan 2015 (Figure 126).** Particularly:
  - Average compliance with evidence-based best practices for screening, prevention, and management of CVD risk factors reached 99% in January 2015, a 77% point gain from baseline
  - Average compliance with management of acute coronary syndrome best practices reached 89%, a 62% point increase from baseline
  - Average compliance with respiratory tract infection management best practices in ambulatories and hospitals improved by 55% and 57% points, respectively
  - Average compliance with asthma and COPD management best practices in ambulatories and hospitals improved on average by 80% points

Figure 126: Georgia | Average compliance with all percentage process indicators per clinical focus area, Imereti Region (Apr 2012 – Jan 2015), average 343 monthly charts reviewed



- Routine monitoring results in each clinical focus area complemented the results of the ASSIST study of the "Effectiveness and Cost-effectiveness of QI Interventions in Ambulatory and Hospital Facilities". This study included an assessment of medical charts, interviews with managers, providers, and patients (parents), as well as key inputs assessments. Along with intervention facilities, comparison sites were chosen in different regions of Georgia to serve as a control group. The baseline assessment was conducted from April-August 2012 and the endline assessment from August-December 2013. The key results of the assessment are summarized below for each clinical area.

1. ***Ambulatory screening and modification of cardiovascular disease risk-factors:***

- **Figures 127-129 illustrate statistically significant improvement in compliance with best practices after 18 months of quality improvement interventions.**

Figure 127: Georgia | Percentage of medical charts with improved documentation of screening and counselling on CVD behavioral risk factors (n=562) (Apr 2012-Sept 2013)

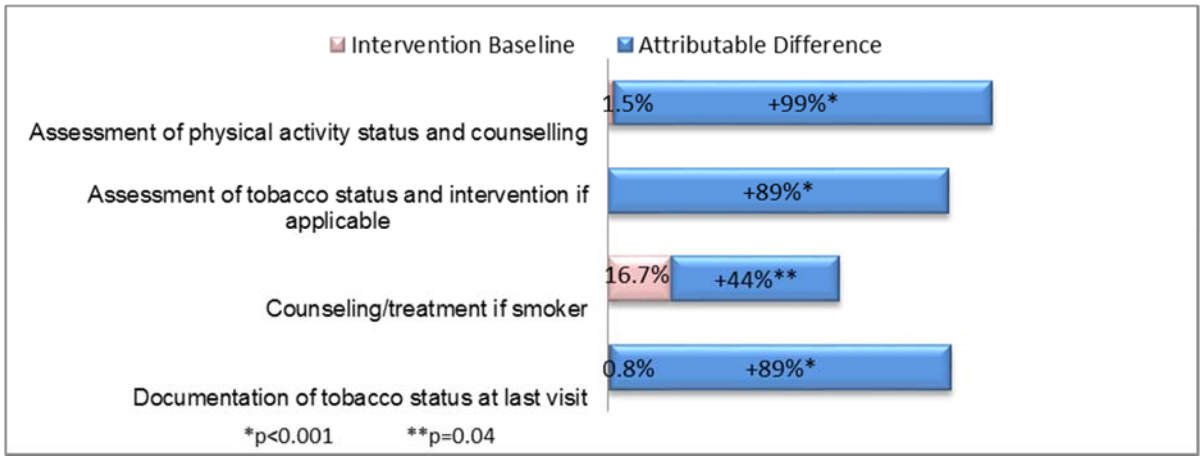


Figure 128: Georgia | Percentage of medical charts with improved screening and modification of CVD physiologic risk factors (n=562) (Apr 2012-Sept 2013)

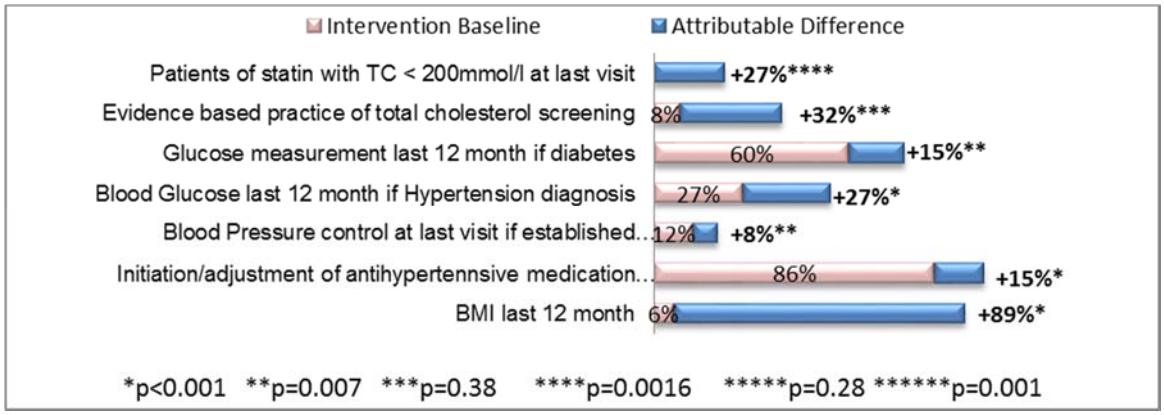
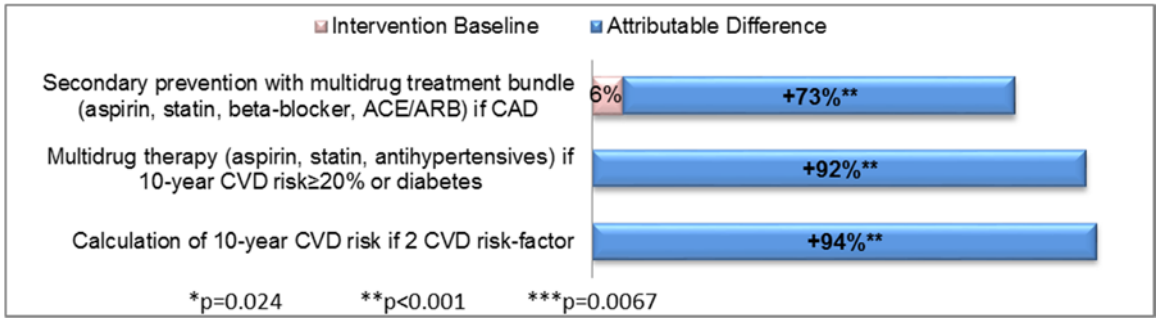


Figure 129: Georgia | Calculation of 10-year CVD risk and primary and secondary prevention of CVD (n=562) (Apr 2012-Sept 2013)



2. ***<u>Hospital Management of Acute Coronary Syndrome:</u>***

- Despite the high toll of CVD deaths among the Georgian population, according to the National Center for Disease Control, in 2013 acute ischemic conditions accounted only for 0.5% of all registered diseases, manifesting problem with access to timely care, diagnosis, and quality of health data. **Figures 130-132** illustrate statistically significant improvement in compliance with acute coronary syndrome (ACS) best practices after 18 months of quality improvement interventions.

Figure 130: Georgia | Increasing compliance with ACS initial assessment best practices: Results of baseline assessment and attributable difference at the endline (n=564) (Apr 2012-Sept 2013)

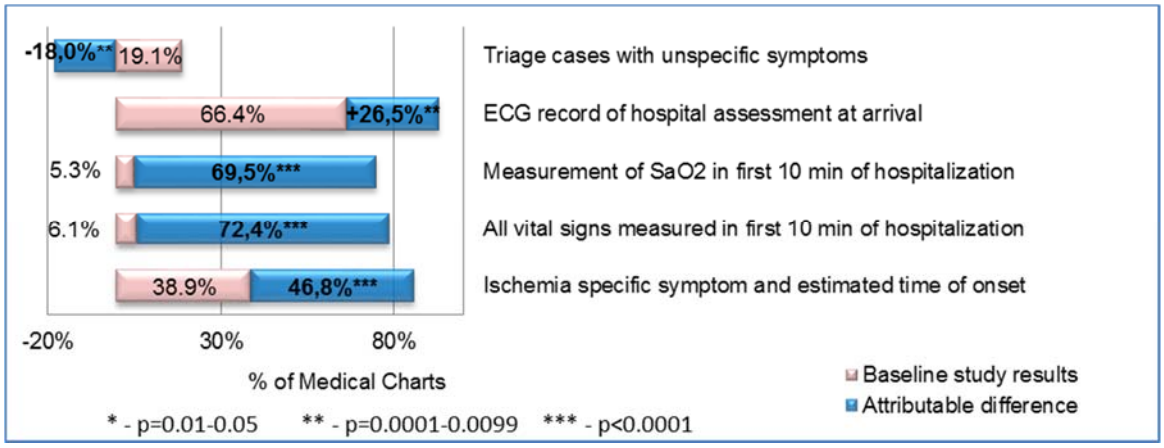


Figure 131: Georgia | Improved compliance with initial (n=264) and ongoing (n=218) medication treatment and discharge medication prescription (n=217) with evidence-based ACS treatment practices (Apr 2012-Sept 2013)

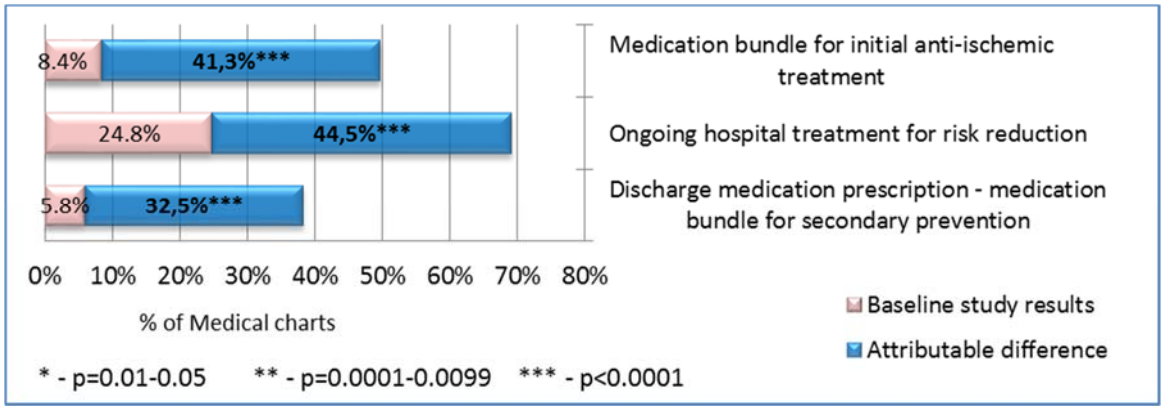
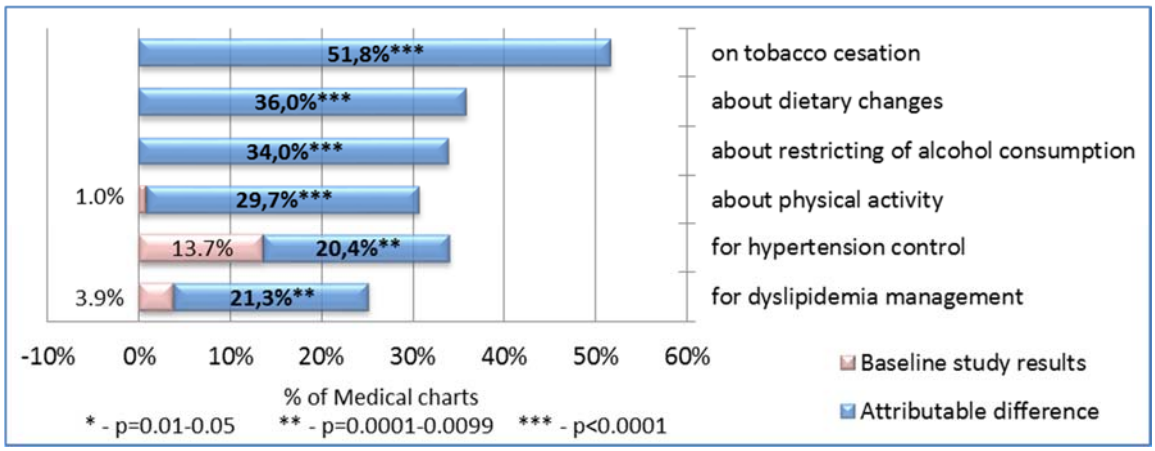


Figure 132: Georgia | Increased CVD risk factor assessment and modification best practices in patients with ACS at hospital discharge (n=217) (Apr 2012-Sept 2013)



3. ***Management of Chronic Respiratory Conditions:***

- **Figures 133-136** illustrate statistically significant improvements in compliance with best practices after 18 months of quality improvement interventions.

Figure 133: Georgia | Percentage of charts with evidence-based (EB) prescription practices for ambulatory management of COPD (n=109) (Apr 2012-Sept 2013)

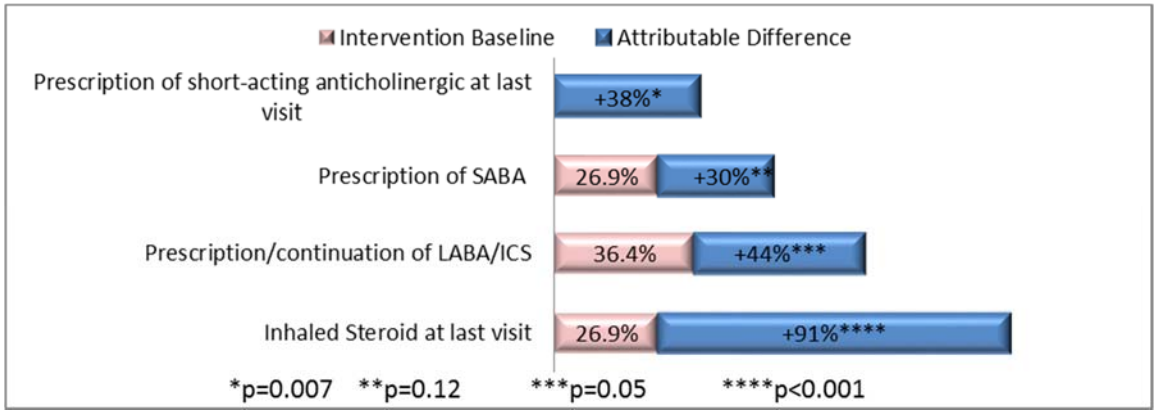


Figure 134: Georgia | Percentage of charts with EB prescription practices for ambulatory management of asthma (n=225) (Apr 2012-Sept 2013)

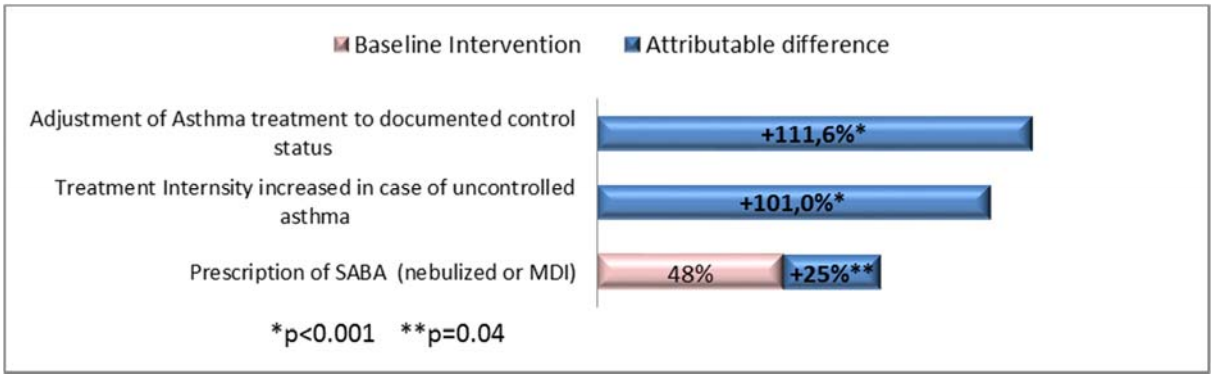


Figure 135: Georgia | Percentage of charts with EB medication administration practices for hospital management of COPD exacerbation (n=143) (Apr 2012-Sept 2013)

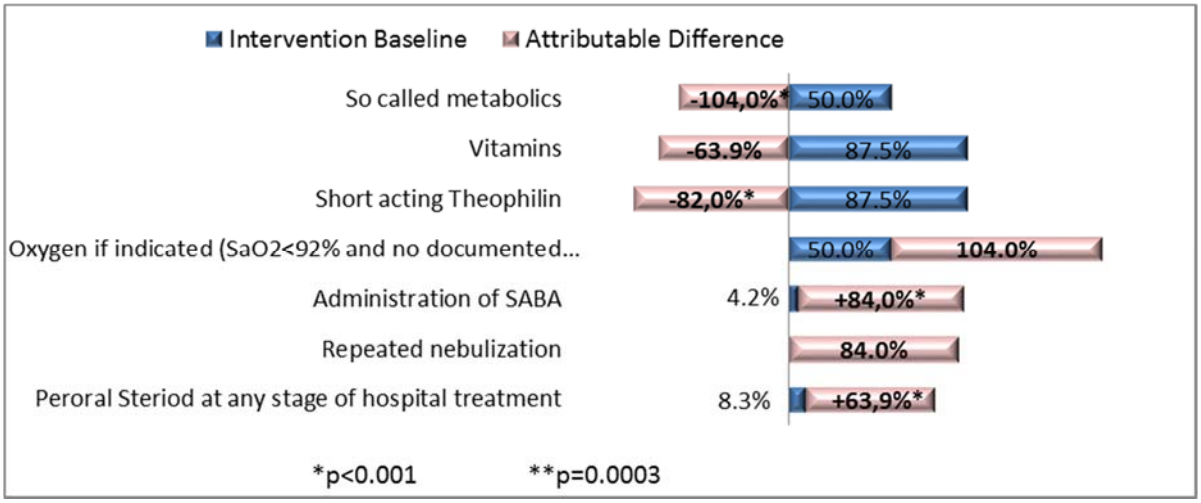
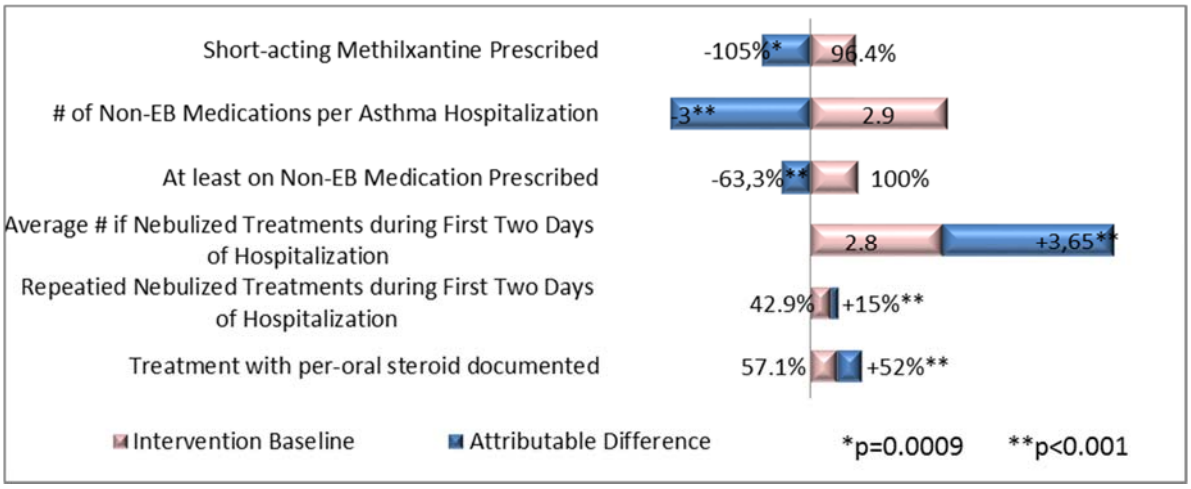


Figure 136: Georgia | Percentage of charts with EB medication administration practices for hospital management of asthma exacerbation (n=117) (Apr 2012-Sept 2013)



4. ***Management of Pediatric Respiratory Tract Infections:***

- Respiratory tract infections are the most common diagnosis for seeking medical care in children in Georgia. In contrast to many other developing countries, the core reason for inappropriate care

in Georgia is not access but overutilization of non-evidence-based (non-EB) medications, particularly antibiotics. **Figures 137-140** illustrate statistically significant improvement in compliance with best practices after 18 months of quality improvement interventions.

Figure 137: Georgia | Improved compliance with EB practices: Baseline and attributable improvement in compliance with EB practices to treat pediatric respiratory infections at ambulatory level (n=212) (Jul 2012-Dec 2013)

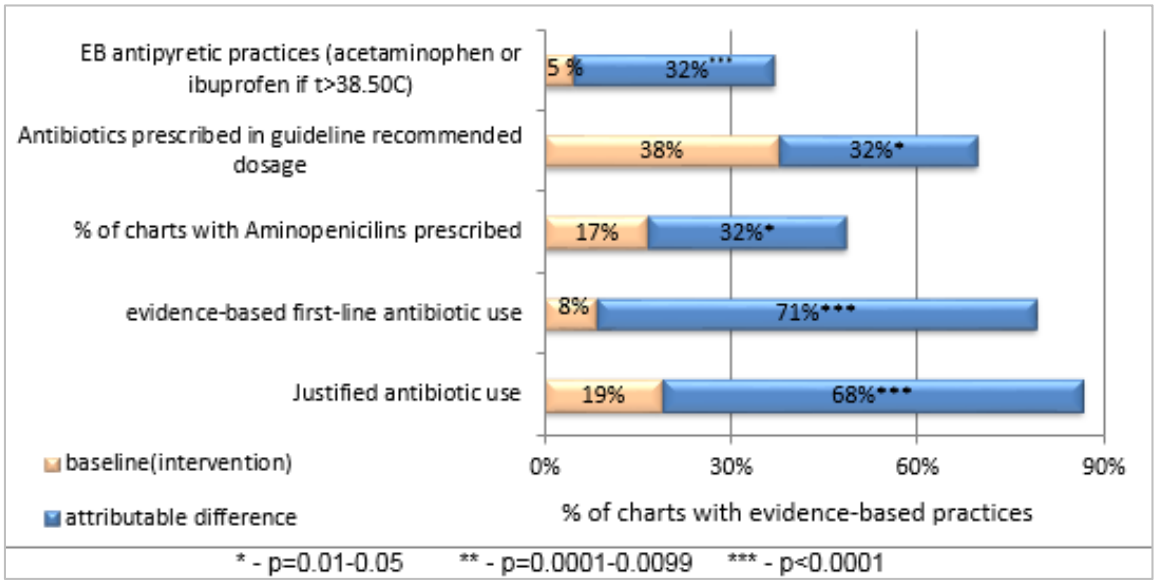


Figure 138: Georgia | Improved compliance with EB practices: Baseline and attributable improvement in compliance with evidence-based practices to treat pediatric pneumonia in hospitals (n=274) (Jul 2012-Dec 2013)

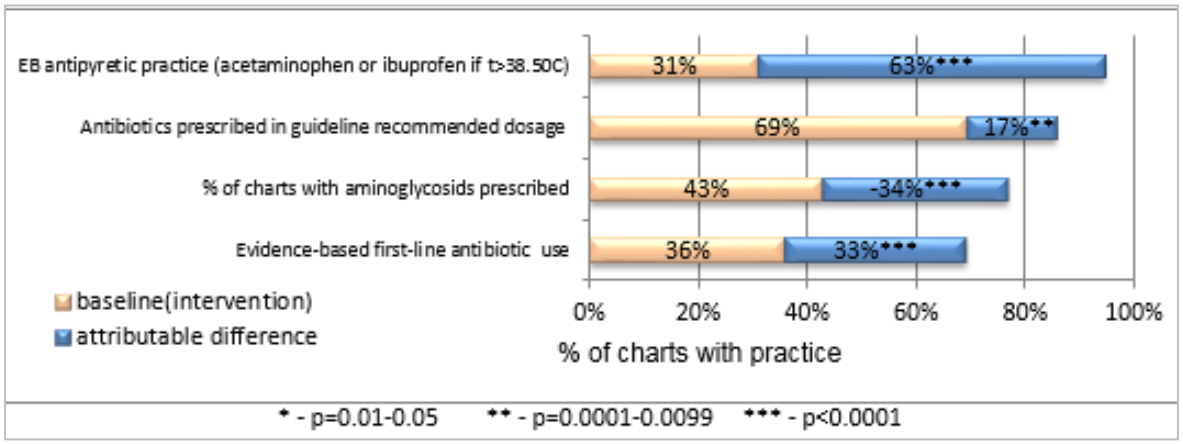


Figure 139: Georgia | Decreased use of non-EB practices: Baseline and attributable improvement in prescription of non-EB medications for pediatric patients with respiratory infections at ambulatories (n=212) (July 2012-Dec 2013)

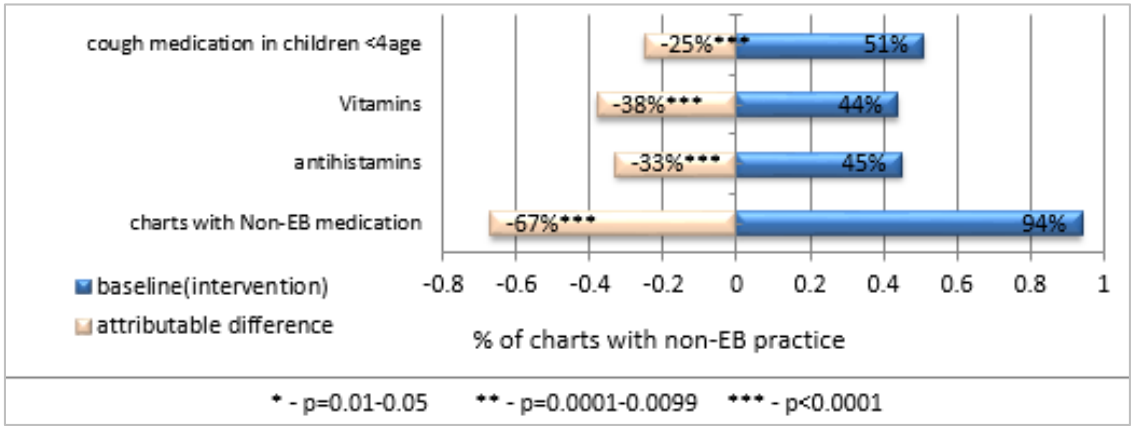
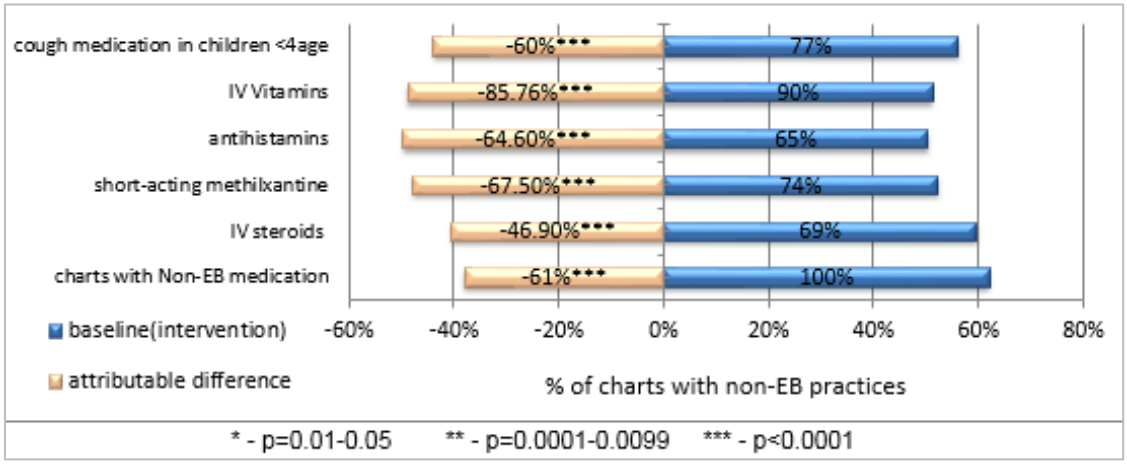


Figure 140: Georgia | Decreased use of non-EB practices: Baseline and attributable improvement in administration of non-EB medications for pediatric patients with pneumonia at hospitals (n=274) (Jul 2012-Dec 2013)



- The figures above also indicate that in addition to improved compliance with care practices, there were statistically significant decreases in the use of non-evidence-based medications and diagnostic tests in all project priority clinical areas. In addition to the improved safety and rational use of medications, these results created the important opportunity to decrease the cost of treatment for payers (patients, insurance companies, medical care facilities, employers) and the associated economic benefits for society. The medical chart review results from the abovementioned assessment corroborate not only with routine monitoring results but also with the interview results of care providers and patients. For example, provider interview results demonstrate improved knowledge and practices in management of project priority diseases (**Table 6**).

Table 6: Georgia | Knowledge and self-reported practices of medical care providers for project priority diseases in intervention ambulatory care clinics and hospitals (Apr 2012 – Dec 2013)

Indicator	Baseline (April – July 2012)	Endline (Sept – Dec 2013)	Attributable improvement
Acute Coronary Syndrome			
% of providers who correctly answered questions on ACS treatment medications	0 n=10	61.11% n=18	+61.11% p<0.001

Indicator	Baseline (April – July 2012)	Endline (Sept – Dec 2013)	Attributable improvement
Average number of correctly answered questions on ACS management (mean, 95%CI)	8.7 95%CI (3.99-13.40) n=10	35.66 95%CI (34.5-36.8) n=18	+28.25 p<0.001
Average number of incorrectly answered questions on ACS management (mean, 95%CI)	44.9 95%CI (39.7-50.1) n=10	9.5 95%CI (8.2-10.8) n=18	-37.25 p<0.001
Ratio of correctly and incorrectly answered knowledge questions on ACS management (mean, 95%CI)	0.21 95%CI (0.08-0.3) n=10	4.07 95%CI (3.4-4.7) n=18	+3.93 p<0.001
Asthma/COPD			
% of providers who correctly answered questions on stepwise treatment of asthma	31.3% n=67	78.1% n=64	+47.93% p<0.001
% of providers correctly answered questions on tobacco cessation medications	16.9% n=53	61.8% n=55	+30.8% p=0.006
CVD			
% of providers who self-reported confidence on tobacco counseling and treatment	24% n=34	15% n=34	-27.8 p=0.059
% of providers who correctly answered questions on secondary prevention of CVD	9% n=34	76% n=34	+48.4 p=0.001
% of providers who correctly answered questions on diagnostic criteria of hypercholesterolemia	41% n=32	56% n=34	+45.9 p=0.003
RTI /Pneumonia management			
% of ambulatory care providers who answered correctly all four knowledge questions on RTI management	3.57% n=28	76.92% n=26	+81% p<0.001
Average number of irrelevant assessment procedures reported by providers managing hospital pneumonia in pediatric patients	3.4 95%CI (1.98-4.82) n=28	0 n=26	-
% of providers mentioning 4 essential pneumonia treatment and counseling interventions (antibiotic, oxygen, antipyretic, and vaccination counseling)	0 n=28	100% n=26	+70%

- **Economic Evaluation of Quality Improvement Interventions:** As part of the cost-effectiveness assessment, the project conducted an economic evaluation of QI interventions. An incremental cost-effectiveness evaluation was conducted using decision-tree analysis on each of the variables used to indicate the quality of care provided at each level of care and clinical focus area. Analysis focused on incremental cost-saving from decreased utilization of non-evidence based medications and diagnostic tests.

  The economic evaluation of the project's QI interventions, summarized in **Table 7**, found that while the total cost of the intervention was $147,258 during 18 months, the intervention *saved four times more* ($584,000) on decreased prescription/administration of non-evidence-based medications and diagnostic tests. The analysis of incremental cost-savings from decreased utilization of non-evidence-based practices demonstrated that except for hospital treatment of asthma and COPD (where number of patients benefitted from improved care was low), QI interventions show themselves to be far superior to the business-as-usual model from the cost-effectiveness perspective. Simultaneously, these interventions significantly increased the probability of receiving better quality of care.

Table 7: Georgia | Summary cost results for all clinical focus areas

Dimensions	# of patients	Average cost of QI (medical Facility) (USD)	Total cost of project (HCI/ASSIST) (USD)	Total cost of intervention (project & facility) in USD	Incremental cost-saving from non-EB medications and diagnostic tests (USD)	Total incremental saving from decreased non-EB practices (USD)
COPD ambulatory	1040	1,501	14,391	15.3	22.9	23,862
COPD hospital	210	1,486	9,593	52.8	3.7	770
Asthma ambulatory	1152	1,501	14,391	13.8	25.5	29,376
Asthma hospital	116	1,486	9,593	95.5	7.4	863
RTI ambulatory	26236	8,952	22,484	1.2	4.9	127,802
Pneumonia hospital	1544	6,229	14,989	13.7	12.1	18,614
CVD	303,195	4,401	37,091	0.1	0.9	269,507
ACS	6836	3,663	24,727	4.2	16.6	113,174
Total (USD)			147,258			584,000

- The analysis of the results of the economic evaluation of QI interventions shows that interventions directed to improve vertically and horizontally integrated care delivery of high-burden adult and pediatric conditions at primary care and hospital levels are more efficient than quality improvement interventions focused on single-disease management and one level of care, since some direct (e.g., travel) and indirect costs (e.g., administrative costs, infrastructure maintenance costs,etc.) of an intervention can be significantly reduced. Analysis also shows that investment in improving quality of care for high-burden diseases (including chronic diseases that need routine follow-up) is more efficient, since cost of the intervention per patient visit is small, with a large number of patients benefitting from the better care.
- Considering the fact that the associated cost-benefit from QI interventions in the three hospitals and 17 ambulatory clinics is about 584,000 USD, spread and scale-up of QI interventions countrywide would save hundreds of million USD from decreased non-evidence-based practice. Considering that the cost of the demonstration phase of the QI intervention is higher than the cost of its spread in the same number of facilities (due to higher costs associated with assessment of quality gaps, preparation of QI implementation, and development of evaluation tools and materials), scale-up of QI interventions has the potential to achieve even greater cost-savings per patient.
- The results of the effectiveness and cost-effectiveness assessment of the project's QI interventions demonstrated that the QI strategy as implemented was effective and can be scaled up and adapted across different settings (local, national). Scaling up, sustaining, and institutionalizing proven QI interventions countrywide with a focus on delivering essential, high-impact, cost-effective clinical interventions for high-burden priority diseases will most likely lead to measurable improvement, prevention of high-burden diseases and their complications, reduction in premature death, and associated cost-saving for payers and society.
- **Table 8** presents the final results achieved by improvement teams supported by ASSIST in Imereti Region.

Table 8. Georgia | ASSIST progress toward meeting project targets (Mar 2012 – Jan 2015)

Indicator	Target	USAID ASSIST Project Final Results
% of project-supported ambulatories or village solo practices that demonstrate improved quality of care	At least 60% of QI teams demonstrated improved quality of care in at least one targeted clinical content area for at least 70% of routine monitoring indicators (measured as at least 25% improvement or at least 70% compliance with best practices)	• 100% of QI teams[6] of ambulatory facilities demonstrated improved quality in all targeted clinical content indicators for at least 83% of (10 out of 12) indicators (measured as at least 90% compliance with best practices) • ALL facilities reached >90% performance for ALL indicators in at least two out of three project priority clinical areas • On average 65-78 percentage point improvement in indicators per clinical focus area *Source: Consolidated routine monitoring data*
% of project-supported hospitals that demonstrate improved quality of care	Two out of three hospitals demonstrated improved quality of care in at least one clinical content area for at least 70% of routine monitoring indicators (measured as at least 25% improvement or at least 70% compliance with best practices)	• All three hospitals reached improvement of at least 80% of process indicators in ALL clinical content area (measured as at least 90% compliance with best practices). • On average 60-74 percentage point improvement in indicators per clinical focus area *Source: Consolidated routine monitoring data*
Number of medical and para-medical practitioners trained in evidence-based clinical guidelines, including trained in child health (standard indicator from USAID Georgia)	FY2012 target: not specified FY2013 target: 148 FY2014 target: 200 FY2015 target: 50	FY2012 actual: 148 FY2013 actual: 240 FY2014 actual: 300 FY2015 actual: 62 *Source: Training registry*
CVD risk screening: % of charts of patients with at least 2 documented CVD risk factors documented as risk estimate for CVD event in next 10 years	CVD risk screening: At least 70% of charts of patients with at least 2 documented CVD risk factors document a risk estimate for CVD event in next 10 years	100% increase (0/6-Apr 2012, 48/48-January 2015) *Source: Aggregated routine monitoring data from all project supported ambulatories*
CVD risk reduction: % of charts with CVD risk estimate ≥ 20% in next 10 years or diabetes in which patient initiated/ continued on multi-drug treatment (WHO best buy regimen: aspirin, statin, BP medication)	At least 70% of charts with CVD risk estimate > 20% in next 10 years in which patient initiated/ continued on multi-drug treatment (WHO best buy regimen: aspirin, statin, BP medication)	100% of charts of patients with CVD risk estimate > 20% in next 10 years in which patient initiated/continued on multi-drug treatment (WHO best buy regimen: aspirin, statin, BP medication) *Source: Aggregated routine monitoring data for ambulatory screening and modification of CVD risk factors*
Rational antibiotic use: % of medical charts of children treated for RTI demonstrate rationale antibiotic use (use of an evidence-based antibiotic	At least 70% of medical charts of children treated for RTI demonstrate rationale antibiotic use (use of an evidence-based	100% of medical charts of children treated for RTI demonstrate rational antibiotic use (use of an evidence-based antibiotic when antibiotic use is justified)

[6] Note: 6-7 village ambulatory practices are considered as one improvement team.

Indicator	Target	USAID ASSIST Project Final Results
when antibiotic use is justified)	antibiotic when antibiotic use is justified)	*Source: Aggregated routine monitoring data for ambulatory and hospital management of respiratory tract infections*
% decrease in average number of non-evidence based medications prescribed per child with acute RTI diagnosis in intervention ambulatory facilities	At least 50% decrease in average number of non-evidence based medications prescribed per child with acute RTI diagnosis in intervention ambulatory facilities	88% decrease in average number of non-evidence based medications prescribed per child with acute RTI diagnosis in ambulatory facilities
% decrease in average # of non-evidence-based medications prescribed in hospitals per pneumonia hospitalization	At least 300% decrease in average # of non-evidence-based medications prescribed in hospitals per pneumonia hospitalization	A six-fold decrease in average # of non-evidence-based medications prescribed in hospitals per pneumonia hospitalization (5.95 in Mar 2012; 0 in Jan 2015) *Source: Aggregated routine monitoring data for hospital management of respiratory tract infections*
Improve access and use of evidence-based medical information by Georgian physicians and enhanced availability of modern evidence-based treatments	Number of evidence updates developed and posted on project website and Facebook pages in Georgian language	Under HCI: 387 Under ASSIST: 352

Activity 2. Improve access to and use of evidence-based medical information and treatments

OVERVIEW

This activity responded to limited access to and use of evidence-based medical information by Georgian physicians. To strengthen the capacity of Georgian professional associations and improve access to evidence-based medical information, the ASSIST team facilitated collaboration between Georgian Medical Associations and US professional associations and supported providers to:

- Translate and publish evidence-based medical literature;
- Support regional collaborative clinical training and supportive supervision; and
- Regularly survey relevant international literature and prepare succinct evidence summaries disseminated through project-supported website and Facebook page (as well as written dissemination).

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST Georgia developed six technical reports in Georgian language on results of non-randomized controlled assessment of effectiveness and cost-effectiveness of project's quality improvement interventions in different clinical content areas** (Dec 2014 - Feb 2015): 1) Ambulatory and hospital management of asthma; 2) Ambulatory and hospital management of COPD, 3) Prevention and management of cardiovascular disease; 4) Hospital management of acute coronary syndrome; 5) Ambulatory management of acute pediatric respiratory tract infections; and 6) Hospital management of pediatric pneumonia. The reports have been printed and disseminated to key stakeholders, including the Ministry of Labor, Health, and Social Affairs and the National Center for Disease Control and Public Health. During March-April 2015, the project team also developed English versions of the technical briefs in the abovementioned clinical focus areas.
- **To support sustainability and institutionalization of trainings, the ASSIST team worked with relevant professional and non-governmental associations to develop 12 modules for Continuous Professional Development.** During the reporting period, four modules

(Management of Asthma in Clinical Practice, Management of COPD in Clinical Practice, Practical and Theoretical Aspects of Spirometry, and Tobacco Cessation and Prevention) that had already been adopted by Tbilisi Medical University and the Counsel of Continuous Professional Development (CPD) at MoLHSA were reviewed and updated based on the latest scientific evidence, in collaboration with the professional medical associations. During Q2 in FY15, eight of the following modules were developed and/or revised and submitted to MoLHSA:

  - Use of Essential Interventions in Initial Assessment, Diagnosis, and Management of Acute Coronary Syndrome
  - Assessment Evaluation and Management of Adult Dyslipidemia in Clinical Practice
  - Implementation of CVD Risk-factor Screening and Modification in Routine Medical Practice
  - Approaches for Accurate Interpretation of Electrocardiogram
  - Evidence-Based Medical Practice
  - Blood Pressure Measurement and Diagnosis of Hypertension
  - Assessment and Management of Coronary Artery Disease
  - Health Care Quality
- **The MoLHSA accredited all abovementioned eight training modules** (Apr 2015).
- **Continued to upload evidence updates to Evidence-based Medical Portal www.healthquality.ge**. In February 2015, the website originally developed under HCI and subsequently supported under ASSIST was transferred to our partner, the Medical Association for Healthcare Quality, to continue its operation after the project closure. The association assumed responsibility for maintaining the website and sustaining the work begun by USAID ASSIST in Georgia to make available the latest evidence-based medical information, quality improvement methodologies, tools, and experiences to improve the quality of medical care in Georgia.
- **Continued to upload evidence updates on the project Facebook page:** http://www.facebook.com/USAIDGeorgiaHealthCareImprovementProject. During the reporting period, the Georgia ASSIST team posted 132 updates on evidence-based management of different clinical conditions. The updates contain links to the original resources on best clinical and QI practices and translated summary evidence updates in Georgian. Currently, the Facebook page has 2,003 likes—mostly from medical personnel, professional medical associations, and health care facilities.
- Gathered and systematized more than 700 summary evidence updates, translated from peer-reviewed journals by the project team in Georgia as an e-book and shared it on the project's website: http://www.healthquality.ge/ka/node/628#.VQBvghCX-QY.facebook.

SUSTAINABILITY AND INSTITUTIONALIZATION

The ASSIST Georgia team supported institutionalization of best practices though the use of different policy, regulatory, and cost efficiency tools nationwide. These included:

- Incorporating high-impact best practices in public and private programs and benefit packages
- Developing national protocols with audit criteria
- Supporting standardization of ambulatory and hospital medical charts at the national level and implementation instruments (e.g., flow sheets) for generation, collection, and analysis of primary data for making evidence-based decisions
- Integrating quality improvement indicators in the national health information system, reporting forms and health care system effectiveness appraisal documents
- Including cost-effective interventions (diagnostic tests, medications) of common diseases in publicly funded programs
- Replicating an internal system of quality improvement and evaluation (with strong focus on high-burden clinical conditions and cost-effective interventions) piloted in project-supported facilities owned by private medical corporations in the other medical facilities of the corporations

Our hope is to create the capacity of medical facilities in the country (particularly those involved in the project) to implement quality improvement activities without external assistance and to make improvement a permanent, integral part of their health care services. During February-April 2015, the

project developed strategic recommendations for institutionalization, sustainability, and scale-up to share with key counterparts in Georgia.

UKRAINE

BACKGROUND

The ASSIST project began working in the Ukraine in 2014 as a continuation of similar work conducted through HCI, funded by the USAID Europe and Eurasia Bureau, to implement a non-communicable disease pilot, also known as Improving Alcohol and Tobacco control during pregnancy in Ukraine. The overall goal of this intervention was to reduce alcohol and tobacco use among women during pregnancy, which has serious risks to the health and welfare of mothers and unborn babies. Preterm birth, developmental disabilities such as fetal alcohol syndrome, mental and growth retardation, low birth weight, asthma, and sudden infant death are some of the effects that drinking and smoking while pregnant have on babies, and alcohol and tobacco use in Ukraine are among the highest in the world.

ASSIST worked to support the MOH in Ukraine to achieve this goal through supporting partners to develop national protocol for health facilities to incorporate into routine practices of health care providers in the country. The project closed out on June 30, 2015.

Scale of USAID ASSIST's Work in Ukraine

Maternal and Child Health

MOH, Poltava Oblast Health Care Department, Ukrainian Medical and Monitoring Center on Alcohol and Drugs, National Medical Academy for Postgraduate Education

1 out of 27 oblasts in Ukraine

5 cities in Poltava oblast

9 facilities

10 QI teams

5,099 (3%) out of 170,439 women of reproductive age in pilot cities (75% pregnant; 25% non-pregnant women)

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Improving Alcohol and Tobacco Control During Pregnancy	
• To secure that 80% of pregnant women don't use tobacco and alcohol during pregnancy in selected facilities of Poltava oblast • To secure that 80% of reproductive age women (18-49 years) and adolescents (15-17 years) are exposed to BPI and family planning counseling	Oblast: Poltava Cities in Poltava oblast: 5 (Poltava, Kremenchuk, Komsomolsk, Mirhorod, Lubny) Facilities: women's consultations, family planning offices (total number 9) – covering 80% of women population of pilot cities Health care providers: 80 Target population: women of reproductive age, including pregnant women and adolescent girls QI teams: 10

Improvement Activity

Activity 1. Improving alcohol and tobacco control during pregnancy

KEY ACCOMPLISHMENTS AND RESULTS

- **Signing of National Protocol for Brief Physician (BPI) intervention and forming of working group.** Order #951 December 11, 2014 was signed by the Minister of Health of Ukraine to set up a multidisciplinary working group at the National level to develop a National Clinical Protocol of BPI to decrease tobacco and alcohol using by pregnant women. ASSIST helped the State Expert Center to organize a first meeting in March 2015 of the working group to discuss first draft of protocol and adapted evidence-based medicine guidelines for further development. The second meeting was organized in June 2015 to initiate the review process. We are expecting the approval of the protocol by the end of 2015.
- **ASSIST conducted a pre-/post-intervention comparison in which behavioral changes in alcohol and tobacco use among a cohort of pregnant women seen for initial evaluation in the pre-intervention period (Cohort 1)** (July – Aug 2014), **were compared to changes among a different cohort of pregnant women who were seen for initial evaluation and then followed-up after the BPI intervention (Cohort 2)** (Sept 2014 – Mar 2015).
    - The implementation phase started on September 2014 after the cascade training in BPI to decrease the number of reproductive age women (primarily pregnant women) to use tobacco and alcohol. Eighty trained physicians and health care providers from QI teams participated in the implementation phase. The intervention during the implementation phase consisted of providing screening to all pregnant women who visited the pilot policlinic for the first prenatal (antenatal) visit, filled out the questionnaire, and underwent the urine diagnostic test for cotinine. If a patient was positive for tobacco or alcohol use, the physician provided immediate BPI consultation by protocol. After the BPI consultation, the second visit was scheduled within 2-3 weeks for all positive patients.
    - There were slight differences between the demographics of Cohorts 1 and 2. While women in both cohorts were of similar age, Cohort 2 on average came for their initial evaluations later in their pregnancy, were less likely to be single, and were better educated than women in Cohort 1 (**Table 9**) Pregnant women in Cohort 2 on average returned for their follow-up visit earlier than those in Cohort 1. These factors were controlled for in statistical analyses.

Table 9: Ukraine | Demographic background of pregnant women in Cohorts 1 and 2 (July 2014 – March 2015)

	Cohort 1 (n = 652)	Cohort 2 (n = 3159)	p value
Age (years)	26.9 n = 592	27.0 n = 3045	p=0.799
Marital status	Civil marriage 24% (154) Married 60% (388) Single 16% (105) Widow 0% n = 647	Civil marriage 28% (869) Married 59% (1841) Single 13% (420) Widow 0.1% (3) n = 3133	p=0.075
Educational status among pregnant women	Higher/master 41% (265) Incomplete higher/bachelor 10% (63) Secondary/incomplete secondary 27% (175) Special secondary 22% (141) n = 644	Higher/master 45% (1371) Incomplete higher/bachelor 10% (293) Secondary/incomplete secondary 22% (651) Special secondary 23% (708) n = 3023	p=0.017
Gestation at first visit (weeks)	12.0 n = 628	12.6 n = 3100	p=0.021
Days between initial evaluation and follow-up visit	Mean = 28.9 n = 543	Mean = 19.6 n = 538	p<0.001

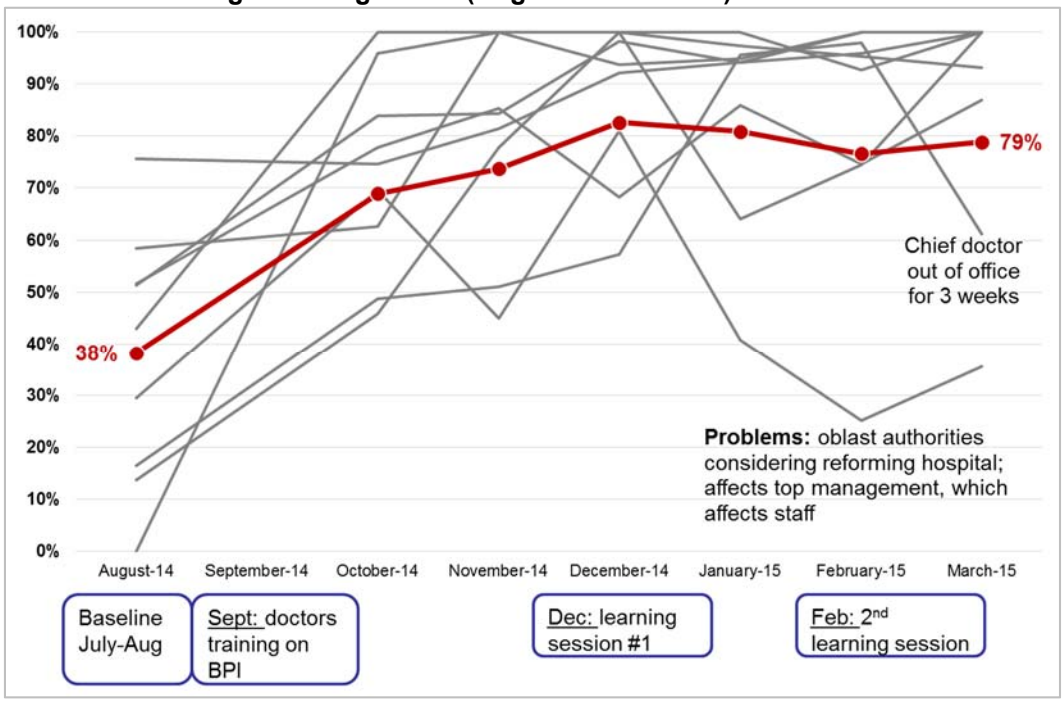
- **Pregnant women in Cohort 2 were more likely to agree to a cotinine test, more likely to test negative on the cotinine test, less likely to say they smoked, and more likely to be honest about whether or not they smoked**. When including pregnant women who either tested cotinine positive or admitted smoking as women who smoke in Cohort 1, 19% of pregnant women were smokers at initial evaluation, while in Cohort 2 only 13% of pregnant women smoked **(Table 10).**

Table 10: Ukraine | Smoking-related behaviors of pregnant women in Cohorts 1 and 2 (July 2014 – March 2015)

	Cohort 1	Cohort 2	p value
Percentage of pregnant women who agreed to a cotinine at initial visit	Yes = 93% (599) No/refusal = 7.0% (43) n = 642	Yes = 98% (3035) No/refusal = 2% (74) n = 3109	p<0.001
Result of cotinine test	Positive = 18.1% (113) Negative = 81.9% (511) n = 624	Positive = 12.3% (375) Negative = 87.7% (2679) n = 3054	p<0.001
Are you a smoker?	Yes = 10.2% (66) No = 89.8% (583) n = 649	Yes = 8.8% (277) No = 91.2% (2857) n = 3134	p=0.283
Did pregnant women who tested cotinine positive admit smoking?	Yes = 49.6% (56) No = 50.4% (57) n = 113	Yes = 65.3% (245) No = 34.7% (130) n = 277	p=0.003
Smokes at first visit (includes all pregnant women who test positive and those who say they are smokers	Yes = 19.0% (123) No = 81.0% (526) n = 649	Yes = 13.0% (407) No = 87.0% (2727) n = 3134	p<0.001

- **The intervention had positive effects on the percentage of pregnant women who were counselled about tobacco and alcohol use by physicians.** Data analysis showed an increase in the percentage of pregnant women screened for alcohol and tobacco from 38% at baseline in August 2014 to 79% in March 2015 (**Figure 141).**

Figure 141: Ukraine | Percentage of pregnant women who were screened for tobacco and alcohol use among those registered (Aug 2014- Mar 2015)



- **Smoking quit rate:** The primary outcome of interest was the BPI intervention's effect on the smoking quit rate calculated using the formula:
  - Number of pregnant who test cotinine-negative at follow-up **-** # of pregnant who admit smoking at follow-up
  - Number of pregnant who test cotinine-positive at first visit **+** # of pregnant who admit smoking at first visit
- Pregnant women who admitted to smoking at the first visit were included in the denominator, even if they refused the cotinine test. Because these women were included in the denominator, they were excluded from the numerator. Using this formula, the immediate quit rate for Cohort 1 was 49% and the immediate quit rate for Cohort 2 was 22% **(Table 11).** However, this difference may not accurately represent the true difference between cohorts because there was a large difference in the percentage of pregnant women for whom no follow up data was collected (11% for Cohort 1 and 35% for Cohort 2). To account for this difference, we also calculated the immediate quit rate among pregnant women who did have a follow up visit, disregarding pregnant women for whom we do not have follow up data. Among this group, the immediate quit rate for Cohort 1 (55%) still significantly exceeds that of Cohort 2 (34%).

Table 11: Ukraine | Smoking behaviors of Cohorts 1 and 2 (Jul 2014 – Mar 2015)

	Cohort 1	Cohort 2	p value
Women who tested positive or admitted smoking at initial evaluation	123	407	
Women confirmed to have stopped smoking at follow-up visit (tested cotinine-negative and denied smoking)	60 (49%)	89 (22%)	p<0.001
Immediate quit rate	49% (60/123)	22% (89/407)	p<0.001
Number of women with no follow-up visit or had no cotinine test at follow-up	13 (11%) (No follow-up visit=10, no follow-up cotinine test=3)	142 (35%)	p<0.001
Is a smoker at follow-up (tests	Stopped smoking = 55% (60)	Stopped smoking = 34%	p<0.001

	Cohort 1	Cohort 2	p value
positive or admits smoking)	Still smokes = 45% (50) n = 110	(89) Still smokes = 66% (176) n = 265	

- **Reduction in alcohol use.** As with the smoking data, it appears that pregnant women's drinking practices changed because fewer pregnant women at their initial visit admitted to binge drinking (drinking 6 or more standard drinks in one day) in Cohort 2 (4%) compared to Cohort 1 (17%) **(Table 12).**

Table 12: Ukraine | Responses about alcohol use among Cohorts 1 and 2 (Jul 2014 – Mar 2015)

	Cohort 1	Cohort 2	p value
1 month BEFORE you knew you were pregnant how many days did you drink 6 or more standard drinks in one day? (visit 1)	Among women who drank 6 or more drinks at least once: Mean = 2.08 n = 102 17% of women said they drank 6 or more drinks at least once n = 613	Among women who drank 6 or more drinks at least once: Mean = 1.78 n = 108 4% of women said they drank 6 or more drinks at least once n = 2752	p=0.303 p<0.001
On average, in the last 30 days, how many days per week did you drink?	None = 80% mean = 0.31 n = 638 (Among drinkers, mean = 1.56, n = 126)	None = 75% Mean = 0.34 n = 3072 (Among drinkers, mean = 1.36, n = 777)	p=0.260 p=0.012
When you did drink usually, how many standard drinks would you have in a day?	Mean = 0.49 n = 628	Mean = 0.48 n = 2771	p=0.888

- Physician consultations seem to have been effective in both Cohorts 1 and 2 in convincing pregnant women of the dangers of drinking during pregnancy and reducing the amount they drank. Pregnant women were more likely to say it was not good to drink when pregnant and that drinking may harm their baby at their follow-up visit, and reported drinking less at their follow-up visits in both cohorts. Overall, the pregnant women showed larger gains in their perceptions about the harm caused by alcohol, but the difference in gain between Cohorts 1 and 2 was not statistically significant. Likewise, while both groups reported drinking less, the difference in reduction between Cohorts 1 and 2 was not statistically significant (**Table 13**).

Table 13: Ukraine | Changes in alcohol-related perceptions and behaviors from initial antenatal visit to follow-up visit (July 2014 – March 2015)

	Cohort 1		Cohort 2		Difference made by intervention
	Initial evaluation	Follow-up	Initial evaluation	Follow-up	
On a 1-10 scale, do you believe pregnant women may drink, but not abuse alcohol?	Mean = 9.06 n = 583	Mean = 9.20 n = 583 Diff = +0.14 p=0.324	Mean = 8.84 n = 549	Mean = 9.05 n = 549 Diff = +0.21 p=0.162	+0.08 p=0.623
Do you believe drinking beer or red wine during pregnancy may benefit or harm the baby? (10-point scale)	Mean = 9.24 n = 586	Mean = 9.47 n = 586 Diff = +0.23 p=0.03	Mean = 9.17 n = 546	Mean = 9.60 n = 546 Diff = +0.43 p<0.001	+0.21 p=0.111
On average in the last 30 days, how many days per week did you drink alcohol?	Mean = 0.32 n = 563	Mean = 0.06 n = 563 Diff = -0.26 p<0.001	Mean = 0.68 n = 544	Mean = 0.39 n = 544 Diff = -0.29 p<0.001	-0.03 p=0.472
When you drank, usually how many standard drinks would you have per day?	Mean = 0.50 n = 534	Mean = 0.15 n = 534 Diff = -0.35 p<0.001	Mean = 0.79 n = 502	Mean = 0.48 n = 502 Diff = -0.31 p<0.001	+0.04 p=0.512

- **Figure 142** shows that according to patient records, during the implementation period, 90% of pregnant smokers received the BPI intervention and 74% of pregnant women who admitted to drinking any alcohol received the BPI intervention. This was corroborated by the patient survey, in which 91% of smokers said that their doctor advised them to quit smoking and 88% of drinkers said that their doctor advised them to quit drinking alcohol, both statistically significantly higher than the baseline values of 48% and 33%, respectively. Further, at end line, 76% of women said the doctor explained to them how to reach the goal and about possible difficulties the woman would face, up from 47% at baseline.
- Likewise, 92% of pregnant women received information about family planning during the BPI implementation period. This was corroborated by a patient survey, in which 87% of reproductive age women indicated that they discussed the use contraceptives with their doctor, a statistically significant increase from the baseline period when 64% of women reported that they discussed family planning. **Figure 142** shows an increase in the percentage of pregnant women receiving the BPI intervention among those who were tested cotinine positive at their first visit. Definitions and values of indicators, numerators, and denominators presented are provided in **Table 14.**
- The data indicated that, from the patient perspective, doctors were more likely to ask women about smoking and alcohol use and more likely to advise pregnant women who smoke or drink alcohol to stop after the BPI orientation. These data suggest that the processes of getting information on patient alcohol and tobacco use and providing appropriate advice—particularly ounselling on the effects of tobacco and smoking—improved after the BPI orientation, which was a key goal of the project implementation. The lack of improvement in pre-and post-intervention tobacco and alcohol usage rates among pregnant women was likely due to the political and economic instability—in particular the rapidly increasing inflation—in Ukraine over the study period.

Figure 142: Ukraine | Percentage of pregnant women receiving BPI intervention among those who test cotinine positive at their first consultation (Sept 2014 – April 2015)

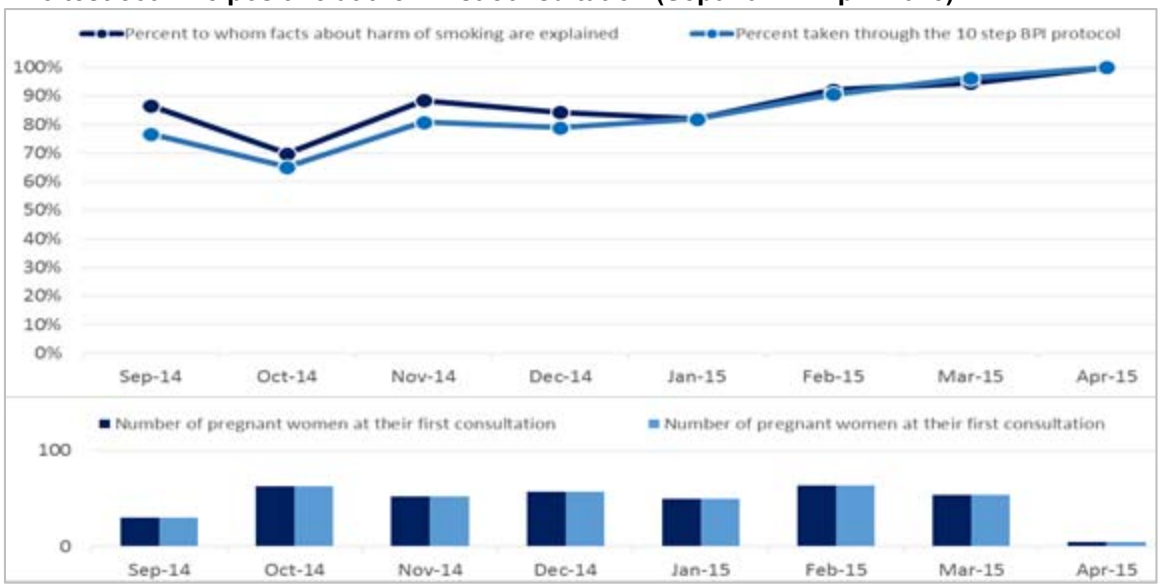


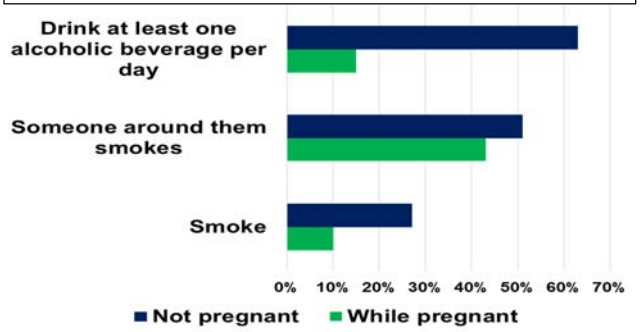
Table 14: Ukraine | Definitions of indicators, numerators, and denominators

Definitions	Sep-'14	Oct-'14	Nov-'14	Dec-'14	Jan-'15	Feb-'15	Mar-'15	Apr-'15
Percent of pregnant women to whom facts about harm of smoking explained (Indicator 1)	87	70	88	84	82	92	94	100
Number of women to whom facts about	26	44	46	48	41	59	51	5

Definitions	Sep-'14	Oct-'14	Nov-'14	Dec-'14	Jan-'15	Feb-'15	Mar-'15	Apr-'15
smoking explained								
Number of pregnant women at their first consultation who test cotinine-positive	30	63	52	57	50	64	54	5
Percent of pregnant women who received BPI counseling (Indicator 2)	77	65	81	79	82	91	96	100
Number of women who received BPI counseling	23	41	42	45	41	58	52	5
Number of pregnant who test cotinine-positive at their first consultation	30	63	52	57	50	64	54	5

- **Conducted monitoring visits to pilot facilities to check the status of BPI implementation, the quality of screening and follow-up form completion, and the barriers to the new protocol.** ASSIST conducted five monitoring visits to each of nine facilities from December 2014 – February 2015. During the session participants: recapped on the PDSA(s) the team were working on and tried to record them, reviewed their data and run charts, and planned the next steps of changes and action plans, according to assessed barriers for the changes in each facilities. The intermediate results showed improvement in accessibility of BPI interventions provided during prenatal visits in pilot facilities. The results of these visits were reported by five monitors from trained trainers during two learning sessions on December 2014 and March 2015 and at the Oblast Health Care Administration meeting in March 2015.
- **ASSIST's work in the Ukraine was monitored by a USAID Monitoring team including a visit to the Poltava Health Care Administration** and to pilot facilities in Poltava and Komsomolsk (Oct/Nov 2014).
- **Conducted two learning sessions to facilitate shared learning from implementation of BPI among nine implementation teams** (Dec 2014 and March 2015). Approximately 30 participants attended each one-day session.
- **The final conference of ASSIST project in Ukraine took place on June 12, 2015 in Kiev:** the event brought principal stakeholders to present and discuss the key technical assistance activities of QI project on alcohol and tobacco use among pregnant women and women of reproductive age in Ukraine, activity's goal and objectives, results and evaluation of implemented strategy of quality improvement.
- **Conducted and analyzed survey to better understand how gender impacts targeted health issues:** In September 2014, ASSIST conducted research to better understand how gender impacts the project's target health issues (i.e., alcohol and tobacco use and violence during pregnancy). This quantitative survey was developed by project QI team, with input from WI-HER LLC. Data was collected from 617 women of reproductive age that attended participating women's health centers in Poltava Oblast. Results from a preliminary analysis were analyzing in October 2014 (**Figure 143**) and were shared with participants at two gender integration trainings.

Figure 143: Ukraine | Self-reported alcohol and tobacco use among pregnant women in Ukraine (Sept 2014)



- **Two gender integration workshops conducted**: In October 2014, Megan Ivankovich of ASSIST partner WI-HER LLC conducted two gender sensitization and integration workshops; nine doctors in Poltava and seven advisors in Kiev participated. Sessions included defining gender and related concepts, identifying gender issues and gaps (gender analysis), addressing

gender issues and gaps (designing changes to test), and analyzing and reporting results (sex-disaggregated data and gender-sensitive indicators). Based on these workshops and technical assistance on gender integration provided in October 2014, recommendations on how best to integrate gender into the project were proposed: 1) Integrate the family approach into informational materials; 2) make modifications in electronic form and hard copies; 3) develop a brief about role of gender for providers or patients; and 4) increase male participation during consultations.

As a response, the project developed a brief about role of gender in alcohol and tobacco cessation among pregnant women and adolescents and presented the brief during learning session #1 in December 2014 for QI teams during USAID monitoring visit meetings at the Poltava Health Care Department Administration.

ASSIST worked in close coordination with MOH, oblast health care authorities, and the National Medical Academy of Postgraduate Education to enhance the capacity of Ukrainian health care providers and institutions to enable them to effectively deliver quality care and respond to the needs of patients to decrease alcohol and tobacco usage among pregnant women. ASSIST-supported work in Ukraine has included orienting health care providers and key decision-makers both at the national and local level on an evidence-based brief physician intervention (BPI) tobacco and alcohol cessation protocol, as well as supporting a national multidisciplinary working group at State Expert Center to prepare the national protocol and guideline for BPI. ASSIST also facilitated the institutionalization of the new BPI protocol through working with local and national health authorities to support its incorporation into the routine practice of health care providers in the country. In addition, the project worked with the National Medical Academy of Postgraduate Education to incorporate the BPI curricula into post graduate medical education to further achieve sustainability objectives.

BACKGROUND

ASSIST was invited by USAID Haiti in December 2013 to provide technical assistance to the Haitian Ministry of Social Affairs, implementing partners, and the United States Government in Haiti, to improve the quality of services offered to vulnerable children and families affected by HIV. The project is a continuation of work begun in January 2011 under the HCI project, which focused on building consensus among stakeholders on a set of minimum service guidelines at the point of service delivery. The National Guidelines were designed to guide service providers to ensure they were providing meaningful services that contribute to children's well-being. Both the ASSIST and HCI work were funded by PEPFAR.

During 2012-2013, HCI identified champions from the government, local and international organizations, and other stakeholders to pilot and implement the service guidelines and provide support for quality improvement. HCI facilitated the development of a 15-member national task team, led by IBESR (*Institut du Bien Etre Social and de la Recherche,* an autonomous institution within the Ministry of Social Affairs) and included representatives from other line ministries and local and international organizations. With guidance from the national task team, quality improvement committees were formed in three departments (North, West and Artibonite) to pilot the minimum service guidelines.

OVC standards were officially launched in late 2013, and the following year they were distributed through ASSIST in Grand'Anse, Sud, and Nord Est departments. In FY15, from October 2014 through May 2015, ASSIST continued to provide TA to IBESR and partners to hold capacity-building sessions on use of the guidelines and QI in their implementation in the remaining departments of Nord Ouest, Centre, Sud Est, and Nippes. In total, over the course of the project from 2011- 2015, 10 departments were reached.

Scale of USAID ASSIST's Work in Haiti

Min. Soc. Affairs

4 out of 10 departments

HIV/AIDS (including OVC)

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Improve the quality of care and services for vulnerable children and their families	
Distribute guidelines and initiate implementation in 4 departments through 2 workshops in each department	Activities were targeted at 4 departments: Central Plateau, Nord-Ouest, Nippes, Sud-Est

Cross-cutting Activity

Activity 1. Build capacity of government and NGO partners to implement national service standards to improve quality of care for vulnerable children and their families

OVERVIEW

ASSIST completed its final phase of operation in Haiti in June 2015. During FY15, USAID Haiti requested that ASSIST provide technical support to IBESR to orient stakeholders on the implementation of the National Guidelines and QI methodology in the remaining four departments in Haiti: Nord Ouest, Centre, Sud Est, and Nippes.

KEY ACCOMPLISHMENTS AND RESULTS

- **Completed dissemination of National Guidelines across all 10 Departments**
- **With leadership from IBESR, ASSIST coordinated two meetings in each of the four departments:**
  - February 10-12, 2015 Hinche, Central Plateau
  - March 23-25, 2015 Miragoane, Nippes
  - April 21-23, 2015 Jacmel, Sud Est
  - May 25-27, 2015 Port de Paix, Nord Ouest

  The first one-day meeting was designed to build constituencies of support among OVC stakeholders and focused on local leaders and representatives of direct service delivery-local and international NGOs. The objectives of the meeting were: 1) presentation of the National Guidelines; 2) promotion of a paradigm shift towards quality in OVC programs; and 3) development of a common vision and language. Following the first meeting of department stakeholders, a second two-day meeting was held with local field agents who provide services to children and families. The field agents were oriented to the content of the National Guidelines and principles of quality improvement, and an action plan to be followed by IBESR and partners was developed.

Table 15 shows the cumulative numbers and types of people oriented to QI by ASSIST and HCI betwee May 2013 and May 2015.

Table 15: Haiti | Numbers and types of people exposed to QI (May 2013 – May 2015)

	Department	Month/ year of training	IBESR	Other local providers	Doctors	Nurses	Data clerks	Social workers/ Psycholo-gists	Community Health agents	Total
	National level		4	15	9	12	0	19	0	59
1	North	8/2014 & 7/2013	5	26	0	9	1	7	42	90
2	North'East	9/2014	6	21	4	8	1	7	20	67
3	Artibonite	8/2014 & 5/2013	6	41	1	7	1	9	33	98
4	Grand'Anse	7/2014	4	22	0	6	0	3	22	57
5	South	6/2014	6	23	0	5	1	5	0	40
6	West	8/2013 & 9/2013	2	15	0	4	1	5	38	65
7	Central Plateau	2/2015	7	4	0	7	0	2	33	53
8	Nippes	3/2015	6	11	0	2	0	5	20	44
9	Southeast	4/2015	1	6	0	11	0	0	9	27
10	Northwest	5/2015	2	11	1	3	0	5	22	44
	TOTAL		**49**	**195**	**15**	**74**	**5**	**67**	**239**	**644**

SUSTAINABILITY AND INSTITUTIONALIZATION

The government agency mandated with planning and coordination of care and protection of Haiti's children – IBESR – has led the process of developing and implementing the National Guidelines over the last four years. Enhancing the capacity of IBESR, at national and local levels, in evidence-based interventions and in the use of improvement methodologies has the potential for long-lasting impact. Through ASSIST's cultivation of a collaborative relationship with IBESR staff, IBESR leaders have become QI "champions" and have adopted an improvement culture in their work in other service areas, including child protection.

ASSIST closed out activities in Haiti in June 2015. To promote the holding of the gains made in improving quality of programming for VC, ASSIST coordinated with Caris Foundation staff to carry on the role of providing technical assistance on dissemination of the National Guidelines and improvement. Caris staff were included in the last two workshops in Nord-Ouest and Sud-Est departments as co-facilitators to promote their capacity for improvement. With support from USAID ASSIST, Caris Foundation is working to establish mechanisms for continuing to support IBESR in implementing the National Guidelines.

NICARAGUA

BACKGROUND

ASSIST began activities in Nicaragua in 2014, continuing the work started by HCI in the country's health training institutions. ASSIST is working to institutionalize improvement methods and pre-service training in HIV services in nine public and private universities in Nicaragua by supporting nursing and medical faculty to apply a teaching package for quality care. These universities are: Universidad Nacional Autónoma de Nicaragua (UNAN) León, Universidad Nacional Autónoma de Nicaragua (UNAN) Managua, Bluefields Indian and Caribbean University (BICU), Universidad de las Regiones Autónomas de la Costa Caribe de *Nicaragua* (URACCAN), Instituto Politécnico de la Salud "Luis Felipe Moncada" (POLISAL), Universidad Cristiana Autónoma de Nicaragua (UCAN), Universidad Americana (UAM), Universidad Politécnica de Nicaragua (UPOLI), and Universidad Católica Redemtoris Máter (UNICA). PEPFAR supports this work.

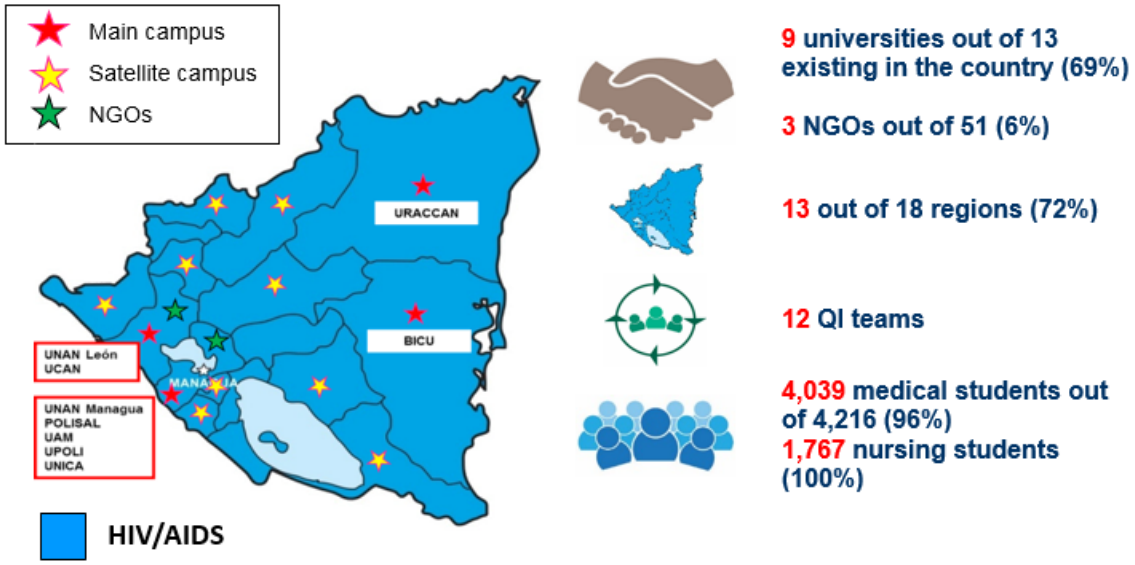
ASSIST's technical assistance targets universities, and its objectives are to:

- Promote inclusion of MOH norms and protocols (ART, prevention of mother-to-child transmission of HIV, rapid testing, combination prevention counseling) as well as gender, gender-based violence (GBV), and human trafficking topics in medical and nursing study programs
- Develop competencies among medical and nursing teachers and students for HIV prevention and health services provision for people with HIV
- Promote continuous improvement in teaching and evaluation methodologies for both medical and nursing teachers
- Provide support to universities in reducing stigma and discrimination towards people with HIV and the l community

These objectives support the PEPFAR Central America strategy of accelerating progress towards universal access to prevention, care, treatment, and support related to HIV.

In addition, ASSIST is providing technical assistance to three additional organizations: Association for Human Rights of Nicaraguan Sexual Diversity (ADESENI), Western Self-help Group for People Living with HIV/AIDS (GAO) and Female Transgender Organization (ODETRANS), targeting design and implementation of a quality management program. Two of these organizations focus on sexual diversity and one on people living with HIV.

Scale of USAID ASSIST's Work in Nicaragua



PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Strengthen teachers' capabilities to teach the HIV care protocols	
• Strenghten teachers' abilities to develop competencies among medical and nursing students for prevention, care and follow-up of PLHIV	13 of 18 regions (72%) 9 of 13 universities (69%)
2. Implement continuous quality improvement in teaching	
• Improve the quality of teaching and evaluation related to HIV-related subjects at universities	13 of 18 regions (72%) 9 of 13 universities (69%) 4,039 medical students of 4216 (96%) 1,767 nursing students (100%)

What are we trying to accomplish?	At what scale?
3. Design and implement a quality management program in three non-governmental organizations serving PLHIV and LGBT populations	
• Improve the quality of the HIV prevention services provided by the three NGOs	3 of 51 organizations (6%) 400 of 47,306 LGBT persons (1%) 100 of 8,661 HIV-positive persons (1%)

= Improvement Activity = Cross-cutting Activity

Activity 1. Strengthen teachers' capabilities to teach the HIV care protocols

KEY ACCOMPLISHMENTS AND RESULTS

The Nicaraguan MOH guidance and protocols to provide care for people with HIV were updated this year according to WHO guideliens, making it necessary to update medical and nursing teachers on these new guidelines.

- **In FY15, ASSIST provided TA to teachers from 9 universities to develop their competencies on gender, GBV, human trafficking, and providing care for people with HIV**. In order to provide this technical assistance, ASSIST designed methodological tools to facilitate this process.
- During the year, ASSIST updated the interactive DVD teaching package, especially the HIV module, as well as the 11 topics included in it. Five new topics were added: HIV transmission, the new WHO approach for PLHIV, gender, GBV, and human trafficking. For each topic, ASSIST Nicaragua drafted the methodological design, technical note, supporting material, and any supplementary information. In addition, we added a checklist to evaluate knowledge related to the care protocol for adults with HIV. The modules on gender, GBV and human trafficking were developed along with the USAID | PrevenSida Project to standardize contents to use in training provided by both projects.
  - 1,000 copies of the DVD were produced and distributed among the nine universities
- **In addition, ASSIST drafted activity plans to reduce stigma and discrimination towards the LGBT community and PLHIV and helped implement these in five universities (UPOLI, POLISAL, BICU, UCAN and UNAN Leon).** These plans included activities such as sharing MOH resolutions and laws on protection of rights for these groups, as well as creating murals, holding student forums, and distributing educational materials on these topics.
- ASSIST provided technical assistance to two universities – UNAN Managua and POLISAL – as a pilot project, to draft and declare a policy on HIV prevention and non-discrimination. This policy would stipulate that all university employees be trained on HIV to eradicate stigma and discrimination towards sexual diversity and people with HIV. ASSIST will continue working on this process in 2016.
- **Designed and distributed educational materials:** Designed nine banners for HIV prevention, reproduced, and distributed them in 17 universities. Designed and distributed 5,000 brochures on stigma and discrimination experienced by the LGBT community and people with HIV to be distributed at universities

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (FY14)	Last value (October 2014-March 2015)	Last value (October 2014-September 2015)
Strengthen teachers' capabilities to teach the HIV care protocols	# of teachers trained in the HIV care protocols according to the WHO 2013 evidence, stigma and discrimination, GBV, and human trafficking	0	Reached: 114 A target: 150 (76%)	Reached:115 Cumulative 229 (153%)

Activity 2. Implement continuous quality improvement in teaching

OVERVIEW

ASSIST is providing technical assistance to nine universities to promote continuous quality improvement (CQI) activities in teaching processes and learning evaluations. Quality monitoring is not carried out at universities, so it is of great importance for ASSIST to provide technical coaching and support for implementing the rapid cycle quality improvement methodology. These universities have previously conducted HIV knowledge, attitude, and practices (KAP) surveys among their students at different times, so teachers had already identified knowledge and attitude gaps among students regarding provision of care for people with HIV. From these gaps, teachers at BICU, URACCAN, POLISAL, and UCAN designed an average of three improvement rapid cycles at each university, in order to implement changes in teaching and learning assessment methodologies for HIV topics. During the period, ASSIST also supported teachers at UNAN Leon and UPOLI to introduce changes to teaching and learning assessment methodologies will enable students to develop required competencies to provide HIV prevention, care, and treatment services and teachers to evaluate student learning more objectively.

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST completed nine technical assistance visits to six universities and supported the design of 19 improvement cycles currently under implementation to reach improvement in their educational processes**.
- **New adjustments were made to study programs in two universities (BICU in January and March 2015 and UNAN Leon In June 2015).**
- Between Feb – Aug 2015, ASSIST conducted HIV KAP baseline surveys among medical students at in five universities (450 medical students and 79 nursing students)
- At UCAN Leon, the baseline results show that the students' biggest deficiencies were related to their attitudes toward counseling and caring for people with HIV (**Table 16**).

Table 16: Nicaragua | Baseline KAP HIV study among UCAN medical students (Jul 2015)

Topic	Percentage of correct responses 5th year 2014/2015 n= 61
Knowledge questions	78
HIV risk factors	89
Transmission ways	90
Principles of counseling (attitude)	55
Principles of counseling (knowledge)	72
Human rights – stigma and discrimination	71
HIV maternal child transmission	79
Care for people with HIV (knowledge)	62
Care for people with HIV (attitude)	58
Antiretroviral therapy (ART)	73

- Based on these results, UCAN teachers and administrators implemented the following changes: a) reorganized student rotation to include service in the HIV clinic; b) introduced HIV transmission and prevention clinical cases in tests for epidemiology class; and c) discussed HIV KAP survey results with students. The results also informed the development of information, education, and communication campaigns to reduce stigma and discrimination in this university.
- At BICU University, the baseline results showed that 5th year medical students have high levels of knowledge about the protocols of care for people with HIV but scored lower on attitudes (**Table 17**). As a result, teachers will include this topic in their classes and develop awareness campaigns to reduce stigma and discrimination in the university.

Table 17: Nicaragua | Baseline KAP HIV study among BICU fifth year medical students (Jul 2015)

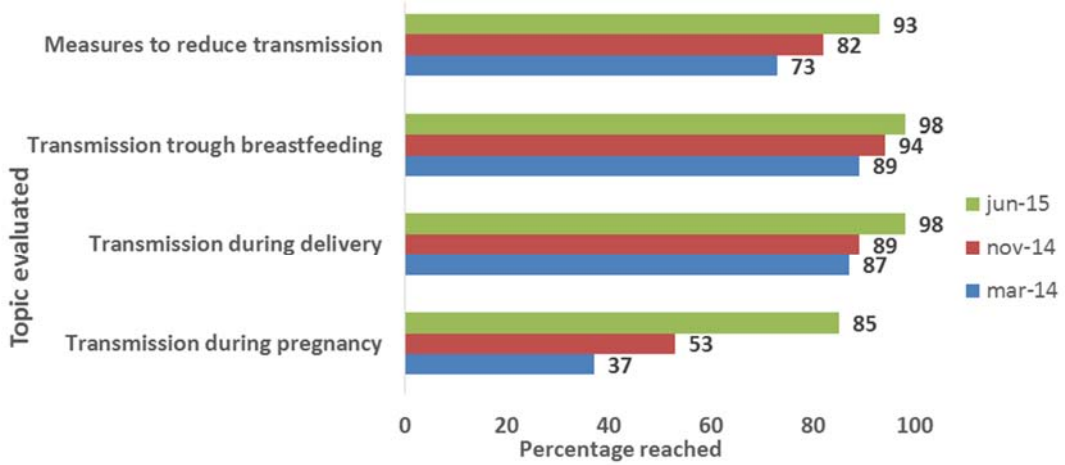
HIV risk factors	95
Transmission ways	95
Principles of counseling (attitude)	88
Principles of counseling (knowledge)	88
Human rights – stigma and discrimination	80
HIV maternal child transmission	95
Care for people with HIV (knowledge)	65
Care for people with HIV (attitude)	59
Antiretroviral therapy	82

At UPOLI nursing school, KAP surveys showed poor knowledge among students on prevention of mother-to-child transmission of HIV and care for people with HIV, specifically on the benefits of ART for HIV-positive pregnant women. The faculty identified the following causal factors: teaching and evaluation methodologies are very traditional, there is no basic textbook to study PMTCT, and there is no plan to reinforce contents for students nor an individualized approach to problem cases.

After this causal analysis, they made the following changes:

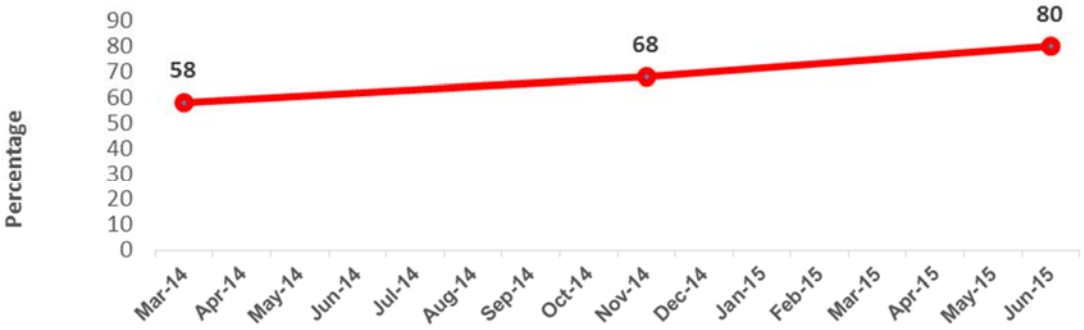
- Incorporated the technical content described in the teaching package in the UPOLI curriculum
- Reviewed the contents of this subject in the curriculum, identified that the approach was very superficial, and made adjustments in the teaching methodologies and number of hours dedicated to the topic
- Incorporated new methodologies to teach these topics, such as the study of clinical cases available in the teaching package (i.e., they went from purely theoretical content to analyzing clinical cases in class)
- Repeated KAP surveys showed significant changes in knowledge among nursing students over time. **Figure 144** shows that the proportion of nursing students with correct knowledge of measures to reduce HIV transmission increased from 73% to 93% between March 2014 and June 2015. Knowledge about HIV transmission during breastfeeding, delivery, and pregnancy increased during this time period as well. **Figure 145** shows that the proportion of nursing students with correct knowledge of ART increased from 58% in March 2014 to 80% in May 2015.

Figure 144: Nicaragua | Changes in nursing students' knowledge related to PMTCT, UPOLI (March 2014-June 2015)



Source: Data provided by UPOLI. Mar n=32; Nov n=38; Jun n=36.

Figure 145: Nicaragua | Changes in proportion of UPOLI nursing students with correct knowledge of ART (March 2014 – June 2015)



Source: Data provided by UPOLI. Mar n=32; Nov n=38; Jun n=36.

- At UNICA, we carried out the baseline KAP survey among 4th and 5th year medical students in June 2015. Fifty students participated in the survey. Results show that 75% of students across the two classes scored correctly on HIV knowledge questions, but only 58% on attitudes. The lowest scores occurred in the areas of counseling and attitudes toward caring for people with HIV (**Table 18**). The findings led the UNICA faculty to decide to expand the teaching of HIV topics in the medical curriculum of this university.

Table 18: Nicaragua | Percentage of UNICA medical students with correct responses, by topic, June 2015

Topic	Baseline Fourth year n= 10	Baseline Fifth year n= 40	Baseline Average (Both Classes)
All of the questions	63	71	**70%**
Knowledge questions	68	77	**75%**
Attitude questions	52	59	**58%**
HIV risk factors	80	91	**89%**
Transmission ways	90	91	**91%**
Principles of counseling (attitude)	43	58	**55%**
Principles of counseling (knowledge)	30	35	**34%**

Topic	Baseline Fourth year n= 10	Baseline Fifth year n= 40	Baseline Average (Both Classes)
Human rights – stigma and discrimination	63	69	**68%**
HIV maternal child transmission	63	76	**74%**
Care for people with HIV (knowledge)	62	63	**62%**
Care for people with HIV (attitude)	47	56	**54%**
Antiretroviral Therapy	62	73	**71%**

Source: KAP HIV study among UNICA Managua medicine students. June 2015

- At POLISAL, rapid cycles' measurement did not achieve the expected results. Continuing measurement studies with other student groups is pending.
- At UNAN Leon, ASSIST supported the revision of checklists to measure progress in knowledge acquired by medical and nursing students on counseling for HIV combination prevention and rapid testing, to be applied to students at the beginning and end of each rotation.

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (FY14)	Last value (October 2014-March 2015)	Last value (October 2014-September 2015)
Implement continuous quality improvement in teaching	% of universities implementing quality improvement cycles	0%	Reached: 6 of 8 (75%)	Reached: 6 of 9 (67%)

Activity 3. Design and implement a quality management program in three non-governmental organizations serving PLHIV and LGBT populations

OVERVIEW

During this fiscal year, ASSIST designed quality management programs for three NGOs: the Association for Human Rights of Nicaraguan Sexual Diversity (ADESENI), Western Self-help Groups for people living with HIV/AIDS (GAO), and the Female Transgender Organization (ODETRANS). The quality management programs included tools to measure client satisfaction, internal organizational climate, and service quality standards and indicators and described the steps each organization needs to take to sustain service quality and evaluate it over time.

KEY ACCOMPLISHMENTS AND RESULTS

- Developed quality management programs for ADESENI, GAO, and ODETRANS.
- Completed the final report on the evaluation of the Strategic Plan for integrated care of female transgender populations in Nicaragua, which shows that organizations had achieved 21 out of 33 planned actions to assure respect for human rights and social determinants of health.

IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (FY14)	Last value (October 2014-March 2015)	Last value (October 2014-September 2015)
Design and implement a quality management program in three LGBT organizations	# of organizations with a quality management program	0	Reached: 3 of 3 (100%)	Reached: 3 of 3 (100%)

SUSTAINABILITY AND INSTITUTIONALIZATION

ASSIST has been working on institutionalizing the HIV training package that reflects the MOH prevention and care norms and protocols in the medical and nursing education programs of the major Nicaraguan universities. ASSIST's institutionalization and sustainability strategy is to strengthen the

Nicaraguan health system by increasing the knowledge and capacity among nursing and medical students from both public and private universities. These students are the future doctors, nurses, and leaders within the health system in Nicaragua.

MNCH Core-Directed Funding

MATERNAL, NEWBORN, AND CHILD HEALTH

BACKGROUND

ASSIST's maternal, newborn, and child health (MNCH) direct-funded activities build the capacity of governments and partners to adapt improvement approaches to continuously strengthen essential system functions to improve, scale up, and sustain high-impact evidence-based health care for leading causes of MNCH mortality in USAID-priority countries in support of the USAID Acting on the Call: Ending Preventable Child and Maternal Deaths (EPCMD). These activities seek to incorporate best practices along all points of the antenatal care, intra- and postpartum, postnatal, and early childhood continuum at different levels of the health system.

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Primary care antenatal care delivery	
• To improve quality of ANC services including prevention, detection, initial management and referral of obstetric complications in a demonstration district	Jinja District in Uganda; • 10 health centers III • 5 health centers IV • 2 general district hospitals • 1 regional referral hospital
2. Improve quality of integrated pre-eclampsia/eclampsia (PE/E) and preterm labor care (PTL)	
• To improve PE/E and PTL care through developing an integrated package of intra- and postpartum PE/E, PTL care interventions along a primary and referral continuum of care for improved maternal and neonatal outcomes in a demonstration district	Jinja District in Uganda • 5 health centers III • 3 health centers IV • 1 general district hospital • 1 regional referral hospital
3. Survive and Thrive (S&T) Initiative	
• To improve newborn outcomes by building integrated clinical and QI competencies of providers, managers and professional associations to continuously improve Helping Babies Survive (HBS) and Helping Mothers Survive (HMS) best practices for mothers and newborns in USAID priority countries.	• Global
4. Improve and sustain high-quality newborn resuscitation services	
• As part of the Resuscitation Working Group of the Newborn Technical Reference Team contribute to development of a HBB country case study • To assess the quality of basic resuscitation services in Uganda and inform a broader strategy to improve the quality of basic newborn resuscitation services at scale	• Uganda, sample of facilities TBD
5. Child health and immunization	
• Improve the Integrated Management of Childhood Illness (IMCI) for children in outpatient settings in a demonstration sample of facilities focusing on care for pneumonia, diarrhea, and newborn infection/sepsis early recognition, management, and referral	• Northern Uganda, sample of facilities TBD

= Improvement Activity = Cross-cutting Activity

Activity 1. Primary care antenatal care delivery

OVERVIEW

There is strong evidence supporting the benefits of antenatal care interventions, when effectively administered, on the health of the pregnant woman and fetus and on the prevention of obstetric and neonatal complications. However, significant quality gaps persist in ANC services in low-resource settings, which contribute to a high burden of maternal morbidity and mortality. For example, a 2011 survey conducted by the HCI project to inform maternal and child anemia control work in Mali's Sikasso Region (where 76% of pregnant women suffer from anemia), demonstrated low levels of adherence with ANC anemia control best practices based on ANC record audit review and client exit interviews.

While much progress has been made to refine a basic platform of ANC best practices [e.g., intermittent preventive therapy (IPT) for malaria, routine screening for preeclampsia and eclampsia (PE/E) and pre-term labor risk factors], the poor quality of ANC services in low- and middle-income countries continues to increase women's risk of serious maternal morbidities and mortality (e.g., severe anemia, malaria, TB, syphilis, gestational diabetes, PE/E) as well as the risk of poor outcomes for their newborns. ASSIST and other partners are gaining important experience in improving the quality of ANC services.

By focusing on improving the quality of high-impact ANC services (including, but not limited to, ANC health promotion best practices, early detection, initial management and referral of the most common obstetric conditions such as preeclampsia, obstructed labor/dystocia, risk of premature labor/birth, early detection, initial management and referral for common maternal infections such as HIV/AIDS, malaria, chronic UTI, syphilis and other STDs and management of causes of nutrition deficiencies such as anemia, maternal under-nutrition), the activity will contribute to decreasing preventable maternal mortality due to the most frequent indirect causes (such as infections, NCDs, malnutrition) and one of the main direct causes of maternal death (PE/E), attributing to almost 41% of maternal death globally. Particularly, the activity will focus on reliable and consistent delivery of proven, high-impact ANC best practices (e.g. routine Indirect Fluorescent Antibody (IFA), Intermittent Preventive Treatment in pregnancy (IPTp) for malaria; routine screening for PE/E and pre-term labor (PTL) risk factors) to decrease women's risk factors for serious maternal morbidities and mortality (e.g. severe anemia, malaria, TB, syphilis, gestational diabetes, PE/E) and to reduce poor outcomes for their newborns and thus, contribute to the global EPCMD agenda.

Objective of the Activity: Improve the quality of primary ANC services including best practices and antenatal prevention, detection and management of obstetric complications and maternal morbidities in demonstration facilities of the Jinja District in Uganda.

KEY ACCOMPLISHMENTS AND RESULTS

- Shared work plans with district officials and participating facilities' staff and coordinated proposed plans and interventions with the central MOH Maternal Health Care Department officials (June 2015).
- Conducted an initial scoping visit (Dr. Jorge Hermida, Dr. Connie Namajji) with a sample of Health Center IV and Health Center III and the Jinja Referral Hospital (June 2015).
- Developed and field-tested quantitative indicators as well as data collection instruments (Jun– Jul 2015).
- Trained a cadre of four regional QI coaches as data collectors for the baseline assessment Dr. Connie Namajji (Aug. 2015)
- ASSIST team conducted a baseline assessment and trained data collectors in each of the 10 participating facilities designed as intervention sites, as well as in a similar number of control facilities (Sept 14-18, 2015).

Activity 2. Improve quality of integrated pre-eclampsia/eclampsia (PE/E) and preterm labor care (PTL)

OVERVIEW

Preeclampsia and eclampsia (PE/E) are major risk factors for pre-term delivery and contribute to

almost 14% of maternal deaths globally. Similarly, preterm birth and its complications contribute to 14% of global neonatal deaths. While major progress has been made in refining and demonstrating the efficacy of high-impact intervention bundles for PE/E (MgSO4), preterm labor (antenatal corticosteroids) and management of the pre-term neonate (Kangaroo Mother Care -- KMC), significant barriers remain around the effective integration and implementation of these intervention bundles along a continuum of antenatal, intra- and postpartum care and primary to referral-level services. In particular, early recognition of complications at household and primary levels and effective referral and counter-referral continue to represent major challenges for improving outcomes for mothers with PE/E and their term and premature neonates.

ASSIST and other partners have started to build substantial experience in improving early detection and case management of PE/E, PTL, and the preterm neonate in several USAID MNCH-priority countries. By improving integrated care of the mother and neonate through reliable and consistent delivery of evidence-based high-impact intervention bundles for PE/E (MgSO4), and management of preterm birth (ACS) associated with PE/E in selected facilities of Jinja district of Uganda, the activity will reduce PE/E- and prematurity and associated maternal and neonatal mortality and thus, contribute to global EPCMD agenda.

The learning from the QI work will be shared thoroughly with the Uganda Ministry of Health, the Jinja and neighboring district management teams and with other USAID and MOH implementing partners, seeking opportunities for scale-up of the integrated model of care to new regions and networks. It is likely that the learning on how to design and deliver a package of integrated services for PE/E would be applicable to other similar African countries.

Objective of the Activity**:** To improve the quality of an integrated PE/E and premature labor/newborn care in Jinja District, Uganda through developing and implementing an integrated package of high-impact cost-effective interventions.

KEY ACCOMPLISHMENTS AND RESULTS

- An initial scoping visit was conducted to a sample of Health Center IV, Health Center III and the Jinja referral Hospital by Dr. Jorge Hermida and Dr. Connie Namajji (June 2015).
- Quantitative indicators as well as data collection instruments were developed and field tested by the ASSIST team (June-July, 2015).
- A cadre of four regional QI coaches were trained as data collectors for the baseline assessment by Dr. Connie Namajji (Aug 2015).
- A baseline assessment was conducted by the ASSIST team plus trained coaches in each of the 10 participating facilities designed as intervention sites, as well as in a similar number of control facilities (Sept 2015).

Activity 3. Survive and Thrive (S&T) Initiative

OVERVIEW

As child mortality continues to decrease worldwide, the rate of reduction in newborn mortality has continued to lag behind the reduction of under-five child and maternal mortality rates. Newborn mortality now constitutes 44% of under-five mortality demanding urgent attention to accelerate reductions in newborn mortality. The Every Newborn Action Plan (ENAP) endorsed by the World Health Assembly in 2014 outlines a strategic plan for accelerating coverage of effective newborn services for the three leading causes of newborn mortality: newborn asphyxia, sepsis and prematurity/low birth weight. Improving the quality of care is one of the plan's five strategic priorities.

Building on the success of the Helping Babies Breathe (HBB) Global Development Alliance (GDA), a new private-public GDA for Survive and Thrive (S&T) was recently created, with USAID as a principal partner. The purpose of the S&T GDA is to improve provider competencies, professional associations' capacity and the quality of newborn health services for leading causes of newborn mortality in support of ENAP goals. Survive and Thrive GDA partners include the American Congress of Obstetricians and Gynecologists (ACOG), the American College of Nurse Midwives (ACNM), the American Academy of Pediatrics (AAP), Jhpiego, March of Dimes, Maternal and Child Survival Program (MCSP), ASSIST, and others. S&T GDA members are currently developing or completing Helping Babies Survive (HBS) and Helping Mothers Survive (HMS) clinical modules. HBS modules

include: 1.) Helping Babies Breathe (to be updated 2015); 2. Essential Care for Every Baby (ECEB) (just released); 3.) Essential Care for the Small Baby (ECSB) (soon to be released).

There is growing recognition based on recent research and cumulative HBB training experience, that while clinical training is essential, it is insufficient for improving and sustaining the delivery of life-saving newborn health care services in low resource settings in the absence of broader systems strengthening and quality improvement efforts. With funding from the Maternal and Child Health (MCH) element in FY14, USAID requested that ASSIST create and lead a S&T GDA QI Technical Working Group with the purpose of supporting and aligning S&T partners' efforts to improve the quality of maternal and newborn health care through support of integrated clinical and QI competency building for implementation of HBS and HMS best practices in USAID priority countries. Although activities started in FY14, funding was not received until January 2015.

Objective of the Activity: To improve newborn outcomes by supporting S&T GDA partners to build integrated clinical and QI competencies of providers, managers and professional associations to continuously improve HMS and HBS best practices in USAID priority countries.

KEY ACCOMPLISHMENTS AND RESULTS

- **Completed a framework to guide the development of standardized skills-based QI HBS and HMS training exercises and tools/products for use as part of clinical training, supervision and local improvement efforts in USAID priority countries** (Q2).
- **ASSIST and AAP completed two chapters of a generic integrated QI workbook and clinical capacity building exercises/tools tailored to priority HBS and HMS clinical content areas (e.g., newborn resuscitation; care of small baby; prevention and management of PPH)** (Q2). Sample exercises were field tested in an AAP workshop in Chicago (Nov 2014). In addition, a session was conducted during the MNCH Conference held in Bangladesh in April 2015 to present a sample chapter of the QI workbook.
- **ASSIST collaborated with AAP, MCSP and other partners to support QI sessions at the April 2015 Asia launch of the HBS materials.**
- **In addition to leading the S&T QI TWG, ASSIST has supported pilot testing of integrated clinical and QI capacity-building exercises in collaboration with the AAP and other S&T QI TWG partners.** ASSIST has collaborated with AAP to support integrated QI and clinical HBS training at S&T meetings and AAP HBS master training sessions in Arusha, Tanzania; Addis, Ethiopia and Chicago, Illinois.
- **ASSIST organized and facilitated five QI TWG meetings** (Nov 11th, Jan 16th, Feb 27th, Jun 15th and Aug 17th) and several small group meetings to facilitate development, field testing and implementation of the QI workbook and supplemental content-specific HBS materials. At the request of the USAID MCH element, ASSIST is leading a QI TWG for the multi-partner Survive and Thrive GDA. The main goal of S&T QI TWG activities is to contribute to improved newborn and maternal outcomes by supporting S&T GDA partners to build integrated clinical and QI competencies of providers, managers and professional associations in USAID priority countries to continuously improve Helping Mothers Survive and Helping Babies Survive best practices.
- **In collaboration with AAP, ASSIST helped develop a draft QI workbook and supplemental content-specific HBS materials (specifically QI learning materials on Essential Care for Every Baby) which was shared with the members of the QI TWG for feedback and suggestions** (Jun 2015). The QI workbook covers topics related to creating an improvement team, deciding on what to improve, implementing changes, measuring quality and progress to improve care and promote institutionalization, thereby making improvement the norm.
    - After receiving feedback from the TWG members, the materials were revised and, together with AAP, field tested in Nicaragua during July 28-31, 2015.
    - As part of the field test during July 28-31, 22 staff members from 12 health centers of the Juigalpa Department were trained in a four-hour session on the first four chapters of the QI workbook, as the last activity of a two-day clinical training using the HBB and the Essential Care for Every Baby (ECEB) curricula. The training included discussion of concepts and development of specific QI skills through group work. At the end of the training, ASSIST conducted individual written surveys and a focus group discussion to get feedback on

features such as understandability, user-friendliness, perceived utility, feasibility of application of the concepts covered. Most of these features were perceived very positively by the participants. Summary findings of the field test results have been shared to QI TWG members in August, 2015. Together with the AAP, ASSIST will follow up with the participants in this field test in order to assess their potential application of the QI knowledge and skills in their daily work at the facilities.

- **ASSIST Regional Director for LAC, Dr. Jorge Hermida, represented ASSIST in a global meeting convened by the Survive and Thrive GDA in Stavanger, Norway** (Jun 8-10, 2015) ro discuss how to increase the implementation effectiveness of global programs aimed at saving mothers and newborns such as Helping Babies Breathe, Essential Care for Every Baby, Care for Premature babies, Postpartum Hemorrhage, Preeclampsia Care. A draft QI Workbook that ASSIST developed together with AAP was presented during this meeting.
- **Dr. Tamar Chitashvili, Senior QI advisor for MNCH and NCDs, represented ASSIST in a global Survive and Thrive GDA in-person meeting at the American Congress of Obstetricians and Gynecologists** (Jun 18, 2015). On behalf of QI Technical Working Group, Dr. Chitashvili gave QI TWG updates. Partners were very interested in this work and commonly agreed on the importance of developing specific strategies for implementation of these materials in LMICs.

Activity 4. Improve and sustain high-quality newborn resuscitation services

OVERVIEW

Newborn resuscitation is essential in the treatment of birth asphyxia, which causes about 30% of newborn deaths. There has been an increasing investment in building the capacity of countries to provide effective coverage of quality newborn resuscitation services.

Based on several discussions within the Resuscitation Working Group, as well as interest expressed by the Newborn Health Program authorities at the Uganda MOH, Uganda has been selected as a focus country to conduct assessment of Newborn Resuscitation. Uganda's experience with HBB and now HBB+ has the potential to offer important learning for informing a broader strategy to improve effective coverage and quality as part the ongoing rollout of HBB+ in Uganda and across other countries as well.

To support the Ugandan Government's effort to reduce preventable newborn mortality, as part of the broader health agenda, USAID is supporting Uganda's four regions, covering 47% of the total population, through initiating and expanding the Saving Mothers Giving Life (SMGL) initiative. During its first phase, SMGL employed a package of evidence-based interventions which resulted in a 17% decrease in perinatal mortality. Building on the successful approaches of Phase 1, starting in FY14, SMGL expanded in six new districts in Uganda with an increased focus on neonatal health. Within this scope, ASSIST has now been tasked with scaling up the interventions with an increased focus on newborn health (including essential newborn care, HBB,and care for preterm babies) in 30 facilities in the west and 118 facilities in mid-Northern Uganda. At this stage, the project focuses on 20 high-volume facilities in Northern Uganda with plans to scale up the QI interventions to the remaining 98 facilities starting in FY16.

In an effort to inform evidence-based decisions on improved access to and use of high-quality newborn resuscitation services and to guide future improvement practices in Uganda, ASSIST will complement the ongoing assessment of coverage of HBB+ services conducted by MOH by identifying service delivery quality gaps impeding provision of effective basic resuscitation services at the facility level, in prospective SMGL Phase 2 supported facilities.

Objectives of the Activity:

- Develop and test methods and tools to assess the national coverage and quality of resuscitation services in Uganda
- Identify coverage and quality gaps and support coordination of UNCoLSC Newborn Resuscitation Technical Working Group members' capacities jointly with the Uganda MOH and the Newborn Steering Committee to start improvement work

- Inform a broader strategy to improve the coverage and quality as part of the ongoing rollout of HBB+

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST coordinated with the Uganda MOH Newborn Health Care Program and relevant counterparts in Afghanistan to collect information and develop a country case study for the introduction, development, and future potential of HBB and resuscitation activities** (April 2015)**.** The case studies are part of the broader global documentation of HBB and have been included in the five year report from the HBB Global Development Alliance to share the lessons learned and the way forward (Development Alliance: Helping Babies Breathe: lessons learned guiding the way (available at: http://www.healthynewbornnetwork.org/resource/helping-babies-breathe-lessons-learned-guiding-way-forward).
- **ASSIST regularly participated and shared feedback during the Newborn Resuscitation Working Group meetings of the Newborn TRT** in order to contribute to the development of guidance and tools at the global-level to assist countries in improving the coverage and quality of resuscitation services at-scale (Q2-Q3).
- **To assess the quality of basic newborn resuscitation services in Uganda, the ASSIST team had a series of discussions during Q4 with representatives of MOH Uganda, the USAID Global Newborn Health team, and the UNCoLSC regarding scope of the assessment.** Implementation of the assessment is to be planned in Q1 FY16.

Activity 5. Child health and immunization

OVERVIEW

Pneumonia, diarrhea and malaria are the leading causes of death (14%, 10% and 7% respectively) in children under five and sepsis is one of the major causes of premature mortality among newborns and young infants (6%) globally. Significant achievements have been made in Uganda during the last two decades in reducing early childhood mortality; under-5 mortality rate per 1,000 live births declined from 178 in 1990 to 69 in 2012. This effort was made possible with increased support from USAID, CDC, UNICEF and coordinated interventions of key stakeholders, including the Ugandan Government, NGOs, faith-based organizations and the private sector.

To further contribute to decreasing child mortality, through the core-funded activities, ASSIST has been tasked to assess management of childhood illness at different levels and initiate modest improvement in demonstration facilities. Clinical approaches to identify and manage diseases among children and young infants, such as WHO's Integrated Management of Childhood Illnesses proved to be effective and efficient, particularly in outpatient settings, in ensuring a combined treatment of the major childhood illnesses through improving case management skills of healthcare staff, overall health systems and family and community health practices. IMCI traditionally focuses on the first point of contact with the health system, the first level of trained health workers and primary care clinics. However, growing evidence exists about the poor quality of medical services at primary health centers. The health care providers at these clinics should be able to assess children, including young infants arrange referrals for hospital admission for those with possible serious infections; and when that is not accessible, offer alternative ambulatory treatment. WHO recommends that infants up to two-months-old with possible severe bacterial infection be treated in the hospital with two injectable antibiotics – penicillin or ampicillin plus gentamicin for at least seven days. Unfortunately, in resource-limited settings, up to 60% of babies with signs of serious bacterial infection do not receive the recommended inpatient treatment because hospitals are not accessible, acceptable or affordable for families. To address this challenge, WHO recently released guidelines on managing possible bacterial infections in young infants in outpatient settings when referral is not possible. In order to increase access to treatment and help save lives of babies, the Uganda MOH intends to be an early adopter of the WHO guidelines.

The activity will support assessment of services and modest implementation of the above-mentioned newly released evidence as part of the child health improvement intervention through a small scope improvement activity to inform future learning and scale-up. The local context creates significant opportunities to leverage the USAID child health-directed funds managed by the USAID ASSIST

Project with concurrent efforts of the project's field-funded SMGL Phase 2 maternal and newborn health interventions in Uganda. For these purposes, the proposed child health direct-funded work will be conducted in select SMGL-II district(s) and will be closely coordinated and linked with ongoing SMGL Phase 2 interventions in select facilities.

By focusing on integrated management of newborn and childhood illness (IMNCI) in outpatient settings, particularly at the first point of contact with the health service delivery system through strengthening diagnosis and case management skills of care providers and supporting health system functions, the activity will contribute to a decrease in premature morbidity and mortality among children and thus, contribute to the global EPCMD agenda. The activity will also support use of simplified outpatient regiments for treatment of serious infections in young infants when hospital care is not available/affordable and will contribute to improved clinical outcomes of sepsis among newborns/young infants.

Objectives of the Activity: Improve IMNCI for children in outpatient settings in a demonstration sample of facilities focusing on care for pneumonia, diarrhea, and newborn infection/sepsis early recognition, management, and referral.

KEY ACCOMPLISHMENTS AND RESULTS

- **In April 2015, in coordination with the USAID Bureau of Global Health (GH)/Office of Health and Infectious Diseases and Nutrition/Maternal and Child Health (MCH) Division, a draft concept note was developed and shared with relevant USAID/Washington representatives.**
- **Senior QI Advisor, Dr. Tamar Chitashvili, visited Uganda for detailed planning and coordination in Uganda for ASSIST´s MNCH core-funded Child Health Activity** (Aug 2-16, 2015). During the visit, in coordination with the ASSIST Uganda field office, the technical team was identified and selected and detailed technical and organizational planning were completed for the activity.
- **To understand the main gaps in quality of IMNCI services and to effectively design the intervention, a rapid assessment of IMNCI services was conducted by ASSIST in 10 selected facilities in Gulu and Nwoya districts (level 2, 3, 4 health centers and hospitals)** (Aug 2015). The assessment focused on identification of essential quality gaps in delivery of IMNCI services in outpatient settings and key gaps in essential health system functions at the facility level. Dr. Tamar Chitashvili and the field team also met with representatives of the district health office (in Gulu) and care providers at different level medical facilities to understand challenges and opportunities for improving the quality of IMNCI services at the facility-level in Gulu and Nwoya districts of Northern Uganda.
- **The rapid assessment results revealed significant gaps in the availability of essential inputs and organization of IMNCI service delivery at each and between different levels of care.** The main findings are summarized in **Table 19** below.

Table 19: MNCH | Summary results of IMNCI essential inputs at facility-level, Gulu and Nwoya districts, Uganda, 10 facilities (Aug 2015)

Key: Available Shortage Unavailable

Key inputs by domains	HCII	HCII	HCII	HCIII	HCIII	HCIII	HCIV	HCIV	GH	RRH
Human Resources										
Do not experiencing frequent shortage of provider cadre										
Recent IMCI training	3y	5y	2y	2y	3y	5y	1y	3y	1.5y	1.5y
Recent training in particular high burden child disease	2y	<1y	1y	2y	1-2y	<1y	1y	1-2y	<1y	1y
Physical infrastructure (availability of)										
Running water										
Electricity										
Soap/antibacterial hand wash										

Key inputs by domains	HCII	HCII	HCII	HCIII	HCIII	HCIII	HCIV	HCIV	GH	RRH
Transportation for referral										
Medications										
Vit A										
Anticonvulsants (Diazepam)										
Antipyretic (Paracetamol)										
Inhaled Bronchodilators										
Oxygen										
Antibiotics[7]										
Amoxicillin (oral)										
Ampicillin (IM or IV)										
Gentamicin (IM or IV)										
Benzyl penicillin IM										
Ceftriaxone IM										
Procaine penicillin IM										
Co-trimoxazole										
Quinolones (ciprofloxacin, norfloxacin, ciprofloxacin): tab/air drops										
Antimalarial Drugs										
Artesunate+Amodiaquine (oral)										
Artemether-Lumefantrine (oral)										
Artesunate (IM)										
Artesunate (rectal)										
Quinine (IM or oral)										
Drugs for Diarrhea										
Zinc										
ORS										
Antibiotics for Dysentery (Ciprofloxacin, Ceftriaxone)										
Drugs for Anemia /Deworming										
Iron/Folate Tab										
Mebendazole (in case of Helminthosis)										
ARV										
TB Drugs (DOT)										
Drugs/supplements for malnutrition										
Ready-to Use Therapeutic Food F75/100										
Vaccines										
Routine immunization (DTP, MMR)										
meningococcal										
Pneumococcal										

[7]Clinical signs or diagnosed infections (pneumonia, sepsis, meningitis, Otitis Media)

Key inputs by domains	HCII	HCII	HCII	HCIII	HCIII	HCIII	HCIV	HCIV	GH	RRH
Rotavirus										
Supplies: syringes, safety boxes, cold chain equipment										
Nasogastric tubes										
Diagnostic test/equipment										
Malaria Test Kits										
HIV rapid tests										
HB measurement										
Scale (infants, children)										
Height measurement										
Body Thermometer										
Respiratory Rate timers										
Pulsoximeter										
Clinical decision support tools										
IMCI Protocol										
Uganda MOH Clinical Guideline										
Job Aids on IMCI										
Job aids on particular high burden disease										
Patient information materials										
Maternity Card										
Child Card										
Treatment and Counseling documentation in patients' notebooks										

- **The rapid assessment of the quality of prevention and treatment of infection among young infants (0-59 days) revealed:**
  - Limited knowledge and awareness on updated evidence-based recommendations
  - No practices observed to provide antibiotics ton newborns with risk factors for infection
  - Poor documentation of main symptoms, treatment and or referral provided in the postnatal/child or outpatient registers to assess the quality of care provided
  - Poor quality of treatment of newborn sepsis
  - Limited availability of transportation for referral, limited access/affordability of inpatient services
- **Rapid assessment of the quality of treatment of acute respiratory tract infections (RTI)/ pneumonia revealed:**
  - Limited documentation of symptoms to assess the quality of care provided
  - Poor provider practice on differential diagnosis and assessment of symptoms of RTI cases (e.g. cough or cold vs pneumonia)
  - Antibiotics prescribed for almost all (95%) cases of RTI while not needed to treat upper unspecified causes of RTIs
  - Administration of non-evidence based antibiotics. All RTI cases were treated with Septrin (Cotrimoxazole), even in cases of positive Rapid Diagnostic Test (RDT) for Malaria
  - Administration of medications given in incorrect doses (not based on age or weight)
- **Rapid assessment of the quality of diagnosis and treatment of malaria revealed:**
  - Poor documentation practices of assessment of children with suspected malaria;
  - Poor quality of diagnosis/differential diagnosis of clinical conditions with fever; RDTs were either unavailable or not used. Because of gaps in quality of differential diagnosis of children

presenting with fever, there were frequent cases with joint diagnosis (e.g., clinical malaria/RTI)
  - Poor quality of malaria treatment (children with malaria were treated with Amoxicillin, Septrin Cotrimoxazole, etc.)
- **Rapid assessment of quality of diagnosis and treatment of diarrhea revealed:**
  - Limited documentation of symptoms
  - Irrational use of zinc (given to young infants <2 month)
  - Non-EB treatment of diarrhea (use of antibiotic in cases of Acute Watery Diarrhea
  - Limited use and availability of nasogastric tubes for oral rehydration therapy in almost all lower-level facilities (HC II,III, IV)
  - Limited availability of antibiotics to treat dysentery (Ciprofloxacin, Ceftriaxone)
- **Rapid assessment of the quality of assessment and treatment of child malnutrition revealed:**
  - Ready-to-Use Therapeutic Food (RUTF) was only available in facilities that implement nutrition programs (mainly HC III and hospital)
  - Nutrition assessment (e.g., MUAC, Z-score) practices were very weak in facilities that do not implement nutrition programs; despite the availability of scales, nutrition assessments and referrals to treatment mostly takes place only in case of severe/visible malnutrition and or for particular groups of patients (e.g., HIV patients)
  - Nutrition assessment and treatment was mainly conducted in facilities that implement feeding programs (e.g., Outpatient Therapeutic Care, Supplementary Feeding Program and or Inpatient Therapeutic Care).
- Because of poor documentation practices, the rapid assessment results highlighted an underlying need to assess the diagnosis and treatment of common childhood illnesses through direct observation and informed the main areas of the improvement interventions.

SUSTAINABILITY AND INSTITUTIONALIZATION

As with the previous ASSIST and HCI work, all MNCH core-funded field activities in Uganda are being planned and led in close collaboration with the MOH and other key stakeholders in order promote ownership and institutionalization. The officers in charge of the MNCH programs at the MOH and at each of the participating districts are closely involved in all the stages of ASSIST core-funded MNCH field improvement activities, from planning to evaluation. ASSIST is making every effort to make the changes and improvements not dependent on external resources that would not be sustainable after the activity ends. On the other hand, ASSIST MNCH core-funded activities will inform global learning on effective strategies to institute and sustain the best improvement practices in different MNCH clinical areas and settings.

Office of HIV/AIDS-Funded Activities

HIV AND AIDS: CHRONIC CARE, PREVENTION, AND TREATMENT

BACKGROUND

ASSIST's HIV and AIDS prevention and treatment portfolio is currently comprised of three new activities and three continuing activities. On-going activities include: 1) improving injection safety in Swaziland, 2) refining a chronic care model to improve HIV/AIDS outcomes in Uganda, and 3) integrating continuous quality improvement (CQI) for VMMC activities in Uganda and South Africa. New activities include: 4) developing a VMMC external quality assurance (EQA) mobile application and supporting PEPFAR EQA visits in seven PEPFAR-support countries, 5) developing and disseminating a VMMC continuous quality improvement guide and web-based VMMC continuous quality improvement toolkit to advance global learning, and 6) improving the quality of point-of-care (POC) HIV testing and counselling (HTC) in South Africa.

In addition, we are finalizing a series of 5 HIV/AIDS and 5 health work force deliverables initiated earlier, including publications, reports and other knowledge management products.

Scale of USAID ASSIST's OHA-funded HIV and AIDS Work

Injection Safety (Swaziland)	Chronic Care (Uganda)	VMMC (Uganda)	VMMC (South Africa)
--	1 IP	10 IPs	9 IPs
20 QI teams	6 QI teams	49 QI teams	89 QI teams
20 facilities, 4 regions	6 facilities, 2 districts	49 facilities, 40 districts	89 facilities, 5 provinces

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Improving injection safety in Swaziland	
• Reduce % of providers with needle-stick injuries • Increase % of observed injections in which safe practices were performed • Increase the % of compliance with waste management checklist	20 intervention sites in each of the 4 regions
a. Evaluating the impact and efficiency of improving safe injection practices on health worker engagement and attitudes towards caring for PLHIV in Swaziland	
• Study the impact of improved injection safety and waste management practices on health worker engagement and contribution to patient outcomes	20 sites
2. Refining a chronic care model in Uganda to improve HIV/AIDS outcomes	
• Improved care for PLHIV through the implementation of an adapted, chronic care model. • Improve the ability of local officials and IPs to continuously monitor, evaluate, and improve their VMMC programs	6 facilities in 2 districts with a population of 400,000
3. Integrating quality improvement in Voluntary Medical Male Circumcision (VMMC) in Uganda (this activity will be reported in the Uganda section of this report)	
• Improve the ability of local officials and IPs to continuously monitor, evaluate, and improve their VMMC programs. • Increase our knowledge of how health systems should adapt to best accommodate and integrate VMMC programs. • Increase uptake of VMMC. • Generate new VMMC knowledge materials.	Provinces: 13 out 13 health regions Districts: 40 out of 112 49 QI teams
4. Integrating continuous quality improvement for VMMC activities in South Africa (this activity will be reported in the South Africa section of this report)	
• Improve the quality and safety of VMMC services by applying CQI methodology and tools • Build the capacity of key DOH and IPs staff (managers, coordinators, and health care providers) on continuous QI and M&E	Assessments in 127 sites; intensive improvement in 89 sites in 5 provinces; 9 implementing partners

What are we trying to accomplish?	At what scale?
5. Developing a VMMC external quality assessment (EQA) mobile application and supporting PEPFAR EQA visits in seven PEPFAR-support countries	
• Support USG EQA teams in 7 countries to implement 28 quarterly VMMC EQAs • Develop, pilot test, and utilize a VMMC EQA mobile app	7 PEPFAR-support countries; initial field tests in Lesotho and Swaziland
6. Developing and disseminating VMMC continuous quality improvement guide and web-based VMMC continuous quality improvement toolkit to advance global learning	
• Develop generic VMMC CQI guide • Develop VMMC CQI toolkit (hosted on the ASSIST website) with videotaped tutorials to explain each tool	Global learning
7. Improving the quality of POC HTC in South Africa	
• Improve the quality of point-of-care HIV testing in three provinces in South Africa, and evaluate the effect of quality improvement on key process and health outcomes	3 high HIV prevalence provinces in South Africa

= Improvement Activity = Cross-cutting Activity

Activity 1. Improving injection safety in Swaziland

KEY ACCOMPLISHMENTS AND RESULTS

This activity will conclude in Q2, FY16 with the endline data collection and analysis activities for the impact evaluation. ASSIST improved injection use and waste management practices in health care settings with a goal of reducing the transmission of HIV, Hepatitis B and C, and other blood-borne pathogens. ASSIST is also evaluating the impact of improved injection safety and waste management practices on health worker engagement and estimated their contribution to improved patient outcomes.

- **Coaching and mentoring visits in collaboration with the MOH injection safety focal person were conducted to monitor and support the quality improvement teams and their projects at facilities**. Objectives of the visits were to monitor the quality improvement projects, support the facility with the injection safety and health waste management activities, and ensure that they comply with standards and procedures as prescribed by WHO. Each facility was assisted in the weekly data collection.
- **Health care waste management pilot project plan concept development.** Finalized the concept note on the pilot for waste transportation to treatment sites of health care waste from TB/HIV facilities. This project is funded by the World Bank, and URC will document the process from implementation and disseminate results.
- **Held four regional workshops to orient health workers and waste handlers on the new guidelines for healthcare waste management** (Feb 10 -17, 2015). The workshops also provided a forum for the MOH Environmental Health Department to showcase infrastructure and controls for the management of health care waste in Swaziland

Evaluating impact and efficiency of improving safe injection practices

- **Baseline assessment results sharing forums** (Feb – Mar 2015) were conducted during regional workshops, nurse managers' meetings, and in the 20 sites. All the 20 sites were given their score boards with results in the key areas observed during the baseline assessment. The results presented during sharing sessions raised many comments as the facilities were mostly shocked by the standard practices reported. Of great interest was the observation in two dental

clinics of poor hand washing practices during injection procedures and the sterilization of syringes. This results-sharing has helped in guiding specific areas for improvement.

Implementing proper waste management practices

- **Supported the development of the national road map for incineration** (Sept 2015) to assist in planning for a pilot project in centralized health care waste management. This activity, funded by the World Bank, is currently in its final stages and lessons learned are being documented.
- **Reviewed Swaziland's national health care waste management training manuals** (Aug 2015). We reviewed the training manual for health care waste management in Swaziland.

Reducing unsafe injection practices

- **Introduced a needle stick surveillance log system (2014-2015).** A needle prick injury surveillance log form was piloted in 20 intervention sites, and the work was completed in September 2015.
- **Conducted and facilitated injection safety and health care waste core team meetings** (Jun 23, 2015 and Jul 23, 2015). The injection safety and health care waste management core team met regularly to share progress to-date and coordinate project activities and timelines.
- **Disseminated baseline assessment results to matrons and senior nurses** (May 12 and 19, 2015). The national baseline assessment results from the 60 health facilities were shared with health facility matrons and senior nurses forums to gain more support. The matrons expressed interested in the results and were very eager to support improvement interventions.
- **Supported MOH activities** (Apr 2015). A total of 36 health care waste handlers were trained to support the incineration of a waste pilot project. Although ASSIST initially offered technical support to the MOH to halt the supply of sub-standard safety boxes, we did not follow-up when we learned that others were already working on the issue. During the launch of the retrovirus vaccine, ASSIST trained public health clinics trainers about injection safety: they then trained their counterparts in their units.
- **Conducted a webinar in partnership with WHO on mainstreaming injection safety into healthcare delivery** (Aug 20, 2015). This topics discussed in this webinar included:
  - Improving injection safety and waste management
  - Integrating injection safety into the national health care system
  - The new WHO global injection safety policy and campaign
  - Global to local: ensuring alignment between quality, universal health coverage, and injection safety
  - Applying the WHO global injection safety policy at the country level.

IMPROVEMENT IN KEY INDICATORS

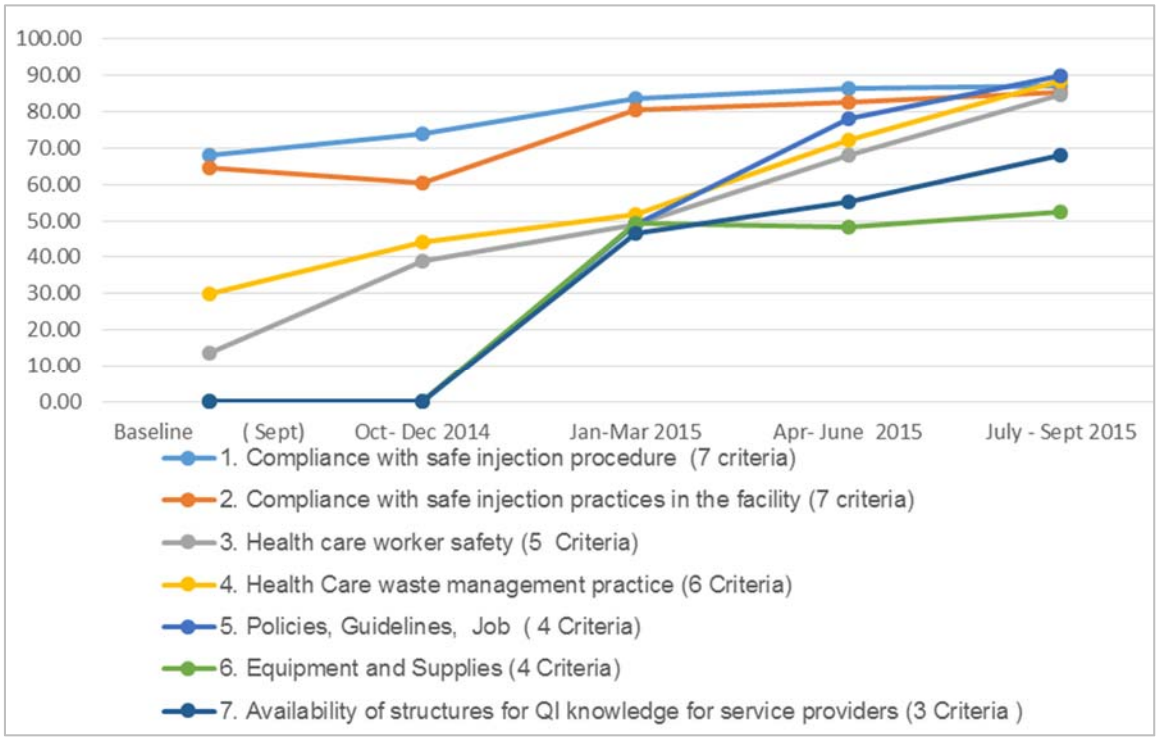
Improvement in key indicators in 20 intervention sites in Swaziland.

Activity	Indicators	Baseline Sept 2014 (14 sites)	Oct-Dec 2014	Jan-Mar 2015	Apr-June 2015	July - Sept 2015	Change (percentage points)
Apply QI principles to improve safe injection and waste management practices, and to reduce the transmission of HIV/AIDS, Hepatitis B and C as well as other	1. Compliance with safe injection procedure (7 criteria)	68	74	84	86	87	19
	2. Compliance with safe injection practices in the facility (7 criteria)	65	61	80	82	85	20
	3. Health care worker safety (5 criteria)	14	39	49	68	70	56
	4. Health Care waste management practice (6 criteria)	30	44	52	72	88	58

Activity	Indicators	Baseline Sept 2014 (14 sites)	Oct-Dec 2014	Jan-Mar 2015	Apr-June 2015	July - Sept 2015	Change (percentage points)
blood-borne pathogens	5. Policies, Guidelines, Job (4 criteria)	0	0	49	78	90	90
	6. Equipment and Supplies (4 criteria)	0	0	49	48	52	52
	7. Availability of structures for QI knowledge for service providers (3 criteria)	0	0	47	55	68	68

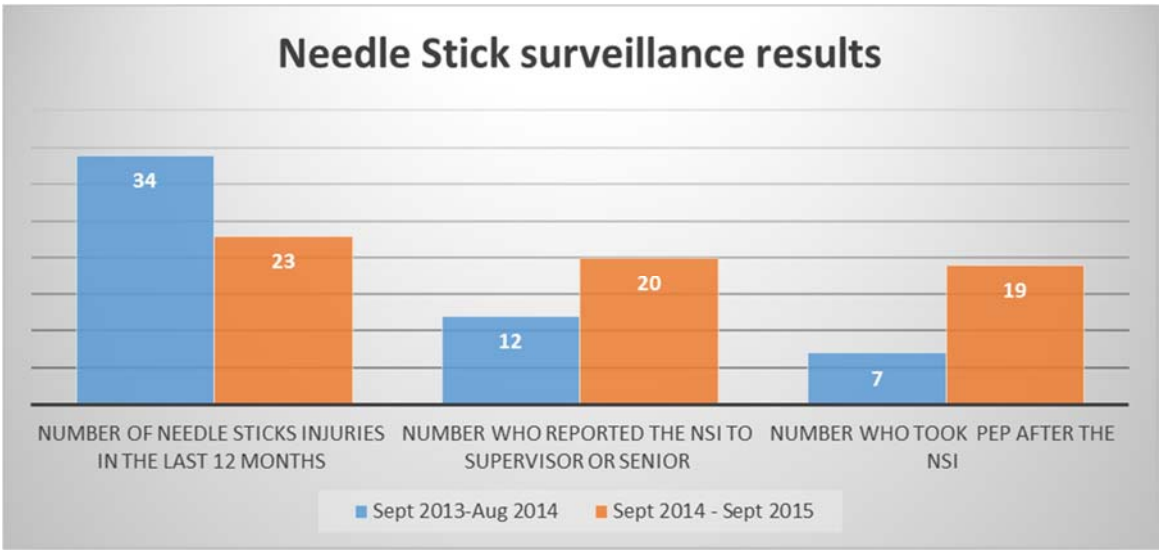
- In Swaziland, efforts to improve injection safety and waste management practices produced positive results, for example, improved compliance with safe injection procedures and practices, and increased health worker safety (**Figure 146**).

Figure 146: HIV/AIDS | Swaziland: Injection safety and health care management results (Sept 2014 – Oct 2015)



- A pilot on introducing a needle stick surveillance log demonstrated a reduction in needle stick injuries between pre- and post- intervention periods, increased reporting of needle sticks, and improved uptake of post-exposure prophylaxis (**Figure 147**).

Figure 147: HIV/AIDS | Swaziland: Needle stick results from incidences in 2014 -2015 among health care workers from the 20 sites (Sept 2013- Aug 2014; Sept 2014 – Sept 2015)



Activity 2. Refining a chronic care model in Uganda to improve HIV/AIDS outcomes

KEY ACCOMPLISHMENTS AND RESULTS

The ASSIST team in Uganda has provided intense CQI support to 49 health units in 40 districts in Uganda. ASSIST is currently completing the final documentation and dissemination of findings from a project designed to improve the management of chronic care with a goal of improving HIV/AIDS outcomes, including diagnosis, retention, and clinical outcomes. This activity was implemented initially in Mityana (18-month intervention) and expanded to Nakaseke (six-month intervention). ASSIST/Uganda completed improvement work in the two districts in December 2014 and end-line data were collected from all improvement sites during January and February 2015.

- **USAID ASSIST published major results from the chronic care activity in Uganda in a special issue of AIDS** (Massoud, et al. 2015. Improving care for patients on antiretroviral therapy through a gap analysis framework. AIDS, Vol. 29 (Suppl 2). Available at: https://www.usaidassist.org/resources/improving-care-patients-antiretroviral-therapy-through-gap-analysis-framework.
    - The article describes an innovative management tool for HIV program managers utilizing a gap analysis framework. The framework helps managers to track three key areas of ART care quality: coverage, retention, and wellness.
- **The Supplement was issued immediately prior to the International AIDS Society meeting, which typically has high readership during the weeks before and after the meeting.** The journal AIDS is highly regarded in the HIV/AIDS field with an impact factor of 5.554 with the following rankings: 5/33 (virology); 7/78 (infectious disease); and 21/148 (immunology). We are in the process of finalizing additional knowledge management products.
- **Results in Uganda:** The application of improvement methods led to a reduction in gaps in coverage, retention, and clinical outcomes for patients on antiretroviral therapy in Mityana and Nakaseke districts over their respective intervention periods **(Figures 148-149).** Notably, a tool was developed for goal-setting and action planning which counselors, providers, and expert patients used to assist patients in overcoming challenges to providing good self-care. Furthermore, self-management support groups were formed for patients with similar challenges to share their experiences and provide mutual support.

Figure 148: HIV/AIDS | Uganda: Coverage, retention and outcomes of ART patients, Mityana (early intervention) chronic care sites (April 2013 - Dec 2014)

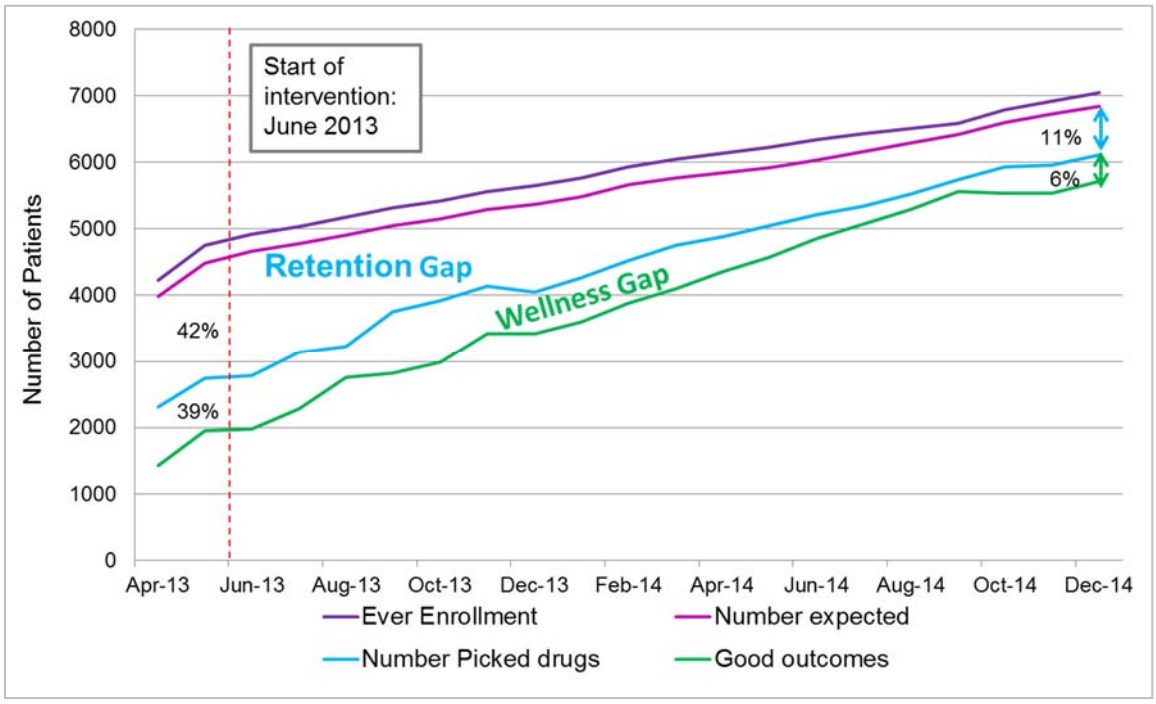
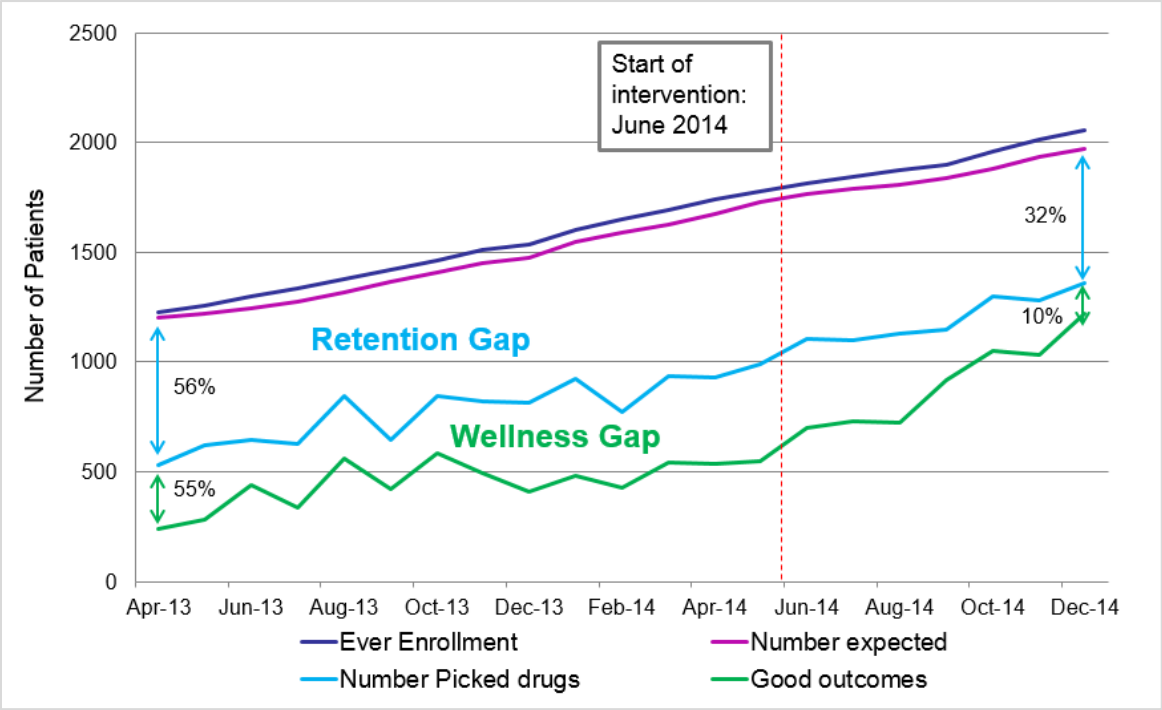


Figure 149: HIV/AIDS | Uganda: Coverage, Retention and Outcomes of ART patients, Nakaseke (late intervention) chronic care sites (April 2013 – Dec 2014)



Activity 3. Integrating quality improvement in VMMC in Uganda

This activity is currently begin carried forward on funding from USAID Uganda. For additional information, please see the Uganda section of this report.

Activity 4. Integrating quality improvement for VMMC activities in South Africa

This activity is currently begin carried forward on funding from USAID South Africa. For additional information, please see the South Africa section of this report.

Activity 5. Developing a VMMC external quality assessment (EQA) mobile application and supporting PEPFAR EQA visits in seven PEPFAR-support countries

OVERVIEW

This activity was newly approved in August 2015. It is being managed from the ASSIST office in South Africa. ASSIST is developing and pilot testing the use of a VMMC EQA mobile application. The EQA application will allow for real-time collection and analysis of data from EQA visits, allowing for faster, more efficient, and more targeted assessment of the efficacy and quality of VMMC services and faster feedback to assessed facilities for immediate action planning. Additionally, ASSIST will also support USAID's VMMC EQA visits in seven countries.

KEY ACCOMPLISHMENTS AND RESULTS

- The ASSIST team in South Africa contracted with a local software developer in South Africa to develop the app. ASSIST staff travelled to Swaziland in September to assist USAID staff in carrying out an EQA of VMMC sites in Swaziland using the app installed on tablets. This pilot test is informing further development of the app.

Activity 6. Developing and disseminating VMMC continuous quality improvement guide and web-based VMMC continuous quality improvement toolkit to advance global learning

OVERVIEW

This activity was newly approved in August 2015. With a goal of increasing the use of modern quality improvement approaches and standardized tools, USAID ASSIST was asked to develop a comprehensive continuous quality improvement guide and toolkit. A suite of CQI tools with videotaped tutorials is currently in the initial planning phase, drawing primarily on ASSIST's work in Uganda and South Africa. ASSIST will host these materials on the ASSIST knowledge portal, with links to other USAID-dissemination platforms for broader dissemination. We intend to showcase successful examples of describing how various implementing partners have applied quality improvement approach to increase the safety of VMMC procedures to improve HIV outcomes.

KEY ACCOMPLISHMENTS AND RESULTS

- **Materials from the various field projects have been gathered and organized for potential inclusion in the toolkit.**

Activity 7. Improving the quality of point-of-care HTC in South Africa

OVERVIEW

ASSIST has proposed to employ a QI approach to improve the process of care so that patients are more likely to receive correct test results from POC rapid HIV tests in three high-HIV prevalence provinces in South Africa. Long valued as the primary gateway to treatment, care and support, HIV counseling and testing (HTC) has assumed even greater importance in recent years with the discovery that effective HIV treatment also reduces transmission of the HIV virus. Currently, the advent of test-and-treat approaches, and especially Option B+, places quality concerns front-and-center, as patients are placed on ART often based solely on POC rapid tests.

KEY ACCOMPLISHMENTS AND RESULTS

- USAID and ASSIST have reached consensus on this activity to improve the quality of POC HIV testing and counseling. USAID has identified a critical need to improve the process of care so that tests are conducted in accordance with national protocols and guidelines. A protocol has been drafted and revised through a series of discussions with USAID. A final draft protocol is currently

under review by USAID. South Africa has been proposed as the country for this work, and three provinces have been selected. Site selection discussions are underway.

INSTITUTIONALIZATION AND SUSTAINABILITY

- **Improving injection safety in Swaziland.** This project was designed as a pilot, with a goal of subsequently scaling-up successful practices at a national level. A core team comprised of MOH focal persons for injection safety and health care waste management leads the effort. ASSIST conducts coaching, mentoring, and supportive supervision visits. Collaborative learning and feedback sessions provide a platform to share what is learned from improvement activities and provide a basis for expansion to additional sites.
- **Refining a chronic care model to improve HIV/AIDS outcomes in Uganda**. The chronic care model is designed to assess progress toward key ART benchmarks, i.e., diagnosis, retention, and successful clinical outcomes. We tested and refined the chronic care model in Uganda with a broader goal of replicating successful aspects of the model in other countries. This activity also directly support the sustainability of ART services in Uganda by transferring skills to local improvement coaches and district staff in the study districts of Mityana and Nakaseke.
- **Integrating quality improvement in VMMC in Uganda.** An initial investment by USAID/HQ for this activity prompted a larger investment by the USAID mission in Uganda. USAID ASSIST works with district health authorities during technical support visits to health facilities in order to build their skills in QI coaching. This gives an opportunity to the district health staff to be mentored by the experienced USAID ASSIST coaches.
- **Integrating CQI for VMMC activities in South Africa.** An initial investment by USAID/HQ for this activity ($128,000) prompted a larger investment by the USAID mission in South Africa ($1,345,000). Improvement skills will be transferred to health providers within South Africa's Department of Health. As the Government of South Africa increasingly assumes financial responsibility for HIV/AIDs services, quality improvement activities help ensure the continued good quality of HIV/AIDS services and build toward longer-term sustainability.
- **Developing a VMMC external quality assurance and continuous quality improvement mobile application and supporting PEPFAR EQA visits in seven PEPFAR-support countries.** This mobile application supports further integration of quality improvement approaches into locally-provided VMMC services, thereby enhancing local capacity to improve the process of care currently and moving forward.
- **Developing and disseminating VMMC continuous quality improvement guide and web-based VMMC continuous quality improvement toolkit** to advance global learning. ASSIST will document an approach to assuring and improving the quality of VMMC services, leveraging on-the-ground experiences in South Africa, Uganda, Malawi, and Tanzania.
- **Improving the quality of POC HTC in South Africa.** The changes tested at all participating facilities will be compiled into "change package" indicating what has worked and how. It will be made available for other sites to use. Through these activities, improvement teams will refine quality assurance standards and build quality improvement expertise that can serve as a springboard to strengthen subsequent programming. The results of this activity are also expected to help make the case overall for the expanded use of quality improvement to strengthen HTC services.

NUTRITION ASSESSMENT, COUNSELING, AND SUPPORT (NACS)/PARTNERSHIP FOR HIV-FREE SURVIVAL (PHFS)

BACKGROUND

Nutrition assessment, counseling, and support (NACS) work for HIV clients began under HCI in Uganda, Kenya, Malawi, and Zambia. Within the USAID ASSIST Project, NACS work is being supported in Zambia and the DRC to improve nutrition care by strengthening health facility systems to provide high quality care.

ASSIST is also spearheading the global technical leadership and learning related to reducing HIV

transmission to exposed infants under the PHFS that draws on experiences under HCI since 2011.

In addition, ASSIST is working in three East African countries—Kenya, Uganda, and Tanzania—to strengthen engagement, adherence, and retention of adult and pediatric HIV patients by introducing patient-centered self-management counselling in high-volume learning sites, understanding interventions that work, and sharing implementation experience and data among the countries to identify a common set of interventions that lead to desired outcomes.

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Improve technical assistance and leadership for NACS	
• Provide improvement technical assistance & leadership and share learning for integrating NACS into HIV care	Zambia (core-funded), DRC (mission-funded), and South Africa (mission-funded through FHI 360)
2. Improve technical assistance and leadership for PHFS	
• Provide improvement technical assistance, coordination & leadership across five countries • Document and share learning	Kenya, Lesotho, Mozambique, Tanzania and Uganda
3. Global leadership for PHFS	
• Provide global leadership and document and share learning across the 6 participating countries.	6 PHFS countries (Kenya, Lesotho, Mozambique, South Africa, Tanzania and Uganda) and globally
4. Zambia: Technical assistance to integrate NACS into HIV care	
Improve management and nutritional status of malnourished HIV clients by: • Integrating NACS into facility-based ART, PMTCT and MNCH services • Strengthening community-facility linkages • Strengthening the capacities of district health managers and care providers to apply improvement skills	1 district (Kitwe); 8 sites
5. Mozambique: Technical assistance to communities linking mothers to facilities (PHFS)	
• Quality improvement technical assistance for community-level activities to improve uptake of PMTCT and retention in care	3 provinces (Gaza, Zambezia, and Sofala); 95 *bairros* Provide direct technical support to 39 *bairros* in Gaza and to community partners in Zambezia and Sofala
6. Apply improvement principles to implement an integrated, person-centered approach to HIV and nutrition care to improve engagement, retention, and wellness of people living with HIV (PLHIV)	
• Improve the overall health and well-being of PLHIV by addressing factors affecting their health (including biomedical, nutritional, psychosocial, logistical) through use of improvement and an integrated approach to care • Contribute to the evidence base on how an integrated, person-centered approach to HIV and nutrition services can influence engagement, retention, and well-being of PLHIV	Limited number of high-volume sites in Kenya, Tanzania, and Uganda

= Improvement Activity = Cross-cutting Activity

Activity 1. Improvement technical assistance and leadership for NACS

OVERVIEW

ASSIST supports NACS implementation and scale-up by applying QI techniques to strengthen health systems that deliver nutrition services for PLHIV. Regular check-in calls are being conducted with all countries that currently conduct NACS activities. These calls are designed to promote learning and to identify technical support that may be needed by the countries.

KEY ACCOMPLISHMENTS AND RESULTS

- Please refer to the Zambia and DRC sections of this report for accomplishments and results.

Activity 2. Improvement technical assistance and leadership for PHFS in four countries

KEY ACCOMPLISHMENTS AND RESULTS

- **Reduction of mother-to-child transmission of HIV in Uganda's demonstration sites** (Feb 2013 –Mar 2015) through retention of mother-baby pairs in care and ensuring both mother and baby receive all services for HIV prevention and treatment. The percentage of HIV-exposed babies discharged from PMTCT programs who tested positive for HIV at 18 months was reduced from 30% in April 2013 to 1%. **Figures 150-151** show progress made by Uganda and Kenya, respectively, in keeping HIV-exposed infants HIV-free, alive, and in care.

Figure 150: PHFS | Uganda: Percentage of HIV-exposed babies discharged from PMTCT programs who test positive at 18 months (Feb 2013- Jul 2015), 22 sites

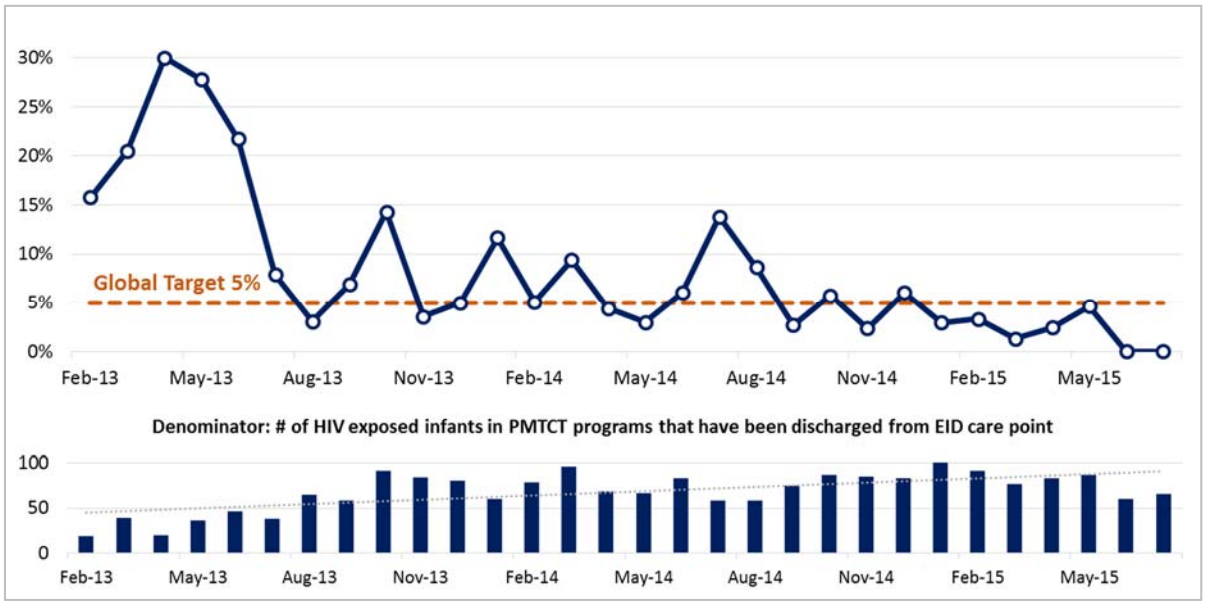
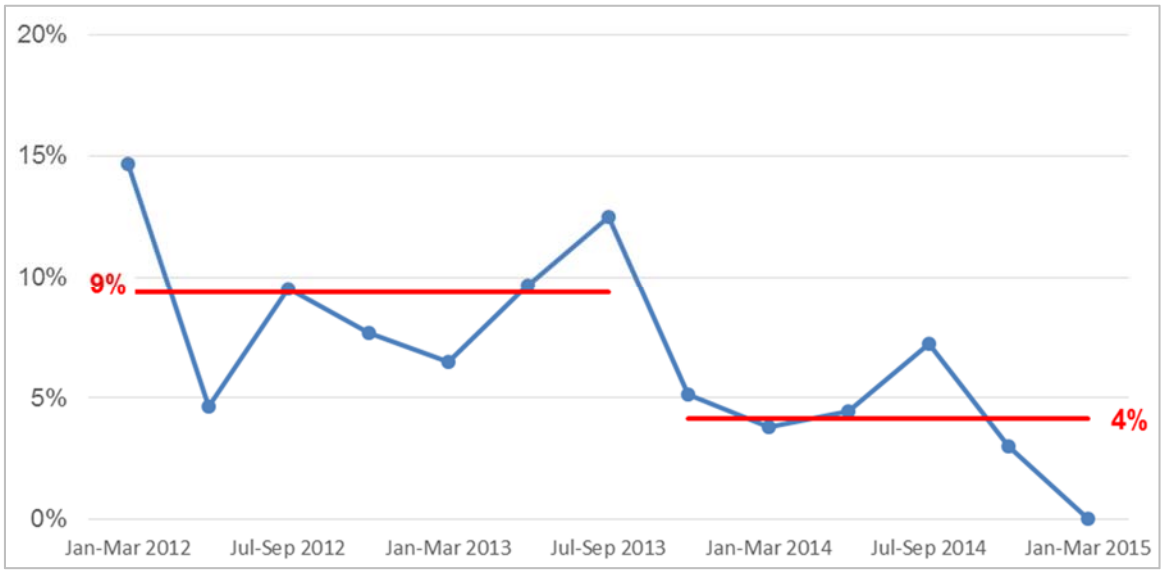


Figure 151: PHFS | Kenya: Percentage of HIV-exposed infants who test positive on a DNA-PCR test (Jan 2012-Mar 2015), 13 sites, Kwale County



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline	Last Value (Mar 2015)	Change (percentage points)
Improvement TA and leadership for PHFS (Uganda)	% of HIV-exposed babies discharged from PMTCT programs who test positive at 18 months	16% (Feb 2013) (7 sites) 30% (April 2013) (10 sites)	1% (22 sites)	-29
Improvement TA and leadership for PHFS (Kenya)	% of HIV-exposed infants who test positive on a DNA-PCR test	15% (Jan 2012) (13 sites)	0% (13 sites)	-15

Activity 3. Global leadership for PHFS

OVERVIEW

ASSIST is responsible for managing the cross-country platform and learning for PHFS, which has selected the QI methodology to close the gap in PMTCT. ASSIST has used several mechanisms to disseminate information, including quarterly webinars and monthly updates. The monthly updates reach 207 subscribers of the PHFS email listserv, which includes WHO, UNICEF, IHI, PEPFAR, USAID, host country government officials, and implementing partner staff. The monthly updates contain a programmatic update from field activities in a PHFS country. The quarterly webinars are facilitated by ASSIST staff members with presentations provided by in-country staff who are leading PHFS activities for their respective ministry or organization.

KEY ACCOMPLISHMENTS AND RESULTS

- **Hold quarterly webinars** (Jan 2015) Staff from Elizabeth Glaser Pediatrics AIDS Foundation (EGPAF) in Tanzania and ASSIST Mozambique presented on community linkages and their importance toward improving PMTCT care; (Apr 2015) Representatives from the MOH in Uganda and Kenya shared their results and described how key processes to improve PMTCT and nutrition care were adapted; (July 2015) Staff from South to South and 20,000+ from South Africa shared their experience and lessons.

- **Conducted programmatic monthly updates** (Dec 2014-Sept. 2015). Monthly updates on a specific theme are sent out over the PHFS listserv.
- **Held Lesotho-Uganda Knowledge Exchange Visit in Uganda between implementing teams from Lesotho and Uganda that work on PHFS** (Feb 2015). Ministry of Health staff from Lesotho and Uganda along with USAID ASSIST Project staff participated in the knowledge exchange and shared good practices but also challenges from their work. The objectives of the knowledge exchange were to: 1) Share and learn from programmatic successes and challenges in Lesotho and Uganda, which are both implementing activities from PHFS. 2) Discuss changes tested and implementation strategies that can be adapted by the visiting country and the host. 3) Identify lessons and action steps from the visit.
- **A knowledge-exchange visit was conducted between Tanzania and Kenya** (Jul 14-17, 2015). Hosted by Tanzania in Mbeya, the visit was productive, and participants reported significant learning and sharing for both teams. This is the second visit held by ASSIST in PHFS countries.

Activity 4. Zambia: Technical assistance to integrate NACS into HIV care

OVERVIEW

Building on the experience of HCI supporting nutrition services for HIV clients in Uganda, Kenya, and Malawi, ASSIST is supporting the continued adoption, adaptation, and scale-up of NACS as a standard of care within the national HIV/AIDS program in Zambia. NACS supports improving the health and quality of life for PLHIV, their families, and VC by improving nutritional status, reducing household food insecurity among families and children affected by HIV, and strengthening the integration of nutrition support with health systems at the clinic and community levels. ASSIST's work in Zambia, is being conducted in collaboration with two other centrally funded projects in Zambia – Livelihoods and Food Security Technical Assistance II Project (LIFT II) and Food and Nutrition Technical Assistance III Project (FANTA III).

KEY ACCOMPLISHMENTS AND RESULTS

This activity is reported in full in the Zambia section of this report.

Activity 5. Mozambique: Technical assistance to communities linking mothers to facilities (PHFS)

OVERVIEW

ASSIST received initial funding from PEPFAR in 2013 and additional funds from USAID/Mozambique in 2015 to support community-level improvement activities in the catchment area of facilities participating in the PHFS to improve postnatal PMTCT care for HIV-infected mothers and their infants to maximize HIV-free survival of infants. In December 2013, ASSIST began to provide technical support for community-level improvement to the MOH of Mozambique. The goal of the PHFS Community Demonstration Project was to contribute to the elimination of mother-to-child transmission through increased community awareness, improved community-facility linkages, and increased access to services for pregnant women. ASSIST provided limited support to PHFS partners in Sofala and Zambezia provinces in the community health systems strengthening model, quality improvement, and coaching. In Gaza Province, ASSIST provided direct technical support to Bilene District and Chissano, Incaia and Licilo health centers and their respective catchment areas, totaling 39 communities.

KEY ACCOMPLISHMENTS AND RESULTS

This activity is reported in full in the Mozambique report under field support funded activities. Activities ended in March 2015.

Activity 6. Apply improvement principles to implement an integrated, person-centered approach to HIV and nutrition care to improve engagement, retention, and wellness of PLHIV

OVERVIEW

ASSIST started work in three East African countries - Kenya, Uganda, and Tanzania - that are currently part of the multi-country PHFS. The objective of the work is to strengthen engagement, retention, and wellness of adult and pediatric malnourished HIV patients, including introducing the program in high-volume learning sites, understanding interventions that work, and sharing implementation experience and data among the countries to identify a common set of interventions that lead to desired outcomes, with the goal of eventual spread to other sites and regions within the countries. ASSIST will work in collaboration with two other centrally funded projects, the FANTA III Project and the LIFT II Project, along with bilateral clinical service and care partners. Implementation of the program began in May 2015.

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST supported self-management counseling training organized by FANTA III in the three countries** (Sept – Oct 2015). The countries have either completed baseline data collection or are in the process.

SUSTAINABILITY AND INSTITUTIONALIZATION

All improvement work carried out in the countries was consistently conducted with the participation and engagement of districts and where possible, provincial and national government officials. ASSIST is also working closely with local partners.

As the global leader of PHFS' cross-country learning platform, ASSIST seeks to develop further buy-in and support from key global actors and stakeholders for the PHFS mechanism. Methods used include quarterly webinars, inter-country knowledge exchange visits to promote global learning and encouragement of government participation on the front lines of the PHFS work.

RESEARCH STUDIES IN HEALTH WORKFORCE DEVELOPMENT

BACKGROUND

USAID ASSIST seeks to contribute to improvements in the effectiveness, efficiency, and sustainability of PEPFAR investment in community health worker (CHW) programs. Activities are currently underway on two studies in Southern Africa on health workforce development, both of which investigate community health workers and volunteers and their performance in the context of management of persons with HIV. Better understanding of how CHWs can be deployed most effectively and efficiently is a neglected area of research in the medical literature, and harmonization of disparate policies on this cadre of health workers is needed. Results are particularly of great interest to the MOH and USAID missions as they can inform cohesive strategies for addressing health workforce resource limitations at a time of expanding treatment for those with HIV and other conditions. These research activities are being conducted with the Harvard School of Public Health.

In addition to the CHW research, the project is supporting a small pilot in Kenya to incorporate quality improvement in pre-service training for physicians.

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. CHW performance logic model validation study for Swaziland HIV/TB services	
• Analyze how different CHW programs in Swaziland achieved intended performance • Develop Swazi CHW case study to determine factors that have been effective in improving services. • Use findings to inform CHW planning/strategy in Swaziland and inform PEPFAR programming. • Evaluate validity and content of generic CHW Performance Logic Model	HIV/TB CHW programs in Swaziland

2. CHW harmonization study in Southern Africa	
• Develop and publish policy recommendations for harmonization of HIV community cadres and programs into national CHW programs and plans targeted to decision makers at country level	HIV/TB CHW programs in Southern Africa
3. Pre-service improvement curriculum (co-funded with cross bureau)	
• Build competencies of health care professionals to continually improve the quality of the services they provide in order to improve health outcomes	Four Kenyan pre-service medical training institutions

Cross-cutting Activity

Activity 1. CHW performance logic model validation study for Swaziland HIV/TB services

OVERVIEW

Under HCI funding, a CHW performance logic model was developed to guide efforts to improve CHW program performance. A study is now underway in Swaziland to determine if this model has validity for CHWs involved in TB/HIV service provision.

KEY ACCOMPLISHMENTS AND RESULTS

- **Developed a protocol along with data collection tools for submission to the Swaziland Institutional Review Board (IRB)** (Jan 2015).
- **Developed a framework for data collection activities with the Swaziland team** (Feb 2015).
- **Identified a data collection contractor to conduct the in-country part of the data collection** (Mar 2015).
- **Obtained IRB approval from both the URC and Swaziland IRBs have been granted and data collection for the study has commenced** (Q3-4).
- **Quantitative data collection was completed in August 2015 and data cleaning is currently underway.** This involves coordination and communication between the HSPH team and the team of data collectors.

Activity 2. CHW harmonization study in Southern Africa

OVERVIEW

This activity builds on the work done by ASSIST in 2013 with USAID and the Global Health Workforce Alliance in publishing a monitoring and accountability platform for CHW programs by developing policy guidance for the harmonization of CHW programs based on multi-country case studies. The USAID missions in Swaziland, Lesotho, Mozambique, and South Africa are supporting this study in those countries, and it is proceeding on schedule.

KEY ACCOMPLISHMENTS AND RESULTS

- **Developed a preliminary data collection tool for the study, which was shared with USAID missions in the aforementioned countries to help determine their interest** (Feb 2015).
- **Conducted the first interviews and preliminary data analysis is underway** (Q3-4).
- **It is expected that a preliminary report will be available in December 2015, and the final report will be completed in early 2016.**
- **Additional funding ($300K) was added by USAID to support this activity in October, 2015.** ASSIST is currently programming these additional funds to extend work that is currently underway and support the dissemination of finding to Ministries of Health and other stakeholders in the four countries.

Activity 3. Pre-service improvement curriculum

This activity is co-funded with OHS cross-bureau funds and is reported in the Cross-bureau section of this report.

SUSTAINABILITY AND INSTITUTIONALIZATION

The importance of CHWs and their contribution to health care and promotion have garnered increasing attention from governments, donors, health systems researchers, and planners. CHWs play an essential role in many countries to extend the outreach of health services such as HIV services in the community and improve linkages between those who need care and those who can provide it – representing key strategies toward PEPFAR goals. Support needs of community-based cadres differ from those of more formalized health worker cadres. Addressing these needs is integral to ensuring sustainability of PEPFAR-supported community-based cadres and programs that utilize and rely on them to ensure the HIV continuum of response.

VULNERABLE CHILDREN AND FAMILIES

BACKGROUND

Building on the work of a regional initiative to improve the quality of orphans and vulnerable children (OVC) programming known as "Care that Counts," started under HCI in 2007, in October 2013, ASSIST began enhancing the technical and organizational capacity of the Regional Psychosocial Support Initiative (REPPSI) and the African Network for the Protection and Prevention of Child Abuse and Neglect (ANPPCAN) to provide a QI approach to child protection services in Tanzania, Uganda, Swaziland, and Kenya.

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Partnerships for Community Child Protection	
• Build the technical and organizational capacity of REPPSI and ANPPCAN to provide a quality improvement approach to child protection services	REPSSI operates in 13 Sub-Saharan countries, ANPPCAN in 22
• Improve child well-being through integration of community and formal child protection mechanism	2 communities in 2 districts in Kenya
2. Global Technical Leadership	
• Provide technical support to ministry, partners, and project staff to use improvement approaches to improve quality of child protection mechanisms at the national and local levels	Global

= Improvement Activity = Cross-cutting Activity

Activity 1. Partnerships for Community Child Protection

KEY ACCOMPLISHMENTS AND RESULTS

- **Built the technical and organizational capacity of REPPSI and ANPPCAN to provide a quality improvement approach to child protection services.** ASSIST continued to capture opportunities to include ANPPCAN and REPSSI in improvement meetings, trainings, and mentoring activities. ANPPCAN and REPSSI were invited to attend QI conference calls with ASSIST HQ and countries supporting OVC programming. In planning/implementing improvement activities in Kenya, ASSIST was able to provide ANPPCAN and REPSSI with ongoing knowledge of improvement and quality.
- **Developing a protocol for improvement activities in Nairobi, Kenya** to improve child well-being through integration of community and formal child protection mechanisms (Q3-4). ASSIST Kenya has been working with ANPPCAN to design improvement activities in two sites in Embakasi and two in Dagoretti. The design team is in the process of finalizing Aims, Indicators and Content for the interventions. Indicators will be developed that align with national tools.

Activity 2. Global Technical Leadership

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST has developed Aims, Indicators and Content templates to harmonize improvement efforts across countries (Figure 152)** in technical areas of household economic strengthening, education, and child protection. In developing improvement aims, it is important to recognize the ages and stages dimension of social services and that children have particular needs at different developmental levels. Aims and indicators for an infant under two will be different than those for an adolescent.

Figure 152: **Vulnerable Children and Families: HES aim, indicator, and content template excerpt**

Improvement Aim 3: Increase the % of children living in vulnerable households whose essential needs are met by the primary caregivers through caregivers' implementation of money management best practices.

Care Phase, System level, Age group or other (as relevant for aim)	Evidence-based Interventions	Anticipated Barriers	Change Ideas
Community	Establish savings groups: village savings and loan associations (VSLAs), savings and internal lending communities (SILCs), and self-help groups (SHGs).	• Community doesn't have access to information on organizing for a VSLA. • VSLA doesn't follow best practices.	• Distribute booklet on VSLA best practices. • Document contributions and loans in accounting book • Charge a fine for late loan payments
Caregiver	Target female caregivers: When mothers own assets, children have better outcomes because their nutrition is better and they benefit from increased spending on education and clothing[6]. Caregivers participating in VSLAs increased child well-being[7]	• Caregivers may not understand or accept that there are benefits to VSLAs. • Women may not have agency within family.	• Raise awareness of VSLAs at women's group meetings. • During VSLA meetings, hold 30 minute discussions on child development and needs of children.
Adolescent	Engage children directly in HES: In a savings intervention that included mentoring, job counseling, and financial education, AIDS-orphaned adolescent girls and boys self-reported significant positive effects on their health and mental health functioning.[8]	• Children excluded from VSLAs.	• Access adolescents through a school program. • Hold VSLA meeting after school on school grounds.

[6] Chowa, Gina A. N. Asset Outcomes for Women and Children: a Research Review, Center for Social Development, 2007.

[7] *Bundervoet, Annan, & Armstrong, & Bundervoet, 2011. "Urwaruka Rushasha"*: A Randomized Impact Evaluation of Village Savings and Loans Associations and Family-Based Interventions in Burundi." https://www.microlinks.org/sites/microlinks/files/resource/files/Bundervoet%20Annan%20and%20Armstrong%202011.pdf

[8] Ssewamala, Fred M. et al. Asset Ownership and Health and Mental Health Functioning among AIDS-orphaned Adolescents: Findings from a Randomized Clinical Trial in Rural Uganda. Social Science and Medicine, 2009

- **Sample aims for household economic strengthening:**
  - Increase the percent of children living with vulnerable households whose essential needs are met by the primary caregivers through linkages between HES activities and other social and health services
  - Increase the percent of children living in vulnerable households whose essential needs are met by the primary caregivers through integration of HES activities with complementary interventions
  - Increase the percent of children living in vulnerable households whose essential needs are met by the primary caregivers through caregivers' implementation of money management best practices
  - Increase the percent of children living in vulnerable households whose essential needs are met by the primary caregivers through caregivers' participation in income generating activities
  - Increase the percent of children living in vulnerable households whose essential needs are met by the primary caregives through identification and linking of extremely destitute families to informal and formal emergency resources (food, shelter, etc.).
- **ASSIST hosted a TAG meeting with presentations of results across all the technical areas, including Vulnerable Children and Families** (Jan 2015)**.** Results were presented from Kenya

(linkages from OVC services to health services), Malawi (improvement of primary school performance), Uganda (improving birth registration) and Tanzania (sustainability). Several comments were heard from attendees of the meeting that they did not realize improvement methods were being used in social services.

- **Continuous Shared Learning, Local to Global to Local.** Every improvement team in every country accumulates vast experiences and lessons that need to be shared with others or they are lost on the ground. ASSIST places great value in each team's experiences in improving the quality of care and protection of vulnerable children and families and is invested in ensuring that lessons learned in one site or country are spread to other countries. ASSIST holds technical calls with ASSIST staff, to which ANPPCAN and REPSSI are invited.
- **ASSIST staff led two skill-building workshops and made three oral presentations at the REPSSI Psychosocial Forum held in Victoria Falls, Zimbabwe September 1-3, 2015.** The theme of the forum was *Love, Care and Protection: From Infancy to Adolescence.*

SUSTAINABILITY AND INSTITUTIONALIZATION

From its inception, ASSIST has worked with governments to institutionalize improvement in social services. ASSIST has provided technical assistance in ten countries in the ministry-led process of developing, piloting and implementing minimum service standards for vulnerable children. In FY15, ASSIST extended its work beyond development of service standards to using improvement methods to implement best practices in child and family social welfare and protection. The current core work under Partnerships in Community Child Protection is designed to build the capacity of regional African organizations and includes government at national and local levels. The work is also aimed at integrating formal and informal mechanisms within the social service system of care.

Office of Health Systems-Funded Activities

CROSS-BUREAU ACTIVITIES

BACKGROUND

The USAID Office of Health Systems (OHS) undertakes health systems strengthening work to contribute to USAID's goal of Ending Preventable Child and Maternal Deaths (EPCMD). OHS invests cross-bureau funds for global learning surrounding the successful development and testing of interventions related to the Universal Health Coverage, finance, governance, service delivery, medical products, vaccines and other technologies, and information.

Since FY13, cross-bureau funds have supported the USAID ASSIST Project in strengthening essential system functions and improving and sustaining high-impact, evidence-based health care. During FY15 (using FY13 and FY14 OHS cross-bureau funds) ASSIST implemented the activities described below.

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Institutionalize the capacity to examine and improve care in EPCMD countries (Malawi)	
• Assessing quality of care for patients with febrile illness and applying a collaborative improvement approach in Malawi to systematically improve case management	2 intervention and 1 control district out of 28 districts in Malawi 3 district hospitals out of 28 DHOs 9 health centers out of 606 health centers 9 village health centers
2. Governance and Quality: Institutional roles and relationships to ensure service delivery quality	

What are we trying to accomplish?	At what scale?
• Gather and document global experiences on institutional roles and relationships that govern quality of care	Global
3. Application of WHO's People-Centered Integrated Health Services (PCIHS) Strategy (Mali and South Africa)	
• Apply people-centered care strategies in partnership with WHO in Mali and South Africa	Mali: 2 districts and 10 sites Kayes region South Africa: 5 provinces in 10 pilot facilities
4. Introduction to improvement course and facilitator's guide	
• Improvement training available through a free web-based platform, which can be downloaded to be accessed remotely • Facilitator's guide for those wishing to train others	Global
5. Develop internet-based multi-country mechanisms to strengthen previously USAID-supported Kangaroo Mother Care (KMC) and basic newborn resuscitation services and systems for improved newborn outcomes	
• Virtual collaborative in LAC	LAC
6. Global eLearning module	
• Develop Global Health eLearning (GHeL) course (in collaboration with K4Health)	Global
7. Basic improvement course and workbook	
• Develop a basic curriculum in improvement	Global
8. Pre-service learning	
• Pilot pre-service training in improvement methods and strategies	Kenya: Moi University, Nairobi University, Kenya Medical Training College, and Kenya Methodist University Global
9. Salzburg Global Seminar	
• Convene thought leaders to develop an agenda on how learning and existing knowledge may be enhanced in order to improve improvement work in low- and middle-income countries	Global
10. Family Planning Quality Framework	
• Develop a FP Quality Framework that highlights common quality gaps and solutions for achieving integrated, safe, effective, and people-centered postpartum FP services for improved health and social outcomes for women and their families	Global
11. Niger Postpartum Family Planning	

What are we trying to accomplish?	At what scale?
• Achieve better health and social outcomes for women of reproductive age and their children and families by promoting Healthy Timing and Spacing of Pregnancies (HTSP) with a focus on reducing unmet need for FP services during the early and extended PP period	3 districts: 2 districts in Niamey City (urban): District III and District IV; 1 district in Tahoua Region: Konni (rural) 16 facilities (out of 20 facilities total): 2 hospitals, 2 private primary care centers and 12 public primary care centers: District III: 3 (out of 3 total) primary care centers, 1 (out of 1) regional hospitals District IV: 4 (out of 4) primary care centers Konni District: 7 (out of 13) primary care centers and 1 (out of 1) district hospital QI teams:16 Coverage: 239,255 (25%) out of 971,115
12. Secondment to WHO to support the development of a health workforce technical assistance program for the Ebola health systems response team	
• Aid preparations and facilitation of a high level UN and partners meeting on the coordination of the Ebola response and determine short to long-term needs towards rebuilding and strengthening health systems • Develop a 6-month program of technical assistance to strengthen the health workforce in affected and priority countries	Ebola-affected countries and West Africa Region

= Improvement Activity = Cross-cutting Activity

Activity 1. Institutionalize the capacity to examine and improve care in EPCMD countries

OVERVIEW

USAID Malawi has asked the ASSIST project to support the National Malaria Control Program (NMCP) to develop and implement a quality improvement program to strengthen malaria case management. Beginning in September 2015, the ASSIST program in Malawi seeks to improve the extent to which febrile illnesses, and especially Malaria, are correctly diagnosed and managed with good clinical outcomes.

Working through teams of local providers and patients through the use of quality improvement, ASSIST seeks to identify and remedy gaps in the malaria case management process at three levels of the health care system: community, health center, and at district hospital levels. ASSIST focuses on the needs of all patients presenting at facilities with febrile illnesses in three districts (two case and one control) in Malawi, and ASSIST will also focus on patients that are particularly vulnerable, pregnant women and children < 5 years of age, and children >5 years of age.

ASSIST will carry out the work in three phases.

- **Phase I** – USAID ASSIST will conduct a baseline assessment of 21 sites to describe the how febrile illness cases are managed in Malawi at three levels of the health care system and among populations who present with malaria and febrile illnesses (children <5 years, children >5 years, pregnant women, and the general population).
- **Phase II** – The Ministry of Health with support from the USAID ASSIST Project will work to improve the quality of febrile illness case management services being provided in two targeted districts, Balaka and Mchinji, while collecting parallel information in a third district, Machinga.
- **Phase III** - The NMCP and ASSIST will document and disseminate lessons learned globally and replicate successful aspects of the approach in other PMI districts in Malawi, and especially the third control district, Machinga.

Contribution to Local and Global Learning: The knowledge that will be generated from this activity will be shared with the NMCP in the Ministry of Health, the District Health Offices and District Development committees, and other interested stakeholders at national and local levels. This work will form part of evidence-based required by the MOH to inform the scaling up decisions to other sites in Malawi. It is also anticipated that the knowledge generated from this project will be presented at appropriate national and international scientific meetings, Malaria Technical Working Groups and through peer-reviewed scientific journals for publication.

KEY ACCOMPLISHMENTS AND RESULTS

- **Over a series of several meetings, the ASSIST team has developed collaborative relationships** with Jennifer Bergeson-Lockwood, USAID, Edson Dembo, USAID Malaria Program Specialist, and Peter Troell, Malaria Program, CDC, Malawi.
- **The ASSIST team is working closely with the National Malaria Control Program leadership,** including; Doreen Ali, Program Director, Elizabeth, and Austin Gumbo, Monitoring and Evaluation Focal Person. The NMCP has agreed to support the activity and there is overall agreement on the scope of work.
- **USAID and the ASSIST team have selected the three study districts and facility sites** at the village clinic, health center, and District Hospital (Aug 2015).
- **The ASSIST team is coordinating with implementing partners in the three districts**. These include – Support (SSDI- services) and Malaria Care Project.
- **ASSIST conducted meetings with the three district leadership (District Health Officers and District Malaria Coordinators) to brief the teams on the upcoming malaria activity in their districts and to identify the 21 (7 control and 14 intervention sites) sites to work with.**
- **An assessment tool has been drafted and in undergoing revision and review.** The assessment is planned for the week of November 10 and December 7, 2015.

Activity 2: Governance and Quality: Institutional roles and relationships to ensure service delivery quality

OVERVIEW

In a recent survey of over 100 government officials from nine Joint Learning Network (JLN) member countries, the need to improve the quality of health care emerged as the number one priority. In subsequent collaborative work, JLN countries identified the challenge of setting institutional roles and responsibilities to govern national health care quality delivery as a key bottleneck for quality improvement. This activity will respond to countries' expressed need for guidance, as well as international attention to the issue of ensuring quality considerations are interwoven into UHC approaches by reviewing and documenting global experience in institutional relationships that govern quality in the health sector and providing guidance on success factors in structuring institutional roles, responsibilities, and relationships.

Learnings from this activity will inform the development of operational guidance for building and strengthening governance systems for monitoring and improving quality of care. Essential governance functions for ensuring quality of care, including key definitions and practical examples applied in similar contexts will be shared with EPCMD countries during the workshop and virtually. A peer learning workshop will serve as a knowledge sharing forum for EPCMD countries to learn about global experiences structuring institutional roles, responsibilities and relationships.

Contribution to Local and Global Learning: This activity will utilize the JLN, a virtual platform that engages countries to share knowledge and experiences surrounding many key themes, including governance and quality. The activity looks to assist to expand the JLN to beyond its current members and continue to engage them in conversations surrounding good governance for quality improvement.

KEY ACCOMPLISHMENTS AND RESULTS

- **Literature review completed in conjunction with USAID Health Finance and Governance Project** (Sept 2015).

Activity 3: People-centered care

OVERVIEW

ASSIST works strategically in Mali and in South Africa building and expanding on existing platforms to promote country ownership and sustainability by working in partnership with the Ministry of Health (MOH), The Department of Health (DOH), and the WHO Service Delivery and Safety (SDS) Department.

In Mali, ASSIST is contributing to this global objective with a pilot demonstration in Kayes region through MNCH activities focused on USAID Mali Ending Preventable Child and Maternal Deaths strategy (EPCMD). In these two districts of Kayes region (Diema and Yelimane), USAID ASSIST Mali has a long history of promoting integrated and coordinated maternal and newborn interventions at all system levels, from household, to primary care to referral hospital. The implementation will be with three major structures supporting National Health Development Program. These are the National Direction of Health/ Division of Reproductive Health, the National Direction of Social Development and The National Direction of Women, Child and Family Promotion to accelerate morbidity and mortality reduction by improving access and client utilization and happiness with essential services.

In South Africa, ASSIST will accelerate morbidity and mortality reduction by improving access, client utilization, and satisfaction with essential services in HIV services in five provinces in 10 pilot facilities. Specifically, ASSIST staff will leverage the principles of the new WHO global strategy on People-centered and Integrated Health Care, released by WHO in 2014 to strengthen this approach in one district in Eastern Cape Province, as a pilot for integrated health services focusing on people centered care. ASSIST will assess and improve the promotion of patient-centered approaches in clinical consultations by health providers during provision of care to HIV-infected clients on ART at 10 public health facilities. The facilities chosen for this activity will be a mix of primary health clinics, community health centers and district hospitals.

Contribution to Local and Global Learning: The work in Mali and South Africa will provide a wide range of recommendations and lessons learned of services provision during pregnancy and delivery as well as HIV care and treatment. Context specific strategies from the regional levels will help with the development of WHO Global Strategy that will assist for the achievement of universal health coverage with more people-centered and integrated health services. Cultural beliefs and attitudes as well as providers competences and motivation will be assessed to define better lessons learned for the improvement of the care and consideration within communities.

KEY ACCOMPLISHMENTS AND RESULTS

- **Determined sites** (Sept 2015)
- **Enhanced the PCIHS concept with Ministry of Health partners at national and regional level (orientation of MoH on the concept)** (Aug - Sept 2015)
- **Developed indicators** (Sept 2015)

Activities 4: Introduction to improvement course and facilitator's guide

OVERVIEW

This activity is translating the same course that ASSIST headquarters staff and Chiefs of Parties (COPs) use to orient themselves with improvement to an online platform, allowing anyone to access the course remotely. This course will be available through a free web-based platform, which can be downloaded to be accessed remotely. It will also be available via CD and USB. This will allow for people who would like an introduction to improvement to take the course at the pace they would like.

This activity will also develop a set of materials that will include the participant manual as well as facilitator's manual with notes on what to present and how to conduct exercises related to materials.

Contribution to Local and Global Learning: The activity will contribute to global learning as it will provide those interested in understanding the basic principles of improvement with the understanding to begin an improvement project. It provides participants with knowledge directly from a world-renown improvement expert at no cost as it will be available online and via CD/USB. It will also provide those interested in training others in improvement the necessary tools to do so effectively.

KEY ACCOMPLISHMENTS AND RESULTS

- **Course finalized** (July 2015)
- **Draft facilitator's guide in review stage** (Sept 2015)

Activity 5: Develop internet-based multi-country mechanisms to strengthen previously USAID-supported KMC and basic newborn resuscitation services and systems for improved newborn outcomes

OVERVIEW

The Latin America and Caribbean (LAC) Region has reached more than 90% average skilled birth attendance, a higher percentage than any other region in the developing world. However, important deficiencies persist in the quality of care at birth, as evidenced by assessments of process of care and health outcomes. It is estimated that in 2012 there were between 700,000 and one million cases of possible severe newborn infections in the region". Evidence-based practices capable of reducing the incidence of newborn infections exist and are available at a cost that seems to be acceptable for most LAC health care systems. ASSIST has global experience using quality improvement methods and tools proven effective to increase the quality of care. In the LAC Region, ASSIST has been using internet-based applications to promote quality improvement such as a website to disseminate evidence-based maternal and newborn interventions and communities of practice.

As country-level USAID MNCH funding has dwindled in the LAC region, ASSIST had invested modest core MNCH funds to sustain and grow the LAC regional newborn communities of practice focused on Kangaroo Mother Care (KMC) and basic newborn resuscitation, essential interventions for two leading causes of newborn mortality—prematurity/low-birth weight and newborn asphyxia.

Contribution to Local and Global Learning: These activities are being implemented and being leveraged in close collaboration with regional international organizations such as the LAC Newborn Alliance, the Pan American Health Organization (PAHO), UNICEF, the Mesoamerican 2015 Initiative, the Kangaroo Care Foundation, and others. It is likely that these partner organizations will eventually increase their current support to implement these activities in some of the countries they support or in the entire region.

KEY ACCOMPLISHMENTS AND RESULTS

- **Carried out four webinars:**
  - "Newborn Health in the LAC Region: progress and challenges". Dr Pablo Duran, PAHO/WHO. November 2014.
  - "Intercultural aspects of Newborn Care in the LAC Region". Dr. Mario Tavera, UNICEF/Peru. December 2014.
  - "Essential Care for Every Baby. A new curriculum for Newborn Care Training". Dr. Carl Bose, American Academy of Pediatrics, U.S.A. February 2015.
  - "Prevention and early recognition of Retinopathy in the Premature Baby". Dr. Pedro Acevedo, Kangaroo Care Foundation, Colombia. March 2015.

    Each of these webinars was attended by an average of 80-90 participants from 7 to 9 countries.
- **The Spanish-language MNCH site, www.maternoinfantil.org, has become a regional resource for technical MNCH materials, reaching more than 900,000 visits by the end of September 2015.** It has more than 1,000 technical materials, audio and image resources accessible for LAC users.
- **Three communities of practice (Kangaroo Mother Care, Newborn Resucitation and Newborn Infections) have been created as mechanisms to foster an exchange of knowledge and experiences among LAC professionals.**
- **Twelve LAC hospitals from six countries are participating actively in the first-ever internet-based improvement collaborative to reduce hospital newborn infections in Latin America.** A data management website has been created to allow quality improvement teams to manage indicators and improvement activities.

- **An evaluation of the efficacy and relative costs of the internet-based collaborative is being conducted.** Its results will inform the advantages of the use of the internet for improving health care in and beyond the LAC Region.

Activity 6. Global eLearning Module

OVERVIEW

Global health professionals and MOH officials are often convinced of the need to improve the quality of health care, but are confused as to what to do and/or overwhelmed by the different approaches and methods available. In December 2014, ASSIST the development of an improvement course for the USAID Global Health eLearning platform to introduce USAID staff, Ministry of Health officials, health care managers, and other global health professionals to principles and approaches that can help health care workers continually improve the work that they do and make care better. The course will examine process improvement and measurement for decision making since health care improvement has become a critical component of USAID and PEPFAR programming. For this activity, we are working closely with the Johns Hopkins Center for Communication Programs (CCP) which manages the GHeL platform and provides technical assistance in course design.

Contribution to Local and Global Learning: The course is openly available at no cost through the Global Health eLearning Center website, which is designed for low bandwidth connections, ensuring accessibility for a wide range of stakeholders.

KEY ACCOMPLISHMENTS AND RESULTS

- **Course proposal approved** (Jan 2015). ASSIST developed a course proposal that was reviewed and approved by USAID.
- **Authors' training conducted** (Feb 2015). CCP conducted an authors' training for USAID ASSIST staff.
- **Course went through internal and external reviews (**Jul-Sept 2015). Many changes were made to make the course more accessible and understandable for the audience based on the reviewers' feedback.
- **We began the development of a dissemination strategy to reach the widest possible audience** (Sept 2015).
- **Course launched on the GHeL platform in** Oct 2015: http://www.globalhealthlearning.org/course/improving-health-care-quality

Activity 7: Basic improvement course and workbook

OVERVIEW

A critical component to the work of the USAID ASSIST Project is to build competencies for improving health care and social services in host country counterparts and staff at the national, regional, district, facility, and community levels. USAID ASSIST is exploring new, innovative ways to build competencies in staff, local counterparts, and implementing partners that will ensure a consistent level of improvement competencies throughout the project activities.

The course is a self-directed workbook, which will be complemented by other materials such as articles, case studies and guides. The audience for the training will be staff in facilities, host country counterparts, and implementing partners, and the training will be made available for anyone who has an interest in how to improve health care or social services. By the end of the course, a participant will have the basic competencies in improvement, which would enable them to begin an improvement project with mentorship and supervision.

The course will draw upon existing resources and develop new ones as appropriate, including manuals, job aids, and exercises. ASSIST will work closely with an instructional design consultant to ensure that we are developing materials and learning approaches that will contribute to building competency and not simply be a knowledge transfer.

Contribution to Local and Global Learning: The course will be freely available for anyone with an interest in how to improve health care or social services.

KEY ACCOMPLISHMENTS AND RESULTS

- **Determined competency areas that the course will cover to set learning aims** (Aug 2015)**.**
- **Drafted course outline** (Sept 2015)**.**

Activity 8. Pre-service learning

OVERVIEW

The lack of competency of health care workers to continually improve the quality of care they are providing contributes in part to health care problems such as poor retention in HIV care and treatment or low uptake of highly active antiretroviral therapy among the pediatric HIV-infected population. In December 2014, the USAID ASSIST Project began working with the FUNZO Kenya Project (FKP) to explore opportunities for incorporating improvement competencies into the curricula of pre-service medical training institutions in Kenya. This work will build upon an improvement competency framework for pre-service education and in-service training that was developed by ASSIST and the Regional Center for Quality Health Care in Uganda. The work will be complementary to the Medical Education Partnership Initiative (MEPI) and the Nursing Education Partnership Initiative (NEPI) and will strengthen PEPFAR efforts. Products and lessons learned will be shared broadly, including with MEPI/NEPI. The activities will contribute to the PEPFAR 3.0 Human Resources for Health Strategy Objective 2 by strengthening pre-service training institutions and Objective 5 by building competency in quality improvement as an approach for performance improvement.

ASSIST will work with four medical training institutions to incorporate improvement competencies into their existing pre-service curricula, including practicums for doctors, clinical officers, nurses, or lab or pharmacy technicians. Developing curricula, materials and testing these in practice will provide a benchmark that other medical training institutions can use to institutionalize improvement. ASSIST will work closely with the FKP, which is responsible for supporting all medical training institutions, to conduct a curriculum review, develop materials, train faculty and conduct the first courses in improvement. Students will immediately implement their new improvement skills during their practicums with improvement aims focused on improving HIV-related care.

Contribution to Local and Global Learning: Developing curricula, materials and testing these in practice will provide a benchmark that other medical training institutions can use to institutionalize improvement.

KEY ACCOMPLISHMENTS AND RESULTS

- **Four medical training institutes were chosen** (June 2015)**:** Moi University, Nairobi University, Kenya Medical Training College, and Kenya Methodist University
- **Formal approvals for changing the medical training curriculums have been obtained from the MOH and each of the training institutes** (July- Aug 2015)**.**
- **Departments and faculty from each department that will lead this work have been chosen** (Aug – Sept 2015)**.**

Activity 9. Salzburg Global Seminar

OVERVIEW

Given the adaptive, iterative nature of improvement, the method of learning about the improvement should not undermine these very features that make improvement activities successful. For the most part, improvement methods have relied on time series charts, with or without statistical process control. Other designs include: stepped wedge trials, time series analyses with or without control groups and case reports. The use of randomized controlled trials, the gold standard for clinical research, has been limited in the field of improvement, with the fixed conceptualization of the improvement intervention, donor constraints and ethical issues regarding randomization, particularly for those in low- and middle-income country settings, often cited. Nuanced review of these methods and matching them to the aim of the inquiry is needed, as well as efforts to develop the epistemology of the field of improvement.

A key question being asked by those in the field is how we know whether the results achieved can be attributed to the intervention conducted. This question underlies one line of inquiry, however, there

are many others which would contribute to our learning about improvement. For each, the choice of methods depends on the aim of the inquiry. For example, increasing knowledge on the contextual factors which underlie the "how" or "why" a successful result was achieved is a very different line of inquiry, requiring different methods, than asking to what degree a result is attributable to an improvement intervention. These are legitimate and welcome questions, as it indicates the field has evolved and grown, and it now poses the next challenge in the evolution of the science of improvement.

This meeting will bring together leaders in improvement and learning to go through a process of thinking through the best ways to learn about improvement and respond to the questions on validity and attribution that are being legitimately posed.

Over a period of one week, participants will engage in a series of dynamic discussions and deliberations regarding the epistemology in the area of improving healthcare. We will review various methods and techniques of learning with the objective of coming out with a product that informs and advances the field. This will be in the form of a publication by the participants of the meeting.

Contribution to Local and Global Learning: The value of such a result will be to help in the design, implementation and evaluation of improvement to increase the validity of the conclusions and the attribution of the results to the activities implemented. This in turn allows us to understand which activities under which conditions are most effective at achieving sustained results in health outcomes.

KEY ACCOMPLISHMENTS AND RESULTS

- **Official announcement and brochure for Salzburg Global Seminar Session published on Salzburg's website** http://www.salzburgglobal.org/calendar/2010-2019/2016/session-565.html (Sept 2015).

Activity 10. Family Planning Quality Framework

OVERVIEW

The objective of this activity is to develop a FP Quality Framework that highlights common quality gaps and solutions for achieving integrated, safe, effective and people-centered postpartum FP services for improved health and social outcomes for women and their families. A first draft of a PPFP Quality Framework was developed with OHS cross-bureau funding in FY14. In FY15, ASSIST continued refining the draft framework, leveraging learning from testing models of integrated PPFP service delivery in Niger, Mali, and other ASSIST countries. The final version of the framework incorporates user-friendly tools and measurement strategies tested at the country level to support governments and partners to strengthen integrated postnatal FP, maternal, and newborn services with a strong focus on client-centeredness of services. The framework also includes a menu of quality of care FP service delivery and system performance indicators that can be adopted and adapted by country governments and partners to support continuous improvement of FP services at different levels.

Contribution to Local and Global Learning: The PPFP Quality Framework is intended to help managers and health care providers at all system levels to understand common quality gaps and promising approaches for improving postpartum family planning services. By identifying quality gaps within their own system, testing changes to address those gaps institutionalizing the changes that work, and then scaling them up will contribute to health system strengthening. These efforts can be supported by governments, the private sector, or other NGOs.

KEY ACCOMPLISHMENTS AND RESULTS

- **Brief report published ASSIST website in January 2015 on indicators for measuring quality of PPFP services**: https://www.usaidassist.org/resources/metrics-improving-effectiveness-safety-and-client-centeredness-postpartum-family-planning
- **Revised Quality Framework on postpartum family planning have been developed and submitted to the representatives of USAID Office of Population and Reproductive Health (OPHR) for review** (Aug 2015). To engage stakeholders in development of the document, the framework was also discussed with ASSIST Chief of Parties and representatives of USAID OPRH at a roundtable meeting on September 9, 2015.

Activity 11. Niger Postpartum Family Planning

OVERVIEW

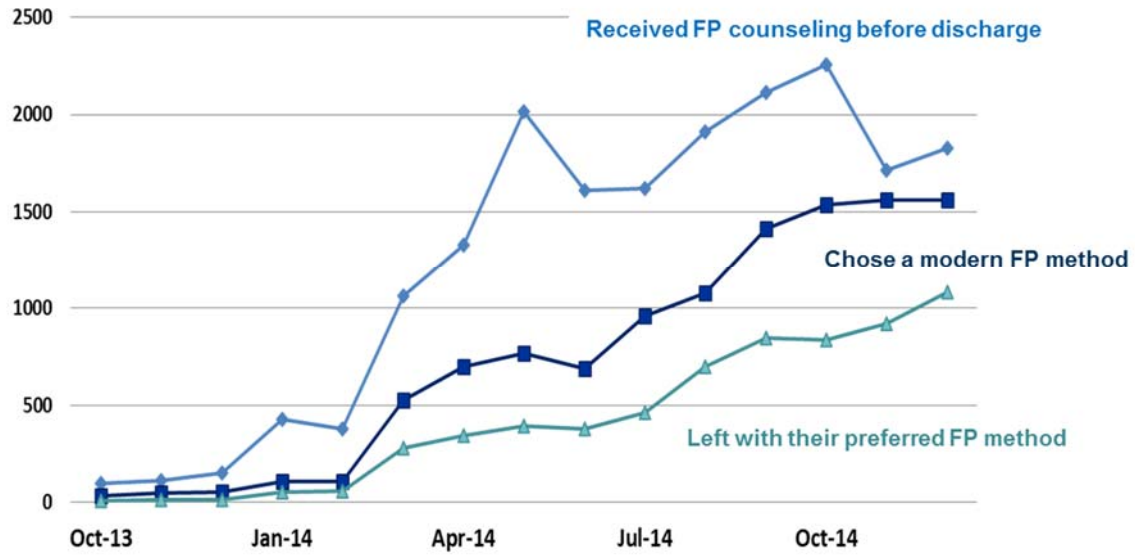
Despite a favorable political environment for family planning activities in Niger, there are still many constraints related to demand, access, and use of high-quality FP services. In a survey conducted by the Niger MOH in 2010, 51% of respondents reported they did not feel qualified to provide FP services and 71% of health facilities managers reported that they felt unable to provide FP services in their facilities. 27% of customers surveyed said they had not received counseling on FP methods available (UNFPA & MOH, 2010). Despite the general availability of short-term methods in most health centers, this 2010 survey showed that availability of long-acting methods was lower, with only 20% in primary health centers reporting having IUDs and 25% having implants. So the environment is well poised for an introduction of a postpartum family planning (PPFP) intervention. This collaborative improvement intervention sought to generate innovations and learning related to service delivery strengthening models which can support a more efficient and sustainable integration of FP in routine services health during pregnancy, childbirth, PP and early childhood.

ASSIST worked in close collaboration with the Niger Ministry of Health (MOH), managers and front-line providers to promote Healthy Timing and Spacing of Pregnancy (HTSP) via improved integration of FP counseling and services into routine public and private sector MNCH services in two urban Niamey districts and one rural Birnin Konni district. ASSIST promoted client-centered FP services to improve client choice and adherence with selected FP methods of choice to reduce unmet FP need and achieve healthy timing and spacing of pregnancies and reduced maternal and child mortality.

KEY ACCOMPLISHMENTS AND RESULTS

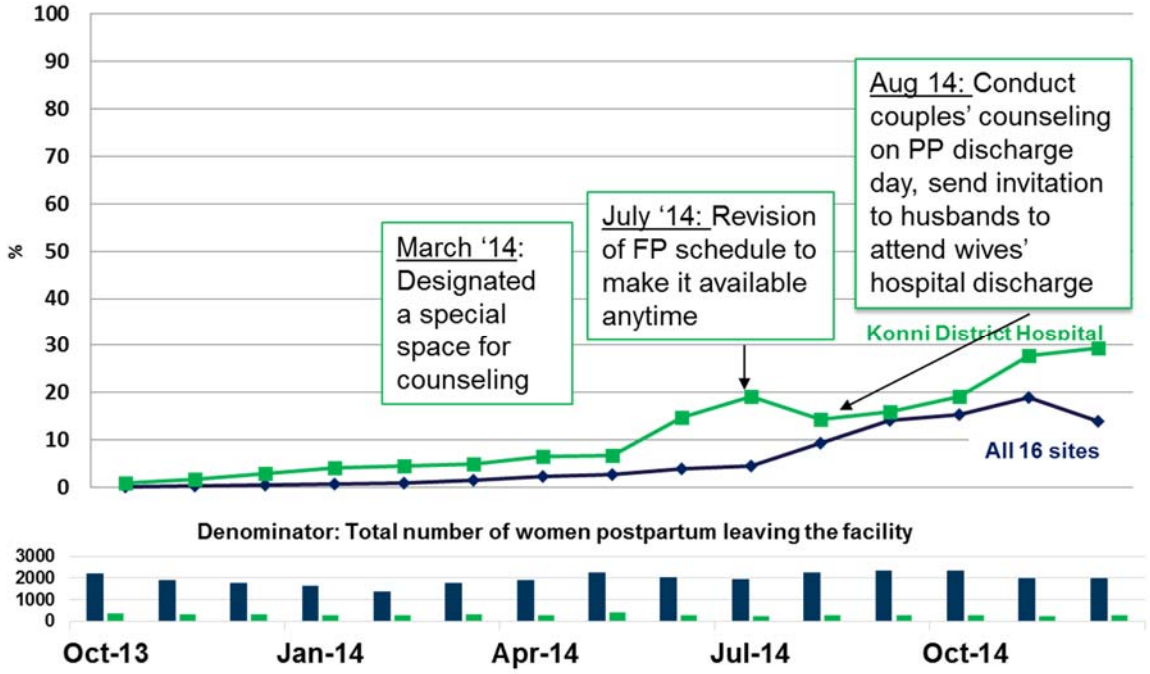
- **Baseline data on PPFP available for nationwide use as the target sites not only represented rural and urban sites, but also effectively captured regional disparities in Niger.**
- **A critical number of providers and managers developed capacity for improvement and applied it practically to improve PPFP in Niger.**
- **Improvement story published on ASSIST's website in January 2015: https://www.usaidassist.org/resources/strengthening-integrated-family-planningmaternal-and-neonatal-health-postpartum-services**
- **Final report and change package from the PPFP improvement collaborative in progress**
- **Figure 153** shows the large gains made in covering postpartum women with family planning counseling and acceptance of a modern family planning method. To achieve these results, many changes were implemented, including the following:
  - Reinforcement of essential equipment (requesting and obtaining FP commodities from MOH)
  - Provision of systematic counseling to all postpartum women
  - Provision of providers' refresher training on HTSP
  - Documentation of counseling in partogram (stays in the HF)
  - Provision of FP counseling to both mothers and partners before discharge

Figure 153: Cross-Bureau | Niger: Comparison of PP women who received FP counseling before exit, chose a modern FP method and left with their preferred FP method, 16 sites (Oct 2013 – Dec 2014)



- **Involving husbands in FP issues is a major challenge in Niger because of cultural and traditional barriers**. Nevertheless, the Konni District Hospital team, tested the idea and implemented changes that showed promising changes in their attitudes (**Figure 154**).

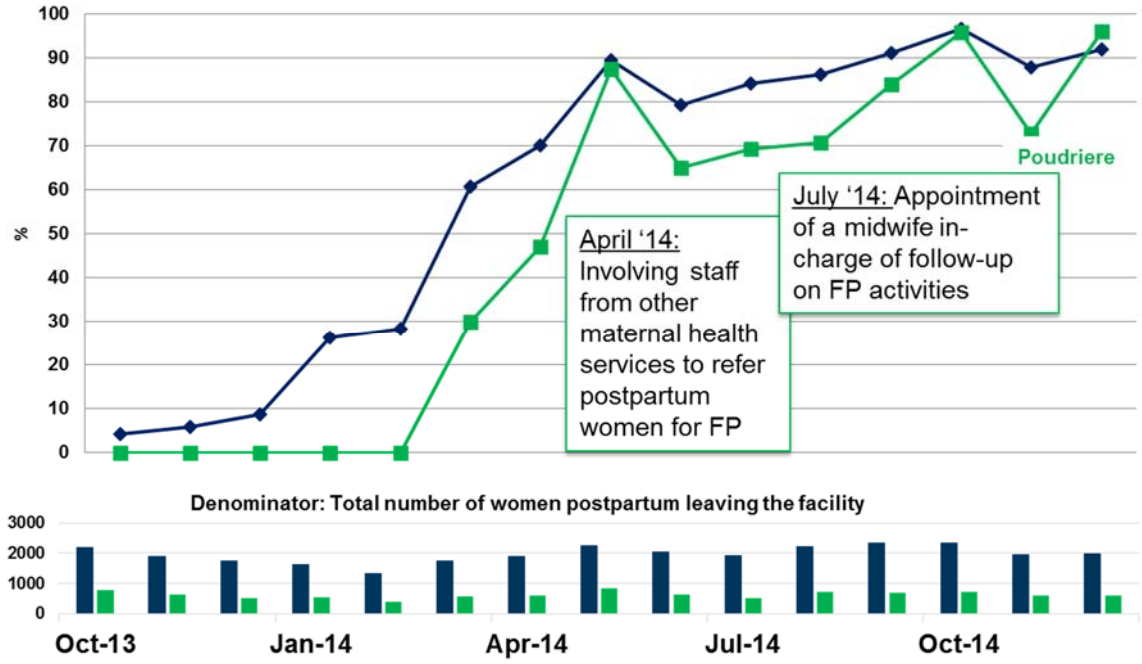
Figure 154. Cross-Bureau | Niger: Comparison of PPFP where couples received FP counselling before exit, 16 sites and in the Konni District Hospital (Oct 2013 – Dec 2014)



- Poudrière Regional Hospital is one of the two main maternity to which all women from the Niamey and Tillabery regions come. This hospital created a special FP position held by a midwife who also served as a QI team leader several years back during HCI's predecessor project in Niger. All midwives were part of this QI team.

- **The QI team in Poudriere made many changes to achieve the FP counselling results shown in Figure 155, some of which are as follows:**
  - Designation of a special space for counseling (Mar 2014)
  - Involvement and empowerment of staff from other maternal health services on referring PP women for FP (Apr 2014)
  - Provision of clear job descriptions to health providers (Apr 2014)
  - Rotation of midwives with each taking turns staffing the FP counseling room (Apr 2014)
  - Involvement of new delivery room providers in raising awareness and provision of FP services to women (May 2014)
  - Revision of the supply chain management system to ensure continuous availability of commodities and thus promote client satisfaction (Jun 2014)
  - Prioritization of couples for FP services – that is, in cases where women came with their partners, they were received first even when there were other women waiting to be seen (Jun 2014)
  - Appointment of a midwife in-charge of follow up FP activities (Jul 2014)
  - Revision of FP schedule to make it available 24 hours a day instead of morning only (Jul 2014)
  - Daily check of completed charts (Jul 2014)
  - Prioritization of FP services at time of discharge for women who received C-sections (Jul 2014)
  - Insertion of PP IUD in the delivery and the operating rooms (Jul 2014)

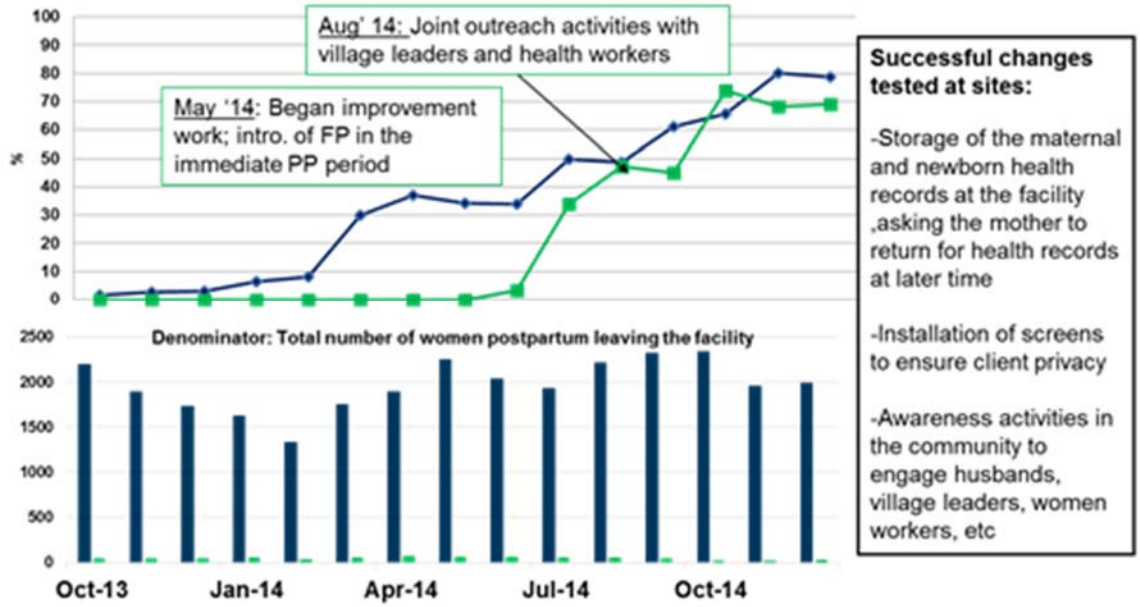
Figure 155: Cross-Bureau | Niger: Postpartum women who received FP counselling before exit, 16 sites (in 2 districts) and the Regional Hospital Poudrière - Niamey (Oct 2013 – Dec 2014)



- The midwife in charge in Tsernawa Health Center had some experience in QI from previous work with URC. Tsernawa also had a new Medical Officer who changed the management such as addressing provider practices of fraudulent selling of contraceptives (which are normally free-of-charge).
- **Strong and well-targeted messages were necessary to achieve the changes shown in Figure 156,** including the following:
  - Introduction of FP in the immediate PP period (May 2014)

- Installation of screens to ensure client privacy (May 2014)
- Storage of the maternal and newborn's health records at the facility and asking the mother to return to retrieve the records on the 8th day or a day after the newborn's baptism (period after which, per Niger's customs, the PP women can be seen in public) (Jul 2014)
- Awareness activities in the community to engage husbands, village leaders, lay women workers, community health committee, and local NGOs (Jul 2014)
- Joint outreach activities with village leaders and Tsernawa health workers (Aug 2014)

Figure 156: Cross-Bureau | Niger: Postpartum women who left with their preferred FP method, 16 sites, 2 districts and in Tsernawa Health Center (Oct 2013 – Dec 2014)



IMPROVEMENT IN KEY INDICATORS

Activity	Indicators	Baseline (October 2013)	Last value (December 2014)	Change (percentage points)
Niger Postpartum Family Planning	% of women counseled for PPFP	4% (16 sites)	96% (16 sites)	92
	% of women selecting a modern PPFP method	2% (16 sites)	83% (16 sites)	81
	% of women discharged with modern PPFP method of choice	0% (16 sites)	23% (16 sites)	23
	% of births after which couple received PPFP counseling prior to discharge of mother	0.1% (16 sites)	14% (16 sites)	13.9

Activity 12. Secondment to WHO to support the development of a health workforce technical assistance program for the Ebola health systems response team

OVERVIEW

Even as response efforts have ramped up, the Ebola outbreak has highlighted the significant health system weaknesses and vulnerabilities that have not only hindered an effective response but also have further exacerbated the public health crisis through the lack of access to essential health care services. This activity was established to provide short-term support to WHO in forming and

operationalizing a health systems recovery team and program of support in Ebola-affected countries and the West Africa Region. The health systems response team is working with Ministries of Health and partners to develop health systems recovery plans that will strengthen critical system weaknesses, manage systems vulnerabilities, and better leverage existing and new resources to build stronger systems that are positioned for Universal Health Coverage.

WHO, a partner of the ASSIST project through its SDS Department, recognized the importance of addressing health workforce issues and the contribution ASSIST can offer, and requested ASSIST's support in this important work. This activity seconded Dr. Tana Wuliji, ASSIST Health Workforce Development Unit Lead, to WHO for the period of one month to work with the health systems recovery team to:

1. Aid preparations for a high level meeting on the health systems recovery in Ebola affected countries with Ministers of Health and Finance, UN and key stakeholders and determine short to long-term needs towards rebuilding and strengthening health systems
2. Develop a WHO work plan for health systems recovery in Ebola affected countries and the West Africa region
3. Lead an analysis of health worker Ebola infections and propose recommendations

KEY ACCOMPLISHMENTS AND RESULTS

- **Completed support** (Dec 2014). This activity supported the rebuilding and strengthening of the health systems of the recently Ebola-affected countries through providing technical expertise in health workforce and human resources for health. This activity has been completed.

Common Agenda Activities

BACKGROUND

As the USAID Office of Health Systems' flagship project on improvement, ASSIST has a mandate to coordinate and collaborate with international agencies and USG implementing partners to expand the application of modern improvement methods, particularly in USAID-assisted countries and in support of USAID global health priorities. The project contributes to the global health community's understanding of the contribution of improvement methods to health systems strengthening and demonstrates how USAID investment in this project provides good value for money by producing meaningful results linked to USAID's Global Health priorities of EPCMD and AIDS-Free Generation. The project seeks to raise awareness of the value of improvement methods and share project results and approaches through staff participation in technical working groups and expert consultations; presentations; contributions to frameworks, issue papers, and working papers; and project publications.

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Increase application of improvement methods	
• Expand the use of modern improvement approaches in USAID-assisted health care systems and by USAID cooperating agencies through global technical leadership for USAID's worldwide efforts to improve health care in developing countries	Global, Regional
2. Demonstrate results	
• Demonstrate the results of USAID's investment in health care quality improvement	Global, Regional

Cross-cutting Activity

Activity 1. Increase application of improvement methods

KEY ACCOMPLISHMENTS AND RESULTS

- **Contributed to US Human Resource and Services Administration (HRSA) Expert Meeting on organizational capacity development**: On October 16, 2014, Dr. M. Rashad Massoud participated with representatives from various universities and consulting firms in an expert meeting hosted by the HRSA to review best practices in accurately assessing capacity and building ownership for technical assistance plans and recommend an organizational capacity assessment approach for local organizations within USG-funded health programs for planning technical assistance and building in-country ownership.
- **Presented to the USAID-funded Maternal and Child Survival Program (MCSP):** On October 30, 2014, Dr. Taroub Faramand of WI-HER LLC presented to MCSP staff on USAID ASSIST's approach to integrating gender considerations through improvement methods. On January 12-13, 2015, Dr. Kathleen Hill contributed to the Technical Consultation on Reporting and Mapping Maternal Deaths in Countries with High Maternal Mortality, organized by MCSP in Washington, DC.
- **Promoted improvement approaches with the Mesoamerican Health 2015 Initiative**: Dr. Massoud, Dr. Jorge Hermida, and Ms. Danika Barry were invited by the Interamerican Development Bank to participate in the first Salud Mesoamerica 2015 (SM2015) regional meeting in Panama City, November 11-12, 2015. Over 100 delegates from all eight SM2015 countries participated. Dr. Hermida spoke about the LAC virtual improvement collaborative on newborn care that ASSIST is launching and distributed materials in Spanish and English about USAID-supported improvement work in Latin America.
- **Presented evidence for collaborative improvement and use of cost-effectiveness analysis to the Institute of Medicine**: On November 24, 2014, Dr. Massoud presented to a select Institute of Medicine panel—the Standing Committee to Support USAID's Engagement in Health Systems Strengthening—on the evidence for collaborative improvement, drawing on URC's work over the past 15 years. The panel was convened by USAID to assess the evidence for improvement methods in health care. On Jan. 28-29, 2015, several ASSIST staff and partners participated in the public workshop in Washington, DC, organized by the same Standing Committee. Dr. Massoud and Dr. Edward Broughton served as panelists to discuss Tools and Processes for Quality Improvement and Cost-effectiveness of Quality Improvement Interventions. In April 2015, Dr. Massoud and Dr. James Heiby of USAID also advised the Institute of Medicine Committee to Support USAID's Engagement in Health Systems Strengthening on the development of a book on health care improvement.
- **Participated in expert meeting to develop WHO monitoring and evaluation framework**: On Dec. 2-3, 2014, Dr. Tamar Chitashvili participated in an expert meeting at WHO in Geneva to develop a monitoring and evaluation framework that covers the WHO non-communicable disease mHealth portfolio. The meeting was convened by WHO and the International Telecommunications Union (ITU). On December 4-5, 2014, Dr. Hill participated in an expert meeting on metrics for the Every Newborn Action Plan at WHO in Geneva.
- **Contributed to the Global Human Resources for Health (HRH) Strategy**: On March 24, 2015, Dr. Massoud participated in meeting on the global HRH strategy that is being developed by the World Bank, WHO, and USAID. At the meeting, Professor Frances Day-Stirk of the International Confederation of Midwives presented the findings of the technical working group she co-led with Dr. Massoud on improving health worker productivity and performance in the context of Universal Health Coverage.
- **Dr. Massoud participated by invitation in the WHO EMRO Consultation on Quality of Care at Primary Care Level in Cairo, Egypt** (May 11-13, 2015).
- **Dr. Massoud led a seminar on health care improvement in Lesotho for USAID staff** (May 2015**), and in Cambodia for members of the Health Professions Councils** (June 2015).
- **Dr. Jorge Hermida presented by invitation on URC's work to improve the use of corticosteroids for prevention of pre-term birth in Uganda, at the Pre-term Birth/Low Birth**

Weight Global Technical Working Group meeting on gestational age determination (May 1, 2015). The meeting was convened by "Every Preemie-SCALE" and the Global Alliance to Prevent Prematurity and Stillbirth.

- **Dr. Massoud and Ms. Barry presented on the spread and scale-up of high-impact interventions** at the MacColl Workshop 2015: Taking Practice Transformation to Scale at the MacColl Center for Health Care Innovation/ Group Health Research Institute in Seattle, WA (May 27-28, 2015).
- **Dr. Broughton led a five-day training on cost-effectiveness analysis for the USAID Bureau for Economic Growth, Education and Environment (E3) at the USAID Learning Center in Crystal City.** Most attendees were from the Bureau of Global Health or E3 (July 13-17, 2015).

Activity 2. Demonstrate results

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST convened a high-level Technical Advisory Group (TAG) to advise the project at the midpoint of its implementation**: On Jan. 22, 2015, USAID ASSIST convened its technical advisory meeting in Washington, DC, bringing together a distinguished group of improvement science and health systems experts to review the ASSIST Project's strategies and accomplishments to date and provide recommendations for future USAID efforts to improve the quality of health care. The members of the project TAG were: Ms. Katie Taylor (Deputy Assistant Administrator for the Bureau of Global Health, USAID), Dr. Enrique Ruelas (President, National Academy of Medicine, Mexico), Dr. Alex Rowe (Medical Epidemiologist, U.S. Centers for Disease Control and Prevention), Dr. Francis Omaswa (Executive Director, African Centre for Global Health and Social Transformation), Sir Liam Donaldson (WHO Envoy for Patient Safety and former Chief Medical Officer for the United Kingdom), and Mr. Derek Feeley (Executive Vice President, Institute for Healthcare Improvement). A full report with the TAG's recommendations is available on the ASSIST website.
- **Eight articles published in peer-reviewed journals:** As shown in **Table 20**, ASSIST staff published eight articles in peer-reviewed journals during FY15. In addition, the project published 10 case studies, eight technical and research reports, 13 short reports, 23 annual reports, 12 tools and change packages, and five videos describing project-supported work and results. All project publications are accessible on the project website.

Table 20: USAID ASSIST publications, FY15

Articles Published in Peer-Reviewed Journals
Liu G, Segrè J, Gülmezoglu AM, Mathai M, Smith JM, Hermida J, Kapeu AS, Barker P, Jere M, Moses E, Moxon SG, Dickson KE, Lawn JE, Althabe F, Working Group for the UN Commission of Life Saving Commodities Antenatal Corticosteroids. 2015. Antenatal corticosteroids for management of preterm birth: a multi-country analysis of health system bottlenecks and potential solutions. Published in September 2015 in *BMC Pregnancy and Childbirth*. Available at: http://www.biomedcentral.com/1471-2393/15/S2/S3
Horwood CM, Youngleson MS, Moses E, Stern AF, Barker PM. 2015. Using adapted quality-improvement approaches to strengthen community-based health systems and improve care in high HIV-burden sub-Saharan African countries. Published July 2015 in *AIDS Journal*. Available at: http://journals.lww.com/aidsonline/Fulltext/2015/07002/Using_adapted_quality_improvement_approaches_to.6.aspx
Byabagambi J, Marks P, Megere H, Karamagi E, Byakika S, Opio A, et al. 2015. Improving the quality of voluntary medical male circumcision through use of the continuous quality improvement approach: A pilot in 30 PEPFAR-supported sites in Uganda. Published July 2015 in *PLoS ONE*. Available at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0133369
Massoud MR, et al. 2015. Improving care for patients on antiretroviral therapy through a gap analysis framework. Published July 2015 in *AIDS Journal*. Available at: http://journals.lww.com/aidsonline/Fulltext/2015/07002/Improving_care_for_patients_on_antiretroviral.10.aspx

Haumba S, Dlamini T, Calnan M, Ghazaryan V, Smith-Arthur AE, Preko P, Ehrenkranz P. 2015. Declining tuberculosis notification trend associated with strengthened TB and expanded HIV care in Swaziland. Published June 2015 in *Public Health Action*. Available at: http://dx.doi.org/10.5588/pha.15.0008
Lunsford SS, Fatta K, Stover KE, Shrestha R. 2015. Supporting CTC providers through a community health system approach: Case examples from Ethiopia and Tanzania. *Human Resources for Health.* Accepted for publication on 8 March 2015. Published online on 3/28/15: : http://www.human-resources-health.com/content/13/1/12
Broughton E, Chitashvili T, Hill K, Cherkezishvili E, Shengelia N. 2014. Antibiotic use worldwide. Published as correspondence in the December 2014 issue of *The Lancet*: http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(14)70986-7/fulltext
Rahimzai M, Naeem AJ, Holschneider S, Hekmati AK. 2014. Engaging frontline health providers in improving the quality of health care using facility-based improvement collaboratives in Afghanistan: Case study. Published 22 October 2014 in *Conflict and Health*. Manuscript number: 5641720412983154.
Case Studies (Date Published)
Supporting vulnerable children to return and stay in school: Lessons learned from three Village Protection Committees in Amuru Sub-county, Uganda. *Case Study* (September 2015)
Increasing institutional deliveries through improving community-facility linkages in Mewat, Haryana State, India. *Case Study* (September 2015)
Increasing facility efficiency by improving triage of antenatal care of pregnant women in FRU Charkhi Dadri, Bhiwani District, Haryana, India. *Case Study* (July 2015)
Scaling up quality improvement to reduce maternal and child mortality in Lohardaga District, Jharkhand, India. *Case Study* (June 2015)
Community contributions to eliminating mother-to-child transmission at Licilo Health Center, Mozambique. *Case Study* (May 2015)
Improving linkages between health facilities and communities in Muheza, Tanzania. *Case Study* (January 2015)
Improving communication between nursing shifts to improve care in Hisar District Hospital, Haryana, India. *Case Study* (December 2014)
Improving assessment and monitoring of women in labour at District Women's Hospital, Pauri, Uttarakhand, India. *Case Study* (December 2014)
Reducing postpartum haemorrhage in Ghuman Community Health Centre, Punjab, India. *Case Study* (November 2014)
Improving labour and postpartum care at Budhlada Sub-divisional Hospital in Mansa District, Punjab, India. *Case Study* (October 2014)
Technical and Research Reports (Date Published)
Uganda-Lesotho knowledge exchange for the Partnership for HIV-Free Survival: Reflections and recommendations. *Technical Report* (September 2015)
Strengthening systems for improved nutrition care, support, and treatment in Malawi. *Technical Report* (September 2015)
Partnership for HIV-Free Survival community demonstration project in Gaza, Mozambique. *Technical Report* (July 2015)
Scaling up, sustaining, and institutionalizing better health care in Georgia: Results and strategic recommendations from USAID support for improving quality of priority clinical conditions during 2012-2015. *Technical Report* (June 2015)
Empowering community groups to support access and retention in HIV care in Muheza, Tanzania. *Technical Report* (May 2015)
Pilot of the Hhohho Regional Coordination Agency in Swaziland. *Technical Report* (March 2015)
Increasing diagnosis of childhood TB in Swaziland: Clinical utility and validity sample collection and diagnostic methods among children. *Research and Evaluation Report* (March 2015)
Evaluation of primary health care supervision in Mpumalanga Province. *Technical Report* (October 2014)

Flyers and Short Reports (Date Published)
Strengthening infection prevention and control in Swaziland. *Short Report*. (September 2015)
Strengthening community health systems to improve health care at the community level. *Short Report.* (August 2015)
Partnership for HIV-Free Survival (PHFS) indicators data validation exercise. *Short Report.* (June 2015)
Mapping mine workers in Nkwene, Swaziland to improve access to TB diagnosis and treatment services. *Short Report.* (June 2015)
Decentralizing TB services to improve access to treatment in Swaziland. *Short Report.* (June 2015)
Improving efficiency, effectiveness, and sustainability of in-service training in Swaziland. *Short Report.* (June 2015)
Quality of self-assessment and medical record data in facilities with quality improvement teams: A cross-sectional study in India. *Short Report.* (May 2015)
Providing TB services to health care workers in Swaziland through wellness screening. *Short Report.* (May 2015)
Improving outcomes for mothers, newborns, and children. *Short Report.* (May 2015)
Applying Science to Strengthen and Improve Systems. *Short Report.* (April 2015)
Ensuring an effective continuum of response and cascade of care for persons living with HIV in Uganda. *Short Report*. (January 2015)
Services to strengthen the performance of community health workers. *Short Report.* (December 2014)
The USAID ASSIST Project. Where do we work. *Short Report*. (December 2014)
Annual Reports (Date Published)
USAID ASSIST Georgia Country Report FY15 (June 2015)
ASSIST Research and Evaluation Report FY14 (December 2014)
ASSIST Documentation and Knowledge Management Report FY14 (December 2014)
ASSIST Botswana Country Report FY14 (December 2014)
ASSIST Burundi Country Report FY14 (December 2014)
ASSIST Cote d'Ivoire Country Report FY14 (December 2014)
ASSIST Democratic Republic of Congo Country Report FY14 (December 2014)
ASSIST Georgia Country Report FY14 (December 2014)
ASSIST Haiti Country Report FY14 (December 2014)
ASSIST India Country Report FY14 (December 2014)
ASSIST Indonesia Country Report FY14 (December 2014)
ASSIST Kenya Country Report FY14 (December 2014)
ASSIST Lesotho Country Report FY14 (December 2014)
ASSIST Malawi Country Report FY14 (December 2014)
ASSIST Mali Country Report FY14 (December 2014)
ASSIST Mozambique Country Report FY14 (December 2014)
ASSIST Nicaragua Country Report FY14 (December 2014)
ASSIST Nigeria Country Report FY14 (December 2014)
ASSIST South Africa Country Report FY14 (December 2014)
ASSIST Swaziland Country Report FY14 (December 2014)
ASSIST Tanzania Country Report FY14 (December 2014)
ASSIST Uganda Country Report FY14 (December 2014)
USAID ASSIST Project Annual Performance Monitoring Report FY14. Performance Period: October 1, 2013- September 30, 2014 (November 2014)
Tools (Date Published)
Tested changes to improve maternal and newborn care: A synthesis of high-impact, evidence-based changes that resulted in facility-level improvements in the processes and systems of providing maternal

and newborn care services in Uganda (July 2015)
A guide to improving the quality of safe male circumcision in Uganda (February 2015)
Changes that improved maternal and neonatal health in Delhi, India (January 2015)
Changes that improved maternal and neonatal health in Haryana, India (January 2015)
Changes that improved maternal and neonatal health in Jharkhand, India (January 2015)
Changes that improved maternal and neonatal health in Punjab, India (January 2015)
Changes that improved maternal and neonatal health in Himachal Pradesh, India (January 2015)
Changes that improved maternal and neonatal health in Uttarakhand, India (January 2015)
Changes that improved maternal health services during postnatal period in India (January 2015)
Changes that improved maternal health services during intranatal period in India (January 2015)
Changes that improved maternal health services during antenatal period in India (January 2015)
Changes that improved maternal health services in India (January 2015)
Multi-media (Date Published)
Community support to improve TB care in Uganda (June 2015). Available at: https://vimeo.com/130258619
Lesotho-Uganda Knowledge Exchange visit for the Partnership for HIV-Free Survival (April 2015). Available at: https://vimeo.com/123231180
Common pitfalls for new improvement teams: A story from New Delhi, India (March 2015). Available at: https://vimeo.com/102854943
Value of Exchange (February 2015). Available at: https://vimeo.com/123231179
Reflection on Coaching (February 2015). Available at: https://vimeo.com/123231178

- **Supported the Quality Improvement Case Book Project:** During the year, Dr. Heiby and Ms. Rhea Bright of the USAID Office of Health Systems were supported by Ms. Feza Kikaya and Ms. Vicky Ramirez to continue the development of the quality improvement case book project. A detailed case book review process and rubric were developed by the review team, which is comprised of USAID and ASSIST staff who review individual cases in pairs and provide comments for final review by Dr. Heiby. In April, the team sent detailed guidance for developing cases to individuals who had responded to case book submission questionnaires. By September 2015, 41 cases from 31 authors were in consideration, with well over half of the cases pending their first review and a fourth of them returned for second review.
- **Launched the ASSIST British Medical Journal (BMJ) Quality Improvement Reports program:** In January 2015 we launched the USAID ASSIST subscription to the BMJ Quality program, which allows subscribed users to submit quality improvement reports following the SQUIRE guidelines for reporting on quality improvement interventions. The one-year subscriptions, which became effective on January 1, 2015 and which cost US$150 per subscription, allow USAID ASSIST staff and counterparts to develop an unlimited number of quality improvement reports for peer-reviewed publication in *BMJ Quality Improvement Reports* (http://quality.bmj.com/journal). As of September 2015, 21 staff have activated subscriptions, one quality report has been completed and is in technical review, and six other quality reports are in development.
- **Kenya ANC improvement collaborative story selected in USAID Health Systems Strengthening Case Studies contest:** The project's submission of the story of the Kenya antenatal care improvement collaborative as an example of health systems strengthening was selected in November 2014 as one of the top 10 cases of health systems strengthening by the USAID Global Health Bureau Office of Health Systems, out of 145 submitted case studies. The top cases can be accessed at: https://hssglobalcall.hsaccess.org/top-cases.
- **Active engagement of ASSIST staff at high-level international health meetings**: As shown in **Table 21**, ASSIST had an active presence at 12 international and eight national conferences during FY15. In all, staff made 43 oral presentations and led 10 workshops at the 20 conferences.

Table 21: USAID ASSIST conference participation, FY15

Conference	USAID ASSIST Staff Participation
Third Global Symposium on Health Systems Research *Sept 30 – Oct 3, 2014* Cape Town, South Africa	• M. Rashad Massoud participated in the HRH Working Group satellite session with Co-Chair Frances Day-Stirk to presented the findings of the Performance/Quality/Productivity/Regulation working group • Tana Wuliji presented at the session, "Enhancing Patient-Centered Care: Translating Knowledge into Action for CHW Performance" • Ram Shrestha made the oral presentation, "Strengthening the community system to increase access to people-centered care in Ethiopia" • Martin Muhire made the oral presentation, "Experiences of how patients are involved in tracking fellow patients back to HIV chronic care at a health centre III in Uganda" • Astou Coly presented the poster, "Reasons for discontinued clinic attendance: Perspectives from ART patients in Cote d'Ivoire" • Tamar Chitashvili presented the poster, "Addressing rational use of medication in pediatric patients with respiratory tract infections through collaborative improvement in Georgia" • Herbert Kisamba presented the poster, "Improving access to essential medicines at health facilities through active engagement of district leadership: experience from Uganda" • Joseph Kundy presented the poster, "Better HIV care – why does health worker engagement matter? A cross-sectional mixed methods study of health worker performance and engagement in Tanzania"
31st ISQua International Conference *October 5-8, 2014* Rio de Janeiro, Brazil	• Kate Fatta, Sidhartha Deka, Elizabeth Silvia, and M. Rashad Massoud led the pre-conference half-day workshop, "Managing Knowledge to Improve Care" • Jorge Hermida made the oral presentations, "Towards Universal Health Coverage: Improving Access and Quality of Maternal and Newborn Care in the Lowest Coverage Districts of Cotopaxi Province, Ecuador" and "Aligning formal and traditional care systems to increase access and quality" • Jude Ssensamba made the oral presentation, "Using quality improvement to improve follow up of safe male circumcision (SMC) clients for HIV prevention: A review of ten health facilities in eastern Uganda" • Rhea Bright made the oral presentation, "Clients' & providers' perspectives of PMTCT services in Tanzania: A qualitative exploratory study of an activity to increase uptake and retention of PMTCT services" • Edward Broughton made the oral presentation, "Cost-effectiveness of improving maternal and neonatal health care: results from Mali and Uganda" • Linley Hauya made the oral presentation, "Strengthening systems to improve nutrition care, support and treatment in Malawi: Results from Balaka and Karonga districts" • Sidhartha Deka made the oral presentation, "Enabling a learning approach for collaborative quality improvement in India" • Elizabeth Silva made the oral presentation, "Innovative Approaches to Gender Integration Using the Science of Improvement to Improve Patient Care: • Kate Fatta made the oral presentation, "Using Knowledge Management Techniques to Spur Peer-to-Peer Learning in Improvement Programs in Low and Middle Income Countries" and presented the poster, "Leveraging Knowledge Management Techniques to Improve Improvement Programs in Low and Middle Income Countries"
American Evaluation Association *October 15-18, 2014* Denver, Colorado	• Sarah Smith Lunsford made the oral presentations, "Evaluating a Community Health System: Lessons from Tanzania" and "Improving healthcare for NCDs in Georgia" (the latter on behalf of Edward Broughton). • Naheed Ahmed of CCP presented "Learning During: Leveraging Tacit Knowledge to Improve Voluntary Medical Male Circumcision Services in Uganda" as part of the panel, "Social KM interventions—learning before, during, and after implementation"
IUATLD World Congress *October 28-Nov. 1, 2014* Barcelona, Spain	• Samson Haumba, Marianne Calnan, Janet Ongole, Lindiwe Mkhatshwa, Lindiwe Dlamini and Makhosazana Matsebula made 4 oral presentations and 3 poster presentations on the results of ASSIST tuberculosis and TB-HIV work in Swaziland
APHA	• M. Rashad Massoud made a remote (virtual) presentation, "Scaling up high-impact

Conference	USAID ASSIST Staff Participation
November 15-19, 2014 New Orleans, LA	interventions"
IHI National Forum *Dec. 7-10, 2014* Orlando, FL	• M. Rashad Massoud, Edward Broughton and John Ovretveit led the Learning Lab, "Frugal Improvement and Spread: Doing More with Less" • Maina Boucar and Stella Mwita also attended.
2015 Prince Mahidol Award Conference *January 27-31, 2015* Bangkok, Thailand	• M. Rashad Massoud made a remote (virtual) presentation, "Universal Health Coverage Ensuring quality care for all!"
Global Health Mini-University *March 2, 2015* Washington, DC	• Simon Hiltebeitel and Sidhartha Deka presented in the session "Data Viz Makeover: Approaches for Improving Data Visualizations" • Taroub Faramand, Megan Ivankovich, and Elizabeth Silva led the session "Gender Integration: The Key to Sustained Improvements in HIV Programs"
CORE Spring Practitioners Conference *April 13-17, 2015* Alexandria, VA	• Lani Marquez co-facilitated (with Lynette Friedman of CORE) a pre-meeting half-day workshop on facilitation skills for CORE working group chairs on "Facilitation Techniques to Make Working Groups Lively and Fun" • Elizabeth Silva participated in a Social and Behavioral Change Working Group-led session related to the gender brief WI-HER developed.
2015 International Forum on Quality and Safety in Healthcare *April 21-24, 2015* London, UK	• M. Rashad Massoud was the workshop leader for, "Policy seminar on strategies and infrastructure for improving healthcare at national level • Martin Muhire (Uganda) conducted an oral presentation entitled, "Partnership between patients and health workers to implement an improvement change package – a strategy to accelerate improvement gains" • Esther Karamagi-Nkolo, (Uganda) gave an oral presentation entitled, "Improving retention of mother-baby pairs: Experiences from Uganda and the Partnership for HIV-Free Survival (PHFS)" • Nigel Livesley (India) participated in an oral presentation, "Improving health care in India" • Edward Broughton gave the following oral presentation: "Is it cost-effective to improve HIV care in Nicaragua?" • M. Rashad Massoud and Victor Boguslavsky led a mini-course entitled, "Leading Improvement Efforts: An Interactive Workshop for Global Health Leaders" • Jorge Hermida (Ecuador) presented, "Access and quality of maternal-newborn care for the poor? • M. Rashad Massoud spoke on "The Sustainable Development Goals: MDGs Achieved, Lesson Learned and Future Directions"
AEA Summer Institute *May 31-June 3, 2015* Atlanta, GA	• Edward Broughton presented a 3-hour workshop on Advanced Cost-Effectiveness Analysis for Health and Human Service Programs
IBP Consortium Conference *June 15-19, 205* Addis Ababa, Ethiopia	• Dr. Victor Boguslavsky presented on the wave sequence approach to scale-up during the "setting the stage" session. • Dr. Boguslavsky and Improvement Fellow Ms. Amanda Ottosson led a 90-minute workshop on applying the wave sequence approach through collaborative improvement.
National Forum on Accelerating Pediatric HIV and AIDS Services *Dar es Salaam, Tanzania* June 18-19, 2015	• ASSIST supported the Ministry of Health and Social Welfare of Tanzania and PEPFAR to organize this First National Forum on Improving Pediatric and Youth AIDS Services. The conference brought together 260 participants to share experiences and promising interventions in ensuring that children and youth receive quality HIV care and treatment.
International Council of Nurses (ICN) *June 19-23, 2015* Seoul, South Korea	• M. Rashad Massoud addressed the ICN, describing applications of the chronic care model and the effect of improvement on nursing productivity and engagement during his presentations: "The Effect of Improvement on Nursing Productivity, Engagement and Retention," and "The ART Framework: An Innovative Management Approach for Program Managers Caring for PLHIV/AIDS."

Conference	USAID ASSIST Staff Participation
	• M. Rashad Massoud also led Satellite Symposium on improving health care in low and middle-income countries entitled.
2nd International Quality Forum *July 2-3, 2015* Heidelberg, Germany	• M. Rashad Massoud presented on "Linking Quality Improvement with Health Systems Strengthening"
ECOWAS Good Practices Forum in Health (FBPS) *July 29-31, 2015* Ouagadougou, Burkina Faso	• Maina Boucar delivered a plenary presentation on "Fostering change for successful scale-up: Improving postpartum care for mothers and newborns in Niger and Mali: Scaling up an integrated maternal and newborn improvement program" • Houleyemata Diarra presented the poster, "Increased use of contraceptives in postpartum period by addressing barriers for the follow-up of women in community health centers in Kayes District, Mali"
First Peruvian Congress on Quality in Healthcare *August 4-6, 2015* Lima, Peru	• Jorge Hermida presented a summary of the evolution of QI in the LAC Region and experiences with the collaborative improvement approach in the Latin American Region.
GOI-USAID MNCH Call to Action Meeting *August 26-27, 2915* New Delhi, India	• M. Rashad Massoud presented on "The Science of Health Care Delivery" in a plenary panel session on "Moving towards Scale" at the Government of India/USAID-sponsored MNCH Call to Action Meeting August 26-27 in New Delhi. • ASSIST's India team was also on hand to showcase the results, tools and a video from the ASSIST RMNCH+A work in six states.
REPPSI Forum *September 1-3, 2015* Victoria Falls, Zimbabwe	• Tiwonge Moyo and Taroub Faramand led a skill-building workshop on, "Using an Improvement Approach to Address Gender Issues in Programs for Vulnerable Girls and Vulnerable Boys" • Jemimah Owande gave an oral presentation: "Addressing high school dropout rates among adolescent boys in Kenya" • Tiwonge Moyo presented, "Using quality improvement to improve educational performance of children in Malawi" • Diana Chamrad and Jemimah Owande led a skill-building workshop entitled, "Designing for Quality Improvement: Aims, Indicators, and Evidence"
Asia-Pacific Quality Forum (APAC) *September 23-25, 2015* Auckland, NZ	• M. Rashad Massoud, during a breakfast session, presented: "Putting mothers and babies first –Integrating policies, programs and services" • M. Rashad Massoud presented, "Improving Healthcare: A Global Overview" • M. Rashad Massoud participated in a panel during "Interviews with Great Leaders" • Alyson Smith (Cambodia) presented at the following session, "Beyond Safety to Improvement – The Cambodian Perspective"

KNOWLEDGE MANAGEMENT

BACKGROUND

USAID ASSIST supports the deliberate harvesting of what we are learning from the implementation, evaluation, and research on improvement work at the country level and the application of that learning in the design, implementation, and scale-up of improvement activities, with a focus on learning related to USAID's two strategic objectives of EPCMD and AIDS-Free Generation.

Applying knowledge management (KM) principles and techniques, we integrate learning across countries and make that learning available through web portals, webinars, face-to-face events, and knowledge products in a wide variety of formats, including case studies, blogs, improvement stories, technical reports, and toolkits. We use social media to connect with implementers who can benefit from improvement methods and knowledge products. We apply KM principles to the design of improvement strategies and apply, as appropriate, KM techniques in the gathering, synthesis, and spread of learning to address the question, *What have we learned to improve this aspect of care?*

The headquarters KM team supports ASSIST country and technical teams to develop products that synthesize learning from country programs, consolidate successful changes in the form of intervention packages and tools that can be readily spread to new sites as well as case studies that explain what specific actions teams took to achieve results. While the primary users of these products are in country, they are also disseminated globally through the ASSIST knowledge portal and social media. Another project learning agenda is to study and evaluate how KM approaches can add value to improvement work. In addition, recognizing the value-added of addressing gender factors in health care access and delivery as part of improvement work, USAID ASSIST emphasizes gender integration as a key area of learning on how to make improvement activities more effective.

PROGRAM OVERVIEW

What are we trying to accomplish?	Scale
1. Implement and evaluate KM strategies for ASSIST	**Global and country level**
• Develop the capacity of ASSIST staff and counterparts to develop and implement KM strategies • Conduct studies to evaluate KM activities and demonstrate the value-added of deliberate KM strategies • Assist country and technical teams in defining learning questions and designing knowledge management aspects of improvement strategy design • Coordinate annual work plan development • Manage quarterly, semi-annual and annual reporting to USAID	Country-level KM studies: **Uganda** SMC KM CEA **India** change package field test **RedInfecc** evaluation
2. Document learning from improvement	**Global**
• Support staff to apply KM approaches to connect implementers and generate learning and insights from improvement activities • Support country and technical teams to design processes to document and synthesize learning from improvement • Support staff to develop and disseminate knowledge products	
3. Manage the ASSIST knowledge portal and related websites	**Global**
• Operate the ASSIST knowledge portal and related sites, including www.maternoinfantil.org, and develop new sites in response to country requests • Make key learning and improvement information available on the ASSIST web portal using multiple media, including case studies, tools, videos, reports, and blogs • Search out and cross-post relevant content from ASSIST partners, other USAID cooperating agencies, and other technical organizations, including case studies	
4. Integrate gender considerations in improvement activities	**Global**
• Support country and HQ teams in integrating gender considerations in the planning and implementation of improvement activities • Document impact of addressing gender factors on improving care quality and outcomes	
5. Promote the use of improvement knowledge	**Global**
• Conduct improvement-related webinars/virtual trainings and discussion forums, including partnering with other organizations to house such activities on other websites • Use social media channels to promote ASSIST knowledge products, the application of improvement approaches, and ASSIST knowledge portal	

What are we trying to accomplish?	Scale
content • Promote resources posted to the ASSIST knowledge portal through listservs, blogs, and presentations • Support ASSIST country teams in creating local knowledge repositories and disseminating knowledge products	

Cross-cutting Activity

Activity 1: Implement and evaluate KM strategies for ASSIST

KEY ACCOMPLISHMENTS AND RESULTS

- **Support for annual work planning and reporting**: A large part of the KM team's efforts in the first quarter of FY15 related to supporting the development of the project's annual work plan for FY15 and annual reports for FY14, including 19 country reports. Annual reporting involved summarizing key results achieved in each country and technical area. Due to the ASSIST TAG meeting in January 2015 and travel of the AOR in July, only two quarterly review meetings were convened by the project in FY15: one in October 2014 and the other in April 2015.
- **Designed and implemented a knowledge handover meeting in Kampala, Uganda to support the transfer of guidance and change ideas for safe male circumcision (SMC)** (March 18-19, 2015). Approximately 79 participants attended both days, including: 15 experienced site representatives, 39 new site representatives from 10 new sites, 12 district coaches (7 experienced coaches and 5 new coaches), 4 implementing partner staff, and the head of the MOH SMC program. Eight ASSIST Uganda staff were involved in the meeting as facilitators. The meeting design used small group discussions between 3-4 representatives from new sites and 1-2 representatives from experienced sites and coaches to talk through implementation questions related to the key areas covered in the MOH SMC standards. The meeting also used talk shows, a gallery walk, and peer-to-peer discussions to address implementation issues and guidance for new teams and coaches.
- **Three KM studies underway**: 1) Two coaching visits were conducted during May-July for the five sites in the third intervention arm of the Safe Male Circumcision KM study in Uganda; endline data collection began in August. 2) In May, the ASSIST team in India carried out a small-scale field test of the maternal and newborn care change packages in a few selected facilities across all states with the objective of improving the content and design of the documents. 3) In August and September, Lani Marquez supported the headquarters research team and Jorge Hermida to design a mixed methods evaluation of the RedINFECC virtual collaborative's implementation, costs, the degree of participation and the effectiveness of the improvement activities to improve processes of care and reduce newborn infections. The evaluation will inform the design of future virtual collaboratives, which are seen as a potentially cost-effective method for scaling up best practices.
- **Continued signing of FY15 improvement plans.** 80% of FY15 improvement plans were signed by end of Q4. FY15 funding came in late for ASSIST, hence there was a discrepancy between the timing of the funding and the improvement plan signing.

Activity 2. Document learning from improvement

KEY ACCOMPLISHMENTS AND RESULTS

- **Supported the HIV aims, indicators, and content meeting in Durban** (Nov 2014). Lani Marquez and Sidhartha Deka led exercises to consider country needs and cross-cutting project processes to maximize future sharing, continued learning and efficient use of meeting products to strengthen HIV/PMTCT improvement work across the ASSIST Project (Mission and core-funded.) A repository of all meeting materials was created on the ASSIST web portal for all participants to access, which included draft aim, indicators, and content developed by each technical subdomain team.
- **KM support to PHFS community of practice and Lesotho-Uganda knowledge exchange** (Feb 9-13, 2015). ASSIST staff from Uganda and Bethesda facilitated interactive sessions to

harness learning from participants in the knowledge exchange. The deliberative designs of these sessions intended for the participants from Lesotho to not only comment on what they observed in their meetings with the Uganda Ministry of Health and the site visits but to reflect on what action must be taken to improve care when they return to Lesotho. Sidhartha Deka also conducted video interviews with participants from both countries on their impressions of the exchange and "what it takes" to be a good mentor and coach.

- **The KM team supported the publication of 10 case studies and the Uganda male circumcision guide**. Listed in the Global Technical Leadership section table of publications, these included seven case studies from India and one each from Mozambique, Tanzania, and Uganda.
- **Development of 10 change packages by the India team**: In 2015, the ASSIST India team published six state-level and four clinical area change idea compilation documents. The state-level documents describe changes tested in each state to improve maternal and newborn care services. The subject-area documents highlight changes that were tested in select group of facilities that ASSIST supported under the following domains: newborn care, postpartum care, intranatal care, and antenatal care.
- **KM support to Democratic Republic of Congo**: In May 2015, Ms. Kate Fatta worked with Dr. Bede Matituye from ASSIST Burundi to orient new staff in DRC to KM. During this brief orientation, staff were introduced to three steps to KM (collection, synthesis, and dissemination) and the simple rules of KM, and they practiced a few KM techniques. Dr. Matituye shared with the staff in DRC the PMTCT/HIV care change package developed in Burundi with how-to guidance based on the work done by improvement teams in the demonstration phase. Copies were shared with the team, and Ms. Fatta interviewed Dr. Matituye about it, discussing how he gathered the information, how he synthesized and validated it with the teams, and how he plans to disseminate it. A group conversation followed, allowing DRC staff to ask him questions about it and about QI more generally.
- **Developed KM capacity of the ASSIST Mali technical team**: Also in May, in Mali, 19 technical staff attended the two and a half day long KM orientation led by Ms. Fatta, Ms. Feza Kikaya, and Dr. Maina Boucar. There were also four staff who attended the Francophone KM training in Abidjan in 2013 who helped throughout the week. The training was developed based on our previous trainings in Durban, Abidjan, and Kenya, and we incorporated our learning from those experiences to improve the Mali training. Facilitators explained three main steps to KM: 1. Collection; 2. Synthesis; and 3. Dissemination and began the training by introducing participants to the simple rules of KM in order to ground them in their understanding of KM. Then participants were led through a number of techniques to encourage experience sharing, including storytelling, interviewing, knowledge café, 1-2-4-All, field trip, and small group work. During the knowledge café, participants were able to delve deeper into integrating the simple rules into their work, how to synthesize learning, and how to make the case that a change led to improvement, all of which were themes brought out by participants themselves. Participants also developed plans for the development of knowledge products over the next six months. In the closing of the training, many participants commented that they realized that many of the KM concepts and techniques were things they already do in their life and that KM is a behavior change--a new way of doing their work. During the week following the training, Ms. Kikaya remained in Mali to work closely with Dr. Lazare Coulibaly, the KM Advisor, to create a list of knowledge products to be developed before the end of the fiscal year, as well as products envisioned for FY16. During the week, Ms. Kikaya also led the staff in a brief activity on taking better photographs, particularly how to take good photos of meetings and activities.

Activity 3. Manage the ASSIST knowledge portal and related websites

KEY ACCOMPLISHMENTS AND RESULTS

- **Launched the Improvement Methods Toolkit on the ASSIST knowledge portal** (https://www.usaidassist.org/toolkits/improvement-methods-toolkit) (Mar 2015). Placed on a more user-friendly and interactive platform, the toolkit is a one-stop resource for those interested in understanding how the application of various improvement methods can improve health care.

- **Usage of the ASSIST knowledge portal: Table 22** shows usage of the portal during FY15 and indicates continued high usage of the website in ASSIST-supported countries, notably India, Kenya, South Africa, Tanzania, and Indonesia.

Table 22: Usage of the USAID ASSIST knowledge portal during FY15

Measure	October-March 2015	April-September 2015
Total visits	18,916	17,826
Unique visitors	13,607	12,784
Average duration of session	3:22 minutes	3:03 minutes
Average page views per session	2.77 pages/visit	2.69 pages/visit
New visitors	70%	70%
Top 10 countries of origin of users	1. United States (8,027 visits) (42.4%) 2. Uganda (2,456 visits) (13%) 3. India (861 visits) (4.6%) 4. Kenya (700 visits) (3.7%) 5. United Kingdom (554 visits) (2.9%) 6. South Africa (358 visits) (1.9%) 7. Canada (345 visits) (1.8%) 8. Tanzania (323 visits) (1.7%) 9. Indonesia (303 visits) (1.6%) 10. Cote d'Ivoire (292 visits) (1.5%)	1. United States (7,684 visits) (43%) 2. Uganda (1,515 visits) (8.5%) 3. India (1100 visits) (6.2%) 4. Kenya (1079 visits) (6.1%) 5. United Kingdom (469 visits) (2.6%) 6. South Africa (465 visits) (2.6%) 7. Tanzania (408 visits) (2.3%) 8. Canada (258 visits) (1.5%) 9. Indonesia (216 visits) (1.2%) 10. Australia (204 visits) (1.1%)

- **Upgrades completed to the Salud Materno Infantil website (www.maternoinfantil.org)**: During the third quarter, the community of practice section of the Salud Materno Infantil website was redesigned to make user entry more streamlined. A new community of practice was added on prevention and management of newborn infections, to complement the RedINFECC virtual collaborative. The new community can be accessed at: http://www.maternoinfantil.org/comunidades_de_practica/comunidades_de_practica.php?com_id=3&mostrar=muro_act.php.
- **Testing work done on VMMC community of practice:** Starting in May, the online VMMC community of practice (https://communities.usaidassist.org/groups/assist-vmmc-group) has been tested with 22 ASSIST staff. This virtual community of practice is hosted on a platform that is adjacent to the ASSIST website but is only private for our use. It is a space where we can not only share implementation experiences and internal ASSIST documents but also evidence-based and grey literature that is relevant to our work.
- **Developed video content for website.** The "Community support to improve TB care in Uganda" video was completed and posted on the ASSIST website (June 2015). This 6-minute video depicts how a TB treatment facility in Kampala, Uganda has applied improvement methods to engage community health workers in tracing TB contacts and helping to increase retention in care of TB patients (available at: https://vimeo.com/130258619). Additional video content is in development to depict ASSIST work in Kenya and gender integration activities.

Activity 4. Integrate gender considerations in improvement activities

KEY ACCOMPLISHMENTS AND RESULTS

- **Gender integration technical support to Ukraine** (Oct 2014). Megan Ivankovich, Senior Program Officer for WI-HER LLC, provided support to analyze and disseminate the results of a gender-related survey for which data had recently been collected, developed and conducted two customized gender integration trainings in Ukraine, and provided recommendations for integrating gender into programming.
- **Gender integration resources developed** (Feb-Mar 2015): To support technical teams to implement the USAID ASSIST gender integration strategy, WI-HER gender specialists developed two resources: one detailed how to identify and respond to gender-related gaps in services or programs to improve outcomes (which was presented to ASSIST staff during a technical webinar

on February 17, 2015), and the other explained why it is critical to address gender issues in the Partnership for HIV-Free Survival.

- **Gender integration technical support to Malawi** (Mar 2015). Elizabeth Silva, Improvement Specialist for Gender and Knowledge Management, developed and conducted two trainings on gender integration in improvement for vulnerable children improvement teams, and provided support for the integration of gender issues in VMMC activities, and briefed USAID staff on ASSIST's approach and activities to integrate gender to ensure improved outcomes.
- **Gender integration technical support to Zambia** (Mar 2015). Ms. Silva provided technical support to the NACS project to identify gender-related issues and collect and analyze sex-disaggregated data, provided a gender integration in improvement session at Copperbelt University, and briefed USAID staff and FANTA and LIFT representatives on ASSIST's approach and activities to integrate gender to ensure improved outcomes.
- **Gender integration technical support to Kenya** (May 2015). Mrs. Ivankovich developed and conducted a gender training for the ASSIST team in Kenya, and shared specific and detailed recommendations to respond to the gender-related issues identified in order to strengthen quality improvement efforts during project design, implementation, and evaluation.
- **Gender integration technical support to Mali** (Jun 2015). Ms. Silva developed and conducted gender training for ASSIST staff and partners in Mali, provided TA to identify and respond to gender-related gaps and built capacity on sex-disaggregated and gender-sensitive data collection and analysis, particularly related to the needs of adolescent girls and adolescent boys to prepare for upcoming project activities, and built capacity on and led a gender analysis for the project. Specific and detailed recommendations were developed to respond to the gender-related issues identified.
- **Gender integration technical support to Lesotho** (Jul 2015). Mrs. Ivankovich, briefed USAID and government staff on ASSIST's gender approach and activities, conducted gender training for ASSIST staff and government partners, provided TA to identify and respond to gender-related gaps affecting outcomes and ensure quality assurance tools were gender-sensitive, and built capacity on and led a rapid gender analysis for the project, particularly related to the needs of adolescent girls and boys to prepare for upcoming project activities, and presented specific and detailed recommendations.
- **Provide virtual TA to ASSIST countries** (Ongoing). To support technical teams to collect and analysis sex-disaggregated data and identify gaps and issues related to gender, WI-HER gender specialists provided virtual TA by Skype, phone, and email to Burundi, DRC, Uganda, Swaziland, Tanzania, and Zambia in order to respond to project-specific concerns or questions.
- **Facilitated gender integration workshop at REPSSI meeting** (Sept 2015). Dr. Taroub Harb Faramand and Tiwonge Moyo presented a workshop at the Regional Psychosocial Support Initiative (REPSSI) in Victoria Falls, Zimbabwe which showcased the innovative approach the ASSIST project has integrated into OVC work in Malawi to address gender issues using the science of improvement to improve health and education outcomes for vulnerable girls and boys.
- **Participation in ASSIST strategic planning and work planning meetings** (Sept 2015): Dr. Faramand participated in a series of meetings held by the USAID ASSIST Project to inform strategic planning as well as FY16 work planning to ensure that gender consideration were represented and addressed where needed.
- **Tracked experiences with addressing gender issues in improvement in all ASSIST countries** (Ongoing). **Table 23** summarizes gender integration activities by country in FY15.

Table 23: USAID ASSIST gender integration activities during FY15

Country	ASSIST Gender Integration Activities
Africa	
Burundi	**PMTCT:** The team conducted and analyzed the results of a gender-related study, "Factors Associated with HIV Testing among Male Partners of Women in Antenatal Care," and has integrated findings from the analysis into the program design. The team is also tracking male partner involvement in PMTCT and tested changes to increase male involvement in the PMTCT.
Democratic Republic of	**NACS**: The team collected sex-disaggregated data and identified that women are more likely to be seen at the clinic monthly, but the percentage of females whose nutrition status was accurately

Country	ASSIST Gender Integration Activities
Congo	calculated was lower than the percentage for males. Further analysis will be done to identify additional issues, underlying causes and changes to test to achieve possible solutions.
Kenya	Staff were trained in gender integration in FY15. **MNCH:** The team responded to gender-related barriers to ANC by initiating male partner testing, working to involve and educate male partners during couples' visits to ANC clinics. **OVC:** The team identified and addressed gender issues including early marriage, female genital mutilation, unequal nutritional access, and late/no birth registration. The team promoted changes to respond to the needs of girls, and educate and sensitize parents, caregivers, community health volunteers, and older children on prevention, basic treatment, and referrals to health clinics. **VMMC:** The team identified that boys who had undergone VMMC had dropped out in high rates in part due to the cultural norm that they were now men and responded by working with community leaders and creating a mentoring program between male college students and boys undergoing circumcision, which contributed to a decrease in dropout rates.
Lesotho	Staff were trained in gender integration and conducted a gender analysis in FY15. **PHFS:** The team identified gender-related issues affecting PHFS health outcomes including high rates of adolescent pregnancy and its negative impacts on girls who then have to drop out of school. The team has also identified the potential for involving male partners and mothers-in-law in the services related to the retention of mother-baby pairs.
Malawi	Staff were trained in gender integration in FY15. **OVC:** The team integrated gender by collecting and analyzing sex-disaggregated data and conducting root cause analysis to identify the underlying gender-related gaps in educational performance between girls and boys and has proposed changes to test to overcome the issues. **VMMC:** Gender was integrated into the VMMC baseline assessment and the monitoring tools. Gaps and opportunities to integrate gender will be identified as the program begins.
Mali	Staff were trained in gender integration and conducted a gender analysis in FY15. **MNCH:** The team identified a gender-related barrier to women's low ANC attendance, lacking transportation money from their male partners; ASSIST has worked with two villages to initiate a social funding program to support ANC and delivery costs for women at health centers. The team is collecting sex-disaggregated data on the number of babies born and who receive services and maternal age, to respond to the specific needs of young mothers and older mothers.
Mozambique	**PHFS:** The team identified that the non-participation of male partners affected early testing, enrollment, and retention of pregnant mothers in the PMTCT program, and identified mothers-in-law as key decision-makers within families and involved them in activities to improve retention of mother-baby pairs. ASSIST Mozambique also sensitized religious leaders to the importance of ANC and asked the religious leaders to share the message with their congregation, which also led to an increase in ANC visits.
Niger	**PPFP**: The team responded to gender-related issues affecting PPFP uptake by involving husbands at the Konni District Hospital team, where changes were tested (e.g., designation of a special space for counseling, making FP services available 24 hours a day, sending an invitation to husbands [by phone] to be present at their wives' hospital discharge) showed promising changes in attitudes and an increase in family planning uptake.
Swaziland	**TB/HIV:** The team addressed gender-related challenges to strengthen implementation of TB/HIV prevention, care, and treatment. Through collecting and analyzing sex-disaggregated data, the team identified that uptake is lower among males and designed changes to test to overcome barriers that prevent men from remaining in treatment. The team has also designed innovative community mobilization and health promotion awareness campaigns targeting most at-risk groups, such as young men and elderly women.
Tanzania	**PHFS:** The team has tested involvement of male partners to improve maternal and newborn retention and also to improve male patients' health, to test and enroll them in care if they test positive. Changes tested have resulted in an increase in male partner testing in sites integrating gender compared to data for sites not integrating gender. **OVC:** Two sex-disaggregated OVC databases were designed to support the field office to collect and analyze gaps affecting girls and boys to better meet the needs of vulnerable girls and boys. **HIV/TB:** Teams disaggregated TB screening and loss to follow-up results by sex. HIV clinic attendance reflected that 4 times as many women were receiving ART care. Teams tested changes to ensure men were enrolled and retained in care which resulted in a closing gap related

Country	ASSIST Gender Integration Activities
	to the number of HIV positive male and female patients on ART that are lost to follow up per month in Morogoro Region.
Uganda	**COR (TB/HIV):** The team collected and analyzed sex-disaggregated data, identified that more women than men were being initiated on ART among TB/HIV co-infected clients, and identified gender issues causing this gap. The team has proposed changes to test to increase ART uptake among males. **SMC:** The team worked to increase female partner involvement in SMC which had previously been identified as a barrier affecting outcomes. ASSIST has worked with implementing partners to create an awareness-raising campaign about the importance of female partner involvement and to provide education sessions and services tailored to females in addition to male patients. **PHFS:** 20+ clinics utilized gender-related interventions: encouraging male partner involvement, involving male community leaders/volunteer health workers, utilizing family support groups, and offering male-focused services. The work is focusing on isolating the effects of gender interventions on increasing retention rates of HIV-positive mothers and their babies. **SMGL:** Sites are tracking male involvement through improved couple counseling and male involvement at maternity and young child/postnatal care clinics. **OVC:** The team is responding to gender gaps in school re-integration for male and female vulnerable children and gender issues identified in economic strengthening efforts, including the potential increase of gender-based violence.
Zambia	Staff were trained in gender integration in FY15 (see above). **NACS:** Sex-disaggregated data has been collected. Gaps will continue to be identified and will be responded to strategically to improve nutrition outcomes.
Asia	
India	**MNCH:** The team conducted a qualitative research study in FY14 to determine the effects of family, community, and gender norms on the work of Indian community health workers. The findings contributed to the planning of a ToT on gender and social inclusion for community QI teams to take place in Q3 in Delhi. The team responded to gender-related challenges leading to inadequate postpartum detection of early signs of complications, engaging and educating family members about warning signs and informed male family members about the importance of ANC and PPFP. ASSIST India also engages male family members when conducting home visits and has implemented a survey to study the effect that family, the community, and gender norms have on Indian community health workers. The team organized a planning session on gender integration in the community to inform improvement work. Three staff members from ASSIST participated in a USAID Gender, Policy and Measurement Program workshop about topics which included gender integration and combatting gender-based violence.
Europe and Eurasia	
Georgia	**NCD:** The team integrated gender into the program by collecting and analyzing sex-disaggregated data and identified a gender-related gap in CVD risk factor calculation. The team addressed this challenge and has improved the screening and management of CVD risk factors in primary care. Continuous monitoring of sex-disaggregated indicators revealed that by the end of the project, no gaps between quality of care provided to men and women were detected.
Ukraine	Staff were trained in gender integration in FY15 (see above). **NCD:** The team analyzed the results of a survey to determine the gender-related factors influencing tobacco and alcohol use among pregnant women and girls and developed a brief about role of gender related to alcohol and tobacco use among pregnant women and adolescents and presented the brief to QI teams during a learning session and monitoring visit meetings. As a result of the training and TA, the team modified their educational materials to reflect a family approach in order to engage male partners.
Latin America	
Nicaragua	**HIV/AIDS:** Training for medical and nursing students addressed gender-related issues including stigma, discrimination, sexual diversity, and gender-based violence. The trainings were designed to address the strong sentiments of discrimination and stigma directed towards persons living with HIV among students and faculty. A gender, gender-based violence and human trafficking module was also completed and three universities have been trained in the new curriculum.

Activity 5. Promote the use of improvement knowledge

KEY ACCOMPLISHMENTS AND RESULTS

- **Organized full-day tweetchat relay to mark the 16 Days of Activism Against Gender-Based Violence Campaign, reaching 1.2 million people** (Dec 10, 2014). ASSIST took the lead role in organizing the Tweetchat relay titled "Innovative Approaches to Respond to Gender-Based Violence." Collaborating organizations included Knowledge for Health (K4Health), The Asia Foundation, Promundo, Chemonics, World Vision, and The TOPS Program. The ASSIST team led one hour of the global tweetchat and discussed using improvement approaches to respond to gender-based violence, with guest expert Dr. Taroub Faramand of WI-HER LLC. The ASSIST tweetchat hour reached more than 375,000 people, while the entire relay reached 1.2 million people.
- **Promotion of improvement resources through Facebook:** As a result of new efforts to expand our social media reach in the last quarter of FY15, the ASSIST Facebook page has gained a nine percent increase in "likes," ending FY15 with 5,942 total "likes." During August and September 2015, Facebook overtook Twitter as the #1 social media platform for ASSIST, jumping from 28% in July to 80% by the end of September.
- **Facebook demographics and global reach:** In this period, the USAID ASSIST Facebook page earned a total of 16k impressions. The page also saw an increase in female users by 11% during this reporting period, and the age group of 25-34 (the highest age group on Facebook) become the highest group of fans, garnering over 1.1k. Pakistan, the United States and Georgia remained the top countries and cities with the most engagement.
- **Promotion of improvement resources through ASSIST Twitter:** With over 1.3k followers on Twitter and through the promotion of quality content, USAID ASSIST's Twitter profile now holds a 51 Klout score, representing online influence, and trails behind USAID's klout score of 78. ASSIST's Twitter profile also ranks 36 (moderate) in social authority (a scale used by digital media experts to measure a user's influential content on Twitter), suggesting that @usaidassist is in an effective strategy for directing followers to new content on the ASSIST knowledge portal.
- **Presented technical webinars**: ASSIST organized or participated in nine technical webinars on improvement approaches and results during FY15 (recordings are accessible on the "Past Events" page on the ASSIST web portal:
    1) On Oct. 16, 2014, ASSIST AOR Dr. Jim Heiby presented the webinar, "Process Improvement In African Healthcare Systems: A 5-Year Agenda," sponsored by the International Center for AIDS Care and Treatment Programs (ICAP) on his perspectives on the future of health care improvement in African health systems.
    2) Dr. John Byabagambi was a featured presenter in the PEPFAR webinar, "Women and Voluntary Medical Male Circumcision" on Wednesday, November 19, 2014.
    3) Dr. Diana Chamrad spoke on USAID ASSIST community-level work in Uganda and Kenya in the panel, "Strengthening Families: Empowering Primary Caregivers" on November 20, 2014 as part of a two-day meeting convened by the PEPFAR OVC Task Force.
    4) On January 13, 2015, the project sponsored a PHFS webinar for the global community of donors and implementers supporting PHFS. Roland Van de Ven of the Elizabeth Glaser Pediatric AIDS Foundation and Luke Dausse of USAID ASSIST presented their experiences in Tanzania and Mozambique of leveraging community health systems strengthening for prevention of mother-to-child transmission of HIV.
    5) As part of the 2015 "Introduction to Quality and Quality Improvement" ICAP training course, Dr. Edward Broughton presented an ICAP webinar on February 25, 2015 on using cost-effectiveness analysis to assess the efficiency of improvement interventions.
    6) Dr. M. Rashad Massoud presented the webinar hosted by ISQua, "Quality and Safety in Developing Countries" on March 11, 2015.
    7) The project organized the PEPFAR webinar, "Rolling Out CQI in VMMC: Lessons Learned from the USAID ASSIST Pilot Projects in Uganda, South Africa, Malawi, and Tanzania" on July 7, 2015. John Byabagambi, Donna Jacobs, Tiwonge Moyo, and Davis Rumisha discussed how the project has applied continuous quality improvement in VMMC programs in the four countries.

8) The project sponsored jointly with WHO the webinar, “Mainstreaming injection safety into health care delivery” on August 20, 2015. ASSIST staff Samson Haumba and Nokuthula Mdluli, together with Angel Dlamini Shongwe from the Ministry of Health of Swaziland presented on the injection safety improvement work and engaged in a panel discussion with WHO Service Delivery and Safety staff (Shams Syed, Benedetta Allegranzi, and Lopa Basu).
9) The project sponsored a webinar on Sept. 2, 2015 to address how to most effectively develop and disseminate knowledge products from improvement activities. The webinar featured URC staff well-versed in the knowledge product development experiences from four countries: Bede Matituye (Burundi), Stella Mwita (Tanzania), Mahtab Singh (India), and Roselyn Were (Kenya).

- **Spanish-language newborn care webinars**: ASSIST continued to host Spanish-language webinars on newborn care under the aegis of the Salud Materno Infantil website and with co-sponsorship of the LAC Newborn Health Alliance. Several of the webinars were directed at hospitals participating in the virtual improvement collaborative on newborn sepsis (Red INFECC). In all, the project sponsored 10 Spanish-language webinars in FY15:
  1) “Prospects and challenges for newborn health in Latin America” was presented by Dr. Pablo Duran of PAHO (November 5, 2014)
  2) “Intercultural aspects of newborn care” was presented by Dr Mario Tavera of UNICEF/Peru (December 10, 2014)
  3) “Essential care for every baby” was presented by Dr. Carl Bose of the American Academy of Pediatrics (February 3, 2015)
  4) “Prevention and early diagnosis of retinopathy of prematurity” was presented by Dr. Pedro J. Acevedo, a pediatric ophthalmologist (March 25, 2015)
  5) “Launch of the Collaborative on Reduction of Neonatal Hospital Infections in Latin America (Red INFECC)“ (March 31, 2015)
  6) “Use of virtual platforms in the Red INFECC Virtual Collaborative” (April 16, 2015)
  7) “Review of indicators and procedures for the baseline measurements in the Red INFECC Collaborative” (May 28, 2015)
  8) “Critical moments in the management of hospital infections in newborns” was presented by Dr. Pablo Duran of PAHO (June 25, 2015)
  9) “Management of the kangaroo baby at home and in the health system after discharge from the hospital” (August 6, 2015)
  10) “Training in the use of the web platform for managing data in the Red INFECC Collaborative” (August 26, 2015)

RESEARCH AND EVALUATION

BACKGROUND

Through ASSIST, the research and evaluation (R&E) unit is providing technical assistance and guidance on country-led research and syntheses of learning across country- and centrally funded projects on several improvement topics, including the validity of improvement indicator data, sustainability and institutionalization, spread, and economic analysis. The R&E unit is working to disseminate knowledge generated by these studies through web-published reports, peer-reviewed journal articles, and presentations at relevant international meetings to encourage wider adoption of improvements methods.

PROGRAM OVERVIEW

What are we trying to accomplish?	At what scale?
1. Validation of 25% of improvement indicators	
• Demonstrate that data reported by the ASSIST project are accurate, reliable and relevant	No less than 25% of total number of country reported indicators with completed validity assessment

What are we trying to accomplish?	At what scale?
2. Collecting data from control groups for 10% of indicators	
• Demonstrate the attributable impact of ASSIST interventions on improvement indicators	Comparison reports on no less than 10% of country-reported indicators
3. Evaluating design of improvement activities for lower- and middle-income countries	
• Advance learning in improvement science in low- and middle-income countries	Every ASSIST country program
4. Evaluation of methods and approaches for effective design and implementation of scale-up	
• Advance global knowledge on scale up of improvement interventions	Selected ASSIST country programs with scale up activities
5. Economic analysis of improvement activities	
• Advance global learning on comparative advantage and economic efficiency of QI activities	At least one economic analysis (may be basic cost report to full Cost-effectiveness analysis) for every ASSIST country with an improvement program
6. Sustaining improvements and institutionalizing the capacity to continuously improve	
• Contribute to global learning on sustaining and institutionalizing improvement methods to ensure sustainability beyond the life of the Project	At least two studies on sustainability and institutionalization of improvement after direct involvement of the project has ceased
7. Generating learning from multi-country studies	
• Advance knowledge on improvement intervention and how they work in different settings	At least one study that either combines or compares and contrasts improvement interventions and their effects in more than one country
8. Capacity building for research and support to country programs	
• Build research and data management capacity of HCI staff	Every ASSIST country program
9. Disseminate knowledge gained through ASSIST R&E activities	
• Contribute to the quality improvement and global health fields	Globally available

Cross-cutting Activity

During FY15, the project had 33 research studies underway in 12 countries, as listed in **Table 24**.

Table 24: USAID ASSIST research and evaluation studies, FY15

	Country	Study	Research Area	Status	Program Area
1	Burundi	Factors associated with the involvement of male partners in maternal and child health services in Burundi	Improving care	Completed	HIV & AIDS
2	Burundi	Evaluation of an improvement collaborative for PMTCT services in	R&E mandates	Protocol drafted	HIV&AIDS

	Country	Study	Research Area	Status	Program Area
		Burundi (including data validation)			
3	Cote d'Ivoire	Evaluation of an improvement collaborative for ART and PMTCT services in Cote d'Ivoire (including data validation)	R&E mandates	Protocol drafted	HIV & AIDS
4	DRC	Baseline evaluation of the quality of HIV services in the Democratic Republic of Congo (DRC)	Design of improvement Activities	Analysis and writing	HIV&AIDS
5	DRC	Assessing institutionalization of quality improvement in DRC: A prospective study	Institutionalization	Planning	HIV&AIDS
6	India	Female community health worker familial and social factors that contribute to job engagement	Improving care	4 manuscripts have been prepared and are in review	RMNCH+A
7	India	Cost-effectiveness of RMNCH in India	CEA / Improving care	Planning	RMNCH+A
8	India	Validation of MNCH facility data	Validation	Completed	RMNCH+A
9	Kenya	Validation of QI Team Maturity Index data collected by ASSIST coaches and implementing partner coaches	Validation	Analysis and Writing	HIV&AIDS
10	Malawi	Evaluating household economic strengthening activities for vulnerable families in Malawi	Improving care	Baseline data collected	OVC
11	Malawi	Data validation	Validation	Under review	
12	Mali	Evaluation of a people-centered and integrated health services (PCIHS) intervention in Mali	Design of improvement Activities/ R&E mandates	Protocol drafted	MNCH
13	Mali	Assessing institutionalization of quality improvement Mali: A prospective study	Institutionalization	Planning	MNCH
14	Mali	Validation of improvement indicators in Mali	R&E mandates	Planning	MNCH
15	South Africa	Effectiveness and efficiency of VMMC improvement	CEA	Data collection underway	HIV & AIDS
16	Swaziland	Validation of new diagnostic technologies for pediatric TB cases	Improving care	Manuscripts prepared / submitted	TB
17	Swaziland	Injection safety, waste management practices and related stigma and discrimination in Swaziland: A national assessment, exploratory study, and evaluation	Improving care	Preparing for endline data collection	HIV & AIDS

	Country	Study	Research Area	Status	Program Area
18	Swaziland	Screening in maternity to ascertain TB status (SMART) study in Swaziland	Improving care	IRB submission / response	HIV & AIDS / TB
19	Tanzania	Factors influencing loss to follow-up among PLHIV in Morogoro, Tanzania: The experience from patients who returned to care	Improving care	Analysis and writing	HIV& AIDS
20	Tanzania	A qualitative evaluation of "Assuring Infants and Mothers Get All PMTCT Services" (AIMGAPS)	Design of improvement activities	In review	HIV&AIDS
21	Tanzania	Data validation	Validation	Analysis and Writing	
22	Uganda	The effectiveness and efficiency of applying the chronic care model to clients with HIV in Uganda: A non-randomized controlled evaluation	Design of improvement activities	Analysis and writing. Ongoing data collection in control sites	HIV&AIDS
23	Uganda	Improving the quality of safe male circumcision in Uganda: An evaluation and qualitative exploration	Improving care	In review	HIV&AIDS
24	Uganda	Integration of family planning into HIV care: A cost-effectiveness analysis	Design of improvement activities	Planning	HIV& AIDS
25	Uganda	The effectiveness and efficiency of integrated service delivery to HIV-positive mothers and their babies in Uganda	Design and implementation of scale-up	Analysis and writing	HIV& AIDS
26	Uganda	Cost-effectiveness of safe male circumcision knowledge management intervention	Design of improvement activities	Endline data collection ongoing	HIV& AIDS
27	Uganda	Assessing the cost-effectiveness of supporting savings groups to improve OVC access to services in Uganda	Design of Improvement Activities	Concept notes with Uganda mission for review and approval	OVC
28	Uganda	Integrating tetanus vaccination into VMMC: exploring the acceptability, feasibility and cost in Uganda	Design of improvement activities	Planning	HIV & AIDS
29	Ukraine	Improving alcohol and tobacco control during pregnancy in Ukraine	Design of improvement activities	Baseline data collected, program underway.	MNCH
30	Multi-Country Africa	Building partnership: Experiences from the Partnerships in Community Child Protection in Africa	Design of improvement activities	Writing	OVC
31	Multi-country LAC	Evaluation of a web-based Latin American improvement collaborative to prevent neonatal infections in	Design of improvement activities	Data collection	MNCH

	Country	Study	Research Area	Status	Program Area
		hospitals			
32	Multi-Country	Supporting close-to-community providers through a community health system approach: Case examples from Ethiopia and Tanzania	Design of improvement activities	Completed	Community Health
33	Multi-Country	Survey of improvement methods inclusion in curriculum of medical schools	Institutionalization	Data collection	N/A

Activity 1. Validation of 25% of improvement indicators

KEY ACCOMPLISHMENTS AND RESULTS

- **Developed a protocol for data validation in Cote d'Ivoire** (Mar 2015).
- **Developed a protocol for data validation in Burundi** (Mar 2015).
- **Began analysis of data validation for ART clinics in Uganda** (Feb 2015).
- **Completed data analysis of the quality improvement team performance data collected in Kenya.** Activities continued in Kenya on validation of data collected from the QI Team Maturity Index by both the ASSIST coaches and the coaches from the implementing partners. Data collection was completed in Q4.
- **Completed study on MNCH data validity in maternity facilities in India.** It compared direct observations to data recorded in individual patient records and aggregated data used by improvement teams to track performance (self-assessment data) that comes from patient records and other facility data sources.
  - There was generally good performance of routine delivery practices. Self-assessment data over-estimated performance by less than 10% compared to observations. This accuracy is generally sufficient to guide improvement efforts but clinicians should still be encouraged to improve data quality.
- **Two graduate students from the Harvard School of Public Health were the inaugural "Fellows" charged with developing reports on data validity and collecting data from control groups**. One travelled to Malawi and the other to Tanzania to do this, and they both completed the data collection and analysis part of their assignment.

Activity 2. Collecting data from control groups for 10% of indicators

KEY ACCOMPLISHMENTS AND RESULTS

- **Developed a protocol for collecting data from control groups in Cote d'Ivoire** (Q2).
- **Developed a protocol for collecting data from control groups in Burundi** (Q2).
- **Completed analysis and write-up of the results of the controlled study on the chronic care model collaborative in Uganda** (Q3). There results were described in a manuscript to be submitted for peer-review publication following approval by USAID funding offices.
- **Collected data from non-intervention sites on indicators of quality of RMNCH care in India** (Q3). These data were analyzed in Q4. A manuscript is in development for submission to a peer-review journal.
- **Reports from the two HSPH Fellows were drafted in Q4 and the final reports will be available in Q1, FY16.**

Activity 3. Evaluating design of improvement activities for lower- and middle-income countries

KEY ACCOMPLISHMENTS AND RESULTS

Evaluating household economic strengthening activities for vulnerable families in Malawi

Overview: In Malawi, the USAID ASSIST Project has been supporting vulnerable children and families through household economic strengthening (HES) activities. The objective of the improvement activity is to increase the proportion of children in household who participate in HES activities who are linked to necessary essential services, encompassing food security, health, education, and HES.

Accomplishments:

- **Baseline data has been collected** (Q3). End line data collection is expected in Q1-2, FY16.

The effectiveness and efficiency of integrated service delivery to HIV-positive mothers and their babies in Uganda

Overview: In Uganda, under the Partnership for HIV-Free Survival, the ASSIST Project has been working to improve retention of mother-baby pairs. A pre-post evaluation was designed to capture the effectiveness of the improvement efforts in meeting this objective. The study also included a midline qualitative component to understand the client experience of the new service delivery approaches and gather feedback on how to further improve the quality of care.

Accomplishments:

- **All data have been collected and analysis is underway** (Q4).

Factors associated with the involvement of male partners in maternal and child health services in Burundi

Overview: In Burundi, a baseline assessment conducted by the HCI project in 2012 found low participation of pregnant women's partners; only 6% of pregnant women enrolled in ANC who were tested for HIV had a partner who was also tested. In collaboration with the National Program against HIV, ASSIST conducted a mostly quantitative study that will contribute to the understanding of the low involvement of male partners in maternal and child services. The overall objective of this study was to identify factors that promote or hinder the involvement of male partners in maternal and child health services in the intervention area of the ASSIST project in Burundi. Results will be used to develop recommendations to promote male involvement in maternal and child health programs in general, including PMTCT. Specifically, the study aimed to: 1) Identify factors that facilitate or hinder male partners accompanying pregnant women to their ANC visit; 2) Determine the factors that facilitate or hinder voluntary HIV testing among partners of pregnant women enrolled in ANC; and 3) Determine the factors that facilitate or impede the sharing of HIV status within couples.

Methods: Twelve sites were selected among the four provinces where ASSIST worked at the time (two sites in Kayanza and Karusi and four Kirundo and Muyinga). They included public and private faith-based facilities. Pregnant women and their partners were interviewed. Given the small number of women enrolled in PMTCT in Burundi, most women recruited were expected to be HIV-negative. However, women in ANC also included women enrolled in PMTCT. Information collected from couples included: socio-demographics characteristics, knowledge about HIV and PMTCT and source of information, HIV Testing, HIV status, HIV status disclosure to partner, knowledge of partner's HIV test, HIV status disclosure to partners, and factors that facilitate or hinder partners' involvement in ANC. The study was approved by thel Ethics Committee of Burundi and University Research Co., LLC (URC).

Results: This study has shown that over 80% of partners of pregnant women have ever accompanied their wives to their ANC sites. The reasons most cited by women for men's presence at ANC visits include: men's presence was requested by providers (23%), getting an HIV test (22.5%), out of love or concern for their wife or family (22%) or because he had received an invitation letter (19.1%). For men, they accompanied their spouse to ANCs visit to learn more about the health of their spouse and baby (14%), to get tested for HIV, to receive counseling (16, 1%), and because their presence was requested by providers (10%). Less than 8% of partners stated it was because of their responsibility for the infant and their spouse. In general, most women and their partners felt that it is good for partners to accompany their wives to ANC. Overall, 33% of women reported that the presence of partners allowed the couple to be counseled and tested together, and 19% of women said it allowed their partner to know more about the baby and mother's health. Although men's responses were similar to those of women, unlike women, men did not focus their answers on HIV/AIDS. Men were more likely to talk about the health status of the couple and children in general.

Men also felt that it was beneficial for partners to accompany their wives to ANC visits to assist their spouse, demonstrate their concern for the pregnancy and also to indicate to health center staff that the woman has a male partner. However, at the community level, there are stigmatizing attitudes towards partners accompanying their wives to ANC visits. Women in the community believe that these partners are bewitched, dominated by their spouse or that the couple is HIV-positive. Men in the community also believe that these partners have been bewitched or dominated by their wives and make fun of these partners. Partners who have never accompanied their wife to ANC visits report that it is mainly because they were busy or absent, did not know that it was necessary or that the woman had not asked him to accompany her. Almost all partners said they would accompany their wives to ANC visits if their religious or community leader asked them to do so.

Perception of ANC services: The majority of women interviewed had a positive perception of the services received during their ANC visits and reported being satisfied or very satisfied with the care received and having a good or excellent relations with service providers (92%). The majority believed that there is enough room for women in the examination room (76%) but less so for partners (57%). Over 86% of women reported having received information on HIV during ANC visits and 88.1% were asked to come to their ANC visits with their partners. Among women, lack of satisfaction with the care received was due to the long time spent at the health center, poor reception from health personnel, lack of availability of providers and medication. Overall, partners had a positive perception of the quality of care from health centers. However, there were significant differences in perceptions between those who have accompanied their wives and those who have never accompanied their wives with perceptions being more positive among partners who have accompanied their spouse to ANC visits. For instance, 94% of partners who accompanied their spouse to ANC visits believed that partners are well received at facilities versus 81% of those who have never accompanied their spouse ($p < 0.001$). In addition, all partners did not come at the request of health center staff – only 73% of partners who accompanied their spouse reported that staff had asked them to accompany their wives. For those who had never accompanied their wives, it was 24%. The vast majority of women and men interviewed said they had not had bad experiences during ANC visits. However, some women reported that there was no space in the examination room for partners. Some men reported spending too much time in at the health center because there were not enough providers.

Partners' HIV testing and HIV status sharing: Overall, 94% of men interviewed reported that they had already been tested for HIV and 65% were tested recently (during their spouse's current pregnancy). This means that 35% of the partners have yet to be tested. The majority of men reported having been tested for HIV during their spouse's ANC. Multivariate logistic regressions revealed that partner's level of education was the only factor independently associated with HIV testing during spouse's pregnancy. When confounding factors are adjusted, partners who have a secondary education were 3.9 times as likely to get tested during their wife's pregnancy wives than those who had no education (OR = 3.9; 95% CI: 1.2-13.1)

Test result sharing: Sharing the result was very high among women as among men (96% and 98%, respectively). All HIV-positive partners (8) or whose status is unknown (4) shared their status with their wives. However, one of the 16 HIV-positive women and 7 women whose status is unknown did not share their status with their partner.

Conclusion/Recommendations: This study identified a number of factors that represent barriers to the involvement of male partners ANC services. Facility-level factors include lack of satisfaction with the quality of ANC services and community-level factors include stigmatizing attitudes towards partners accompanying their wives to ANC visits. Study findings can inform the development of culturally appropriate strategies to address these barriers and improve the participation of men in maternal and child care and PMTCT in Burundi. These strategies include: 1) Incorporate a community component in PMTCT programs involving religious leaders and other key community stakeholders to combat stigmatizing attitudes and encourage greater involvement of male partners; 2) Reinforce community health system programs by ensuring that community health workers with clearly defined roles establish links between the community; 3) Use a quality improvement approach to address quality gaps reported by patients and their partners; 4) Provide information on HIV counseling, testing and PMTCT to men who receive health care unrelated to HIV; 5) Train and provide ongoing support to health care providers and community health workers on gender issues related to PMTCT.

Accomplishments:

- **Study completed** (Q3).

Study to examine individual and facility-level determinants of loss to follow-up from ART services in health facilities in the Morogoro Region of Tanzania and understand factors that may promote return to care among clients who are lost to follow-up

Overview: PLHIV who miss three or more consecutive clinic appointments are labelled as lost to follow-up (LTFU). The ensuing lack of adherence to ART can lead to high morbidity and mortality rates and treatment resistance. It is therefore important to determine factors that lead to LTFU so that targeted interventions can be developed and implemented to improve retention. The overall objective of the study is to explore individual- and facility-level determinants of loss to follow-up from ART services in health facilities in the Morogoro Region and understand factors that may promote return to care among clients who are lost to follow-up. The study aims to address the following specific objectives:

1. To determine the percentage of ART clients who are LTFU in health facilities providing HIV services in Morogoro Region.
2. To determine facility-level factors that promote or hinder LTFU among ART patients in health facilities providing HIV services in Morogoro Region
3. To determine the individual-level factors that promote or hinder LTFU among ART patients in health facilities providing HIV services in Morogoro Region
4. To determine gender-related factors contributing to LTFU among ART patients
5. To determine the factors that promote return to care among LTFU patients

Methodology: This cross-sectional study used a combination of qualitative and quantitative methodologies such as structured and semi-structured in-depth interviews and focus group discussions to explore factors that lead to treatment discontinuation from the perspectives of clients, PLHIV, group representatives, home-based care providers, Care and Treatment Clinics (CTC) health providers and managers. All 40 health facilities that have CTC services from the six Morogoro districts were selected. Semi-structured interviews were conducted with 344 clients with a history of LTFU and 344 clients with no history of LTFU. Six focus group discussions (FGD) were be conducted with representatives from PLHIV groups to obtain information on common factors that influence LTFU from ART services and recurring themes from their experiences receiving CTC services. In-depth interviews were conducted with 40 home-based care (HBC) providers and 40 health care workers and managers to collect information on factors that promote on inhibit loss to follow up through their experience locating LTFU clients and providing home services to PLHIV. In-depth interviews were conducted for selected clients of ART to obtain their perspective on retention factors for HIV services.

Accomplishments:

- **Data collection completed (Q4).** The report will be written and finalized in FY16.

Baseline assessment of HIV services in the Democratic Republic of Congo.

Overview: ASSIST is supporting the MOH of the DRC to improve nutrition services for HIV clients through the integration of NACS into HIV care and treatment, in coordination with other implementing partners. The baseline assessment will identify the strengths and weaknesses of HIV/AIDS services in DRC with a focus on PMTCT, retention in care, and adherence to therapy.

Findings will be used to introduce the improvement approach in the 39 facilities selected by PEPFAR. More specifically, the results will be used to: 1) determine the level of quality of care before the implementation of the improvement approach; 2) Refine the improvement objectives; and 3) Raise awareness among various stakeholders (including the Ministry of Health, implementing partners, providers) regarding quality gaps in the current health care system, and motivate their participation in the next phases of the improvement work.

Accomplishments:

- **Data collection completed** (Q4). The report will be written and finalized in FY16.

Evaluation of a People-centered and Integrated Health Services (PCIHS) intervention in Mali

Overview: WHO is promoting patient-centered care as a key pillar to strengthen quality of care.

ASSIST in partnership with the MOH and Public Hygiene, the Ministry of Solidarity, Humanitarian Action and Reconstruction of the North and the Ministry of Women, Children and Family will use the strategies developed by WHO combined with a quality improvement methodology to test the implementation of this approach in two districts of the Kayes Region. This study seeks to use a stepped wedge design to evaluate the effectiveness of this approach.

Accomplishments:

- **Drafted study protocol** (Q4).

Improving the quality of safe male circumcision in Uganda: An evaluation and qualitative exploration

Overview: VMMC has been demonstrated to reduce the transmission of HIV by 60%. Scaling-up VMMC services requires that they be of high quality, socially accepted, and effective. We evaluated an intervention aimed at improving VMMC standards adherence and patient follow-up rates in nine facilities in Uganda. We also qualitatively explore why some men return for follow-up care and others do not. The completeness and quality of clinical documentation was poor at baseline, but significantly improved at endline. We observed significant improvements in management systems; supplies, equipment, and environment; and monitoring and evaluation. Due to the volume of missing data, results were less clear for registration, group education, and information, education and communication; individual counseling and HIV testing; and infection prevention. Significant improvements were also observed in follow-up rates at 48 hours and 7 days, and 6 weeks. Interviews revealed the importance of peers, including female partners, in deciding to get circumcised and in seeking follow-up care. Among the men who did not return for follow-up services, most reported they had no problems and did not see it as necessary. For those who did have mild or moderate adverse events, follow-up care was often sought at a facility closer to the patients' home, rather than the circumcising facility. However, information systems were not able to capture this. Applying improvement approaches to VMMC services can promote improved standards adherence and follow-up rates and should be integrated into scale-up plans.

Accomplishments:

- **Study completed** (Q3). Manuscript submitted to OHA for review in Q3 FY15.

Improving alcohol and tobacco control during pregnancy in Ukraine

Overview: ASSIST began working in Ukraine in 2014 as a continuation of similar work conducted through HCI in 2013 to implement a non-communicable diseases pilot activity in Poltava Oblast. The overall goal of this activity was to demonstrate the feasibility of use in Ukraine of an evidence-based, structured counseling protocol called the "Brief Physician Intervention" (BPI) to assist pregnant women quit smoking and stop drinking alcohol. Data were collected at two antenatal visits (first visit and follow up) for separate cohorts of women before and after the intervention to determine whether standard of care counselling (pre-) or the BPI counselling (post-) were more effective at leading women to cease (or reduce) alcohol and tobacco use. This study used urine-cotinine tests to verify women's claims of smoking status.

Accomplishments:

- **Finalized and submitted report on the study to USAID Ukraine** (Q4). The ASSIST Project plans to write a manuscript version of the study for publication in FY16.

Validation of new diagnostic technologies for pediatric TB in Swaziland

Overview: There is no easy-to-use and accurate diagnostic test for TB in children, and there are difficulties in obtaining bacteriological specimen from non-sputum expectorating children. This study is comparing two methods of recovery of sputum from children (mucus extractors and gastric lavage) as diagnostic aids for TB among children. The latter is more invasive while the former requires specialized equipment. The study will also compare three diagnostic technologies against the gold standard of TB sputum culture to determine clinical validity and utility of the tests among children in Swaziland (GeneXpert, Blood mycobacteria TB culture, and urine lipoarabinomannan). Clinical validity refers to the extent or degree to which a test accurately predicts the risk of an outcome, the accuracy with which a test identifies or predicts a patient's clinical status, accuracy of detection the clinical disease as well the ability of the test to separate patients with different outcomes into separate

risk classes (discrimination). Clinical utility refers to the likelihood of a test to improve patient outcomes. Given that the study will compare the results from various methods of analysis of biological samples from children, the statistical analysis will be for sensitivity and specificity compared to the gold standard microscopy with sputum cultures.

Accomplishments:

- The study was completed and one manuscript was submitted for consideration in a peer-review publication. It was rejected, and currently the manuscript is being edited for submission to a different journal for consideration.

Activity 4. Evaluation of methods and approaches for effective design and implementation of scale-up

KEY ACCOMPLISHMENTS AND RESULTS

Study on the effectiveness and efficiency of integrated service delivery to HIV-positive mothers and their babies in Uganda

Overview: ASSIST works in 22 facilities across six districts of Uganda to improve retention of mother-baby pairs in care, to attain universal breastfeeding and improved nutrition of mother-baby pairs, and ensure that HIV-exposed infants are protected through ARVs. In 2014, ASSIST-Uganda began spreading the best practices identified in this demonstration phase to an additional 87 facilities across the country. Currently, services for HIV-positive women and their babies tend to be provided at ART clinics and post-natal clinics, requiring mothers to attend both clinics. In an effort to improve retention of mother-baby pairs in care there has been a movement toward merging service delivery so mother-baby pairs can receive care at the same time and strengthening the linkages between post-natal and ART services to ensure mothers and their babies receive the necessary services.

The objective of this study is to evaluate these different modes of service delivery among the 87 spread facilities with particular attention to infant feeding and retention into care of mother-baby pairs. The specific research questions for this study are:

- How do mothers experience and perceive care across the different modes of service delivery (i.e., services provided in ART clinics, post-natal clinics, or clinics where the services are merged)?
- How effective are the different modes of service delivery compared to the current mode of service delivery in terms of initiation on ART if indicated, receiving routine health services and retention in care?
- What is the incremental efficiency of the new modes of service delivery compared to the current mode of service delivery in terms of initiation on ART if indicated, receiving routine health services and retention in care?

Accomplishments:

- **Completed midline data collection** (Q2).
- **Completed endline data collection** (Q3).

Cost-effectiveness of a safe male circumcision knowledge management intervention in Uganda

Overview: ASSIST is working in Uganda to spread the improvement of safe medical circumcision in Uganda using knowledge management methods. This study, which is being conducted in 15 sites in partnership with CCP, is using a three-armed comparison, with sites randomly assigned to one of the following arms:

- Simple handover of written materials
- Handover of written materials with an in-person handover meeting
- Handover of written materials with an in-person handover meeting and three follow-up coaching visits from ASSIST staff

Using direct observation of circumcision provision, this study will seek to answer:

- What is change in the quality of service delivered?
- Which knowledge management method is more effective in improving care?
- What is the cost-effectiveness of different KM methods?

- How was KM implemented in the field?
- What KM methods do health care providers prefer?

Data collection by observations of delivery of care included: pre- and post-op interaction with patient, the handover meeting, and coaching visits.

Accomplishments:

- **All baseline quantitative data collection was completed, entered and cleaned into the database (Q3).**
- **Qualitative data from observations of the handover meeting and coaching visits were collected (Q2 and Q4).**
- **Implementation of the improvement intervention continued with coaching visit for sites receiving those conducted (Q3 and Q4).**
- **Preparation for end line quantitative data collection was completed and the actual collection is scheduled to begin in Q1, FY16.**

Screening in maternity to ascertain TB status (SMART) study in Swaziland

Overview: Globally, there is need to improve tuberculosis (TB) screening among both pregnant and lactating women, and to identify algorithms with high case detection to ensure rapid diagnosis and timely treatment initiation. We have designed a study to evaluate the sensitivity and specificity of the current TB screening tool for pregnant and lactating women (both HIV infected and not) and assess hypothetical enhanced screening algorithms, including additional symptoms and clinical/laboratory procedures and tests. In so doing, it is hoped that an optimum and cost-effective screening algorithm for pregnant and lactating women can be identified. This cross-sectional analytical study design will collect data to assess current screening practices in the selected facilities. In Swaziland, it is anticipated that this study will allow for identification of the optimal screening tool for pregnant and lactating women. This, in turn, will help to improve maternal and child health outcomes in the country.

Accomplishments:

- **The study was approved by the Swaziland authorities (Q4) and data collection is scheduled to begin in Q1, 2016**

Activity 5. Economic analysis of improvement activities

KEY ACCOMPLISHMENTS AND RESULTS

- **The cost-effectiveness analysis was completed for the Chronic Care Model implementation in Uganda and a manuscript was developed for peer-reviewed publication** (Q4).
- **There is a CEA component in the safe male circumcision knowledge management study in Uganda that is underway, and data are being currently collected** (Q4).
- **Dr. Broughton travelled to Swaziland and presented to the Swaziland ASSIST team and others in the Mbabane office on how to perform a cost-effectiveness analysis on improvement activities** (Q1). This was part of capacity development for the team to facilitate the studies ongoing in the country that include economic analysis. The same was done in Q2 in South Africa with the ASSIST team there as well as guests from the South African MOH.

Activity 6. Sustaining improvements and institutionalizing the capacity to continuously improve

KEY ACCOMPLISHMENTS AND RESULTS

- **ASSIST has been supporting the MOH in DRC since FY14 to improve nutrition services for HIV clients through the integration of nutritional assessment, counselling and support (NACS) into HIV care and treatment, in coordination with other implementing partners** (Q4). In FY15, ASSIST conducted a baseline assessment to determine the quality of HIV services in order to design and implement an improvement intervention focused on improvement retention in care and adherence in the 39 sites selected by PEPFAR. As a new ASSIST country, DRC provides a unique opportunity to monitor institutionalization from the start the project, document activities conducted to promote institutionalization as well as barriers to and facilitators of institutionalization over time.

- **ASSIST is working in Mali to improve evidence-based maternal and newborn care and postpartum family planning services at facility and community levels in six target districts in the Kayes Region and to improve delivery of evidence-based interventions to reduce anemia among pregnant women and infants at facility and community levels in the Bougouni District of the Sikasso Region** (Q4). Most of ASSIST work in Mali has focused on the district and facility levels. This study aims to determine whether there are signs of institutionalization of quality improvement at all levels of the systems and whether these proxies of institutionalization increase over time. This study will also document activities conducted to promote institutionalization at all levels of the system.

Activity 7. Generating learning from multi-country studies

KEY ACCOMPLISHMENTS AND RESULTS

- **A multi-country case study, "Supporting close-to-community providers through a community health system approach: Case examples from Ethiopia and Tanzania" was accepted for publication in the journal *Human Resources for Health* and was published on March 28, 2015 (Q2).** See Activity 9 for more details.

Evaluation of a web-based Latin American improvement collaborative to prevent neonatal infections in hospitals

Overview: ASSIST intends to use its years of global experience to increase the implementation of evidence-based practices in the LAC region's hospitals to reduce the incidence of the nearly one million annual newborn infections using proven quality improvement methods and tools. A multi-hospital, multi-country improvement collaborative has been entirely organized and will be completely implemented via internet-based applications, minimizing program costs and increasing the efficiency of the QI approach to reach multiple multi-national MNCH service delivery points. The LAC Region Internet-Based Improvement Collaborative to Reduce the Incidence of Non-NICU Hospital Newborn Infections project (RedINFECC Network) is being implemented with the support of the American people through the USAID projects, ASSIST and MCSP. The RedINFECC Collaborative Network is being implemented in collaboration from the Newborn Alliance for Latin America and the Caribbean, MCSP, and database support from the Avedis Donabedian Foundation, Barcelona, Spain.

While internet use has grown impressively in recent years in the LAC Region, its use for the purpose of improving health care is virtually non-existent. The RedINFECC Collaborative Network is the first-ever experience in this direction in the MNCH area in the Region. An evaluation of the project is imperative to obtain knowledge about the strategy's implementation, costs, the degree of participation and the effectiveness of the improvement activities to improve processes of care and reduce newborn infections. This knowledge will be important to ASSIST, and other programs and organizations in LAC, Africa, Asia, and the Middle East and beyond to strengthen health systems globally for improved outcomes for the patients we are trying to serve. The potential for reduced costs and expanded reach with using the internet for improvement activities is significant.

Accomplishments:

- **Data is currently being collected, and the study is progressing as expected** (Q4).

Activity 8. Capacity building for research and support to country programs

KEY ACCOMPLISHMENTS AND RESULTS

- **Dr. Sarah Lunsford conducted a virtual training on data collection for the Malawi HES evaluation** (Q2).
- **ASSIST organized a francophone webinar on data quality** (Q2). The Burundi team shared their experience using a newly developed data quality assessment tool. This newly developed tool is used to monitor the equality of data collected and reported by quality improvement teams. During the webinar, Dr. Astou Coly also gave a presentation on the R&E mandates that each country needs to meet. The webinar was attended by Burundi, Cote d'Ivoire, Niger and Mali country teams.

- **During a trip to India, Simon Hiltebeitel led a discussion with the ASSIST India staff on data presentation and visualization** (Q2). Mr. Hiltebeitel also worked with ASSIST India research staff to address several data management challenges.
- **Conducted a remote two-day training to DRC team (Resident Advisor and four technical advisors) on data collectors training** (Q4).
- **Provided on-going support to DRC team for the development of data collection tools and data entry masks** (Q4).

Activity 9. Disseminate knowledge gained through ASSIST R&E activities

KEY ACCOMPLISHMENTS AND RESULTS

- **Prepared and submitted a paper entitled "Supporting close-to-community providers through a community health system approach: Case examples from Ethiopia and Tanzania" (Q2)** to *Human Resources for Health*, which was accepted and published on March 28, 2015 (http://www.human-resources-health.com/content/13/1/12/abstract)
  - This paper includes two cases studies, one from Ethiopia and the other from Tanzania. They examine the Community Health System Strengthening (CHSS) model, an improvement approach that draws on existing formal and informal networks within a community, such as lending, religious, and youth groups, to support close-to-community providers, such as community health volunteers and health extension workers. The model brings together representatives from existing community networks, close-to-community providers, and health facility staff into a community team who identify gaps in services, test solutions, and monitor results. Team members from the community support close-to-community providers by disseminating health messages and referring community members to services.
  - In the Ethiopia case, the CHSS model was applied to support 18 communities to increase HIV testing among pregnant women, increased utilization of antenatal care services, and improved sanitation. By working together in a team, community groups became better informed about the available services and more comfortable making referrals. They were also able to spread health messages. As a result, more pregnant women registered for antenatal care and were tested for HIV during implementation, health extension workers conducted more postnatal visits, and more households had functioning latrines.
  - In the Tanzania case, the model was applied to five communities who worked on improving HIV testing and retention. Community members spread messages about HIV testing and helped identify people who had dropped out of treatment, referring them to home-based care volunteers. The program observed increased HIV testing and a reduction of patients lost to follow-up.
- **Prepared and submitted a paper entitled "Incentives of ASHA workers in two districts in India: Learnings from a qualitative study"** to *BMC Health Services Research* (March 25, 2015) (Q2).
  - This study examined the role incentives play in motivating CHWs in India. Accredited Social Health Activists (ASHAs) are female CHWs in India who provide a range of services, including reproductive, maternal, neonatal, child, and adolescent health.
  - ASSIST conducted qualitative interviews with 49 ASHAs and one member of each ASHA's family to explore the role of family, community, and health system in supporting ASHAs in their work. The results from the thematic analysis of the interviews were that incentives were empowering, as a source of household income inspiring a sense of self confidence, but were also a source of distress for ASHAs and their families as incentive rates are low and payments irregular and often incomplete. Further, ASHAs dedicate their own time and resources to perform their duties, and incentives are not well aligned with the effort required and out-of-pocket costs ASHAs incur. As a result, sometimes ASHAs prioritize and promote those services that yield higher incentives, not those that are the most appropriate for their clients. ASHAs and their families maintain hope that their positions will eventually result in a regular salary, which contributes to retention.

- The study recommends that the incentive scheme be revised to better reflect out-of-pocket costs and the time and effort ASHAs require to complete tasks, improving communication to ASHAs about incentives and responsibilities, and improving the system of payment to ASHAs to make it more timely and complete.

- **Submitted a study on data validation in India for publication (Q4)**

Obstacles and Remedies

OBSTACLES

While the work under ASSIST is proceeding, there remain serious funding issues, in particular the discrepancy between the timing of the funding and the work planning requirements. In FY15, ASSIST received five different modifications with additional funding for continuing and new scopes of work throughout the year, presenting a challenge in terms of planning and resourcing the work. This has consequences for the timing and speed by which project activities can be implemented. More serious consequences can happen if an activity goes into closedown mode and is then expected to ramp up. The staffing implications of such erratic timing of funding makes managing the work and paying due diligence to our ASSIST staff very difficult in view of the host country labor law requirements we also have to abide by. Moreover, the ASSIST Project and URC have been put in the risky financial position of forward-funding activities in order not to lose momentum of some mission- or core-funded activities and not have to re-start project activities from the beginning if and when funds are made available.

REMEDIES

Please expedite the obligation of funding actions that are pending. Please communicate to the bureaus and missions that delays will result in damages to the technical progress of work as well as relationships with MOHs and partners on the ground.

Analysis and Explanation of Costs

Costs in the first part of the year were below expectations. However, with the additional obligations starting in February, ASSIST staff were able to strengthen and expand many of the activities. This expansion increased the burn rate to the expected level for a project of this size and complexity. Still, program implementation in FY15 was delayed in large part because of delays in receiving FY15 funding, a trend that looks to continue into FY16 as ASSIST has yet to receive the large majority of the expected FY16 funding.

Performance Monitoring Plan

The table below summarizes progress through FY15 on key indicators in the ASSIST performance monitoring plan.

Progress on USAID ASSIST Project performance monitoring indicators, September 30, 2015

PROJECT MANAGEMENT					
#	**Indicator**	**Baseline**	**End of Project Target**	**Progress as of September 30, 2015**	**Data Source/ Collection methods**
1	# of Annual Work Plans submitted on-time to the AOR	0	5	3	Transmission of deliverable to the AOR
2	# of Annual Project Reports submitted on-time to the AOR	0	5	2	Transmission of deliverable to the AOR
3	Gender Framework submitted	0	1	1	Transmission of

	within 90 calendar days of the cooperative agreement effective date				deliverable to the AOR
4	# of Annual Research and Evaluation Reports submitted on-time to the AOR	0	5	2	Transmission of deliverable to the AOR
5	# of quarterly financial reports submitted on-time to the AOR	0	20	12	Transmission of deliverable to the AOR
6	# of Semi-annual Performance Monitoring Reports submitted on-time to the AOR	0	10	5	Transmission of deliverable to the AOR
7	Final Report of the cooperative agreement submitted on-time to the AOR	0	1	NA	Transmission of deliverable to the AOR
DOCUMENTATION AND KNOWLEDGE MANAGEMENT					
#	**Indicator**	**Baseline**	**End of Project Target**	**Progress as of September 30, 2015**	**Data Source [Benchmark]**
1	Knowledge Management Plan submitted within 90 calendar days of the cooperative agreement effective date	0	1	1	Transmission of deliverable to the AOR
2	# of Documentation and Knowledge Management Reports submitted to AOR	0	5	2	Transmission of deliverable to the AOR
3	Design of ASSIST Knowledge Portal submitted to AOR for approval	NA	1	1	Written approval by AOR [Benchmark: completed in year 1]
4	# of country case studies	0	30	27	[Benchmark: 20 completed by the end of year 3]
5	# of research and evaluation studies examining the KM system as a whole or components	0	4	4	[Benchmark: four completed by the end of year three]
6	% of ASSIST country teams with at least one team member with basic competencies in KM and documentation	0	100%	68% (13/19)	Country program quarterly and annual reporting; special surveys
7	% of assisted countries that apply KM approaches to conduct synthesis and knowledge harvesting exercise each year	7% (1/14)	100%	79% (15/19)	Country program quarterly and annual reporting; special surveys
8	Average # of knowledge products developed per country	0.6 (9/14) (FY13)	3	(9 + 29 + 24 = 62/21) = 2.95	Country program quarterly and annual

					reporting
9	% of assisted countries with local repository of improvement knowledge	0%	Baseline + 25%	10% (2/21)	Country program quarterly and annual reporting
10	# of communities of practice supported on the ASSIST knowledge portal	0	3	2	HQ quarterly and annual reporting
11	# of virtual learning events supported by the ASSIST KM system	0	3	4 + 19 = 23	HQ quarterly and annual reporting
GLOBAL TECHNICAL LEADERSHIP					
#	**Indicator**	**Baseline**	**Target**	**Progress**	**Data Source/ Collection methods**
1	# of articles on improvement methods and results published in peer-reviewed journals; possible topics to be addressed include application of improvement approaches to new areas, major technical issues in the field of improvement, gender integration as an improvement strategy, results of KM activities	NA	10	4 + 8 = 12	Publication
2	# of assisted countries with national health care improvement policies and strategies	3	Baseline + 5	5	Country program quarterly and annual reporting
3	# presentations given by ASSIST staff at global health technical conferences	NA	25	146	HQ and country quarterly and annual reporting
FIELD OPERATIONS					
#	**Indicator**	**Baseline**	**Target**	**Progress**	**Data Source/ Collection methods**
1	% of integrated country design plans signed by country and USAID stakeholders	NA	100%	84% (16/19)	Country Improvement Plan signed
2	% of annual country reports submitted on-time	NA	100%	FY13: 100% (7/7) FY14: 100% (19/19)	Dates of submission of annual country reports to AOR
3	% of annual country reports that examine magnitude and spread rate of improvement	NA	100%	100%	Review of annual country reports

4	% of country-reported indicators externally validated	NA	25% of reported indicators	25%	Country quarterly and annual reporting
5	% of improvement indicators tracked with a QI and non-QI intervention comparison groups	NA	10% of reported indicators	13%	Country quarterly and annual reporting
6	% of countries collecting and analyzing sex-disaggregated data for improvement when relevant	86% (6/7) (FY13)	100%	82% (9/11)*	Country quarterly and annual reporting
7	% of country programs tracking expenditures for the purpose of economic evaluation (integrated into the country plan)	0	80%	18%	Accounting records
8	% of integrated country design plans that address relevant gender-related barriers	43% (3/7)	30%	94% (15/16)	Review of integrated country design plans, review of project planning

NA = Not applicable (deliverable not yet due)

TBD = To be determined

USAID APPLYING SCIENCE TO STRENGTHEN AND IMPROVE SYSTEMS PROJECT

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