



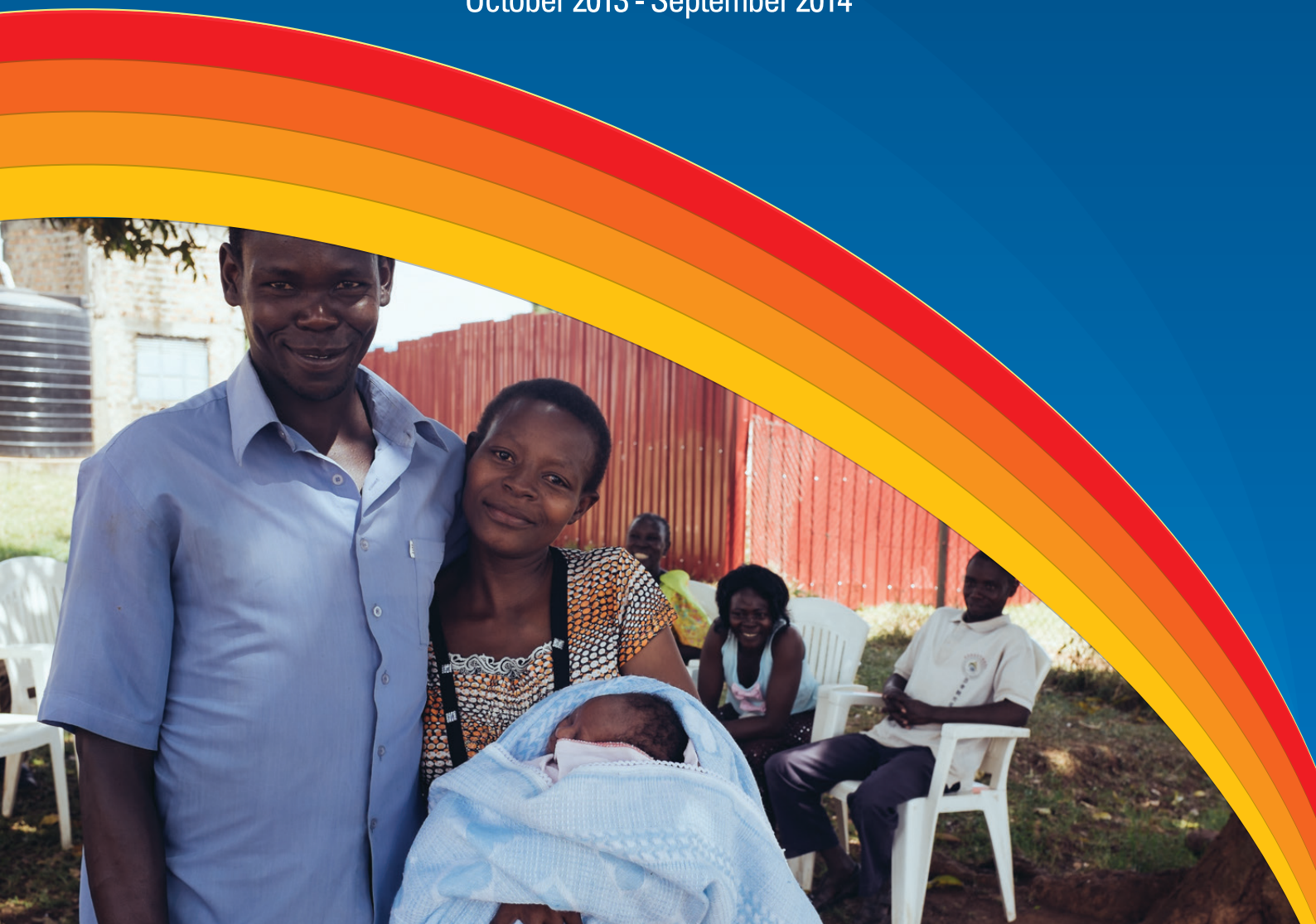
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STRENGTHENING TB AND HIV & AIDS RESPONSES IN EAST-CENTRAL UGANDA (STAR-EC)

PROGRAM YEAR VI, ANNUAL REPORT

October 2013 - September 2014



THE REPUBLIC OF UGANDA

Funded by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) through the United States Agency for International Development (USAID) under the terms of Cooperative Agreement No. 617-A-00-09-00007-00

A network diagram consisting of grey dots connected by thin grey lines, forming a complex web-like structure. The dots are of varying sizes and are scattered across the page, with a higher concentration on the left side.

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List of Acronyms

ABC	Abstinence, being faithful, and condoms
ACSM	Advocacy communication and social mobilization
AIDS	Acquired immunodeficiency syndrome
ANC	Antenatal care
ART	Antiretroviral therapy
ARVs	Antiretroviral drugs
ASSIST	Applying Science to Strengthen and Improve Systems
BCC	Behavior change communication
BIWIHI	Bukhooli Island Women Integrated Health Initiative
BMU	Beach management unit
CB DOTS	Community-based directly observed treatment – short course
CBOs	Community-based organizations
CD4	Cluster of differentiation 4
CDD	Community development department
CDO	Community development officer
CDFU	Communication for Development Foundation Uganda
CDR	Case detection rate
CHAI	Clinton Health Access Initiative
CNR	Case notification rate
CoR	Continuum of response
CPT	Cotrimoxazole prophylaxis therapy
CPHL	Central Public Health Laboratory
CSA	Community support agent
CSO	Civil society organization
CSW	Commercial sex worker
DBTAs	District-based technical assistance partners
DCDO	District community development officer
DHCs	District health coordinators
DHO	District health officer
DHT	District health team
DHIS2	District Health Information System 2
DMC	District management committee
DOP	District operational plan
DOTS	Directly observed short course

DPRs	District performance reviews
DQA	Data quality assessment
DTLS	District tuberculosis and leprosy supervisor
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EID	Early infant diagnosis
eMTCT	Elimination of mother-to-child transmission (of HIV)
EMR	Electronic medical records
EOP	End of program
FC2	Female condom
FLEP	Family Life Education Program
FOC-REV	Friends of Christ Revival Ministries
FP	Family planning
FSG	Family support group
GBV	Gender-based violence
GLS	Green Label Services Limited
GFATM	Global Fund to Fight AIDS, Tuberculosis, and Malaria
GOU	Government of Uganda
HAART	Highly active anti-retroviral therapy
HBC	Home-based care
HBHTC	Home-based HIV testing and counseling
HC	Health center
HIBRID	HIV-Based Real-time Integrated Database
HIV	Human immunodeficiency virus
HMIS	Health management information systems
HSHASP	Health Sector HIV&AIDS Strategic Plan
HSSIP	Health Sector Strategic and Investment Plan
HSD	Health sub-district
HTC	HIV testing and counseling
ICF	Intensive case finding
IDI	Infectious disease institute
IEC	Information, education, and communication
IPT	Isoniazid preventive therapy
JCRC	Joint Clinical Research Centre
JDHO	Jinja Diocese Health Office
JMS	Joint medical stores
JSI	JSI Research & Training Institute, Inc.
LC	Local council
LG	Local government
LMIS	Logistics management information system
LQAS	Lot quality assurance sampling

LTFU	Lost to follow up
MARPs	Most-at-risk populations
MC	Male circumcision
MCPs	Multiple concurrent partnerships
MDR	Multi-drug resistant tuberculosis
MEEPP	Monitoring and evaluation of emergency plan progress
META	Monitoring and Evaluation Technical Assistance
MMS	Medicines management supervisors
MNCH	Maternal neonatal and child health
MoH	Ministry of Health
MOVE	Models for optimizing volumes and efficiency
MTCT	Mother-to-child transmission (of HIV)
MUWRP	Makerere University Walter Reed Project
m2m	mothers2mothers
NAADS	National Agricultural Advisory Services
NACS	Nutrition assessment counseling support
NAFOPHANU	National Forum for People Living with HIV&AIDS Networks in Uganda
NBS	Nile Broadcasting Services
NEQAS	National external quality assurance
NMS	National medical stores
NOP	National OVC Policy
NSPPI	National Strategic Programme Plan for Intervention
NTP	National Tuberculosis and Leprosy Program
NTRL	National Tuberculosis and Leprosy Reference Laboratory
OPD	Outpatient department
PACE	Program for Accessible Health Communication and Education
PCR	Polymerase chain reaction
PEP	Post-exposure prophylaxis
PEPFAR	President's Emergency Plan for AIDS Relief
PHDP	Positive health, dignity, and prevention
PHFS	Partnership for HIV free survival
PITC	Provider-initiated testing and counseling
PLHIV	Person/people living with HIV
PMTCT	Prevention of mother-to-child transmission (of HIV)
PNC	Postnatal care
PNFP	Private not-for-profit
PROMIS	PEPFAR Records and Organization Management Information System

PWP	Prevention with positives
PY	Program year
QI	Quality improvement
RTC	Routine testing and counseling
SACCOs	Savings and credit cooperative organizations
SCHW	Subcounty health workers
SCORE	Sustainable comprehensive responses for vulnerable children
SDS	Strengthening Decentralization for Sustainability program
SIWAAO	Sigulu Women AIDS Awareness Organization
SLMTA	Strengthening laboratories management toward accreditation
SOAR	Strengthening outcomes, achieving results
SOP	Standard operation procedure
SPAI	Service performance assessment and improvement
SPARS	Service performance assessment recognition strategy
STAR-E	Strengthening TB and HIV&AIDS Responses in Eastern Uganda
STAR-EC	Strengthening TB and HIV&AIDS Responses in East Central Uganda
STI	Sexually transmitted infection
SURE	Securing Uganda's Right to Essential Medicines project
TB	Tuberculosis
THALAS	Targeted HIV&AIDS and Laboratory Services project
TSR	Treatment success rate
UDHA	Uganda Development and Health Association
UHMG	Uganda Health Marketing Group
URHB	Uganda Reproductive Health Bureau
USAID	United States Agency for International Development
USTP	Uganda Stop TB Partnership
UVRI	Uganda Virus Research Institute
VEDCO	Volunteer Efforts Development Concerns
VHT	Village health team
VMMC	Voluntary medical male circumcision
WAOS	Web-based ARV ordering and reporting system
WASH	Water, sanitation, and hygiene
WHO	World Health Organization



LETTER FROM THE CHIEF OF PARTY

I am delighted to share with you the report for Program Year (PY) 6 of the Strengthening TB and HIV&AIDS Responses in East-Central Uganda (STAR-EC) program. This annual report marks the sixth and final year of STAR-EC's phenomenal implementation of TB and HIV&AIDS interventions in East-Central Uganda. The report highlights progress made towards achieving both the (PY) 6 and end of program life targets. It also presents the strategies and innovations the program has utilized basing on the many lessons garnered from the previous six years of implementation. As a result of the massive scale up effort, STAR-EC has been able to take services to the most rural and hard-to-reach areas in the East-Central Uganda region, particularly the landing sites and islands on L. Victoria.

We would like to take this opportunity to thank the American people who through the President's Emergency Plan for AIDS Relief (PEPFAR), have generously provided funding and technical support to STAR-EC and many other implementing partners in the region. We have tapped into the synergies created with other partners to be able to integrate TB and HIV&AIDS services into reproductive health, family planning, malaria and immunization services thereby improving the Continuum of Response (CoR).

In addition, thanks go out to our program partners namely: the Bantwana Initiative; Communication for Development Foundation Uganda (CDFU); mothers2mothers (m2m); and Uganda Cares. The improvements in performance and results witnessed during the past twelve months come from your invaluable technical support. We applaud the innovative spirit and "can do" attitude of program staff and the hundreds of health workers in the districts, who have oftentimes worked under very challenging conditions to deliver services.

Our deep-felt appreciation goes to the Ministry of Health, Civil Society and Private sector who have made the past year such a resounding success. The selfless dedication and passionate contributions of thousands of beneficiaries and volunteers whose stories have been captured in this annual report have continued to inspire our efforts.

Despite continued systemic challenges in key areas such as human resources for health; frequent commodity stock outs; as well as the poor infrastructure and modern equipment needs, we remain confident that these gaps will be collectively addressed by various stakeholders as we strive to provide more accessible, comprehensive and quality HIV&AIDS and TB services in the East -Central Uganda region.

I encourage all of you to share this annual report and join us to celebrate the success.

Alex Mugume

Chief of Party

Executive Summary

During PY6, STAR-EC in collaboration with the Ministry of Health (MoH); Strengthening Decentralization for Sustainability (SDS) project, the nine district local governments and other partners delivered a comprehensive and integrated package of services in the supported nine districts in East Central Uganda ranging from HIV prevention, care and treatment. Capacity building activities primarily focused on the revised TB and HIV policy guidelines; and were implemented simultaneously with the strengthening of essential medical logistics/supplies management system, improvement of the laboratory hub network in the region and enhancement of the capacity of partners to plan, deliver services, evaluate performance, and learn from the experience garnered from implementation.

During this reporting period, STAR-EC supported interventions were scaled up primarily targeting the high HIV burdened yet underserved key affected populations such as the fisher folk, commercial sex workers and long distance truck drivers. Other key programmatic beneficiaries included pregnant mothers; couples; HIV/TB co-infected clients; and HIV-infected and exposed children. In a bid to further improve the continuum of response and capture synergies across the various services, STAR-EC utilized the integrated service delivery approach coupled with a strong focus on strengthening health facility-community, intra and inter facility referrals and linkages.

Cognizant of the inherent human resource constraints in the nine districts, STAR-EC scaled up the use of task shifting of simple routine activities such as patient triage, TB screening, PITC, health education, counseling of pregnant mothers, active client follow up and linkage to care/treatment among others. Following this undertaking, a total of 84 mentor mothers, 90 RTC volunteers and 12 locum staff were supported across the 9 districts. HTC services were delivered at 127 static and 4,082 integrated outreach sites in 381 parishes. A total of 955,182 individuals (including those from PMTCT and VMMC) settings) received HTC during PY6; a 122% achievement compared to the PY6 target. Of all the new 18,852 positives identified, 89% were provided with cotrimoxazole prophylaxis while 61% were enrolled into care.

During PY6, STAR-EC continued to support VMMC services at 22 static health facilities in the region. A total of 119,808 males were reached with VMMC services of which 296 were served using prepep device, bringing the total of circumcisions to 347,873 since program inception (92% achievement of the program life targets). LQAS household surveys further show an increment from 37.4% in 2009 to 56.6% by May 2014 in the proportion of males aged 15-54 years who have ever been circumcised. A total of 467,048 individuals including 126,564 key populations were reached with risk reduction and combination prevention services. Further, a total of 2,651,930 and 1,484,563 pieces of condoms were distributed to the general and key populations respectively. Cumulatively the total number of clients active in care rose from 34,517 in PY5 to 40,660 in PY6. During PY6, STAR-EC continued to support the implementation of the Option B+ strategy in 110 facilities with 95 of them being accredited to offer ART. Consequent to this effort, a total of 137,062 pregnant and lactating women received HTC for PMTCT purposes during PY6. Additionally, 3.0% and 1.5% of all the pregnant/lactating women and new ANC testers were found HIV positive. Overall, 92% of all HIV positive pregnant women accessed ART for life in PY6. In the same vein, 87% of 1,438 HIV exposed babies delivered at the health facilities accessed nevirapine syrup for prophylaxis at birth. Access to ART services increased from 66 to 95 ART accredited sites during the reporting period and a total of 9,779 new clients (9% of them being children less than 15 years) were initiated on ART. Of the cumulative 35,325 clients enrolled on ART from PY2 to PY6, 80% were active.

PY6 findings showed that the TB case notification rate for all the nine districts stood at 63/100,000 population compared to the national figure of 127/100,000. The TB treatment success rate stood at 86%, which was higher than the national rate of 77%. Records show that the proportion of TB/HIV co-infected clients in the region has progressively declined from 37% during PY2 to 31% in PY6. A total of 22 MDR cases have so far been enrolled on ambulatory facility Directly Observed Treatment (DOT) and home based care since August 2013 when this service started.

Despite the achievements detailed in this PY6 annual report, implementation was hampered by the recurrent human resource constraints and stock out of key commodities notably nevirapine syrup and VMMC supplies among others. The program is however very optimistic that through concerted efforts involving USAID, MoH, the Local Governments (LGs) and other stakeholders, some of these challenges will be overcome and increased results will be yielded in the remaining part of program life.

Table 1: Summary of program achievements to-date

Intervention area	Key Indicators (Numbers)	PY1* (implementation from July 2009 - Sept 2009)	PY2 (Oct 2009 - Sept 2010)	PY3 (Oct 2010 - Sept 2011)	PY4 (Oct 2011 - Sept 2012)	PY5, (Oct 2012 - Sept 2013)	PY6 outcomes (Oct, 2013 - Sept, 2014)			End of Program Life			PY6 Comments (unless specified)
							PY6 achievements	PY6 Annual Targets	% of PY6 annual targets achieved	End of Program Life Targets	Program Cummulative achievements to date (total PY1*- PY6)	% of End of Program Life Target achieved	
HIV Testing and Counselling (HTC)	Individuals who received HTC and their results (including pregnant women &PNC, PMTCT partner testing & VMMC numbers)	10,376	178,303	447,532	461,544	817,011	955,182	781,100	122	2,317,295	2,869,948	124	Indicator measures overall HTC services provided at both static and outreach sites including individuals, couples, young people, pregnant women, men who received HTC during PMTCT and those served during post-natal care. 543,208 and 411,974 were males and females respectively. This achievement is attributed to scale up of HTC services to lower health facilities and intensified HTC integrated outreaches in both main and islands.
	Individuals who received HTC and their results (excluding pregnant women, PNC & PMTCT partner testing numbers)	10,376	178,303	330,966	335,662	667,687	798,150	679,100	118	1,815,875	2,321,144	128	HIV positivity rate was at 2.1%. A total of 63,007 couple units (127,761 individuals) were counseled, tested and received their results together as a couple.
	Individuals trained in HTC	64	256	356	32	117	0	0	n/a	583	825	142	The program conducted sufficient trainings in its early stages which facilitated meeting and exceeding EOP life targets for this indicator. Thus, training of more HTC health workers is not a program priority until a needs assessment deems so. However, on-job support supervision of trained workers will continue and 85 RCT volunteers were re-oriented/given mentorship.
	Outlets providing T&C services	35 service outlets (Only 2 were static)	76 static and 280 parishes (outreach sites)	106 static and 268 parishes (outreach sites)	123 static and 239 parishes (outreach sites)	132 static and 385 parishes (outreach sites)	127 static and 381 parishes (outreach sites)	148	86	148	132 static and 385 parishes (outreach sites)	89	The supply of test kits and other supplies continues to be erratic. In order to obtain a high yield of HIV positive clients for enrolment into HIV care and treatment, the HTC strategy changed to targeting geographical areas with the highest HIV prevalence thus not all 148 targeted facilities were covered.
PMTCT	Pregnant women with known HIV status (includes tested and received results) including PNC	No Implementation during PY1	65,983	104,689	109,746	140,475	137,062	102,000	134	501,420	557,955	111	112,847 women received HTC and results during their first ANC visit; 9,860 L&D and 12,372 PNC with 1.5%, 1.2% and 1.6% diagnosed HIV positive respectively. 1,983 pregnant women had known and documented HIV+ results and HIV among re-testers was at 0.5%.
	Pregnant women who received ARVs to reduce the risk of mother to child transmission (new clients)	No Implementation during PY1	1,759	3,418	3,660	4,341	2,286	2,600	88	16,890	15,464	92	Overall, a total of 3,804 HIV positive pregnant and lactating women accessed ART during PY6. These included: 1,518 pregnant women already on ART before 1st ANC and 2,286 new pregnant women initiated on option B+.
	Persons trained to provide PMTCT services	No Implementation during PY1	177	621	84	453	0	0	n/a	870	882	101	A total of 602 health workers from 30 high volume sites were mentored in the use of new guidelines related to HMIS. 65 health facilities will have their workers mentored in Q1, PY7.
	Service outlets providing PMTCT	No Implementation during PY1	68	83	94	118	110	118	93	118	118	100	However, only 93 of the 110 sites offered Option B+ services. The rest offer referral services.
Targeted population reached with sexual prevention messages (general pop+ OP)		51,916	132,011	185,776	117,858	316,003	340,484	286,000	119	903,000	1,144,048	127	Messages included taking an HIV test in accordance with the risk profiles of such individuals. In addition, 119,078 were old clients re-visited more than once during one year's period.

Intervention area	Key Indicators (Numbers)	PY1* (implementation from July 2009 -Sept 2009)	PY2 (Oct 2009 - Sept 2010)	PY3 (Oct 2010 - Sept 2011)	PY4 (Oct 2011 - Set 2012)	PY5, (Oct 2012 - Sept 2013)	PY6 outcomes (Oct, 2013 - Sept, 2014)			End of Program Life			PY6 Comments (unless specified)
							PY6 achievements	PY6 Annual Targets	% of PY6 annual targets achieved	End of Program Life Targets	Program Cummulative achievements to date (total PY1*- PY6)	% of End of Program Life Target achieved	
Sexual and Other Behavioral Risk Prevention (General Population)	Individuals trained to provide sexual prevention services	234	564	298	0	162	0	0	n/a	1,060	1,258	119	No training was conducted in PY6 being the last program year. However, in the previous years, the training targeted the district condom focal persons, health educators and VHTs .
	Key populations reached with individual or small group level HIV prevention based on evidence and meet minimum required standards	12,179 were reached through "other prevention" interventions	12,763	19,473	24,287	70,473	126,564	64,400	197	198,900	265,739	134	56,207 of all the 126,564 key populations were re-visited with additional information on combination prevention during the same program year.
Clinical/Preventive Services- Additional TB/HIV	TB patients who had an HIV test result recorded in the TB register	13	1,802	2,317	1,810	2,024	2,088	2,000	104	8,100	10,054	124	Treatment success rate (TSR) was at 86% compared to the national average of 82.7% (NTLP, 2013), while the cure and lost to follow up rates i.e. 61% and 5% were also above the national averages of 40% and 12% respectively. During the program year, diagnosis and management of TB in children was a challenge due to limited knowledge and skills among health care providers and facilities for sputum induction and collection
	HIV+ patients in HIV care or treatment (pre-ART or ART) who started TB treatment	0	205	533	421	320	479	600	80	4,550	1,958	43	
	Individuals trained to provide HIV/TB related palliative care	64	875	250	0	73	0	0	n/a	644	1,262	196	
Anti-Retroviral Therapy (ART)	HIV + individuals (active clients) receiving a minimum of one clinical care service (CXT)... Cumulative	283	7,041	16,684	24,335	34,517	40,660	68,000	60	74,250	40,660	55	More effort (as explained in the main report) will be instituted during PY7, Q1 to ensure enrolment of newly identified HIV+ clients into care.
	Adults and children with HIV infection newly enrolled on ART	61	1,776	5,083	5,419	8,657	9,779	20,770	47	50,365	30,775	61	End of program life targets were increased in accordance with unmet need estimated basing on eligible population. However, much as the program did not achieve PY6 target, the following strategies were implemented during PY6: utilization of dedicated teams to re-embark on accelerating ART initiation; outreaches, addressing challenges on CD4 testing and transportation of samples as well as strengthening referrals and linkages. STAR-EC will devise more strategies to improve clients enrolment on ART in PY7,Q1.
	Adults and children with HIV infection receiving ART (CURRENT).. Cumulative	372	3,119	7,487	12,278	20,577	28,245	47,707	59	52,900	28,245	53	Cumulative ART active numbers have increased in the last one year due to the introduction of Option B+ . However more efforts as outlined in the main body of report are needed in scale up numbers to meet targets
Voluntary Male Medical Circumcision (VMMC)	Males circumcised as part of Voluntary Male Medical Circumcision	0	803	14,327	79,813	133,122	119,808	130,000	92	378,350	347,873	92	During this year, eight CSOs were supported to start program and activity implementation
	VMMC surgical sites (static)	0	7	15	19	19	22	19	116	23	22	96	
Health Systems Strengthening and Strategic Information	Local organizations provided with TA for HIV-related institutional capacity building and SI activities	4	13	11	3	9	8	8	100	11	11	100	During this year, eight CSOs were supported to start program and activity implementation
	Individuals trained in SI (including M&E, surveillance and/or HMIS)	122	379	170	287	93	63	0	n/a	383	383	100	All EOP targeted individuals have been trained. The program is consolidating these achievements through on-going mentorship every quarter. 63 LG personnel were re-trained on LQAS

* PY1 (March-September 2009) involved only 3 months of actual implementation, the rest was program start-up activities

Source: STAR-EC program records

1.0 Introduction

1.1 Brief overview of STAR-EC

The STAR-EC program is in final phase of implementation in nine districts of East Central Uganda, namely: Bugiri, Buyende, Iganga, Luuka, Kaliro, Kamuli, Mayuge, Namayingo, and Namutumba. Currently, the region is inhabited by an estimated 3.1 million people; approximately 9% of Uganda's current population. Since inception in 2009, the STAR-EC program has supported TB and HIV&AIDS services delivery in East Central Uganda under the following objectives:

- ▶ Increasing access to, coverage of, and utilization of quality comprehensive HIV&AIDS and TB prevention, care and treatment services within district health facilities and their respective communities;
- ▶ Strengthening decentralized HIV&AIDS and TB service delivery systems with emphasis on HCs IV and III and community outreach;
- ▶ Improving quality and efficiency of HIV&AIDS service delivery within health facilities and civil society organizations;
- ▶ Strengthening networks and referral systems to improve access to, coverage of and utilization of HIV&AIDS and TB services; and
- ▶ Intensifying demand creation activities for HIV&AIDS and TB prevention, care and treatment services.

During the period of six years, STAR-EC registered significant progress toward improving the scope, quality, geographical coverage, and accessibility of HIV and AIDS and TB services in East Central Uganda using a health systems strengthening approach. Key services such as HTC, PMTCT, and ART hitherto limited to hospitals, health center (HC)IVs, and a few HC IIIs, have been taken brought to people at more HCIIIs, some key HC IIs, and within communities. VMMC services have since been introduced and are now delivered through 21 health facilities, multiple outreaches, and circumcision camps. All public general hospitals in the region have been provided with CD4 count machines and 12 HC IVs and 7 HC IIIs have received point-of-care Pima CD4 machines from the Ministry of Health (MoH). Demand for services has been created and both medical and lay service providers have been trained to provide quality services and conduct cross referrals between health facilities and communities. However, there are still key outstanding challenges, as highlighted in Text Box 1 below. Given these challenges, STAR-EC in PY6, embarked on a portfolio of key interventions to be delivered to target sub-populations.

TEXT BOX 1: KEY OUTSTANDING CHALLENGES IN EAST CENTRAL UGANDA

- ▶ High HIV prevalence of 5.8% (the estimated number of PLHIV in the region is 90,000 of whom only 40,660 (approximately 45%) are currently in care (by Q3, PY6)
- ▶ HIV prevalence not uniform across the nine districts with lakeshore and island districts like Namayingo having a high prevalence of 10.3% compared to 2.6% for Kaliro in PY3
- ▶ High level of multiple concurrent sexual partnerships (MCPs) estimated at 26% among men (UDHS 2011)
- ▶ High prevalence of MARPs in the region (mostly fisher folk, commercial sex workers and truckers)
- ▶ The prevalence of circumcision in the region is estimated at 56.6%.
- ▶ Zonal TB reports for 2013 show TB case finding at only 53% (NTLP)

2.0 PRIORITY INTERVENTION AREAS DURING PY6

2.1 HIV TESTING AND COUNSELING (HTC)

During program year six, STAR-EC continued with its integrated approach to service delivery and used HTC as an entry point into all other HIV prevention and care interventions. Special focus was placed on targeting key populations such as fisher folk, truckers and commercial sex workers at known ‘hotspots’. Couples (both married and co-habiting) and ‘boda boda’ motorcyclists were also targeted. The details of the focus areas and results achieved within HTC service delivery are provided in subsequent sub-sections.

TEXT BOX 2: HTC STRATEGIES UTILIZED DURING PY6.

- ▶ Task shifting using RTC volunteers trained to offer PITC in 42 high volume sites
- ▶ HBHTC by expert clients for household members of index HIV clients
- ▶ HBHTC targeting dwelling places of Orphans and vulnerable children
- ▶ Targeted monthly integrated HTC community outreaches e.g. couple week, moonlight and scenario events for truckers and sex workers
- ▶ Integrated Island HTC outreaches for fisher folk
- ▶ Free standing outreaches targeting out-of-school youth primarily ‘boda boda’ riders

2.1.1 Increasing access to HTC services

Various strategies as presented in Text Box 2 were used to target the different sub populations with HTC services and all of these contributed to a total of 955,182 clients accessing HTC, a 122% achievement over the PY5 annual target (n = 781,100). Table 2 illustrates access by population group while Figure 1 illustrates

trends of HTC and HIV prevalence by program year. Further analysis of HIV positivity trends by district also shows that all supported districts registered a decline in HIV positivity. While the Uganda AIDS indicator Survey 2011 reported a decline in HIV prevalence in the East Central Uganda from 6.5% to 5.8% in the general population, routine HMIS data on this indicator shows a decrease from 5.4% in PY3 to 2.7% and 2.1% in PY5 and PY6 respectively.

Table 2: HTC outputs by population group vs. PY6 target

Category	PY6 Achievement	Annual Target	% Achievement
General population	549,709	325,000	167%
Couples (excludes couples from VMMC settings: 6,102 individuals)	121,019 (or 127,121 including VMMC couples)	224,100	57% (numerator includes VMMC couples)
VMMC males only	112,645	130,000	87%
Female involvement (VMMC)	14,777		
Male involvement (PMTCT)	19,970		
Pregnant women including PNC and known & documented results	137,062	102,000	134%
Total	955,182	781,100	122%

Figure 1: HIV testing and positivity, PY1 - PY6 (excluding PMTCT services numbers)

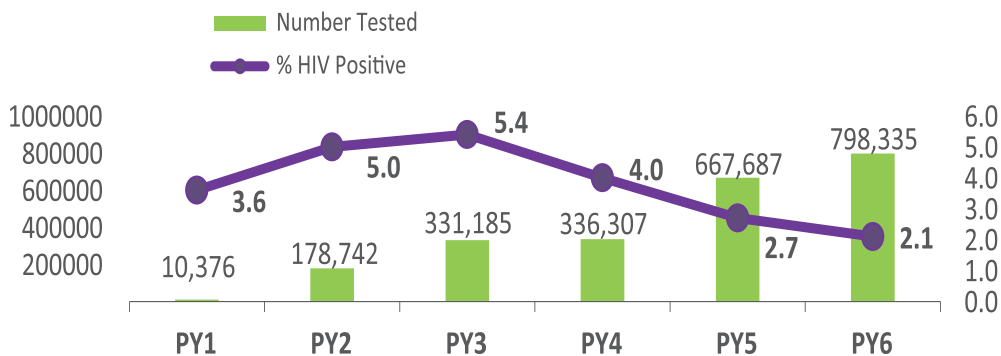
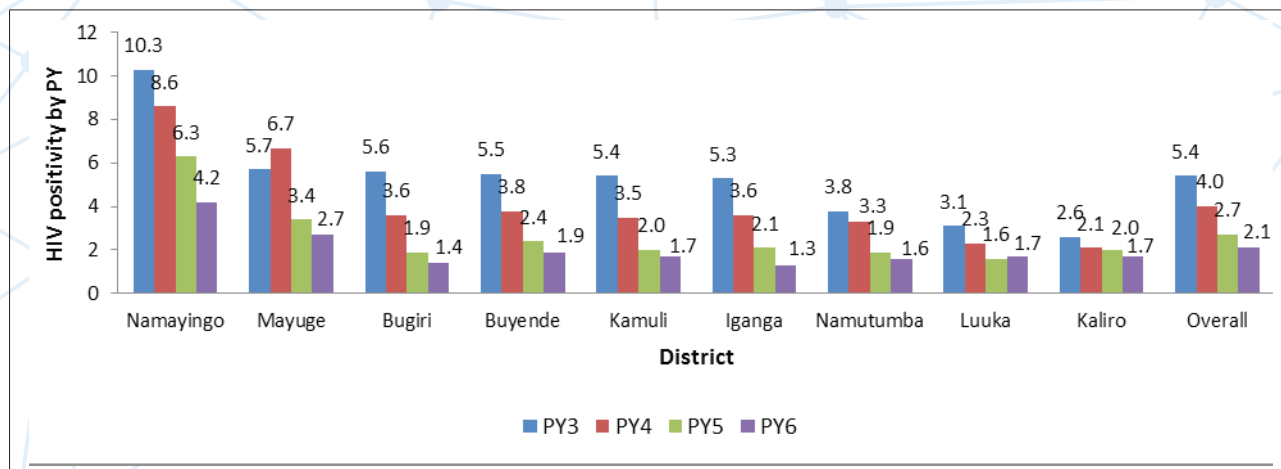
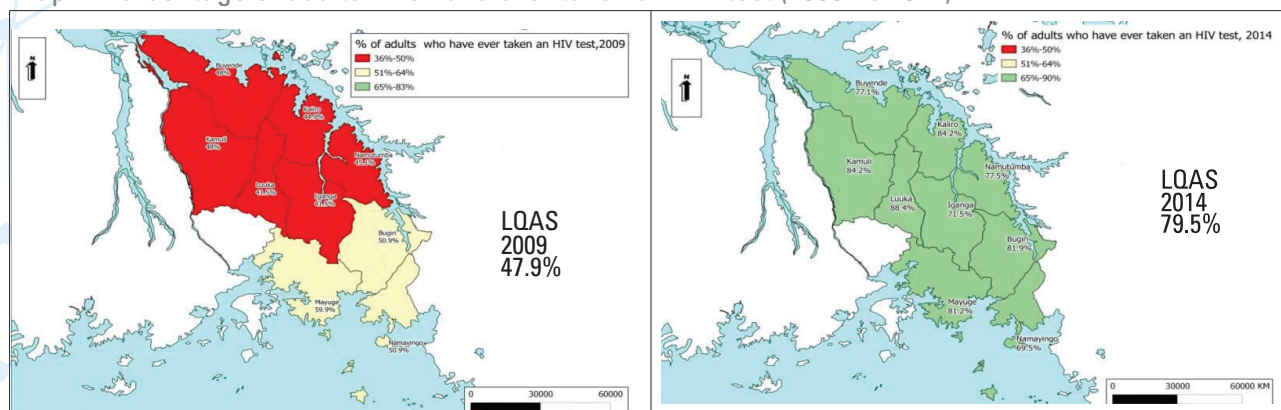


Figure 2: Trends on HIV positivity, by district and program year



Map 1: Percentage of adults who have ever taken an HIV test (2009 Vs 2014)



Source: HMIS/ STAR-EC program records

2.1.2 Increasing geographical coverage of HTC services

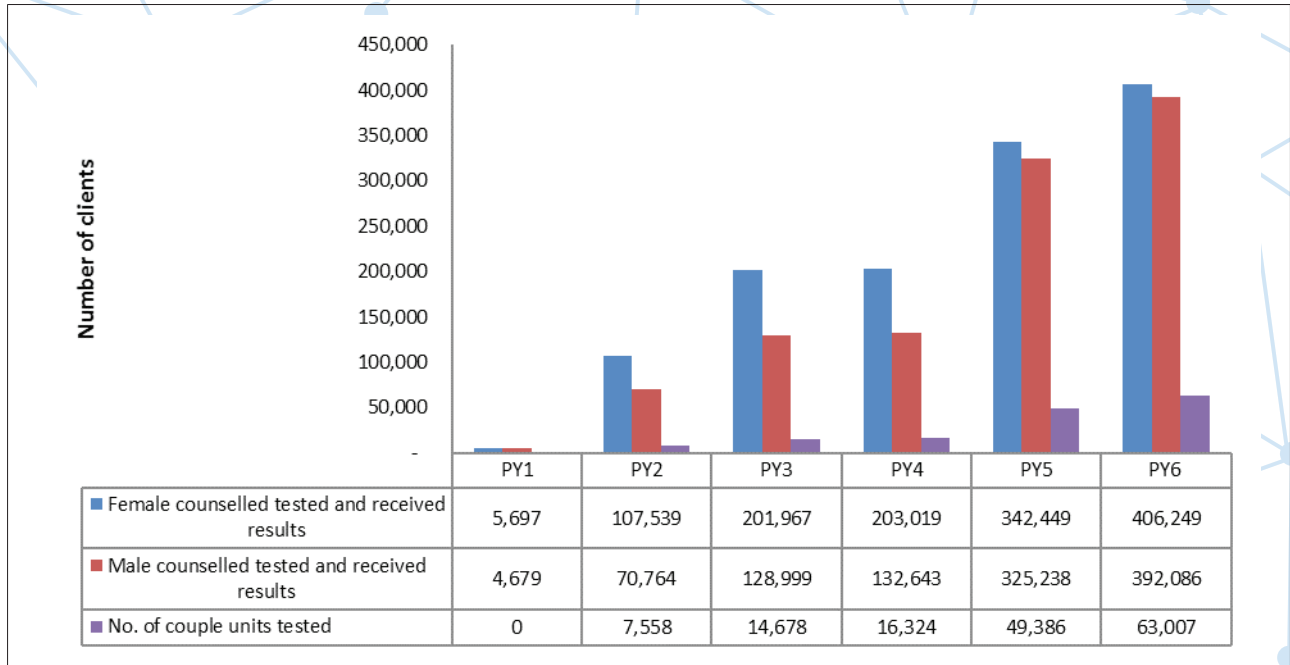
During PY6 a total of 127 health facilities - 4 hospitals, 12 HCs IV, 72 HCs III and 39 HCs II in the East Central region offered HTC services through static and outreach sites as compared to only 35 health facilities during PY2. Overall a total of 4,082 integrated HTC outreaches were undertaken in 381 high HIV burden yet underserved parishes across the nine districts during the program year. Map 1 illustrates the increase in the proportion of adults who have ever taken a test from 47.9% in 2009 to 79.5% in 2014 (STAR-EC LQAS survey results). In this regard only Namayingo district has a proportion less than 70%, a situation attributable to the challenging geographical access owing to a big number of hard-to-reach places mainly Sigulu islands. As a consequence 25,377 female and 25,214 male fisher folk in Mayuge and Namayingo districts were reached with HTC services with 6.7% and 5.1% of them turning out HIV positive respectively.

2.1.3 Increased utilization of HTC services

Monthly integrated couple week HTC outreaches have dramatically increased access to and use of HTC services in the East Central region. After reviewing key data, it became clear that increasing the frequency of the outreaches from quarterly (as done in PY3 and PY4) to monthly (as done in PY5 and PY6) increased both the numbers of couples reached and the number of men accessing HTC services (to nearly equal the number of women accessing the services annually). Between PY4 and PY6, the number of females reached with HTC doubled and the number of men tripled. The number of couples accessing HTC services during this time period increased fourfold. Of course, operational research is needed to fully understand all factors that may have contributed to these results. Due to some implementation challenges (e.g. financial slowdowns in Q1 and Q3 that mainly affected outreaches) in PY6, the program was not able to reach its annual couples target. However, the percentages of couples reached in PY6 did increase over PY5: 57% in PY6 compared to 53.3% in PY5. Of the 63,007 couple units who accessed HTC during PY6, 56% were as a result of integrated couple HTC outreaches. 1.2% of these couples were concordant positive while 0.7% were discordant. Overall, out of all the 18,852 positives identified during HTC, VMMC, PMTCT, 89% were provided with cotrimoxazole while 61% were enrolled into care.

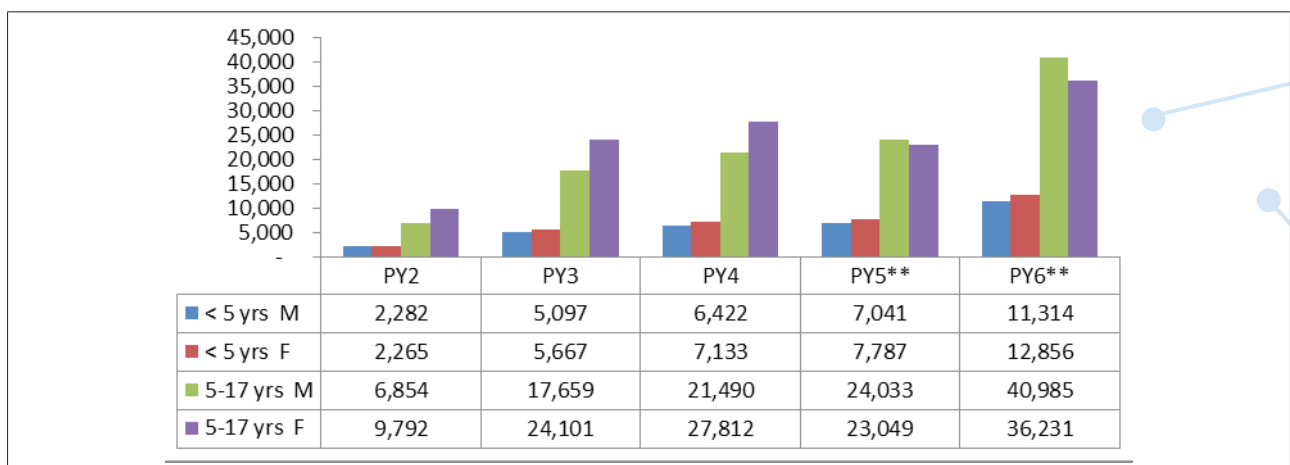
Figure 3: Integrated couple week outcomes by program year and gender

How increased frequency on integrated couple week activities has helped increase male involvement in HTC uptake



During PY6 a total of 101,386 children (0 – 17 years) were reached with HTC services, an achievement of 139% of the PY6 annual target (n = 72,672). A comparison of the performance from PY2 – PY6 shows that there has been a fivefold increase in the number of children accessing HTC as detailed in Figure 4.

Figure 4: Uptake of HTC by boys and girls 0-17 years by program years



** HMIS reporting tools revised

Source: STAR- EC program records

Lessons learnt

- ▶ Integrated couple week HTC outreach is a key approach in reaching couples in the community
- ▶ RCT volunteers are a key task shifting resource that has helped the program roll out provider-initiated testing and counseling

(PITC) to 43 high-volume sites (hospitals, HC IVs and some HC IIIs).

- ▶ Combination prevention, EMTCT as well as targeted and high-impact integrated HIV testing and counseling services that are undertaken regularly have over time been associated with an apparent drop of HIV positivity across the region, including the islands.
- ▶ The dropping HIV positivity across the region means that the program has to continuously rethink/adapt its integrated HTC strategy to correctly target the high HIV burdened yet underserved and hard-to-reach key populations in the hotspots.

Challenges:

- ▶ During the integrated island outreaches, some people refuse same-day enrollment and linkage into care/ART despite the best efforts of health workers, owing to reasons including denial and preference of mainland ART sites, which makes it difficult to follow-up and ensure eventual linkage.
- ▶ HIV test kit supply from NMS has consistently been outpaced by the demand despite the health facilities ordering correctly and timely. As a result, HTC services are predominantly undertaken at hospitals, HCs III and IV, with the CSOs and HCs II struggling with persistent stock outs.

Way forward:

- ▶ The program will scale up strategies that have proven to increase HIV 'positivity yield' and at the same time increased male involvement/uptake of care services such as PITC and targeted integrated outreaches (Couple HTC and island outreaches)
- ▶ The program will work closely with districts, NMS and MOH to further improve on the correctness and timeliness of the health facility orders while at the same time exploring avenues to ensure that high volume sites access emergency order facilities in case of a stock out.
- ▶ While working closely with expert clients and VHTs the program will continue to improve on community messaging related to the importance of early enrollment, adherence and retention onto care and treatment of HIV positive clients.
- ▶ The program will prioritize provision of adolescent friendly services at both community and facility level through the use of trained health workers and adolescent peers to actively triage and link adolescents to community and facility focal care points as well as the follow up of enrolled adolescents missing key care

appointments

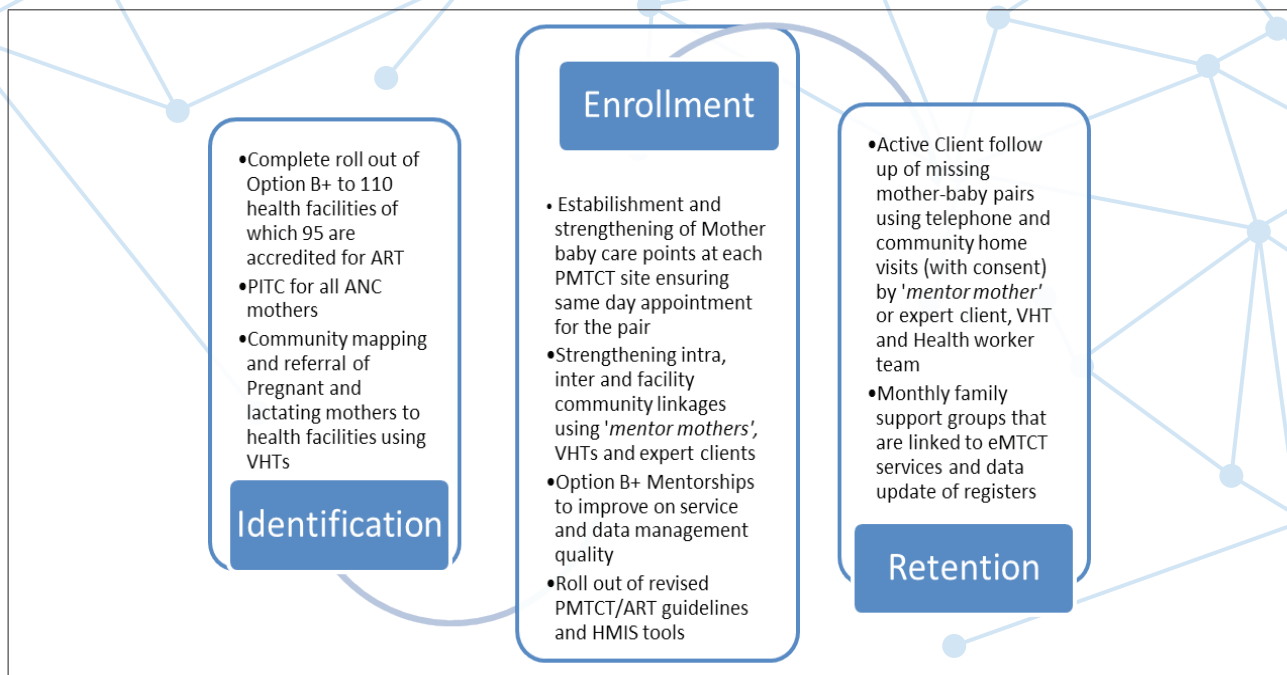
2.2 ELIMINATION OF MOTHER TO CHILD TRANSMISSION OF HIV

During the period October 2013 – September 2014, STAR-EC intensified eMTCT service implementation using Option B+ across 110 health facilities in the 9 districts. Of these, a total of 95 health facilities are now accredited by MOH to offer ART. As a consequence to the roll out of the new guidelines by MOH in July 2014, STAR-EC supported mentorship of 602 health workers from 30 high volume health facilities (4 Hospitals, 12 Health centers IV and 14 health centers III) in the use of the new guidelines and related HMIS during PY6. A total of 65 health facilities will be mentored in Q1 of PY7 (October – December 2014). In the meantime STAR-EC also supported Option B+ mentorships/on job coaching at all 110 supported health facilities to ensure quality service implementation and data management. Following scale up of option B+ up to high volume HCs II, STAR-EC during PY6 supported construction of 15 placenta pits at HCs II (4 at landing sites and 11 in island HCs II) in a quest to further increase eligibility for ART accreditation and eventual upgrade to HC III status. This section therefore highlights the Option B+ implementation outcomes in accordance with the four World Health Organization elimination of mother-to-child transmission (eMTCT) prongs.



Health worker taking off a DBS sample for DNA PCR

Figure 5: Key Option B+ activities undertaken during PY6



2.2.1 Prong I: Primary prevention of new infections in women of child bearing age

During PY6 a total of 110 health facilities (4 hospitals, 12 HCs IV, 67 HCs III and 27 HCs II) in the region offered HTC as the entry point into the wider behavioral, biomedical and structural prevention, to pregnant women during ANC. In order to achieve this STAR-EC supported task shifting at high volume health facilities using RTC volunteers and 'mentor mothers'. Further, STAR-EC working closely with village health teams (VHTs) supported the mapping, referral and follow up of pregnant women in the community primarily to increase access and utilization of ANC services including HTC. As such, a total of 137,062 received HTC for PMTCT purposes during PY6 (See Map 2). Of these 112,847 accessed HTC during ANC; 9,860 during labor and delivery; 12,372 during PNC while 1,983 turned up for 1st ANC with known and documented HIV positive results. Similarly a total of 19,970 males were tested and received their results together with their pregnant women during the period and 1.1% were HIV positive. Overall HIV positivity among new testers at ANC and all women (including known and documented HIV positive) has consistently been reducing each year from PY2 to PY6 (as shown in Figure 6 a& 6b).

Map 2: % of biological mothers of children (0-24 years) who reported having taken an HIV test during their last pregnancy for PMTCT purposes

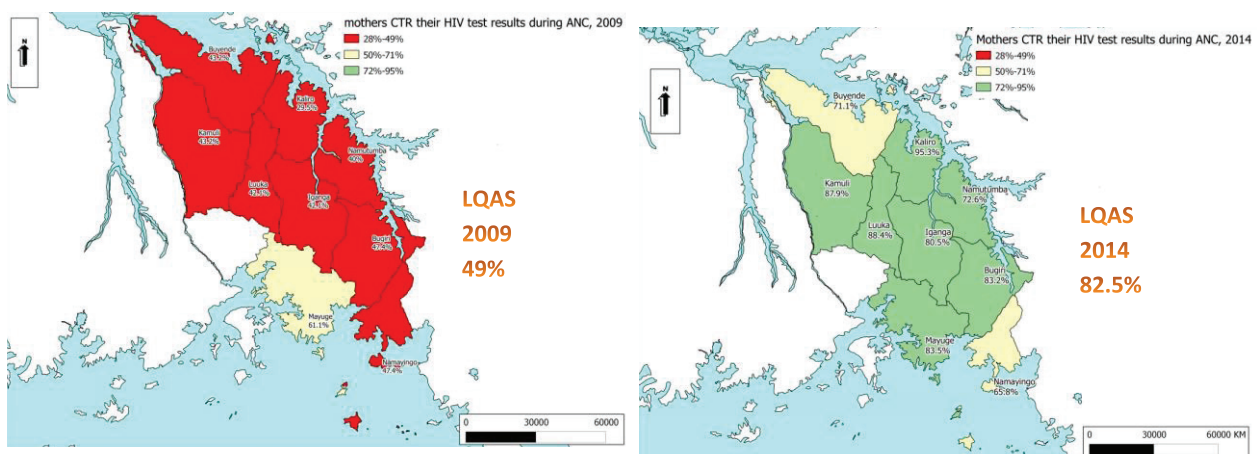
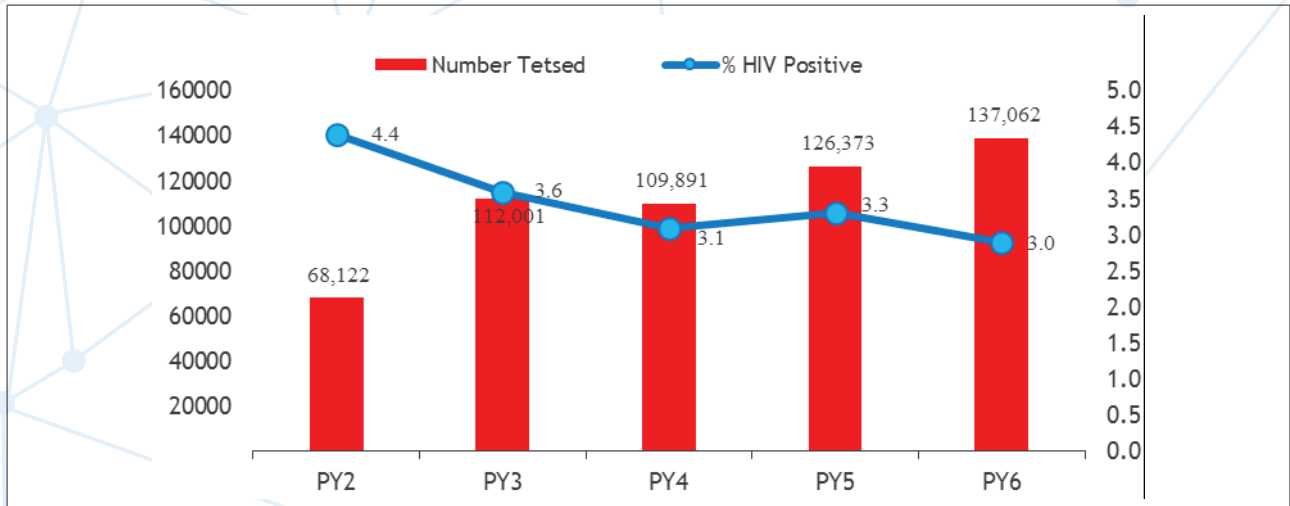
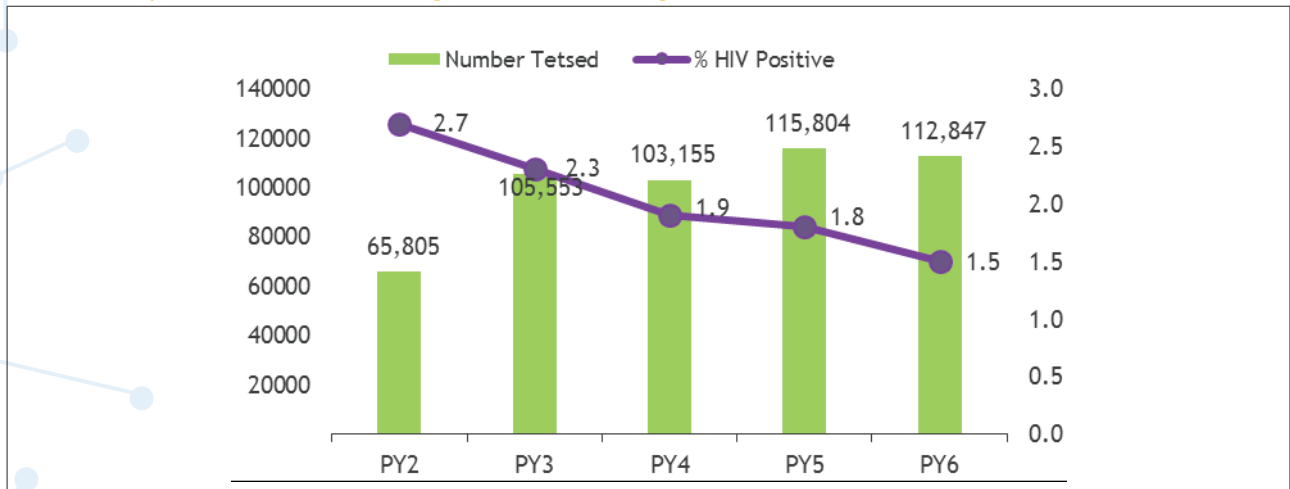


Figure 6: HTC and Prevalence of HIV among pregnant women

A. HTC and prevalence among all pregnant women (including ANC, L&D, PNC and known and documented status)



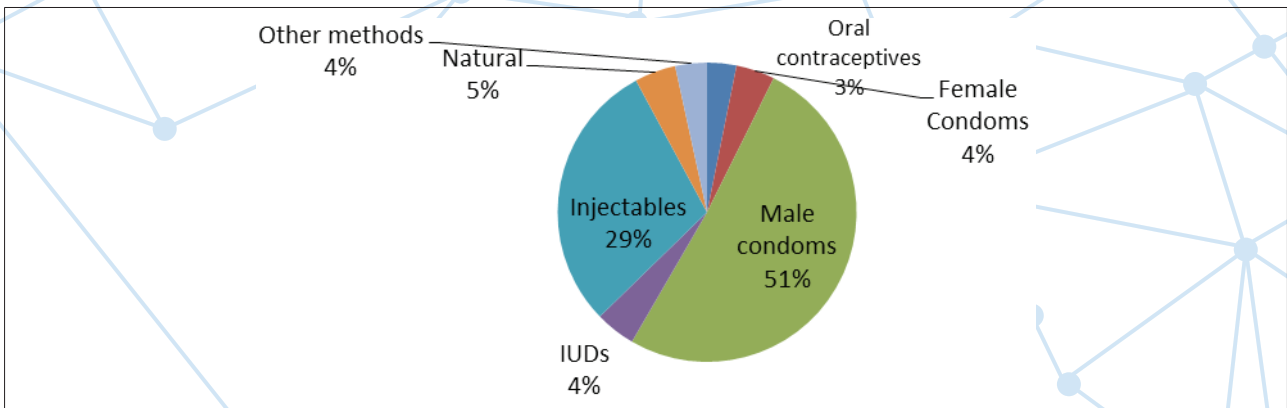
B. HTC and prevalence HIV of among new testers during ANC



2.2.2 Prong II: Prevention of unintended pregnancies among women living with HIV

During the program year, a total of 68,278 women in the region accessed family planning services among which 3,297 were HIV positive. To achieve this, FP services were offered in an integrated manner at both facility and community levels. This outcome is compared to a total of 37,622 first visit clients in PY5 who received FP services and of whom 6,972 were HIV+ women. Though the uptake of FP services for women (15 – 49 yrs) in the region increased between PY4 and PY5 from 27.2% to 32.9% respectively, it has stagnated at 32.6% during PY6. Figure 7 details the uptake of the various FP services in the region during PY6.

Figure 7: Uptake of the various FP methods in East Central region during PY6



Source: HMIS/STAR-EC program records

2.2.3 Prong III: Prevention of MTCT among HIV positive pregnant women

During PY6 a total of 110 health facilities were supported to offer eMTCT and EID services using option B+ of which 95 are accredited to also offer ART services. Pursuant this effort, the 13 non- accredited sites (HCs II in the islands) were served by the accredited sites using an outreach mode monthly. During PY6 the region managed to exceed the bench mark (90%) for enrolling HIV positive mothers on ART as detailed in Figure 8. The drop in proportion of exposed babies enrolled onto Nevirapine syrup at birth is as a result of the stock out suffered by the region during the period October – December 2013. Figure 9 shows the progressive decline in HIV positivity among HIV exposed children from PY2 – PY6 as result of improved intra, inter and facility community linkages for the eMTCT-EID services through the strengthening of ‘mother baby’ care points, support for FSGs at all PMTCT sites and regular Active client follow up (ACFU). Further the achievement of full roll out of Option B+ (treatment for life) has drastically increased the proportion of HIV positive pregnant mothers on ART.

Figure 8: Proportion of HIV Positive pregnant women and exposed babies on ARV prophylaxis (PY2 - PY6 Vs National Option B+ bench mark)

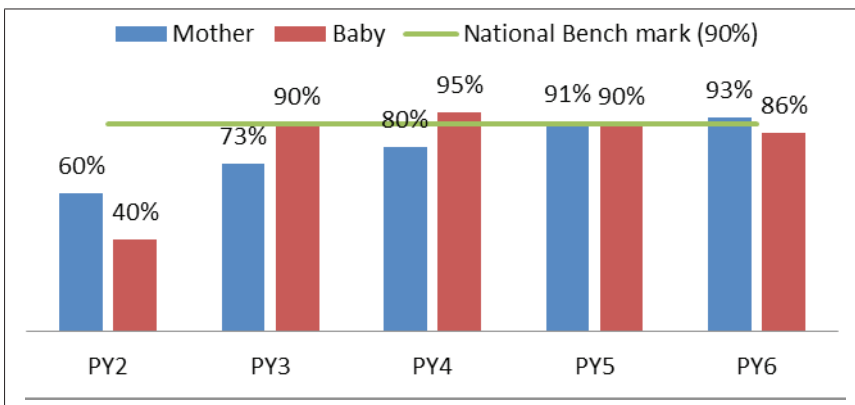


Figure 9: First PCR-DNA testing among HIV exposed babies, PY2-PY6

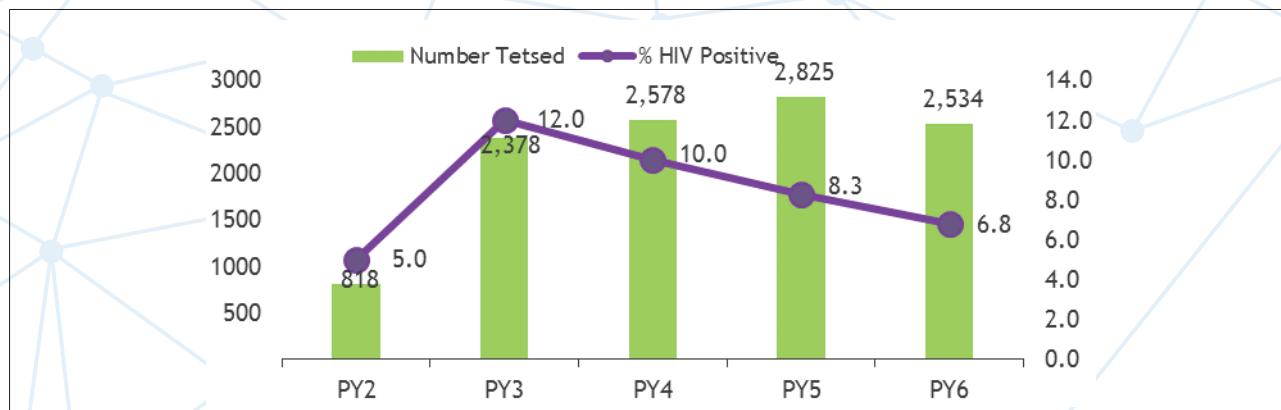
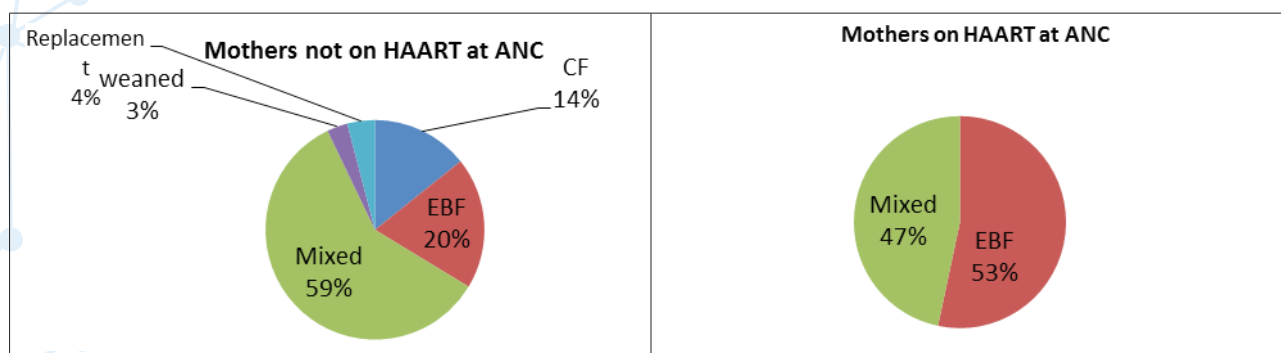


Figure 10: Breastfeeding practices of HIV+ babies (n = 130) born to;



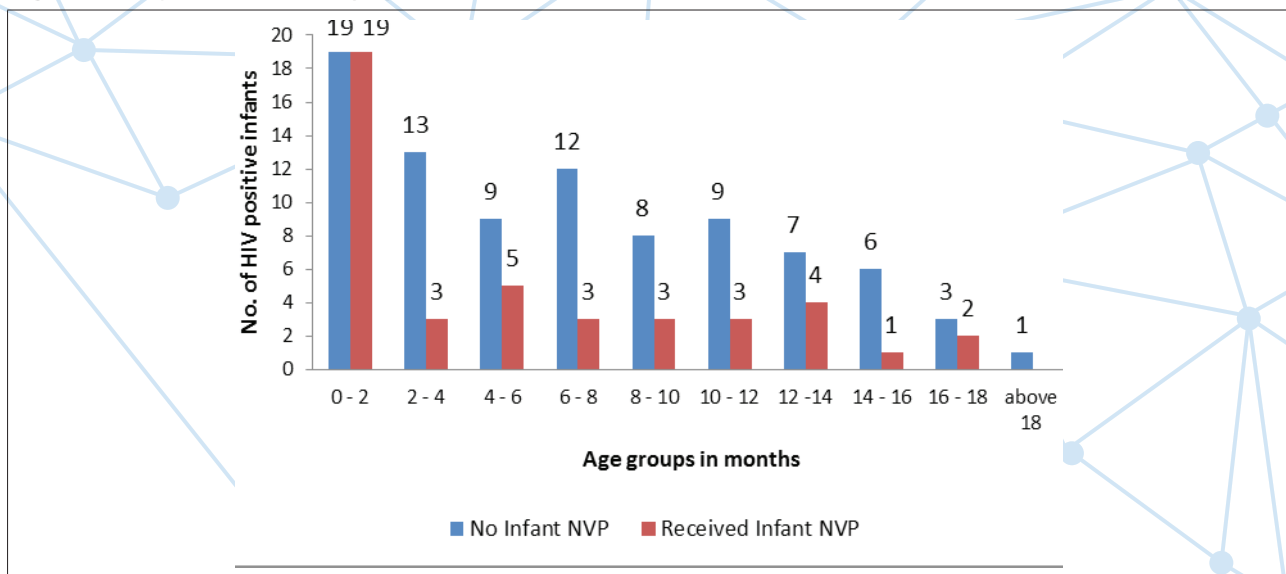
2.2.4 Prong IV: Provision of care, treatment and support to women living with HIV and their families

During PY6, the program using the ‘mentor mother’ model continued to strengthen referral, linkage and retention in order to maximize adherence of the ‘mother baby pair’ on the eMTCT-EID continuum of care. As such, the program supported the establishment of mother baby care points, strengthened use of appointment books, adopted same day appointments for the ‘mother baby pair’, facilitated family support group meetings; and using active client follow up (ACFU) traced missing mother baby pairs and linked them to facility based care and treatment services in all PMTCT sites. In addition, while using VHTs, the program undertook mapping, referral/follow up of pregnant and lactating mothers in the community.

2.2.4.1 Enhancing ‘mother-baby’ pair access to and retention in Option B+ using the mentor mother’ model

During PY6, STAR-EC continued to utilize the ‘mentor mother’ model in the delivery of client-centered, comprehensive education and psychosocial support, linkages and retention for HIV-negative pregnant and HIV positive pregnant and lactating women. The ‘mentor mothers’ use their eMTCT experience, to support pregnant and lactating women using daily group health education talks, individual and couples peer education and support sessions.

During PY6, all 94 ‘mentor mothers’ received additional training and mentorships in TB, nutrition and HIV risk reduction counseling. As a consequence, 8 clients were diagnosed and treated for active TB disease and 9 clients were treated for malnutrition. Given the persistently higher MTCT rate in the region compared to the national bench mark of 5%, the program undertook a review of a sample of HIV infected babies (n = 130) to try and understand the characteristics of the HIV positive ‘mother baby pairs’ as a preliminary step towards mitigating the situation. As illustrated in figure 10, of the 130 HIV positive babies, a total of 100 exposed babies were delivered by mothers who did not access Option B+ with only 30 babies being born to mothers who accessed Option B+. A further look at the their breastfeeding characteristics, 59% of those babies born to mothers not accessing Option B+ were mixed- fed with only 20% of them accessing exclusive breast feeding at the time of the DNA PCR test. Of those whose mothers accessed Option B+ during ANC (n = 30), 53% were exclusively breast fed.

Figure 11: Age and ARV Prophylaxis characteristics of 130 HIV Positive babies at DNA PCR diagnosis

Further analysis of the 130 babies (figure 11) shows that up to 38 of them were diagnosed HIV positive at 2 months of age despite 50% of them having received timely Nevirapine syrup. Interestingly with increasing age of the babies, access to Nevirapine syrup resulted into fewer HIV positive babies. A closer look at the characteristics of the 38 babies diagnosed HIV positive at 2 months and below showed that 26 of their mothers did not access Option B+ during ANC and presented to the clinic during PNC. Of the 12 that accessed Option B+ during ANC seven mothers accessed ANC during the second trimester while five did so during the third trimester (meaning that early enrollment onto ANC and Option B+ as stipulated in the new eMTCT guidelines is key to the mitigation of MTCT).

In this regard, the 'mentor mother' model has adopted the community approach on top of the facility based one to further enhance early identification, enrollment, referral and retention of the HIV positive pregnant and lactating mothers in the eMTCT continuum.

To further illustrate the synergy that 'mentor mothers' bring into the eMTCT program in East Central Uganda, an external evaluation of the model was conducted primarily to compare the standard eMTCT care using control sites from mid-western Uganda with the 'mentor mother' model. The evaluation findings suggest that 'mentor mother' client interactions are associated with better eMTCT outcomes (including lower infant HIV positivity rates), psychosocial (PSS) wellbeing and empowerment, and that the intervention is cost-effective and cost-beneficial in terms of HIV infections aversion and PSS well being respectively.

Success story

A mentor mother's support to a discordant couple



Mentor mother supporting Justine and her spouse during a recent home visit.

Nakiganda Justine was admitted to Iganga Hospital for a caesarian section in July 2014. During earlier months, she had tested HIV positive, but had failed to disclose her sero-status to her husband.

Unfortunately, during hospitalization, her husband was shocked to find anti- retro viral drugs in her personal belongings at home.

"On return to the hospital he furiously asked me for an explanation. In fear, I denied the drugs were mine and insisted that I was only supporting a friend who was not comfortable taking her drugs home for fear of being beaten by her husband," said Nakiganda

Not satisfied with the explanation, Nakiganda's husband insisted on taking a couple HIV test after her operation. It turned out that they were discordant. The thought of living with an HIV positive partner did not sink in well with Nakiganda's husband who insisted on separation.

It is at this point that the mentor mother and midwives came in to support the discordant couple with persistent one-on-one counseling at the facility prior to discharge and at their home following discharge,

After this intervention, Justine's husband finally softened his position regarding the separation and consequently agreed to enroll with his wife into a family support group. As luck would have it, the baby's first DNA-PCR test at six weeks was HIV negative much to the delight of the couple and the supporting mentor mother. With renewed hope, Justine's spouse is now supporting her and their baby to attend all eMTCT- EID appointments to ensure that their baby remains negative. He encourages Justine to take her ARVs daily and on time. Their marriage has been further strengthened with the revelation that their other four children are HIV negative.

"I am grateful for the support accorded by mentor mothers at Iganga District Hospital that helped stabilize my marriage, and have an HIV negative baby despite being in a discordant relationship with my husband," Justine narrated.

Key lessons learned

- ▶ Operationalization of the 'mother-baby' care points at all Option B+ health facilities in the region has not only ensured same-day key EMTCT-EID appointments for the mother and baby but also drastically minimized loss-to follow up due to the reduced number of appointments
- ▶ An integrated service delivery model helps in identifying more HIV positive lactating women who can then be provided with family planning services
- ▶ Task shifting of non-clinical but complementary roles of the health workers at MCH to lay health workers has improved access to key reproductive maternal, neonatal, and child health (RMNCH) interventions
- ▶ Community mapping of pregnant and lactating mothers by the VHTs has led to an increment in the uptake of ANC, labor and delivery, and postnatal services in the region.
- ▶ Successful rollout of Option B+ in the region has helped to exponentially increase the number of eligible 'mother-baby' pairs accessing HAART.
- ▶ A robust linkage and referral mechanism is integral to ensuring that all 'mother-baby' pairs are enrolled, retained, and adhere to set appointments and medications across the continuum of the strategy.

Challenges:

- ▶ High PCR HIV-positivity test results in the region primarily due to 'mother-baby pairs' who did not attend ANC or go through PMTCT at all and were diagnosed during post-natal care
- ▶ Intermittent stock outs of HIV test kits and Nevirapine syrup in the region especially during Q1 of PY6
- ▶ Constant revision of the policy guidelines and the requisite HMIS tools by MOH has been associated with increased tools reproduction and training/mentorship costs at a time when the program should be consolidating its PMTCT efforts.

Way forward:

- ▶ STAR-EC during October – December 2014 period, will focus on early identification, enrollment and retention of HIV-positive pregnant and lactating mothers with particular emphasis on the young positives onto Option B+ during ANC
- ▶ Having registered an increased uptake of ANC, maternity and delivery services at facility level as a result of community mapping by the VHT, the program will continue to support the integration of client follow up and home-based HTC into mapping and targeting of pregnant and lactating mothers in high HIV burdened but underserved locations.

2.3 Voluntary medical male circumcision (VMMC)



Service providers at Bugiri Hospital undertaking VMMC using Prepex devices following training by Makerere University Walter Reed Project

During PY6, the roll out of VMMC services in order towards reaching an annual target of 130,000 circumcisions including 1,500 prepex device circumcisions was done through static clinics, weekend outreaches and circumcision camps. The targeting was guided by GIS mapping of coverage using annual LQAS results. STAR-EC prioritized increasing access to VMMC services to three low coverage districts of Kaliro, Buyende and Luuka while maintaining reach in the other six districts. The program tracked the roll out of prepex circumcision during the active surveillance phase to inform her own roll out of the passive surveillance phase. To this end, STAR-EC supported training of 47 service providers to address attrition among whom 12 were trained in conducting prepex circumcision. USAID's centralized procurement system provided 96,990 pre-packaged disposable VMMC kits, 1,500 prepex devices as well as three fully constituted emergency response kits for new VMMC sites. All VMMC clients accessed a minimum package of services including; HTC, STI screening and treatment and counseling on safer sexual practices including receiving condoms. STAR-EC conducted a training for radio presenters in East Central Uganda to equip them with information to guide their programs and mobilization

for VMMC services. VHTs from Bugiri and Iganga received skills building towards increasing demand for VMMC especially focused on prepex circumcision. They were engaged in rapid community mobilization, education and referral of clients for VMMC services specifically skewed towards rapidly scaling up demand for prepex.

2.3.1 Scaling up VMMC while ensuring quality service

VMMC Quality assurance and improvement activities were implemented in joint collaboration with the Applying Science to Strengthen and Improve Systems (ASSIST) and the jointly supported sites were increased from three to five including; Bugiri Hospital, Buyinja HC IV, Nsinze HC IV, Bumanya HC IV and Nankandulo HC IV. From this collaboration, STAR-EC scaled up QI interventions to the remaining 17 supported sites.

STAR-EC received technical support from an inter-agency PEPFAR team which conducted an External Quality Assurance exercise at Bugiri Hospital and Buyinja HC IV. Lessons taken from this exercise were utilized by the program to make improvements in organization and quality of VMMC services. The program benefited from an inter-agency external Data Quality Assessment conducted by PEPFAR head quarter team.

During PY6, STAR-EC printed and distributed the revised MoH VMMC reporting tools for each of the supported sites. VMMC sites received joint support supervision from MoH and ASSIST to ensure adherence to national minimum standards of procedure for VMMC services.

Four STAR-EC supported sites participated in a regional and a national VMMC quality improvement learning session where site-specific good practices and experiences including how to improve follow-up rates, increasing demand for VMMC, and improving records management were shared. STAR-EC in collaboration with ASSIST conducted four rounds of mentorship and assessments where a number of sites were assessed against standard QI indicators. Gaps emerged in two areas including; Supplies, equipment & environment and Monitoring & Evaluation (see table 3). The program worked with sites through coaching visits towards management of VMMC supplies and stock as well as in recording and reporting outputs of the male circumcision program. During PY6, STAR-EC procured 17 remodeled tents; this increased quality of services during outreaches to lower level Health Centres where space constraints affected privacy, aseptic conditions, cleanliness, and safety.



L-R: A surgeon and one of the beneficiaries of the prepex method. One of the strategies for educating people about services was through use of satisfied clients.

Table 3: A QI dashboard for period July-September 2014

	Health Unit	Management systems	Supplies, equipment & environment	Registration group education and IEC	Individual counseling & HIV testing	Male circumcision surgical procedure	Monitoring & evaluation	Infection prevention
1	Kamuli Hospital	80	83	67	NA	NA	71	90
2	Iganga Hospital	70	67	83	100	90	79	91
3	Namungalwe HC III	80	67	NA	NA	NA	71	85
4	Kityerera HC IV	70	67	83	89	85	64	77
5	Kiyunga HC IV	90	67	NA	NA	NA	79	85
6	Bulesa HC III	70	50	67	100	91	78	90
7	Bugaya HC III	70	50	75	NA	84	64	80
8	Nankoma	70	67	83	100	81	78	100
ASSIST Supported Sites								
9	Nsinze HC IV	90	100	100	NA	NA	79	85
10	Buyinja HC IV	100	83	100	100	100	86	92
11	Nankandulo HC IV	80	67	NA	NA	NA	79	85
12	Bumanya HC IV	70	84	84	67	77	79	84

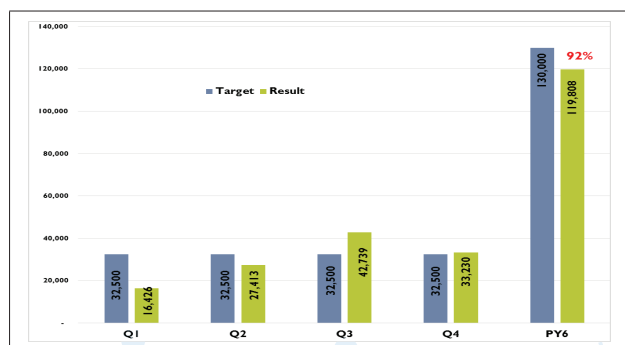
2.3.2 Scaling up VMMC while ensuring safe and appropriate waste management

STAR-EC received waste management materials including 227 waste bins and 660 waste bin liners to aid in proper waste management practices from USAID’s central procurement system. In addition, STAR-EC provided sites with a buffer stock of waste bins, bin liners, safety boxes to facilitate management of waste generated. VMMC supported sites conducted on-site waste management during PY6 due to the absence of Green Label Services (GLS) Limited, which used to support sites in collection and final disposal of metallic and pharmaceutical waste at their off-site establishment in Iganga. On-site waste management presented a lot of challenges due to the high volume of waste being generated from VMMC on top on the other medical waste from other departments yet VMMC sites have limited capacity to handle such volumes of waste.

Results

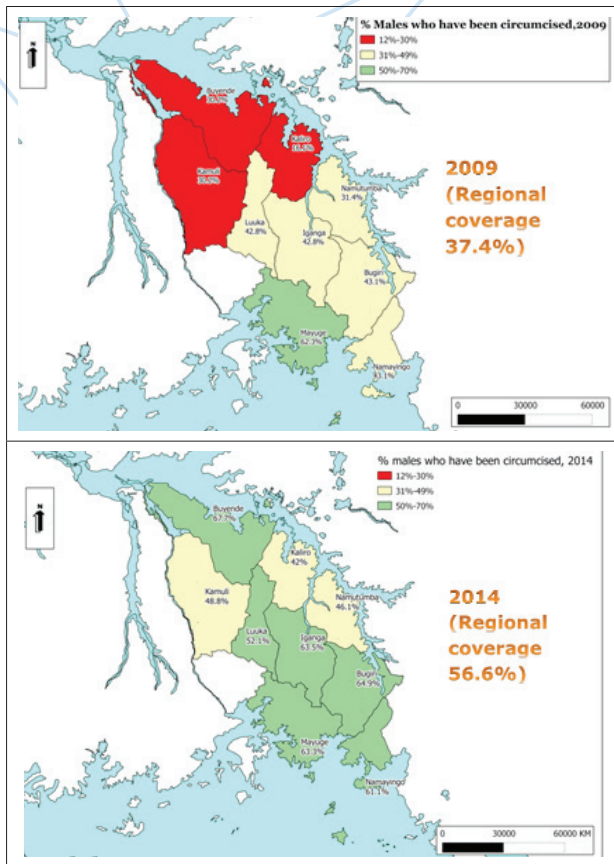
During PY6, VMMC services were extended to 119,808 clients among whom 296 were served using prepep device circumcision, see Figure 12. This achievement translates into 92% of the annual PY6 VMMC target. From the cost benefit analyses using the Decision Makers Tool developed by WHO and PEPFAR¹, this achievement points towards having averted 6,009 new HIV infections thereby contributing \$6,009,315 to the national HIV prevention effort. Of these VMMC clients, 94% accepted an HIV test and received their results among whom 97 (0.1%) were found HIV positive and enrolled into care services. Notable in PY6 was the fact that 14,780 women took an HIV test through VMMC as an entry point having escorted their male partners for VMMC services at either static or mobile outlets. Results also show that 66.5% of all males circumcised were young people age 10-24 years. Further, a comparison of LQAS results of 2009 and 2014 shows increased coverage of men who have ever been circumcised from 37.4% to 56.6% respectively (see map 3).

Figure 12: Number of males circumcised during PY6



1 “Decision Makers Tool” developed by WHO and PEPFAR

Map 3: Proportion of men (15-54) who have ever been circumcised (baseline and endline)



Source: LQAS 2014 household survey results

Lessons learned

- ▶ Quality Improvement learning sessions that were conducted in conjunction with the ASSIST project were a great avenue for inter-site transfer of innovations, especially as sites share changes or innovations to improve quality
- ▶ External DQA and technical assessment from PEPFAR inter-agency team helped the program make improvements in technical delivery of VMMC services as well as improvements in recording and reporting across all supported sites

Challenges and Way Forward

- ▶ Despite the big increase in circumcision coverage in Mayuge and Namayingo districts, their islands are characterized by high HIV prevalence rates while at the same time they still have a high number of uncircumcised males. STAR-EC will employ extended island camps as an innovation to reach every corner with VMMC services.
- ▶ The management of metallic and pharmaceutical waste was a challenge for all sites since they lacked capacity to dispose of all this waste sufficiently. STAR-EC has engaged Green Label Services (GLS) which has

reported that the central waste collection and disposal has resumed this October 2014 which will help with the backlog.

- ▶ There is a challenge on linking HIV+ identified at VMMC service points into care. Effective linkage into care of HIV-positive clients, especially for those diagnosed at VMMC outreaches since after getting their initial one-month course of septrin, they seek care and treatment at facilities of their choice.



A peer educator demonstrates condom use in Miggade Trading center - Mayuge District

2.4 Promoting sexual behavioral risk reduction and structural prevention within combination HIV prevention

TEXT BOX 3: KEY IMPLEMENTATION STRATEGIES PROMOTED DURING PY6

- ▶ Integrated outreach camps targeting hard-to reach communities (e.g., fisher folk)
- ▶ Integrated outreaches and 'scenario events' targeting 'hotspots' on the mainland including landing sites
- ▶ 'Knowledge room' based services and 'moonlight HTC'
- ▶ Continued promotion of the female condom as an alternative to the male condom
- ▶ Use of visual aids in selected recreational facilities like 'bibanda' to promote BCC
- ▶ Engaging existent community structures (e.g. BMUs, 'Boda boda' associations) to promote condom education and general HIV prevention messages
- ▶ Utilizing edutainment (e.g., 'condom karaoke' to promote condom use and address stigma
- ▶ special STI corners for sex workers,
- ▶ using innovative approach to disseminate health information that addresses the information needs of different groups using the four tent model

During PY6, combination HIV prevention was implemented in an integrated approach in which the implementing partners; the civil society organizations (CSOs) and the district health workers promoted sexual, behavioral and structural risk reduction with active

linkage to biomedical services already presented in the other section of the report. Risk reduction counseling focused on helping individuals personalize risk associated with multiple concurrent partnerships, casual and transactional sex, none condom use, gender based violence, early and forced girl child marriages as well as using HTC as an entry point to access other prevention services including VMMC, ART, eMTCT, family planning and STIs screening and treatment. Special efforts were made to reach out to key populations as well as other population at risk and the general population. Using interpersonal communication (IPC), different peer educators including village health teams (VHTs), expert clients, 'model couples' and condom promoters carried out one-on-one and small group dialogue and counseling session to promote risk reduction. Relevant job aids including flip charts, leaflets, cue cards and posters were used as reference materials during the IPC (See box 3).

Table 4: Overall coverage of the different target population reached with combination prevention over the past years and end of project life target.

Targets Vs Achievements	Program Year					Overall EoP
	PY2	PY3	PY4	PY5	PY6	
PY target (key populations)	10,000	10,000	26,000	62,400	64,400	198,900
Achievements	12,763	19,473	24,287	70,473	126,564	253,560
PY target (ABC)-	76,000	70,000	86,000	276,000	286,000	903,000
Achievements	132,011	185,776	117,858	316,003	340,484	1,092,132

TEXT BOX 4: PACKAGE OF SERVICES DELIVERED TO KEY POPULATION:

- ▶ Safer sex negotiation
- ▶ Partner reduction and off the sexual network
- ▶ Condom education and distribution,
- ▶ HTC, STI screening and referral
- ▶ Health education and linkage for family planning, VMMC, ART, &eMTCT as well as post exposure prophylaxis

Indicator	Total
Presumptive TB cases	320
Confirmed TB cases	26
Confirmed TB cases started on TB Rx	26
Family planning users	1,049
Individuals treated for STI's	931
Condoms distributed in pieces (male & Female)	735,042 (53,265 female and 681,777 male condoms)

2.4.1 Targeting key populations with HIV combination prevention

Key populations and other populations at risk including sex workers, long distance truck drivers, fishing folk and 'boda-boda' transporters were reached with a package of HIV prevention services summarized in the text box 4. Table 4 illustrates the overall coverage of the different target populations reached with combination prevention.

Table 5: Snapshot of continuum of care achieved in PY6 among key populations in Sigulu islands, Namayingo District using the quarterly integrated outreach model

Indicator	Total
No. of individuals tested and received results excluding ANC	6,492
No. HIV+	580
HIV positivity rate	9%
No of individuals newly enrolled into care	532
%Enrollment/Linkage	92%
Individuals on ART	1,620
Male reached with VMMC	1,613

2.4.2 Reducing risk among sex workers:



3rd (Middle) a trainer shares condom session with Mentor buddies' in Sigulu islands



A peer educator joins a group of truck drivers to play Draft in Naluwerere Knowledge room - Bugiri District

Sex workers, their clients and partners were reached in places and locations that were mapped out in hotspots. The following specific innovative strategies were used: working with experienced sex workers locally referred to as 'mentor buddies', integrated and special STIs corners, moonlight HTC, and through the knowledge room (Figure 13).

2.4.3 Reaching long distance truck drivers with HIV prevention services

The limited time and the busy nature of work of truckers limit their access to services. Innovative approaches such as use of recreational activities including pool table, digital satellite television (DSTV) and board games were promoted through Naluwerere knowledge room. STAR-EC worked with mobilizers locally referred to as 'brokers' from busy truck stops along the transport corridor who reached truckers in the park yards, bars, lodges and video hall with condom education and distribution and linked truckers for 'moonlight' HTC as an entry point for other biomedical services. See figure 13 for overall results on truckers reached.

2.4.4 Targeting hard-to-reach fishing communities with combination HIV prevention

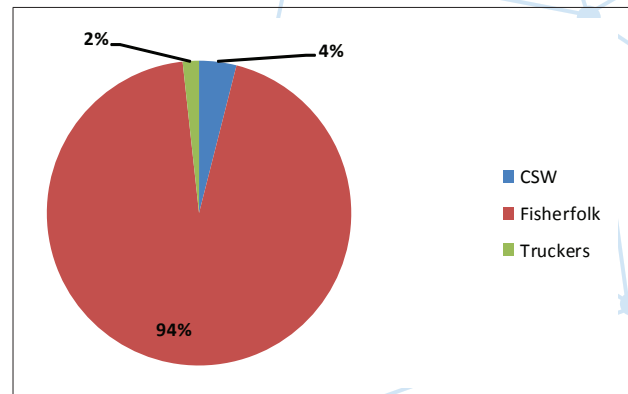


Some of the fishermen who have benefited from the program prepare their nets for work

The island based CSOs and district health teams conducted monthly integrated outreaches to landing sites and islands as well as quarterly weeklong integrated outreach camps among the fisher

folks. Another innovative approach used to reach MARPs included the 'knowledge room' at Lugala landing site in Namayingo district. Health workers, peer educators, expert clients, VHTs and the BMU worked hand in hand to offer a package of services indicated in box 4 above. Refer to figure 13 of the overall achievements.

Figure 13: Key populations reached by type during PY6



2.4.5 Innovative approach to de-stigmatize fear associated with condom use 'condom karaoke'

A word of appreciation from the people of Sigulu to the American people

...the Local council chairman Mr. Kalinda had this to say, "I recalled in the early days before STAR-EC, my office would receive reports of more than 6 deaths weekly which were attributed to HIV&AIDS. Thanks to USAID and STAR-EC; now we spend months without hearing of any HIV&AIDS related deaths. We are afraid that we will be going back to the early days when this support finally ends. The voices of my people are very loud on this; even tonight my office could raise over one thousand signatures from the people to take to the American people in appreciation and request for continued support of our community".

Condoms have been positioned as a safer sex option for both men and women engaging in transactional sex for prevention of STIs including HIV&AIDS and as a family planning tool for couples in a stable relationship. In order to reach a wider audience with condoms, edutainment (through condom karaoke2 events) were promoted targeting busy centers and hotspots. A peer approach through VHTs, 'expert clients' and peer educators were used to reach out to individuals in the community. Condom dispensers were installed at different recreational facilities to increase access to condoms. Overall a total of 126,564 key population were reached; the majority of whom were fisher folk as reflected on fig 14. The total condoms distributed among key populations were 1,484,563 pieces (68,387 female and 1,416,176 male condoms) through 1,209 condom outlets (241 static and 968 mobile sites) in the community.

2 Social promotion of condom through fun, entertainment and engagement of people into question and answer session during health education

2.4.6 Promoting combination HIV prevention among other sub populations at high risk of HIV infection (the 'Boda-boda' transporters)

Civil society organizations worked with 'Boda-boda' association leadership from all the nine districts to reach out to the 'boda-boda' transporters. The leaders mobilized the 'boda-boda' for integrated outreaches in which CSOs staff worked along with health workers from public facilities to offer a range of services highlighted in box 4 above. During PY6, a total of 16,736 'boda-boda' transporters were reached and 23% were seen more than once.

Success story

The role of a mentor buddy (an experienced sex worker's story)

Rose one of the mentors narrates how she has supported other sex workers;

Life on Sigulu islands presents its own challenges especially for the girl child who is surrounded with the vibrant, unique but dangerous lifestyle that fisher-folk on islands live. Having been born on the islands, 28 year old Rose, a mentor buddy, was faced with many difficulties and had to find a solution to making her life better.

"I have lived in Sigulu since my childhood. As a young girl, life was not always easy and as such I was forced to join sex work to make ends meet," Rose explains

She adds that in 2011, she was selected from among other sex workers and trained as a peer educator. "My major role as a peer educator is to identify young girls who come to the islands in anticipation of getting jobs but end up in the bars. I talk to them and help them understand life on the island," Rose says.

She also supports her community with condom education, demonstration and distribution. The mentor buddy elaborates that she links and follows up her peers to further support them in adhering to their care and treatment appointments.

Due to the skills obtained through training, Rose is very thankful to USAID and STAR-EC for the behavioral and life skills messages that made her decide to leave sex work. She is now an important link between sex workers, the community and health facilities. Additionally, she has started a bar in which sex workers talk, share experiences and discuss HIV prevention, family planning as well as other strategies including how to leave sex work and engage in income generating activities.

Lessons learned

Supporting implementing partners to work with more established community development structures and organizations like the Beach Management Unit (BMU) and 'Boda-boda' associations has been instrumental in building and creating sustainable networks. These structures and organizations have been linked to nearby public health facilities and they continue picking/ receiving condoms and distributing them to their peers.

Challenges

- ▶ As STAR-EC comes to a close, community leaderships for BMUs, living in hard-to reach fishing communities have expressed fears of relapse in positive behavior among the fisher folk that may escalate the epidemic in their community especially if there is no continuous supply of commodities like condoms for HIV prevention
- ▶ The highly mobile nature of the work of key populations and other populations-at-risk makes it difficult to follow up ongoing behavior change as well as adherence for those on treatment

Way forward

- ▶ Within the remaining program period, STAR-EC will engage Namayingo District, local and community leaders such as BMUs to come up with relevant community by-laws that will help to protect their communities from risky behaviors that could escalate new HIV infections.
- ▶ The program will also support improvements in the district supply chain management systems so as to ensure consistent supplies of medicines to people living with HIV&AIDS
- ▶ Community support structures like VHTs and expert clients will also be supported to continue mobilizing their peers and thereby supporting them with adherence issues

2.4.7 Targeting the general population with age appropriate behavior change communication messages within combination prevention

2.4.7.1 Promoting behavioral change in the general population

During PY6, different approaches of communication were utilized to reach the general population. This included public radio interactive talk shows, spots, DJ interludes, and announcements, a toll free hotline, and print materials with targeted messages on TB and HIV&AIDS prevention, care and treatment. Utilizing four FM radios, social promotional team and trained call center counselors were supported to raise awareness and give comprehensive knowledge in the various areas related to TB and HIV&AIDS.

2.4.7.2 Partnering with media houses to promote correct information on TB and HIV&AIDS prevention

In an effort to ensure that correct information is disseminated,

STAR-EC, in partnership with CHC, conducted an orientation for regional media presenters within Busoga region. Over 20 media houses were trained in various topics including the new prepex for VMMC.

2.4.7.3 Promoting interpersonal communication (IPC) to increase risk perception and behavior change

STAR-EC continued to work with VHTs, 'expert clients', and peer educators to offer one-on-one and/or small group discussions on various topics including multiple concurrent partnerships (MCPs), risk of HIV infection, importance of couple HTC, treatment and care, adherence, Family planning, discordance among couples, eMTCT, and VMMC, among others. Relevant IEC materials were used by peer educators to reinforce their messaging.

2.4.7.4 Utilizing toll free hotline

During PY6, STAR-EC supported the use of a toll free hotline to reach the general population. The center recorded over 4000 callers who were counseled on the various issues of their concern including: VMMC, HIV&AIDS prevention, FP, GBV, condom use, TB, malaria, and discordance, among others. A review of LQAS reports shows that the level of knowledge among the population has improved. Table 6 indicates the baseline knowledge status in 2009 as compared to 2014 results.

Table 6: Baseline knowledge status in 2009 compared to 2014

Indicator	2009	2014
Percentage of young people 15-24 who had sexual intercourse with a non-marital or non-cohabiting sexual partner in last 12 months and used a condom at last higher risk sex	64.9%**	71.2%
% of adults who can mention the 3 major ways of HIV&AIDS prevention	58.7%	72.8%
% of adults (15+) able to reject three of the major HIV&AIDS misconceptions (witchcraft, mosquito bites and sharing food)	48.3%	68%

** Baseline year is 2013 (information on indicator not collected in 2009)

2.4.7.5 Promoting combination HIV prevention for couples



A counselor in a post test couple counseling session

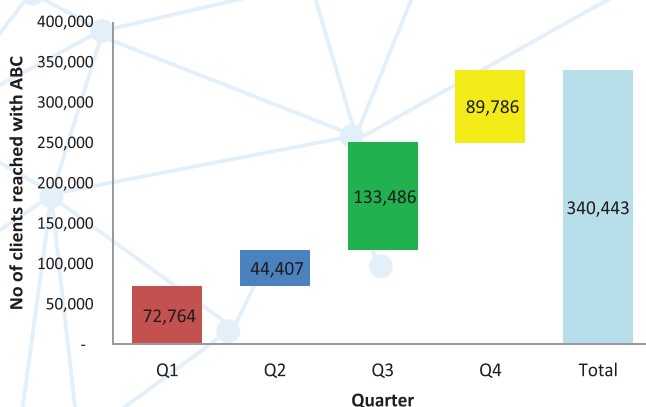
Married and/or co-habiting couples were reached using different approaches including community based peer support couple programs and couple week activities. During integrated outreaches, model couples and religious leaders supported couples to acquire improved skills to promote mutual fidelity, open spousal communication and handle marriage expectations. Additionally, peer educators and health workers supported couples to understand the risk associated with multiple concurrent partnerships, GBV dangers, importance of couple HTC and linking couples to different biomedical services. During PY6, a total of 86,175 individuals (who were part of couple units) (45% seen more than once) were reached with risk reduction counseling and linked with other biomedical services with the help of model couples.

2.4.7.5 Promoting combination HIV prevention for youth

Through different community recreational activities that bring youth together (sports, games and film shows in local cinemas - 'Bibandas'-), a total of 133,913 out- of- school youth (66,314 female and 67,599 male) were reached with combination prevention messages. Overall, 5,751 young people age 10-24 years were reached with the aforementioned messages from 'bibandas'. Peer educators used age appropriate information approaches to help youth appreciate the benefits of delaying early sexual debut. Sexually active youth were counseled on secondary abstinence, condom education and distribution. Sessions were also conducted on life skills, basic facts about HIV&AIDS, peer pressure and sexual reproductive health, among others. Efforts were made to link youth to other biomedical services as highlighted in previous sections of this report.

The overall total number of condoms distributed to the general population was 2,651,930 pieces (2,467,060 male and 184,870 female condoms). The total number of condom outlets was 4,111, of which 847 were static while 3,264 were mobile service outlets. Figure 14 illustrates individuals reached with appropriate ABC services during PY6.

Fig 14: individuals reached with appropriate ABC in PY6 by quarter



Source: STAR-EC program data

Lessons learned

- ▶ Community peer support programs are instrumental in facilitating mobilization of community members for uptake of health services during integrated community outreach programs.
- ▶ Community based livelihood support initiatives and economic empowerment for peer groups have enhanced group cohesion and sustainability of peer activities. This is achieved by engaging peer groups in income generating activities and micro credit schemes including village savings and loan associations.

Challenges

- ▶ High unemployment among young people makes them idle thereby exposing them to risky behaviors that may lead them to contract HIV.
- ▶ Rampant child related abuse and neglect especially among young girls living in hard-to reach fishing communities lead to youth out of school and forced into early marriages.

Way forward

- ▶ The program has encouraged newly formed groups to learn from existing peer groups previously established. Within their groups, peer educators, model couples and other community structures/groups like VHTs will continue to promote risk reduction counseling and linkage of community members for other health services.
- ▶ Through all the nine probation offices in the supported districts, the program has supported communities to create child protection committees that will conduct

community policing as well as enforce by-laws to improve child protection.

2.5 Care and Support

2.5.1 Integrating PHDP interventions into care

During PY6, STAR-EC maximised efforts geared towards ensuring PLHIV have a complete and healthy life while at the same time reducing transmission of the virus to others through supporting PHDP activities. Building upon training and mentorships conducted in PY5, expert clients and health workers focused on behavioural interventions. Consequently, a minimum package of PHDP services was offered as indicated in Box 5.

TEXT BOX 5: MINIMUM PACKAGE OF PHDP SERVICES;

- ▶ 514,770 condoms distributed
- ▶ 38,071 received risk reduction counselling
- ▶ 36,992 disclosed status to partner
- ▶ 26,739 were screened for Sexually transmitted infections
- ▶ 27,024 received a family planning method at last visit

These PHDP services were both community and facility based, with implementation targeting facility and community discordant couple groups as well as family support groups and other psychosocial support groups. The achievements of the PHDP package delivery are shown in table 7.

Table 7: Illustrative results for key PHDP services disaggregated by gender and type during PY6

	OLD PLHIV			NEW PLHIV			OVERALL
	FEMALES	MALES	TOTAL	FEMALES	MALES	TOTAL	
P3. Number of sexual partners tested for HIV disaggregated by type of results:							
Concordant individuals	7,821	4,572	12,393	562	467	1,029	13,422
Discordant individuals	1,677	1,219	2,896	252	221	473	3,369
P5. Number of PLHIV who received HIV transmission Risk Reduction assessment & counseling [adopt safer sex; reduce number of sexual partners; reduce/stop alcohol use]							
Adopt safe sex	27,517	7,739	35,256	1,756	1,059	2,815	38,071
Reduce number of sexual partners	8,546	4,511	13,057	1,382	1,065	2,447	15,504
Reduce/ stop alcohol use	2,292	2,218	4,510	491	536	1,027	5,537
P7. Number of condoms distributed disaggregated by:							
Male condoms						489,031	489,031
Female condoms						25,739	25,739
P8. Provision of family planning services to PLHIV							
Number of PLHIV counseled for family planning need at their last Care/ART visit	22,359	11,001	33,360	2,465	1,205	3,670	37,030
P9. Number of PLHIV who scored adherence of >95% i.e.: Good (G) at their last visit							
	36,894	17,395	54,289	2,055	1,227	3,282	57,571
P10. Number of PLHIV given a preventive Basic Care Package (BCP) starter kit, during this year							
	23,059	8,273	31,332	2,311	1,357	3,668	35,000

A total of 7,584 new Basic Care Package (BCP) kits were distributed during PY6 to improve the quality of life of the PLHIV. Overall, 40,660 clients received a minimum package of PHDP services.

2.5.1.1 Supporting young positives to live positively and minimize transmissions and reinfections:

Young people living with HIV&AIDS have challenges that affect their childhood growth and development. Most often the older young positives (those in adolescence) have fears relating to sex and sexuality. During their peer meetings, the young people are grouped according to their ages to ensure age appropriate information is disseminated. For adolescents and older young positives (10- 20 years) sessions normally focus on: helping them understand sex and sexuality; safe sex negotiation skills; maintaining healthy boy-girl relationships; avoiding unintended and early pregnancy; family planning counselling on STIs; screening for STIs and treatment; and condom education and distribution. Health workers and counsellors use the same meetings to discuss disclosure, adherence, linkage for CD4 monitoring, counselling on nutrition and screening for TB. A total of 540 young positives were supported to meet quarterly during PY6.

2.5.1.2 Reducing risk of HIV transmission among discordant couples

Couples living in discordance harbour many psychosocial issues and fears regarding how to continue living in their marriage without transmitting the infection to the negative partner. The program supported discordant couples to come together and share their experiences, fears and expectations. Health workers, counsellors and expert clients facilitated discussion on different topics including integrating HIV prevention services including condoms, family planning, HTC for the negative partner, adherence support and counselling, building skills on open spousal communication and supporting the positive partner to continue living positively. A total of 270 discordant couples were supported to meet quarterly during PY6.

2.5.2 Post Exposure Prophylaxis (PEP)

Given that the East Central region has the second highest cases of physical and sexual violence (rape/sexual assault and defilement inclusive) among women in Uganda at 61.9%¹, STAR-EC established PEP services within selected 42 ART sites. Health workers at these sites were equipped with knowledge and tools (PEP registers and PEP documentations forms) to provide PEP services. Additionally, widespread advocacy has been done through media and sensitization in organised congregations involving district leaderships that include community development officers, law

¹ Gender Equality in Uganda: A situation Analysis and Scoping Report for the Gender Development Partners Group, March 2014

enforcement officers, OVC care givers and health workers. Consequently, 91 clients received PEP services in PY6, as disaggregated below.

- ▶ A total of 30 received PEP services following occupational exposure;
- ▶ 42 received PEP following rape/sexual assault; and
- ▶ 19 received PEP following other non-occupational exposure.

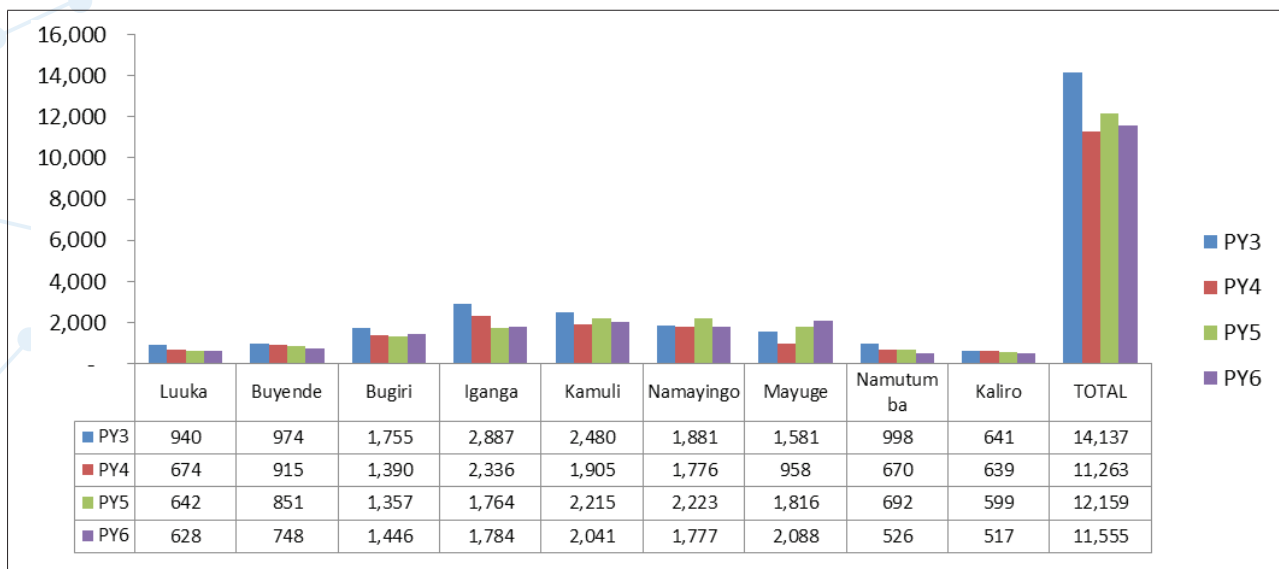
2.5.3 Nutritional Assessment Counselling and Support

During PY6, STAR-EC implemented a range of strategies to improve access and utilization of nutritional assessment counselling and support services in the East Central region. In partnership with FHI360 and district nutritionists, 97 facilities across the 9 districts were assessed for presence of nutritional tools, IEC materials and anthropometric equipment. Subsequently, 124 adult weighing scales, 109 neonatal weighing scales, 149 infantometers, 118 adult height boards and 7,364 MUAC tape measures for the different age groups were procured. Additionally, 110 nutritional integrated care registers, 100 out-patient therapeutic care (OTC) ration cards and 110 bimonthly reporting forms were procured in an effort to ease effective data entry and reporting on nutrition indicators. In partnership with RECO industries, STAR-EC continued to support the acquisition and use of ready-to-use therapeutic food (RUTF). As a result, 314 PLHIV with either severe acute malnutrition (SAM) or moderate acute malnutrition (MAM) were given RUTF.

2.5.4 Clinical Care

Implementation of clinical care services still remains a core area of intervention for the STAR-EC program. During PY6, 89% of all 18,852 people who tested positive were provided with cotrimoxazole prophylaxis, while 61% were enrolled into care. Cumulatively, at the end of PY6, 40,660 clients were active in care, 33,590 clients short of the EOP target of 74,250. In comparison to PY5, there has been some improvement in linkage and enrollment, increasing from 59% in PY5 to 61% in PY6. Additionally, 59% PLHIV are retained in care. A total of 40,660 clients (2,803 children, 12,025 men and 25,832 women) were reached with a minimum of one clinical service (cotrimoxazole).

Figure 15: Clients Newly Enrolled in Care per district (PY2-PY6) per district



Source: STAR-EC Records

TEXT BOX 6: STRATEGIES TO REDUCE ATTRITION

- ▶ Use of patient appointment books
- ▶ Phone reminders to clients who miss appointments
- ▶ Direct client tracing and follow up using expert clients and VHTs
- ▶ Improving linkage through 'linkage facilitators' at facility level
- ▶ Reinforcing adherence in FSGs and Adherence support groups
- ▶ Use of BCP starter kits

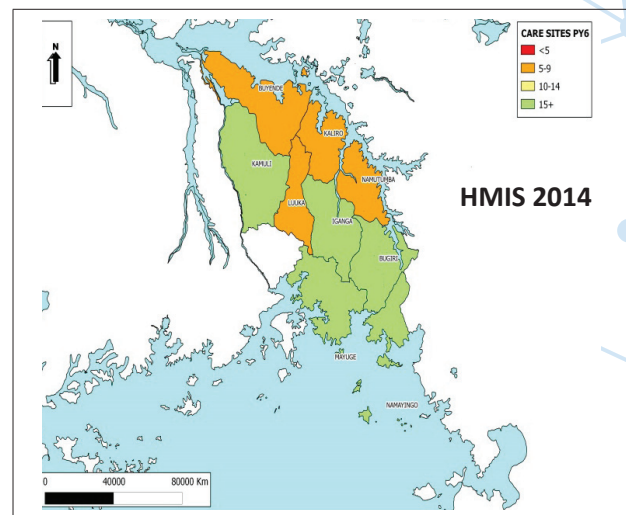
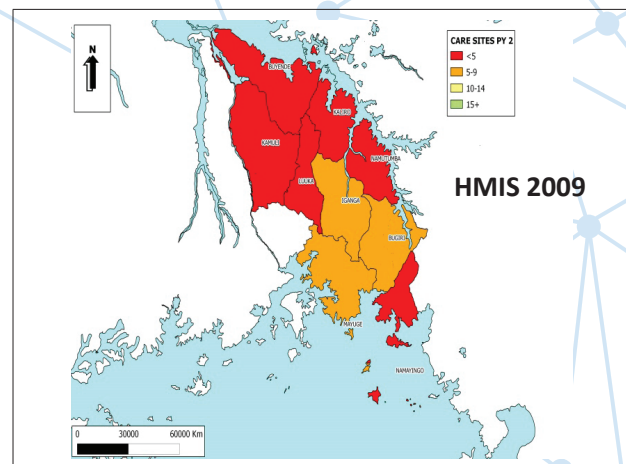
This absolute increase of retention into care by 18% from 34,517 in PY5 to 40,660 at the end of PY6 is largely attributed to deliberate strategies towards reducing attrition as shown in box 6. Throughout the life of STAR-EC, there has been a progressive increase in PLHIV newly enrolled into care, most notably in Mayuge district, as seen in figure 15. In PY4 and PY5, more clients were reviewed at health centres III and IV levels, compared to hospitals, as shown in table 8. By the end of PY6, of the total 40,660 clients active in care, more clients were seen at HC IV and III levels, as shown in table 8. This is mainly attributed to the decentralization of HIV care services from 10 in 2009 to 112 in 2014, as shown in Map 4. In addition, the same is reported in the MoH ART Report 2013 showing 80-89% and 90-100% coverage among HC IIIs and HC IV for adult ART.²

Table 8: Clients Active in Care by Level

Active clients	Hospital	HC IV	HC III	HC II	Total
No. active in PY4	6,039	7,977	9,597	722	24,335
% active in PY4	25	33	39	3	
No. active in PY5	7,308	10,124	14,421	2,664	34,517
% active in PY5	21	29	42	8	
No. active in PY6	8,088	10,785	18,015	3,772	40,660
% active in PY6	20	27	44	9	

Source: STAR-EC program records

Map 4: Comparison of number of Care Sites PY2 and PY6



Source: STAR-EC program records

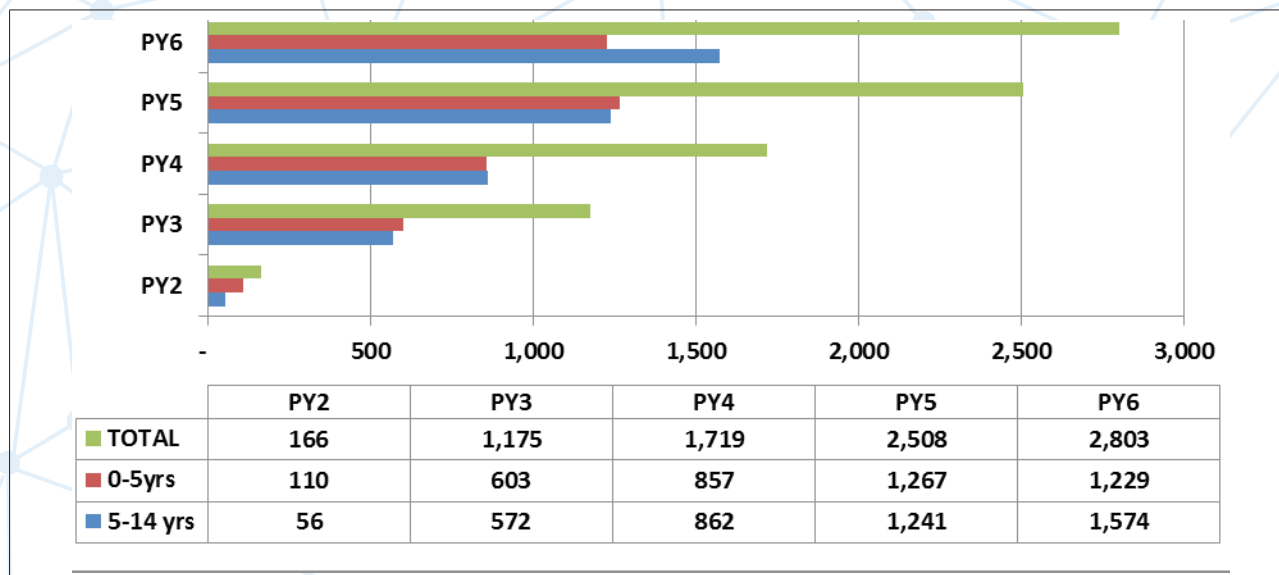
To bolster quality of care, quality improvement interventions were designed to improve the 'continuum of response' (COR) with major focus on key care and support indicators, especially linkage and enrollment into care. This was accomplished in partnership with the ASSIST project and district and facility quality improvement teams. The activity involved onsite triangulation of registers and clinical chart reviews. A dashboard can be found under Appendix 2.

2.5.5 Pediatric Care and Support

In PY6, STAR-EC implemented diverse strategies along the continuum of care targeting infants and children infected and affected by HIV. Interventions aimed at intensifying the identification of HIV positive children were aligned towards HTC, specifically targeting children through campaigns such as 'Know Your Child Status', paediatric provider initiated testing and counselling within facilities, and testing during national events. Consequently, 101,486 children were tested, and 1,199 tested positive, of which 63% (751 children) enrolled into care. Additional effort of paediatric counsellors ensured that all babies who tested positive following Dried Blood Spot (DBS) tests

received follow up attention and were linked into care. As a result, 64% of 216 babies who tested positive were enrolled into care.

Figure 16: Disaggregation of children active in care from PY2 - PY6



At the end of PY6, 75% (n=3750) of the annual PY6 target for children in care had been achieved. Overall, children constituted 7 % (2,803) of the total PLHIV in care (See Figure 16). Although this is below the national benchmark of 15%, it is still a commendable achievement given the gradual increase in children active in care from 166 in PY2 to 2,803 by the end of PY6. This accomplishment was a result of strengthening peer-to-peer activities utilizing established adolescent friendly corners, 'Ariel' clubs, and young positives clubs. Within these groups, 223 young positives received supported and were equipped with new skills sets included negotiating skills, assertiveness, decision making and promotion of positive living. Table 9, summarizes linkage to care for the 0 – 14 year old HIV positive clients identified during PY6.

Table 9: Enrollment of HIV positive children (0-14 years) into HIV care by district during PY6

Indicators	Enrollment of HIV positive children (0-14 years) into HIV care by district - PY76									TOTAL
	Bugiri	Buyende	Iganga	Kaliro	Kamuli	Luuka	Mayuge	Namayingo	Namutumba	
No. under 5 Yrs identified HIV positive	57	28	79	30	93	45	96	110	21	559
No. enrolled into HIV care	53	22	72	16	75	27	75	65	26	431
% Linked	93%	79%	91%	53%	81%	60%	78%	59%	124%	77%
No. of children (5-14 ys) identified HIV positive	35	31	50	20	84	35	102	253	80	690
No. enrolled into HIV care	41	14	65	7	53	24	54	49	13	320
% Linked	117%	45%	130%	35%	63%	69%	53%	19%	16%	46%
No. of children (0-14ys)	92	59	129	50	177	80	198	363	101	1,249
No. enrolled into HIV care	94	36	137	23	128	51	129	114	39	751
Overall % of children linked	102%	61%	106%	46%	72%	64%	65%	31%	39%	60%

Lessons Learned

- ▶ An integrated health delivery approach provides an opportunity to provide a wide range of health and child protection services to vulnerable children and their caregivers.
- ▶ The involvement of community stakeholders, child protection committee teams, CDOs, local council leaders and probation officers through coordinated meetings is key for mobilization, early identification, follow up and enhancing access to a wide range of services for OVC and their households.
- ▶ Young positives psycho-social support group meetings provide a platform for experience sharing. These meetings encourage better health, peer support, creative thinking for self-survival skills and empowerment to young people to face challenges of life with a positive attitude.

Challenges

- ▶ Poor adherence among the island population results due to the mobile nature.
- ▶ Low linkage of children into care due to both denial by their guardians and an inability to reach referral points despite appropriate referral and follow up. This has mainly affected the high mobility of fishing communities in Namayingo district.
- ▶ Erratic supply of HIV testing kits affects enrolment into care.
- ▶ CD4 eligibility assessment interruption is due to stock outs of PIMA cartridges and point of care reagents caused by national stock outs.
- ▶ Limited trained health workers in pediatric counselling skills and youth friendly services make it hard to adequately help and address need of young adolescents.

Way forward

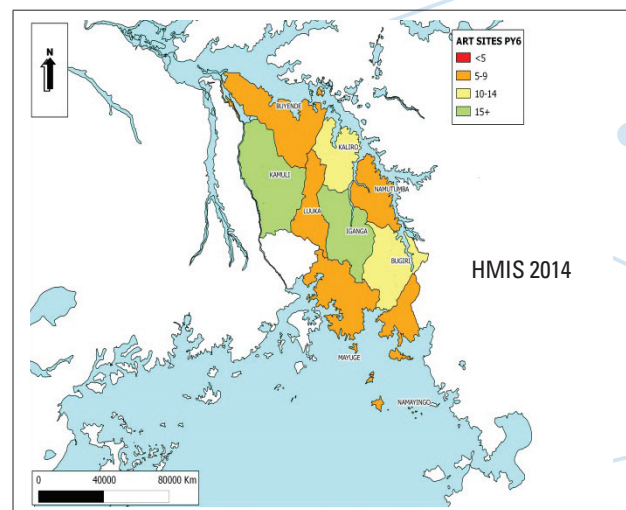
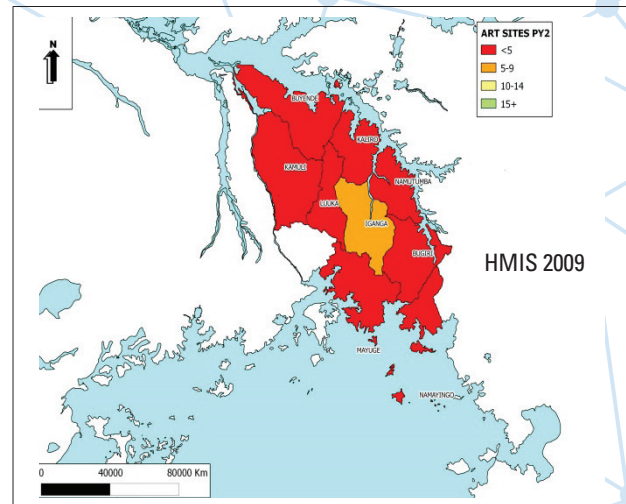
- ▶ During Quarter 1 PY7, STAR-EC will prioritize linkage to paediatric ART for 0 – 14 year old children identified as HIV positive. This will be accomplished through the adoption of the test and treat outreach model in the community and the use of Paediatric focused provider initiated counselling and testing services.
- ▶ Young positive peer educators and health workers will be mentored on the provision of youth friendly services. Providing guidance on the transition from young positive to adult clinics will be prioritised.
- ▶ The program will seek guidance from USAID and other concerned parties for additional avenues to obtain access to PIMA reagents and cartridges.

2.6 Anti-retroviral Therapy (ART)

2.6.1 Scaling up ART service provision

During PY6, STAR-EC worked to reduce missed opportunities for ART by bringing services closer to hard-to-reach communities. In line with the MoH decentralization plan, 4 hospitals, 12 HC IVs, 68 HCs III, and 11 HCs II, including Lolwe HC II in the islands of Namayingo district, were accredited for option B+. Subsequently, the number of health facilities offering ART increased from 59 to 95 by end of PY6 as shown in Map 5. Cognizant of the human resource constraints associated with scaling up ART services, task shifting has been successfully implemented through a 'nurse led approach' where the nurses have been mandated to initiate clients on ART.

Map 5: Number of ART sites in PY2 and PY6 across the 9 districts



Source: STAR-EC Program Records

STAR-EC adopted innovative approaches to initiate both new HIV positive individuals and old pre-ART clients. These practices were implemented subsequent to issuing of new MOH ART guidelines which recommended starting ART when a person is below CD4 count of 500 cells/ μ , all HIV positive pregnant and lactating women, HIV positive partners in a discordant relationship, HIV-associated TB and hepatitis, and all children less than 15 years.

These new approaches included intensifying integrated outreaches to landing sites along the lake shores of Mayuge (13), Namayingo (15) and Buyende (2) districts; and islands of Mayuge (5) and Namayingo (10). To initiate as many new clients as possible, STAR-EC used the 'test and treat' approach, an 'accelerated initiation catch up strategy' involving active screening, identification, counseling and initiation of eligible old clients through chart reviews undertaken by dedicated teams (4 medical clinical officers, 4 nurse counselors, 4 laboratory technicians) from AHF/Uganda Cares for a period of 6 months in 12 high volume sites. This was augmented by support from experienced

medical personnel (from Uganda Cares), an intern from Restless Development (a youth development agency) who conducted chart reviews in 10 selected high volume sites, twice a month satellite outreaches to 45 recently accredited lower health units (mainly HCs III). Consequently, 9,779 PLHIV were newly initiated on ART in PY6 as compared to 8,657 in PY5. Of these newly initiated clients, 9% (879) were children less than 15 years and 17.2% (1,679) were HIV positive pregnant women whose trend has increased as evidenced in figure 17 and table 10, as a result of option B+ and implementation of new ART guidelines.



ART service provision during Integrated Island outreaches in Lolwe (BIVIHI – Golofa landing site) and Sigulu main islands (maninga landing site)



ART service provision during Integrated Island outreaches in Lolwe (BIVIHI – Golofa landing site) and Sigulu main islands (maninga landing site)

Figure 17: New Clients on ART PY3-PY6

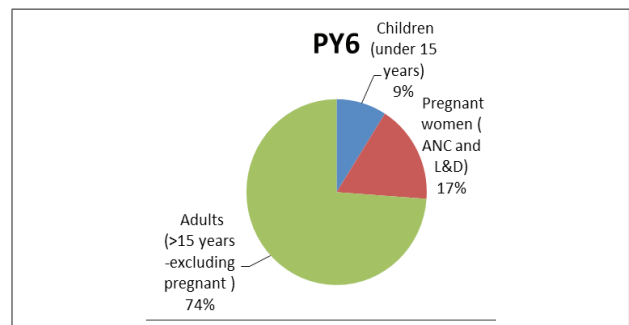
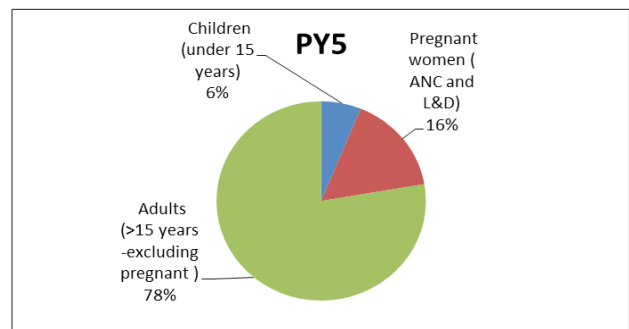
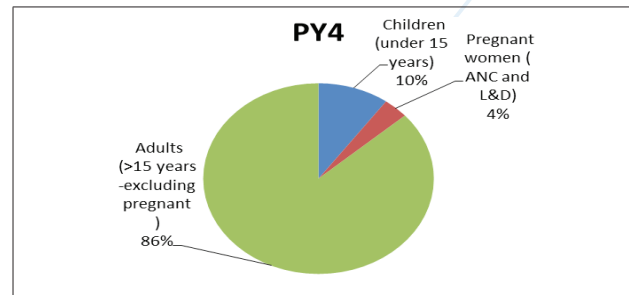
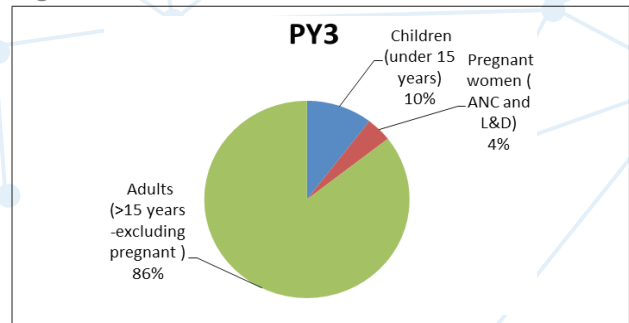


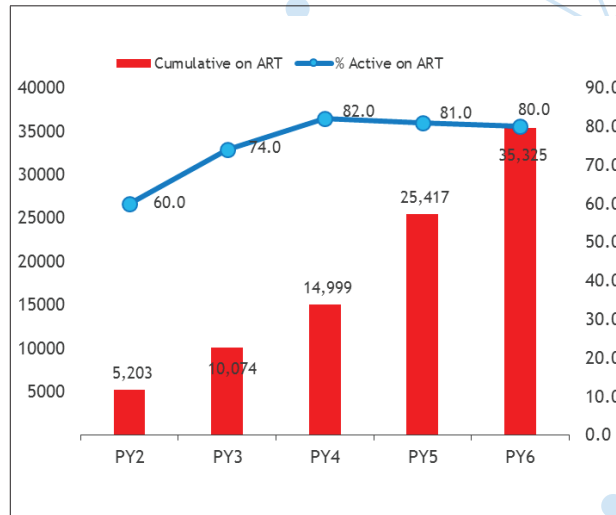
Table 10: New clients on ART

Clients New on ART	PY3	PY4	PY5	PY6
Children (under 15 years)	529	540	535	879
Pregnant women (ANC and L&D)	206	191	1,395	1,679
Adults (>15 years -excluding pregnant)	4348	4688	6,727	7,221
Total	5083	5419	8,657	9,779

Source: STAR-EC program records

Notably, the total number of PLHIV active on ART has increased 10-fold over the past four years from 3,119 people in PY2 (60% of all those cumulative on ART in PY2) to 28,245 at the end of PY6 (80% of all those cumulative on ART). While the proportion of clients still active on ART has increased, it is still below the national benchmark of 90% as illustrated in figure 18.

Figure 18: Clients active on ART, PY1-PY6



Source: HMIS/STAR-EC program records

2.6.2 Promoting adherence to treatment and retention on ART

BOX 7: STRATEGIES TO PROMOTE ADHERENCE AND RETENTION:

- ▶ Individual counseling and psychosocial and support through psychosocial and adherence support groups
- ▶ Contact tracing of clients who missed appointments through home visits and phone calls by 'expert clients and 'mentor-mothers' Use of patient appointment books
- ▶ Interactive radio talks on adherence

The retention of PLHIV on ART has progressively improved over the past six years. In PY2, retention was at 60% in comparison to 79% at the end of PY6 (figure 19). This has been attributed to various approaches as shown in text box 7. Despite these concerted efforts, this retention is still short of the national target of 95%. This may be at the highly mobile nature of the fishing communities and client self-transfers. The 12 month cohort analysis has shown reduced proportions on client deaths, attrition and an improvement in appointment keeping (table 11).

Table 11: Monitoring Patient Outcome through 12-month cohort analysis

Cohort Analysis Indicators	July-Sept(2011)		July-Sept(2012)		July-Sept(2013)		July-Sept (2014)	
	No	%	No	%	No	%	No	%
Clients started on ART 12 months ago (net current cohort)	706		1,718		2,332		2,675	
Clients active on ART after 12 months	506	72	1,042	61	1,855	80	2115	79
Clients dead within 12 months	41	6	52	3	44	2	52	2
Clients transferred Out	49	7	312	18	*	*	*	*
Clients who stopped treatment				*	8	0.1	2	0.1
Clients who missed appointment within 12 months				*	171	7	145	5
ART clients LTFU within 12 months	110	16	312	18	254	11	361	13

*Change in reporting MOH HMIS indicators

Source: STAR-EC program records

SUCCESS STORY

IMPROVING THE LIVES OF ADOLESCENT PLHIV THROUGH ART



Brenda being reviewed by the clinician at Iganga Hospital



Brenda (fourth from right) with her colleagues in an adolescent support clinic.

In 2005, Brenda was diagnosed with TB/HIV co-infection at the early age of 12 years following recurrent fevers, cough, weight loss and a skin rash. She was first started on anti-TB therapy and two weeks later initiated on ART. At the time of initiation, her baseline CD4 was 73 cells/μl and she weighed 38kg. For six years, she recorded marked improvement with her CD4 count rising to an all-time high of 428 cells/μl.

Unfortunately, Brenda developed immunological failure in the course of PY6, requiring her to switch to a 2nd line ART regimen to which she has responded well.

“Her CD4 count has now risen from 82 to 206 cells and her general condition has evidently improved. Brenda is one of our model clients who has overcome a number of challenges to be where she is now,” says Sophie, the ART in-charge, Iganga Hospital.

As a result of her treatment success, Brenda has now completed her S.4 and hopes to pursue a course in tailoring. She says, “I’m very happy that I am in good health. Although I have been taking different types of tablets, since I began taking ARVs, they have made my life better. All of this wouldn’t have been possible if the ‘musawo’(health provider) hadn’t taken interest in my health. I am very grateful for this.”

2.6.3 Improving quality of care of ART service delivery

During PY6, notwithstanding the fluctuating results as shown in table 12, efforts have been made towards improving the quality of care services through building the capacity of health workers via mentorships and coaching. This was done in partnership with the ASSIST project in 8 high volume sites and by MoH in 30 health facilities. The three day phase I on-site mentorships by MoH national and 39 regional mentors focused on acquainting 602 health workers on the new ART guidelines. The coaching by ASSIST project staff was tailored towards improving adherence and retention. Additionally, district QI teams were supported to mentor 84 facility QI teams.

Table 12: Progress on ‘Continuum of Response’ PY3-PY6

CoR Indicator	Program Year			
	PY3	PY4	PY5	PY6
Number of clients tested HIV positive	17,849	13,473	17,781	18,852
Proportion linked to care			59%	61%
Cumulative on ART	10,074	14,992	25,417	35,325
Number active on ART	7,487	12,278	20,577	28,245
Proportion active on ART	74%	82%	81%	79%

Source: STAR-EC program records

The program provided HMIS logistical support in terms of HIV care/ART cards and registers, referral and appointment books, benches,

tables, and chairs to 40 new ART accredited sites. Additionally, the program carried out infrastructural improvements at Kityerera HC IV in Mayuge including the construction of a waiting shade. These program activities were aimed at improving quality of care within the facilities.

Lessons Learned

- ▶ Innovations like 'Ariel clubs' are critical in improving pediatric enrollment into care and initiation on ART.
- ▶ The 'test and treat' is an important strategy to initiate as many 'key populations' as possible onto ART.

Challenges

- ▶ Failure of NMS to meet the requested ARV drug stock levels despite prompt submission of ARV order requests.
- ▶ Inconsistent stock levels of HIV testing kits, reagents for CD4 machines, PIMA cartridges compromised enrollment and monitoring of clients.
- ▶ Fewer children (7%) on ART in comparison to the national target of 15%. This is mainly due to loss of such clients during the EID process and the low targeted pediatric HCT among many other factors.
- ▶ Experienced a lower retention on ART (79%) when compared to the national target of 90%, attributed largely to the high mobility of the population served, especially in the islands of Namayingo and Mayuge.

Way Forward

- ▶ Continue with the on-site mentorship of the remaining 65 sites on the new ART guidelines using the 8 MoH/ regional mentorship teams.
- ▶ Scale up integrated monthly 'test and treat' outreaches to the islands and week-long integrated 'test and treat' outreaches to the landing sites of Namayingo, Kaliro, Bugiri, Buyende and Mayuge districts.
- ▶ Continue with chart reviews of Pre-ART clients to identify eligible children less than 15 years thereafter initiating them on ART.
- ▶ Increase initiation of children by identifying as many positive children as possible through both facility and community HCT.
- ▶ Consolidate follow up of exposed DBS positive babies to account for all positive babies in the region.
- ▶ Work closely with the various stakeholders at all levels responsible for the supply of ARVs to ensure timely delivery of drugs.
- ▶ Implement innovative approaches to improve retention, for example index client follow up. Strengthen existing strategies like the use of patient appointment books, reminders and tracing of lost clients.

2.7 Clinical/Additional TB/HIV

During PY6, STAR-EC participated in several central level meetings organized by TRACK TB, Uganda Stop TB Partnership (USTP) and the National TB and Leprosy programme (NTLP) aimed at providing technical assistance to IPs, information sharing, and reviewing the

national performance. In addition, the program supported quarterly zonal meetings and central level joint support supervision to the South –East zone. Furthermore, STAR-EC supported the printing and dissemination of revised TB tools, TB/HIV policy guidelines, and intensified TB case finding (ICF) tools.

2.7.1 Increasing TB case notification at facility and community level



TB screening during the national WTD commemoration in Iganga

TEXT BOX 8: INTENSIFIED TB CASE FINDING STRATEGIES

- ▶ TB campaign outreaches
- ▶ Integrated outreaches to Sigulu and Masolya Islands
- ▶ Advocacy Communication and Social Mobilization (ACSM) such as WTD commemorations, radio programs
- ▶ ICF at facilities and ICF wall charts displayed at facilities
- ▶ ICF in congregate settings, ie prisons, army and police barracks, slums

The program adopted reporting of the case notification rate (CNR) instead of case detection rate of smear positives (CDR) in line with the revised NTLP reporting guidelines. Consequently, STAR-EC supported the printing and dissemination of the revised tools to all diagnostic and treatment facilities to capture information in line with the revised reporting format. Efforts to increase CNR focused on activities highlighted in box 8, including intensified TB case finding in PLHIV and referrals for Gene X-pert technology to Buyinja HCIV and Jinja Regional Referral hospital. The CNR stands at 63/100,000 population compared to the national figure of 127/100000, see table 13.

Table 13: District Case notification rate for PY6

District	No. of expected TB cases/quarter (all forms)	No. of New TB cases Notified (all forms)	CNR/100,000 population	CDR (in all incident TB cases)
Bugiri	800	328	69.8	41
Buyende	492	80	28.2	16.3
Iganga	924	503	93.9	54.4
Kamuli	928	244	56.8	26.3
Kaliro	400	132	56.8	33
Luuka	484	105	37.5	21.7
Mayuge	852	386	77.9	45.3
Namayingo	436	157	61.6	36
Namutumba	404	143	61.8	35.4
Overall	5720	2078	62.6	36

TEXT BOX 9: TREATMENT SUPPORT STRATEGIES

- ▶ Register triangulation during the district specific review meetings
- ▶ Regular support supervision by HSD TB FPs and DTLs
- ▶ Involvement of the community structures in TB control activities
- ▶ Collaboration with SDS in supporting CBDOTS
- ▶ Regular collection of sputum/slide preparation and transportation by SCHWS to diagnostic facilities

2.7.2 Improving TB treatment outcomes



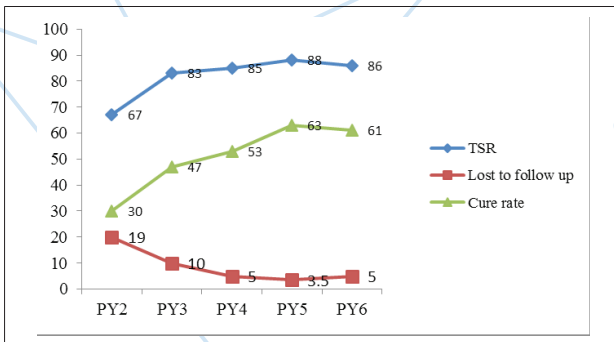
During one of the district specific review meeting for Luuka district

TEXT BOX 10: STRATEGIES FOR IMPROVING TB/ HIV SERVICES

- ▶ Regular district review meetings
- ▶ Register triangulation during review meetings
- ▶ Facility and community linkages
- ▶ Regular QI meetings at high volume sites to review ART enrollment
- ▶ Regular support supervision/mentorship for health care providers
- ▶ Physical internal referrals between TB and HIV service points

Throughout PY6, emphasis was directed towards consolidating and supporting efforts outlined in box 9 that have led to improvement in the quality of TB case management over the last six program years. The overall treatment success rate (TSR) in the region stands at 86% which is above the national achievement of 77% for FY 2011/2012 cohort. However, with the advent of MDRTB, additional emphasis was directed towards improving and reporting the cure rates in all the districts. The cure and lost to follow up rates (61% and 5%, respectively) are above the national averages of 40% and 12%, respectively.

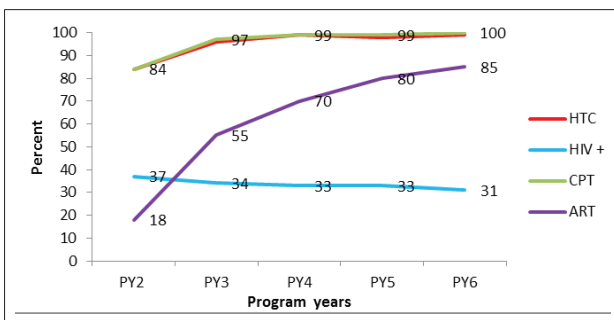
Figure 19: Progress of TB treatment outcome indicators for PY2-PY6 (percentages)



2.7.3 Improving TB/HIV collaborative activities

In order to reduce the burden of TB among HIV patients and vice versa, the program continued to support integrated facility TB/HIV services at HC III level as highlighted in box 10. This has contributed greatly to improved ART enrollment among TB/HIV patients. Overall, 85% of patients were enrolled on ART by the end of PY6, compared to 56% reported as part of FY 2012/2013 national performance. STAR-EC program data shows that the proportion of TB/HIV co-infected clients in the region continue to fall from 37% during PY2 to 31% for PY6. A similar trend is observed for the TB patients identified among HIV patients as shown in table 14.

Figure 20: TB clients provided with different HIV related services



Source: STAR-EC Program Records

Table 14: Progress of TB screening in HIV chronic care settings

Program year	Clients seen	No.(%) clients screened for TB	No. (%) of suspects investigated for TB	No. (%) clients treated for TB
PY2	7,020	6017(86)	495(8.2)	187(3.1)
PY3	16,684	15,568(93.3)	1,300(8.4)	610(3.9)
PY4	21,897	21477(98.1)	1,138(5.2)	421(2.0)
PY5	34,517	34,182(99)	1,026(3.0)	320(1.0)
PY6	40,660	40,283(99.1)	1,422(3.5)	479(0.1)

Source: STAR-EC progressive annual reports

2.7.4 Addressing the emergence of multi-drug resistant (MDR) TB



MDR Nurse at Iganga treatment center mentors health workers from follow up sites on MDR medicines

Throughout PY6, STAR-EC supported referral of samples for MDR presumptive cases for diagnostic sensitivity testing (DST) to Buyinja HCIV, Jinja regional referral hospital, and the National TB Reference Laboratory (NTRL). A total of 22 MDR cases were enrolled on ambulatory facility DOT and home based care since the treatment center was established in August 2013. All patients are still compliant to treatment and have culture converted. The first six patients enrolled in August that qualified for the August cohort review at nine months were presented to the national MDR cohort review meeting (See box 11 for MDR supported activities).

BOX 11: SUPPORTED ACTIVITIES:

- ▶ Patient transport facilitation to DOT follow up facility
- ▶ Community contact tracing
- ▶ Review meeting between follow up sites and treatment site
- ▶ Panel review meetings

Table 15: Distribution of notified MDR patients/ district

District	Jinja	Mayuge	Kamuli	Namutumba	Kaliro	Iganga	Bugiri	Namayingo	Luuka	Buyende	Total
No. of patients	6	0	1	3	2	3	2	1	2	2	22

Lessons learned

- ▶ Home based care is being provided to some MDR patients in the region as an alternative to facility-based directly observed treatment. This model is feasible for the very sick MDR patients managed at centers with limited admission facilities and for patients unable to

visit facilities on a regular basis. In addition this may be a feasible strategy for infection control in facility settings.

- ▶ TB Psychosocial adherence group meetings piloted at Iganga and Bugiri high volume sites provide avenues for health care providers to provide additional information to clients. In addition, group meetings empower TB patients to demand for TB control services.

Challenges, way forward

- ▶ Stock outs of TB diagnostic reagents affected routine sputum microscopy for presumptive TB patients during the quarter. In addition, frequent stock outs of HIV testing kits continue to affect timely HTC for TB patients and consequently affect timely enrollment on ART for TB/HIV co-infected patients. STAR-EC will continue to support facilities to place orders to NMS.
- ▶ Lack of admission facilities at Iganga hospital and MDR treatment centers denies provision of comprehensive care to the very sick MDR patients in the region. STAR-EC will ensure prompt initiation on treatment, support home based care where feasible, and strengthen facility DOTS and home visits in an effort to reduce the need for admission.
- ▶ Diagnosis and management of TB in children is a challenge due to limited knowledge and skills among health care providers and facilities for sputum induction and collection, STAR-EC will continue to provide technical support and ensure wide dissemination of TB treatment guidelines and algorithms.

2.8 STRENGTHENING LABORATORY SERVICES DELIVERY

BOX 12: KEY LABORATORY INTERVENTIONS SUPPORTED IN PY6

- ▶ Laboratory hubs operations
- ▶ Infrastructure renovation
- ▶ Provision of essential laboratory equipment
- ▶ Strengthening laboratory management Towards Accreditation (SLMTA)
- ▶ Early Infant Diagnosis by DNA PCR testing for to support EMTCT interventions and evaluation
- ▶ Implementation of National External Quality Assessment Schemes (NEQAS) for HIV & TB
- ▶ Testing services for MDR-TB by GeneXpert technology, CD4 testing for ART care
- ▶ Laboratory data collection and collation for strengthening the MoH HMIS
- ▶ Extended laboratory diagnostic services for TB, HIV&AIDS and STIs to hard-to-reach communities in the Islands of Sigulu on Lake Victoria

The availability of and accessibility to a robust and functional laboratory network by any community is vital in successful management of TB, HIV&AIDS, and implementation of other interventions for clinical and public health concerns. To achieve this, the program supported a range of interventions (Box 12)

2.8.1 Support to laboratory hubs operations

STAR-EC supported operationalization of six laboratory hubs in East Central Uganda. This includes three general hospitals (Kamuli, Bugiri & Iganga) and three HCs IV (Buyinja, Bumanya & Kidera) . The support included but is not limited to:

- ▶ Facilitated the launching and handover of the hub operations;
- ▶ Recruitment of Laboratory Sample Transporters;
- ▶ Provided funds for fuel and routine maintenance of the laboratory hub motorcycles;
- ▶ Installed essential laboratory equipment (haematology and clinical chemistry analyzers) as well as power back up systems and solar in collaboration with the USAID funded Supply Chain Management System (SCMS) Project;
- ▶ In collaboration with CPHL, facilitated installation of GSM Printers for real-time printing of DNA PCR results at all hubs, which reduced the turnaround time from 2 weeks to less than 5 days; and
- ▶ In collaboration with the SDS program and district authorities, the program participated in the recruitment processes of 14 laboratory staff (7 laboratory technologists and 7 laboratory technicians) for 6 laboratory hubs in the region (Kamuli, Bugiri and Iganga general hospitals, Kidera, Bumanya and Buyinja HCs IV).

2.8.2 Infrastructural Improvement and Equipment support

Table 16: Laboratory infrastructure and equipment support to health facilities during PY6

Description of Infrastructural and Laboratory Equipment support provided	List of Health Facilities that benefitted from the support
Carried out physical infrastructural renovation of one Laboratory and ART clinic. Activities involved fitting of impermeable worktops, creation of reception areas, wash up room, store room, blood bank and patient waiting area	Nsinze HC IV in Namutumba District (Photo 1)
Patient waiting shades set up at one HC to decongest TB and HIV&AIDS care clinic to enhance infection control	Kityerera HC IV in Mayuge District

<p>Constructed placenta pits (Photo 1) at 15 HCs in 3 districts to strengthen good practices for safe disposal of highly infectious biomedical waste so that the surrounding communities and environment are protected</p>	<p>Singila, Dolwe/Kandenge, Biwihi, Hama, Bugana, Bumalenge, Lugala, Labachi, Sanyonja HCIIIs and Mutumba HC III in Namayingo District</p> <p>Bwondha, Masolya & Sagitu HC II in Mayuge District</p> <p>Kakooge, HCs II Kagulu in Buyende District</p>
<p>Installed panels for generation of solar power at eighteen (18) peripheral HC III laboratories in 8 of the 9 Districts. The aim was to strengthen their onsite diagnostic capacity to perform quality microscopic tests for TB, OIs in HIV&AIDS, malaria and other tests essential for routine patient care</p>	<p>Bulesa, Buluguyi & Budhaya HCs III in Bugiri District</p> <p>Bugaya, Buyende, Irundu HC III & Nkondo HC III in Buyende District</p> <p>Bugono HC IV, Makuutu & Nambale HCs III in Iganga District</p> <p>Namwiwa and Nawaikoke HCs III in Kaliro District</p> <p>Bokoova, Ikumbya & Irongo HCs III in Luuka District</p> <p>Malongo in Mayuge District</p> <p>Banda & Mutumba HCs III in Namayingo District</p>
<p>Provided support towards maintenance (service and repair) of laboratory equipment at 8 HCs. These included CD4 machines, haematology & clinical chemistry analyzers at 3 general hospitals, colorimeters and microscopes at 5 HCs IV</p>	<p>Bugiri, Iganga and Kamuli General Hospitals</p> <p>Bumanya, Kiyunga, Nankandulo HC IV</p>



Remodelled laboratory structure at Nsinze HC IV in Namutumba District

2.8.3 Strengthening laboratory management towards accreditation (SLMTA)

- ▶ Supported implementation of SLMTA program at 5 health facility laboratories including Kamuli, Bugiri, and Iganga general hospitals, and Kidera, Bumanya and Buyinja HCs IV through facilitating follow mentorships and logistical support.
- ▶ Sponsored one laboratory technician from Kidera HC IV in Buyende District to attend the first ever in-country SLMTA training of trainers course enabling the STAR-EC region acquire a resident mentor for implementation of the program.
- ▶ Reviewed the progress of the assigned quality improvement projects and assessed general work flow processes at each site to enhance efficiency during day-to-day operations in the available laboratory work spaces.

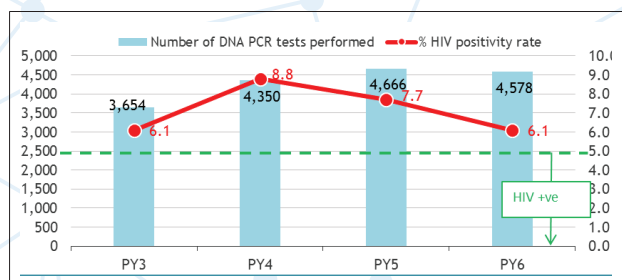
2.8.4 Early infant diagnosis (EID) of HIV among exposed infants for eMTCT/PMTCT interventions

During PY6, STAR-EC strengthened processes for early infant diagnosis of HIV among exposed infants through referral of DBS from peripheral HCs through the laboratory hubs en-route to CPHL for HIV DNA PCR testing. In total, 4,578 DNA PCR tests were reported in PY6 with a positivity rate of 6.1%. greater than the national desired eMTCT HIV transmission rate target of $\leq 5\%$ (Figure 21). Although the HIV positivity was at 6.1% in PY6, it is important to note that there was/is a steady decline in the mother-to-child transmission rate of HIV from 8.8% (n=4,350) in PY4 to 7.7% (n=4,666) in PY5 through to 6.1% (n=4,578) in PY6. This demonstrates that the program interventions for eMTCT are registering steady progress(Figure 22).



A placenta pit at Hama HC II in Namayingo district-one of the 15 placenta pits constructed at high volume HCs II in the region

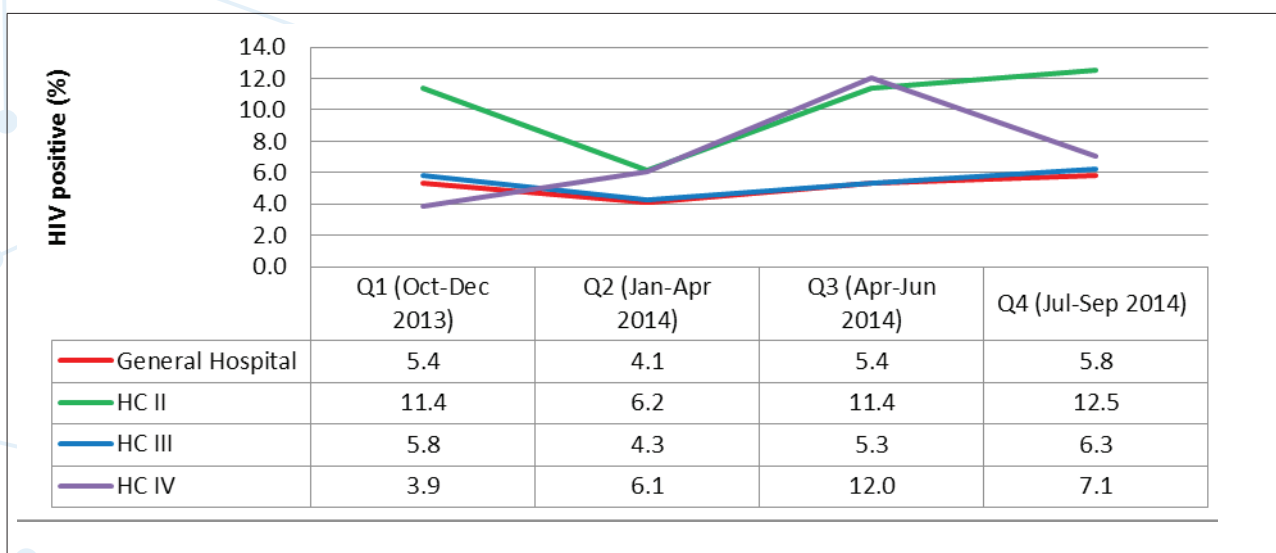
Figure 21: HIV DNA PCR tests performed in PY6 compared to PY3, PY4 & PY and the respective HIV positivity rates among exposed infants



Source: MoH/CPHL-EID laboratory and STAR-EC Program records

Additionally, in terms of health facility level of service, EID DNA PCR data reveal an increase of the mother-to-child transmission rate of HIV in positivity from Q2-Q4 PY6, and the highest was being observed at HCs II (Figure 22). The steady increase from Q2 PY6 was attributed to intensified outreaches to the Islands in Namayingo and Mayuge Districts and the functionalization of 6 laboratory hubs in the region that led to increased collection and transportation of DBS from the HCs II in the community through to all general hospitals that were effectively implemented from Q2-Q4 PY6.

Figure 22: HIV positivity rate among exposed infants by level of health facility in Q1-Q4 in PY6 (n=4,578)



2.8.5 Implementation of TB and HIV National External Quality Assurance Schemes (NEQAS)

External quality assurance is a key component of laboratory services delivery. STAR-EC supported HC laboratories and participated in the NEQAS for TB coordinated by the MoH National TB Reference Laboratory (NTRL). There was good performance in proficiency sputum smear microscopy EQA with an average regional score of 93.4%, compared to the satisfactory performance of 80%. This shows that the qualities of TB sputum results released by the supported HCs are of acceptable quality.

2.8.6 Support towards MDR-TB diagnosis by use of GeneXpert machine/technology

MoH/NLTP recommends testing for TB by GeneXpert technology among HIV positive persons who test negative by routine ZN microscopy methods and subsequently assessing for MDR-TB. STAR-EC strengthened utilization of the GeneXpert machine by supporting referral of specimen from peripheral HCs to Buyinja HC IV Laboratory Hub. Among samples tested, 8.8% tested positive for TB while 0.5% tested resistant for Rifampicin as summarized in (Table 17)

Table 17: TB tests by GeneXpert technology at Buyinja HC IV Laboratory

Total number of sputum samples analyzed	Number positive for TB	Number resistant for Rifampicin	Intermediate	Failed tests
577	51	03	01	47

2.8.7 Collection and collation of laboratory performance data for DHIS2 reporting

The primary role of laboratory facilities is to carry out diagnostic and monitoring test services to the community. The various outputs yield large amounts of data that are essential for programming and planning. STAR-EC supported the collection and collation laboratory performance for both PEPFAR and DHIS2 reporting requirements. Respective selected outputs are summarized in Tables 18 & 19 in sections 2.8.7.1 & 2.8.7.2 here below.

2.8.7.1 TB and HIV&AIDS specific laboratory outputs

PY6 PEPFAR laboratory diagnostic performance outputs are summarized in Table 18 and compared to earlier years of the project. More HIV (n=698,321) and CD4 (n=35,206) tests were performed in PY6 than any other tests compared to the previous year's yielding cumulative totals of >2 million and >100,000 tests reported, respectively. This demonstrates the programs' concerted efforts to improve TB and HIV&AIDS diagnosis and management

Table 18: Laboratory Diagnostic outputs specific for TB and HIV&AIDS care and management

TB, HIV&AIDS intervention areas	Laboratory support	Annual Outputs					Cumulative total (PY2-PY6)
		PY2	PY3	PY4	PY5	PY6	
HTC	HIV antibodies tests performed	128,180	349,518	446,518	642,660	698,321	2,265,197
PMTCT/eMTCT	Number of DNA PCR tests performed	732	3,654	3,626	4,666	4,578	17,256
	% DNA PCR tests reported positive		6.1%	8.8%	7.7%	6.1%	7.2%
	Number of exposed infants diagnosed HIV positive	44	252	284	344	281	1,205
ART, Care & Treatment	CD4 tests performed	6,737	21,790	21,351	29,526	35,206	114,610
TB	Sputum TB ZN microscopy tests	12,373	25,435	27,342	28,495	22,994	116,639
	% sputum ZN microscopy tests reported positive for AFB	8.0%	8.2%	5.8%	5.4%	7.3%	6.9%
	TB patients diagnosed	1,477	1,615	1,342	1,397	1,258	7,089

2.8.7.2 PY6 Laboratory outputs for other essential clinical diagnostic tests

Besides the TB and HIV&AIDS laboratory investigations, program support enabled provision of other categories of laboratory tests for diagnosis other clinical conditions essential for patient management, as shown in Table 19.

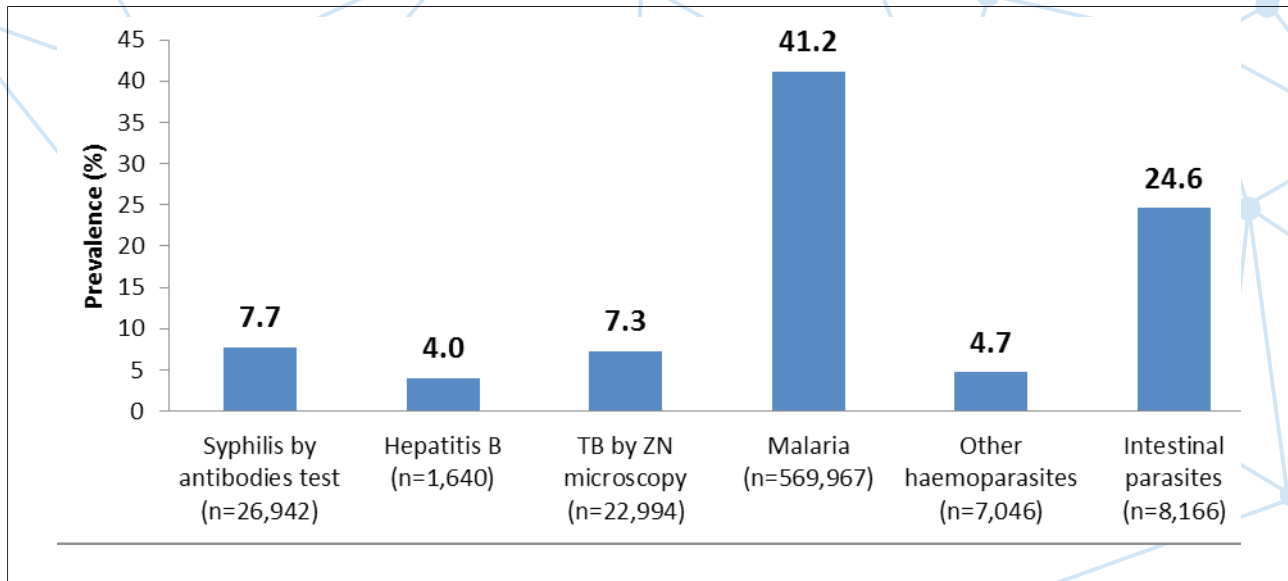
Table 19: PY6 annual laboratory outputs for other clinical investigations

Categories of laboratory investigations	Name of laboratory test	Quarterly Outputs				PY6 Annual Total
		Q1 (Oct-Dec 2013)	Q2 (Jan-Mar 2014)	Q3 (Apr-Jun 2014)	Q4 (Jul-Sept 2014)	
Haematology	Hb estimation	8,179	5,205	6,800	8,351	28,535
	WBC count	1,255	1,272	1,467	2,562	6,556
	Film comment	655	576	538	1,339	3,108
Blood Transfusion	Blood grouping	2,884	2,783	3,096	4,328	13,091
	Cross match	1,733	1,526	1,956	2,077	7,292
Parasitology	Malaria	126,378	128,886	152,245	162,458	569,967
	Other Haemoparasites	2,056	1,998	1,976	1,016	7,046
	Stool microscopy	1,805	1,666	2,462	2,233	8,166
Microbiology	Urine microscopy	4,621	4,734	5,824	5,395	20,574
Serology and Immunology	Syphilis testing	1,662	1,323	6,636	17,321	26,942
	Hepatitis B	299	323	499	519	1,640
	Pregnancy by urine HCG	3,738	5,228	5,129	6,463	20,558

Source: STAR-EC Program records

Review of the PY6 data illustrate that the most prevalent conditions in the region are malaria at 41.2% (n=569,994), intestinal parasitemia at 24.6% (n=8,166), and TB at 7.3% (n=22,994) (Figure 23). Although Hepatitis B prevalence was the lowest at 4.0% (n=1,640), it is essential in HIV&AIDS interventions and programming. The new ART guidelines recommend initiation on ART regardless of CD4 cells count.

Figure 23: Prevalence of selected conditions based on laboratory tests



Source: STAR-EC Program records

Challenges and way forward

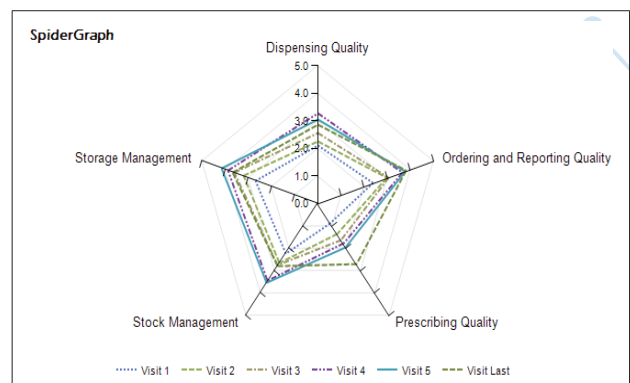
- ▶ Re-current shortage of vital laboratory diagnostic supplies for TB and HIV&AIDS was a recurring challenge throughout the reporting period. STAR-EC will continue to augment efforts to provide technical support enabling health facilities to forecast and make timely requisition for laboratory supplies from the national medical stores.
- ▶ Inadequate infrastructure remains a critical challenge. In particular, the newly launched laboratory hubs have limited working space to adjust to the new scope of work. There is a need to advocate for additional support to conduct infrastructural improvement.
- ▶ The community continued to experience limited access to GeneXpert technology for MDR-TB testing. This was due to availability of the GeneXpert machine at only one HC Laboratory (Buyinja HC in Namayingo District). NTLP/NTRL has developed a strategic plan to provide additional GeneXpert machines at three more health facilities.

2.9 Improving Supply Chain Management

STAR-EC demonstrated positive progress supporting the nine project districts in managing HIV related, and other, logistics. The support included enabling and ensuring timely ordering of ARVs using the web based ordering system (WAOS) in all nine districts, as well as the ordering of other essential medicines and laboratory supplies from NMS and JMS as per ordering and delivery schedules. With the help of district biostatisticians and HMIS focal persons, health facilities continued to order ARVs from the national warehouses through WAOS. Additional supplies were ordered through the standard

ordering system to NMS/JMS. During PY6, to further improve the quality of logistics management at health facilities, district Medicines Management Supervisors (MMS) conducted support supervision visits in the six non SURE districts of Buyende, Iganga Luuka, Kamuli, Kaliro, and Namayingo. These visits received the support of the Supervision Performance Assessment Recognition Strategy (SPARS). Emphasis was put on improving logistics management looking at five indicators including Dispensing Quality, Prescribing Quality, Stock Management, Storage Management, Ordering and Reporting Quality. These are assessed and scored on a scale of 1 to 5. In total 74 facilities received MSS support supervision visits.

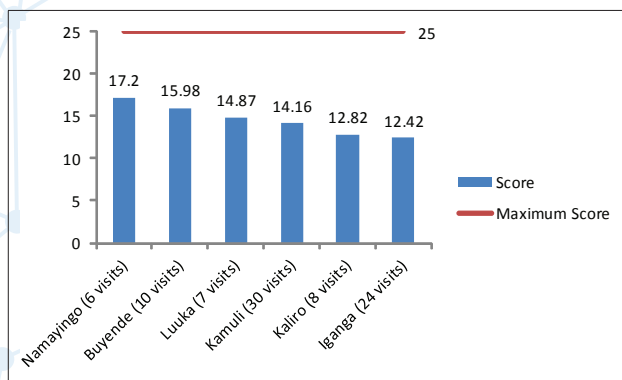
Figure 24: Spider graph showing outcomes of support supervision during PY6



STAR-EC supported the MMS on a quarterly basis to mentor facilities and score their performance against the various indicators. The program supported health facilities to access counting trays in an effort to improve dispensing quality and to access wall thermometers, which were placed in stores to enhance proper storage conditions of supplies. Wall thermometer

management is a SPARs activity component in storage management. In addition, STAR-EC supported the use of District Supervision Data System (DSDS) by ensuring that all the MSS underwent training in System usage. warehouse introduced by the SURE program while working with the MoH Pharmacy Division. It houses information collected during routine supervisions while carrying out SPARs activities. DSDS allows for evidence-based decision making at all levels. Figure 25 was generated using information obtained from DSDS. While there seemed to be performance improvement from visit 1 to 5, the most recent visit indicates a slight decline in performance due to reluctance of health workers in adhering to Good Pharmacy Practice (GPP). While working with the National Drug Authority, STAR-EC will ensure inspection and certification of both public and private health facilities for GPP. Figure 25 shows performance by district and a maximum total score of 25.

Fig 25: District Medical Logistics performance



The ultimate goal of MSS is to achieve a score of 25. However, most of the districts have scored 50% and above performance in all the 5 indicators. The presented scores are largely due to poor performance in the indicators prescribing quality and stock management. The STAR-EC project is cognizant of this performance. With the continuous support supervision using the peer strategy of Regional Pharmacists working with MMS, there will be marked improvement in performance across all indicators. In addition, STAR-EC continued to request condoms from UHMG on a monthly basis and distributed them to health facilities, bars, and knowledge rooms as a way of boosting quantities that are supplied from the National Medical Stores. Consequent to this undertaking, no stock out of condoms occurred. In order to strengthen the element of proper waste management, STAR-EC distributed over 200 waste bins and color coded bin liners to six CSOs and 104 health facilities, focusing on the VMMC sites. During PY6, STAR-EC printed various LMIS tools which were distributed to health facilities in a bid to improve the flow of information and improvements on record keeping within and outside the health facilities. During the integrated services outreaches, supplies were continually transported to the island facilities. STAR-EC also supported the distribution of condoms and Basic Care Package (BCP) kits from PACE. A total of about 800 kits were distributed during PY6 to clients at island facilities. In order to ensure proper storage of these BCP kits during PY6, STAR-EC procured pallets for 29 health facilities .

Logistics and transport management during an integrated island outreach



Lessons learned

Improved communication enhances better service delivery such that there is no interruption in service delivery from the supplier to the end user of the service as evidenced from the open communication lines between the MMS, STAR-EC and the national suppliers.

At the time of drug ordering, the recommended buffer stock of supplies lasting for a minimum of two months should always be kept at the facilities to avoid stock out of supplies before the scheduled time of delivery of supplies

The continuous use of bulk SMS services as reminders and making phone calls at STAR-EC has proved to be a pragmatic

approach in ensuring timely submission of orders to the national ware houses.

Challenges and Way forward

- ▶ The Private not For Profit health facilities(PNFPs) being supported by STAR-EC are still lagging behind in terms of submission of orders and reports through WAOS since most of the District Health Coordinators (DHCs) do not have access rights to the WAOS. This delays their reporting to Joint Medical Stores (JMS). However, in the meantime, orders from PNFPs are being submitted through the district biostaticians while the DHCs are being encouraged to request for access rights from the MoH Resource Center.
- ▶ Lack of good internet and network connection at some of the districts still poses a big challenge for order submission through the Web based ordering system as this affects timeliness of orders. Biostaticians are being encouraged to submit orders way ahead of time to avoid inconveniences due to internet connections.
- ▶ With limited storage space, facilities are still struggling with ensuring good pharmacy practice in the areas of storage of supplies. In the interim, pallets and shelves will be provided to ensure that even with limited storage space; commodities are not stored directly on the floor
- ▶ Stock out of CD4 Reagents, TB drugs and Nevirapine syrups still remained a challenge however, facilities were still encouraged to continue placing orders until when the supplies become available and they will be delivered to the facilities.

2.10 Improving Human Resources for Health (HRH)

Aware of the growing need to support sustainable service delivery and reduction in service interruptions, STAR-EC shifted efforts from classroom workshops to site based coaching and mentorship. A total of 31 regional ToTs were trained on the 2014 revised HIV guidelines and supported to train 602 health workers from 30 health facilities. A total of 12 health workers from Busesa HC IV and Bugiri Hospital received training to provide VMMC services using the Pre Pex technique. In addition, 29 health workers received training on surgical circumcision methods with support from Makerere University Walter Reed Project.

To bridge the skills gap created by frequent transfer of health workers, attrition and massive recruitment, 60 health workers were trained on a 13 day comprehensive HIV training in partnership with MOH. Additionally, 85 RCT volunteers were trained to support provider initiated HIV testing and counseling at health facilities. In an effort aimed at improving HRH work force in the region, two nurses sponsored to undertake training in enrolled comprehensive nursing graduated and are now offering services

at Bumooli HC III and Hama HC II both in Namayingo District.

Challenges and Way forward

- ▶ High staff attrition, coupled with frequent transfers of health workers, disrupts established clinical teams. Therefore, there is a frequent need to train new members despite inadequate human resources for health.
- ▶ Frequent changes in policy and treatment guidelines often come into effect in the aftermath of annual work planning and budgeting processes. These policy changes are often difficult to implement due to budget shortages. STAR-EC will continue to mentor, re-train, and orient health workers on such new guidelines.

3.0 Strengthening Decentralized HIV&AIDS and TB service Delivery systems with Emphasis on Health Centers as well as community systems

3.1 Strengthening Networks and referrals systems to improve access to, coverage of and utilization of HIV&TB services

3.1.1 Community systems strengthening

PY6 was a period of consolidating and replicating the best practices achieved in strengthening referrals, community networks and management structures during the past five years. This formed the core of STAR-EC interventions towards building a more robust and sustainable network and referral system.

The different community management structures and 'linkage facilitators' such as village health teams (VHTs), people living with HIV (PLHIV), health centers, and CSOs, continued to register successful performance through regular coordination meetings, improved implementation strategies, and approaches that ultimately led to more effective community linkages.

STAR-EC will continue to support sustainable coordination and planning mechanisms, such as the quarterly meetings for the 'linkage facilitators' and community management structures. Continued support will ensure efficient and effective information flow between the community and health facilities up to the end of



Images of various services/activities supported by STAR-EC



A peer educator refilling a condom dispenser in one of the recreational facilities in Iganga district



A client taking up HTC during home based HIV testing and counseling



A peer educator in a small group education session on female condom use among out of school youth



An expert client supporting HIV negative discordant couples in Iganga District



A discordant couple share their experience during one of the psychosocial support meetings



A PMTCT couple posing for a photograph after sharing their experience during a family support group meeting



A VHT during a one-on-one referral session with a clients



A mentor mother during a one-on-one session with a PMTCT mother



Health workers perform VMMC during an outreach



A counselor in a small group education session on Family Planning with a group of sex workers



A peer educator in a small group education session promoting male condoms among out of school youth



A health worker taking blood for HTC from a child



A mentor mother during a follow up visit on mother-baby pair



A guardian supporting a child take her treatment

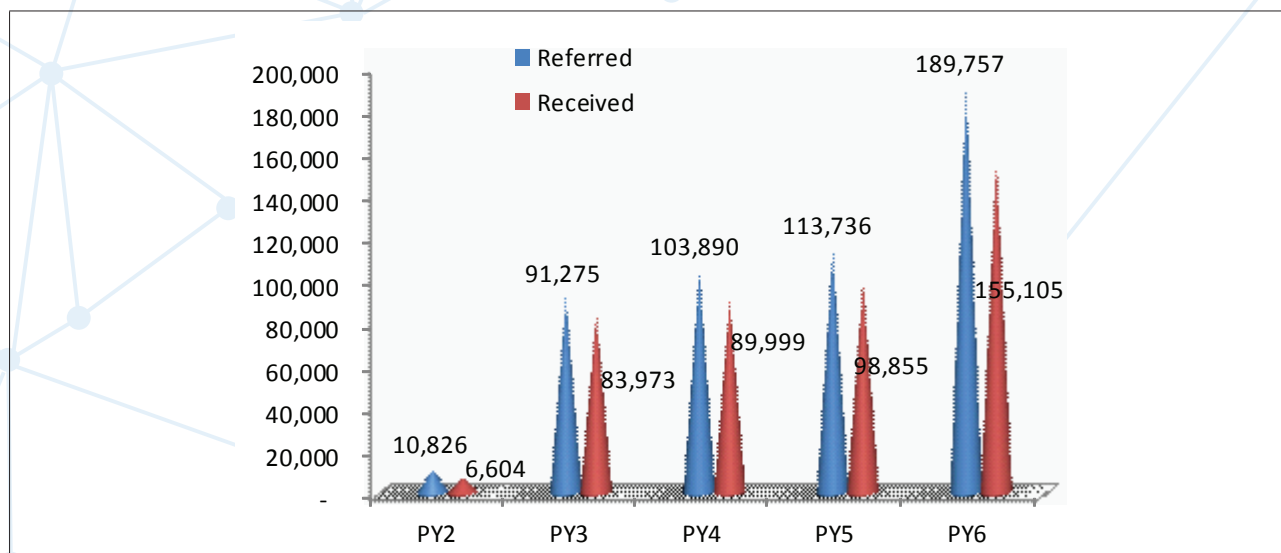


A VHT carrying out community mobilization during one of the market days in Lugala Landing site



the project. STAR-EC's continued support of PLHIV and OVC to access wrap-around services through integration and collaboration with OVC service providers (including 84 community development officers in the nine districts) resulted in 4,904 OVC accessing HTC services, as indicated in the proceeding sections. Illustrated by annual performance, referral services have steadily increased from 10,826 in PY2 to 189,757 in PY6 as shown in Figure 26.

Figure 26: Clients that were referred and received services (PY1-PY6)



Source: STAR-EC program data

Overall, 85% of the clients referred during the period PY2 to PY6 received services for which they were referred. This has been made possible with the efforts by VHTs, PLHIV, CSOs and health facilities. STAR-EC supported both communities and facilities to ensure complete referrals and linkage through linkage meetings, follow ups and ongoing support.

3.1.2 Supporting village health teams (VHTs) in mobilizing community members to increase access to HIV & TB services

Following PY5 efforts to increase VHT coverage from 3,435 to 5,000, a total of 1,565 newly trained VHTs in PY6 were supported to increase access and improve quality of care through condom promotion, community eMTCT, and safe male circumcision, TB screening mobilization and referral for various services. VHTs also participated in client follow-up, working with facility teams by providing information on client's locations, and at times accompanying the facility teams to client households for effective tracing. This continuously improved client-tracing results and subsequently client retention into care as, already presented in the care section.



Pregnant mothers at the facility after referral from the community



A couple at Buyende health center waiting to receive ANC services

VHTs continued to map and follow up pregnant women from all the 84 supported sub-counties. During the mapping exercise all those who had not attended ANC were identified and linked to nearby health facilities. VHTs continued to follow up pregnant mothers mapped previously to ensure completion of the 4th ANC visit, delivery from health facility, and linkage of HIV positive mothers to Option B+ and family support

groups. As a result, 3,290 clients were linked to family support groups. STAR-EC also gave T-shirts to 800 VHTs emblazoned with messages promoting eMTCT.

Table 20: Data on pregnant mothers during mapping and follow up activities

District	Total Pregnant Women	1st ANC	2nd ANC	3rd ANC	4th ANC	Never Attended	No. of pregnant women referred
Bugiri	7,703	2,174	1,711	1,287	1,087	1,444	2,432
Buyende	4,954	1,686	1,208	889	648	523	2,584
Iganga	5,014	1,498	1,152	910	658	796	1,193
Kaliro	4,158	1,280	961	726	645	546	1,666
Kamuli	7,306	1,957	1,653	1,328	1,157	1,211	2,803
Luuka	2,883	914	692	527	423	327	798
Mayuge	2,920	893	665	604	387	371	907
Namayingo	5,477	1,656	1,178	891	634	1,118	1,164
Namutumba	4,098	970	909	764	544	911	1,667
Grand Total	44,513	13,028	10,129	7,926	6,183	7,247	15,214
% attendance at community level		29	23	18	14	16	

STAR-EC program data

Following the mapping exercise, 15,214 pregnant women were referred to health facilities for ANC and other services (See Table 20). As a result there has been a significant increase in facility ANC attendance (as indicated in the PMTCT section).

STAR-EC oriented VHTs to intensified TB case finding from Jaguzi Island, Bwondha, and Malongo landing site in Mayuge district in addition to those oriented previously. As a result of the orientation exercise of VHTs in Sigulu Island on TB intensified case finding, 27 TB cases were identified and treated during integrated service delivery outreaches in Sigulu Islands.

In addition, VHTs participated in the mobilization of men for circumcision using the PrePex device. This followed a one day orientation of 800 VHTs attached to Iganga hospital and Busesa HCIV. As a result, VHTs linked 296 men for VMMC using PrePex in the health facilities from August till September 2014.

STAR-EC has also supported VHTs to form self-help groups for sustainability. Through these groups the VHTs engage in crafts making, village savings and other individual income generating activities. To date, ten groups of a minimum of 30 members have been formed with the aim of promoting resource mobilization. Pursuant to this effort, VHT groups in Bugiri Town council formed a village saving loans association with 3,000,000/= savings during PY6. The VHTs have been instrumental in identifying and linking clients to various service delivery points, with a total of 86,919 clients referred and 72,199 receiving services.

Success Story

Village Health Team Member; my Pillar of Life



Wailagala Kirizestomu, a 49 year old fisher man, father of two and a husband to Olivia Nalubega is a resident of Kibuguma Village, Golofa East, Lolwe sub county, Sigulu Islands Namayingo District.

He has lived positively since 2008 due to the support from VHTs as he narrates;

‘It all started when I first tested positive in Kenya in the year 2008, I consented to start treatment from Kenya where I used to go for refills every after two months. Life was difficult with a lot of money spent on transport because at the time we did not have ARVs on the islands.

When STAR-EC came to the island, they trained VHTs who, thereafter, mobilized the whole community to go for HIV testing and counseling. Mr. Juma Festus who doubles as a VHT coordinator and an expert client advised me to ask for a transfer from Kenya which I did and since then I receive my treatment from Singira Health centre II, Sigulu islands.

Due to the existence of active village health team members in our community, my adherence has greatly improved because my CD4 started by raising to 301 last year before reaching the current 391 in September 2014 up from just 15 when I had just joined ART. Juma supported me to disclose my status to my wife and thereafter supported her to go for HIV testing and counseling. Unfortunately she also tested HIV positive and was initiated into care.

We now live positively because of the psychosocial support we receive from VHTs and expert clients at the health facility. Because of this support, my family is living a happy life.

My appreciation goes to my VHT, Mr. Juma Festus, STAR-EC, USAID and the in-charge, Singila health centre for all the support’.

3.1.3 Meaningful and greater PLHIV involvement in improving community health and promoting positive health, dignity, and prevention



Building on the success of the past five years, STAR-EC continued to engage PLHIV in planning, implementing, and monitoring activities related to PLHIV and their family members. STAR-EC also continued to support them to act as ‘linkage facilitators’ in 85 health facilities. STAR-EC engaged the 90 trained HBHTC counselors in conducting home based HIV testing and counseling to index client households. Consequent upon this effort, the PLHIV teams reached out to index client households where 27,675 individuals were tested out of which 2.4% were HIV positive and all linked to care at the nearest health facilities.

The fisherfolk of Sigulu and Jaguzi islands were noted to the main contributors to loss to-follow-up due to their itinerant nature. During PY6, STAR-EC supported the Mayuge District PLHIV forum in collaboration with NAFOPHANU to establish the Jaguzi Island PLHIV forum. The meeting attracted thirty-five PLHIV members, nine of whom were selected as committee representatives. Sigulu Main Island was also supported to establish a PLHIV network and NAFOPHANU mobilized the PLHIV and oriented the entire membership to the importance of coordination. NAFOPHANU will continue to conduct follow-up meetings quarterly to review progress of these networks.

PLHIV, through continued psychosocial support meetings, were supported to form ten more groups through which they accessed income generating support from partner organizations and local government support grants. During PY6, groups’ accessed Community Driven Development (CDD) grants from Bugiri, Namutumba and Iganga districts and 6,356 PLHIV and their family members were linked to wrap around services. PLHIV have started activities ranging from tomato gardening, drama groups, chicken rearing, piggery, bead making, orange plantation, mat making, mushroom growing, and a village saving and loan association from which they have paid school fees for their children and improve their standard of living.

3.1.4 Scaling up youth-friendly services in East Central Uganda



Over the past five years, STAR-EC noticed significant gaps in the provision of youth friendly services among supported facilities. STAR-EC leveraged existing stable adult and pediatric HIV clinics to improve services for HIV-positive youth. Five health facilities were supported to improve appointment scheduling for youth clinics and provide specialized care to adolescents. STAR-EC, in collaboration with Restless Development, hired an intern to support the establishment of youth friendly clinics. A defined package of services includes; sexually transmitted infections (STIs), HTC, sexual reproductive health (SRH), peer counseling and peer support was provided during a youth designated ART day. In addition, information, education, and communication (IEC) materials about condom use, HTC, sexual and reproductive health, family planning, disengaging from sexual networks, STIs, safe male circumcision, and nutrition were provided to facilities for distribution on clinic days. As a result of these efforts, a total of 295 HIV positive youth were linked into a youth friendly clinic from 5 health facilities (Iganga Hospital, Kiyunga HCIV, Kigandalo HCIV, Kamuli Hospital and Buyinja HCIV). To strengthen the continuum of care for youth, adolescents attending these clinics have been linked to community youth programs including games, psychosocial support groups, and income-generating activities supported by NAFOPHANU, Youth Alive, and FLEP among others.

3.1.5 Improving intra-facility linkages

During PY6, STAR-EC collaborated with Bantwana to recruit ten locum staff to serve as 'linkage facilitators' at 31 health facilities in the nine districts. The locum staffs have been instrumental in the collection and collation of program data on intra facility referrals and linkages. Referral registers were distributed to each of the supported facilities to enable documentation for all referral cases within and outside the facilities and this has resulted in improved patient flow, facility filling, and registers updates. Patient linkage and tracking along the continuum of care improved from 27% at the time of engagement of the locums (September 2013) to 61% by the end of PY6. As a result 5,356 clients were tracked as intra-facility linkage and 2,332 linked back to the community for wrap around

and OVC services.

3.1.6 Strengthening Community-led Quality Improvement

During PY6, in collaboration with the ASSIST project, STAR-EC worked with community structures (PLHIV, VHT and local councils) to integrate QI in community work to improve adherence and retention for HIV positive clients. Data was analyzed and villages with high HIV burden lost to follow-up were selected from two districts (Bugiri and Kamuli). Other criteria for selecting villages included: proximity to health facility and existence of community support personnel such as Village Health Team (VHT) members, expert patients, and HIV community support agents, who are the lowest level cadres in the national PLHIV network. As a result fourteen villages with the highest concentration of missed HIV appointments were selected for interventions.

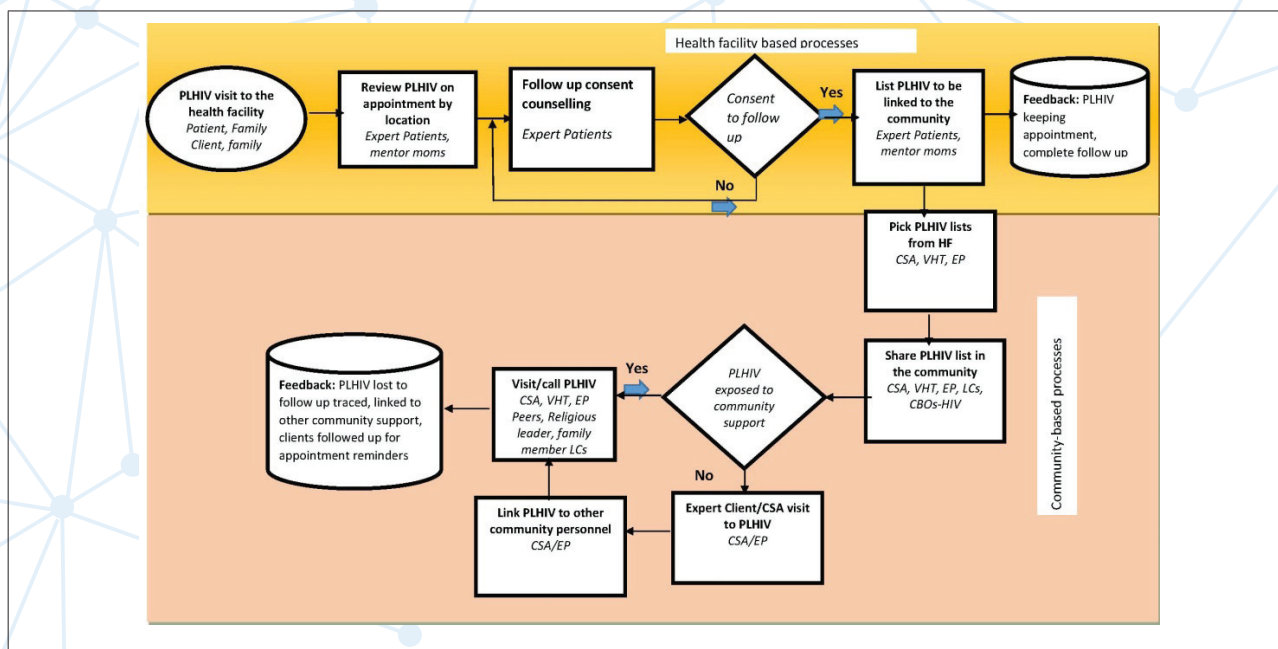
Interviews were conducted with patients and community-level tracking records for patients were reviewed to identify barriers to retention at the three health facilities. The three main reasons cited for missed HIV visits were forgotten HIV appointment, long distance to health facilities, and conflicting work schedules.

At each of the three health facilities, a team comprised of expert patients (EPs) and community support agents (who serve as linkage facilitators) was formed. Their role is to link HIV patients on ART and HIV+ mothers on Option B+ to resources in the community and track patients to ensure they return for scheduled HIV appointments. In addition, they identify gaps in the above processes, test changes to address gaps, and track progress using a documentation journal. The team's leaders participate in the health facility's quality improvement team to give feedback and lobby for support for their work. On a monthly basis, teams meet with a coaching team from ASSIST, STAR-EC, and district staff to receive on-site technical support, track progress, set aims, plan activities and once a quarter exercise peer-to-peer learning sessions.

3.1.7 Community QI Learning sessions

During PY6, both STAR-EC and ASSIST conducted a community experience sharing session for all the supported villages which attracted health workers, VHTs, expert clients, local council leaders and all community QI members. As a result, a standard linkage and follow-up process for PLHIV in the community was designed to guide teams in addressing patients' needs, reduce stigma, and expand support by involving other community-based personnel. Figure 27 illustrates the facility and community-based processes related to linking and following up PLHIV in the community.

Figure 27: Process Flow Map on Linkage and follow up of PLHIV in the community



As a result of the community support, facility adherence and retention indicators have greatly improved over the 12 months as presented in the HIV/COR community Dash board (Appendix 1).

Lessons Learned

- ▶ Involving VHTs and expert patients in facility-based HIV activities helps relieve patients’ fear, mistrust, and stigma for community activities
- ▶ Assigning roles and responsibilities to individual participants in community quality improvement teams motivates participation in improvement activities

3.1.8 Strengthening the OVC ‘Continuum of Response’ and care

During PY6, STAR-EC supported strengthening the Continuum of Response (CoR) and Care for Orphans and other Vulnerable Children (OVC) at health facility and community level through an integrated approach. Various strategies including, integrated HTC outreaches in OVC dwelling places (orphanage homes, child development centers and landing sites/hot spots), mapping of OVC households for early identification and referral, engaging of community structures – Community Development Officers (CDO), orientating health workers in child protection, formation of young positive psychosocial support groups and home visits were used to identify, refer and link OVC and their caregivers to a wide range of HIV/AIDS and TB services.

3.1.9 Increase OVC Linkage to HTC services, linkage to care and other wrap around services

To increase identification, referral and enrollment of vulnerable children into care and other non-medical services such as child

protection, legal support, psychosocial, education support, basic care and HTC services were conducted in integrated outreach settings in OVC dwelling places, islands and through home visits. As such, fifteen Child Development Centers (CDCs) were visited, twelve landing sites and 1,271 mapped OVC households during the year under review. As a result 7,361 children were counseled and tested registering a 5.5% positivity (See Table 21). All identified children were linked and enrolled to nearest ART care centers. With Bantwana supported Locums and integration interns, more children were referred to health facility and community OVC service providers for comprehensive services.

Table 21: Number of OVC tested, linked and referred for other wrap around services

Section	Indicator Description	No. served during PY6
OVC	# of OVC served with HTC at the facility	7361
	# of OVC that were positive	408
	# of HIV+ OVC enrolled in Care	831
	# of Young Positive active in care	8289
	# of Young Positives linked to facility PSS groups	1931
	# of Young Positives referred for other wrap around services	868
	Proportion of OVC lost-to-follow up from HIV care who are linked back	75

Source: STAR-EC Program data

Additionally, in order to ensure that children in hard-to-reach areas are served, integrated outreaches in Lolwe and Sigulu islands

prioritized OVC. A total of 1,747 children received HTC of whom, seventeen tested positive and were newly enrolled on ART. CDOs, probation officers and DCDOs have been engaged in integrated health outreaches and as a result 948 children together with their caregivers have been provided psychosocial support (PSS).

3.1.10 Orientation of key stakeholders on OVC integration, networking, linkage and case management

During PY6, STAR-EC oriented 850 stakeholders from the nine districts in integrating OVC in their programming. The stakeholders included; the police, school nurses, representatives of civil society organizations, VHT coordinators, expert clients and health workers. These were taken through the, OVC policy, the National Strategic Programme Plan of Intervention for OVC services (NSPPI-2), OVC quality standards and OVC continuum of response. During the orientation, a health worker from Kityerera H/C IV confessed that, "I am the one who has been seriously frustrating the OVC things because I did not know what it is all about... Now that I know, I will work hand in hand with the Locum, Expert clients and other health workers to ensure that identified OVC are helped. . .". To strengthen coordination of child protection efforts, 210 Child Protection Committee (CPC) members including Local council leaders, teachers, VHTs, religious leaders and other respected members within the community that have passion for children from Namutumba, Kaliro, Mayuge, Iganga, Bugiri and Kamuli districts were trained under the guardianship of CDO and probation officers. These have worked together to ensure vulnerable children access health services, cases of child abuse are immediately addressed or appropriately referred and followed up. As such, 702 (161 school dropouts, 39 early marriages, 263 neglect/abandonment, 62 defilement and 177 physical abuse/domestic violence) child related cases have been recorded, assessed, followed up and resolved by the CPC.

3.1.10.1 Support Young Positive Psychosocial support groups at community level.

STAR-EC supported the formation of eighteen Young Positive PSS community groups with 540 members. These have been mentored in various skills including self-help survival approaches, livelihood skills (poultry rearing, horticulture, raising pigs, and crafts) to enable them engage in less hazardous work that is not detrimental to their health. These groups have been supported to meet regularly and during meetings other issues affecting their wellbeing such as Positive living, adherence, disclosure, sexual and reproductive health, relationships and sexuality, preventing new HIV infections and positive prevention, coping with school, finding work, survival skills and other life skills that will make them grow as responsible and productive people in their communities were discussed. This has greatly improved the health of young positives.

Lessons Learned

- ▶ Utilizing young positives as peers improves youth self esteem and confidence thereby improving youth

retention in cares

- ▶ involving PLHIV structures to identify households with HIV positive children improves young positives to linkage into care

Challenges

- ▶ Lengthy legal processes and high costs involved in following up defilement and other child abuse related cases at community level. This has discouraged the pursuit of justice using established legal structures.
- ▶ Limited trained health workers in pediatric counseling skills and youth friendly services making it hard to adequately help and address need of young adolescents.

Ignorance amongst some caregivers of vulnerable children especially those that are HIV positive.

This has a negative bearing to their disclosure and adherence to treatment.

- ▶ Poor nutrition amongst majority of OVC continues to be a threat to their health and development.
- ▶ Limited capital to start up gainful ventures exacerbated by high poverty levels at household level undermines young positives effort to execute their projects or acquire skills that can allow them engage in less risky employment.

3.3 Support to Strategic information collection and utilization

3.3.1 Enhancing clients' records management

STAR-EC supported data management through distribution of 3,000 file folders and 3,000 patients monitoring cards focusing on 112 ART/HIV care sites. Additionally, the program supported printing and distribution of revised HMIS tools (including Option B+) to various health facilities. STAR- EC will consequently conduct training on the use of revised tools during Q1, PY7. In addition, STAR-EC supported roll out of Open MRS (bringing the total number to twelve health facilities) and reporting through DHIS2 by distributing ten new computers, ten internet modems and facilitating computer maintenance.

3.3.2 Data Quality Assessment

During PY6, STAR-EC continued to conduct routine data quality assessment and improvement exercises while working closely with district specific HMIS focal persons and CSOs. These were mainly conducted prior to and in the aftermath of every reporting quarter. This helped to improve the quality of data at health facility, district and CSO level, thereby providing confidence in the quality of data that was reported to MoH and USAID during PY6.

3.3.3 Harmonization of the District Health Information System (DHIS) 2 and the Monitoring and Evaluation of Emergency Plan Progress (MEEPP) HIV Based Integrated Real Time Database (HIBRID)

In response to under performance by some districts reported in the MEEPP and MoH quarterly league tables, STAR-EC worked with HMIS officers and District Biostatisticians to harmonize data entered in the two systems (DHIS2 and HIBRID). This is still an on-going activity and efforts will be made to continuously improve reporting including reductions in data discrepancies between the two systems during subsequent quarters.

3.3.4 Support to use of evidence-based planning and decision making using Lot Quality Assurance Sampling (LQAS)

As part of annual program progress monitoring, STAR-EC assisted LG personnel in conducting the 2014 household-based survey using the LQAS methodology. This year's survey increased involvement and responsibilities allocated to LG personnel to foster sustainability. During the 2014 LQAS survey, a total of 63 LG personnel were trained/re-trained. The USAID/SDS project was able to provide financial support to six STAR-EC districts in the execution of this activity. Results from the survey have already been used in planning for subsequent quarters by CSOs, LGs and STAR-EC during the PY7 work planning and targeting.

3.3.5 District led District Performance Reviews and dissemination of 2013 LQAS survey results

In a bid to promote ownership and sustainability, all nine district local governments organized and conducted district performance review meetings with minimal technical assistance from STAR-EC. During these disseminations, triangulation of HMIS and LQAS results was key and district staff were able to review their performance in relation to sub-county, district, regional and national targets by technical area. Performance gaps were identified and actions for performance improvement developed.

3.3.6 Collaboration Learning and Adaptation (CLA)

As part of Collaboration Learning and Adaptation, STAR-EC participated in the following meetings, trainings with other partners and stakeholders during the program year;

- ▶ The program was part of a team selected to review and community indicators for the M&E Framework organized by MoH and WHO
- ▶ IP orientation workshop on USAID/Uganda's Performance Reporting System (PRS) organized by USAID
- ▶ Orientation training on the PEPFAR Records and Organization Management Information System (PROMIS) database and launch of expenditure analysis

(EA) organized by the US mission in Uganda for all PEPFAR implementing partners.

- ▶ STAR-EC participated in the eMTCT DQA in Kaberamaido which was conducted by MEASURE Evaluation in conjunction with MoH
- ▶ STAR-EC together with two biostatisticians from Bugiri and Mayuge districts attended a PMTCT M&E training on the revised HMIS tools and HIV&AIDS care guidelines organized by the MoH
- ▶ STAR-EC and other district officials from Luuka, Buyende, Namayingo and Namutumba attended and participated in the LQAS information sharing meeting organized by MSH/STAR- E LQAS Project.

3.3.7 Strengthening community based Strategic information systems

- ▶ During PY6 STAR-EC continued to support community structures to collect, document, report, and utilize data for planning purposes. During the year STAR-EC with the support from the Ministry of Health conducted refresher training to 380 on HMIS community forms to ensure improved and effective reporting for community data. STAR-EC also supported VHTs with HMIS tools (096, 097, 15A, and 15B) to enable them report to facilities and subsequently the national HMIS. On a quarterly basis, STAR-EC engages HMIS focal persons in the collection, entry, and analysis of VHT data which is then shared at district and national level. To date, VHT reporting is at 75%, up from less than 40% during PY5. STAR-EC also supported quarterly VHT data triangulation meetings at the regional level. Representatives from all supported sub counties gathered, shared data experiences, status on district reporting and how to improve reporting.

3.3.8 Information sharing at international level

In total, 13 abstracts were accepted (2 oral and 11 posters) at the 20th International AIDS Conference (AIDS 2014) held in Melbourne Australia, 20th - 25th July, 2014. These demonstrated STAR-EC's success, best practices, and innovations accruing from the implementation of HIV&AIDS and TB programs in East Central Uganda. Seven staff members represented STAR-EC at AIDS 2014 Conference with various findings. Additionally, STAR-EC developed, shared and presented four abstracts at the 17th ICASA conference, Cape Town, South Africa 7th – 11th December, 2013. The list of abstracts can be found under Appendix 4.

Lesson learned

- ▶ Building the capacity of records and HMIS officers to analyse data is critical for sustained data use at health facility & district level

Challenges

- ▶ There is a high backlog of ART data that is affecting operationalization of Open MRS
- ▶ Due to the remoteness of certain districts, internet connectivity is often interrupted affecting timely entry of

data in DHIS2

- ▶ High staff turn-over and continued transfer of health workers within and across different LGs affects reporting to MoH and STAR-EC. This is because continuous training of new medical records officers who were not previously trained in HMIS reporting tools is required

Way forward

- ▶ HMIS 105 and the EMTCT addendum reports will be filled simultaneously. It is our hope that MOH will speed the process of harmonizing both reporting forms into one to avoid reporting inconsistencies.
- ▶ STAR-EC will continue promoting the mother -baby pair concept to help harmonize reporting between EMTCT and EID clinics.
- ▶ STAR-EC will continue helping district biostatisticians utilize spreadsheets to monitor timeliness of various health facilities during reporting. The process includes stamping and filing hard copies and keeping soft copies of the same information.
- ▶ In view of promoting sustainability, more roles will be transitioned to district bio-statisticians especially those in relation to reporting

3.4 Collaboration with Strengthening Decentralization for sustainability (SDS) Program

3.4.1 District Operational Plans promote district ownership and sustainability

PY6 marks the final year of active participation of STAR-EC in the implementation of “category A” grant funded activities by the SDS program. Over the past three years since the introduction of the USAID District Operation Plans (DOP) mechanism, whose implementation is overseen by the SDS program, significant improvements have been made in the planning; implementation, monitoring and performance evaluation of activities funded by USAID funded implementing partners. Communication and coordination, peer review mechanisms and joint support supervision of activities supported by USAID implementing partners have greatly improved leading to quality health service delivery in the districts. USAID funded DBTAs and implementing partners have, through attending key activities under the DOP mechanism, particularly the district management committee (DMC) meetings, greatly contributed to improvements in reporting and planning, sharing of best practices and identifying lagging activities that require support from individual DBTAs or collective action of all development partners. Using the DMC platform, DBTAs and implementing partners have become more transparent and accountable to the districts while the districts have greatly improved in report writing skills, presentation and critiquing the plans and budgets proposed by implementing partners. This has in a way promoted district ownership of the activities supported by the USAID implementing partners, improved empowerment of the districts’ staff and enhanced sustainability of the supported activities after the partners have phased out.

3.4.2 Implementation of ‘Category A’ grant funded activities

Marked improvements have been registered by individual districts and USAID implementing partners in the quality of planning, implementation, monitoring and evaluation of the “category A” Grant funded activities during PY 6. This has been made possible through the active participation of the implementing partners in the quarterly planning and budgeting workshops organized by SDS for the Category A grant funded activities both at national and regional levels, joint (districts and implementing partners) support supervision visits through which on-the-spot technical assistance was provided to the implementers, attendance of extended district health team (e-DHT) meetings during which best practices are shared, lagging areas identified and action points for follow up and corrective action developed. The partners also participated in performance validation exercises during which stakeholders (district and USAID implementing partners) following an agreed criteria against a set of key activities, evaluate performance using weighted scores.

By the close of PY6, the SDS/STAR-EC supported districts had registered impressive performance during the round 4 performance validation exercised averaging to over 80% for each district. Efforts shall be made to consolidate this good performance during the period October to December 2014 that marks the end of program implementation by the STAR-EC program.

3.4.3 Management of “Category A” grant funded activities after STAR-EC program Phase-out

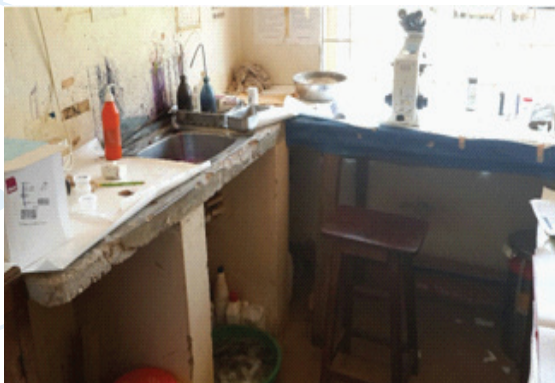
Discussions at different fora (meetings and workshops) at the national and regional levels have been held with SDS and the districts to inform them of the impending phase out of the STAR-EC program by 9th March 2015, with actual implementation of activities stopping in December 2014. While USAID/SDS has approved a set of ‘category A’ grant funded activities for the period up to December 2015, the standing phase out plan for STAR-EC indicates March 9th 2015 as the close out date. Unless USAID provides further guidance on a new close out date, it is assumed that STAR-EC would close as planned. Accordingly, phase out discussions with SDS and the districts have centered on how the districts will continue implementing the activities without technical support supervision and other forms of support and participation by STAR-EC. However, owing to the systems and procedures of implementation, monitoring and evaluation, program reporting and financial s

by STAR-EC. However, owing to the systems and procedures of implementation, monitoring and evaluation, program reporting and financial accountability built over the past four years of working with the SDS program, STAR-EC strongly believes that in the event that STAR-EC phases out as per earlier plan by USAID, the districts with support from SDS would be able to continue delivering value for money health services to the communities.

3.5 Systems Strengthening through Physical Infrastructure Improvement

In a bid to improve access to, quality and utilization of health services, STAR-EC during PY6, with approval from USAID, contributed to the improvement of physical infrastructure at selected health facilities. The selected infrastructure included remodeling of the laboratory at Nsinze HCIV, construction of a Patient Waiting Shed at Kityerera HCIV and construction of Placenta Pits at health centers II located at landing sites of Mayuge, Buyende and Namayingo district including the Islands of Ssigulu.

The remodeling of the laboratory at Nsinze HCIV, culminated from an extensive laboratory assessment exercise conducted in 2010 by the Ministry of Health (MoH) and STAR-EC that identified Nsinze HCIV laboratory in Namutumba District, as one of the most structurally poor and ill-equipped Health Centers IV in the East-Central region. Accordingly, STAR-EC made a budget provision for the remodeling works during PY6. Through a competitive bidding process, PAROZ Construction Company Ltd was selected to undertake remodeling works that were accomplished within the contracted period.



Laboratory worktop at Nsinze HC IV before renovation



New Work Top at the remodeled laboratory at Nsinze HCIV

Before remodeling the laboratory, staff used to work in one small congested room while after remodeling, enough space was created including new worktops as evidenced in the pictures above. The major purpose of remodeling the laboratory was to improve on the laboratory services related to, but not limited to; ART, Maternal and Child Health, TB and HIV&AIDS by creating enough and good working space for the laboratory staff including work tops, equipment rooms, blood bank, offices, counseling rooms, phlebotomy area, and stores.



Exterior view of the remodeled laboratory at Nsinze HCIV annexed to the OPD department



Patient Waiting Shed at Kityerera HCIV

A patient waiting shed was constructed at Kityerera HCIV, which is one of the high volume sites in the East -Central region and indeed the busiest in Mayuge District. Before construction of the patient waiting shed, the facility used to be overcrowded especially during special clinic days such as for ART, Immunization, SMC and Antenatal care, while after construction of the shed, the shed is being used for multiple functions including but not limited to health education sessions, immunization, TB infection control, group counseling, and multi-purpose meetings.

Placenta Pits were constructed at fifteen high volume Health Centers II at selected landing sites in Buyende, Mayuge and Namayingo districts including the islands of Ssigulu. The selected health facilities are being promoted by STAR-EC in consultation with the MOH, with a view to eventually upgrade them to HC III level. The selected HCs II currently conduct deliveries and also render other health services in hard-to-reach areas inhabited by most at risk populations such as the fisher folk and commercial sex workers. Placenta pits will go a long way in ensuring safe disposal of placentas. They will also partly contribute to the fulfillment of MoH's criteria for upgrading HCs II to level III.



Placenta Pit at Kandege HCII- Ssigulu Islands

3.6 Grants to Civil Society Organizations

During PY6, eight CSOs namely; Bukooli Islands Women Integrated Health Initiative (BIWIHI), Friends of Christ Revival Ministries (FOCREV), Jinja Diocese Health Office (JDHO), National Forum of People Living with HIV&AIDS Networks in Uganda (NAFOPHANU), Uganda Development Health Association (UDHA), Family Life Education Program (FLEP), Uganda Reproductive Health Bureau (URHB) and Youth Alive received grants from STAR-EC to further community based TB and HIV&AIDS services provision in the high HIV burden and hard to reach areas in the nine districts.

By design these eight CSOs helped to consolidate and focus for impact TB and HIV&AIDS community interventions targeting key affected populations in HIV burdened and hard to reach areas across the nine districts. As such they focused their energies on hotspots such as truck stops along the northern transport corridor, landing sites and island areas in collaboration with nearby health facilities to ensure continuum of response across HTC, TB, eMTCT, care and treatment, VMMC and OVC services among others at community level both on the mainland and islands.

In the course of PY6 CSOs received capacity building and on job support supervision from STAR-EC and the district health offices in a bid to improve the quality and integration of the targeted TB and HIV&AIDS services. This capacity building and support supervision focused on the revised data HMIS reporting tools, the importance of well written success stories, how to improve the organizational capacity of CSOs and the feasible sustainability strategies to adopt in the run up to the STAR-EC program closure.

As a consequence, the organizational management and proposal writing capabilities of the eight CSOs have improved with half of them (FLEP, FOCREV, URHB and Youth Alive) now being able to solicit and successfully compete for other donor funding. It is thus our belief that they will continue to serve the communities and build on investments made during almost six years. Table 22 summarizes individual CSO performance for PY6.

Table 22: Individual CSOs performance for PY6

Name of Grantee	Results achieved for key CSOs intervention areas				
	HTC	MARPS reached	Other prevention	Condoms distributed	Referrals made
FLEP	22,108	16,250	37,809	574,287	10,856
URHB	18,008	20,276	18,210	296,603	4,553
YA	18,592	788	41,371	422,207	5,773
BIWIHI	14,374	20,276	14,348	19,948	6,496
JDHO	30,855	10,426	11,960	0	18,214
FOCREV	13,497	39,475	34,151	813,090	1,856
NAFOPHANU	28,203	0	0	0	22,155
UDHA	11,138	2,944	37,158	1,589,085	866
Total for CSOs	156,775	110,435	195,007	3,715,220	70,769
Total overall PY6	798,335	118,479	271,175	5,200,000	189,757
% contribution to the overall PY6 results	20%	93%	72%	71%	37%
% contribution to the overall PY5 results	11%	71%	87%	49%	N/A

Source: STAR-EC Program Records

Despite the improvement realized in service provision when compared to PY5 as illustrated in table xx, general stock out of HIV test kits during Q1, PY6 at health facility level remained a challenge for CSOs to offer HTC as an entry point to combination prevention. Further CSO work was hampered by financial and program slowdowns in Q1 and Q3.

3.6.1 Sub Awards

During PY6 the four STAR-EC sub recipients; Bantwana, CDFU, m2m and Uganda Cares continued to support implementation of program activities both at facility and community level using a targeted and integrated approach to ensure a continuum of response across the TB and HIV&AIDS pivot intervention areas. A summary for each of the sub recipients is illustrated below;

Bantwana took a lead role in supporting the STAR-EC referral and networks; and OVC portfolio during PY6. Some of the key interventions undertaken included support to the PLHIV network NAFOPANU to ensure timely update of members through mapping and registration both at community and facility level. Similarly, in collaboration with SUNRISE, the program supported increased community-facility pediatric linkage by engaging CSOs, VHT coordinators and HMIS Focal persons in OVC capacity building and mentorships to further improve on OVC service provision and the requisite community HMIS reporting mechanism.

m2m supported the four eMTCT prong approach across the nine districts with the primary intention of improving identification, enrollment, adherence and retention of HIV positive pregnant and lactating mothers together with their exposed babies on the eMTCT continuum of care. As such m2m consolidated the 'mentor mother' model in the 45 sites through on going capacity building and on job coaching of the 'mentor mothers' to ensure an appropriate eMTCT continuum of response that included island health facilities.

CDFU supported the communication and demand creation interventions undertaken by STAR-EC at both facility and the community level. Innovative approaches such as puppetry during condom promotion and mobilization, interactive radio programs targeting parents and guardians of exposed/HIV positive children regarding the importance of early diagnosis, enrollment and adherence on paediatric care and treatment, branding of buildings and boats at hotspots with prevention messages in some hotspots like the landing sites and islands as well as scenario events such as condom karaoke at hotspots among others.

Uganda Cares supported the STAR-EC laboratory, capacity building as well as the care and treatment portfolios during PY6. STAR-EC successfully rolled out 6 laboratory samples transport hubs in the region that has helped streamline sample transport to all facilities including HCs II. Uganda Cares has also supported STAR-EC to roll out the revised ART/eMTCT guidelines in the region in collaboration with MOH and district based mentors. This roll out of guidelines and the engagement of locum staff to beef up the already overstretched health facility ART teams has drastically increased the pace of enrollment onto ART of all eligible clients.

3.6.2 Support to District-led activities

Through both the STAR-EC centralized and SDS funding mechanism, STAR-EC supported implementation of district-led activities, provision of supplies (including condoms) and technical support to health workers through mentorships and on job coaching during implementation of the TB and HIV&AIDS activities at facility and the community through the . In the three districts of Buyende, Luuka and Namayingo that are not supported by the SDS grants mechanism, STAR-EC provided the requisite activity based financial support.

3.6.3. Monitoring and Supervision

The STAR-EC technical and grants management team during PY6 regularly monitored and supervised the sub-awards and grantees across the nine districts through quarterly field visits annual reviews and as the program nears its end, through close out orientation to the CSOs. During this period, emphasis was placed on compliance to the STAR-EC grant agreement terms and conditions.

3.6.4 Cost Share

The excellent collaboration between STAR-EC, CSOs, MOH and District health offices were a key avenue from which STAR-EC managed to meet and surpass the required cost share target of \$ 3,323, 452.55. Through ongoing capacity building and field visits all through the six program years, the STAR-EC grants management team successfully mentored CSOs and district personnel regarding the importance of cost share while implementing USAID funded or other interventions.

4.0 Conclusion

During PY6, STAR-EC supported the implementation of activities at district, community and household levels that have translated into more accessible and quality services that have benefited a significant proportion of the target population in East Central Uganda. Central to all the interventions that were implemented during PY6 was a consistent focus on MARPs and vulnerable groups, something that took precedence in order to directly address existing epidemiological evidence regarding HIV prevalence. Owing to this prioritization, the impact of high impact services and health systems strengthening interventions was spread all over the nine districts and even felt in the most remote corners of East Central Uganda - the Sigulu Islands. The program distinguished itself in innovating and scaling up scientifically sound solutions to health challenges. One of the most significant achievements in maximizing the impact of health interventions is that by the end of September 2014, the program has reached 347,873 males with VMMC since program inception.; This constitutes an enormous contribution and a milestone in the country's strategy to save lives and realize an AIDS-free generation.

For health system changes to be effective and have lasting impact, STAR-EC has worked with and through local institutions to create efforts that are owned, believed in and supported by the communities themselves. Pursuant to this endeavor, STAR-EC built the capacity of hundreds of service providers in health facilities and engaged communities in improving health outcomes. Utilization of VHTs in mapping, referring and linking clients to facility-based services epitomizes the program's robust approach in developing, refining and implementing district and community-led strategies in stemming the tide of new infections and ensuring that individuals and families receive the health care they deserve. Furthermore, integral to STAR-EC's successful TB and HIV interventions and the successes registered in PY6 in particular, is the collaboration of local civic and religious groups, the Ministry of Health, nongovernmental organizations, communities and other Implementing partners that are committed to delivering quality health care and saving lives.

During the remaining program life, STAR-EC will continue to implement a mix of high priority biomedical, behavioral and structural interventions, strengthen health systems for delivering quality services and optimize opportunities for enhancing collaborating, learning and adapting (CLA) through performance review meetings, quality improvement team initiatives and forums for celebrating achievements and disseminating lessons garnered during the entire life of the program.

The magnitude of results detailed in this report could not have been achieved without the partnerships of Ministry of Health technical staff, USAID, district local governments, JSI head office, STAR-EC sub partners, CSOs and other implementing partners working in East Central Uganda. We wish to acknowledge and thank all STAR-EC program partners for their individual contribution towards the results described in this report.

Appendix 1


Community DASH BOARD

HIV/CoR/COMMUNITY DASHBOARD JULY 2013- MAY 2014																						
JULY - SEPT 2013						OCTOBER-DECEMBER 2013				JANUARY-MARCH 2014				APRIL-JUNE 2014				JULY-AUGUST 2014				
Village	District	IP	Linkage		Retention	QI team maturity	Linkage		Retention	QI team maturity	Linkage		Retention	QI team maturity	Linkage		Retention	QI team maturity				
			% linked to community	% complete follow up			% kept appointment	2.5 on TMI			% linked to community	% complete follow up			% kept appointment	2.5 on TMI			% linked to community	% complete follow up	% kept appointment	2.5 on TMI
1 Busanzi	Bugiri	STAR EC	ND	ND	41%		99	34	82		55	81	92		96	81	96		100	86	91	
2 Busowa	Bugiri	STAR EC	ND	ND	52%		92	51	77		59	79	83		88	82	78		100	86	86	
3 Butambula	Bugiri	STAR EC	ND	ND	48		89	28	77		56	85	77		100	91	100		100	95	100	
4 Bwole	Bugiri	STAR EC	ND	ND	52%		92	31	64		73	91	84		90	95	88		100	93	95	
5 Mukuba	Bugiri	STAR EC	ND	ND	64		86	58	75		90	88	92		90	94	100		100	77	82	
6 Ndifakulya	Bugiri	STAR EC	ND	ND	49		92	41	73		96	62	98		94	94	98		89	88	100	
7 Nkusi	Bugiri	STAR EC	ND	ND	58		93	71	83		68	90	67		94	99	97		100	92	94	
8 Busoigo	Kamuli	STAR EC	ND	ND	ND		100	44	100		100	40	47		91	65	63		100*	59*	76*	
9 Butekanga	Kamuli	STAR EC	ND	ND	ND		73	74	67		98	66	72		96	91	84		97*	80*	93*	
10 Buwanzu	Kamuli	STAR EC	ND	ND	ND		74	59	45		100	55	84		100	76	88		100*	64*	93*	
11 Kananage	Kamuli	STAR EC	ND	ND	ND		74	75	49		82	72	68		88	88	81		82*	82*	88*	
12 Kulingo	Kamuli	STAR EC	ND	ND	ND		93	76	82		90	73	74		98	96	88		100*	87*	93*	
13 Mandwa	Kamuli	STAR EC	ND	ND	ND		100	20	60		92	60	72		93	72	80		100*	56*	83*	

Data for two months
*Data for one month

Key - appointment keeping/follow up		Key - Team Maturity		Key - Linkage	
MOH standard met (>85%)	Good	3.0-	Good	≥90%	Good
>60 (but below MOH standard)	Fair	2.0-2.5	Fair	89%-80%	Fair
<60%	poor	1.0-1.5	Poor	≤79%	Poor
ND	Not Data	ND	No Data	ND	No Data

Appendix 2: Continuum of Response Dashboard



USAID
FROM THE AMERICAN PEOPLE

USAID ASSIST PROJECT
Applying Science to Strengthen and Improve Systems

HIV CONTINUUM OF RESPONSE ADULT DASH BOARDS USAID ASSIST SUPPORTED SITES IN EASTERN CENTRAL UGANDA

District	Site Name	Implementing Partner	Baseline - May 2013								August, 2014									
			% positive clients linked to care	% Eligible started on ART	Retention		Clinical outcome	TB		HIV Positive Pregnant Retained	% positive clients linked to care 15yrs	% ART Eligibility Assessment 15yrs	% Eligible started on ART 15yrs	Retention		Clinical outcome 15yrs	TB		HIV positive pregnant Retained	
					ART Retention in care	Pre-ART Retention in care		Co-infected enrolled on ART	Completion date					ART Retention in care	Pre-ART Retention in care		Co-infected enrolled on ART 15yrs	Completion date 15yrs		TB Retention in care 15yrs
BUGIRI	Bugiri Hospital	STAR-EC	75%	94%	90%	93%	71%	72%	62%	87%	100%	100%	100%	85%	67%	70%	100%	80%	100%	90%
IGANGA	Iganga Hospital	STAR-EC	97%	90%	88%	91%	79%	82%	95%	81%	63%	90%	100%	73%	80%	80%	75%	100%	100%	90%
LUUKA	Irongo HC III	STAR-EC	100%	64%	91%	81%	79%	100%	NA	94%	100%	90%	100%	100%	51%	100%	100%	NA	100%	100%
KAMULI	Kamuli Gen. Hospital	STAR-EC	78%	7%	95%	89%	81%	100%	100%	93%	90%	100%	95%	90%	43%	89%	80%	100%	100%	92%
MAYUGE	Kigandalo HC IV	STAR-EC	47%	43%	64%	ND	NA	100%	14%	98%	62%	100%	80%	74%	44%	86%	100%	100%	NA	89%
NAMUTUMBA	Magada HC III	STAR-EC	75%	100%	78%	85%	58%	33%	NA	67%	100%	100%	100%	75%	25%	74%	100%	100%	100%	100%
KALIRO	Namwiwa HC III	STAR-EC	67%	83%	99%	89%	67%	NA	NA	84%	100%	100%	100%	60%	67%	100%	100%	100%	NA	100%
KAMULI	Nankandulo HC IV	STAR-EC	50%	89%	93%	94%	59%	0%	50%	98%	100%	92%	87%	85%	80%	72%	100%	100%	100%	100%

Key

MoH Standard Met	Good
>60 (but below MoH Standard)	Fair
<60%	Poor
NA	No Eligible clients/cases
ND	Data not available

Appendix 3: Annual Linkage Table PY6

Type of linkage	Indicator description	Bugiri	Buyende	Iganga	Kaliro	Kamuli	Luuka	Mayuge	Namayingo	Namutumba	Regional	COMMENTS
HIV + from HTC and CTX	HIV +	1,636	1,672	2,014	888	3,075	968	2,753	4,909	937	18,852	The positives include the new positives at ANC, L&D, PNC and General HTC including VMMC but excludes known & documented status since most of them are already in care
	CTX	1,368	1,411	1,694	844	2,912	921	2,721	4,068	903	16,842	
	Proportion of HTC clients provided with a minimum of care service (CXT)	84%	84%	84%	95%	95%	95%	99%	83%	96%	89%	
HTC to care	# newly identified HIV-positive individual	1,636	1,672	2,014	888	3,075	968	2,753	4,909	937	18,852	All HIV positives except those with a known and documented status/ TB
	# identified PLHIV newly enrolled in care	1,446	748	1,784	517	2,041	628	2,088	1,777	526	11,555	All clients enrolled in pre-ART in PY6
	Proportion of HTC clients linked	88%	45%	89%	58%	66%	65%	76%	36%	56%	61%	
HTC only to care (excluding women from PMTCT)	# newly identified HIV-positive individual	1,414	1,498	1,612	803	2,550	824	2,496	4,645	848	16,690	These excludes positives from ANC,PNC and L&D
	# identified PLHIV newly enrolled in care	1,237	644	1,390	415	1,602	463	1,781	1,586	420	9,538	These exclude new care clients from ANC, PNC and L&D
	Proportion of HTC clients linked	87%	43%	86%	52%	63%	56%	71%	34%	50%	57%	
PMTCT to care (including all pregnant women and PNC but excluding known & documented)	# new HIV-positive pregnant & PNC women	222	174	402	85	525	144	257	264	89	2,162	These include new positives from ANC+ PNC+ L&D
	# HIV+ pregnant & PNC women enrolled in care	209	104	394	102	439	165	307	191	106	2,017	These are ANC, PNC and L&D. To note, we used option B+ clients as proxy for PNC and L&D care clients since they don't have codes in pre- ART register
	Proportion of PMTCT clients linked	94%	60%	98%	120%	84%	115%	119%	72%	119%	93%	% > 100% could be due to enrolment of revisit (old) HIV+ mothers into care due to option B+

PROGRAM YEAR 6

Type of linkage	Indicator description	Bugiri	Buyende	Iganga	Kalro	Kamuli	Luuka	Mayuge	Namayingo	Namutumba	Regional	COMMENTS
PMTCT to care (excluding PNC and known & documented)	# new HIV-positive pregnant women	193	125	353	64	363	88	242	234	66	1,728	These include new positives at ANC but exclude PNC, L&D and Known & Documented HIV positives
	# HIV+ pregnant women enrolled in care	170	71	330	74	313	127	260	161	85	1,591	These are ANC clients newly enrolled in Care
	Proportion of pregnant women linked	88%	57%	93%	116%	86%	144%	107%	69%	129%	92%	% > 100% could be due to enrolment of revisit (old) HIV+ mothers into care due to option B+
TB to care	# newly identified TB- HIV positive	75	23	176	30	66	41	111	93	38	653	
	# TB-HIV cases enrolled in HIV care	75	23	176	30	66	41	111	93	38	653	
	Proportion of TB clients linked	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Care to ART	# PLHIV in care eligible for ART	1,160	800	1,730	510	1,672	552	1,460	1,715	634	10,233	
	# eligible clients newly started ART	1,121	722	1,589	510	1,655	480	1,445	1,672	585	9,779	
	Proportion of eligible clients initiated on ART	97%	90%	92%	100%	99%	87%	99%	97%	92%	96%	

Appendix 4: List of Abstracts

The papers presented at the 17th ICASA conference, Cape Town, South Africa 7th–11th December, 2013 included;

- "Barriers to Family Planning Service Utilization Among People Living With HIV&AIDS (PLHIV) In Resource Limited Settings: A case of Iganga Hospital in East Central Uganda" V. Gwokyalya, C.Obura, R. Baruka, A. Mugume
- "Improving TB Case Detection: Innovations From A Remote Health Facility In Namayingo District, Uganda" V. Mukyala, S. Lwanga, A. Kitundi, J. Bwire, V. Gwokyalya
- "Scaling up Voluntary Male Medical Circumcision while Responding to Demographics: Lessons from a Rural Hospital in East Central Uganda" M. Ndifuna, J. Wandera, E. Tibenderana, S. Kironde, A. Mugume
- "Innocent, Vulnerable But At Risk Of Contracting HIV: Improving Early Infant Diagnosis of HIV Among Babies Born To HIV Positive Mothers Through Referral Of Dry Blood Spots- Experience from East Central Uganda." S. Mashate, S. Kironde, A. Mugume, D. Tumuhairwe, E. Tibenderana, F. Kazibwe, R. Kimuli, C. Kiyaga, G. Guma

Abstracts presented at 20th International AIDS Conference (AIDS 2014)

- "Responding appropriately to the complex health needs of most-at-risk populations in hard-to-reach areas: Improving HIV outcomes through integrated service delivery to fishing communities of the Sigulu Islands in Uganda." S. Kironde, F. Ajok, A. Mugume, P. Magoola
- "Contribution of Lay Health Providers in Scaling Up Option B+ Interventions: A Case of Concerted Efforts of Mentor Mothers through Psychosocial Support Groups in East Central Uganda." S. Auma, B. Mugisha, R. Muke, V. Kawooya, M. Mbule, F. Kazibwe, A. Mugume, S. Kironde, D. Businge, & E. Okonji
- "Rapidly scaling up voluntary medical male circumcision (VMMC) for HIV prevention: Experiences with using innovative methods for most-at-risk populations in East Central Uganda." S. Kironde, M. Ndifuna, E. Tibenderana, A. Mugume
- "Utilization of 'mentor mothers' to support their peers for successful PMTCT service delivery: Experiences from rural facilities with human resource limitations in East Central Uganda." S. Kironde, M. Mbule, F. Kazibwe
- "Expanding coverage of Voluntary Medical Male Circumcision (VMMC) in hard-to-reach high HIV prevalence communities: A case of Namayingo District East Central Uganda." E. Tibenderana, M. Ndifuna, A. Mugume, S. Kironde, R. Bbuye, H. Ndagire, C. Kaluba
- "Utilizing Lot Quality Assurance Sampling (LQAS) Surveys to guide district- and sub-district-level work-planning and decision-making: Experiences from five years of implementation in East Central Uganda." D. Businge
- "Strengthening Local government Finance and Accountability systems to improve delivery of health services in East Central Uganda. Lessons from Kaliro District." P. Jacamunga, M. Kaleeba and R. Takwaza
- "Radio Distance Learning: A cost effective pivot in training Village Health Teams." T. Ojulung, H. Ndagire, A. Mugume, S. Mashate, P. Ikoona
- "Innovative strategies to improve Continuum of Care to promote HIV prevention among hard-to-reach fishing communities in Namayingo District in Uganda." F. Ajok Odoch, A. Mugume, S. Kironde, E. J. Sembatya, H. Ndagire, S. Mashate, P. Magoola
- "Using participatory monitoring and evaluation approach to improve quality of TB and HIV & AIDS prevention, care and treatment services at health facility level in East Central Uganda." T. Odong, D. Businge, K. Mugarura, A. Mugisa, H. Ndagire

- "Improving client retention in HIV care clinics using patient appointment books: A case of East Central Uganda." A. Mugisa, A. Mugume, S. Kironde, D. Businge, S. Mashate, T. Odong, H. Ndagire
- "Over 12,000 New HIV infections averted: Lessons from East Central Uganda's Voluntary Medical Male Circumcision program." R. Kimuli, M. Ndifuna, E. Tibenderana, D. Businge, A. Mugume, S. Kironde
- "Utilizing Village Health Teams to increase access to antenatal care services: A case of East Central Uganda." H. Ndagire, F. Kazibwe, E. Babu, T. Ojulong, A. Mugume





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