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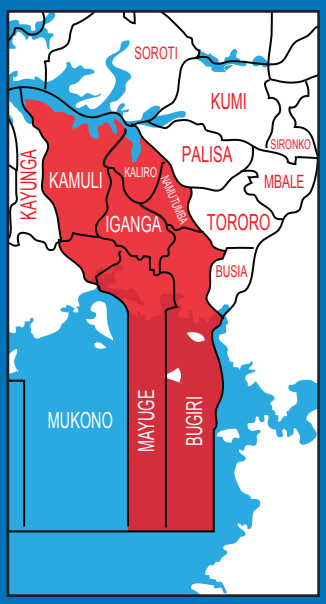
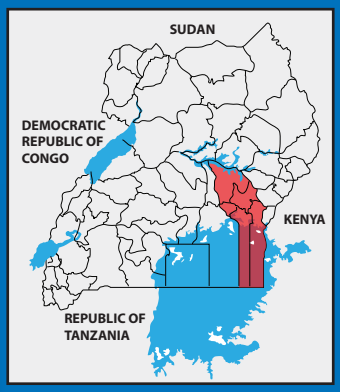
STRENGTHENING TB AND HIV & AIDS RESPONSES IN EAST CENTRAL UGANDA
STAR-EC

STAR-EC BASELINE SURVEY REPORT

August, 2009

Results from six Districts in East Central Uganda





Health Facility Assessment and Household LQAS Survey Results

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List of Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretrovial therapy
ARVs	Antiretroviral drugs
ANC	Antenatal care
BCC	Behavior change communication
CDO	Community Development Officer
CSO	Civil Society Organizations
CMD	Community medicine distributors
DHO	District Health Office(r)
EC	East Central
FP	Family Planning
HIV	Human Immunodeficiency Virus
HC	Health centre
HF	Health facility
HCT	HIV Counseling and Testing
HMIS	Health Management Information System
HSD	Health sub-district
IEC	Information, Education and Communication
JSI	John Snow Research & Training Institute, Inc.
LQAS	Lot Quality Assurance Sampling
LG	Local Government
M&E	Monitoring and Evaluation
MOH	Ministry of Health
MTCT	Mother-to-child transmission of HIV
NGO	Non-Governmental Organization
NTLP	National TB and Leprosy Control Program
PLHIV	People Living with HIV&AIDS
PMTCT	Prevention of mother-to-child transmission of HIV
RH	Reproductive Health
SA	Supervision area
STAR-EC	Strengthening Tuberculosis and HIV&AIDS Responses in East Central Uganda
TB	Tuberculosis
UAC	Uganda AIDS Commission
UDHS	Uganda Demographic Household Survey
UPHOLD	Uganda Program for Human and Holistic Development
USAID	United States Agency for International Development
USG	United States Government
VHT	Village Health Team
Global Fund	Global Fund to fight TB,AIDS and Malaria.

Highlights

During August 2009, the Strengthening TB and HIV&AIDS Responses in East Central Uganda (STAR-EC) program trained 66 Local Government (LG) and Civil Society Organization (CSO) personnel from six districts in East Central Uganda namely; Bugiri, Iganga, Kaliro, Kamuli, Mayuge and Namutumba in the application of the Lot Quality Assurance Sampling (LQAS) survey methodology. The knowledge and skills acquired during this training were used by the district personnel to collect and analyse data derived from the two separate simultaneously conducted surveys (the Health facility assessment and the Household LQAS survey). Below are some of the key result findings.

Table 1: STAR-EC Household Baseline LQAS Survey Results, August 2009

Indicator definitions	East Central Regional Results			
	Males	Females	Total	Notes
Reproductive Health				
% of pregnant women attending ANC at least 4 times during the last pregnancy			49.1	Priority districts include Kaliro and Kamuli
% of deliveries (in the last 2 years) that took place in a health facility			69.1	Bugiri District a priority
% of women 15-49 years using modern family methods			22.1	Almost the same as the existing national proportion of 19.1% (UDHS)
Prevention of mother-to-child transmission of HIV				
% of women tested and received their HIV test results during ANC in last 2 years			43.9	Significant differences in district coverage (pearson X (10) = 35.0, $p<0.001$).
% of adults who know all the 3 MTCT ways (during pregnancy, delivery and breast feeding)	41.4	47.5	45.2	Priority Districts: Iganga, Kamuli and Mayuge
HIV&AIDS (HCT & Prevention)				
% of adults (15 years and above) who have ever taken an HIV test	41.9	51.2	47.6	Priority Districts: Iganga, Kamuli and Namutumba
% of adults (15 years and above) who have tested and received their HIV test results in last 1 year	27.5	36.8	33.2	Significant differences in sex (pearson X = 22.4 $p<0.001$)
% of adults (15+ years) who know where they can be tested for HIV	84.7	81.0	82.4	
Biomedical HIV Prevention				
% of men (15-54 years) who have ever been circumcised			36.5	Significant differences in district coverage (pearson X = 71.4, $p<0.001$)
Of those who were ever circumcised: % who were circumcised for religious or cultural reasons			85.2	Two thirds of men who have never been circumcised reported they would take up the opportunity once offered
Anti Retroviral Therapy				
% of adults (15+ years) who believe that HIV patients should take ARV drugs	39.1	34.2	36.1	Significant differences in sex (pearson X = 5.4, $p=0.020$)
% of adults (15+ years) who know a place to get ARV drugs for HIV patients	62.8	53.3	57.0	– Priority District: Kamuli. – Less proportion of women had this knowledge

Indicator definitions	East Central Regional Results			
	Males	Females	Total	Notes
Behavioral Prevention				
% of adults (15+ years) who know a place to obtain condoms	90.2	78.1	82.8	Fewer females knew of where to obtain condoms
% of adults who can mention the 3 major ways of HIV&AIDS prevention (Abstinence, Being faithful and Condom use)	59.9	57.9	58.7	Significant differences in district coverage (pearson X = 57.2, p<0.001)
% of adults (15+) able to reject all the major HIV&AIDS misconceptions (Witchcraft, mosquito bites and sharing food)	52.6	45.5	48.3	Most people believe that HIV can be transmitted through mosquito bites
Palliative Care				
% of households with a person who is very sick or bed ridden for a period of three or more months, or anyone who died after being sick for more than three months	14.0	11.4	12.7	Proxy measure indicator for households with a person who is infected with HIV
(Of those affected households) % of households receiving care and support for a sick bedridden person or someone who died after being sick or bedridden for more than 3 months	56.3	55.4	55.9	This support may include: emotional, material, social and medical
% of households with any children under 18 years whose father, mother, or both parents died (orphans)	28.4	26.8	27.6	Priority Districts: Bugiri, Mayuge, Namutumba and Kaliro
(Of those affected households) % of households receiving care and support because of the presence of an orphan	17.9	20.3	19.1	
Tuberculosis				
% of adults (15+ years) who know that it is possible for a person to have TB and HIV at the same time	84.1	80.1	81.7	Findings were high across all districts
% of adults (15+ years) who know that TB is a curable disease	63.8	49.7	55.1	Significant differences in sex (pearson X = 48.4, p<001)
% of adults (15+ years) who know of the signs and symptoms of TB	86.7	81.3	83.4	Findings were high across all districts
Behavioral Change Communication				
% of households that received at least one message about HIV&AIDS prevention in the last 3 months			62.9	Most of these people received these messages through listening to radio talk shows
% of households that received at least one radio message about HIV&AIDS care and treatment in the last 3 months			55.7	
% of households that received at least one radio message about TB in the last 3 months			39.7	
% of households that received at least one message about ART treatment in the last 3 months			40.4	
% of households that received at least one message on other HIV prevention (OP) methods in the last 3 months.			46.4	
% of households that received at least one message on AB in the last 12 months.			58.6	

Indicator definitions	East Central Regional Results			
	Males	Females	Total	Notes
Health Facility Survey				
Number of Health facilities interviewed			292	These included both government and private registered health facilities (HCII – Hospital level)
% of health facilities that counsel HIV+ clients on TB prevention and treatment			25.7	
% of health facilities that reported conducting HCT outreach services			15.5	
Number of health facilities offering ART in the entire region			16	Some of these included HC IIIs
Number of health facilities that were found to be offering any form of PMTCT services i.e. Counselling, referrals or HIV testing itself			206	
% of health facilities that reported that HIV+ mothers receive ARVs for PMTCT purposes			19.2	
% of health facilities that reported that all HIV+ clients are screened for TB			18.8	
% of health facilities that reported that all patients diagnosed with TB are tested for HIV			21.6	

Source: STAR-EC program records, 2009

1.0 Introduction

1.1 Background

The Strengthening TB and HIV&AIDS Responses in East Central Uganda (STAR-EC) program is a five-year district-based initiative aimed at 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 in six districts of East Central Uganda. STAR-EC is implemented by a consortium of five partners that include: JSI Research & Training Institute, Inc. (JSI) as the prime partner; World Education's Bantwana Initiative; Communication for Development Foundation Uganda (CDFU); mothers2mothers (m2m); and Uganda Cares, all as sub-partners responsible for various technical aspects of the program.

STAR-EC also has four pre-qualified grantees as local implementing partners and these include the Family Life Education Program (FLEP), the National Community of Women Living with HIV&AIDS in Uganda (NACWOLA), the Uganda Reproductive Health Bureau (URHB) and Youth Alive Uganda (YA). An additional 10 civil society organization grantees will be identified during PY2 through a competitive granting mechanism and provided with support to implement some of the interventions that form part of STAR-EC's scope of work. Currently, the six districts covered by STAR-EC include Bugiri, Iganga, Kaliro, Kamuli, Mayuge and Namutumba. However, if cabinet recommendations are approved by the Parliament of Uganda, it is expected that during PY2 (2010) an additional three new districts of Buyende (curved out of Kamuli), Luuka (curved out of Iganga) and Namayingo (curved out of Bugiri) may become operational in the program's geographical area of coverage.

The East Central region has some unique characteristics that include:-

- A high fertility rate of approximately 7.5
- High HIV prevalence of 6.5% , which coupled with a high population in the region results in a significantly higher number of adults estimated to be living with HIV&AIDS in the region (~74,000 in 2009)
- High level of multiple concurrent sexual relationships including polygyny
- High level of transactional sexual activity at some truck stops on the Northern Transport Corridor
- Significant population of migrant labour (working in mainly the sugar cane plantations and rice scheme) and fisher-folk – communities that can be characterized as being at high risk of contracting HIV

1.2 Major objectives of STAR-EC

STAR-EC has five major objectives that include:

1. 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;
2. Strengthening decentralized HIV&AIDS and TB service delivery systems with emphasis on health centers (HCs) IV and III and community outreach;
3. Improving quality and efficiency of HIV&AIDS and TB service delivery within health facilities and community service organizations;
4. Strengthening networks and referrals systems to improve access to, coverage of and utilization of HIV&AIDS and TB services; and
5. Intensifying demand generation activities for HIV&AIDS and TB prevention, care and treatment services.

The lot quality assurance sampling (LQAS) survey methodology was used by STAR-EC at community level to establish baseline information necessary for intervention start-up. Additionally, a health facility assessment was conducted on all the functional and registered health facilities in the six EC districts. No district had a supervision area which had more than 19 known or registered health facilities. Therefore no LQAS sampling took place when collecting information from health facilities. Results were thereafter disseminated to all the six district leaders and decision makers so as to promote evidence based planning and decision-making.

Prior to the generation of these survey results, part of the main objectives of the training and other activities (which were eventually achieved) included:-

(i) Training 54 local government and 12 CSO personnel in the entire LQAS methodology including the tabulation and analysis of key program indicators so as to produce rapid preliminary results.

(ii) Providing STAR-EC with the necessary household and health facility baseline data which would eventually be used to measure the program's results and its progress towards set targets.

(iii) Identifying existing gaps in service delivery and uptake in survey areas, so as to concentrate or re-direct efforts and to determine where to employ diversified intervention strategies.

(iv) Engaging districts in actively participating in the survey, owning its findings and utilising them for planning purposes. This was achieved during the district specific dissemination exercises.

(v) Identification and mentoring of one personnel per district as the district LQAS focal person. In the aftermath of this activity, 2 persons per district were mentored.

STAR-EC conducted both surveys (Health facility and Household LQAS surveys) in August 2009 and this survey mainly focused on assessing the availability, accessibility, effectiveness and efficiency of services related to HIV&AIDS and TB indicators. Among other non-HIV&AIDS related indicators included: reproductive and adolescent reproductive health; water and sanitation indicators as well as other health facility based service indicators. These were assessed at both household and health facility level with the direct participation of district local governments and CSO personnel.

Results obtained from these surveys will aid STAR-EC as well as the central, local governments and other development partners in the future assessment of program progress, identification of underperforming areas that each respective district should endeavour to address during their next Local Government (LG) annual planning and budgeting process. Further, the continued dissemination of these results will help in building a consensus on LQAS with district and national leaders in enhancing the feasibility of institutionalizing LQAS as a routine monitoring and evaluation approach for district and nationwide interventions.

2.0 Literature Review

2.1 HIV&AIDS (Prevention, HCT and others)

The Uganda Demographic Health Survey (UDHS) Report 2006 presented knowledge of HIV&AIDS prevention to be generally high especially among urban populations. Considering age, knowledge of ways to prevent HIV tends to be highest among men aged between 25 to 39 years yet among women the pattern by age is not known. The same report added that HIV prevention methods increase with education attainment and the wealth quintile. Despite the fact that in the 1990s the majority of Ugandans knew somebody who had died of AIDS and in 1995 91% of Ugandan men and 86% of women knew someone who was HIV positive, the UDHS 2006 Report stated that the proportion of women and men who have comprehensive knowledge about HIV&AIDS is just over 30% for women and 40% for men. Additionally, it reported that 72.4% and 82.0% of girls and boys aged 15- 24 years respectively knew that HIV&AIDS can be prevented through the use of condoms.

The above results reflect the fact that the landscape of HIV epidemic changes with time and thus it is vital for people to have comprehensive knowledge about HIV&AIDS. Comprehensive knowledge according to the UDHS 2006 was defined as the percentage of respondents aged 15-49 who said that:-

a. People can reduce the chances of getting the AIDS virus by just having one partner who is not infected and who has no other partners;
b. People can reduce the chances of getting AIDS virus by using a condom every time they have sex;
c. People cannot get the AIDS virus from mosquito bites;
d. People cannot get the AIDS virus from sharing food with a person who has AIDS and finally;
e. That a healthy – looking person can have the AIDS virus.

The same report highlights that women in urban areas are more likely to have comprehensive knowledge (47%) compared to their rural counterparts (28%).

The 2004/5 Uganda HIV&AIDS Sero Behaviour Survey (UHSBS) indicated that a high population of Ugandans had never been tested for HIV&AIDS and did not know their status. The report added that only 21% of adults aged 15- 49 had ever been tested for HIV and received their results while 5% of women and 3% of men had ever tested but never received their results. It was also reported that 71% and 77% of women and men respectively had never been tested at all. This implied that a big population of Ugandans was not aware of their HIV status. Additionally, the UDHS 2006 report showed that the proportion of adults 15 to 49 who tested for HIV&AIDS and received their results was 63.8% for women and 56.5% for men in the same age bracket. Those who tested but never received their results was 10.1% for women and 8.7% for men.

The Annual Health Sector Performance report (2007/8) mentioned HIV&AIDS and Tuberculosis amongst the major diseases causing pre-mature death in Uganda.

2.2 Prevention of Mother to Child Transmission of HIV (PMTCT):

The Ugandan Ministry of Health began offering a free prevention of mother-to-child transmission (PMTCT) service in a small number of antenatal clinics in January 2000. The trial PMTCT program included counseling and rapid testing for all women attending antenatal clinics and treatment for both mother and child following a positive diagnosis. The number of PMTCT service delivery sites was expanded between 2005 and 2007 with emphasis on providing services to rural populations. The number of health facilities providing routine HIV counseling and testing for pregnant women increased, raising the uptake of HIV testing to 80% of all women attending antenatal clinics. The proportion of HIV positive pregnant women receiving anti-retroviral therapy for PMTCT increased from 12% in 2005 to 50% in 2008.

According to the UDHS 2006, only 22.6% of pregnant women received HIV counseling, tested and received their results for PMTCT purposes.

The Annual Health Sector Performance report (2008) stated that 45% of all HCIIIs in Uganda offered PMTCT services. This percentage accumulated to 57% nationally when HCIVs are included in this analysis. In spite of the

fact that national PMTCT was largely introduced as a vertical program purposely to allow for faster implementation, only 44% of the pregnant women had been counseled and tested for HIV&AIDS.

In 2007, the Uganda AIDS Commission noted that about 21% of HIV transmission in Uganda was believed to be due to mother-to-child transmission. This means that a lot needs to be done in order to reduce such a percentage.

The HIV&AIDS Sero Behaviour Survey report of 2004/5 stated that 73% of women and 63% of men in Uganda knew that HIV&AIDS could be transmitted from mother-to-child by breastfeeding. Additionally, 65% of women and 64% of men in Uganda knew that there were special drugs that a Doctor or Nurse could give to a pregnant woman who is infected with the HIV virus in order to reduce the risk of transmission of the virus to the unborn child. However, this only applied to those women who delivered from established health centres.

2.3 Antiretroviral Therapy

Uganda began to offer free antiretroviral medication to people living with HIV in 2004 as part of a five-year pilot program. The initial consignment was funded by the World Bank, with future drugs to be paid for by Global Fund to fight TB, AIDS and Malaria grant of US$70 million and large grants from America's PEPFAR initiative. By 2006 only 24% of adults in need of antiretroviral treatment were receiving it. Currently, the country is engaged in a rapid scale up of HIV&AIDS care, including anti-retroviral therapy (ART) purposely to reduce viral load and cotrimoxazole (Septrin®) to prevent opportunistic infections. General knowledge of AIDS care and antiretroviral therapy (ART) is therefore critical in the utilization of the available ART services.

A review of the UDHS 2006 suggested that overall 82% of women and 87% of men had knowledge that there were drugs to help HIV positive people live longer and according to the Annual Health Sector Performance Report (2007/8) 70% of HC IVs in Uganda were offering HIV&AIDS care with ART services.

2.4 Tuberculosis

Tuberculosis remains a major public health problem in Uganda. The 2008 WHO global report rated Uganda as the 16th of the 22 high burden countries and estimated that 157 new infectious cases of Tuberculosis occur per 100,000 population per year. The highest affected age group is 20-45 years while the male to female ratio is not so different at 1:1. Yet in order to have a meaningful response to the Tuberculosis crisis in the country, new cases need to be detected and successfully treated. Treatment success stands at 69% (source: NTLP), short of the WHO standard requirement of 85%. According to the 2008 Global Tuberculosis Control Report, low cure rate and high default rate continue to hinder achievement of treatment success in most developing countries.

There is a paucity of available information on TB in this country – a situation that calls for increased TB surveillance by different development partners working in hand with the MoH and NTLP.

3.0 Methodology

3.1 Questionnaire Preparation

Questionnaires were developed months prior to the actual survey based on most of the USAID PEPFAR new generation indicators, World Health Organisation (WHO), the Ugandan Ministry of Health (MoH), Uganda AIDS Commission (UAC) as well as the STAR-EC program level indicators and intervention areas. Consideration was also given to specific district Local Government (LG) indicators of interest. Special attention was also laid on making sure that the considered indicators were useful for comparison with routinely collected service data. Survey questions were structured according to the standard questions used nationally and internationally to measure the chosen indicators and the questionnaires were pre-tested and revised accordingly.

The household survey consisted of a set of four questionnaires aimed at interviewees including: biological mothers of children under two years (who answered questions related to goal oriented antenatal care including PMTCT); young people aged 15-24 years; women aged 15 to 49 years; and men aged 15 to 54 years. In order to ensure comparability during analysis across the different age groups, each age group category questionnaire possessed HIV&AIDS and TB related indicators. However, each age specific category questionnaire still had question modules that explored specific interests related to that particular age group category being investigated.

The health facility questionnaires assessed service interventions on HCT, PMTCT, ART, diagnosis and treatment of STIs and TB, laboratory services, antenatal care, basic/comprehensive emergency obstetric care services, adolescent youth friendly services, Health Management Information Systems (HMIS) records and commodity management (Drug Stores).

Prior to the training of district LG and CSO personnel, extensive pre-testing of survey questions had taken place within three different Kampala district villages and another three different health facilities of different levels. Edits and various adjustments were made to improve these data collection tools before the final printing of these questionnaires could commence.

3.2 Training

Months before the district training could proceed each specific District Health Officer was required to select a total of nine district LG technical staff with the largest representation coming from the district health department and the rest of the district departments having one or two representatives. Among others, these included representatives from the community development and planning departments. Additionally, since STAR-EC had four pre-qualified CSOs (as implementing partners) at the time of the survey; they were each asked to contribute to this activity three different staff based in different districts of the region. These were then distributed to different districts where each CSO had a presence. Training was carried out in August 2009 at Mwana Highway Hotel in Iganga District.

In total, 66 LG and CSO staff (11 per district) were trained in the entire LQAS methodology and engaged in this baseline activity for a total of 18 days (five days on the LQAS methodology training, questionnaire orientation and pre-testing[1], ten for both the health facility and LQAS household survey data collection while three were spent on manual data tabulation and analysis). During the participants' training, both health facility and household survey questionnaires were reviewed and pre-tested for one day in Iganga district communities neighboring the training venues. The villages where pre-testing was conducted excluded the actual randomly sampled survey villages. Owing to results and experiences from district participant pre-tests, further modifications were made to improve the quality of this survey especially on the interview approach and guidelines. Questionnaires were printed in English. However during the training, translations were made by each participant in Lusoga (the predominant local language). One participant was required to read the English version of a particular question then one of the other workshop participants would translate into Lusoga. The rest of the workshop participants would either agree

1 *The major aim of the pretesting exercise executed by district participants was to help familiarize them with the entire tools and the survey data collection exercise right from the time of locating a sampled village, the sampled household and how a respondent is chosen and interviewed. The pretesting done by the consultants in Kampala is the one that involved revisions and improvement of the research tools.*

A Lot Quality Assurance Sampling (LQAS) training session for participants from the 6 EC districts at Mwana Highway Hotel in Iganga District

or disagree with the translation until a consensus on the right translation would be reached and written for keeps and future reference by every participant.

3.2.1 Practical Sessions during Training

As already observed, practical sessions were a central tool during the training and as such there were one or more practical sessions under each of the six LQAS modules. Key among the practical sessions included; 1) random sampling using of marbles to demonstrate how sampling allows all elements an equal chance of being selected (representativeness); 2) manual data tabulation and analysis using data collected from the field and picking on some key indicators to equip participants with skills of analyzing data manually, which would subsequently inform the planning process and help in identifying where priorities should be made in allocating resources to improve undesirable situations (this exercise involved deriving preliminary survey results) and; 3) the practical for questionnaire review and translations as well as the subsequent questionnaire pre-test exercise.

3.3 Lot Quality Assurance Sampling (LQAS)

The LQAS methodology was developed in the USA in the 1920s and widely used in the manufacturing industry for quality control of the goods produced on a production line. This methodology involves taking a small random sample of a manufactured batch (lot) and testing the sampled items for quality. If the number of defective items in the sample exceeds a pre-determined criteria (decision rule) then the lot is rejected. The decision rule is based on the desired production standards and a statistically determined sample size. Similarly, this methodology was borrowed into the public health sector. It uses a small sample of 19 respondents that provides an acceptable level of error for making management decisions (samples larger than 19 have practically the same statistical precision as 19 - they do not result in better information, and they cost more[2]). Details of the history and statistics behind the method have been discussed within different available literature[3].

LQAS is a low cost, less time consuming sampling method that can be adapted to the service sector by using "Supervision Areas" instead of production lots to identify poorly performing areas that do not reach an established benchmark. It can also provide an accurate measure of coverage or service system quality at a more aggregate level (e.g. program area). In this survey, existing lower level administrative structures such as counties and sub-counties were used as supervision areas and a district as a program area or 'supervision unit'. A minimum of five supervision areas per district was required to obtain an acceptable 95% confidence level in the LQAS survey. Additionally, supervision areas were derived in respect to population size and geographical locations of different sub-counties. The higher the population of a given sub-county or county, the more likely it stood a chance of being selected as a supervision area. The overall district coverage for the survey indicators was then used as

2 *Valadez J. et al (2003) Assessing Community health programs, Using LQAS for baseline and monitoring*
3 *Lemeshow S, Taber S. Lot quality assurance sampling: single and double-sampling plans. World Health Statistics Quarterly 44, 115-132*

a benchmark against which supervision area performance was assessed as either below or above the desired performance and poorly performing areas identified as a priority for improved or enhanced interventions.

There was no need to apply the LQAS survey methodology in selecting health facilities for the health facility survey. Neither of the districts in the EC region had a number of registered health facilities that exceeded 19 units per supervision area or 95 health units per district. Subsequently, in every district, all the registered government and private health facilities and those which were found functional at the time of the survey were assessed. However, though negligible, there were some few health facilities (especially private ones) that refused to participate in this assessment. It was found out that most of them either had expired licenses or probably didn't believe the fact that this was purely a survey and not a policing activity.

3.4 Village and Household Sampling

Originally, four of the EC districts (Bugiri, Kamuli, Kaliro and Mayuge) had their supervision areas (SAs) created during the Uganda Program for Human and Holistic Developments (UPHOLD) program life (starting in 2004) – and these SAs were maintained during this survey for consistency purposes. However, new SAs were created for the two districts of Iganga and Namutumba (with the participation of their respective district officials). SA boundaries were formulated in respect to population size and the geographical location of different sub-counties within each district.

Some village volunteers were involved in random sampling of households for interviews

Sampling was executed with each district considered as an independent 'Supervision Unit' and divided into 5 Supervision Areas (SAs). A two-stage sampling plan, first randomly selected 19 villages per supervision area by use of proportionate to size sampling. Sampling proportionate to size is a sampling technique for use with surveys or mini-surveys in which the probability of selecting a sampling unit (e.g. village, camp) is proportional to the size of its population. It is most useful when the sampling units vary considerably in size because it ensures that those in larger sites have the same probability of getting into the sample as those in smaller sites, and vice versa.The second step randomly selected a household within the village. This step involved using the village Local Council household listings or register that is periodically updated when in- or out-migration and movement within the village takes place. This is the most up-to-date household list, and in cases where one was not available, the interviewer compiled a list together with the village leader(s) based on a village map. Interview locations for the household survey were therefore selected using the updated household listings obtained from local authorities.

Each of the six East Central districts in the region were divided into five supervision areas as follows:

Table 2a: District supervision areas and LQAS in the East Central Region – Aug, 2009

Districts	Supervision Areas
Bugiri	Bukooli A, Bukooli B, Bukooli C, Bukooli D and Bukooli E
Iganga	Bugweri County, Kigulu A, Kigulu B, Luuka A and Luuka B
Kaliro	Bumanya, Gadumire, Namwiwa, Nawaikoke and Namugongo sub-counties
Kamuli	Buzaaya County, Budiope A, Budiope B, Bugabula A and Bugabula B
Mayuge	Bunya A, Bunya B, Bunya C, Bunya D and Bunya E
Namutumba	Bulange, Ivukula, Kibaale and Nsinze, Magada and Namutumba sub-counties

3.5 Quality Assurance and Control

Quality assurance was taken to be an integral component of the entire survey process and included appropriate preparation and orientation of research assistants to ensure that they were sufficiently trained and familiar with the survey processes, and the different questionnaires; provision of adequate support supervision by a team of consultants[4] at every stage of the survey with an emphasis on quality data collection; and regular and prompt feedback and reporting to each responsible survey line manager or consultant in each district by the data collectors.

At each survey stage, instant field problem solving as well as the production and constant field editing was exercised by the participants themselves in each district. Fully edited questionnaires would then be given to each respective district LQAS focal person and ultimately their supervisors (district survey consultants) would have the final take.

A team of district officials editing and cleaning collected data

Further, cleaning of collected data still took place at both data entry and analysis levels. Lastly, during the dissemination exercise more of the data, especially the health facility data was cleaned by the district participants themselves.

3.6 Ethical Considerations

3.6.1 Informed Consent

In this survey, every respondent had the right to refuse the interview, or to refuse to answer specific survey questions. In this survey, the interviewers respected this right and verbally administered informed consent before conducting the interview. However, such cases were almost inexistent and very negligible. Most of the intended and randomly selected respondents accepted to be interviewed the very first time they had been approached by an interviewer.

4 *The team of consultants included a total of 8 personnel (2 who provided the overall technical oversight and support supervision) as well as 6 district specific consultants who extended technical assistance to district participants during the execution of this methodology in each district.*

3.6.2 Privacy

It is important for each respondent's interview to be conducted in a manner that is comfortable for them and in which they are able to speak openly and honestly. Therefore, interviews were conducted in the respondent's home and in a private area. During the interview, no other adult man, woman or older child was present or able to hear the interview. Babies and other younger children in some instances were allowed to be present during the interview. If the respondent indicated that she or he was uncomfortable holding the interview at home, the interview was done at another location of the interviewee's preference.

Household Survey general information

- 2,280 respondents aged 15-54 years were interviewed from 2,280 households within 570 villages
- Of those interviewed 881 (38.6%) were male aged 15-54 years and 1,399 (61.4%) were female aged 15-49 years
- 1,087 (47.7%) were young people aged 15-24 years

3.7 Data Sources and Analysis

The data sources of the health facility survey were the health facilities themselves (found within each specific district). Additionally, households were the lowest units from which respondents to the household based LQAS survey were obtained.

As already mentioned, the household survey explored the current levels of population knowledge, use of services and behaviours in the community as well as responses from four key index respondents: biological mothers of children less than two years of age, young people 15-24 years, women aged between 15 to 49 years, and men aged between 15 and 54 years. The health facility survey covered all health facilities (government and private) from HCII to hospital level.

A district official (right) from Kaliro District conducting an interview

Data analysis focused on assessing coverage levels for the different program indicators and comparisons between districts. To a big extent, proportions were computed to determine the status of each indicator and statistical tests (z-test, chi-square and fisher's exact) were applied to assess whether the resultant changes were significant at the 5% level. Desegregation by district, respondent's age and sex, and other key variables were done to some extent in order to understand the possible factors behind the variations. Data was entered using the Epi Data software and STATA statistical software was used to compute the proportions and significance levels.

Health Facility Assessment

A total of 292 health facilities (HFs) were assessed in the six districts covering the East Central region where STAR-EC operates. Of these health facilities (HF): 55 were from Bugiri; 91 from Iganga; 17 from Kaliro; 59 from Kamuli; 37 from Mayuge and 33 from Namutumba. Of the health facilities included in this assessement, 186 were government owned; 48 Non-Government Organisation (NGO); 38 private sector; 1 Community Based Organization (CBO) and 15 Faith Based Organizations (FBOs).

Below is a table representing these and other health facility details.

Table 2b: Health facilities assessed during the survey (by district and type)

Health facility type	Districts						Total
	Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
District Hospital	1	1	0	2	1	0	**5**
HC IV	2	6	1	3	2	1	**15**
HC III	13	16	5	12	4	6	**56**
HC II	39	58	11	42	25	26	**201**
Unknown	0	10	0	0	5	0	**15**
Total	55	91	17	59	37	33	**292**

3.8 Results dissemination and discussion of results

In the aftermath of both survey results analysis, STAR-EC conducted district specific disseminations that were held in each of the six supported districts. Each district sent a total of 15 representatives or discussants that included all the top district decision makers, key informants, local CSO development partners and some of the district participants who were involved in the data collection exercise for this survey. Among the district local government decision makers who participated in each district specific dissemination included, the Resident District Commissioner, the Local Council IV Chairperson, the Chief Administrative Officer, the District Health Officer and members of the District Health Team that included Health sub-District heads, the District Planning and Community Development Officers.

In each district, one of the first four aforementioned persons was invited to chair the proceedings of the discussions to these results. Reasons as to why certain identified gaps existed were brainstormed by participants and action plans drawn in order to address these undesirable situations. Priority district supervision areas were also identified during discussions and earmarked for the next district specific local government annual planning and budgeting activities. STAR-EC and consultants played a big role in providing technical assistance and guidance during this discussion process. It should therefore be noted that the dissemination and discussion exercise helped to attach a great degree of qualitative information required in the explanation of some of the quantitative findings from both surveys.

4.0 Results

This chapter and the subsequent ones give a detailed analysis of the findings in each program area for the information that was collected on the health facility survey as well as the household based LQAS survey indicators. The sample size used in calculating proportions against every reported indicator in this report is represented by 'n'.

4.1 *HIV&AIDS* related indicators

As earlier mentioned, STAR-EC is a five-year district-based program aimed at 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 in six districts of East Central Uganda. Among specific HIV&AIDS interventions, STAR-EC is currently supporting HIV Counseling and Testing (HCT) interventions, Prevention of Mother-to-Child Transmission (PMTCT) of HIV, Anti-Retroviral Therapy (ART) interventions, Umbrella and Clinical care services for People Living with HIV&AIDS as well as the prevention and treatment of Tuberculosis among HIV clients. Others include HIV prevention through behavior change programs focusing on the promotion of abstinence, being faithful, or other prevention methods with a special emphasis on most-at-risk persons (MARP).

A total of 2,280 respondents (38.6% male aged 15-54 years and 61.4% female aged 15-49 years) were asked various questions related to HIV&AIDS. Almost half of the respondents (47.7%) were young people aged 15-24 years. Analysis was done for these three aforementioned interest groups and detailed findings by interest age groups can be found in the appendices of this report.

4.1.1 Behavioral Prevention (Abstinence, Being Faithful and Condom use - ABC)

ABC is a major HIV&AIDS prevention intervention that has been promoted in Uganda over time. Very recently emphasis was placed on improving the quality and way in which these messages are imparted to different communities. As opposed to talking to large masses (hundreds and thousands) at one go and imparting messages on ABC to them, the new guidelines promote one to impart these messages to a group of not more than 25 individuals such that there can be easy feedback from community participants during question and answer sessions. The role ABC interventions have played in the prevention and reduction of HIV is very evident and each specific intervention in the 'ABC' approach caters for: A for abstinence (or delayed sexual initiation among youth), B for being faithful (or reducing one's number of sexual partners), and C for correct and consistent condom use, especially for casual sexual activity and other high-risk situations. The household survey therefore did assess certain indicators pertaining to the 'ABC' approach.

Overall, almost all respondents (93.7%, n=2,280) in the entire East Central region knew at least one major HIV prevention way that included abstinence, mutual faithfulness or proper condom use. It is desirable that individuals are aware of all the three ABCs and when assessed, close to six in every ten (58.7%, n=2,280) had knowledge of all the 3 major HIV prevention ways. There was no significant difference in sex (pearson χ = 2.7, p=0.337). Knowledge significantly varied across districts (pearson χ = 57.2, p<0.001) with Kamuli and Kaliro reporting the highest coverage of 69.2% and 67.9% respectively while the least performance was reported in Namutumba and Bugiri at 48.4% and 50.8% respectively. When asked about each individual ABC way, 78.5%, (n=2,280) mentioned "Abstinence", 77.2% mentioned "Being Faithful" while 78.7% mentioned "Condom Use". Additionally, 82.8% of all respondents interviewed knew of a place where to obtain condoms (85.4% mentioned a health unit, 46.9% a shop and 8.6% a VHT).

- 93.7% of the respondents knew at least one major HIV prevention way
- Close to six in every ten (58.7%) had knowledge of all the three major HIV prevention ways (ABCs)
- The least performance results were reported from Namutumba and Bugiri Districts

HIV Transmission Misconceptions

It is still common for some people to have misconceptions about the spread and transmission of HIV. Among the most common misconceptions include the transmission of HIV through mosquito bites, witchcraft and sharing of food with an infected person. Respondents were asked questions about whether it is possible for one to acquire HIV through the aforementioned means. Almost half (48.3%, n=2,280) of the respondents were able to reject all the three misconceptions. Kamuli (52.4%) and Namutumba District (51.6%) presented the highest proportions while the lowest were reported from Bugiri and Kaliro Districts at 44.7% each. There were significant differences (Pearson χ = 10.7, p<0.001) between males (52.6%) and females (45.5%) when assessing this indicator.

Analysis on each of the individual misconceptions revealed that 88.7% (n=2,280) of adults aged 15-49 years and 15 -54 years for males and females respectively, rejected the idea that HIV can be transmitted through witchcraft; 59.8% (n=2,280) rejected transmission through mosquito bites while 77.5% (n=2,280) rejected through sharing food with an infected person.

These findings therefore seem to suggest that among the three misconceptions, most of the people still believe that HIV can be transmitted through mosquito bites – something that BCC interventions should probably target alleviating alongside with the other misconceptions.

4.1.2 Biomedical Prevention

Male medical circumcision (MMC) is one of the newest ways that have been proven to minimize HIV transmission risks. Clinical trial results conducted in three different countries did show an effectiveness of 60% in South Africa, 53% in Rakai-Uganda and 57% effectiveness in Kisumu-Kenya. In March 2007, WHO/UNAIDS thereafter recommended MMC as an integral part of HIV prevention strategies following clinical trial results that had been obtained in three different countries. Globally 30% of men are circumcised and this practice is primarily done for cultural and religious reasons and occasionally for medical reasons. Over 40 observational studies have shown a protective effect of MMC against HIV acquisition and countries with high MC prevalence tend to have low HIV prevalence. The MoH in Uganda is in the process of working out a policy in support of MMC.

Additionally, the foreskin on the penis of uncircumcised men has been proven to increase the risk of HIV transmission. There is an increased risk of genital ulcers in uncircumcised men; an increased risk of HIV through disrupted mucosal surface of the ulcer; a high density of HIV-1 target cells in penis; and those in the inner foreskin are nearer the epithelial surface due to lack of keratin (McCoombe, AIDS, 2006 20 p. 1491). During intercourse, the foreskin exposes a large surface area to cervico-vaginal fluids (Patterson Am J Pathol, 2002. 161 p. 867). Among discordant couples in Rakai, uncircumcised men were more likely to transmit to their female partner (Rakai Health Sciences, Uganda - *Quinn et al*; NEJM 2000; 342:921-9). STAR-EC therefore intends to embark on promoting MMC by training health workers in the provision of this service as well as equipping some district health facilities with a package of equipment needed to carry out MMC services.

This baseline survey focused on finding out the proportions of circumcised men between ages 15-54 years that do exist in the region. Further, the survey investigated men who had not been circumcised before and whether they were willing to be circumcised once offered the opportunity. Results suggested that about a third of all males (36.5%, n=901) in the region had ever been circumcised. There were significant findings (pearson χ = 71.4, p<0.001) when comparing circumcised males across districts. Mayuge (60.1%, n=143) and Iganga (42.8%, n=145) reported the highest proportions while the least proportions were reported from Kaliro (16.5%, n=152) and Kamuli (28.7%, n=157). Of those who have ever been circumcised, 87.6% of males were circumcised more than five years ago while only 3.7% were circumcised in the last year prior to the survey and 8.7% between one - five years prior to the survey.

Of a total of 323 men between 15-54 years who reported having been circumcised, 85.2% reported being circumcised for religious or cultural reasons (76.9% religious and 8.3% cultural). Additionally, 9.9% mentioned that part of their circumcision was done for HIV prevention purposes. The high proportion of findings among men who reported being circumcised for religious reasons can probably be explained by the fact that East Central Uganda is one of the geographical regions in Uganda with the highest concentration of Muslims, a religion that practices male circumcision.

This survey further assessed the places or service providers that executed these circumcisions. Only 17.5% reported having been circumcised from a health facility while 44.7% reported being circumcised from a cultural/religious setting or by a cultural/religious person and 37.8% from other non-medical settings – a finding that seems to suggest the need of promoting quality circumcision through setting up more health facilities with MMC services and trained MMC service providers.

Of those men who reported that they have never been circumcised before, two thirds (65.7%, n=571) reported that they would take up the opportunity once free circumcision services were offered at a health facility. There were no significant differences to this response across the six districts (p=0.835). Of those who reported that they would still not undergo circumcision even if they were offered a free chance at a health facility, 36.9% reported that circumcision is against their religion or faith, 43.3% that it is too painful and 19.8% other reasons like the existence of poor quality circumcision services or that the service still has some hidden costs even if it were provided free (and others).

4.1.3 HIV counseling and testing (HCT)

HIV counseling and testing service provision forms a nexus that helps to link an individual who has undergone this service in acquiring other different services. When an individual is counseled and tested for HIV, then depending on their results, informed decisions about their livelihood will be made by them themselves. Interventions encourage one who is negative to stay negative by adhering to Abstinence, Being faithful or proper and consistent Condom use while among other things, one who is HIV positive is encouraged to live a positive life and seek for proper medication. This makes HCT the first step of referral to umbrella/clinical care and support services including screening or testing for TB.

Respondents were asked whether they knew where HIV testing services were offered in their respective areas. Results show that 82.4% (n=2,280) adults (15-54 years) knew where they could take an HIV test. There were no significant differences (pearson χ = 17.2, p=0.071) when comparing districts. The highest proportion was found in Mayuge District (87.9%) while the lowest was found in Bugiri at 78.7%.

Ever tested for HIV

Almost half (47.6%, n=2,280) of adults in the reproductive age group have ever tested for HIV. Significantly, (pearson χ = 29.7, p<0.001) more proportions of females (51.2%) compared to males (41.9%) have ever tested for HIV in the entire region and the odds ratio also suggests that males are 30.8% less likely to have an HIV test when compared to women. Additionally, there were significant differences across districts (pearson χ = 29.0, p<0.001) with the highest findings from Mayuge and Bugiri at 56.6% and 50.8% respectively while the lowest findings were from Iganga District at 41.1%. More women seem to have ever tested for HIV when compared to men and this could probably be attributed to the fact that women have a higher health seeking behavior when compared to men. Additionally, women have more access to HCT services through antenatal care attendance where they receive PMTCT services. Again, since most of the women are the primary caretakers of children, they are exposed to HCT services during the time they spend at health facilities seeking for their children's treatment. Therefore increased male involvement is advisable through bringing HCT services closer to men in their work places, through their peer networks and encouraging their participation in ANC services.

- About a third (35.8%) of individuals in the region tested and received their HIV results in the last one year prior to the survey
- Kaliro District had the least desirable performance

Out of 292 health facilities interviewed:

- 268 health facilities were found to be offering any form of HCT services i.e. Counselling, referrals or HIV testing itself
- Less than a third (28.1% or 82 health facilities) reported that they have laboratory capacity to test for HIV
- Only a quarter (25.7%) of health facilities reported counselling HIV+ clients on TB prevention and treatment
- 24% of health facilities reported that an organisation or higher/other health facility supports and uses their HF as an outreach site
- Only 15.5% HFs reported that they are currently carrying out HCT outreach services

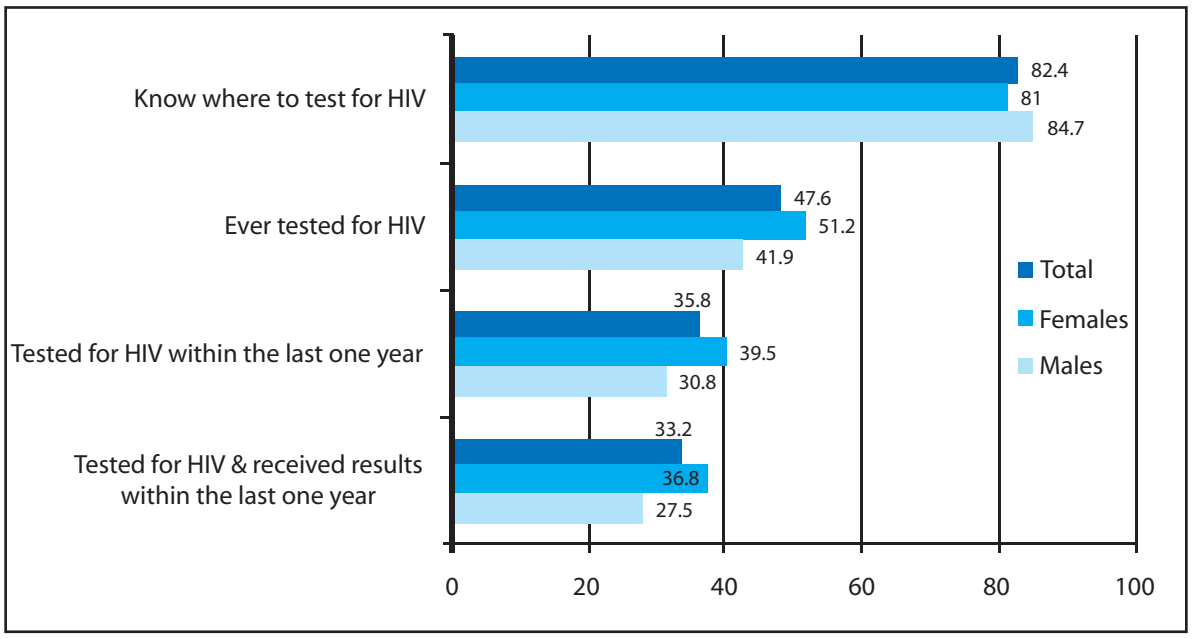
HIV testing within one year prior to the survey

It is always desirable that over certain periods of time, one should test for HIV as many times as possible. Testing once for HIV (especially for those that turn out to be negative) may never be helpful as one's status may change over time. Therefore it is advisable that one tests at subsequent time periods especially if they know that they have been practicing an irresponsible sexual behavior or in cases where they doubted their partner(s)' faithfulness. Routine HCT is therefore very paramount. This survey therefore involved a series of questions on HIV testing among respondents within the last year prior to the survey.

Out of 2,280 respondents interviewed, only 35.8% had taken an HIV test within one year prior to the survey while 33.2% (36.8% females, n=1,399 and 27.5% males, n=881) had taken and received their results within one year prior to the survey *(pearson* $\chi = 22.4$, $p<0.001$*)*. Among districts, Mayuge (41.6%) had the highest findings while the lowest were reported from Kaliro (26.6%).

Of those adults 15-54 years who had ever tested for HIV (n=1,085), 75.3% (71.8% males and 77.1% females) reported testing for HIV in the last 12 months prior to the survey. This was a desirable finding, as the majority of respondents who had ever tested for HIV did test within the last year prior to the survey. However the survey did not investigate persons who were testing for the first time in their lives. Among districts, Namutumba (81.1%) had the highest proportion while the lowest was from Kaliro at 68.2%.

Fig 1: HIV counseling and testing survey results (percentages)



Source: STAR-EC Household LQAS survey results, 2009

4.1.4 Young People and HCT

This survey also targeted young people aged between 15-24 years and their HCT outcomes. Overall, 81.4% (n=1,087) reported possessing knowledge of where they could go for HIV testing. There was no difference in sex ($X = 2.8$, $p=0.252$). Four in every ten young people (41.8%, n=1,087) had ever tested for HIV. Among males (32.9%, n=395) and females (46.8%, n=692), there was a significant difference in coverage (pearson $X = 22.7$, $p<0.001$).

Additionally, there was a significant difference (pearson $X = 34.6$, $p<0.001$) in coverage when comparing different age groups. A bigger proportion (55.2%, n=629) of individuals aged 25-34 years have ever tested for HIV in the entire region compared to 41.8% (n=1,087) of young people aged 15-24 years and 50.4% (n=564) of adults aged 35 and above. This probably suggests that HIV testing increases with age except for the 25-34 years age group where it seems to peak. The odds ratio also suggests that young people aged 15-24 years are 39.6% less likely to test for HIV when compared to persons in the age group category of 25-34 years. Again, individuals above 35 -54 years were found to be 7.1% less likely to test for HIV when compared to persons aged between 25-34 years. Among districts, the highest proportion was reported among young people from Namutumba District (40.3%) compared to the lowest at 26.2% from Iganga District.

When compared to other age groups, young people still significantly (pearson $X = 18.8$, $p<0.001$) presented the least proportion (30.9%, n=1,087) of those who tested and received their HIV results in the last 12 months prior to the survey. The highest proportion of individuals who have ever tested for HIV was still reported among individuals aged between 25-34 years at 37.4% (n=629) while those aged 35+ years were reported at 33.0% (n=564).

Table 3: HIV Counseling and Testing Patterns (A comparison between age groups and districts)

Characteristics	Males 15-54 years (%)			Females 15-49 years (%)			Total (%)		
	Know where testing services are offered	Have ever tested	Tested and received HIV results in one year prior to the survey	Know where testing services are offered	Have ever tested	Tested and received HIV results in one year prior to the survey	**Know where testing services are offered**	**Have ever tested**	**Tested and received HIV results in one year prior to the survey**
Age in Years									
15-24	83.8	32.9	23.0	80.1	46.8	35.4	**81.4**	**41.8**	**30.9**
25-34	86.7	52.0	30.6	81.4	56.4	39.9	**82.8**	**55.2**	**27.4**
35-54	84.7	47.6	31.3	82.9	53.8	35.1	**83.9**	**50.4**	**33.0**
Districts									
Bugiri	82.8	42.8	27.6	76.2	55.7	38.3	**78.7**	**50.8**	**34.2**
Iganga	83.7	33.3	18.4	81.6	45.9	33.9	**82.4**	**41.1**	**27.9**
Kaliro	87.6	42.8	26.9	77.0	46.0	26.4	**81.1**	**44.7**	**26.6**
Kamuli	84.0	42.7	30.7	84.8	51.3	40.4	**84.5**	**47.9**	**36.6**
Mayuge	85.0	44.3	28.6	89.6	63.8	49.2	**87.9**	**56.6**	**41.6**
Namutumba	85.1	45.5	32.5	76.6	43.8	32.3	**80.0**	**44.5**	**32.4**
Totals	84.7	41.9	27.5	81.0	51.2	36.8	**82.4**	**47.6**	**33.2**

Source: STAR-EC Household LQAS survey results, 2009

4.2 Reproductive Health (RH)

4.2.1 Family Planning

Proportions on family planning utilization in the region seem not to be significantly different from the prevailing national proportions (19.1%1) reported on the percentage of women 15-49 who were "currently" using contraceptives at the time of the UDHS 2006 survey. During the STAR-EC baseline survey, 25.3% and 22.1% (n=2,217) of the women interviewed in the East Central region reported that they were, at the time of survey, using any family planning methods and any modern family planning methods respectively.

4.2.2 Reproductive Health (RH)

Women who had given birth to children two years prior to the survey were asked questions related to goal oriented antenatal care. Other questions entailed their last pregnancies' related experiences, practices and behaviors. Overall, the majority (92.1%, n=570) of women who had been pregnant for a period not more than two years prior to the survey reported that they attended antenatal care at least once while 49.1% (n=570) reported attending at least four or more times during their last pregnancy. Close to four in every ten women (38.3%, n=570) reported that they had been accompanied by their partners to any one of their ANC visits at a health facility. However, it is not known whether these women were accompanied into the ANC wards at health facilities or their partners stopped outside the health facility premises.

Unlike HMIS that mostly collects data from government owned health facilities and to some extent some private health facilities, this survey collected information at household level and was therefore able to obtain data from women who had been pregnant and went to a government or private health facility as well as those who could have accessed these services out of the six STAR-EC region districts. Additionally, an assessment was also conducted among those who did not obtain services from a health facility. Normally HMIS would capture information from health facilities that could be reporting quality data on a timely basis, thereby omitting data contributions from health facilities that fail to comply. This survey therefore sought for deliveries that took place at the health facility or those that were attended to by health facility providers. Overall, 69.1% (n=570) of interviewed women who had been pregnant not more than two years prior to the survey reported that they delivered their last child in a health facility. The highest finding was reported from Iganga District (77.9%, n=95) while the lowest was reported from Bugiri (47.4%, n=95).

4.3 Prevention of Mother to Child Transmission of HIV (PMTCT)

A lady and her child waiting to access PMTCT services in Kaliro District

PMTCT of HIV is an important strategy promoted by the MoH and other development partners in the fight against pregnant women infecting their unborn babies with HIV during pregnancy, delivery and after birth while breast feeding. Without treatment, many babies born to HIV positive women can become infected with HIV through the three aforementioned transmission ways. Uganda was among the first countries in sub-Saharan Africa to initiate a pilot clinical PMTCT program in the year 2000. Back then, PMTCT services were given as a routine service to consenting HIV-positive women at delivery.

Educating the women that PMTCT is of benefit to them and their children was another approach that has been adopted. This is a diversion to the earlier approach where PMTCT services were a part of the birth delivery

1 *Uganda Bureau of Statistics (UBOS) and Macro International Inc. 2007. Uganda Demographic and Health Survey 2006. Calverton, Maryland, USA: UBOS and Macro International Inc.*

package, given as a routine offer for those who tested HIV positive during prenatal clinic visits.

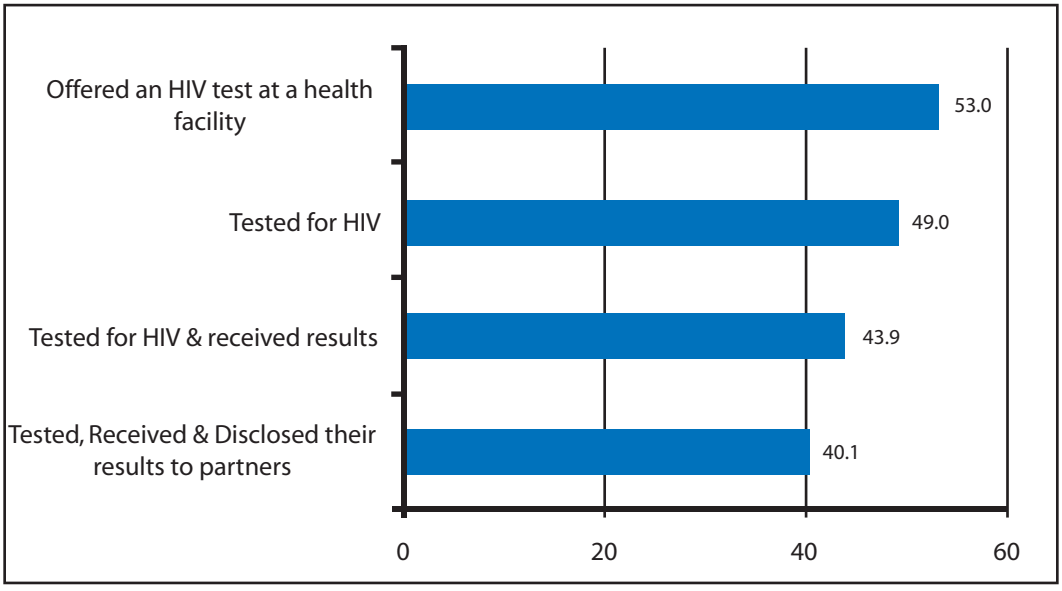
Women who gave birth to children two years prior to the survey were asked questions related to their antenatal care and PMTCT experiences. Additionally, all men and women (15-54 years and 15-49 years respectively) were asked questions on mother-to-child transmission of HIV (MTCT) knowledge.

Overall, results did show that women were slightly more informed about PMTCT when compared to men. Notably, most respondents (88.5% females, n=1,399 and 87.6% males, n=881) reported that HIV can be transmitted from a mother to her baby through delivery while fewer proportions of results did show that less respondents believed that HIV can be transmitted from a mother to a child through pregnancy. Table 4 illustrates PMTCT knowledge.

Table 4: PMTCT Knowledge among males 15-54 years and females 15-49 years

Indicator	Males	Females	Total
Knowledge of any MTCT way	96.1	95.1	95.5
Knowledge of all the three MTCT ways	41.4	47.5	45.2
Knowledge of mother to child HIV transmission through;			
Pregnancy	59.1	60.9	60.2
Delivery	87.6	88.5	88.2
Breast Feeding	69.7	74.4	72.6

Fig 2: Percentage of pregnant women who received ANC and HCT services in the last two years prior to the survey



Source: STAR-EC Household LQAS survey results, 2009

Of the 570 women from the six EC districts who had been pregnant at least two years prior to the survey and were interviewed, about six in every ten (60.0%) reported that they had received counseling about PMTCT during

antenatal care (ANC), while about half (53.0%, n=570) reported that they had been offered an HIV test during any one of their ANC visits. Of the aforementioned 570 interviewed women, only 49.0% reported that they actually took the HIV test while 43.9% (n=570) tested and received their results for PMTCT purposes. Among districts significant differences were noted on the latter indicator (pearson χ = 35.0, p<0.001). The highest proportion was reported in Mayuge District at 61.1% while the lowest was reported in Kaliro District at 29.5%. Part of the reason for Kaliro's low performance is probably attributed to the high proportion of women who reported not receiving their results in the aftermath of HIV testing for PMTCT purposes (of those women who tested for HIV for PMTCT purposes, 25.6% in Kaliro District did not receive their HCT results – a situation that may require more action research).

PMCT services provided to mothers at health facilities during ANC were also assessed and results seemed to reflect desirable performances. Eight in every ten of the women (82.8%) of the women who were offered an HIV test during ANC in the last two years prior to the survey accepted the HIV test and received their HCT results. Mayuge and Kamuli District (95.1% and 91.1% respectively) reported the highest findings while the lowest PMCT HCT testing acceptance proportions were reported from Kaliro District at 65.1%. Further, as illustrated in Fig 2 above, the survey assessed disclosure of HIV results by pregnant women to their partners. Of the total 570 women interviewed, about four in every ten (40.1%) reported having tested, received and disclosed their results to their partners. Additionally, only 9.7% of women who had been pregnant in the entire region reported not receiving their HIV test results yet they had actually taken an HIV test.

4.4 Antiretroviral Therapy (ART)

Treatment activities for PLHIVs in Uganda includes the provision of ART services, which are strongly supported by laboratory infrastructure development. Uganda, with support from the USG, is making significant progress towards its target of providing ART to 250,000 people. The country is in the process of revising the National ART policy, which will increase the number of people in need of ART from 250,000 to over 350,000. Though few, the procurement of CD4 count machines has increased the accessibility of ART to the poorer segments of the country's population. Additionally, community follow-up and support is essential for maintaining high levels of adherence to ART. Health facilities providing ART need external support for their community follow-up activities and resource mobilization. The use of peer support groups to support adherence on ART and community follow-up for clients on treatment is vital. Adherence to HIV treatment regiments means taking the medicines in all the prescribed doses at the right time, in the right dosage and the right method. By September 2007, there were 106,000 active clients on ART, of whom 11,000 were HIV positive children. (UNGASS country progress report, Uganda: UAC, January 2008)

The STAR-EC 2009 baseline survey in the six districts covered by the program explored various ART knowledge, perceptions, beliefs and service provision aspects. A total of 2,280 adults (males 15-54 and females 15-49 years) were asked several questions on their perceptions about ARVs. Significantly (pearson χ = 5.4, p=0.020), more males (39.1%) than females (34.2%) respondents believed that HIV patients should take ARVs or cotrimoxazole. However when compared to the previous indicator, a higher proportion of 57.0% (n=2,280) reported that they knew of a place (government or private health facility) where they could obtain ARVs in case a PLHIV was in need of them.

District specific details are illustrated in Table 5.

Table 5: Perceptions and Knowledge about ARVs

Districts	% who believe HIV patients should take ARVs or CTX	% who know of a place to obtain ARV drugs (government and private HFs)
Bugiri	45.5	65.0
Iganga	32.6	55.0
Kaliro	33.7	54.7
Kamuli	41.6	51.3
Mayuge	31.3	55.8
Namutumba	31.8	60.0
Regional Total	**36.1**	**57.0**

Source: STAR-EC LQAS Household Baseline Survey, 2009

Among 292 health facilities assessed in August 2009, a total of 16 health facilities were found to be offering ART services at the time of the survey. Iganga District had the highest number of health facilities that were providing ART services. Among other health center levels, five HCIIIs from different districts: Kaliro (Bumanya and Nawaikoke HC IIIs); Namutumba (Nsinze and Bukonte HCIIIs) and Namungalwe HC III from Iganga District were found to be offering ARVs to eligible PLHIV at the time of survey.

Table 6: Health facilities providing ART in the EC region

Districts	Number of Health Facilities offering ART services	Names of Health Facilities offering ART services
Bugiri	2	Buyinja HC IV, Bugiri Hospital
Iganga	5	Iganga Hospital, HC IVs (Bugono & Kiyunga) Busesa and Namungalwe HC III
Kaliro	2	Bumanya HC III and Nawaikoke HC III
Kamuli	2	Kamuli Mission Hospital and Kamuli District Hospital
Mayuge	3	Buluba Hospital, HC IVs (Kigandalo and Kityerera)
Namutumba	2	HC IIIs (Nsinze and Bukonte)
STAR-EC	**16**	

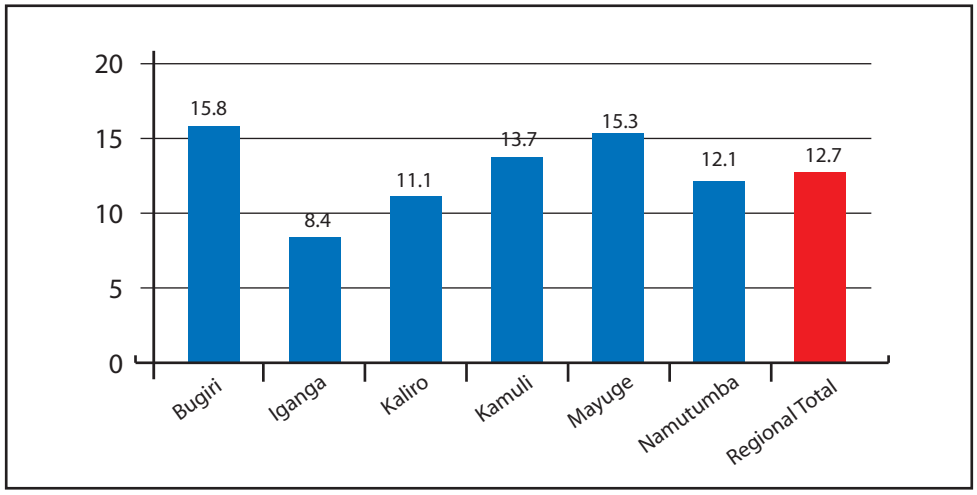
Source: STAR-EC Health Facility Baseline Assessment, 2009

4.5 Care and Support

The survey asked questions on palliative care (Basic Health care) with respect to various indicators. Due to stigma related issues, it is not possible to get an actual measure of the number/proportions of PLHIV at the household level or the actual measure of PLHIVs in need of palliative care. Most people would fear or opt not to reveal whether they are HIV positive. Again, people would still fear to mention if someone in their household were HIV positive. Survey findings did prove this aforementioned elucidation. About two thirds (66.1%, n=2,280) of the respondents reported that they would want to keep it a secret if a family member were found to be HIV positive. Therefore due to ethical issues and respect to minimizing bias, the survey opted to ask respondents a proxy

question that would help to measure the existence of PLHIV and their need for palliative care services.

Fig 3: Percentage of households that reported having terminally ill persons within the last 3 months prior to the survey



Source: STAR-EC Household LQAS survey results, 2009

Overall, about one in every ten of the households (12.7%, n=1,140) reported having had a sick bedridden person or someone who had died after being sick or bedridden for more than three months. There were no significant differences in coverage across districts (p=0.477).

Care and support for the terminally ill includes; medical, emotional, material and social support which is either provided for at a health facility or in the form of home based care. Almost all of the households with terminally ill persons (99.3%) reported that they would care for a PLHIV in their own home. Additionally, slightly more than half (55.9%, n=145 of those affected households) reported that they had received care and support for a sick and bed ridden person. The highest proportion was reported from Kamuli District (81.0%) while the lowest was reported from Mayuge District (34.5%).

Overall, 27.6% (n=1,140) of all interviewed respondents from the visited households reported that they had an orphan. Only 19.1% of those households with orphans reported having received any support because of the presence of an orphan. Iganga (22.6%) and Kamuli (23.7%) Districts reported having the lowest proportion of orphans. Overall, most of these results seem to suggest that about a half of clients are probably in need of palliative care.

4.6 Tuberculosis (TB)

Uganda ranks 16th on the list of 22 high-burden Tuberculosis (TB) countries in the world and in 2007, the country had almost 102,000 new TB cases, with an estimated incidence rate of 330 cases per 100,000 population. The DOTS (the internationally recommended strategy for TB control) case detection and treatment success rates (51 and 70%, respectively) for new sputum smear-positive (SS+) cases are still below the World Health Organization's (WHO) global targets of 70 and 85%, respectively. These low rates are mainly due to insufficient case reporting, non-adherence to TB treatment, poor access to health care services, and a limited number of skilled staff and diagnostic facilities. In addition to these challenges, Uganda has the highest default rate of any high-burden country. According to UNAIDS, the prevalence of HIV&AIDS, at 5.4%, further exacerbates the problem of TB control. However, while the TB incidence rate is still quite high, it fell by 5.7% between 2006 and 2007, and TB mortality has declined over the past four years. Collaborative TB-HIV&AIDS activities are expanding slowly; in 2006, only

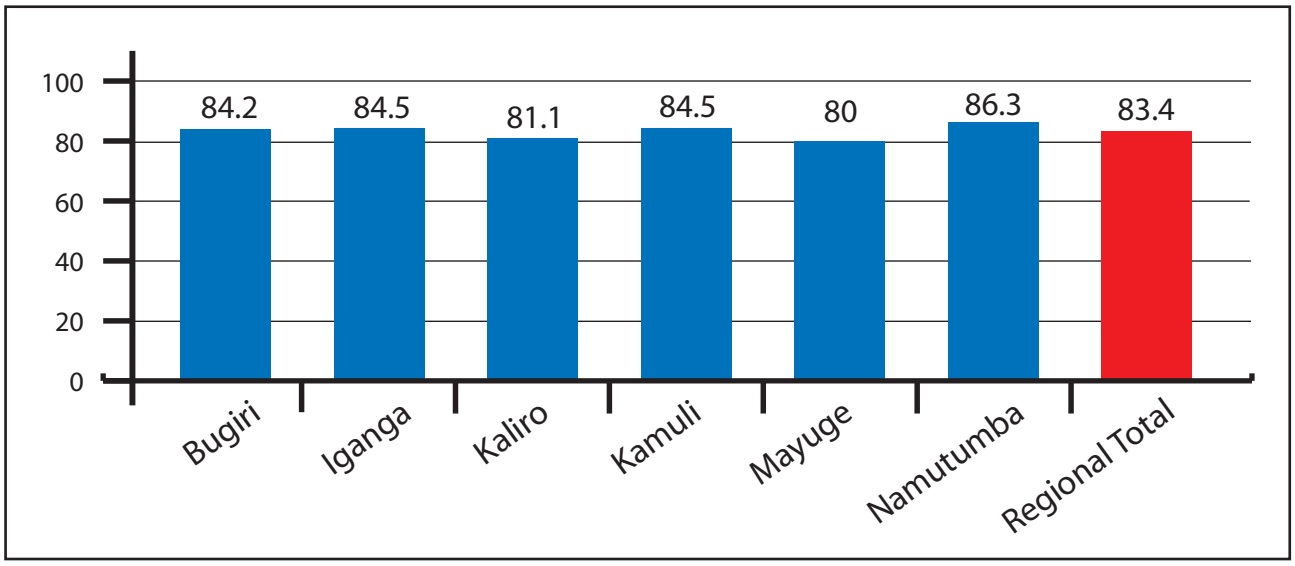
one-quarter of TB patients were tested for HIV. According to WHO, around 38.7% of new TB patients are HIV positive (WHO, Global Tuberculosis Control: epidemiology strategy financing 2009).

As part of STAR-EC's mandate, TB is a very important intervention whose related activities are being implemented in hand with HIV&AIDS related interventions. Throughout program life, STAR-EC will endeavor to increase the quality of palliative care given to HIV clients with an emphasis on TB identification, treatment, support and care. A lot of support is being placed on training service providers including training on the CB-DOTS program, promotion of TB screening as well as HIV testing for TB suspects and the promotion of BCC or IEC messages on increasing TB awareness in the different EC region communities.

Overall, the LQAS household survey results suggest that men seem to possess more knowledge about TB infection and control when compared to women. Most respondents had heard most of TB related messages through a radio talk show

The household survey explored knowledge and awareness on TB within the various East Central communities. Overall, 83.4% (n=2,280) of adults (males 15-54 and females 15-49 years) who were interviewed reported that they knew of any signs and symptoms of TB while 81.7%, n=2,280 (84.1% males compared to 80.1% females) reported that it is possible for a person to have TB and HIV at the same time. Additionally, about half (55.1%, n=2,280) of the respondents reported that TB is a curable disease (63.8% males and 49.7% females *Pearson* $\chi = 48.4, p<0.001$)– a situation that seems to call for more BCC and IEC messages directed towards the alleviation of this kind of situation. Kaliro (42.9%) and Namutumba (51.6%) Districts reported the least desirable proportions.

Fig 4: Percentage of adults 15-54 years who know the signs and symptoms of TB



Source: STAR-EC Household LQAS survey results, 2009

Of the 292 Health facilities in the EC Region

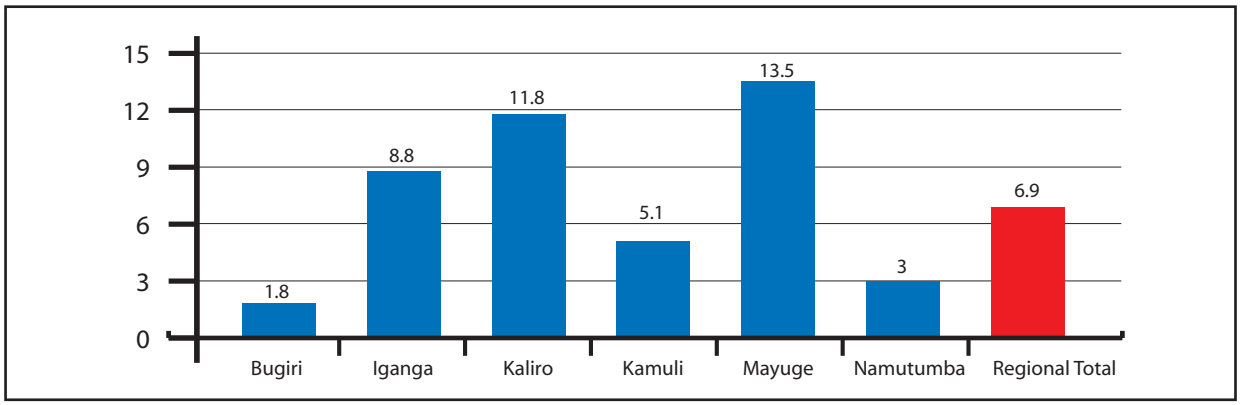
- Only 18.8% of health facilities reported that all HIV+ clients are screened for TB
- Only 21.6% of health facilities reported that all patients diagnosed with TB are tested for HIV
- A quarter (25.7%) of the health facilities reported that their staff counsel HIV+ clients on TB prevention

Respondents were also asked about what they would do in the event they found out that a family member had TB. This was a multi-response question and the majority (78%) mentioned that they would take the TB suspect to a healthy facility while 13% reported that they would provide continuous family care and 20% mentioned that they would take preventive measures against TB at home.

BCC and IEC are also an important component in the success of TB treatment. Respondents were asked whether they had heard or received of any TB messages and 39.7% (n=2,280) reported receiving these messages. This was a multiple response question which revealed 29.8% of the respondents as having received these messages through a radio

advert or spot; 6.2% through a song; the majority (54.6%) through a radio talk show; 24.9% through a VHT/peer educator and 5.4% through a health facility.

Fig 5: Percent of Health Facilities in the entire EC region that receive staff or technical support from different development organisations for the provision of TB services (out of 292 Health Facilities)



4.7 Laboratory Capacity to handle TB/HIV related services

All the 292 health facilities in the region were assessed on whether they have laboratory capacity to conduct different HIV&AIDS and TB related tests. Less than a third (28.1% or 82 health facilities) reported that they have laboratory capacity to test for HIV while 67 health facilities (23.0%) reported having lab capacity to conduct TB related tests and 68 health facilities (23.3%) reported being able to conduct syphilis tests.

Additionally, at the time of the survey in August 2009, every health facility in-charge was asked whether they had any capacity to conduct or were partnering with any higher level laboratory in conducting CD4 tests. Only 5 health facilities reported conducting CD4 tests or having any mechanism of helping people access CD4 services and CD4 test results. These included: Buluba Hospital in Mayuge District; Nabukalu HC III and Hukeseho HC III in Bugiri District; Kamuli District Hospital in Kamuli District as well as Hope Medical Clinic in Iganga District.

A laboratory at Gadumire HC III in Kaliro District-2009

5.0 Challenges and Lessons Learned

5.1 Challenges

Most of the training participants complained of the length of time it took to find a randomly selected village as well as the time taken to randomly select the first household. This was an experience shared by the participants in both the pre-test exercise and the actual data collection. Other participants also experienced challenges with the time it took to find any member of a given village local council. A village local council member is very necessary in introducing the interviewer to the village as this helps the village populace to build trust in the intentions of the survey exercise.

The LQAS methodology suggests that after the first randomly selected household in a village has been identified in a village one moves to the next nearest household that is directly opposite the door of the aforementioned household for the first interview in that village. The methodology probably assumes that households in Ugandan villages are located on a street and this is not true for most households are scattered within villages.

At the time of the LQAS training and data collection, there were six East Central districts that participated. However, the number of districts may increase as the parliament of Uganda is still in the process of creating new districts in the region. This is an additional challenge as it subsequently increases training, data collection and survey costs.

The poor state of some roads in the region characterized with huge pot holes also slowed communication and in some areas data collectors had to walk for miles on foot as there was no easy navigation of roads. Similar to some areas within Uganda, most of the roads in East Central Uganda are seasonal and when it rains, they become wet and impassable. Though it did not rain so much during the time of the survey, rains in different districts posed a challenge during the data collection exercise as work would come to a standstill.

In some districts, most or all the district officials who were selected by the different District Health Officers were very quick at conceptualizing the methodology, committed to the exercise and did show high levels of engagement and involvement. However to a limited extent, some district officials were either not very committed to the LQAS exercise or were simply not competent to carry out this exercise. These were noted and their respective DHOs advised accordingly. In other cases, trainers would pay more attention to trainees who had been identified as not performing to the desired standards and some of these were later on seen to improve.

It is in STAR-EC's desire that all the trained district participants will continue with the execution of this activity on an annual basis. However, STAR-EC is not certain that the same personnel that were trained will be the very ones to continue with the execution of this exercise during the subsequent years. Capacity building for any given task is never a one off event but a continuous one. Therefore, it is very imperative that the same individuals who received this initial training are the very individuals who should turn up for the subsequent follow on activities as this will enhance their individual and district capacities. It is a challenge that the ever increasing staff turnover cuts across all the EC districts and it could also contribute to hiccups in subsequent trainings and surveys.

At the time of the LQAS training and data collection, there were six EC districts that participated. However, the number of districts may increase as the parliament of Uganda is still in the process of creating new districts in the region. This is an additional challenge as it subsequently increases training, data collection and survey costs.

5.2 Lessons Learned

Involvement of both junior and senior district officers in this exercise has additional advantages when compared to the sole utilization of senior officers. The senior officers help to give stewardship to the junior officers. Additionally, they get to interface with district specific gaps first hand as they are collecting this data. This was very evident especially during the collection of data from health facilities. Owing to their experiences during the survey, the senior district officials thereafter become empowered to become better planners and managers based on evidence obtained from collected data. Junior officers are more likely to be involved in all the nitty-gritty of the execution of this methodology to the dot. They are readily more available given the fact that they have fewer district roles to play when compared to the senior district officials who are at times called upon mid way through the survey exercise to attend to some other district activities.

District involvement in the planning and execution of LQAS activities helps to promote ownership of the activity by the district.

The *'boda boda'* (motorcycle taxi) hire mechanism is very effective in helping data collectors reach randomly sampled villages at a relatively cheaper cost. Additionally, if the participating District Local Governments could provide their motorcycles for the data collectors and they are fueled by STAR-EC during the data collection exercise, then this would help to cut costs further and in a way help in the promotion of a spirit of partnership.

District involvement in the planning and execution of LQAS activities helps to promote ownership of the activity by the district. Partnership between districts and STAR-EC has also been enhanced by all districts providing their staff in the utilization of the entire methodology thus providing some answers to making LQAS activities sustainable.

The creation of district LQAS focal persons was found to be very helpful as they were groomed into the future leaders of this exercise in every district. These focal persons not only helped during the survey exercise but in the mobilization of the district authorities to discuss results and come up with action plans during the LQAS dissemination.

The continuity of the LQAS exercise can only be ensured if districts and their program staff can be fully trained to understand and utilize the results that are generated by the survey in their annual planning.

6.0 Conclusions

- There is a high demand for male medical circumcision services
- Radio talk shows seem to be a very powerful way in which to impart BCC messages
- Most people know where to access HCT services but less than half have ever tested for HIV
- TB awareness and knowledge seems to be high among different individuals across all districts, , however, about two in every ten health facilities reported conducting any TB /HIV collaborative services
- Less than half of pregnant women have ever taken an HIV test for PMTCT purposes

Overall, knowledge and awareness of any one way of HIV prevention in the entire East Central region seems to be high, however about six in every ten individuals seemed to know all three major HIV prevention ways. Among the common HIV transmission misconceptions (transmission of HIV through mosquito bites, witchcraft and sharing of food with an infected person), findings seem to suggest that most of the people still believe that HIV can be transmitted through mosquito bites – something that BCC interventions should target alleviating alongside with the other misconceptions.

Survey results seem to suggest a high demand for male medical circumcision services (MMC). Two thirds of all the men who had never been circumcised reported that they would take up the opportunity once free circumcision services were offered at a health facility. This therefore calls for the setting up of health facilities with quality MMC services.

Most of the respondents reported having knowledge of a place where they could obtain HCT services. However, less than half have ever tested for HIV in their entire life. Only a third tested and received their results in the last one year prior to the survey. Significantly ($p<0.001$), more women than men have ever or are currently testing for HIV - and this could possibly be attributed to the fact that when compared to men, women's health demands and health seeking behaviors are higher and therefore they stand a higher chance of accessing HCT services every time they visit health facilities. In most cases women may get tested for HIV during ANC, gynaecological visits or when taking their children to health facilities for immunization and other childhood illnesses. Additionally, there were significant differences across districts in HCT uptake.

TB awareness and knowledge seems to be high among different individuals across all districts, however, about two in every ten health facilities reported conducting any TB /HIV collaborative services – a situation that calls for increased networking and promotion of either service in health facilities.

When comparing all three MTCT transmission ways, most adults had knowledge of HIV transmission through delivery, however, fewer adults knew that HIV can be spread from mother to child during pregnancy - a finding that suggests that more effort is needed in scaling up BCC messages to alleviate this situation.

Less than half of pregnant women have ever taken an HIV test for PMTCT purposes. However, disclosure of PMTCT results among pregnant women was found to be very high - a finding that probably suggests that since East Central Uganda's HIV prevalence rate is 6.5% , then the disclosure rate may possibly be high because the majority of those who test for HIV come out with negative results and thus have no fear to disclose their results. However, this result could also be attributed to development programs that have helped to reduce stigma related to disclosure of HIV results. Further action research could be helpful in finding out the reasons attributed to this aforementioned elucidation.

Close to six in every ten adults knew of a health facility where one could obtain ARV drugs, however only a third of respondents believed that HIV patients should take ARVs - a situation that calls for more BCC involvement in reversing this undesirable outcome.

Overall, most of the palliative care results show a slight increment in the proportion of terminally ill persons as well as an increment in the proportion of terminally ill persons receiving care and treatment in their households – a situation that possibly suggests that the introduction of ARVs has helped to improve on the affected people's livelihoods by keeping them out of the terminally ill bracket. The proportion of orphans has increased by 16.2% yet there are only about a third of these receiving care and support because of the presence of an orphan. This calls for more interventions in the OVC sector. However, palliative care for the terminally ill seems to be on the

increase with seven out of every ten of the affected households reporting having ever received care and support for a sick and bed ridden person.

Contrary to the low proportion of figures given by HMIS records, the LQAS household survey was able to give higher proportions of results for women that gave birth to their last child in the last two years prior to the survey. This was mainly due to the fact that HMIS does collate information from mothers who mostly give birth from government health facilities and to some extent some private health facilities. HMIS does not take into account women who reside within the district that could have given birth from other districts or regions in the country or women who could have given birth from non-registered or private health facilities within the district or those who could even have given birth from a health facility (both government and private) that did not submit data on a timely basis. Therefore the household based survey did cover all mothers who had given birth at the community level.

7.0 Recommendations and Way Forward

Overall, the survey seems to suggest that among districts, inclunding Kaliro and Iganga need to be prioritized the most across most of the indicators for interventions. Kaliro District seemed to present the least proportion of individuals who have accessed most HIV&AIDS and TB services. Notably, PMTCT and HCT uptake seemed to be so low in Kaliro and again the district had the least number of health facilities where people could access different services when compared to other districts. It would be necessary for one to use this generated research data to identify priority districts as illustrated in the appendix and the district specific neediest supervision areas and indicators for interventions.

- Among districts, Kaliro and Iganga need to be prioritized the most for interventions
- There is also need to promote TB, ART and PMTCT service scale up in all or most of the districts
- Counseling of all pregnant women during ANC including increased male involvement in PMTCT programs is imperative
- Strengthening of the new LQAS district specific focal persons will help in the continuity of district institutionalization of LQAS and enhance evidence based planning and decision making
- Survey costs can further on be reduced through the promotion of cost sharing and partnership between STAR-EC and the LG, CSOs and other development partners within the region.

The survey suggests that less than half of the respondents have ever tested for HIV in the entire East Central Ugandan region. Therefore, STAR-EC and other development partners, CSOs and the different local governments within the region need to increase on HCT access through increased outreaches at HC II level and communities. Additionally, HCT services need to be scaled up in the entire region especially in the hard to reach areas that include MARPs, islands and fish landing sites of both lakes Victoria and Kyoga. Other areas that need to be targeted include the road truckers frequent especially along the main transport highway in Iganga and Bugiri Districts. The provision of HCT to family members of HIV-positive patients through a family based approach can also help to promote networks and linkages through the identification of other HIV-infected individuals within households and communities. Subsequently, the promotion of this approach can help facilitate the identification of HIV-discordant couples for improved care and support, partner disclosure and increased HIV testing including care and support to HIV infected and affected persons that may include orphans. Adherence to ARVs or other prescribed medication among PLHIV can also be promoted herein. The provision of routine HCT by health care providers in health-care settings will also increase access to care and support among PLHIV.

There is also need to promote TB, PMTCT and ART service scale up in all or most of the districts. Less than half of the pregnant women do access PMTCT in the entire region. Results also seem to suggest that one in every ten women who test for HIV during ANC did not receive their results – a situation worth alleviating by the health providers, the district and MoH. Counseling of all pregnant women during ANC and increased male involvement in PMTCT programs is paramount. Survey results suggest that a big number of women were accompanied to health facilities during any of their ANC visits by their partners. However, it is not clear whether these men (partners) did attend ANC proceedings within the health facility or they just simply accompanied their partners to the health facility. STAR-EC, the LG, CSOs and other development partners should aim at extending ART and TB services to all HCIVs. Some districts within the EC region, i.e. Kaliro, Bugiri and Namutumba are a “one county” district, which implies that most of them have one health facility at HC IV level. Therefore, services in these districts need to be extended to lower level health facilities especially HC IIIs such that more people and communities can be reached.

BCC interventions should target scaling up IEC messages that target alleviating HIV transmission misconceptions

especially the one regarding mosquito bites. Less respondents in different districts reported having heard any TB related messages over the radio or in the community, thus, there is a need to help on this. When comparing the three possible MTCT ways, most respondents seemed to know transmission through delivery and not during pregnancy or breast feeding – something that can be averted through packaging IEC messages to address this detrimental situation. Most of the respondents heard BCC messages over the radio or through radio talk shows, however places of worship can also be very helpful and more effective to different believers when their clergies pass over information. This can be achieved free of charge when compared to radio that is too costly. The cost of airing radio messages can also significantly be reduced by advertising or holding radio talk shows on one of the most listened to radio stations that covers the entire six East Central Districts. Of those adults (15-54 years) who have ever taken an HIV test, only three quarters had an HIV test in the last one year – something that seems to suggest increase BCC involvement in extending HCT services to those that have never tested for HIV before.

Utilisation of the new LQAS district specific focal persons throughout the year for the planning and management of various LQAS related activities will help in the continuity of district institutional capacity and enhance evidence based planning and decision making as well as promote the utilization of strategic information. This will further create sustainability of this exercise by the district LGs themselves beyond STAR-EC's program life and even contribute to the planned national institutionalization of LQAS.

Survey costs can further on be reduced through the promotion of cost sharing and partnership between STAR-EC and the LG, CSOs and other development partners within the region. For instance, because the data being collected is not only helpful to STAR-EC but the entire geographical area, district or region , then a partnership with the aforementioned partners in the execution of this annual activity would help to cut down survey costs.

STAR-EC Household Baseline LQAS Survey Results-General , August 2009

		DISTRICT RESULTS						TOTAL (EAST CENTRAL UGANDAN REGION RESULTS)		
Indicator definitions		**Bugiri**	**Iganga**	**Kaliro**	**Kamuli**	**Mayuge**	**Namutumba**	**Males**	**Females**	**TOTAL**
REPRODUCTIVE HEALTH										
% of pregnant women attending ANC at least once during the last pregnancy	Total	92.6	95.8	92.6	87.4	92.6	91.6			92.1
% of pregnant women attending ANC at least 4 times during the last pregnancy	Total	50.5	51.6	41.1	42.1	60.0	49.5			49.1
% of pregnant women attending ANC that were accopanied by their partners	Total	31.6	28.4	43.2	40.0	36.8	49.5			38.3
(Of those pregnant women who attended ANC at least 4 times during the last pregnancy) % who tested and received their HIV results		56.3	44.9	35.9	60.0	63.2	46.8			51.8
% of women who received only two IPT doses	Total	37.9	29.5	21.1	30.5	28.4	24.2			28.6
% of women who received any IPT	Total	71.6	76.8	85.3	82.1	77.9	75.8			78.3
% of women receiving two or more doses of IPT during their last pregnancy	Total	63.2	64.2	76.8	65.3	64.2	67.4			66.8
% of deliveries (in the last 2 years) that took place in a health facility	Total	47.4	77.9	68.4	76.8	67.4	76.8			69.1
% of women currently using family planning methods	Total	26.3	26.9	23.8	24.5	23.6	26.5			25.3
% of women 15-49 years using modern family methods	Total	22.2	23.6	21.4	20.2	20.9	24.4			22.1
PMTCT										
% of women who were offered an HIV test during ANC in last 2 years	Total	59.0	50.5	45.3	47.4	64.2	51.6			53.0
(Of those women who were offered an HIV test during ANC in last 2 years) % who tested and received their results	Total	80.4	83.3	65.1	91.1	95.1	77.6			82.8
% of women tested for HIV during ANC in last 2 years	Total	52.6	46.3	41.1	44.2	61.1	48.4			49.0

STAR-EC Household Baseline LQAS Survey Results-General , August 2009										
(Of those women tested for HIV during ANC in last 2 years) % who did not receive their results	Total	10.0	6.8	25.6	2.4	0.0	17.4			9.7
% of women tested and received their HIV test results during ANC in last 2 years	Total	47.4	42.1	29.5	43.2	61.1	40.0			43.9
% of women tested, received and disclosed their results to their partners	Total	42.1	42.1	27.4	37.9	55.8	35.8			40.1
% of pregnant women who were counselled about PMTCT	Total	66.3	66.3	52.6	55.8	68.4	50.5			60.0
% of pregnant women who were counselled about HIV prevention (things to do)	Total	59.0	70.5	55.8	64.2	71.6	51.6			62.1
% of pregnant women who were counselled about HIV testing	Total	64.2	66.3	54.7	50.5	72.6	48.4			59.5
Proportion of women who know a mother can transmit HIV to her infant during:	Pregnancy	64.7	51.9	68.1	62.2	52.5	66.4			60.9
	Delivery	86.4	89.3	84.3	90.0	87.9	93.4			88.5
	Breastfeeding	77.0	70.0	74.0	71.7	75.8	77.9			74.4
Proportion of men who know a mother can transmit HIV to her infant during:	Pregnancy	69.0	62.6	62.1	52.7	52.9	55.8			59.1
	Delivery	89.0	84.4	84.1	92.0	85.0	90.9			87.6
	Breastfeeding	66.2	70.1	67.6	68.0	77.1	69.5			69.7
% of adults who know at least one MTCT way	Total	95.8	95..26	92.4	96.1	96.3	98.2	96.1	95.1	95.5
% of adults who know all MTCT ways	Total	49.5	40.0	49.2	43.2	41.3	47.9	41.4	47.5	45.2
WATER AND SANITATION										
% of house holds main source of drinking water	Piped into dwelling	0.4	0.7	0.0	1.4	0.0	0.0			0.4
	Piped into yard/plot	1.1	1.1	1.4	0.4	0.0	0.0			0.6
	public tap	0.7	2.8	0.7	0.0	4.2	0.0			1.4
	Bore hole	49.8	78.3	95.1	87.0	69.8	81.8			77.0
	Protected well/spring	10.5	11.2	0.4	1.4	6.7	6.7			6.1
	unprotected well/spring	11.2	5.3	1.1	3.2	13.3	11.2			7.5
	Rain water	0.0	0.0	0.0	0.4	0.0	0.0			0.1
	Cart withsmall tank/drum	0.oo	0.0	0.0	0.4	0.0	0.0			0.1
	surface water	26.0	0.4	1.4	5.3	3.2	0.0			6.0
	other	0.0	0.0	0.0	3.2	0.0	o.oo			0.1

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% of households reporting use of different water storage facilities	Jerrican	10.5	6.3	1.4	6.7	6.7	3.2			5.8
	Clay pot	87.4	91.9	98.3	88.8	92.6	94.4			92.2
	Water guard	1.1	0.0	0.0	0.0	0.0	0.2			0.2
% of households with functional toilet	Total	84.2	90.5	86.0	91.2	94.0	89.5			89.2
	VIP	5.0	9.3	4.1	0.8	17.0	3.1			4.8
	Toilet with concrete slab	8.8	29.5	13.9	30.0	16.0	16.5			19.3
	Toilet without concrete slab	82.5	60.9	78.4	67.3	76.9	76.5			73.6
	Flush toilet	0.0	0.4	0.4	0.0	0.0	0.0			0.1
	Other	1.7	0.0	0.4	0.0	0.0	2.0			0.7
HIV/AIDS										
% of adults (15 years and above) who have ever taken an HIV test	Total	50.8	41.1	44.7	47.9	56.6	44.5	41.9	51.2	47.6
	Female	55.7	45.9	46.0	51.3	63.8	43.8			51.2
	Male	42.8	33.3	42.8	42.7	44.3	45.5			41.9
(Of those adults (15+years) who have ever taken an HIV test) % who had an HIV test in last 1 year	Total	72.5	72.4	68.2	79.1	77.7	81.1	71.8	77.1	75.3
% of adults (15 years and above) who have tested for HIV in last 1 year	Total	36.8	29.7	30.5	37.9	44.0	36.1	30.8	39.5	35.8
	Female	40.4	36.5	31.1	41.3	51.3	35.8			39.5
	Male	31.0	19.1	29.7	32.7	31.4	36.4			30.1
% of adults (15 years and above) who have tested and received their HIV test results in last 1 year	Total	34.2	27.9	26.6	36.6	41.6	32.4	27.5	36.8	33.2
	Female	38.3	33.9	26.4	40.4	49.2	32.3			36.8
	Male	27.6	18.4	26.9	30.7	28.6	32.5			27.5
(Of those adults (15+ years) who have tested and received their HIV test results in last 1 year) % who say would be willing to disclose their results to:	Any one	78.5	83.0	78.2	84.2	81.0	74.8	79.3	80.4	80.1
	Family member/ friend	37.7	29.3	28.7	33.8	29.8	39.0	38.4	30.7	33.2
	Partner	57.7	69.8	67.3	62.6	64.6	64.2	61.6	65.2	64.1
% of adults (15+ years) who believe that HIV patients should take ARV drugs	Total	45.5	32.6	33.7	41.6	31.3	31.8	39.1	34.2	36.1
% of adults (15+ years) who know a place to get ARV drugs for HIV patients	Total	65.0	55.0	54.7	51.3	55.8	60.0	62.8	53.3	57.0
(Of those adults (15+ years) who know a place to get ARV drugs for HIV patients) % that mentioned health unit or private clinic	Total	90.7	90.0	96.2	96.4	88.7	92.1			92.2
% of adults (15+ years) who know a place to obtain condoms	Total	79.7	84.0	78.2	86.3	84.5	84.2	90.2	78.1	82.8

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(Of those adults (15+ years) who know a place to obtain condoms) % that mentioned;	Health unit or private clinic	83.5	84.3	89.2	84.8	84.4	86.3			85.4
	Shop	47.9	46.7	48.2	48.2	53.6	37.2			46.9
	Village health worker	15.5	7.5	10.1	9.8	5.3	3.8			8.6
% of adults who can mention at least one major way of HIV/ AIDS prevention	Total	91.8	96.6	96.6	96.6	90.3	90.5	94.8	93.1	93.7
% of adults who can mention the 3 major ways of HIV/AIDS prevention	Total	50.8	58.4	67.9	69.2	57.4	48.4	59.9	57.9	58.7
	Female	46.0	60.1	67.2	68.7	58.3	46.9			57.9
	Male	58.6	55.8	69.0	70.0	55.7	50.7			59.9
% of adults who can mentioning major ways of HIV/AIDS prevention	Abstinance	72.9	79.5	85.5	81.6	78.7	72.9	79.2	78.1	78.5
	Being faithful	75.3	81.6	81.6	85.0	69.0	71.1	79.0	76.1	77.2
	Condom use	72.4	77.9	83.7	87.9	80.0	70.5	79.6	78.2	78.7
(Of those adults who can mention at least 3 or more major ways of HIV/AIDS prevention) % who know where to access condoms	Total	83.4	86.9	79.1	86.7	88.5	86.4	91.7	80.7	85.1
(Of those adults who can mention at least 3 or more major ways of HIV/AIDS prevention) % who tested and received results in the last 1 year	Total	32.1	30.2	28.3	36.9	41.7	28.3	28.4	36.1	33.0
% of adults (15+) able to reject all the major HIV/AIDS misconceptions	Total	44.7	46.3	44.7	52.4	49.7	51.6	52.6	45.5	48.3
% of adults (15+) able to reject each of the major HIV/AIDS misconceptions	Witchcraft	82.9	90.5	91.8	89.0	91.8	86.3	90.7	87.5	88.7
	Mosquito bites	58.2	57.1	55.8	66.3	58.2	63.2	64.3	57.0	59.8
	Sharing food	76.3	78.4	69.0	79.7	79.2	82.6	80.5	75.7	77.5
% of adults (15+ years) who reported that a person can get HIV by receiving injections with a needle that was used by someone else	Total	92.6	95.0	91.3	93.7	91.8	88.7	93.2	91.6	92.2
% of adults (15+ years) who believe that it is possible for a healthy looking person to h ave the AIDS virus	Total	81.3	88.7	82.1	93.2	91.3	86.3	88.5	86.3	87.2

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% of adults (15+ years) who say that they would buy fresh vegetables from a shopkeeper or vendor I f they knew that the shopkeeper had HIV/ AIDS	Total	69.0	64.7	54.2	67.6	8.5	71.3	71.3	65.8	67.9
% of adults (15+ years) who feel able to disclose HIV test results if ever went for test	Total	69.2	75.3	72.6	64.7	75.5	69.7	69.7	72.1	71.2
	To partners	68.4	70.6	73.6	64.2	68.6	72.1	66.5	71.7	69.7
	Family member	39.2	38.1	42.8	41.5	37.6	43.8	47.1	36.4	40.4
	Friends	8.0	10.5	4.4	6.5	6.6	10.6	11.7	5.5	7.8
% of adults (15+) willing to take care of a family member with HIV virus	Total	95.0	96.6	96.6	96.8	97.1	95.8			96.3
% of adults who know what to do if family member were HIV positive	Take them to health facility	90.8	93.4	93.4	91.6	96.3	93.7	95.1	92.0	93.2
	Traditional healer/ herbalist	1.6	0.5	1.1	7.9	0.3	1.1	2.2	2.0	2.1
	Faith healing	2.1	1.3	1.3	1.8	1.3	0.8	1.7	1.3	1.5
	Give family care/support	38.7	41.8	45.8	39.5	24.7	32.4	36.6	37.5	37.2
% who would not keep it secret if they found out that a family member were HIV positive	Total	36.8	29.2	32.1	42.1	30.8	32.4	37.3	31.7	33.9
% who say female teacher HIV positive should be allowed to continue teaching	Total	62.4	57.1	49.5	65.3	65.5	56.1	62.1	57.5	59.3
% of adults (15+ years) who know where they can be tested for HIV	Total	78.7	82.4	81.1	84.5	87.9	80.0	84.7	81.0	82.4
(Of those who know where they can be tested for HIV) % that has actually ever tested	Total	58.5	48.2	50.7	54.8	61.1	52.6	47.1	59.2	54.4
(Of those who know where they can be tested for HIV) % that has actually ever tested in the last 1 year	Total	42.8	35.1	36.0	43.9	48.2	43.4	34.5	46.4	41.7
(Of those who know where they can be tested for HIV) % that has actually ever tested and received their results in the last 1 year	Total	39.8	32.9	31.2	42.4	45.8	39.1	31.5	43.3	38.6

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PALLIATIVE CARE										
% of households with a person who is very sick or bed ridded for a period of three or more months, or anyone who died after being sick for more than three months	Total	15.8	8.4	11.1	13.7	15.3	12.1			12.7
(Of those with termillary ill persons) % of respondents who reported they would be willing to care for a terminally ill person	Total	100.0	100.0	100.0	96.2	100.0	100.0			99.3
(Of those affected households) % of households receiving care and support for a sick bedridden person or someone who died after being sick or bedridden for more than 3 months (Home-based care)	Total	56.7	75.0	81.0	53.9	34.5	47.8			55.9
(Of those with termillary ill persons) % of respondents who reported receiving support:	Medical support									
	Emotional support									
	Material support									
	Sociol support									
% of households with any children under 18 years whose father, mother, or both parents died (orphans)	Total	31.6	22.6	28.4	23.7	30.0	29.5			27.6
(Of those affected households) % of households receiving care and support because of the presence of an orphan	Total	16.7	18.6	31.5	6.7	15.8	23.2			19.1
% of households with an orphan aged 6-17 years that currently in schools	Total	88.5	95.1	100.0	73.8	85.4	89.8			88.6
% of households with an orphan who was tested for HIV	Total	10.0	27.9	11.1	11.1	7.0	12.5			12.7
% of households with an orphan who was tested for HIV and received results	Total	6.7	25.6	5.6	11.1	7.0	12.5			10.8

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Of those who rejected major HIV misconceptions) % who received atleast one message about the prevention of HIV in the last 3 months.	Total	65.3	83.5	68.2	69.4	50.8	61.7			66.3
TUBERCULOSIS										
% of adults (15+ years) who know that it is possible for a person to have TB and HIV at the same time	Total	82.9	82.9	85.3	80.5	78.4	80.0	84.1	80.1	81.7
% of adults (15+ years) who know that TB is a curable disease	Total	60.3	58.7	42.9	58.2	59.2	51.6	63.8	49.7	55.1
% of adults (15+ years) who know of the signs and symptoms of TB	Total	84.2	84.5	81.1	84.5	80.0	86.3	86.7	81.3	83.4
% of adults (15+ years) who know what to do if they suspect family member of TB	take them to health unit	80.0	77.6	75.3	78.2	77.9	79.7	83.5	74.7	78.1
	provide continuous family care	10.5	12.9	14.0	17.1	9.2	15.0	12.6	13.4	13.1
	take preventive measures against TB at home	16.3	24.5	21.3	17.1	13.2	24.7	17.3	20.9	19.5
BEHAVIORAL CHANGE AND COMMUNICATION										
% of households that received at least one message about HIV/ AIDS prevention in the last 3 months	Total	62.1	80.5	64.0	64.0	47.6	58.4			62.9
(Of those households that received at least one radio message about HIV/AIDS prevention in the last 3 months) % by format:	Advert/radio spot	20.8	37.6	34.6	23.3	43.1	36.5			32.4
	Song	9.3	3.6	10.3	10.6	7.7	2.7			7.3
	Radio talk show	58.5	55.2	61.7	58.8	37.6	42.3			53.2
	VHT/peer educator	36.4	14.7	35.0	26.5	33.2	32.9			28.9
	Health Facility	7.2	5.9	6.6	2.5	3.3	3.6			5.0
% of households that received at least message about HIV/AIDS care and treatment in the last 3 months	Total	57.9	72.6	54.0	56.6	42.9	50.0			55.7

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(Of those households that received at least one message about HIV/AIDS care and treatment in the last 3 months) % by format:	Advert/radio spot	23.6	38.0	30.7	20.0	42.3	34.2		31.3
	Song	8.6	2.5	9.8	10.2	6.1	2.1		6.5
	Radio talk show	60.5	51.8	59.0	64.2	41.1	42.1		53.7
	VHT/peer educator	30.5	14.9	37.6	22.8	31.3	31.1		27.1
	Health Facility	5.5	5.4	5.9	2.8	3.7	4.7		4.7
% of households that received at least one message about TB in the last 3 months	Total	42.9	42.6	48.2	40.3	28.7	35.5		39.7
(Of those households that received at least one message about TB in the last 3 months) % by format:	Advert/radio spot	20.9	31.5	27.9	15.7	49.5	41.5		29.8
	Song	8.6	0.6	7.7	10.5	7.3	2.2		6.2
	Radio talk show	62.0	57.4	61.8	59.5	39.5	39.5		54.6
	VHT/peer educator	23.9	13.6	32.2	24.8	25.7	28.9		24.9
	Health Facility	7.4	3.7	7.7	2.6	6.4	4.4		5.4
% of households that received at least one message about ART trdeatment in the last 3 months	Total	41.5	46.3	46.1	37.9	32.9	37.1		40.4
(Of those households that received t least one message about ART treatment in the last 3 months) % by format:	Advert/radio spot	23.3	30.1	30.3	16.7	43.2	34.8		29.4
	Song	6.3	2.3	8.6	13.2	4.8	1.4		6.1
	Radio talk show	56.0	61.4	60.0	61.1	41.6	40.4		54.2
	VHT/peer educator	28.3	9.7	34.3	30.6	31.2	27.7		26.5
	Health Facility	5.7	5.1	6.9	1.4	2.4	5.0		4.6
% of households that received at least one message on other HIV prevention (OP) methods in the last 3 months.	Total	55.5	48.4	42.1	45.8	36.6	49.7		46.4
(Of those households that received at least one message on other HIV (OP) methods in the last 3 months) % by format:	Advert/radio spot	17.5	28.3	23.1	20.1	45.3	31.8		26.9
	Song	8.1	4.4	7.5	6.9	7.9	0.5		5.8
	Radio talk show	62.6	57.1	58.8	59.2	42.5	45.0		54.7
	VHT/peer educator	31.3	12.5	31.3	28.2	30.2	30.2		27.2
	Health Facility	6.1	1.5	4.7	1.4	2.9	3.0		3.2
% of households that received at least one message on AB in the last 12 months.	Total	60.3	70.8	56.3	57.4	45.0	61.8		58.6

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(Of those households that received at least one essage on AB in the last 3 months) % by format:	Advert/radio spot	18.8	30.1	34.1	24.3	45.6	40.0		31.6
	Song	8.7	3.7	9.8	8.7	5.3	3.4		6.5
	Radio talk show	56.8	53.2	60.8	50.9	42.7	40.4		51.1
	VHT/peer educator	29.7	11.9	31.3	28.9	33.9	26.8		26.3
	Health Facility	5.7	4.5	5.1	1.4	2.3	3.4		3.8
% of households that received at least one BCC message/IEC about the prevention of HIV/AIDS from a place of worship in the last 3 months	Total	46.3	49.5	51.1	49.7	31.3	43.4		45.2
(Of those households that received at least one BCC message/IEC about the prevention of HIV/AIDS from a place of worship in the last 3 months) % who know where to access condoms	Total	84.8	87.6	84.4	91.4	85.1	93.2		87.8

Health Facility Survey Results for the East Central Ugandan Region 2009, by health facility level

Indicator Definition		Health Centre Levels					Total
		District Hospital	HC IV	HC III	HC II	Unknown	
GENERAL INFORMATION							
Number of health facilities surveyed by type:	Bugiri	1	2	13	39	0	55
	Iganga	1	6	16	58	10	91
	Kaliro	0	1	5	11	0	17
	Kamuli	2	3	12	42	0	59
	Mayuge	1	2	4	25	5	37
	Namutumba	0	1	6	26	0	33
	Regional Total	**5**	**15**	**56**	**201**	**15**	**292**
Number of health facilities by operating authority	Government	4	15	51	116	0	186
	Non-Government Organisation	0	0	3	45	0	48
	Private Sector	0	1	2	20	15	38
	Community Based Organisation	0	0	0	1	0	1
	Faith Based Organisation	1	0	0	14	0	15
	Unknown	0	0	0	4	0	4
Number of health facilities by-location	Unclassified	0	1	0	3	1	5
	Urban	4	2	8	23	9	46
	Rural	2	13	48	173	5	241
INDICATORS							
% of health facilities with newly recruited staff in the last 12 months	Total	60.0	66.7	37.5	36.3	26.7	38.0
% of health facilities whose staff were posted to work in other health facilities in the last 12 months	Total	60.0	53.0	42.9	17.9	26.7	25.7
(of those health facilities whose staff were posted) % of health facilities whose staff were posted to work in other health facilities in the last 12 months; and have been replaced	Total	33.3	62.5	45.8	63.9	100.0	50.7
% of health facilities with a staff housing structure within the grounds of the health facility	Total	100.0	73.3	73.2	44.3	13.3	50.7

Indicator Definition		Health Centre Levels					Total
		District Hospital	HC IV	HC III	HC II	Unknown	
% of health facilities and the current description / state of staff housing structure	In good condition	40.0	60.0	41.1	31.3	13.3	33.9
	Dilapidated condition	40.0	13.3	16.1	5.5	0.0	8.2
	Under construction	0.0	0.0	7.1	4.0	0.0	4.1
% of health facilities and the current description / state of their Out Patient Department (OPD)	In good condition	100.0	80.0	85.7	70.7	66.7	74.3
	Dilapidated condition	0.0	6.7	8.9	9.5	0.0	8.6
	Under construction	0.0	6.7	1.8	6.5	0.0	5.1
	Does not exist	0.0	0.0	0.0	3.0	20.0	3.1
% of health facilities and the current description / state of their maternity unit	In good condition	80.0	73.3	76.8	42.3	33.3	50.7
	Dilapidated condition	20.0	0.0	10.7	7.0	6.7	7.5
	Under construction	0.0	0.0	7.1	3.0	0.0	3.4
	Does not exist	0.0	0.0	0.0	32.8	26.7	24.0
% of health facilities and the current description / state of their health facility drug store	In good condition	100.0	66.7	75.0	70.2	13.3	68.5
	Dilapidated condition	0.0	13.3	12.5	8.5	6.7	9.3
	Under construction	0.0	6.7	0.0	3.0	0.0	2.4
	Does not exist	0.0	0.0	1.8	9.0	73.3	10.3
% of health facilities that have a fridge	Total	100.0	100.0	94.6	37.8	20.0	52.1
% of health facilities that have a fridge and power to run it.	Total	80.0	86.7	78.6	28.9	13.3	41.4
(of those health facilities with a fridge) % of health facilities that have a fridge and power to run it	Total	80.0	86.7	83.0	74.7	66.7	79.0
% of health facilities that have any member of the VHT reporting to them	Total	20.0	26.7	33.9	42.3	0.0	37.3
No. of health facilities that are offering any form of PMTCT services	Total	5	15	55	126	5	206
% of health facilities that advise all pregnant women to be offered HIV counseling and testing	Upon request	0.0	0.0	1.8	2.5	0.0	2.1
	Required	40.0	13.3	30.4	10.0	0.0	14.0
	Recommended	50.0	75.0	64.3	17.6	0.0	29.5
% of health facilities where pregnant women are routinely offered HIV tests as part of the ANC package	Total	100.0	86.7	85.7	14.9	0.0	32.9
% of health facilities where HIV+ mothers receive ARVs for PMTCT	Total	100.0	93.3	57.1	2.5	0.0	19.2

Indicator Definition		Health Centre Levels					Total
		District Hospital	HC IV	HC III	HC II	Unknown	
% of health facilities that have a support group for HIV+ pregnant mothers	Total	60.0	26.7	17.9	2.0	0.0	7.2
% of health facilities that have private space for the delivery of PMTCT services	Total	60.0	73.3	58.9	10.0	0.0	23.0
% of health facilities that have clinical guidelines for the delivery of PMTCT services	Total	80.0	66.7	35.7	8.5	0.0	17.5
% of health facilities that reported being supported by an organization that uses their health facility as its PMTCT outreach	Total	0.0	20.0	23.2	6.5	0.0	9.9
% of health facilities that reported providing PMTCT outreach services	Total	0.0	6.7	7.1	3.0	0.0	3.8
% of health facilities with a register for PMTCT services	Total	100.0	80.0	44.6	6.5	0.0	18.8
% of health facilities with a register that is currently being used for PMTCT services	Total	100.0	86.7	69.6	11.9	6.7	28.1
% of health facilities that sometimes refer HIV positive pregnant women who have just delivered for ARVs and other services	Total	50.0	26.7	82.1	23.0	6.7	34.3
% of health facilities that follow up on HIV positive pregnant women who have just delivered for ARVs and other services	Total	20.0	20.0	28.6	6.0	0.0	11
% of health facilities that follow up on HIV positive pregnant women who have just delivered, (for different reasons);	Protection against breast feeding	20.0	20.0	26.8	4.5	0.0	9.6
	Counseling on baby's nutrition	20.0	6.7	8.9	0.0	0.0	2.4
	PCR-DNA test	20.0	6.7	17.9	1.5	0.0	5..1
	Family Planning	0.0	6.3	14.3	3.0	0.0	5.1
No. of health facilities that are offering any form of HCT services	Total	5	15	55	179	14	268
% of health facilities with HCT guidelines/protocols	Yes seen	60.0	73.3	30.4	12	13.3	19.5
	Yes not seen	20.0	0.0	21.4	9.0	6.7	11.0
	No	20.0	20.0	42.9	25.8	33.3	29.1
% of health facilities with private space or any room that can be converted and used as private space for the delivery of HCT services	Yes seen	100.0	86.7	66.1	31.7	46.7	43.2
	Yes not seen	0.0	0.0	7.1	3.0	13.3	4.1
	No	0.0	13.3	25.0	53.7	33.3	44.2
% of health facilities with private space for HCT services	Yes seen	100.0	86.7	57.1	13.4	26.7	27.7
	Yes not seen	0.0	0.0	1.8	3.0	6.7	2.7
	No	0.0	6.7	37.5	29.3	20.0	28.8

Indicator Definition		Health Centre Levels					Total
		District Hospital	HC IV	HC III	HC II	Unknown	
% of health facilities that currently have a partner who is supporting them with the provision of HCT services	Total	80.0	46.7	51.8	18.4	6.7	26.7
% of health facilities where providers encourage disclosure of sero-status to partners	Total	100.0	93.8	89.3	35.2	46.7	50.3
% of health facilities where supervisor review the conduct of counseling sessions	Total	40.0	60.0	53.6	18.6	13.3	27.4
% of health facilities with a post test club/support group for HIV patients	Total	40.0	46.7	46.4	4.0	0.0	14.7
% of health facilities with a functional post test club/support group for HIV patients	Total	20.0	33.3	35.7	4.0	0.0	11.6
% of health facilities in which post-test counseling sessions are for HIV-clients are one-on-one sessions	One - to - one	80.0	73.3	80.4	29.4	53.3	43.5
	Group sessions	0.0	6.7	7.1	3.5	0.0	4.1
	Both	20.0	13.3	7.1	7.0	0.0	7.2
% of health facilities in which the laboratory submitted samples for quality control testing in the last quarter	Total	40.0	53.3	28.6	2.5	6.7	11.0
% of health facilities in which staff counsel HIV+ clients on TB prevention and treatment	Total	100.0	93.3	89.3	2.5	6.7	25.7
% of health facilities that report the availability of cotrimoxazole prophylaxis	All the time	60.0	20.0	21.4	18.4	46.7	21.2
	Sometimes	40.0	73.3	69.6	24.4	6.7	34.9
	Never	0.0	0.0	1.8	2.0	0.0	1.7
% of health facilities that begin HIV+ clients on cotrimoxazole prophylaxis	Total	100.0	93.3	76.8	19.0	20.0	35.3
% of health facilities with HCT registers	Yes, seen	100.0	80.0	80.4	15.4	26.7	33.2
	Yes, not seen	0.0	0.0	5.4	8.0	13.3	7.2
	No	0.0	13.3	8.9	22.0	13.3	18.2
(of those with registers) % of health facilities currently using HCT registers	Total	100.0	100.0	95.6	93.5	75.0	94.9
% of health facilities reporting that they sometimes refer clients who come HCT services	Total	40.0	60.0	75.0	44.3	53.3	51.4
% of health facilities (HC IIs and IIIs) reporting that they sometimes refer clients who come HCT services	Total			75.0	44.2		51.0

Indicator Definition		Health Centre Levels					Total
		District Hospital	HC IV	HC III	HC II	Unknown	
% of health facilities which have a register where HCT referrals are recorded	Yes, seen	20.0	40.0	28.6	12.9	26.7	18.2
	Yes, not seen	0.0	6.7	8.9	10.1	6.7	9.3
	No	20.0	13.3	37.5	21.0	20.0	23.6
% of health facilities which have a register where HCT referrals are recorded and the register is currently being filled	Total	20.0	46.7	35.7	18.0	26.7	23.3
% of health facilities that conduct follow ups on clients who have been referred for other services such as STI diagnosis, further blood tests, PMTCT, TB etc.	Total	0.0	40.0	46.4	16.0	6.7	22.3
% of health facilities reporting that any organization or higher/ other health facility supports and uses their health facility as its HCT outreach site	Total	60.0	40.0	51.8	15.4	6.7	24.0
% of health facilities reporting that they are currently carrying out HCT outreach services	Total	80.0	40.0	35.7	8.0	0.0	15.8
% of health facilities that provide manual removals of placenta	Total	100.0	68.8	-	-	-	72.7
% of health facilities that provide assisted vaginal delivery	Total	80.0	66.7	-	-	-	63.6
% of health facilities that provide intravenous fluids	Total	100.0	56.3	-	-	-	63.6
% of health facilities that provide surgery or caesarian section	Total	100.0	6.7	-	-	-	27.3
% of health facilities that provide blood transfusion	Total	100.0	0.0	-	-	-	22.7
% of health facilities that have in stock, anti-malarials	Total	100.0	60.0	67.9	70.7	66.7	69.9
% of health facilities that have ORS in stock	Total	100.0	33.3	33.9	54.2	60.0	50.3
% of health facilities reporting no stock-out of condoms and pills/ injectables during the previous 3 months by public/private sector	Total	60.00	53.3	26.8	35.8	20.0	34.6
% of facilities with stock-outs of HIV TEST KITS in the last 3 months.	Determine	0.0	31.3	37.5	20.0	20.0	23.6
	Stat pak	0.0	33.3	33.9	20.9	40.0	24.7
	Unigold	0.0	20.0	46.4	20.0	40.0	25.7
% of health facilities that offer ARVs to eligible HIV+ clients	Total	100.0	53.3	5.4	0.0	0.0	5.5

Indicator Definition		Health Centre Levels					Total
		District Hospital	HC IV	HC III	HC II	Unknown	
% of those that offer ART,%with mechanism for tracking ART adherence	Total	60.0	87.5	33.3	-	-	68.8
% of health facilities with clinical guidelines/ protocols for provision of TB services	Yes, seen	80.0	60.0	39.3	1.0	-	12.7
	Yes, not seen	0.0	13.3	9.6	0.0	0.0	4.5
	No	16.7	18.8	33.9	1.5	13.3	9.6
% of health facilities that use any visual aides when providing TB services to clients	Total	80.0	73.3	57.1	0.5	0.0	16.4
% of health facilities with staff that counsel HIV+ clients on TB prevention	Total	100.0	93.3	89.3	2.5	6.7	25.7
% of health facilities where all patients diagnosed with TB were tested for HIV	Total	100.0	93.3	69.6	2.5	0.0	21.6
% of health facilities where all HIV+ patients were screened for TB	Total	80.0	86.7	58.9	2.5	0.0	18.8
% of health facilities with register or other record where information on clients who receive TB services is recorded	Total	100.0	93.3	87.5	1.0	6.7	24.3
% of health facilities with a private space for delivering TB services	Total	60.0	33.3	23.2	0.5	6.7	7.9
% of health facilities that receive staff or technical support from partner organizations for provision of TB services	Total	20.0	33.3	21.4	1.0	0.0	6.9
% of health facilities that provide Family Planning services	Total	40.0	73.3	67.9	51.7	40.0	55.1
Proportion of health facilities and the nature of family planning services being provided	Static	60.0	100.0	91.1	69.7	73.3	75.3
	Both (static & outreach)	0.0	0.0	8.9	6.5	0.0	6.2
% of health facilities with at least 2 staff trained in Goal Oriented ANC (including IPT)	Total	40.0	66.7	58.9	11.0	0.0	23.0
% of health facilities regularly supervised by the DHO's Office:	Monthly	0.0	40.0	50.9	31.3	12.5	34.8
	Quarterly	75.0	60.0	41.5	56.3	62.5	53.9
	Bi-annually	0.0	0.0	0.0	2.8	0.0	2.0
	Once a year	0.0	0.0	3.7	6.3	12.5	5.5
	More than a year	0.0	0.0	0.0	0.6	12.5	0.8
% of health facilities receiving yellow star supervision during last quarter	Total	100.0	80.0	76.8	63.7	26.7	65.8

Indicator Definition		Health Centre Levels					Total
		District Hospital	HC IV	HC III	HC II	Unknown	
% of health facilities with at least 4 or more HUMC meetings in the past 12 months	Total	16.7	68.7	37.5	42.2	0.0	40.1

Health Facility Survey Results for the East Central Ugandan Region 2009, by district

Indicator Definition		Districts						Regional Total / Average Coverage
		Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
GENERAL INFORMATION								
Number of health facilities surveyed by type:	Regional Hospitals	0	0	0	0	0	0	0
	District hospitals	1	1	0	2	1	0	5
	Health Centre IVs	2	6	1	3	2	1	15
	Health Centre IIIs	13	16	5	12	4	6	56
	Health Centre IIs	39	58	11	42	25	26	201
	Unknown	0	10	0	0	5	0	15
	Total (All Health Facilities)	**55**	**91**	**17**	**59**	**37**	**33**	**292**
	Government	46	49	9	34	23	25	186
	Non-Government Organisation	8	9	8	11	6	6	48
	Private Sector	0	24	0	6	7	1	38
	Community Based Organisation	0	0	0	0	0	1	1
	Faith Based Organisation	1	7	0	7	0	0	15
	Total (All Health Facilities)	**55**	**91**	**17**	**59**	**37**	**33**	**292**
INDICATORS								
General Characteristics								
% of health facilities with newly recruited staff in the last 12 months	Total	18.8	56.04	35.29	38.98	13.51	48.48	38.01
% of health facilities whose staff were posted to work in other health facilities in the last 12 months	Total	18.18	29.67	11.76	32.20	29.73	18.18	25.68

Indicator Definition		Districts						Regional Total / Average Coverage
		Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
(of those health facilities whose staff were posted) % of health facilities whose staff were posted to work in other health facilities in the last 12 months; and have been replaced	Total	30.00	77.78	50.00	63.16	36.36	36.36	50.00
% of health facilities with a staff housing structure within the grounds of the health facility	Total	34.55	45.05	64.71	76.27	51.35	39.39	50.6
% of health facilities and the current description / state of staff housing structure	In good condition	23.64	34.07	41.18	49.15	29.73	24.24	33.9
	Dilapidated condition	10.91	6.59	5.88	10.17	8.11	6.06	8.2
	Under construction	0.00	2.20	17.65	3.39	5.41	9.09	4.1
% of health facilities and the current description / state of their Out Patient Department (OPD)	In good condition	80.00	79.12	52.94	79.66	59.46	69.70	74.3
	Dilapidated condition	5.45	7.69	11.76	5.08	16.22	12.12	8.5
	Under construction	5.45	5.49	5.88	5.08	0.00	9.09	5.1
	Does not exist	1.82	2.20	5.88	0.00	8.11	6.06	3.0
% of health facilities and the current description / state of their maternity unit	In good condition	34.55	43.96	35.29	74.58	72.97	36.36	50.6
	Dilapidated condition	7.27	10.99	11.76	6.78	5.41	0.00	7.5
	Under construction	3.64	3.30	0.00	1.69	0.00	12.12	3.4
	Does not exist	34.55	20.88	35.29	11.86	10.81	45.45	23.9
% of health facilities and the current description / state of their health facility drug store	In good condition	65.45	65.93	64.71	86.44	64.86	54.55	68.4
	Dilapidated condition	14.55	9.89	5.88	1.69	8.11	15.15	9.2
	Under construction	0.00	2.20	5.88	1.69	8.11	15.15	9.2
	Does not exist	9.09	12.09	5.88	3.39	18.92	12.12	10.2
% of health facilities that have a fridge	Total	54.55	46.15	52.94	64.41	54.05	39.39	52.0
% of health facilities that have a fridge and power to run it.	Total	47.27	34.07	47.06	47.46	48.65	30.30	41.4

Indicator Definition		Districts						Regional Total / Average Coverage
		Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
(of those health facilities with a fridge) % of health facilities that have a fridge and power to run it	Total	86.67	73.81	88.89	71.05	90.0	76.92	78.9
% of health facilities that have any member of the VHT reporting to them	Total	29.09	40.66	35.29	35.59	43.24	39.39	37.3
Prevention of Mother to Child Transmission Of HIV (PMTCT)								
No. of health facilities that are offering any form of PMTCT services	Total	44	59	15	31	30	27	206
% of health facilities that advise all pregnant women to be offered HIV counseling and testing	Upon request							
	Required							
	Recommended	36.36	25.27	29.41	37.29	45.95	27.27	32.8
% of health facilities where pregnant women are routinely offered HIV tests as part of the ANC package	Total	36.4	25.3	29.4	37.3	46.0	27.3	32.9
% of health facilities where HIV+ mothers receive ARVs for PMTCT	Total	21.82	18.68	17.65	11.86	24.32	24.24	19.1
% of health facilities that have a support group for HIV+ pregnant mothers	Total	7.27	5.49	0.00	8.47	13.51	6.06	7.19
% of health facilities that have private space for the delivery of PMTCT services	Total	30.91	20.88	23.53	18.64	21.62	24.24	22.9
% of health facilities that have clinical guidelines for the delivery of PMTCT services	Total	14.55	13.19	5.88	15.25	37.84	21.21	17.4
% of health facilities that reported being supported by an organization that uses their health facility as its PMTCT outreach	Total	14.55	6.59	0.00	11.86	13.51	9.09	9.9

Indicator Definition		Districts						Regional Total / Average Coverage
		Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
% of health facilities that reported providing PMTCT outreach services	Total	0.00	0.00	0.00	6.78	10.81	9.09	3.7
% of health facilities with a register for PMTCT services	Total	14.55	16.48	29.41	13.56	29.73	24.24	18.8
% of health facilities with a register that is currently being used for PMTCT services	Total	30.91	21.98	29.41	22.03	45.95	30.30	28.0
% of health facilities that sometimes refer HIV positive pregnant women who have just delivered for ARVs and other services	Total	38.18	24.18	23.53	32.20	51.35	45.45	34.2
% of health facilities that follow up on HIV positive pregnant women who have just delivered for ARVs and other services	Total	10.91	7.69	0.00	6.78	29.73	12.12	10.9
% of health facilities that follow up on HIV positive pregnant women who have just delivered, (for different reasons);	Protection against breast feeding	10.91	7.69	0.00	6.78	21.62	9.09	9.5
	Counseling on baby's nutrition	0.00	3.30	0.00	1.69	5.41	3.03	2.4
	PCR-DNA test	9.09	4.40	0.00	1.69	10.81	3.03	5.1
	Family Planning	3.64	3.30	0.00	3.39	16.22	6.06	5.1
HIV Counseling and Testing (HCT)								
No. of health facilities that are offering any form of HCT services	Total	48	91	16	46	34	33	268
% of health facilities with HCT guidelines/ protocols	Yes seen	10.91	18.68	5.88	28.81	35.14	9.09	19.5
	Yes not seen	12.73	8.79	11.76	10.17	10.81	15.15	10.9
	No	50.91	21.98	35.29	18.64	27.03	30.30	29.1
% of health facilities with private space or any room that can be converted and used as private space for the delivery of HCT services	Yes seen	36.36	47.25	35.29	44.07	45.95	42.42	43.1
	Yes not seen	7.27	4.40	5.88	3.39	0.00	3.03	4.1
	No	43.64	48.35	52.94	28.81	45.95	54.55	44.1

Indicator Definition		Districts						Regional Total / Average Coverage
		Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
% of health facilities with private space for HCT services	Yes seen	25.45	32.97	23.53	25.42	32.43	18.18	27.7
	Yes not seen	1.82	0.00	5.88	5.08	2.70	6.06	2.7
	No	45.45	16.84	23.53	28.81	35.14	30.30	28.7
% of health facilities that currently have a partner who is supporting them with the provision of HCT services	Total	40.00	25.27	23.53	25.42	18.92	21.21	26.7
% of health facilities where providers encourage disclosure of sero-status to partners	Total	56.36	43.96	35.29	59.32	67.57	30.30	50.3
% of health facilities where supervisor review the conduct of counseling sessions	Total	32.73	21.98	17.65	35.59	29.73	21.21	27.4
% of health facilities with a post test club/ support group for HIV patients	Total	20.00	15.38	23.53	13.56	13.51	3.03	14.7
% of health facilities with a functional post test club/support group for HIV patients	Total	20.00	9.89	11.76	11.86	13.51	0.00	111.6
% of health facilities in which post-test counseling sessions are for HIV- clients are one-on-one sessions	One - to - one	47.27	38.46	35.29	49.15	62.16	24.24	43.4
	Group sessions	10.91	2.20	0.00	0.00	5.41	6.06	4.1
	Both	10.91	6.59	5.88	8.47	2.70	6.06	4.1
% of health facilities in which the laboratory submitted samples for quality control testing in the last quarter	Total	14.55	9.89	17.65	10.17	5.41	12.12	10.9
% of health facilities in which staff counsel HIV+ clients on TB prevention and treatment	Total	23.64	28.57	35.29	27.12	21.62	18.18	25.6
% of health facilities surveyed that experienced stock-outs for HIV test kits	Total	14.55	15.38	17.65	40.68	18.92	39.39	23.6

Indicator Definition		Districts						Regional Total / Average Coverage
		Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
% of health facilities surveyed that experienced stock-outs for Nevirapine	Total							
% of health facilities that report the availability of cotrimoxazole prophylaxis	All the time	20.00	16.48	5.88	33.90	21.62	21.21	21.2
	Sometimes	49.09	31.87	35.29	22.03	48.65	27.27	34.9
	Never	1.82	1.10	0.00	3.39	2.70	0.00	1.7
% of health facilities that begin HIV+ clients on cotrimoxazole prophylaxis	Total	41.82	30.77	35.29	33.90	43.24	30.30	35.2
% of health facilities with HCT registers	Yes, seen	29.09	30.77	35.29	42.37	40.54	21.21	33.2
	Yes, not seen	12.73	3.30	0.00	13.56	8.11	0.00	7.1
	No	32.73	14.29	5.88	3.39	24.32	30.30	18.1
(Of those with registers) % of health facilities currently using HCT registers	Total	87.50	96.43	100.00	100.00	86.67	100.00	94.8
% of health facilities reporting that they sometimes refer clients who come HCT services	Total	58.18	45.05	35.29	55.93	62.16	45.45	51.3
% of health facilities (HC IIs and IIIs) reporting that they sometimes refer clients who come HCT services	Total	59.62	41.89	31.25	53.85	67.86	46.88	50.7
% of health facilities which have a register where HCT referrals are recorded	Yes, seen	16.36	16.48	17.65	25.42	13.51	18.18	18.1
	Yes, not seen	10.91	7.69	0.00	10.17	13.51	9.09	9.2
	No	29.09	20.88	17.65	20.34	35.14	18.18	23.6
% of health facilities which have a register where HCT referrals are recorded and the register is currently being filled	Total	18.18	21.98	17.65	30.51	27.03	21.21	23.2

Indicator Definition		Districts						Regional Total / Average Coverage
		Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
% of health facilities that conduct follow ups on clients who have been referred for other services such as STI diagnosis, further blood tests, PMTCT, TB etc.	Total	25.45	16.48	29.41	23.73	29.73	18.18	22.2
% of health facilities reporting that any organization or higher/other health facility supports and uses their health facility as its HCT outreach site	Total	40.00	18.68	23.53	22.03	16.22	24.24	23.9
% of health facilities reporting that they are currently carrying out HCT outreach services	Total	12.73	10.99	17.65	23.73	18.92	15.15	15.7
Emergency Obstetric Care (EmOC)								
% of health facilities that provide manual removals of placenta	Total	66.67	57.14	0.00	85.71	75.00	100.00	69.5
% of health facilities that provide removal of retained products of conception (e.g. manual vacuum aspiration)	Total	66.67	42.86	0.00	71.43	75.00	100.00	60.8
% of health facilities that provide assisted vaginal delivery	Total	66.67	42.86	0.00	71.43	75.00	100.00	60.8
% of health facilities that provide intravenous fluids	Total							
% of health facilities that provide surgery or caesarian section	Total	33.33	28.57	0.00	28.57	25.00	0.00	26

Indicator Definition		Districts						Regional Total / Average Coverage
		Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
% of health facilities that provide blood transfusion	Total	33.33	14.29	0.00	28.57	25.00	0.00	21.7
Malaria & IMCI								
% of health facilities that have in stock, anti-malarials	Total	87.27	58.24	58.82	69.49	62.16	87.88	69.8
% of health facilities that have ORS in stock	Total	34.55	36.26	58.82	49.15	67.57	93.94	50.3
Drug Stocks								
% of health facilities reporting no stock-out of condoms and pills/injectables during the previous 3 months by public/private sector	Total	45.45	28.57	47.06	22.03	35.14	48.48	34.5
%0f facilities with stock-outs of HIV TEST KITS in the last 3 months.	Determine	14.55	15.38	17.65	40.68	18.92	39.39	23.6
	Stat pak	14.88	20.88	11.76	38.98	21.62	36.36	24.6
	Unigold	16.36	19.78	23.53	40.68	21.62	36.36	25.6
(Of health facilities excluding HC2s) % of facilities with stock-outs of PMTCT regimen for in last 3 months	Mothers	5.56	20.00	11.76	46.43	17.14	33.33	23.1
	Babies	9.26	20.00	17.65	44.64	8.57	30.30	22.4
(Of all HFs,) % 0f facilities with stock-outs of ARVs FOR ADULTS in the last 3 months	Total	7.41	22.22	5.88	42.86	2.86	33.33	21.4
(Of all HFs,) % 0f facilities with stock-outs of ARVs FOR CHILDREN in the last 3 months	Total	7.41	22.22	11.76	39.29	2.86	27.27	20.3
Anti-Retroviral Therapy (ART)								
% of health facilities that offer ARVs to eligible HIV+ clients	Total	3.64	5.49	11.76	3.39	8.11	6.06	5.4
(of those who offer ARVs) % of health facilities with a mechanism for tracking adherence of patients to ARVs	Yes, seen	50.00	80.00	50.00	50.00	100.00	50.00	68.7
	Yes, not seen	50.00	20.00	0.00	50.00	0.00	0.00	18.7
	No	0.00	0.00	50.00	0.00	0.00	0.00	6.2
Tuberculosis (TB)								

Indicator Definition		Districts						Regional Total / Average Coverage
		Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
% of health facilities with clinical guidelines/ protocols for provision of TB services	Yes, seen	14.55	6.59	17.65	15.25	16.22	15.15	12.6
	Yes, not seen	0.00	4.40	5.88	10.17	2.70	3.03	4.4
	No	10.91	18.68	11.76	3.39	2.70	0.00	9.5
% of health facilities that use any visual aides when providing TB services to clients	Total	12.73	12.09	29.41	23.73	13.51	18.18	16.4
% of health facilities with staff that counsel HIV+ clients on TB prevention	Total	23.64	28.57	35.27	27.12	21.62	18.18	25.6
% of health facilities reporting the availability 0f cotrimoxazole at their health facility	All the time	20.00	16.48	5.88	33.90	21.62	21.21	21.2
	Some times	49.09	31.87	35.29	22.03	48.65	27.27	34.9
	Never	1.82	1.10	0.00	3.39	2.70	0.00	1.7
%Of health facilities which begin HIV+ clients 0n cotrimoxazole prophylaxis	Total	41.82	30.77	35.29	33.90	43.24	30.30	35.2
% of health facilities where all patients diagnosed with TB were tested for HIV	Total	20.00	19.78	35.29	23.73	21.62	18.18	21.5
% of health facilities where all HIV+ patients were screened for TB	Total	16.36	17.58	29.41	20.34	18.92	18.18	18.8
% of health facilities with register or other record where information on clients who receive TB services is recorded	Total	23.64	24.18	35.29	27.12	21.62	18.18	24.3
% of health facilities with a private space for delivering TB services	Total	10.91	9.89	11.76	8.47	2.70	0.00	7.8

Indicator Definition		Districts						Regional Total / Average Coverage
		Bugiri	Iganga	Kaliro	Kamuli	Mayuge	Namutumba	
% of health facilities that receive staff or technical support from partner organisations for provision of TB services	Total	1.82	8.79	11.76	5.08	13.51	3.03	6.8
Family Planning								
% of health facilities that provide FP services	Total	5.45	5.49	5.88	6.78	5.41	0.00	5.1
Proportion of health facilities and the nature of family planning services being provided	Static	76.36	73.63	82.35	71.19	83.78	72.73	75.3
	Both (static & outreach)	7.27	1.10	0.00	16.95	8.11	0.00	6.1
% of health facilities with at least 2 staff trained in Goal Oriented ANC (including IPT)	Total	18.18	15.38	29.41	37.29	18.92	27.27	22.9
Health Systems strengthening and Support Supervision								
%. of health facilities regularly supervised by the DHO's Office:	Monthly	20.41	32.89	18.75	57.41	28.13	37.93	34.7
	Quarterly	67.35	51.32	68.75	38.89	53.13	58.62	53.9
	Bi-annually	0.00	2.63	0.00	1.85	6.25	0.00	1.9
	Once a year	8.16	9.21	0.00	0.00	9.38	0.00	5.4
	More than a year	0.00	0.00	0.00	1.85	3.13	0.00	0.7
% of health facilities regularly supervised by the Health Sub District:	Monthly	33.33	31.91	22.22	24.49	76.67	51.85	39.3
	Quarterly	56.41	48.94	66.67	57.14	23.33	37.04	47.7
	Bi-annually	0.00	2.13	0.00	12.24	0.00	0.00	3.4
	Once a year	7.69	6.38	11.11	2.04	0.00	0.00	3.9
	More than a year	0.00	0.00	0.00	2.04	0.00	0.00	0.5
% of health facilities receiving yellow star supervision during last quarter	Total	69.09	51.65	70.59	89.83	70.27	48.48	65.7
% of health facilities with at least 4 or more HUMC meetings in the past 12 months	Total	40.00	47.25	17.65	42.37	16.22	54.55	40
% of health facilities with timely reporting of monthly HMIS summaries	Timely reporting	52.38	50.72	50.00	38.00	48.28	66.67	50.2
	Late reporting	38.00	24.64	33.33	56.00	41.38	21.21	35.7
	No HMIS report complied	0.00	5.80	8.33	2.00	3.45	6.06	3.8

Appendices

References

AIDS map (2006) 'Is Uganda's HIV prevention success story 'unraveling'

Annual Health Sector Performance Report (2008)

Denis Businge, Elizabeth Ekochu, Apollo Nkwake, Samson Kironde. UPHOLD LQAS Survey Report 2007: A Household Survey on HIV&AIDS, Health and Education Interventions in 25 Ugandan Districts. Jan 2008

JKB Matovu et al (2007) In: Reproductive health matters (2007) Volume 15 number 29

Joseph Mabirizi, Nosa Orobaton, Patricia David, Xavier Nsabagasani. UPHOLD LQAS Survey Report 2004: Results from 20 Districts of Uganda. August 2004.

Joseph Mabirizi, Nosa Orobaton, Samson Kironde, Xavier Nsabagasani. UPHOLD LQAS Survey Report 2005: Results from 20 Districts of Uganda. August 2005.

Kakaire A. Kirunda, The Daily Monitor 1st October 2008, Why this Country is still Struggling with Tuberculosis Response.

Lemeshow S, Taber S. Lot quality assurance sampling: single and double-sampling plans. World Health Statistics Quarterly 44, 115-132

Martin Odiit, David Kaweesa, Charles Nkolo, et al. LQAS Monitoring Report. Evaluation of the impact of interventions on HIV&AIDS-related knowledge, practices and coverage in 12 Districts of Uganda. Uganda HIV&AIDS Control Project (MAP), September 2006

Ministry of Health (MOH)[Uganda] and ORC Marco. 2006.Uganda HI/AIDS Sero-behavioural Survey 2004-2005. Calverton, Maryland, USA: Ministry of Health and ORC Macro

Ministry of Health. Uganda HIV&AIDS Sero-Behavioral Study 2004-2005

Peter Kintu, Denis Businge, Elizabeth Ekochu, Apollo Nkwake, Samson Kironde. UPHOLD LQAS Survey Report 2006: A Household Survey on HIV&AIDS, Health and Education Interventions in 34 Ugandan Districts. Jan 2007

STD/AIDS Control Programme (2002) 'Trends in HIV prevalence and sexual behaviour (1990-2000) in Uganda'

UAC (2007) Moving Towards Universal Access: National HIV&AIDS Strategic Plan 2007/8- 2011/12.. Uganda AIDS Commission, Republic of Uganda

UDHS 2006

Uganda Bureau of Statistics (UBOS)and Macro International Inc. 2007. Uganda Demographic and Health Survey, 2006. Calverton, Maryland , USA: UBOS and Macro International Inc.

Uganda Bureau of Statistics, ORC Macro. Uganda Demographic and Health Survey 2006 Preliminary Report, November 2006

Uganda HIV&AIDS Behavior Sero- Survey 2004/5

Valadez J. et al (2003) Assessing Community health programs, Using LQAS for baseline and monitoring

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