PRELIMINARY REPORT

STI Prevalence and Behavioral Survey in Mbarara, Kiruhura, Ibanda, Isingiro and Bushenyi Districts - 2006

Venture Strategies for Health and Development

Mbarara University of Science and Technology





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List of Abbreviations

HHI	Herfindahl-Hirschman index
HIV	Human immunodeficiency virus
KfW	Kreditanstalt fuer Wiederaufbau
MSI-U	Marie Stopes International Uganda
OBA	Output-based aid
RPR	Rapid plasma reagent
STIs	Sexually transmitted infections
TPHA	Treponema pallidum hemagglutination assays
UMoH	Uganda Ministry of Health
USAID	United States Agency for International Development
VDRL	Venereal Disease Research Laboratory
VSHD	Venture Strategies for Health and Development
VMUS	Voucher management unit system
WHO	World Health Organization

EXECUTIVE SUMMARY

This report describes an innovative evaluation on the social and economic determinants of healthcare utilization in southwestern Uganda. The principal focus of this report is on a baseline household survey conducted in July and August 2006. The baseline survey provides a healthcare utilization profile of greater Mbarara and Bushenyi districts as well as baseline indicators and benchmarks for the output-based aid (OBA) program in Uganda. The household survey is the first of several analytic strategies to evaluate the Uganda OBA program.

There are several striking findings from the baseline household survey. First, private healthcare services play a significant role in the lives and healthcare decision-making of adult residents in western Uganda. Sixty-seven percent of the respondents in the baseline survey sought some form of healthcare product or service in the first six months of 2006. Nearly 35 percent of respondents sought care at private clinics – the single largest value for any type of provider. However, self-reported utilization of general healthcare services was slightly higher in public sector when all public sector providers (hospitals and clinics) were compared to all private sector providers (hospitals, clinics, and drug shops), at 51 percent and 49 percent respectively.

For many women especially, cultural and logistic issues weigh heavily on their ability to access healthcare. In our baseline survey, women noted their most frequent problem was lack of money for treatment (78 percent) followed by distance to the healthcare provider (53 percent) and the concern that drugs would not be available (43 percent). Health education messages are transmitted through a number of media but the dominant form is radio. More than 60 percent of respondents identified radio as the principal means of learning about sexually transmitted infections (STIs).

Sexually transmitted infections (STIs) represent a significant burden of disease for the region. Twelve percent (12%) of the surveyed adult population had a current or past syphilis infection sufficient enough to have a reactive TPHA result and 6.4 percent of the respondents had untreated syphilis according to VDRL test results. In the first six months of 2006, 39 percent (945/2,576) of respondents exhibited possible STI symptoms one or more times but only a third (373/1,019) of those with possible STI symptoms one or more times sought any care. Frequency of STI symptoms appeared to increase as socioeconomic indicators decreased but held fairly constant across the intervention arms. The number of respondents who sought STI treatment services was small (less than 140 from a survey population of 2594 respondents). However, a majority of respondents who sought STI treatment did so in the private sector (54 percent private sector providers compared to 46 percent at public sector providers). Among those treated for STIs, respondents' experience with private sector STI treatment services elicited more "satisfied" responses than public sector STI treatment services.

The baseline survey provides useful benchmarks against which progress will be measured using the follow-up survey in 2007. Additional information on voucher utilization, patient targeting, clinic performance, and service quality will be measured in a 2007 OBA clinic-based patient survey and ongoing administrative data regarding voucher claims and uptake.

INTRODUCTION

Economic development hinges on productivity gains in labor and capital, which in many low-income countries are stymied by high disease burdens. Improving access to high quality healthcare is an important means to improve population health and stimulate economic development. In many African countries, reproductive illnesses including sexually transmitted HIV infections represent a significant proportion of the total burden of disease. HIV transmission rates are determined in part by the presence of other illnesses including ulcerative sexually transmitted infections (STIs) like syphilis and genital herpes. Some studies suggest that the population attributable fraction of HIV infection due to other STIs can be as high as 43% (Grosskurth, Gray, Hayes, Mabey, & Wawer, 2000). Although the evidence is mixed (see Rakai findings), some studies in East Africa have found that controlling STIs can be a significant intervention against HIV (Gray et al., 1999; Orroth et al., 2003). It should be noted that a trial of randomized mass STI treatment to communities in south central Uganda, did not see significant improvement in STI prevalence, while in neighboring Mwanza, Tanzania a randomized trial of improved STI management in health services saw a significant decrease in STI prevalence (Grosskurth et al., 2000).

Clinical treatment of the majority of STIs involve simple procedures, however, access to effective treatment is often limited by inability to pay or poor service delivery. Quality of care at private clinics ranges widely but private clinics are generally responsive to patients' demand for high quality and patients' satisfaction with treatment outcomes. Publicly funded government clinics, on the other hand, are nominally available to even the poorest patients in many low-income African countries, but poor management and lack of responsiveness to patient need result in long queues, supply stock-outs, and often inferior service delivery.

In Uganda, the World Health Report 2002 estimated the burden of disease attributable to sexual and reproductive health risks to be more than 16% (the highest category) of the national disease burden and that the most important conditions were sexually transmitted infections (STIs) including HIV/AIDS (WHO, 2002). In an effort to reduce the burden of disease associated with reproductive illnesses, the Uganda Ministry of Health embarked on an innovative program of demand-side patient subsidies redeemable at any accredited private clinic. On 29 July 2006, the German government agency, Kreditanstalt fuer Wiederaufbau (KfW), and the Uganda Ministry of Health inaugurated a voucher-linked output-based aid (OBA) program to deliver treatment of sexually transmitted infections (STIs) through a network of private providers in southwestern Uganda. The program, scheduled to run for four years, has a concurrent evaluation on process and outputs.

To measure the program's impact on service utilization and health outcomes, technical advisors from Venture Strategies for Health and Development designed an evaluation with partners at the Department of Community Health, Mbarara University of Science and Technology. The evaluation will answer the following questions:

Volume (voucher and patient)

• What is the magnitude and direction of healthcare utilization within the OBA program and in the administrative areas proximate to the OBA program?

Clinic performance

• Is there significant competition between clinics?

Quality

- How might patient satisfaction be associated with clinic performance?
- Are the OBA clinics correctly diagnosing the patients' conditions?

Patient and community characteristics

- What are the risk behaviors, social and economic context of the OBA program?
- What if any relationship is there between socio-economic status (SES), proxied by household wealth, and health outcomes including: self-reported clinic utilization rates, self-reported STIs, and lab-confirmed STIs? Are individuals with less wealth at greater risk of not using STI treatment services?
- Do the OBA vouchers reach the intended patients?

To address these questions several evaluation components were developed including: paired household surveys before and after the first year, an administrative data review, and a clinic-based patient survey. This report summarizes the initial findings from the baseline household survey.

The paired household surveys component has a quasi-experimental design with the parishes (local administrative areas) as the principal unit of interest. Parishes that contain the OBA provider are considered treatment areas and respondents sampled from "OBA parishes" are considered "exposed" to the treatment. Parishes were selected as the primary sampling unit because they represent a small population (2,500 to 20,000 residents). At that level, the OBA contracted clinics are more likely to demonstrate a noticeable impact among the surveyed populations. Two control groups were surveyed in Mbarara and Bushenyi as well. From the 225 remaining Mbarara parishes that do not contain an OBA parish, 15 parishes were randomly selected as one control group. In Bushenyi district, a survey of available private providers identified clinics comparable to the OBA facilities. The parishes that contain these Bushenyi private providers were included as control parishes. As the sampling frame section below explains in greater detail, respondents were sampled from these three groups of parishes using a modified cluster sampling strategy.

In this quasi-experimental design, two household surveys will be conducted before the OBA program begins and one year later. The baseline (pre-intervention) survey was conducted in July and August 2006 and is the subject of this report. The second survey (first year follow-up) will be conducted in the second half of 2007. Household surveys ask questions on the following topics:

- 1. Demographic characteristics
- 2. Household assets
- 3. Food security
- 4. General healthcare utilization
- 5. STI risks and behaviors
- 6. STI healthcare utilization
- 7. Contraceptive use (females only)
- 8. Trust and community cohesion
- 9. Estimated prevalence of gonorrhea, syphilis, fungal infections

In addition to the topics measured in the first survey, the 2007 follow-up survey will also estimate voucher penetration in the first year among the intervention and control parishes. The second survey will interview new individuals from the same parishes. The measured prevalence outcomes will be compared as difference-in-difference at the parish level.

The second evaluation component is a review of the administrative data collected by the voucher implementation team. Microcare has created a sophisticated database, the voucher management unit system (VMUS), which allows the implementation and evaluation teams to follow utilization trends, costs, and identify potential cases of fraud or abuse. A preliminary review of those data is included in this report. Measuring the number of vouchers used at each clinic, it is possible to estimate the relative dominance of particular clinics and to determine whether the voucher market is concentrated.

The third evaluation component is a series of voucher patient interviews to be conducted after visits to OBA clinics. Patients will be asked about service quality and satisfaction as well as screened to verify the diagnosis given at the clinic. This component is not included in the current report but will be conducted before the end of the first year of OBA implementation.

SECTION I: RESULTS OF THE HOUSEHOLD SURVEY

In Uganda, the last comprehensive national assessment on STI prevalence was conducted in 1991. Although the information at the time was useful for the development and validation of STD indicators, it is currently outdated. The 2005 HIV Seroprevalence Survey included regional and national prevalence estimates syphilis, herpes, and hepatitis B estimates but national estimates of other STIs remain unknown. Prevalence estimates are obtained from STD clinic syndromic data and periodic studies of specific populations in the country. However, given the attendant problems with health management information system and the problems with generalizing clinic and cohort findings to external populations the correct magnitude of STIs in the general population is difficult to ascertain.

More representative information on STI prevalence trends —whether and by how much the prevalence is increasing or decreasing and which populations are affected—will help the OBA program refine its service delivery as well as provide valuable information to Mbarara, Kiruhura, Ibanda, Isingiro, and Bushenyi districts for prevention and control measures. The household survey therefore specifically sought to:

- i) Determine the magnitude of major sexually transmitted infections in Mbarara and Bushenyi districts
- ii) Establish treatment seeking behaviors for sexually transmitted infections among communities in Mbarara and Bushenyi districts

This section presents results of the baseline household survey in tables of key indicators and findings from each instrument in the survey: demographic characteristics, household assets, food security, general healthcare utilization, STI risks and behaviors, STI healthcare utilization , contraceptive use (females only), trust, and the lab results for gonorrhea, syphilis, trichomoniasis, and candidasis. It is important to note that urban and trading center populations were over-sampled to detect potential effects of the OBA program. As a result, some tables contain the unweighted percentages which are not representative of the general district population. The baseline survey drew roughly equivalent sized samples from three distinct study arms which had widely varying populations. The parishes containing OBA clinics had 52,000 residents, the non-OBA parishes in greater Mbarara had 431,000 residents, and the parishes in Bushenyi district with private clinics had 24,000 residents according to the 2002 Uganda National Census.

1.1 Household and Respondent Demographics

Table 1: Background characteristics of surveyed

Background characteristics (age group, marital status, religion, education, residence-rural/urban, district, wealth quintile) among respondents aged 15-49 by gender. Important to note that urban and trading center populations were over-sampled to detect potential effects of the OBA program. Unweighted percentages in the table are not representative of the districts.

		GENI	DER		TOTAL		
Characteristic	Males	Number	Females	Number	Percent	Number	
Age							
15-24	20.7	216	27.6	424	24.8	640	
25-34	40.2	419	40.1	617	40.1	1036	
35-49	39.1	407	32.4	498	35.1	905	
TOTAL	100.0	1042	100.0	1539	100.0	2581	
Marital status							
Never married	22.0	229	9.6	147	14.6	376	
Married monogamous	62.9	654	63.9	981	63.5	1635	
Married polygamous	6.9	72	6.7	103	6.8	175	
Cohabitating, not married	3.4	35	4.3	66	3.9	101	
Separated, but married	2.0	21	4.0	61	3.2	82	
Divorced	1.8	19	3.8	59	3.0	78	
Widowed	1.0	10	7.8	119	5.0	129	
TOTAL	100.0	1040	100.0	1539	100.0	2576	
Residence							
Urban / Trading centers	48.9	510	44.1	680	46.1	1190	
Rural	51.1	533	55.9	861	54.0	1394	
TOTAL	100.0	1043	100.0	1541	100.0	2584	
Education							
None	7.1	74	17.5	269	13.3	343	
Some Primary	33.9	352	36.6	562	35.5	914	
Completed Primary	25.8	268	23.4	360	24.4	628	
Some Secondary	22.6	235	18.9	290	20.4	525	
Completed secondary	10.7	111	3.6	55	6.4	166	
TOTAL	100.0	1040	100.0	1536	100.0	2576	
Wealth quintile							
Lowest	23.2	242	22.1	341	22.6	583	
Second	19.3	201	20.6	318	20.1	519	
Middle	19.9	208	21.1	326	20.7	534	
Fourth	18.6	194	16.1	248	17.1	442	
Highest	19.0	198	20.1	309	19.6	507	
	100.0	1043	100.0	1542	100.0	2585	
Religion							
Protestant	56.1	584	54.9	842	55.4	1426	
Catholic	32.9	342	35.1	538	34.2	880	
Muslim	9.2	96	8.0	123	8.5	219	
Other	1.6	17	1.9	30	1.8	47	
None	0.2 100.0	2	0.1 100.0	1	0.1 100.0	3	

The majority of the respondents were aged between 25 and 34 years (40%), married in a monogamous relationship (63.5%), rural (54%) and had received some primary education (35.5%). The respondents were evenly distributed across the income quintiles.

1.2 General Health Care Utilization

Table 2: Healthcare utilization of surveyed households by gender

Background characteristics (age group, marital status, religion, education, residence-rural/urban, district, wealth quintile) among respondents aged 15-49 by gender. Important to note that urban and trading center populations were over-sampled to detect potential effects of the OBA program. As a result, only the weighted percentages in the margin are representative of the combined adult district population (507,000).

		GENI		TOTAL		
					POPUI	LATION
Characteristic	Males	Number	Females	Number	Percent	De jure
Had any illness past 6 months						
Yes	68.6	715	70.9	1093	74.7	378,800
No	31.5	328	28.3	436	24.9	126,200
Missing	0	0	0.8	13	< 0.01	<100
	100.0	1043	100.0	1542	100.0	
Sought health service or						
product past 6 months						
Yes	59.3	618	60.4	931	60.4	306,000
No	26.9	280	25.0	385	29.0	148,000
Missing	13.9	145	14.7	226	10.6	53,700
	100.0	1043	100.0	1542	100.0	
Type of healthcare provider visited past 6 months						
None	38.5	402	37.0	571	36.2	183,737
Drug shop	7.4	77	4.7	72	5.8	29,153
Chemical seller	1.3	14	1.2	19	1.5	7,808
Traditional healer	1.2	12	0.8	12	0.7	3,701
Private for profit clinic	22.5	235	16.7	257	18.7	94,556
Private not-for-profit clinic	0.9	9	1.4	21	1.0	5,171
Private for-profit hospital	2.1	22	1.6	25	2.6	13,081
Government clinic	8.2	85	10.9	168	9.7	49,382
Government hospital	14.4	150	20.9	322	20.3	102,972
Mission hospital	2.8	29	4.2	65	2.6	13,182
Other provider	0.8	8	0.7	10	0.9	4,310
TOTAL	100.0	1042	100.0	1539	100.0	

The general healthcare practices of the greater Mbarara and Bushenyi districts as measured in this survey suggest a pattern of reliance on private clinics and government hospitals with clear gender differences in utilization. Male respondents visit drug shops and private clinics more frequently than female respondents (drug shops: 7.4% men versus 4.7% women; private clinics: 22.5% men versus 16.7% women), while female respondents frequent government hospitals in higher numbers than male respondents (20.9% women versus 14.4% men).

Table 3: Health care utilization by OBA intervention arm

Unweighted percent distribution (first three columns) of respondents by parish residence regarding their health status and healthcare utilization in the 6 months prior to the baseline survey. Weighted marginal distribution (last column) of respondents across all parishes regarding their health status and healthcare utilization.

The data show the frequency of any health complaint in the six months preceding the survey, whether individuals seek healthcare for the complaint, and if services were sought, where the last visit took place (provider type and sector type).

	Intervention arms:									
		F	Parish group	of residenc	e					
_		(1	5-49 year o	ld responder	nts)		Total	adult		
	Greater	Mbarara	Greater	Mbarara	Bushen	yi control	population (507,000)			
	OBA p	arishes	Non-OBA	A parishes	par	ishes				
Had any illness in past 6	Percent	Number	Percent	Number	Percent	Number	Percent	De jure		
months							(weight)			
Yes	69.26	649	75.24	717	63.64	448	75.01	380,300		
No	29.99	281	24.45	233	35.94	253	24.99	127,000		
Missing	0.75	7	0.31	3	0.43	3	0.01	<100		
	100.00	937	100.00	953	100.00	704	100.00			
Sought health service past										
6 months										
Yes	72.53	557	67.12	571	70.11	427	67.54	342,400		
No	27.47	211	32.88	274	29.89	182	32.46	164,600		
	100.00	768	100.00	845	100.00	609	100.00			
*Sought healthcare past 6										
months at:										
None	38.31	359	36.41	347	38.35	270	36.24	183,737		
Drug shop	5.12	48	5.77	55	6.68	47	5.75	29,153		
Chemical seller	1.17	11	1.68	16	0.85	6	1.54	7,808		
Traditional healer	0.85	8	0.84	8	0.85	8	0.73	3,701		
Private for profit clinic	17.40	163	19.94	190	19.89	140	18.65	94,556		
Private not for profit clinic	0.64	6	0.94	9	2.13	15	1.02	5,171		
Private for profit hospital	1.28	12	2.41	23	1.70	12	2.58	13,081		
Government clinic	9.18	86	9.44	90	11.36	80	9.74	49,382		
Government hospital	21.56	202	19.73	188	11.79	83	20.31	102,972		
Mission hospital	3.52	33	2.10	20	5.82	41	2.60	13,182		
Other provider	0.96	9	0.73	7	0.28	2	0.85	4,310		
*	100.00	937	100.00	953	100.00	704	100.00			
Private & public sector										
utilization										
Private providers	45.32	252	51.08	308	58.35	241	48.98	248,300		
Gov't providers	54.68	304	48.92	295	41.65	172	51.02	258,700		
-	100.00	556	100.00	603	100.00	413	100.00			
* There were many missing ob	servations.	All missing	s were an a	issumed "no	visit" resp	onse, which	gives a con	servative		
utilization estimate.		-			_					

Respondents were asked about general healthcare utilization in the past three and past six months. The questions provide a wide perspective on respondents' healthcare seeking behaviors. The great majority of respondents (75 percent) had a self-described illness or health complaint in the preceding six months. The majority of those respondents (67 percent) sought some form of healthcare service or product to address the illness or complaint.

Among those who sought some form of health service or product, private providers dominate the list. Informal drug shops and private clinics received the two highest frequencies of client visits (36 percent and 34 percent respectively) from a list of ten possible provider types. The type of service provided is likely to be outpatient at the private clinic and simply drug purchases and perhaps simple health education messages at drug shops. The third most frequented provider was government hospitals (22 percent). It is likely that patients with severe conditions, including costly in-patient care, are going to government hospitals where the service is more affordable than private hospitals, of which they are few and costly, or private clinics which lack the capacity to provide in-patient care.

Broadly grouping self-reported use of general healthcare services into private and public categories shows that respondents frequented public service providers more than private providers in the first half of 2006. Private sector in this question includes chemists and drug shops, private clinic and private hospitals. Public sector includes government clinics and government hospitals. Not included in either category are traditional healers, nonprofit clinics and mission hospitals. The low number of respondents who reported use of those types of providers underscores the importance of providers in the for-profit and government sectors. The high service utilization may be due to two types of healthcare utilization: repeated high frequency use of specific services or more diffused lower frequency utilization across a wide range of services. The table below suggests that at least one ailment repeated drove respondents to seek healthcare services.

Table 4: Respondents' primary reason for visit to a healthcare provider									
Based on HC202	Intervention arms:								
		Pa	arish grou	p of residen	ce				
"Of the MOST frequently		(15	-49 year o	old responde	ents)				
visited type of provider, what	Greate	r Mbarara	Greater	Mbarara	Busheny	yi control	То	tal	
was the primary health	OBA	parishes	Non	-OBA	par	ishes	popul	ation	
complaint you had when you									
visited this provider?"									
Reason for most recent visit	%	number	%	number	%	number	%	Total	
Fevers	61.1	356	61.4	377	65.1	284	61.5	1017	
Genital sores/discharge	4.6	27	5.2	32	2.8	12	4.7	71	
Severe cough	4.5	26	4.2	26	4.6	20	4.6	72	
ANC/ family planning	4.0	23	3.3	20	1.8	8	3.4	51	
Health information/advice	1.2	7	1.6	10	1.4	6	1.3	23	
Diarrhoea	0.3	2	1.0	6	0.2	1	1.3	9	
VCT for HIV	0.9	5	0.3	2	1.8	8	0.4	15	
Eye care	0.3	2	0.3	2	0.7	3	0.3	7	
Other	23.2	135	22.6	139	21.3	93	22.6	367	
	100.0	583	100.0	614	100.0	436	100.0	1632	

Respondents were overwhelmingly preoccupied by fevers during the visits to the most frequented provider, which bears out given the frequency and severity of malarial infections in the region. On the list of common conditions, no other health complaint has as frequent a recurrence in the population. The list was provided during the interview and it is clear that further refining of the question is needed as 22 percent of the respondents identified their reason for visit as "Other".

Table 5: Reasons that a woman may not seek healthcare	2								
	I	Intervention arms:							
Crude percentages of female respondents who consider	Paris	sh group of reside	ence						
the following factors a 'big problem" when seeking	(15-49 year	old female respo	ndents only)	_					
medical care for a personal illness.	Greater	Greater	Bushenyi						
	Mbarara	Mbarara	control	Total					
	OBA	Non-OBA	parishes	population					
	parishes	parishes							
Getting money needed for treatment	78.3	78.3	85.8	80.2					
The distance to the health clinic	42.1	55.1	35.5	45.3					
Concern that there may be no drugs available	40.3	43.5	38.4	41.1					
Having to take transport	35.1	40.6	28.6	35.6					
Concern that there may not be any health provider	25.2	28.5	21.3	25.5					
Concern that there may not be a female health provider	7.3	13.3	2.6	8.4					
Getting permission to go	7.6	10.8	4.8	8.1					
Not wanting to go alone	3.9	11.3	2.6	6.4					

Cultural and logistic concerns weigh heavily on many women's ability to access healthcare. The table records the most salient issues that affect utilization. Respondents were allowed to answer "yes/no" to each item. The most frequent problem is lack of money for treatment (80 percent) followed by the distance to the healthcare provider (45 percent) and concern that drugs would not be available (41 percent).

1.3 Female Contraceptive Use and Births

Information about use of contraceptive methods was collected from female respondents aged 15-49 by asking them if they were currently doing something or using any method to delay or avoid getting pregnant. Table 6 shows the level and key differentials in the current use of contraception by method as reported by female respondents. Contraceptive methods are grouped into two types in the table, namely modern and traditional methods. Modern methods include sterilization, pill, IUD, injectables, implants, male condom, and lactational amenorrhoea (LAM). Traditional methods include periodic abstinence (rhythm method) and withdrawal.

Nearly twenty-eight percent of single and widowed women and 43 percent of married or co-habitating women are currently using any method of contraception (Table 6). Modern methods of contraception are more commonly used (39 percent of married women) than are traditional methods (4 percent). Of the modern methods, injectables are by far the most widely used (used by 26 percent of currently married women), followed by the pill (5.6 percent) and sterilization (3.7 percent).

Table 6: Contraceptive u	ble 6: Contraceptive use by background characteristics among all female respondents 15-49 years old (General population weights)														
Characteristic						Modern	method				Traditiona	l method			
	Any method	Any modern method	Sterili- zation	Pill	IUD/ Coil	Inject- ions	Implant	Condom	LAM	Any tradition. method	Periodic abstinence	With- drawal	Not currently using	Percent	Number
Marital status Not married Married/cohabitating Age 15-24 25-34 35-49 Residence Urban / Trading centers	20.2 32.6 19.5 36.1 29.5 39.2	16.9 28.5 18.0 32.8 24.3 35.2	0.8 1.7 0.0 0.9 3.0 2.7	4.5 3.2 5.0 3.5 2.6 5.6	0.7 0.3 0.0 0.5 0.6 0.8	7.6 20.2 9.7 23.2 16.3 19.2	0.0 0.0 0.0 0.0 0.0 0.0	3.3 1.3 1.4 2.6 1.2 4.4	0.0 1.8 1.9 2.0 0.6 2.5	3.3 4.1 1.5 4.2 5.2 4	3.2 0.8 1.3 0.8 1.9 1.3	0.1 3.3 0.2 3.3 3.3 2.7	79.8 67.4 80.5 63.2 70.5 60.8	100.0 100.0 100.0 100.0 100.0 100.0	337 971 331 545 432 574
Rural Education None Some Primary Completed Primary Some Secondary Completed secondary	26.7 22.4 31.6 33.6 36.6 22.1	22.8 17.7 26.9 32.5 32.4 20	1.4 1.5 2.6 1.3 0.4 1.4	2.6 1.2 3.4 5.0 5.9 2.2	0.2 0.0 0.6 0.7 0.0 0.0	16.9 14.3 18.3 20.1 18.2 9.4	0.0 0.0 0.0 0.0 0.3 0.0	0.7 0.7 1.0 2.2 4.9 7.0	$ \begin{array}{c} 0.0 \\ 1.0 \\ 3.2 \\ 2.7 \\ 0.0 \end{array} $	3.9 4.7 4.7 1.1 4.2 2.1	1.3 2.5 1.4 0.1 0.5 0.7	2.6 2.2 3.3 1.0 3.7 1.4	73.3 77.6 68.4 66.4 63.4 77.9	100.0 100.0 100.0 100.0 100.0	737 240 460 305 244 46
Wealth quintile Lowest Second Middle Fourth Highest Religion Protestant Catholic	34.7 24.3 29.6 24.5 34.4 30.4 28.7	29.1 23.0 25.9 21.0 29.5 26.0 25.3	1.9 1.4 1.8 0.2 2.1 2.1 0.8	1.9 2.4 4.1 2.7 6.1 2.8 4.7	0.0 0.5 0.0 0.7 0.7 0.3 0.5	23.0 14.1 18.8 15.0 15.6 17.2 17.7	0.0 0.0 0.0 0.0 0.0 0.0	1.2 1.3 1.0 1.4 3.7 2.2 0.1	1.1 3.3 0.2 1.0 1.3 1.4 1.5	5.6 1.3 3.7 3.5 4.9 4.4 3.4	1.3 0.2 0.8 2.0 2.2 1.9 0.4	4.3 1.1 2.9 1.5 2.7 2.5 3	65.3 75.7 70.4 75.5 65.6 69.6 71.3	100.0 100.0 100.0 100.0 100.0 100.0	283 271 264 209 271 705 467
Muslim Other	33.6 38.6	32.1 37.7	3.4 10.3	2.4 0.0	0.5 0.0	24.8 27.4	0 0.0	1 0.0	0 0.0	1.5 0.9	0.5 0.0	1 0.9	66.4 61.4	100.0 100.0	99 20

Table 7: Nu	mber of	childr	en eve	r born	to fem	ale resp	ondents	15-49 ye	ars old (crude w	eights)				
					Ν	Number	of childr	en							
													Number	Mean number	Mean number
													of	of children	of living
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	women	ever born	children
15-24	36.7	27.6	20.2	10.6	3.4	1.1	0.5	0.0	0.0	0.0	0.00	100.0	387	2.1	1.8
25-34	5.1	8.2	15.6	20.7	20.9	10.9	9.4	5.4	1.6	1.5	0.7	100.0	551	4.0	3.3
35-49	3.9	3.1	6.1	8.2	10.8	12.5	14.7	11.9	11.5	6.3	11.2	100.0	463	6.4	4.9
Total	45.7	38.9	41.9	39.5	35.1	24.5	24.6	17.3	13.1	7.8	11.9		1401	3.9	3.2
							Currently	y married	or co-ha	bitating	women				
15-24	20.8	31.9	27.6	13.4	4.3	1.2	0.8	0.0	0.0	0.0	0.0	100.0	254	1.7	1.5
25-34	3.5	6.8	15.4	19.5	22.8	10.8	10.5	6.2	1.8	1.8	0.9	100.0	456	4.1	3.3
35-49	3.0	2.6	5.5	5.8	10.0	11.9	14.3	13.4	12.2	7.6	13.7	100.0	329	6.6	5.1
Total	27.6	41.4	48.5	38.7	37.1	23.9	25.6	19.6	14	9.4	14.6		1039	4.3	3.4

Table 7 shows that the mean number of children ever born to all female respondents is 3.9 children. The mean number of living children is 4.3. Among currently married women, the mean number of children ever born is 4.8, and the mean number of living children is 3.9. As expected, the mean number of children ever born and living increases with age. This table shows fertility in Uganda continues at high levels. For example, 56 percent of women aged 25-29 have given birth to at least four children while 16 percent have given birth to six or more children.

1.4 Delivery location and skilled attendants

Table 8: Site of most recent delivery

Crude (unweighted) percent distribution of respondents by urban and rural groups regarding their location of most recent delivery.

•									
	Age								
	(13-49 year old respondents)								
	Urban &	k trading	Rı	ıral	Total				
	cen	iters							
Site of last delivery	Percent	Number	Percent	Number	Percent	Number			
Home									
Respondent's home	36.0	214	52.5	416	45.4	630			
TBA's home	3.5	21	3.8	30	3.7	51			
Other home	1.3	8	1.3	10	1.3	18			
Public Sector									
Government hospital	29.1	173	17.7	140	22.6	313			
Government health center	8.4	50	9.2	73	8.9	123			
Government health/aid post	0.2	1	0.8	6	0.5	7			
Private Sector									
Private clinic	3.7	20	1.5	12	2.3	32			
Private for profit hospital	9.4	56	8.7	69	9.0	125			
Mission hospital	4.7	28	2.2	17	3.2	45			
Missing/DNK	4.0	24	2.4	19	3.1	37			
TOTAL	100.0	595	100.0	792	100.0	1387			

Table 9: Assistance at most recent delivery

Crude (unweighted) percent distribution of respondents by urban and rural groups regarding the level of assistance during the most recent delivery.

Age									
	(15-49 year old respondents)								
	Urban &	k trading	Rı	ıral	Total				
	cen	iters							
Assistance at last delivery	Percent	Number	Percent	Number	Percent	Number			
Health Professional									
Doctor	9.6	58	5.9	47	7.6	105			
Nurse/Midwife	46.6	277	36.0	285	40.5	562			
Med. assistant/clinic. officer	0.2	1	0.5	4	0.4	5			
Nursing aide	0.5	3	1.4	11	1.0	14			
Other person									
Traditional birth attendant	11.3	67	15.7	124	13.8	191			
Relative/friend	16.6	99	24.1	191	20.9	290			
No one	10.3	61	12.9	102	11.8	163			
Other / Missing	4.9	29	3.5	28	4.1	57			
TOTAL	100.0	595	100.0	792	100.0	1387			

1.5 Lifetime STI Awareness and Treatment

Table 9: Lifetime awareness of STIs awareness, testing and treatment by gender

Awareness of symptoms of sexually transmitted infections (STIs) among respondents aged 15-49 by gender. Important to note that urban and trading center populations were over-sampled to detect potential effects of the OBA program. As a result, only the weighted percentages in the margin are representative of the combined adult district population (507,000).

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	TOTAL POPULATION			
Ever heard of: Syphilis 99.0 1032 98.4 1513 98.5 4 Genital sores 85.0 886 81.1 1247 77.9 3 Gonorrhea 95.2 993 92.7 1424 93.4 4 Abdominal whitish discharge 77.1 804 81.7 1256 72.4 3 HIV/AIDS 98.7 1029 96.9 1490 97.6 4 Number of respondents 1043 1537 1537 1023 1537 Ever tested for: 59 61 51 79 5.8	jure			
Syphilis 99.0 1032 98.4 1513 98.5 4 Genital sores 85.0 886 81.1 1247 77.9 3 Gonorrhea 95.2 993 92.7 1424 93.4 4 Abdominal whitish discharge 77.1 804 81.7 1256 72.4 3 HIV/AIDS 98.7 1029 96.9 1490 97.6 4 Number of respondents 1043 1537 1537 5 59 61 51 79 5.8				
Genital sores 85.0 886 81.1 1247 77.9 3 Gonorrhea 95.2 993 92.7 1424 93.4 4 Abdominal whitish discharge 77.1 804 81.7 1256 72.4 3 HIV/AIDS 98.7 1029 96.9 1490 97.6 4 Number of respondents 1043 1537 57 Ever tested for: 59 61 51 79 5.8	99,395			
Gonorrhea 95.2 993 92.7 1424 93.4 4 Abdominal whitish discharge 77.1 804 81.7 1256 72.4 3 HIV/AIDS 98.7 1029 96.9 1490 97.6 4 Number of respondents 1043 1537 57 59 61 51 79 5.8	94,750			
Abdominal whitish discharge 77.1 804 81.7 1256 72.4 3 HIV/AIDS 98.7 1029 96.9 1490 97.6 4 Number of respondents 1043 1537 1029 1043 1537 Ever tested for: 26.8 279 27.9 429 23.3 1 Genital sores 59 61 51 79 5.8	73,487			
HIV/AIDS 98.7 1029 96.9 1490 97.6 4 Number of respondents 1043 1537 Ever tested for: 26.8 279 27.9 429 23.3 1 Genital sores 59 61 51 79 5.8	67,119			
Number of respondents 1043 1537 Ever tested for: 59 61 51 79 58	94,629			
Ever tested for: Syphilis 26.8 279 27.9 429 23.3 1 Genital sores 5.9 61 5.1 79 5.8				
Syphilis 26.8 279 27.9 429 23.3 1 Genital sores 5.9 61 5.1 79 5.8				
Genital sores 59 61 51 79 58	18,232			
	29,153			
Gonorrhea 7.2 75 1.6 25 3.9	19,672			
Abdominal whitish discharge 2.6 27 5.7 87 4.3	21,953			
HIV/AIDS 22.8 238 26.9 413 16.1	81,424			
Ever treated for:				
Syphilis 23.4 244 24.0 369 21.4 1	08,498			
Genital sores 5.9 62 5.1 79 6.0	30,572			
Gonorrhea 6.9 72 0.8 12 3.1	15,616			
Abdominal whitish discharge 2.5 26 5.1 78 3.8	19,367			
HIV/AIDS				
Have you ever talked with your partner about:				
Syphilis 22.7 237 23.2 357 20.7 1	05,050			
Genital sores 5.2 54 4.4 67 4.7	23,880			
Gonorrhea 5.8 60 0.7 10 2.6	13,131			
Abdominal whitish discharge 2.5 26 5.3 81 4.1	20,888			
HIV/AIDS				

Awareness of syphilis is as high as HIV/AIDS in the adult population (98.5 percent and 97.6 respectively). Gonorrhea is also high (93 percent) but genital sores (78 percent) and abnormal discharge are less recognized symptoms.

1.6 Sources of information about STIs

Media preferences do not differ across the three intervention arms and gender. Radio is the dominant medium with over 60 percent of respondents indicating "radio" as their principal means to learn about STIs. The second most common way to learn about STIs, at a distant 10 percent, was through friends and peers and the third medium, government officials, represented only five percent of the surveyed respondents.

1.7 Awareness about STIs Voucher

Table 10: Awareness of OBA STIs voucher

Awareness of OBA voucher, seen voucher, and use of voucher among respondents aged 15-49 by gender. Important to note that urban and trading center populations were oversampled to detect potential effects of the OBA program. As a result, only the weighted percentages in the margin are representative of the combined adult district population (507,000).

		GENDER				INTERVENTION ARM					
Characteristic	Ma	Males		Females		OBA		Non-OBA		Bushenyi	
	%	No.	%	No.	%	No.	%	No.	%	No.	
Heard of voucher	12.5	223	17.7	272	24.0	223	19.5	184	12.7	89	
Seen voucher	4.9	13	4.4	13	3.7	9	6.4	14	3.0	3	
Know cost of voucher	3.6	6	2.0	4	1.5	2	5.4	8	0.0	0	
Use of voucher	1.2	3	1.6	2	1.6	2	2.1	3	0.0	0	

The OBA program began promoting the STI voucher in late June 2006 using primarily radio talk shows and community mobilizations. The baseline household survey was begun July 10^{th} and carried through to August 22^{nd} . In that short period, 12 percent of male respondents and 17 percent of female respondents had heard of the STI voucher.

1.8 Risk perception of STIs

Table 11: Perceived risk of STIs by gender											
Perceived risk of sexually transmitted infections (STIs) as expression of personal perceived risk of infection among respondents aged 15-49 by gender.											
	GENDER TOTAL										
Chamatariatia	POPULATION Malas Number Females Number Persont Dajura										
	Males	Number	Females	Number	Percent	De juie					
Perceived STI risk											
Great risk	12.5	1043	17.6	1534	30.1	152,000					
Moderate risk	5.4	1043	9.2	1534	14.6	74,000					
Little risk	5.3	1043	5.4	1534	10.6	54,000					
No risk at all	10.7	1043	12.7	1534	23.3	118,000					
Don't know	8.0	1043	13.4	1534	21.4	108,000					
Is partner having others?											
Partner confirmed others	6.0	868	13.1	1216	19.1	97,000					
Suspect partner has others	12.0	868	17.3	1216	29.3	149,000					

1.9 STI risk Behavior

 Table 12: Multiple sex partners and Commercial sex among Men (frequencies of persons who have had multiple sexual partners/commercial sex). Note that these are unweighted frequencies.

<u></u>	Among all men 15-49		Among men having sex	who reported	Among mer having sex	n who reported past 6 months
Background characteristic	Percentage who had sex past 6 months	Number of male respondents	Percentage who had 2+ partners	Number of men with 1 or more partners	Percentage of men who gave gifts or money for sex	Percentage of men who received gifts or money for sex
Marital status						
Single/divorce/widow	64.3	277	56.7	178	17.6	12.2
Married/cohabitating	94.7	758	31.2	718	9.0	5.4
Total	86.6	1035	36.3	896	11.3	7.2
Age category						
15-24 years old	73.0	215	38.2	157	16.7	10.6
25-34 years old	91.8	415	37.5	381	12.2	8.6
35-49 years old	88.5	407	33.9	360	7.4	3.9
Total	86.6	1037	36.2	898	11.3	7.2
Education level						
0	81.1	74	33.3	60	14.9	4.1
1	86.9	351	34.8	305	10.5	8.8
2	89.5	266	38.2	238	12.0	9.0
3	85.0	234	35.7	199	11.5	5.6
4	84.5	110	37.2	94	8.1	3.6
Total	86.6	1035	36.1	896	11.2	7.2
Location						
Mbarara OBA	85.1	336	38.5	286	11.3	9.2
Mbarara non-OBA	90.1	392	32.2	354	8.4	6.4
Bushenyi parishes	83.6	310	39.4	102	14.8	6.1
Total	86.6	1038	36.3	742	11.2	7.2
Circumcision status						
Circumcised	87.1	163	45.8	142	12.7	7.9
Not circumcised	87.1	839	34.6	253	10.9	6.9
Total	87.1	1002	36.4	395	11.2	7.1

The majority of single/divorced/widowed men (56.7%) who reported having sex in the 6 months prior to the survey, had 2 or more sexual partners.

 Table 13: Multiple sex partners and Commercial sex among Women (frequencies of persons who have had multiple sexual partners/commercial sex).

 Note that these are unweighted findings.

	Among all w	Among all women 15-49		en who reported past 6 months	Among women who reported having sex past 6 months		
Background characteristic	Percentage who had sex past 6 months	Number of female respondents	Percentage who had 2+ partners	Number of women with 1 or more partners	Percentage of women who gave gifts or money for sex	Percentage of women who received gifts or money for sex	
Marital status							
Single/divorce/widow	47.7	384	23.0	183	2.1	15.9	
Married/cohabitating	94.4	1142	3.6	1078	1.6	4.3	
Total	82.6	1526	6.4	1261	1.7	7.2	
Age category							
15-24 years old	84.0	419	10.8	352	1.9	10.7	
25-34 years old	88.7	613	4.4	544	1.6	7.0	
35-49 years old	73.4	497	5.2	365	1.6	4.7	
Total	82.7	1529	6.4	1261	1.7	7.3	
Education level							
0	76.1	268	5.9	204	2.3	6.0	
1	82.3	559	7.2	460	1.8	6.8	
2	86.2	355	5.6	306	1.4	8.4	
3	85.1	289	6.5	246	1.4	7.9	
4	80.0	55	4.6	44	1.9	7.4	
Total	82.6	1526	6.4	1260	1.7	7.3	
Location							
Mbarara OBA	83.4	589	7.7	491	1.5	8.2	
Mbarara non-OBA	82.2	556	3.5	457	2.4	6.1	
Bushenvi parishes	81.6	387	8.5	316	1.0	7.5	
Total	82.5	1532	6.4	1264	1.7	7.3	

Respondents with multiple sexual partners were more common among women who were single/divorced/separated (23%) and aged between 15 and 24 years (10.8%).

	Among womer having sex p	Among women who reported having sex past 6 months		who reported bast 6 months	Among women and men who reported having sex past 6 months		
Background characteristic	Percentage with unprotected sex at least once with regular partner(s) past 6 months	Number of female respondents	Percentage with unprotected sex at least once with regular partners past 6 months	Number of male respondents	Percentage of women w/ unprotected sex at least once w/ irregular partner	Percentage of men w/ unprotected sex at least once w/ irregular partner	
Marital status							
Single/divorce/widow	69.1	110	67.9	137	23.4	47.8	
Married/cohabitating	22.9	253	53.1	241	4.7	19.3	
Total	36.9	363	58.5	378	7.7	25.3	
Age category							
15-24 years old	14.0	351	37.6	157	10.3	37.7	
25-34 years old	8.9	542	25.7	381	6.4	25.5	
35-49 years old	11.0	364	18.9	360	7.3	19.6	
Total	10.9	1257	25.1	898	7.8	25.2	
Education level							
0	12.3	204	25.0	60	8.2	29.6	
1	9.8	459	24.9	305	7.1	21.3	
2	10.5	304	24.4	238	8.0	26.3	
3	12.6	246	26.6	199	7.4	29.5	
4	7.0	43	23.4	94	12.1	20.8	
Total	10.8	1256	25.0	896	7.7	25.0	
Location							
Mbarara OBA	10.8	489	30.4	286	7.6	28.0	
Mbarara non-OBA	11.0	455	22.6	354	7.9	24.0	
Bushenyi parishes	10.8	316	22.4	259	7.6	23.9	
Total	10.9	1260	25.0	899	7.7	25.3	

 Table 14: Condom use among respondents with regular and irregular partners, excluding spouses.
 Note that these are unweighted findings.

1.10 Self-reported STI symptoms

All respondents who ever had sex were asked if they had had a sexually transmitted infection (STI) or symptoms of an STI in the six months preceding the survey. It is important to point out that a respondent's self report of STI symptoms is not the same as a clinical diagnosis. In addition, if a respondent does not report symptoms of an STI, it does not mean that he or she does not have one. Because of the stigma associated with STIs, individuals may underreport the prevalence of STIs and their symptoms. Furthermore, it is possible to have an STI with no symptoms, especially in women.

Table 15 presents the distribution of all women (15-49 years old) reporting STI symptoms (pain or burning around vagina, non-traumatic sores or boils around vagina, itching, vaginal discharge, and lower abdominal pain) in 6 months prior to survey.

Table 15: Female symptoms for STIs

Self-reported symptoms past 6 months for sexually transmitted infections (STIs) among respondents aged 15-49. Important to note that urban and trading center populations were over-sampled to detect potential effects of the OBA program. The results presented here are unweighted.

		FEMALE									
	Pain	ful	Geni	tal	Geni	tal	Gen	ital	Lower a	bdom.	
Characteristic	urina	tion	sor	e	itcl	n	disch	arge	pain		
	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	
Marital status											
Single/divorce/widow	27.9	383	29.6	382	42.1	385	30.8	380	27.3	381	
Married/cohabitating	32.5	1132	29.0	1125	44.4	1130	37.0	1127	38.2	1126	
Total	31.4	1515	27.0	1507	43.8	1515	35.4	1507	35.4	1507	
Age category											
15-24 years old	27.5	419	28.1	417	41.7	417	34.8	414	30.9	414	
25-34 years old	32.9	608	28.9	605	44.8	609	36.3	606	36.7	605	
35-49 years old	32.8	491	30.5	488	44.3	492	35.1	490	37.7	491	
Total	31.4	1518	29.2	1510	43.8	1518	35.5	1510	35.4	1510	
Education level											
0	34.3	265	27.6	264	41.1	263	33.3	264	36.6	265	
1	35.1	553	33.3	552	47.0	577	40.2	552	38.4	550	
2	31.8	352	29.8	349	45.4	350	34.9	352	33.8	352	
3	23.1	290	23.9	289	40.0	290	29.7	286	30.7	287	
4	18.2	55	17.0	53	34.6	55	30.2	53	35.9	53	
Total	31.3	1515	29.1	1507	43.8	1515	35.4	1507	35.4	1507	
Location											
Mbarara OBA	29.8	581	28.2	580	43.0	584	35.2	577	35.3	578	
Mbarara non-OBA	34.3	554	29.5	549	40.8	549	35.8	548	36.9	550	
Bushenyi parishes	29.3	386	30.2	384	49.2	388	35.3	388	33.5	385	
Total	31.3	1521	29.2	1513	43.8	1521	35.4	1513	35.4	1513	

With the exception of genital discharge self reported symptoms were evenly distributed among the single and married women. The most common self reported symptom was the genital itch. Table 16 presents distribution of men (15-49 years old) reporting STI symptoms (sores on penis, pain or burning sensation on urination, itching around penis) in 6 months prior to survey.

Table 16: Male symptoms for potential STIs

Self-reported symptoms for sexually transmitted infections (STIs) among respondents aged 15-49. Important to note that urban and trading center populations were over-sampled to detect potential effects of the OBA program. As a result, only the weighted percentages in the margin are representative of the combined adult district population (507,000).

	MALE									
Characteristic	Painful u	rination	Genita	l sore	Genita	l itch	Genital d	ischarge		
Marital status	Percent	No.	Percent	No.	Percent	No.	Percent	No.		
Married/cohabitating	27.8	753	23.9	752	35.2	751	23.2	753		
Single/divorced/widowed	28.9	277	23.2	376	31.8	274	21.4	276		
Total	28.1	1030	23.7	1028	34.2	1025	22.7	1029		
Age category	<u> </u>	212	10 7	212	0 0 ć	212	10.0	214		
15-24	23.5	213	19.7	213	29.6	213	18.2	214		
25-34	27.2	416	23.1	412	34.5	414	21.8	413		
35-49	31.3	403	26.7	405	36.5	400	26.5	404		
Total	28.0	1032	23.8	1030	34.3	1027	22.9	1031		
Education level										
0	30.1	73	23.3	73	33.8	74	23.3	73		
1	32.5	348	28.9	350	35.5	347	28.0	350		
2	28.5	267	21.3	263	37.0	265	22.5	267		
3	24.9	233	22.4	232	32.5	231	17.8	231		
4	17.4	109	16.4	110	26.9	108	17.6	108		
Total	28.0	1030	23.7	1028	34.2	1025	22.8	1029		
	2010	1000	2017	1020	0.112	1020		102/		
Location										
Mbarara OBA	28.2	337	19.5	334	31.4	334	23.7	334		
Mbarara non-OBA	27.3	389	24.6	390	33.4	386	24.2	389		
Bushenyi parishes	28.7	307	27.4	307	38.3	308	20.4	309		
Total	28.0	1033	23.8	1031	34.2	1028	22.9	1032		
Circumcised	26.2	164	20.1	164	31.7	161	22.4	165		
Not circumcised	28.3	833	24.6	831	34.7	833	22.9	831		
Total	28.0	997	23.8	995	34.2	994	22.9	996		

Thirty-nine percent (945/2,576) of respondents exhibited one or more STI symptoms in the past six months but only a third (373/1,019) of those with one or more STI symptoms sought any care. In those cases where no treatment was sought, a common reason was that the symptoms disappeared or were not considered "significant" to the respondent.

In Table 18, men and women experienced the same frequency of STI symptoms in the predominantly rural intervention arm of Mbarara non-OBA parishes. However, in both the Mbarara OBA intervention parishes and the Bushenyi parishes, female respondents experienced more potential STI symptoms than the male respondents.

Table 17: Frequency of possible STIsymptoms (unweighted data)		In Parisł (tervention group of 15-49 ye	on arms: of reside ar olds)	nce			
	Grea		_					
	Mbarar	a OBA	Mba	barara Bushenyi		enyi	Total	
	paris	parishes		control parishes		popul	ation	
By parish residence	%	No.	%	No.	%	No.	%	No.
Males with 1 or more symptoms	37.2	336	35.0	389	31.7	310	36.9	1035
Females with 1 or more symptoms	43.8	587	36.3	556	41.4	389	40.5	1532
All respondents with 1 or more symptoms	41.6	928	35.8	945	40.3	703	39.1	2576

The OBA program seeks to improve the screening uptake and quality of STI treatment among undiagnosed STI cases. The frequency of STI symptoms is tabled below in an attempt to identify subgroups that may be disproportionately failing to access diagnostic services.

Table 18: Number of times	Frequency of self-reported STI symptoms in								
in past 6 months that		p	ast 6 month	IS					
respondent had symptoms		(15	5-49 year ol	ds)					
s/he or partner thought	Sx Freq	Sx Freq	Sx Freq	Sx Freq	Sx Freq				
might indicate an STI or	= 0	= 1	= 2	= 3	= 4+				
STD									
By Region	%	%	%	%	%				
Mbarara OBA	58.4	12.8	11.5	8.1	9.2	100.0			
Mbarara non-OBA	63.8	12.3	9.8	5.3	8.8	100.0			
Bushenyi parishes	59.7	13.7	11.4	5.6	9.7	100.0			
All regions	63.3	12.4	10.0	5.5	8.8	100.0			
By Wealth Index									
High wealth (1)	65.2	12.4	7.0	3.9	11.6	100.0			
(2)	58.0	15.5	12.9	6.1	7.6	100.0			
Middle wealth (3)	67.0	8.0	9.7	5.8	9.6	100.0			
(4)	63.5	15.0	9.0	4.7	7.7	100.0			
Low wealth (5)	62.9	11.4	11.5	7.2	7.0	100.0			
All regions	63.3	12.4	10.0	5.5	8.8	100.0			
6									
By Education Level									
No education	69.4	6.3	9.4	4.4	10.6	100.0			
Some primary	60.7	13.6	9.9	6.2	9.6	100.0			
Completed primary	58.7	16.1	12.5	4.2	8.5	100.0			
Some secondary	69.9	9.5	7.7	6.2	6.8	100.0			
Completed secondary	63.0	17.2	8.2	7.8	3.8	100.0			
* *									

The majority of respondents (63 percent) did not experience STI symptoms in the first half of 2006. However, of those who experienced symptoms four or more times, they were three times more likely to have no education than completed secondary and a 50 percent greater probability of having a low wealth score compared to a high wealth score.

Table 19 : "Since this year began, how	Iı	ntervention arms	:	
many times did you seek treatment of	Paris	h group of reside	ence	
STI/STD symptoms?"	(15-49 year olds)		
	Creator	Creator	Duchonvi	Total
	Mhorero	Mhorero	Dushenyi	population
	MDarara	Mor OD A	control	
	UDA	NOII-OBA	parishes	
	parishes	parishes		
Female respondents tx seeking freq.	N=624	(0.2	(7.0	(0.0
0	63.5	60.3	67.9	60.9
1	19.2	18.3	17.9	18.4
2	7.7	12.1	7.4	11.5
3	4.6	3.4*	4.9*	3.6
4+	5.0	5.9	1.9*	5.6
	100.0	100.0	100.0	100.0
Male respondents tx seeking freq.	N=390			
0	64.5	54.8	73.0	56.2
1	18.6	26.1	15.6	25.2
2	8.9	10.2	5.7*	9.9
3	5.7*	6.2*	3.3*	6.1
4+	2.4*	2.7*	2.5*	2.7
*Cell has less than 10 observations	100.0	100.0	100.0	100.0
Reason for not seeking treatment	N= 489			
Lack of money	47.8	62.4	44.6	60.5
Not a serious condition	39.7	22.2	41.2	24.4
Treatment makes no difference	3.8	62	47	5.9
Distance to provider	1.1	6.2	1.7	5.5
Lack of time	1.1	1.6	1. 4 5.4	2.0
Lack of trust in providers	33	1.0	5. 4 2.7	2.0
Lack of trust in providers	100.0	100.0	100.0	100.0
FOLLOWING CELLS PRESENT CO	OUNT OF PRO	VIDER TYPE	AMONG RES	SPONDENTS
WHO S	SOUGHT STI T	FREAMENT		
Private for profit aligna	20	16	15	01
Covernment elinie	10	40	15	20
Government bearitel	10	15	5	50
Solf modioation	23	29	1	33 10
Drivete hearitel	2	ð	0	10
Private nospital	3	2	U	5
I raditional healer	4	2	U	6
Cnemical seller/ Drug shop	2	3	U	5
Private not-for-profit clinic	2	1	U	3
Mission hospital	3	3	0	6
DNK	1	0	0	1
Total	80	109	21	210
Provider type for STI treatment				
Private clinics and hospitals	35	49	15	99

1.11 STI Treatment Seeking Practices

One third of respondents with possible STI symptoms sought treatment at least once. Seven to 12 percent of respondents in each intervention arm sought STI treatment services at least twice in the first half of 2006. Among the 60 percent with possible STI symptoms who did not seek care, 489 respondents gave one of the following reasons: lack of money (69 percent), not a serious condition (24 percent), treatment makes no difference (6 percent), distance to providers (5 percent), lack of time (2 percent), and lack of trust in providers (2 percent). As in the previous general healthcare utilization questions, funds to cover the treatment costs was a highly salient concern. Interesting to note that self-assessment ("not a serious condition") was the second most common reason for not seeking care. That response suggests greater need for health education. Even among those exhibiting potential STIs symptoms, there does not appear to be great significance placed on the need for medical diagnosis of suspicious symptoms.

MOST recent treatment of an STI?"	Ir Paris (: ence					
	Greater Greater Bushenyi pop Mbarara Mbarara control pop OBA Non-OBA parishes parishes parishes						
Providers by private / public groups	N=130						
Drug shop, private clinic & hosp.	50.0	52.9	71.4	53.1			
Gov't clinic & hospital	50.0	47.1	28.6	46.9			
Total	100.0	100.0	100.0	100.0			

Although the follow-up question regarding which type of provider respondents most recently visited was not well populated (only 190 responses across 10 categories), the largest response was 'private clinic' (62/190). Grouping several classes of providers under private and public headers, the preference for private services was evident by small margins in the Mbarara non-OBA parishes (52 percent for private care and 47 percent for public) while the Bushenyi study parishes had a wide margin in favor of private care (71 percent versus 29 percent). Respondents expressed equal preference for private and public providers in Mbarara OBA parishes.

Health services are available from a wide range of providers across public and private sectors. Although nominally illegal to offer STI treatment and occasionally closed by authorities for doing so, informal drug shops offer STI diagnostic and treatment services. Traditional healers offer STI diagnostic and treatment services as do private clinics which can be single room or a successful practice with secondary clinics in neighboring towns.

It is interesting to note that when asked about satisfaction with the STI treatment, respondents most satisfied with the service were treated at private sector sites. It should be added that the number of respondents was quite small (n=114) and as a result it is not possible to determine whether they were representative of the general population.

Table 21 : Satisfaction with STItreatment by provider type	Private		Publi	Total	
Satisfied	18/31	0.58	13/31	0.42	31
Somewhat satisfied	28/47	0.60	19/47	0.40	47
Dissatisfied	15/36	0.42	21/36	0.58	36
Total	61/114	0.54	53/114	0.46	114

SECTION II: STI PREVALENCE

2.1 Prevalence of STIs across the Region

The Mbarara and Bushenyi population prevalence figures are presented with prevalence estimates from neighboring regions (Orroth et al., 2003). The other site names refer to districts in Uganda and Tanzania where several studies were undertaken to test whether STI treatment could affect HIV incidence. In the Mwanza trial, improved STD case management was associated with a 38% reduction in HIV incidence (Grosskurth et al., 2000). In contrast, in Uganda a trial of information, education, and communication (IEC) coupled with improved STD case management had no impact on HIV incidence in Masaka district and STD mass treatment had no impact on HIV incidence in Rakai district (Orroth et al., 2003).

The following table listing the prevalence estimates in each study should be interpreted with care. The populations were surveyed in different years, they have different age structures, samples were taken from different age groups, and different lab tests were used in each study with slight but perhaps significant variations in sensitivity and specificity. The table is best viewed as the reasonable parameters of what might be expected for STI prevalence in the region.

Table 21: Distribution of	Mbarara &	Rakai, Uganda	Masaka, Uganda	Mwanza,
STIs	Bushenyi (2006)	(1994)	(1994)	Tanzania (1991)
Women				
Neisseria gonorrhoeae	5.1 (3.2-7.1)*	1.9 (1.7-3.3)	1.8 (1.6-3.0)	2.3 (0.8-3.8)
(15-39 years)				
Serologic syphilis	18.7 (16.6-20.8)*	9.9 (9.2-10.7)	11.3 (10.5-12.1)	8.9 (8.2-9.6)
(15-54 years)				
High titer syphilis	7.1 (5.8-8.6)*	1.3 (1.1-1.7)	0.7 (0.5-0.9)	6.3 (5.8-6.9)
(15-54 years)				
Trichomonas vaginalis	6.5 (4.4-8.7)	30.8 (27.6-34.9)	-	41.9 (29.7-70.5)
(15-49 years)				
Men				
Neisseria gonorrhoeae	3.9 (2.0-5.8)*	1.1	0.9	2.8
(15-39 years)				
Serologic syphilis	16.0 (13.7-18.4)*	9.6 (8.8-10.4)	11.3 (10.5-12.3)	7.3 (6.6-8.0)
(15-54 years)				
High titer syphilis	5.3 (3.9-6.8)*	2.3 (1.9-2.7)	1.2 (0.9-1.5)	5.6 (5.0-6.2)
(15-54 years)				
Trichomonas vaginalis	7.9 (5.2-10.5)	-	-	-
(15-49 years)	·			

*age group for Mbarara and Bushenyi study is 15-49 years old

Note that the Mbarara and Bushenyi study group included adults 15-49 years old, while the other three studies were standardized by Orroth and colleagues on a regional age structure from 15 to 54 years of age. The *Neisseria gonorrhoeae* estimates were based on the same age structure but focused on a younger subpopulation of adults 15-39 years of age (Orroth et al., 2003).

The 2005 Uganda Seroprevalence Survey estimated the prevalence of recent syphilis infection by region. The Southwest region of Uganda has an estimated adult prevalence of 2.6% with equal proportion of infection among men (2.5%) and women (2.6%). The Southwest region includes the following districts: Bushenyi, Isingiro, Ibanda, Kiruhura, Mbarara, Kabale, Kanungu, Kisoro, Ntungamo, and Rukungiri.

Table 22: Reactive STI samples by new districts

Crude STI prevalence among surveyed adults 15-49 years old. Crude (unweighted) results are presented here as the sampling frame was not designed to measure prevalence in the new districts. Candida infections, although not considered an STI, were measured in the survey and are reported in this table.

	Kir	uhura	Isingiro		Ibanda		Mbarara		Bushenyi	
Syphilis	%	Tested	%	Tested	%	Tested	%	Tested	%	Tested
TPHA	12.5	279	15.1	251	12.7	316	20.5	781	19.9	594
VDRL	8.8	272	6.8	250	9.2	314	5.4	778	4.9	593
Gonorrhea	3.5	144	5.3	94	2.4	166	6.1	310	4.5	199
Trichomonas vaginitis	2.1	144	9.6	94	4.8	166	10.0	310	7.0	199
Candida	10.4	144	4.3	94	5.4	166	7.1	310	5.0	199

The evaluation is designed as a three-arm observational impact assessment. Parishes containing one or more voucher clinics are selected as the greater Mbarara OBA population. They are the 'exposed' or 'treated' arm. The first control group is a random selection of parishes from greater Mbarara that do not contain voucher clinics. The second control group consists of purposively selected parishes from Bushenyi district where private clinics are located, similar to parishes containing the voucher clinics in greater Mbarara district.

Table 23: Distribution ofSTIs by OBA status		In Parisl (1						
	Greater Mbarara OBA parishes		Greater Mbarara Non- OBA parishes		Bushenyi control parishes		Total population	
Syphilis	%	No.	%	No.	%	No.	%	No.
TPHA (old infection)	21.1	752	13.6	874	19.9	594	12.8	2220
VDRL (recent infection)	6.3	748	7.7	800	4.9	593	7.6	2206
Gonorrhea	5.6	342	3.8	371	4.5	199	3.9	912
Trichomonas vaginitis	8.2	342	6.2	371	7.0	199	6.6	912
Candida	7.6	342	6.5	371	5.0	199	6.9	912

Prevalence estimates of several STIs are provided in the table above by intervention arm. For several diseases, the estimates are based on relatively small numbers of reactive cases. The entire sample population (2594 respondents) was offered the syphilis screening option and half (1297) were offered tests for gonorrhea, *trichomonas vaginitis*, and candida. Testing uptake was not complete. The single largest reason was that respondents did not want to submit to genital swabs. Others felt uncomfortable with lab work being conducted on their blood and swab samples away from the village (a field lab allowed for on-site diagnosis of syphilis).

2.3 Prevalence of Syphilis

Table 24 Serologic syphilis prevalence by background characteristics											
Among respondents aged 15 assay), the percentage with re	5-49 who v eactive cultu	vere tested ares by sel	d for syp lected bac	hilis infe kground	ction (usi character	ng highly istics.	y sensitiv	e TPHA			
		·	nterventi	on arms:							
		Pari	sh group	of residen	ce						
			(15-49 ve	ar olds)							
			Greater	Mbarara							
	Greater I	Mbarara	non-	OBA	Busheny	i control	Total po	pulation			
Characteristic	OBA pa	arishes	pari	shes	pari	shes	(survey	weight)			
	Percent	Number	Percent	Number	Percent	Number	Percent				
	reactive	tested	reactive	tested	reactive	Tested	reactive	Number			
Sex											
Men	16.0	338	12.2	394	14.5	310	11.8	1042			
Women	17.4	593	12.0	557	18.5	389	11.4	1539			
	16.9	931	12.1	951	16.8	699	11.5	2581			
Age											
15-24	17.5	252	5.9	188	14.9	202	7.4	642			
25-34	15.7	388	11.6	371	16.5	279	11.1	1038			
35-49	17.8	292	15.6	392	19.1	220	14.1	904			
	16.9	932	12.1	951	16.8	701	11.5	2584			
Residence											
Urban / Trading centers	18.4	555	12.3	277	17.8	360	12.6	1192			
Rural	14.5	380	12.0	673	15.7	343	11.1	1396			
	16.8	935	12.1	950	16.8	703	11.5	2588			
Education											
None	16.3	98	10.8	159	16.5	85	9.1	342			
Some Primary	18.7	315	12.3	406	16.5	194	11.6	915			
Completed Primary	14.0	228	14.4	216	19.3	187	14.4	631			
Some Secondary	19.8	217	9.6	135	13.2	174	10.4	526			
Completed secondary	11.1	72	11.4	35	20.0	60	9.8	167			
	16.9	936	12.1	951	16.8	703	11.5	2590			
Religion											
Protestant	19.2	464	12.0	524	17.9	437	11.7	1425			
Catholic	14.6	330	12.6	388	13.9	165	11.7	883			
Muslim	15.8	120	15.0	20	15.0	80	14.8	220			
Other	16.7	12	0.0	17	22.2	18	1.8	47			
	17.0	926	12.1	949	16.7	700	11.5	2575			

The serologic syphilis estimates are high. Although the prevalence figures in the table above are calculated with sampling weights, there are several possible biases when interpreting the figures above as population estimates. Survey respondents' mean age was 30 years, which is older than the mean age of adults in the 2002 census population. Older individuals are more likely to have a reactive TPHA result as the test measures *treponema pallidum* antigens and these can remain in the blood after successful treatment. In addition older individuals have a higher lifetime probability of exposure to syphilis. Several of the categories in the table above also have small numbers of reactive cases. The "other" category in Religion, for instance, has very small numbers so any prevalence estimates have a high standard error. Other characteristics are similarly uncertain due to small numbers.

The high titer syphilis estimate has a high specificity which screens many false positives to identify only the most recent infections. As a result, the prevalence estimates for

serologic syphilis are the highest estimates for burden of disease. There are likely fewer cases of active syphilis than represented in serologic syphilis estimates above.

Table 25 Ever tested for syphilis by current syphilis status

Percent distribution of women and men age 15-49 who were tested for syphilis by whether ever tested prior to the survey, according to whether serologic syphilis was reactive or non-reactive

	Women		N	Ien	Total		
	TPHA	TPHA non-	TPHA	TPHA non-	TPHA	TPHA non-	
syphilis testing prior to the survey	reactive	reactive	reactive	reactive	active	reactive	
Previously tested, reactive (positive) result Not previously tested	33.4 66.6	25.6 74.4	37.3 62.7	25.1 74.9	35.2 64.8	25.4 74.6	
Total	100.0	100.0	100.0	100.0	100.0	100.0	
Number	222	958	139	704	363	1,668	

To get an idea about the magnitude of undiagnosed syphilis in the greater Mbarara area, TPHA results from the baseline survey are compared to respondents' answer to the question of whether they ever received a syphilis test in the past (question ST 316C). One-third of the TPHA reactive respondents had previously received a reactive syphilis test result. The current reactive TPHA result could be a new first-ever infection or previous infections simply went undiagnosed.

Twenty-five percent of non-reactive respondents had previously received a reactive syphilis test result. The probability of having and not having a previous TPHA reactive test was not statistically different among men (40/139=0.29, 199/704=0.28), women (60/222=0.27, 276/682=0.29) and the combined population (100/363=0.28, 476/1668=0.29).

Circumcision has proved to be a valuable intervention in HIV prevention. Its protective effects on ulcerative STIs are also recognized. Although many subgroups in this survey were too small to draw meaningful inference, a pattern of lower syphilis prevalence among circumcised male respondents is consistently observed in the following table.

Table 26 Syphilis prevalen	ce by male circ	umcision		
Among men age 15-49 wh reactive cultures by whether	o were tested for circumcised, for	or serologic syphi	lis (TPHA), the ound characterist	e percentage with ics.
	Circu	mcised	Uncirc	umcised
Characteristic	Syphilis prevalence	Number of men reactive	Syphilis prevalence	Number of men reactive
Age	%	Proportion	%	Proportion
15-24	8.0	2/26	18.0	24/134
25-34	17.0	10/60	18.0	45/252
35-49	23.0	9/39	24.0	56/236
	17.0	21/125	20.0	125/622
Residence				
Urban / Trading centers	14.0	11/81	20.0	59/293
Rural	23.0	10/44	20.0	66/331
	17.0	21/125	20.0	125/624
Region				
Mbarara OBA	19.0	10/53	24.0	42/173
Mbarara non-OBA	14.0	4/29	16.0	44/280
Bushenyi parishes	16.0	7/43	23.0	39/171
•	17.0	21/125	20.0	125/624
Education				
None	-	0	29.0	12/41
Some Primary	34.0	11/32	19.0	41/215
Completed Primary	10.0	3/29	21.0	35/167
Some Secondary	22.0	7/32	19.0	26/135
Completed secondary	-	0	17.0	11/64
	17.0	21/125	20.0	125/622
Religion				
Protestant	13.0	5/39	20.0	77/380
Catholic	25.0	3/12	20.0	45/224
Muslim	18.0	13/71	0.33	2/6
Other	-	0	8.0	1/12
Total	17.0	21/123	20.0	125/622

2.4 Prevalence of Gonorrhea

Table 27 Gonorrhea prevalence by background characteristics

Among respondents aged 15-49 who were tested for gonorrhea infection, the percentage with reactive cultures by selected background characteristics.

Parish group of residence (15-49 years old)CharacteristicGreater Mbarara OBA parishesBushenyi control parishesTotal population (survey weight)CharacteristicOBA parishes OBA parishesGreater Mbarara non-OBA parishesBushenyi control parishesTotal population (survey weight)PercentNumber reactive reactive reactive reactive reactivePercent reactive reactive reactive reactive reactive reactivePercent reactive <b< th=""><th></th><th></th><th></th><th>Intervent</th><th>ion arms:</th><th></th><th></th><th></th><th></th></b<>				Intervent	ion arms:				
(15-49 years old)(15-49 years old)Greater Mbarara OBA parishesGreater Mbarara non-OBA parishesBushenyi control parishesTotal population (survey weight)Percent reactive reactive reactive reactiveNumber reactive reactive reactive reactivePercent reactive reactive reactive reactive reactive reactive reactiveBushenyi control parishesTotal population (survey weight)Percent reactive			Pa	rish group	of resident	ce			
Greater Mbarara OBA parishesGreater Mbarara non-OBA parishesBushenyi control parishesTotal population (survey weight)Percent reactiveNumber reactivePercent reactiveNumber reactivePercent reactiveNumber reactivePercent reactiveNumber reactivePercent reactivePercent reactiveNumber reactivePercent reactiveNumber reactivePercent reactivePercent reactiveNumber reactivePercent r				(15-49 y	ears old)				
CharacteristicOBA parishesnon-OBA parishesparishesparishes(survey weight)PercentNumberPercentNumberPercentNumberPercentNumberreactivereactivereactivereactivereactivereactivereactivereactiveSexMen4.05/1244.17/1723.64/1104.2406Women6.514/2173.57/1995.75/883.55045.619/3413.814/3714.69/1983.9910Age		Greater	Mbarara	Greater	Mbarara	Busheny	yi control	Total population	
Percent reactiveNumber reactivePercent reactiveNumber reactivePercent reactiveNumber reactivePercent reactiveNumber reactiveSex Men4.05/1244.17/1723.64/1104.2406Women6.514/2173.57/1995.75/883.55045.619/3413.814/3714.69/1983.9910Age	Characteristic	OBA p	arishes	non-OBA	A parishes	pari	ishes	(survey	weight)
reactive reactive reactive reactive reactive reactive reactive reactive Number Sex Men 4.0 5/124 4.1 7/172 3.6 4/110 4.2 406 Women 6.5 14/217 3.5 7/199 5.7 5/88 3.5 504 Age Image: Second Secon		Percent	Number	Percent	Number	Percent	Number	Percent	
Sex Men 4.0 5/124 4.1 7/172 3.6 4/110 4.2 406 Women 6.5 14/217 3.5 7/199 5.7 5/88 3.5 504 5.6 19/341 3.8 14/371 4.6 9/198 3.9 910		reactive	reactive	reactive	reactive	reactive	Reactive	reactive	Number
Men 4.0 5/124 4.1 7/172 3.6 4/110 4.2 406 Women 6.5 14/217 3.5 7/199 5.7 5/88 3.5 504 5.6 19/341 3.8 14/371 4.6 9/198 3.9 910 Age 14/217 14/20 14/20 14/20 14/20 14/20 14/20	Sex								
Women 6.5 14/217 3.5 7/199 5.7 5/88 3.5 504 5.6 19/341 3.8 14/371 4.6 9/198 3.9 910 Age Image Imag	Men	4.0	5/124	4.1	7/172	3.6	4/110	4.2	406
5.6 19/341 3.8 14/371 4.6 9/198 3.9 910 Age	Women	6.5	14/217	3.5	7/199	5.7	5/88	3.5	504
Age		5.6	19/341	3.8	14/371	4.6	9/198	3.9	910
	Age								
15-24 7.8 7/90 1.6 1/63 7.5 3/40 2.4 193	15-24	7.8	7/90	1.6	1/63	7.5	3/40	2.4	193
25-34 5.0 7/140 4.2 6/142 3.2 3/94 4.0 376	25-34	5.0	7/140	4.2	6/142	3.2	3/94	4.0	376
35-49 3.6 4/111 4.2 7/166 4.7 3/64 4.4 341	35-49	3.6	4/111	4.2	7/166	4.7	3/64	4.4	341
Total 5.8 18/341 3.8 14/371 4.6 9/198 3.9 910	Total	5.8	18/341	3.8	14/371	4.6	9/198	3.9	910
Residence	Residence								
Urban / Trading centers 5.6 12/214 2.5 3/119 2.9 3/105 3.4 438	Urban / Trading centers	5.6	12/214	2.5	3/119	2.9	3/105	3.4	438
Rural 5.5 7/127 4.4 11/251 6.4 6/94 4.1 472	Rural	5.5	7/127	4.4	11/251	6.4	6/94	4.1	472
5.6 19/341 3.8 14/370 4.5 9/199 3.9 910		5.6	19/341	3.8	14/370	4.5	9/199	3.9	910
Education	Education								
None 9.1 3/33 5.0 3/60 5.3 1/19 3.9 112	None	9.1	3/33	5.0	3/60	5.3	1/19	3.9	112
Some Primary 7.3 9/123 3.4 5/148 6.4 4/63 3.6 334	Some Primary	7.3	9/123	3.4	5/148	6.4	4/63	3.6	334
Completed Primary 4.7 4/85 3.4 3/88 3.6 2/55 4.1 227	Completed Primary	4.7	4/85	3.4	3/88	3.6	2/55	4.1	227
Some Secondary 4.1 3/74 5.0 3/60 4.6 2/43 5.4 177	Some Secondary	4.1	3/74	5.0	3/60	4.6	2/43	5.4	177
Completed secondary - 0/27 - 0/16 - 0/17 - 60	Completed secondary	-	0/27	-	0/16	-	0/17	-	60
Total 5.6 19/342 3.8 14/372 4.6 9/197 3.9 910	Total	5.6	19/342	3.8	14/372	4.6	9/197	3.9	910
Religion	Religion								
Protestant 6.1 11/181 2.4 5/208 4.5 6/133 2.3 522	Protestant	6.1	11/181	2.4	5/208	4.5	6/133	2.3	522
Catholic 5.7 7/124 5.5 8/142 2.7 1/37 6.5 306	Catholic	5.7	7/124	5.5	8/142	2.7	1/37	6.5	306
Muslim 2.9 1/34 10.0 1/10 8.3 2/24 8.7 68	Muslim	2.9	1/34	10.0	1/10	8.3	2/24	8.7	68
Other - $0/3$ - $0/7$ - $0/3$ - 13	Other	-	0/3	-	0/7	-	0/3	-	13
Total 5.6 19/342 3.8 14/370 4.6 9/197 3.9 909	Total	5.6	19/342	3.8	14/370	4.6	9/197	3.9	909

The prevalence figures in final column of the table above are calculated with sampling weights. The other columns are calculated using the crude lab results among those respondents who consented to give a swab and had a determinant result (reactive or non-reactive). Among survey respondents with a determinant result for gonorrhea, the mean age was 31.7 years, which is older than the mean age of adults in the 2002 census population. Older individuals are more likely to have a reactive result and older individuals have a higher lifetime probability of STI exposure. Many of the categories in the table above also have small numbers of reactive cases and a few categories, the "other" category in Religion for instance, have no reactive cases prohibiting prevalence estimates.

2.5 Prevalence of Trichomonas vaginitis

Table 28: Trichomonas vaginitis prevalence by background characteristics

Among respondents aged 15-49 who were tested for gonorrhea infection, the percentage with reactive cultures by selected background characteristics.

	Intervention arms: Parish group of residence									
		ar olds)								
	Greater	Mbarara	Greater	Mbarara	Busheny	vi control	Total po	opulation		
Characteristic	OBA p	non-OB	A parishes	pari	shes	(survey	weight)			
	Percent	Number	Percent	Number	Percent	Number	Percent			
	reactive	tested	reactive	tested	reactive	Tested	reactive	Number		
Sex										
Men	10.5	124	7.6	172	5.5	110	6.9	406		
Women	6.9	217	5.0	199	9.1	88	6.4	504		
	8.2	341	6.2	371	7.1	198	6.6	910		
Age										
15-24	10.0	90	4.8	63	5.0	40	5.9	193		
25-34	5.7	140	6.3	142	9.6	94	6.6	376		
35-49	9.9	111	6.6	166	4.7	64	4.0	341		
	8.2	341	6.2	371	7.1	198	6.6	910		
Residence										
Urban / Trading centers	7.0	214	5.9	119	6.7	105	6.8	438		
Rural	10.2	127	6.4	251	7.5	94	6.6	472		
	8.2	341	6.2	371	7.1	198	6.6	910		
Education										
None	3.0	33	6.7	60	21.1	19	8.1	112		
Some Primary	6.5	123	6.1	148	6.4	63	7.1	334		
Completed Primary	14.12	85	5.8	87	5.5	55	4.9	227		
Some Secondary	9.5	74	6.7	60	-	43	6.4	177		
Completed secondary	-	27	6.3	16	17.7	17	6.4	60		
	8.2	342	6.2	371	7.1	197	6.6	910		
Religion										
Protestant	7.7	181	7.7	208	8.3	133	8.0	522		
Catholic	8.1	124	4.8	145	2.7	37	5.0	306		
Muslim	11.8	34	-	10	8.3	24	3.7	68		
Other	-	3	-	7	-	3	-	13		
	8.2	342	6.2	370	7.1	197	6.6	909		

The prevalence figures in final column of the table above are calculated with sampling weights. The other columns are calculated using the crude lab results among those respondents who consented to give a swab and had a determinant result (reactive or non-reactive). Among survey respondents with a determinant result for gonorrhea, the mean age was 31.7 years, which is older than the mean age of adults in the 2002 census population. Older individuals are more likely to have a reactive result and older individuals have a higher lifetime probability of STI exposure. Many of the categories in the table above also have small numbers of reactive cases and a few categories, the "other" category in Religion for instance, have no reactive cases, which precludes calculating prevalence estimates.

2.6 Prevalence of Candidiasis

Table 29: Candidiasis prevalence by background characteristics

Among respondents aged 15-49 who were tested for *candidiasis* infection, the percentage with reactive cultures by selected background characteristics.

	Intervention arms: Parish group of residence									
	(15-49 year olds)									
Characteristic	Greater 1 OBA p	Mbarara arishes	Greater Mbarara non-OBA parishes		Bushenyi control		Total population (survey weight)			
	Percent	Number	Percent	Number	Percent	Number	Percent			
	reactive	tested	reactive	tested	reactive	Tested	reactive	Number		
Sex										
Men	2.4	124	3.5	172	-	110	3.2	406		
Women	10.1	217	9.1	199	11.4	88	10.1	504		
	7.3	341	6.5	371	5.1	198	6.8	910		
Age										
15-24	7.8	90	7.9	63	5.0	40	9.1	193		
25-34	5.7	140	5.6	142	8.5	94	6.0	376		
35-49	8.8	111	6.6	166	-	64	6.7	341		
	7.6	341	6.5	371	5.1	198	6.9	910		
Residence										
Urban / Trading centers	6.5	214	10.9	119	3.8	105	10.3	438		
Rural	8.7	127	4.4	251	6.4	94	5.3	472		
	7.3	341	6.5	370	5.0	199	6.9	910		
Religion										
Protestant	7.7	181	5.8	208	5.3	133	6.2	522		
Catholic	6.5	124	8.3	145	2.7	37	8.6	306		
Muslim	11.8	34	-	10	4.2	24	3.1	68		

Candidiasis is not considered a sexually transmitted infection. It is, however, a marker for genital health and exhibits a similar distribution to the STIs. The prevalence figures in final column of the table above are calculated with sampling weights. The other columns are calculated using the crude lab results among those respondents who consented to give a swab and had a determinant result (reactive or non-reactive). Among survey respondents with a determinant result for candidiasis, the mean age was 31.7 years, which is older than the mean age of adults in the 2002 census population. Older individuals are more likely to have a reactive result and older individuals have a higher lifetime probability of exposure to the causative bacteria. Many of the categories in the table above also have small numbers of reactive cases and a few categories, the 35-49 age group for instance, have no reactive cases, which precludes calculating prevalence estimates.

WAY FORWARD

The baseline household survey is the basis for a number of indicators and benchmarks that will help to answer the questions regarding voucher and patient choices, voucher targeting and penetration, and STI prevalence estimates. The baseline survey is the first component of a larger evaluation strategy.

The paired household surveys component has a quasi-experimental design with the parishes (local administrative areas) as the principal unit. The second survey (first year follow-up) will be conducted in the second half of 2007. In addition to the topics measured in the first survey, the 2007 survey will also estimate voucher penetration over the first phase of OBA. The second survey will interview new individuals from the same parishes and may add respondents to improve the precision of key indicators on healthcare utilization and STI prevalence.

Apart from the household surveys, a second evaluation component is the review of the administrative data collected by the voucher implementation team. Microcare has created a sophisticated database, the voucher management unit system (VMUS), which allows the implementation and evaluation teams to follow utilization trends, costs, and identify potential cases of fraud or abuse. Measuring the number of vouchers used at each clinic, it is possible to estimate the relative dominance of particular clinics and to determine whether the voucher market is concentrated. There will be ongoing analysis of the administrative data.

The third evaluation component is a series of voucher patient interviews to be conducted after patient visits to OBA clinics. Patients will be asked about service quality and satisfaction as well as screened to verify the diagnosis given at the clinic. This component is not included in the current report but will be conducted in the second half the first year of OBA implementation.

Other aspects that future work will endeavor to measure include: service targeting, quality, effectiveness of the modified lab techniques over the syndromic method, the cost-effectiveness of contracted health services, and the administrative disadvantages and advantages of contracting.

Voucher progress will be also be measured by targeting OBA services to poor patients. Although not yet implemented, a random sample of OBA patients will soon be screened for household assets to determine their wealth scores and rank them relative to the district scores now available from the baseline survey.

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APPENDIX A: DATA COLLECTION METHODOLOGY

Objective

The baseline survey sampling frame was designed to select a representative sample of men and women between 15 to 49 years of age from three categories of parishes in Mbarara, Kiruhura, Ibanda, Isingiro and Bushenyi districts.

Target Population

The target population was all persons between 15-49 years of age living in the old Mbarara district (Kiruhura, Ibanda, Isingiro and Mbarara districts) and parishes in Bushenyi district containing private clinics. The sample of individuals was selected from a four-stage sampling design using population distributions from the 2002 Uganda census.

Sample Size

Under the assumption of simple random sampling, a sample of 2,960 individuals would enable us to detect a difference of three percentage points in population estimates of disease burdens between baseline and follow-up surveys with 80% power using a one-sided statistical test at 5% level of significance. For sampling purposes, we assume that the prevalence of baseline serologic syphilis is 9.6% based on previous regional population surveys.

Because the sample is not a simple random sample but a stratified sample selected using a multi-stage cluster design, the detectable difference is likely to be larger or the power of detecting a difference of three percentage points will be smaller than 80%. This is because of the increased variance of the estimate based on unequal probabilities of respondent selection in a cluster design must be corrected to be comparable to the ideal equal probability of selection in a simple random sample of persons. This increase in variance is known as design effect.

In the four stage design, the first sample of parishes were selected by a probability proportional to population size, followed by a second sample of the villages from selected parishes, again by a probability proportional to population size. The third sample consisted of households enumerated from selected villages. Some economic information at household level is measured in the survey. The remainder of the survey was completed from the final sample, comprised of one household resident interviewed at each selected household.

In such a design, you should consider the design effect, which is related to the intraclass correlation coefficient. Intra-class correlation exists when the sampled unit characteristics are dependent to a certain extent on cluster characteristics. This would be the case if, for example, some parishes contain more OBA clinics, and others contain limited functioning health services, as the dependent variable of interest at the level of the household member. The design effect is defined to be the ratio of the variance from the four-stage design over the variance of a simple random sample. In the case of already existing data the design effect can be estimated using a bootstrap resampling procedure or an intra-class correlation and variance correction estimation procedure.

When estimating the number of cases for sample size calculation, parameters such as the prevalence, the expected response rate and the design effect have to be estimated on the basis of previous experience. The design parameter should be larger than one if the number of cases in each cluster equals one, i.e. the design parameter is one if there is no cluster effect, and the design effect parameter should be no larger than the total number of cases divided by the number of clusters (2960 cases in 82 villages). The number of cases in each cluster should be equal (in this study n=36). If it turns out to not be possible in a few of the smallest villages (two villages have less than 45 households) a number will be selected close to the minimum observed number in the clusters, meaning that in those villages, every household has a selection probability of 1 and the household member selected has a selection probability set as the inverse of the household size. Usually one would expect the design parameter to be relatively close to one in between the limits 1 and N/c. In this study, the design effect can be re-estimated from bootstrapping methods after the survey to arrive at precise sampling weights. Stata software package (version 9, Stata Corp.) survey design package adjusts for non-simple sampling designs.

First Stage Selection

The Ugandan Office of Statistics (UBOS) has census data freely available down to parish level. There are 240 parishes in the old Mbarara district ranging in size from 438 to 22,032 inhabitants (old Mbarara district registered 1,088,356 persons in 2002). There are 170 parishes in Bushenyi district ranging in size from 622 to 8,608 inhabitants (Bushenyi district registered 731,392 persons in 2002). In 2006, the Mbarara district was split into four new administrative districts. However, for purposes of the sampling frame, the previous administrative boundaries and 2002 census data are used. Parish (and analogous municipal ward) administrative units constitute the first-stage sampling units for sample selection. For the first selection stratum, parishes were stratified by whether they have one or more private clinics. In Mbarara, private clinics participating in the OBA scheme determined parish inclusion and in Bushenyi, clinics that would qualify for OBA if it had been implemented there were included. By including the 15 Mbarara parishes with OBA clinics in the first stage, respondents are essentially oversampled from parishes with an OBA clinic. Eleven parishes from Bushenyi containing one or more private clinics were also included. Fifteen non-OBA Mbarara parishes were sampled from the remainder of Mbarara parishes (225) using probability proportional to size (PPS) systematic sampling without replacement where size was defined by the total parish population.

		# of	Parish	
COUNTY	OBA PARISH	нн	residents	CLINIC NAME
Ibanda	Bufunda	3,169	13,937	Ibanda Central clinic
Kashari	Kabare	1,240	4,713	Domiciliary Clinic
Ibanda	Kagongo	1,800	8,791	Ninsima Medicare Clinic
Mbarara Municipality	Kakoba	5,534	22,032	Boma Clinic
Mbarara Municipality	Kakoba	5,534	22,032	Busingye Clinic
Kashari	Kakyerere	1119	5,186	Hope Clinic
Kashari	Kakyerere	1119	5,186	Biharwe Medical Center
Kashari	Kakyerere	1119	5,186	Kashari Comm. Med. Center
Mbarara Municipality	Kamukuzi	4083	15,676	Marie Stopes Uganda
Mbarara Municipality	Kamukuzi	4083	15,676	Surgical Centre
Mbarara Municipality	Kamukuzi	4083	15,676	Mbarara Nursing Home
Kashari	Kamushoko	734	3,992	Mufsons Clinic
Mbarara Municipality	Katete	1543	6,798	TASO
Kazo	Kazo	1413	7,195	Kazo Central Clinic
Kazo	Kazo	1413	7,195	Kazo Diagnostic Medical Center
Isingiro	Mabona	994	4,619	Kyabirukwa HC III
Rwampara	Nyeihanga	662	3,030	Wilfam Medical Center
Mbarara Municipality	Ruharo	1,658	7,794	Ruharo Mission hospital
Nyabushozi	Rushere	1,002	4,988	Rushere Community Hospital
Nyabushozi	Rushere	1,002	4,988	St. Michael Medicare Centre
Nyabushozi	Rushere	1,002	4,988	Community Life Care Clinic
Mbarara Municipality	Ruti	1,189	4,824	Ruti Peoples Clinic
Kashari	Rwenshanku	599	2,981	Zzimbe Clinic
TOTAL OBA population			115,556	

Table 1: Preliminary list of OBA clinics later reduced to 16 clinics in greater Mbarara district

15 selected parishes by PPS from 225 non-OBA parishes in greater Mbarara district

	• •	-	0	
district	sub-county	parish	parish~po	-+ p
MBARARA	KASHUMBA	KASHUMBA	8338	
MBARARA	KASHUMBA	KIGARAGARA	5927	
MBARARA	BISHESHE	NYAKATOKYE	5805	
MBARARA	KICUZI	KANYWAMBOGO	2532	
MBARARA	KIKYENKYE	KEIHANGARA	7896	
MBARARA	NYAMAREBE	KYENGANDO	6976	
MBARARA	NYAKITUNDA	NYAKARAMBI	4358	
MBARARA	BUBAARE	RUGARAMA	3390	
MBARARA	BUREMBA	KIJOOHA	4838	
MBARARA	KANONI	ENGARI	5427	
MBARARA	KAZO	RWAMURANGA	2533	
MBARARA	SANGA	RWABARATA	2673	
MBARARA	BUGAMBA	KIBINGO	3787	
MBARARA	RUGANDO	MIRAMA	3638	
MBARARA	RUGANDO	NYABIKUNGU	4988	
		Population:	73,796	
Selected	from a total	non-OBA populatio	on :	971,8

If X_i is the population in parish i then the probability of including the parish in the sample is given by:

$$\pi_i = n \frac{X_i}{X}$$

where n is the number of parishes selected in the sample in that district and X is the total number of persons in the 225 non-OBA parishes of Mbarara district.

11 purposively selected parishes from 170 parishes in Bushenyi district

+				
	district	subcounty_name	parish~me	parish~p
	BUSHENYI BUSHENYI BUSHENYI BUSHENYI BUSHENYI	KABWOHE-ITENDERO T.C SHUUKU KYEIZOBA KIGARAMA KYAMUHUNGA	KABWOHE KISHABYA KITWE MABARE MASHONGA	4628 5901 4506 6166 8170
	BUSHENYI BUSHENYI BUSHENYI BUSHENYI BUSHENYI	RYERU KABWOHE-ITENDERO T.C MITOOMA BUSHENYI TC BUSHENYI TC	NDEKYE NYANGA RUSHOROZA WARD I WARD III	4619 4332 3684 6028 7592
Tot	BUSHENYI al populati	BUSHENYI TC	WARD IV	<u>3899</u> 59,525

Second Stage Selection

At the second stage, two enumeration areas (EAs) were selected with probability proportional to parish size without replacement from each parish selected in the first stage.

Table: In the second stage, two EAs selected by PPS from each of 15 selected non-OBA parishes in old Mbarara district

parish_name	lc_name	ea_hholds	ea_pop
KASHUMBA KASHUMBA KIGARAGARA KIGARAGARA NVAKATOKVE	BURAMA KASHUMBA KAMISHWA RWAMACUMU PWEBIVENIE I	115 184 157 66	474 759 799 336 218
NYAKATOKYE	BIGYERA	47	233
KANYWAMBOGO	KABUHWEJU	67	308
KANYWAMBOGO	KISABO I	126	579
KEIHANGARA	NGANGO I	108	521
KEIHANGARA	KANYEGANYEGYE	72	347
KYENGANDO	RWENKUREJU I	89	388
KYENGANDO	KOBUHURA A.	76	332
NYAKARAMBI	OMUBUSHAMI	122	548
NYAKARAMBI	OMUKINIKA	140	629
RUGARAMA	NKAAKA	153	792
RUGARAMA	RUGARAMA I	187	968
KIJOOHA	MUSHAMBYA	136	690
KIJOOHA	BUREMBA	185	938
ENGARI	RUSHANGO	113	603
ENGARI	NYABUBARE II	75	400
RWAMURANGA	MIRAMA	152	852
RWAMURANGA	RWAMURANGA	126	706
RWABARATA	RWAMUHUKU	192	774
RWABARATA	RWONYO	139	560
NGUGO/KIBINGO	NTSINGWA I	65	327
NGUGO/KIBINGO	RUSHANJE	101	509
MIRAMA	RWEMIYENJE	72	355
MIRAMA	MIRAMA II	49	242
NYABIKUNGU	MIKAMBA	69	367
NYABIKUNGU	KABOBO	68	361
POPULATION			16184

If X_i is the population in enumeration area (EA) i then the probability of including the EA in the sample is given by:

$$\pi_i = n \frac{X_i}{X}$$

where n is the number of EAs selected in the sample in that parish and X is the total number of persons in the parish (all potential EAs).

Table: In second stage, two EAs selected by PPS from each of 15 OBA parishes in old Mbarara district

	district	parish	LC name	EA hhold	ea_pop
	MBARARA	BUFUNDA	MPIIRA STREET	194	853
	MBARARA	BUFUNDA	NYAKATEETE II	92	405
ĺ	MBARARA	KAGONGO	KAFUNDA	73	357
	MBARARA	KAGONGO	KASHAKA II	133	650
	MBARARA	MABONA	MABONA	71	334
	MBARARA	MABONA	KYAMUDIMA	84	390
ĺ	MBARARA	KAMUSHOKO	RWEMPOGO	146	794
	MBARARA	KAMUSHOKO	RWAMBABANA	98	533
ĺ	MBARARA	RWENSHANKU	RWENTURAGARA	169	841
	MBARARA	RWENSHANKU	RWENSHANKU	106	528
	MBARARA	KABARE	NSHOZI	52	198
	MBARARA	KABARE	KARUHAMA	99	376
ĺ	MBARARA	KAKYERERE	BWIZIBWERA TR. A	124	575
	MBARARA	KAKYERERE	RWANYAMAHEMBE	131	607
	MBARARA	KAZO	KAZO II	228	1161
	MBARARA	KAZO	KAZO I	195	993
İ	MBARARA	KAKOBA	KISENYI 'B'	353	1405
	MBARARA	KAKOBA	LUGAZI `A'	549	2186
ĺ	MBARARA	KAMUKUZI	KAKIIKA 'B'	603	2315
	MBARARA	KAMUKUZI	KASHANYALAZI	286	1098
	MBARARA	RUHARO	NKOKONJERU 'A'	309	1453
	MBARARA	RUHARO	KIYANJA	396	1862
I	MBARARA	KATETE	KATETE CENTRAL 'A'	251	1106
	MBARARA	KATETE	NYAMITANGA 'A'	165	727
	MBARARA	RUTI	KAFUNDA	99	402
	MBARARA	RUTI	KATEERA 'A'	147	596
	MBARARA	RUSHERE	RUSHERE T/C 'A'	252	1254
	MBARARA	RUSHERE	RUSHERE T/C 'B'	172	856
	MBARARA	NYEIHANGA	NYEIHANGA	40	183
	MBARARA	NYEIHANGA	RWABAJOJO	59	270
F	POPULATION				22922

Table: In second stage, 22 EAs selected by PPS from 11 Bushenyi parishes with private clinics

district	parish~me	lc_name	ea_hho~s	ea_size
BUSHENYI	NDEKYE	RYERU I	142	638
BUSHENYI	NDEKYE	RYERU II	117	561
BUSHENYI	WARD I	CENTRAL CELL 'A'	281	1348
BUSHENYI	WARD IV	CELL C	372	1756
BUSHENYI	WARD III	CELL B 'A'	217	982
BUSHENYI	KITWE	KITWE	99	488
BUSHENYI	MASHONGA	NYAKATEMBE	123	569
BUSHENYI	WARD I	CENTRAL CELL 'B'	253	1213
BUSHENYI	KITWE	RWENTUHA TC	215	1060
BUSHENYI	WARD III	CELL B 'B'	484	2190
BUSHENYI	MASHONGA	KAYANGA	118	546
BUSHENYI	WARD IV	CELL D	338	1595
BUSHENYI	RUSHOROZA	NYAKASHOJWA	67	359
BUSHENYI	RUSHOROZA	MITOOMA TOWN	205	1099
BUSHENYI	MABARE	NYAKAMBU	143	696
BUSHENYI	KISHABYA	KISHABYA	90	465
BUSHENYI	KISHABYA	KYENJOJO	75	388
BUSHENYI	NYANGA	KIGIMBI	146	612
BUSHENYI	NYANGA	KABWOHE TOWN B	451	1889
BUSHENYI	MABARE	KATWE	59	287
BUSHENYI	KABWOHE	KABWOHE TOWN A	406	1729
BUSHENYI	KABWOHE	KAMWEZI	44	187
PULATION				2018

Third Stage Selection

At the third stage, survey teams took a sample of households from each selected villages and analogous municipal cells. Teams were to select a sample of 36 individuals (2,960 respondents from 82 villages and cells) at random households in the village such that we get a proportional number of persons in each of the five age groups in each district, which are 15-19, 20-24, 25-29, 30-35, and 36-49. This is done by first randomly selecting a household from an enumerated list of all households in the village or cell. At each selected household, all available The head of household or representative completes the household census and asset modules with a survey team member. Then one individual between 15-49 years of age is selected at random from the household to complete the rest of the survey. In each village, persons in all age groups are selected till there is a proportional number in each age group.

Age groups:		15-24	25-34	35-49	
Numbers per gi	roup:	17	10	9	
IN EACH VIL	LAGE INTERVIE	EW 36:			totals
Village A	males	9	5	4	18
	females	8	5	5	18
Village B	males	8	5	5	18
	females	9	5	4	18

After the selection of the sample, it is useful to have a table for each district showing the number of parishes in the population, number in the sample, number of EA/villages in selected parishes and the number of households in selected villages and the numbers selected in the sample.

	Population	No. parishes	No. parishes	No. of selected EAs	No. of households	No. of selected	Total EA population
		L	in sample	in parishes	per arm	households^	I • I • • • • •
OBA parishes	119,824	15	15*	30	5,107	1080	22,922
Mbarara non-OBA	968,532	225	15	30	3,473	1080	16,184
Bushenyi parishes	731,392	170	11*	22	4,341	792	20,181
Total	1,819,748	410	41	82	12,921	2952	59,287

*purposively sampled (probability of selection =1)

^36 households per EA village were planned for in the survey

Sampling Weights

For producing population-based estimates, each responding person in the sample will be assigned a sampling weight. This weight combines a base weight, which is the inverse of the probability of selection and ideally an adjustment for nonresponse. The base weight is the product of the selection probabilities at each stage: parish weight, EA/village weight, household weight, the person weight and a weight for the design effect.

Two sets of weights are used. The treatment effects are estimated within three strata on treatment assignment (OBA or control). The second set of weights combine all respondents on 27 strata with the parish as principal sampling unit. There are 26 strata, one for each parish purposively selected, and a final stratum for the other parishes selected on probability proportional to size.

Within group weights:

Base wgt $_{OBA} = EA$ wgt (PPS) * household wgt * person wgt Base wgt $_{Bushenyi} = EA$ wgt (PPS) * household wgt * person wgt Base wgt $_{no-OBA}$ = parish wgt (PPS) * EA wgt (PPS) * household wgt * person wgt

Combined weights: Base wgt _{Parish PSU}= parish wgt (PPS) * EA wgt (PPS) * household wgt * person wgt

APPENDIX B: SURVEY LAB METHODS

The baseline and follow-up surveys rely on laboratory technicians from the Department of Laboratory Sciences, Mbarara University of Science and Technology (MUST) and local healthcare worker support staff. Diagnosis and treatment of STIs during the evaluation follow the African Medical and Research Foundation (AMREF) guidelines as described in:

Nordberg, E., *Communicable Diseases: A Manual for Health Workers in Sub-Saharan Africa*, African Medical and Research Foundation. Nairobi, Kenya. 1999.

Additional guidance is taken from:

2002 Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines 2002. *MMWR* 2002:51 (No. RR-6).

Diagnoses

Gonorrhea

Bacterial: Diagnosis is confirmed by examination of a urethral smear after centrifugation (man or woman) or endocervical smear – cervical smear (woman). Gram's stain will show Gram-negative diplococci lying inside pus cells (intracellular). Some may escape and lie outside the cells, but the diagnosis should not be made unless intracellular diplococci are definitely seen. Lab cultures at Mbarara University were performed on a subsample of smear-positive cases to confirm diagnosis.

Urethritis (Non-gonococcal)

Bacterial: The discharge of non-gonococcal urethritis (NGU) is often thinner and whiter than typical gonorrheal discharge, but it may look just like typical yellow gonococcal pus. On the other hand, gonorrhea may sometimes present with a thin watery discharge. There is no way of being certain which is which without microscopy. A careful history may help the diagnosis (history of catheterization, foreign bodies introduced into the urethra, excessive masturbation, use of antiseptics to prevent STI, recently treated gonorrhea). If there is no suggestion of chemical or mechanical urethritis, and no gonococci are seen microscopically, the urethritis is most likely to be chlamydial.

Trichomoniasis

Protozoal: Trichomonas infection in women is usually symptomless, but it may cause itchy vaginitis and increased vaginal discharge. The discharge is greenish yellow and foamy and has what is often described as a fishy or ammoniac odor. In most males, the infection is completely asymptomatic.

In the field lab, a fresh drop of vaginal or urethral discharge or a high vaginal swab is examined directly for moving protozoa. It is essential to do the examination with a fresh specimen. If a patient complains of urethral discharge it is best to make a Gram stain as well to exclude the possibility of gonorrhea and at the same time examine a fresh specimen for trichomonas.

Syphilis

Spirochetes: For screening purposes the VDRL or RPR tests will be used, depending on the lab technicians' experience and supplies available. The non-specific tests are useful to identify potential cases. The TPHA test is a confirmatory, specific test performed secondarily.

Chancroid

Bacterial: An ulcer develops on the skin of genitalia 3-5 days after sexual contact. Often other parts of the skin are infected from the first ulcer and new ulcers develop. The ulcers are very painful, soft on palpation and bleed easily when touched. There may be a suppurative painful regional lymphadenitis known as *buboes*. In most cases, only one side of the body is affected.

Typical Gram-negative rods can be seen from smears taken from the base of the ulcer or material aspirated from enlarged inguinal lymph glands.

Treatment protocol

Field based microscopy and rapid test kits provided same day test results for some cases. Additional tests were conducted at MUST laboratories. Treatment for any immediate positive test result will be provided the same day. The study offered initial treatments at the village and referred difficult infections to local service providers.

- Gonorrhoea (causative agent: *Neisseria gonorrhoea*)
 - Tablet **Ciprofloxacin** 500mg single dose, plus Tablet **Doxycycline** 100mg every 12 hours for 7 days
- Syphilis (causative agent: *Treponema pallidum*)
 - Tab of **Erythromicin** 500mg every 6 hours for 7 days.
- Urethritis (causative agent: *Chlamydia trachomatis*)
 - Tablet **Doxycycline** 100mg every 12 hours for 7 days.
- Chancroid (causative agent: *Haemophilis ducreyi*)
 - Tab **Doxycycline** 100mg every 12 hours fr 10 days, plus **Ciprofloxacin** 500mg every 12 hours for 3 days. Aspirate with large bore needle.
- Trichomoniasis (causative agent: *Trichomonas vaginalis*)
 - Tablet **Metronidazole** 400mg 12 hourly for 10 days
- Vaginal canidiasis (causative agent: Candida albicans)
 - Clotrimazole Pessarys 500mg single dose at night

APPENDIX C: SURVEY TOOLS

The questionnaires for the baseline survey were developed from several sources appropriate to each section. The first section about demographic characteristics, including household roster, were modified from a similar survey used by Abt Associates in Ghana (Abt Associates, 2004). The Household assets section was derived from the 2000/1 and 2006 Uganda Demographic and Health Surveys (DHS) questionnaires (ORC Macro, 2000, 2006). The food security section is taken directly from a validated instrument developed by USAID (Coates, Swindale, & Bilinsky, 2006). The healthcare utilization, STI risks and behaviors, and STI healthcare utilization sections were derived from a review of the DHS and World Bank tools. The contraceptive use section for female respondents is from the Uganda DHS. The trust and community cohesion section is from a World Bank survey on social capital validated in a two-country survey (Grootaert, Narayan, Jones, & Woolcock, 2004; Narayan & Cassidy, 2001).

Female Questionnaire STI Prevalence and Treatment Seeking Behavior in Mbarara District June 2006

Eligible respondents are a household resident, 15-49 years old – defined as having spent the prior night in the household **Informed consent to be completed for potential participants 18-49 years old and by the guardian of any potential participant 15-17 years of age**

Dear Participant,

"Hello. My name is ______. I am helping to evaluate health services in this area.

You (or your minor) have been randomly selected to be part of this survey. We would like to interview you (or him/her) about health issues. This survey is run by researchers from Mbarara University and the University of California at Berkeley. The data that you or your minor may give would be used to learn how people use clinics in Mbarara and Bushenyi. This information will help to improve health care delivery. If you participate, you will be kindly asked to answer the questions honestly.

The interview will take about 40-45 minutes. Questions will be about: basic information about you, your family and community, sexually transmitted diseases, health care staff, clinics and shops seen for treatment of sexually transmitted diseases.

Risks and benefits: There may be emotional and physical unease if you (or your minor) take part. If information from this study is printed or talked about at meetings, your name and personal data will not be used. While there is a small chance that the collected data would be seen by others, we will take extreme care to avoid that. If we fail to protect the confidential data, you would be exposed to a loss of privacy. But we are taking measures to reduce that risk.

You may share any concerns you have with me, another member of the research team or the impartial witness. If you (or your minor) agree to take part, you (or he/she) will be asked to give samples for testing of sexually transmitted diseases. Refusal to join will not be a penalty or loss of benefits. Free treatment is given for: gonorrhoea, syphilis, urethritis, granuloma inguinale, chancroid, trichomoniasis, and vaginal canidiasis. HIV/AIDS tests and treatment are not offered. But I can give you a referral to nearby services.

Procedures: If you consent or your minor assents to be a participant, you (or he/she) will be interviewed in a private room and offered STD testing. Procedures could include a pelvic exam, blood draws and vaginal or penal swabs to detect any diseases transmitted sexually. The first results can be confirmed positive, confirmed negative or require additional testing. Confirmation of some results may require taking samples to a lab and returning in 8 or 15 days to give results to you. You will be given a random number to pick up your results. You will match your number with the results. Results and any treatment will be ready when the survey team returns and for 30 days after at the local health unit.

Confidentiality: Our discussion is private and can not be disclosed to anyone. Your answers and exam results will only be used for research. Names are not used. If you sign your mark for consent, the consent will be noted, but the marks will be removed from the form after the interview. Your only link with the results will be via a random number.

Your involvement is voluntary. You can leave the study, even after agreeing to join. You are free to refuse to answer any question that is asked. If you have any questions about this study or survey you may ask me or contact the Department of Community Health, MUST, PO Box 1410, Mbarara directly or through your District Director of Health Services. Or you could call +256-485-20332.

If you are hurt from being in this study, medical care and treatment will be available. The costs of this care may or may not be covered by the University of California, depending on a number of factors. If you have any questions regarding this assurance, you may consult or call the Committee for the Protection of Human Subjects, 101 Wheeler Hall, University of California, Berkeley, CA, USA 94720-1340, +1-510-642-7461, or email: subjects@berkeley.edu. (website: cphs.berkeley.edu)

Are you willing to participate?"

If the answer is yes then ask that they mark or sign on the line below. Proceed with interview (Saying "'yes' indicates you understand what will be expected of you and you are willing to begin the questionnaire").

CONSENT GIVEN BY: _____

WITNESS: _____

Female questionnaire

Respondent number

48

revised 17 June 2006

Informed assent form to be completed with a potential participant 15-17 years old along with the guardian consent form

Dear Participant,

"Hello. My name is ______. I am helping to evaluate health services in this area.

You have been randomly selected to be part of this survey. We would like to interview you about health issues. This survey is run by researchers from Mbarara University and the University of California at Berkeley. The data that you may give would be used to learn how people use clinics in Mbarara and Bushenyi. This information will help to improve health care delivery. If you participate, you will be kindly asked to answer the questions honestly.

The interview will take about 40-45 minutes. Questions will be about:

- □ Basic information about you, your family and community
- □ Any sexual diseases
- □ Health care staff, clinics and shops seen for sexual diseases

Risks and benefits: There may be emotional and physical unease if you take part. If information from this study is printed or talked about at meetings, your name and personal data will not be used. While there is a small chance that the collected data would be seen by others, we will take extreme care to avoid that. If we fail to protect the confidential data, you would be exposed to a loss of privacy. But we are taking measures to reduce that risk.

You may share any concerns you have with me, another member of the research team or the impartial witness. If you agree to take part, you will be asked to give samples for testing of sexually transmitted diseases. Refusal to join will not be a penalty or loss of benefits. Free treatment is given for: gonorrhoea, syphilis, urethritis, granuloma inguinale, chancroid, trichomoniasis, and vaginal canidiasis. HIV/AIDS tests and treatment are not offered. But I can give you a referral to nearby services.

Procedures: If you assent and a parent or guardian consents to you being a participant, you will be interviewed in a private room and offered STD testing. Procedures could include a pelvic exam, blood draws and vaginal or penal swabs to detect any diseases transmitted sexually. The first results can be confirmed positive, confirmed negative or require additional testing. Confirmation of some results may require taking samples to a lab and returning in 8 or 15 days to give results to you. You will be given a random number to pick up your results. You will match their number with the results. Results and any treatment will be ready when the survey team returns and for 30 days after at the local health unit.

Confidentiality: Our discussion is private and can not be disclosed to anyone. Your answers and exam results will only be used for research. Names are not used. If you sign your mark for consent, the consent will be noted, but the marks will be removed from the form after the interview. Your only link with the results will be via a random number.

Your involvement is voluntary. You can leave the study, even after agreeing to join. You are free to refuse to answer any question that is asked. If you have any questions about this study or survey you may ask me or contact the Department of Community Health, MUST, PO Box 1410, Mbarara directly or through your District Director of Health Services. Or you could call +256-485-20332.

If you are hurt from being in this study, medical care and treatment will be available. The costs of this care may or may not be covered by the University of California, depending on a number of factors. If you have any questions regarding this assurance, you may consult or call the Committee for the Protection of Human Subjects, 101 Wheeler Hall, University of California, Berkeley, CA, USA 94720-1340, +1-510-642-7461, or email: subjects@berkeley.edu. (website: cphs.berkeley.edu)

Are you willing to participate?"

If the answer is yes then ask that they mark or sign on the line below. Proceed with interview (Saying "'yes' indicates you understand what will be expected of you and you are willing to begin the questionnaire").

ASSENT GIVEN:

WITNESS: _

Female questionnaire

Respondent number ____

revised 17 June 2006

FEMALE TOPICS: GENERAL HEALTHCARE UTILIZATION, STD RISKS, STD KNOWLEDGE, STD TREATMENT SATISFACTION, CONTRACEPTION & PREGNANCY, TRUST

Mbarara	University	of Science	and Te	chnology
Minarara	University	of Berenee	anu ru	chilotogy

MONITORING AND EVALUATING HEALTH SERVICE UTILIZATION (June 2006)

FEMALE QUESTIONNAIRE

1.MBARARA1BUSHENYI2		2. Phone number at w	which respondent can be reached:
3. County:			
4. Subcounty/town:			
5. Parish name:			
6. LC1 /village name	::		
7. City/town=1 Trac	ling center =2 Rural =3		
8. Describe the appro- that an interviewer co place in a year's time For example: the main on Kampala Street a Simu4U stand. It's a hut with faded poster trading center's main	bach to the residence so bould locate the same e: <i>in building is at plot 24</i> <i>cross from the purple</i> <i>mud-walled circular</i> <i>rs outside 20 paces from</i> <i>n square</i>		
9 Time Started		Time Ended:	
(Example: write " $\overline{14}$	30" for 2:30pm)	Time Ended.	
10 .Final Result (<i>Circle one</i>)	1 Completed first visi 2 Partial 3 Refused	t 4 No one at h 5 Dwelling v 6 Other (Spe	iome acant ccify)
11. Interviewer Name	12. Supervisor Name	13. Data Entry Name	
Day Month	Day Month	Day Month	14. Respondent Unique ID Sticker
spondent become tire all 2. Somewhat ble do you think the i all 2. Somewhat	d or impatient during the sur tired/impatient 3. Ve nformation in this questionn reliable 3. Very reliabl	rvey? ry tired/impatient aire is? e	
DBSERVATIONS (D	escribe unusual household c	haracteristics; factors that n	hay have affected the quality of th

	HOUSEHOLD ROSTER First, I would like to ask you about all the people who live in this household (that is those who share living arrangements and eat meals together in this household). I would like to start with the head of the household. If there are more than 16 members, ask about the first 16 household members. <u>Circle the number corresponding to respondent.</u>															d like														
No.	Usual Residents	Relat Head Hous	ionshij of ehold	p to	Sex		Age		Marital status [What is [person's] religious affiliation?]	What is highest completed level of school [person] attended?		Le Re	ngth	of	Clin	ic Visits	F F	Recent Birth		Reco Illne	ent ess					
	Just first name (make clear that it will not be recorded in the dataset)	1= Ho head 2=Spo 3=Chi 4=Gra 5=Oth 6=Dor worke 7=Oth	usehold use ld ndchild er relativ nestic r er	ve	1= M a 2=Fen	l e nale	How of this per VERI - If les 1 year, 00. - If mo than 99 years, 99. PROB	ld is rson? FY: s than enter ore enter EE	1= Ne 2= ma 3= ma 4= Co marrie 5= Se marrie 6= Di 7= Wi	1= Never married 1 2= married monog 3 3= married polyg 3 4= Cohabiting, not 4 married 5 5= Separated, but 5 6= Divorced 7 7= Widowed 4		1= Protestant 2= Catholic 3= Muslim 4= Other 5= None VERIFY		nt	No school = NS Pre-school=PS P1 S1 P2 S2 P3 S3 P4 S4 P5 S5 P6 S6 P7 Tertiary = TT		Ho [pe in t con Ler resi yea	I tow long has [person] lived in this community? Length of residency in years		Which of following health providers has [person] visited most often in past 3 months? 1= Traditional healer 2= Chemical seller/ Drug shop 3= Private for-profit clinic 4= Private not-for-profit clinic 5= Government/public clinic 6= Mission hospital 7= Government/public hospital 8= Private hospital 9= Other (specify) 0= none		H § t 1 2 9 <i>n</i>	Has [woma given birth the past 36 months? 1= Yes 2= No 9= NA [For males]		Has [wom. given birth the past 36 months? 1= Yes 2= No 9= NA [Fc males]		Has [woman] given birth in the past 36 months? 1= Yes 2= No 9= NA [For males]		Has had a the p week 1= Ye 2= Ne	person] fever in ast two s? es 0
	H101	H	102		H103	;	H10	4	H	105		H1	06			H107	7	I	H108	;		H109		H110	1	H1	11			
1.																														
2.																														
3.																														
4.																														
5.																														
6.																														
7.																														
8.																														
	Female questionnaire Respondent number 51 Female questionnaire																													

								1		1	
No.	Usual Residents	Relationship to Head Household	Sex	Age	Marital status	Religious affiliation	What is highest completed level of school [person] attended?	Length of Residency	Clinic Visits	Recent Birth	Recent Illness
	Just first name (make clear that it will not be recorded in the data)	1= Household head 2=Spouse 3=Child 4=Grandchild 5=Other relative 6=Domestic worker 7=Other	1= Male 2=Female	How old is this person? - If less than 1 year, enter 00. - If more than 99 years, enter 99. PROBE	1= Never married 2= married monog 3= married polyg 4= Cohabiting, not married 5= Separated, but married 6= Divorced 7= Widowed	1= Protestant 2= Catholic 3= Muslim 4= Other 5= None VERIFY	No school = NS Pre-school=PS P1 S1 P2 S2 P3 S3 P4 S4 P5 S5 P6 S6 P7 Tertiary = TT	How long has [person] lived in this community? Length of residency in years	Which of following health providers has [person] visited most often in past 3 months? 1= Traditional healer 2= Chemical seller/ Drug shop 3= Private for-profit clinic 4= Private not-for-profit clinic 5= Government/public clinic 6= Mission hospital 7= Government/public hospital 8= Private hospital 9= Other (specify) 0= none	Has [woman] given birth in the past 36 months? 1= Yes 2= No 9= NA [For males]	Has [person] had a fever in the past two weeks? 1= Yes 2= No
	H101	H102	H103	H104	H105	H106	H107	H108	H109	H110	H111
9.											
10.											
11.											
12.											
13.											
14.											
15.											
16.											
		Fema	le question	naire	Respond	dent number 52	·	revised	17 June 2006		

		ASSET MODULE		
		Household Characteristics		
		Interview the head of household		
A100	What is the MAIN	PIPED WATER		
	source of drinking	PIPED INTO DWELLING	11	
	water for members of	PIPED INTO YARD/PLOT	12	
	your household?	PUBLIC TAP	13	
	5			
	CIRCLE ONLY	WATER FROM OPEN WELL / SPRING		
	ONE ANSWER	OPEN WELL IN YARD/PLOT	21	
		OPEN PUBLIC WELL	22	
		WATER FROM COVERED WELL		
		PROTECTED WELL IN YARD/PLOT	31	
		PROTECTED PUBLIC WELL	32	
			52	
		WATER FROM BOREHOLE		
		BOREHOLE IN YARD/PLOT	33	
		BORFHOLF PUBLIC	34	
			51	
		SURFACE WATER		
		RIVER/STREAM	42	
		POND/I AKE	42	
		DAM	43	
			44 51	
			51	
			61	
		VENDOR	/1	
		OTHER (SPECIFY):	96	
A101	What is the MAIN	PIPED WATER		
	source of water used by your household for other purposes such as	PIPED INTO DWELLING	11	GOTO A10
		PIPED INTO YARD/PLOT	12	GOTO A10
		PUBLIC TAP	13	
	cooking and			
	handwashing?	WATER FROM OPEN WELL / SPRING		
		OPEN WELL IN YARD/PLOT	21	GOTO A10
		OPEN PUBLIC WELL	22	
	CIRCLE ONLY			
	ONE ANSWER	WATER FROM COVERED WELL		
		PROTECTED WELL IN YARD/PLOT	31	GOTO A10
		PROTECTED PUBLIC WELL	32	
		WATER FROM BOREHOLE		
		BOREHOLE IN YARD/PLOT	33	GOTO A10
		BOREHOLE PUBLIC	34	
		SURFACE WATER		
		RIVER/STREAM	42	
		POND/LAKE	43	
		DAM	44	
		RAINWATER	51	GOTO A10
		TANKER TRUCK	61	
		VENDOR	71	
		OTHER (SPECIFY):	96	
A102	How long does it take		23	1
	you to go there get	ENTER THE NUMBER OF MINUTES		
	water and come back?	Water is on premises	96	
	water, and come back!	DNK	000	GOTO A10
A 102 A	How many maters is it		777	5510 A10
A104A	to the water source?	FNTER THE NUMBED OF METEDS		
	to the water source?	$1 \text{ mile} = \frac{8}{5} \text{ kilometres}$		
		DNK	000	
	1		777	L
		-	wind 17 I	una 2006

A103	Who usually goes to	LINE NUMBER FROM HH ROSTER		
	this source to fetch the	LINE NUMPER FROM HILDOFTER		
	household? (RECORD	LINE NUMBER FROM HH ROSTER		
	LINE NUMBER FROM HH ROSTER)	LINE NUMBER FROM HH ROSTER		
		Not a household member	95	
A104	Do you do anything to	YES	1	
	the water to make it safer to drink?	NO DNK	2 999	GOTO A10 GOTO A10
A105	What do you usually	BOIL	1	
	do to make the water	ADD BLEACH/CHLORINE/JIK	2	
	safer to drink?	STRAIN THROUGH A CLOTH	3	
	Anything else?	USE WATER FILTER (CERAMIC, SAND, OTHER)	4	
		SOLAR DISINFECTION	5	
	RECORD ALL	LET IT STAND AND SETTLE	6	
	MENTIONED	DIHER, SPECIFY: DNK	/ 999	
A106	What kind of toilet			
	facility does your	FLUSH TOILET	1	
	household have?	VIP LATRINE	2	
		COVERED PIT LATRINE NO SLAB	3	
	CIRCLE ONLY	COVERED PIT LATRINE WITH SLAB	4	
	ONE ANSWER	UNCOVERED PIT LATRINE NO SLAB	5	
		COMPOSITING TOILET	0 7	
		RUSH	8	GOTO A10
		OTHER	96	0010 A10
A107	Do you share this	YES=1	1	
	facility with other households?	NO=2	2	GOTO A10
A108	How many households use this toilet facility?	ENTER THE NUMBER OF HHs DNK	999	
A109	Does your household		Yes No	
	have:	A. ELECTRICITY	1 2	
		B. RADIO	1 2	
	CIRCLE 1 FOR	C. TELEVISION	1 2	
	"YES" OR 2 FOR	D. TELEPHONE	1 2	
	"NO" <u>FOR EACH</u>	E. REFRIGERATOR	1 2	
	L'ELENA	F. LANTERN	1 2	
		C CUDDO ADD	1 0	
		G. CUPBOARD	1 2	
A110	What type of fuel does	G. CUPBOARD	1 2	COTO 411
A110	What type of fuel does your household mainly use for	G. CUPBOARD	1 2 01 02	GOTO A11
A110	What type of fuel does your household mainly use for cooking?	G. CUPBOARD ELECTRICITY LPG/NATURAL GAS BIOGAS	1 2 01 02 03	GOTO A11 GOTO A11 GOTO A11
A110	What type of fuel does your household mainly use for cooking?	G. CUPBOARD ELECTRICITY LPG/NATURAL GAS BIOGAS KEROSENE	1 2 01 02 03 04	GOTO A11 GOTO A11 GOTO A11 GOTO A11
A110	What type of fuel does your household mainly use for cooking? CIRCLE ONLY	G. CUPBOARD ELECTRICITY LPG/NATURAL GAS BIOGAS KEROSENE CHARCOAL	1 2 01 02 03 04 05	GOTO A11 GOTO A11 GOTO A11 GOTO A11
A110	What type of fuel does your household mainly use for cooking? CIRCLE ONLY ONE ANSWER	G. CUPBOARD ELECTRICITY LPG/NATURAL GAS BIOGAS KEROSENE CHARCOAL FIREWOOD, STRAW	1 2 01 02 03 04 05 06	GOTO A11 GOTO A11 GOTO A11 GOTO A11
A110	What type of fuel does your household mainly use for cooking? CIRCLE ONLY ONE ANSWER	G. CUPBOARD ELECTRICITY LPG/NATURAL GAS BIOGAS KEROSENE CHARCOAL FIREWOOD, STRAW ANIMAL DUNG	1 2 01 02 03 04 05 06 07	GOTO A11 GOTO A11 GOTO A11 GOTO A11
A110	What type of fuel does your household mainly use for cooking? CIRCLE ONLY ONE ANSWER	G. CUPBOARD ELECTRICITY LPG/NATURAL GAS BIOGAS KEROSENE CHARCOAL FIREWOOD, STRAW ANIMAL DUNG NO COOKING IN HOUSEHOLD OTHER	1 2 01 02 03 04 05 06 07 95 96	GOTO A11 GOTO A11 GOTO A11 GOTO A11 GOTO A11
A110	ITEM What type of fuel does your household mainly use for cooking? CIRCLE ONLY ONE ANSWER	G. CUPBOARD ELECTRICITY LPG/NATURAL GAS BIOGAS KEROSENE CHARCOAL FIREWOOD, STRAW ANIMAL DUNG NO COOKING IN HOUSEHOLD OTHER	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	GOTO A11 GOTO A11 GOTO A11 GOTO A11
A110 A111	ITEM What type of fuel does your household mainly use for cooking? CIRCLE ONLY ONE ANSWER In this household, is food cooked on an	G. CUPBOARD ELECTRICITY LPG/NATURAL GAS BIOGAS KEROSENE CHARCOAL FIREWOOD, STRAW ANIMAL DUNG NO COOKING IN HOUSEHOLD OTHER OPEN FIRE STOVE	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	GOTO A11 GOTO A11 GOTO A11 GOTO A11
A110 A111	ITEM What type of fuel does your household mainly use for cooking? CIRCLE ONLY ONE ANSWER In this household, is food cooked on an open fire or a stove?	G. CUPBOARD	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	GOTO A11 GOTO A11 GOTO A11 GOTO A11
A110 A111 A111	ITEM What type of fuel does your household mainly use for cooking? CIRCLE ONLY ONE ANSWER In this household, is food cooked on an open fire or a stove? Is the cooking done	G. CUPBOARD	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	GOTO A11 GOTO A11 GOTO A11 GOTO A11

A113	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE IN A SEPARATE BUILDING OUTDOORS OTHER, SPECIFY:	1 2 3 4	GOTO A115 GOTO A115 GOTO A115
A114	Do you have a separate room which is used as a kitchen?	YES=1 NO=2	1 2	
A115	MAIN MATERIAL OF THE FLOOR. [RECORD OBSERVATION]	NATURAL FLOOR EARTH/ SAND DUNG	11 12	
		PARQUET & POLISHED WOOD VINYL OR ASPHALT STRIPS CERAMIC TILES CEMENT OTHER (SPECIFY)	31 32 33 34 96	
A116	MAIN MATERIAL OF THE ROOF. [RECORD OBSERVATION]	THATCHED IRON SHEETS ASBESTOS TILES CERAMIC TILES TIN CEMENT OTHER (SPECIFY)	01 02 03 04 05 06 96	
A117	MAIN MATERIAL OF THE EXTERIOR WALLS. [RECORD OBSERVATION]	THATCHED MUD AND POLE UNBURNT BRICKS (w/ or w/o MUD or CEMENT) BURNT BRICKS WITH MUD BURNT BRICKS WITH CEMENT TIMBER CEMENT BLOCKS STONE OTHER	01 02 03 04 05 06 07 08 96	
A118	How many rooms in this household are used for sleeping?	Write the number of rooms		
A119	Does any member of your household own: CIRCLE YES OR NO FOR EACH ITEM	 A. bicycle? B. motorcycle, motor scooter, or boda-boda? C. animal drawn cart? D. car or truck? E. boat with a motor? F. boat without a motor? G. human drawn cart 	Yes No 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	
A120	Does any member of your household own agricultural land?	YES=1 NO=2	1 2	GOTO A122
A121	How many acres of agricultural land do members of this household own in total?	ENTER NUMBER OF ACRES DNK	999	

Female questionnaire

revised 17 June 2006

Respondent number

VERIFY A131 and A132 CHECK FOR CONSISTENCY. IF HEALTH SPENDING IS GREATER THAN ALL EX PROBE: "You told me all your monthly household expenses are but you tell me monthly healthcare expenses are Have I misunderstood you?			EXPENSES, e that	
A132	32"In an average month, how much does your household spend for ONLY medical and health goods and services?"ENTER AVERAGE HOUSEHOLD SPENDING ON ONLY HEALTHCARE EXPENDITURES IN UGANDA SHILLINGS. Assure respondent that his or her answers are confidential. Probe for an average amount. Ask respondent to think about drugs, services, and all other household expenses on health and medical care in an average month.		UGS	
A131	A131 "In an average month, how much does your household spend for <u>ALL</u> goods and services?" ENTER AVERAGE HOUSEHOLD SPENDING ON EXPENDITURES IN UGANDA SHILLINGS. Assure respondent that his or her answers are confidential. Probe an average amount. Ask respondent to think about fuel, fo care for livestock, medicine, healthcare, clothing, rent, mot phone, and all other household expenses in an average mor		N rre Probe for fuel, food, nt, mobile oge month.	UGS
A130	How many children have shoes in this household?	ENTER NUMBER OF CHILDREN WHO HAVE SHOES		
	of the children under age 5 who slept in the household last night sleep under a mosquito net?	ALL CHILDREN	1 2 3 98	
A128 A129	Did anyone sleep under a mosquito net last night? Did all, some or none	YES=1 NO=2 Circle only one response	1 2	
A127	How many mosquito nets does your household have?	ENTER NUMBER OF NETS		
A126	Does your household have any mosquito nets that can be used while sleeping?	YES=1 NO=2	1 2	GOTO A130
A125	How many months ago was the house sprayed?	ENTER NUMBER OF MONTHS IF LESS THAN A MONTH ENTER 00		
A124	At any one time in the last 12 months, has anyone sprayed the interior walls of your dwelling with insecticide?	YES=1 NO=2 DNK =999	1 2 999	GOTO A126
A123	Were there any cases of measles in this HH in the last 3 months?	YES=1 NO=2	1 2	
	For each animal type, enter number. - If None, enter 00 - If more than 95, enter 95 - If DNK enter DK	E. Sheep F. Pigs G. Chickens H. Other (i.e. rabbits, ducks or turkeys)		
A122	following animals/birds does this household own?	A. Local cattle B. Exotic/cross cattle C. Horses, donkeys, or mules D. Goats		

Female questionnaire

revised 17 June 2006

FOOD SECURITY

	For each of the following questions, consider what ha whether this happened never, rarely (once or twice), s	s happene ometimes	d in the past (3-10 times),	30 days. Pleas or often (more	se answer e than 10
	times) in the past 50 days.	NEVER	RARELY	SOMETIMES	OFTEN
FS150	Did you worry that your household would not have enough food?				-
FS151	Were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?				
FS152	Did you or any household member eat just a few kinds of food day after day due to a lack of resources?				
FS153	Did you or any household member eat food that you did not want to eat because a lack of resources to obtain other types of food?				
FS154	Did you or any household member eat a smaller meal than you felt you needed because there was not enough food?				
FS155	Did you or any other household member eat fewer meals in a day because there was not enough food?				
FS156	Was there ever no food at all in your household because there were no resources to get more?				
FS157	Did you or any household member go to sleep at night hungry because there was not enough food?				
FS158	Did you or any household member go a whole day without eating anything because there was not enough food?				

Respondent number ____

HC200	Since the year began, have you been ill or had health complaints?	YESNO	1 → GOTO HC201 2 → PROBE. IF TRUE, GOTO NEXT SECTION
HC201	Since this year began, how many		
	times have you visited each type of	A. Traditional healers	
	provider for any illness, ailment or	B. Chemical sellers	
	health complaint?	C. Drug shops	
	L.	D. Private for-profit clinics	
	INTERVIEWER: ENTER THE	E. Private not-for- profit clinics (NGOs)	
	NUMBER OF VISITS TO EACH	F. Private hospitals	
	TYPE OF PROVIDER. ENTER "0"	G. Government clinics	
	FOR NO VISIT CONFIRM THE	H Government hospitals	
	MOST FREQUENTLY VISITED	I Mission hospitals	
	"Vou tell me that you visited this type	I Other (specify clinic name and type of	
	of provider number of times. Is	J . Other (specify chine hame and type of provider):	
	that compare 22	provider).	
			1
1020IA	Since the year began think of any time	Lack of money	
	that you had a serious ailment or health	Lack of time	2
	complaint but did not seek treatment. If	Lack of trust in provider	3
	you can think of such a time, what was	Not a serious condition	4
	the primary reason you did not seek	Distance	5
	treatment?	Other, specify:	6
		"Not ill" or "ill and always sought	
	CIRCLE ONLY ONE	treatment" since year began	7
HC202	Of the MOST frequently visited type of	Antenatal care family planning	1
	provider what was the primary health	Genital sores/discharge	2
	complaint you had when you visited	Severe cough	3
	this provider?	Fevers	
	this provider :	Diamhaa	
	ISINCLE DESDONSE CIDCLE	Upolth information/advice	5
	[SINGLE RESPONSE, CIRCLE		0
	UNLI UNE		/
		Cyle a secolo for a secolo int	8
110202			9
HC203	How far in kilometres is this provider	[fill in distance in kilometres]	
	from where you live?	convert miles (miles $x 8/5$) = kilometres	kilometres
			999
		DNK	
HC204	What was your primary mode of travel	Private car	1
	to visit the provider?	Special hire	2
	[SINGLE RESPONSE, CIRCLE	Motorcycle or <i>boda-boda</i>	3
	ONLY ONE]	Bus or matatu – taxi	4
		Bicycle	5
		On foot	6
		Other, specify:	7
HC205	How much time did you spend going to		
	the clinic, receiving treatment, and	ENTER TIME IN HOURS	(hours)
	returning?		(1100110)
HC206	What is the clinic name and village		1
110400	name of this service provider?		
HC207	Did you need to leave income-earning	YES	1 →GOTO HC208
	activities to seek STI treatment?	NO	2 →GOTO HC209

OBA Uganda evaluation: Baseline survey report (Dec 2006)

HC208	How much income did you <u>NOT</u> earn	PROBE FOR AN AMOUNT IN		
	because you sought STI treatment?	UGANDA SHILLINGS		UGS
HC209	Many different factors can prevent		Problem	No Problem
	women from getting medical advice or	A. Getting permission to go?	1	2
	treatment for themselves. When you	B. Getting money needed for treatment?	1	2
	are sick and want to get medical advice	C. The distance to the health clinic?	1	2
	is each of the following a big problem	D. Having to take transport?	1	2
	or not a big problem?	E. Not wanting to go alone?	1	2
		F. Concern that there may not be a		
	INTERVIEWER: Please ask each	female health provider?	1	2
	question and circle for each question	G. Concern that there may not be any		
	either "1" for "problem" or "2" for	health provider?	1	2
	"no problem".	H. Concern that there may be no drugs		
	-	available?	1	2

KNOWLEDGE OF STD RISKS

	EWED ENSLIDE THE DADTICIDANT I	AS COMPLETE DRIVACY TO ANSWER	ΡΕΛΟΤΟ ΡΑΡΤΙΟΙΡΑΝΤΟ				
<u>INTERVIEWER, ENSURE THE PARTICIPANT HAS COMPLETE PRIVACY TO ANSWER. READ TO PARTICIPANT:</u> "Now I would like to ask about your health and any sex-related illnesses you may have had. These topics are sensitive and you are							
free to ski	n any question that makes you uncomforta	ble. Your answers will help the government	to improve health services for				
free to skip	o any question inai makes you uncomjoria	ble. Tour answers will help the government	to improve nearin services for				
ST200		E	1				
\$1300	In general, would you say your health	Excellent.	1				
	is: excellent, very good, good, fair or	Very good	2				
	poor?	Good	3				
	[SINGLE RESPONSE, CIRCLE	Fair	4				
	ONLY ONE]	Poor	5				
		Declined to answer	6				
ST301	Since this year began, with how many						
	different men have you had sex? By	Please fill in number of sex partners	(sex partners)				
	sex, I mean when the man put his penis		_				
	in your vagina.	IF RESPONDENT IS NOT	IF RESPONDENT IS NOT				
		MARRIED, SKIP TO ST302A	MARRIED, SKIP TO ST303A				
ST302A	ASK ONLY IF MARRIED: Does	YES	1				
~	this include your legal spouse?	NO	2				
			_				
ST302B	ASK ONLY IF MARRIED	YES	1				
013020	Regarding sex with your legal spouse	NO	2				
	have you had unprotected sev at least		2				
	and since the year began? By						
	unprotected cay I mean that he put his						
	unprotected sex I mean that he put his						
	penis in your vagina without using a						
G774044	condom.						
ST303A	Thinking about all the men that you						
	have had sex with since the year	Please fill in number of regular or	(sex partners)				
	began , and you said there were	ongoing sex partners, NOT including					
	(from ST301), with how many of these	legal spouse if married.					
	men do you have sex on a <u>regular or</u>						
	ongoing basis? IF MARRIED, do						
	NOT include legal spouse.						
ST303B	Since the year began with how many						
	of the regular or ongoing partners have	Please fill in number of regular or	(sex partners)				
	you had unprotected sex, that is sex	ongoing sex partners with whom	_				
	without a condom, at least once? IF	respondent did not use a condom, NOT	IF ANSWER IN ST301 AND				
	MARRIED, do NOT include legal	including legal spouse if married.	ST302B ARE BOTH 1, SKIP TO				
	spouse.		ST305				
ST304A	Not including your regular or ongoing						
~	partners, with how many irregular or	Please fill in number of irregular or	(sex partners)				
	random partners have you had sex	random sex partners. NOT including	(F)				
	since the year began? IF MARRIED	legal spouse if married.					
	do NOT include legal spouse	regui spouse il mutticui					
ST304B	Since the year began with how many						
010040	of these random or irregular partners	Please fill in number of irregular or	(sex partners)				
	have you had upprotected sex that is	random say partners with whom					
	say without a condom at least once?	respondent did net use a condem					
ST205	Is /Are all of your partner(s)	VES	1				
51505	sireumaized? THIS CAN BE	NO	1				
	LINCOMEODTA DI E DUT DOODE	NO	2				
	UNCOMIFURIABLE BUI PROBE						
CT 204	FUK A KESPUNSE	VEC	1				
51306A	Since this year began, have you	1ES					
	received money, gifts or favours in	NO	2				
	exchange for sex?						
ST306B	Since this year began, have you given	YES	1				
	money, gifts or favours in exchange for	NO	2				
	sex?						

ST307	If a woman has a sexually transmitted		Mentioned	Not mentioned
	disease, what symptoms might she	A. Abdominal pain (not pregnancy)	1	2
	have?	B. Abnormal discharge from vagina	1	2
		C. Foul smelling discharge	1	2
	CIRCLE "1" IF RESPONDENT	D. Burning pain on urination	1	2
	MENTIONS THE SYMPTOM.	E. Redness/inflammation in genital area	1	2
	CIRCLE "2" IF THE	F. Swelling in genital area	1	2
	RESPONDENT DOES NOT	G. Genital sores/ ulcers or warts	1	2
	MENTION THE SYMPTOM. DO	H. Genital itching	1	2
	NOT READ LIST.	I. Weight loss	1	2
		J. Hard to get pregnant /have a child	1	2
ST308	How much of a risk do you think you	Great risk		1
	personally have of getting an STD?	Moderate risk		2
	Would you say that you are at:	Little risk		3
		No risk at all		4
		DNK		999
ST309	Why do you think you are at risk?			
	EXPLAIN RESPONSE IN ST308			
ST310	In the past 6 months, have you had any	YES		1
	pain or burning around your vagina	NO		2
	when you urinate?	DNK		999
ST311	In the past 6 months, have you had any	YES		1
	non-traumatic sores or boils around	NO		2
	your vagina?	DNK		999
ST312	In the past 6 months, have you had any	YES		1
	itching around your vagina?	NO		2
		DNK		999
ST313	In the past 6 months, have you had any	YES		1
	unusual vaginal discharge (not related	NO		2
	to your menstrual period, using an IUD	DNK		999
	or pregnancy)?			
ST314	In the past 6 months, have you had any	YES		1
	pain in the bottom of your stomach	NO		2
	(not related to your menstrual period.	DNK		999
	using an IUD or pregnancy)?			

ST315. In general, where or from whom have you learned the most about STDs? CIRCLE THE MOST APPROPRIATE RESPONSE.

1	Mother	8	Private for profit health staff	15	Newspapers
2	Father	9	Government health staff	16	Radio
3	Other relative	10	Mission hospital staff	17	TV
4	Spouse, partner	11	Pharmacist	18	Billboards
5	Somebody who had STD	12	Religious leaders	19	Other (specify):
6	Friends and peers	13	Political leaders		
7	Teacher	14	Traditional leaders		

INTERVIEWER: ASK ABOUT FACH LINE OF STISLISTED A.F.

II TI									
	Condition	ST316	ST317	ST318	ST319	ST320	ST321		
		Have you	Have you	Have you ever	Did you take	Did you tell	Who treated you for		
		heard of it?	ever been	been told you	any treatment	your partner	(INSERT CODES		
			tested for	have	for	about	FROM BELOW)		
Α	Syphilis	1 Yes	1 Yes	1 Yes	1 Yes	1 Yes			
		2 No	2 No	2 No	2 No	2 No			
			999 DNK	999 DNK	999 DNK	999 DNK	999 DNK		
В	Genital	1 Yes	1 Yes	1 Yes	1 Yes	1 Yes			
	sores/growths	2 No	2 No	2 No	2 No	2 No			
	_		999 DNK	999 DNK	999 DNK	999 DNK	999 DNK		
С	Gonorrhea	1 Yes	1 Yes	1 Yes	1 Yes	1 Yes			
		2 No	2 No	2 No	2 No	2 No			
			999 DNK	999 DNK	999 DNK	999 DNK	999 DNK		
D	Abnormal	1 Yes	1 Yes	1 Yes	1 Yes	1 Yes			
	whitish	2 No	2 No	2 No	2 No	2 No			
	discharge		999 DNK	999 DNK	999 DNK	999 DNK	999 DNK		
Е	HIV/AIDS	1 Yes	1 Yes						
		2 No	2 No						
			999 DNK						

CODES FOR WHO TREATED THE RESPONDENT FOR EACH STI LISTED A-E ABOVE ...

1= Traditional healer

- 2= Chemical seller/ Drug shop (the seller diagnosed and
- 8= Private hospital 9= Partner
- sold treatment to respondent) 10= Friend, relative 11= Self-treatment (respondent sought and administered treatment
- 3= Private for-profit clinic
- 4= Private not-for-profit clinic
- 5= Public clinic
- 6= Mission hospital
- 7= Public hospital

- without advice from others) 20= Other, specify: _
- 999= DNK
- ST322 Have you heard about a voucher YES 1 for STD treatment in Mbarara 2 NO \rightarrow IF "NO" GOTO district? NEXT SECTION Have you seen the voucher? ST323 YES 1 NO 2 \rightarrow IF "NO" GOTO **NEXT SECTION** ST324 ENTER VALUE How much does the voucher UGS cost? ST325 Have you used the voucher? YES 1 2 NO

PATIENT SATISFACTION WITH STI TREATMENT

These qu	uestions are about most recent ST	I treatment experience. Be sure the re	spondent is in a private						
space to	answer questions. Probe for STD	symptoms.							
CONFI	CONFIRM WHEN ANY SYMPTOMS MENTIONED ON OUESTIONS ST316 to ST321								
OCCUR	PFD that is "Vou told me that vo	u tested for synhilis previously. Was t	hat since this year						
becon 22	(KED, mat is 1 ou tolu me mat ye	ou testeu for syphilis previously. Was t	that since this year						
Degan ?"									
PS400	Since this year began, how many times	ENTER NUMBER OF TIMES							
	nave you had symptoms that you or your	KESPUNDENT HAS HAD SIT/SID SYMPTOMS SINCE THE NEW YEAD							
	strop	SIMPIONS SINCE THE NEW YEAR	IF ZERO (0), CONFIRM,						
	S1D?		AND GOTO NEAT						
DS/01	Since this year began how many times	ΙΕ SOUCHT ΤΟΕΛΤΜΕΝΤ ΑΤ Ι ΕΛΟΤ	SECTION						
1 5401	did you seek treatment of STI/STD	ONCE COTO PS402A	number of						
	symptoms?		STD treatments sought						
	symptoms.	- IF NO TREATMENT WAS SOUGHT	51D treatments sought						
	ENTER NUMBER OF TIMES	ENTER "00" and GOTO PS402B							
	TREATMENT WAS SOUGHT.								
	THAT IS, THE NUMBER OF FIRST								
	VISITS TO PROVIDERS FOR								
	TREATMENT OF NEW								
	INFECTION								
PS402A	You said you have had symptoms	YES	1 \rightarrow IF number of times						
	number of times. You also said that you		respondent had						
	sought treatment number of times.		symptoms is same as the						
	Is this correct?		number of times						
			respondent sought						
	FOLLOW-UP VISITS FOR THE		treatment, GOTO PS403						
	SAME INFECTION EPISODE ARE								
	COUNTED AS ONE (1)		OTHERWISE, GOTO						
	TREATMENT-SEEKING EVENT		PS402B						
	SEEKING TDEATMENT AT A	NO	$2 \rightarrow ASK PS401 and$						
	SECOND CLINIC RECAUSE THE	NO	PS402 ACAIN						
	FIRST WAS NOT EFFECTIVE IS		1 5402 /10/111						
	COUNTED AS TWO (2)								
	TREATMENT-SEEKING EVENTS								
PS402B	Since this year began, if you had	Lack of money	1						
	symptoms of an STI or STD but did not	Lack of time	2						
	seek treatment, what was the	Lack of trust in provider	3						
	PRIMARY reason you did not go?	Not a serious condition	4						
		Distance	5						
	IF <u>NO</u> TREATMENT WAS <u>EVER</u>	Treatment would not make a difference	6						
	SOUGHT, COMPLETE PS402B	Other, specify:	7						
	AND SKIP TO NEXT SECTION	DNK	999						
PS402C	Where did you go for your <u>MOST</u>	Self-medication	1						
	recent treatment of an STT?	I raditional healer	2						
	ICINCLE DESDONSE CIDCLE	Driveta for profit alinia	3						
	ISTAGLE RESPONSE, CIKULE	Private not for profit aligie	4 5						
		Government clinic	5						
		Mission hospital	7						
		Private hospital	×						
		Government hospital	9						
		Other, specify:	10						
		DNK	999						
PS402D	For your most recent STI symptom,	ENTER DATE AS DAY AND MONTH							
	what day did you seek treatment? If you								
	cannot recall an exact date, which week		/						
	and month did you seek treatment?								

PS403	How far in kilometres is this provider from where you live?	[fill in distance in kilometres]	
	nom where you nve.		
PS404	What was your PRIMARY mode of travel to visit the provider? [SINGLE RESPONSE, CIRCLE ONLY ONE]	DNK Private car Special hire Motorcycle or <i>boda-boda</i> Bus or <i>matatu – taxi</i> Bicycle On foot Other, specify:	9999 1 2 3 4 5 6 7
PS405	How much time did you spend going to the clinic, receiving treatment, and returning home?	ENTER TIME IN HOURS	(hours)
PS406	What is the clinic name and village name of this provider? INTERVIEWER: PLEASE GET SUFFICIENT DETAIL TO VISIT CLINIC		
PS407	Think about your last visit to the place where you sought treatment of STDs. How much did you pay for:	Service Transport Tests Medicine Other Total	Amount
PS408	Did you find these services affordable?	YES NO	1 2
PS409	During this visit, how long did you wait after arriving there to see the health service provider?	Ask for time in minutes DNK	(minutes) 999
PS410	During this visit, how clearly did the health provider explain things to you?	Excellent Good Fair Poor DNK	1 2 3 4 5
PS411	During this visit, was the treatment of you by the OTHER STAFF excellent, good, fair, or poor?	Excellent Good Fair Poor There was no other staff	1 2 3 4 5
PS412	During this visit, how do you rate your experience of the treatment (or therapy) that you received?	Excellent Good Fair Poor DNK	1 2 3 4 5
PS413	Did you receive for free any medicine that you needed?	YES NO	1 → GOTO PS415 2
PS414	If no, were you able to purchase the medicine?	YES NO	1 2
PS415	Did the symptoms disappear after treatment?	YES NO	1 2

PS416	Was the provider friendly?	YES NO	1 2
PS417	During this visit, did you feel comfortable to ask questions?	YESNO	1 2
PS418	Did you feel like there was sufficient privacy to be treated? (Probe: Was respondent seen by only the provider and staff in a private space.)	YESNO	1 2
PS419	Is this establishment easy to go to?	YES NO	1 2
PS420	Was the treatment site open when you first needed the services?	YES NO	1 2
PS421	What was the PRIMARY reason you selected the treatment site? [SINGLE RESPONSE, CIRCLE ONLY ONE]	Short distance to travel Word of mouth Saw a sign, promotional material Only facility available Services are free	1 2 3 4 5 98
PS422	How would you rank the skill of the provider from one to five, where five is the most skillful?	Please CIRCLE ONE NUMBER from 1 (low skill) to 5 (high skill)	1 2 3 4 5
PS423	Overall, how satisfied were you with the STI treatment service?	Satisfied Somewhat satisfied Dissatisfied DNK	1 2 3 999
PS424	Did you need to leave income-earning activities to seek STI treatment?	YESNO	1 →GOTO PS425 2 →GOTO NEXT SECTION
PS425	How much income did you <u>NOT</u> earn because you sought STI treatment?	PROBE FOR AN AMOUNT IN UGANDA SHILLINGS	UGS

CP500	Have you ever had any children?	Yes	1	
		No	2	→ GOTO
		DNK	999	CI 300
CP501	How many children have you had?	[Fill in number living]		
	5	[Fill in number dead]		
		[Ask for total]		
		DNK	999	
CP502	How old is your youngest	[fill in age in years.]		
	child?	DNK	999	
	7			
ELIVER	ſ			
P503	Where did you give birth	Home		
ALC:	to your last child?	TD A's home	1	
27 27		Other home	23	
21			5	
		Public Sector		
		Government hospital	4	
		Government health center	5	
		Other public specific	0	
		Other public, specify:	/	
		Private Sector		
		Private hospital	8	
		Private clinic	9	
		Mission hospital.	10	
		Other private medical, specify:	11	
		Other:	96	
°P504	Who assisted with the	(Specify) HEALTH PROFESSIONAL		
.1.504	delivery of your last	Doctor 1	1	→ сото
OHS	child?	Nurse/Midwife2	2	CP505
26		Medical assistant/clinical officer3	3	→ GOTO
		Nursing aide4	4	CP505
				→ GOTO
		OTHER PERSON		CP505
		Traditional birth attendant5	5	→ GOTO
		Relative/friend	6	CP505
		Other, specify	90	
		No one	8	→ GOTO
				CP506
				→ GOTO
				CP506
				CP506
				→ GOTO
				CP507

CP505	For women who received skilled assistance: When you received assistance with the delivery of your last child, how much did you pay for that assistance?	It was free Amount:ENTER UGS Don't remember/know	1 2 999	SKIP TO CP508 FROM HERE
	SKIP TO CP508 FROM HERE			
CP506	For women who did not receive skilled assistance: When you received assistance with the delivery of your last child, how much did you pay for that assistance?	It was free Amount:ENTER UGS Don't remember/know	1 2 999	
CP507	What was the main reason	Not necessary1	1	
DHS 615	you did not receive assistance from a health professional with the delivery of your last child?	Not customary	2 3 4 5 6 96	
PREGNA	NCY AND FERTILITY PRE	FERENCE		
CP508	Are you pregnant now?	Yes	1	→ GOTO
DHS 226		No	2	CI SII
CP509	Would you like to have	Have (a/another) child1	1	
DHS 602	(a/another) child, or would you prefer not to have any (more) children?	No more/none2 Says she can't get pregnant3 Undecided/Don't Know4	2 3 4	 → GOTO CP514 → next section
CP510	How long would you like	WRITE NUMBER OF months:1	1	→ GOTO
DHS 603	you get pregnant with a/another child?	WRITE NUMBER OF years:2 Soon/now	2 993 994 995 996 999	 → GOTO CP514 → next section → next section → GOTO CP514 → GOTO CP514 → GOTO

CP511	Where do you plan to give	Home		
	birth?	Your home1	1	
DHS		TBA's home2	2	
427		Other home	3	
		Public Sector		
		Govt. hospital	4	
		Govt. health center	5	
		Govt. health/aid post6	6	
		Other public:7	7	
		(Specify)		
		Drivete Sector		
		Private hospital	8	
		Private clinic	9	
		Mission hospital10	10	
		Other private medical:	-	
		11	11	
		(Specify)		
		Othern Of	06	
		(Specify)	90	
CP512	Who will assist you with	(Specify) HEALTH PROFESSIONAL		
CI 312	the delivery of the child	Doctor 1	1	→ next
DHS	you are expecting now?	Nurse/Midwife	2	section
426	you are expecting now .	Medical assistant/clinical officer	2	\rightarrow next
		Nursing aide4	3	section
			4	
		OTHER PERSON		\rightarrow next
		Traditional birth attendant5		section
		Relative/friend6	5	→ next
		Other:96	6	section
		(Specify)	96	
		No one 8		
		NO OIIE	8	
			0	
CP513	What is the main reason	Not necessary1	1	SKIP TO
	you will not receive	Not customary2	2	CP519 FROM
	assistance from a health	Too costly3	3	HERE
	professional with the	Too far/no transport4	4	
	delivery of the child you	Poor service5	5	
	are expecting now?	Lack of knowledge6	6	
	SIZID TO CD510 FDOM	Other, specify:96	96	
	SKIP IO CP519 FROM HERE			
	IIERE			<u> </u>
FAMILY PI	LANNING			
CP514	Are you currently doing	Vec 1	1	
01314	something or using any	No 2	2	→ сото
DHS	method to delay or avoid	110	2	CP518
310	getting pregnant?			
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CP515	Which method are you	Female sterilization1	1	
	(OR YOUR PARTNER)	Male sterilization2	2	
DHS	using?	Pill3	3	
311		IUD/Coil4	4	
	SINGLE RESPONSE: If	Injections5	5	
	respondent mentions	Implants6	6	
	more than one method,	Condom7	7	
	circle only the method			
	that is listed first.	Lactational Amenorrhea Method11	11	
		Periodic abstinence12	12	
		Withdrawal13	13	
		Other, specify:	96	
CP516	Where did you obtain	PUBLIC SECTOR		
	(current method) the last	Govt. hospital11	11	
DHS 320	time?	Govt. health center12	12	
		Family planning clinic13	13	
	SINGLE RESPONSE	Govt. community based distributor14	14	
		Other public, specify15	15	
		PRIVATE MEDICAL SECTOR		
		Private hospital/clinic21	21	
		Pharmacy/drug shop22	22	
		Private doctor23	23	
		Private nurse/midwife24	24	
		NGO community based distributor25	25	
		Other private Medical, specify:26	26	
		Other Source		
		Religious Institution31	31	
		Friend/relative32	32	
		Other, specify:	33	
CP517	How much did you pay	It was free1	1	\rightarrow next
	for (current method) the	Amount:2	2	section
	last time you obtained it?	Don't remember/know	999	\rightarrow next
				section
				\rightarrow next
				section

CP518	Check Questions CP509	FERTILITY RELATED REASONS		
DHS 607	& 510 Re: wanting	Wants children 1	1	
DID 007	another child	Not having sex 2	2	
		Infrequent sex 3	3	
		Menonausal/hysterectomy 4	4	
	If does not want more	Subfecund/infecund 5	5	
	children:	Postpartum amenorrheic 6	6	
	You have said that you	Breastfeeding 7	7	
	do not wort ony (more)	Fatalistic 8	8	
	do not want any (more)	Currently pregnant 9	9	
	children, but you are	Currently prognant	,	
	not using any method to	OPPOSITION TO USE		
	avoid pregnancy.	Respondent opposed	10	
	Can you tell me why?	Husband/narther opposed	10	
		Others opposed	11	
	If wants to have	Deligious prohibition	12	
	a/another child but not	Religious promotion	15	
	soon/ now:			
	You have said that you do	LACK OF KNOWLEDGE	14	
	not want to get pregnant	Knows no method	14	
	soon, but you are not	Knows no source	15	
	using any method to avoid			
	pregnancy.	METHOD-RELATED REASONS		
	Can you tell me why?	Health concerns	16	
		Side effects	17	
	Any other reason?	Lack of access/too far	18	
	They other reason.	Cost too much	19	
	RECORD ALL	Inconvenient to use	20	
	MENTIONED	Interferes with body's normal processes	21	
	MENTIONED			
		Other, specify:96	96	
		Don't know999	999	
CP519	Do you think you will do	Yes1	1	
	anything or use a method	No2	2	\rightarrow next
DHS	to delay or avoid	Don't know	999	section
610	pregnancy at any time in			
	the future?			
CP520	Which method would you	Female sterilization	1	
01020	prefer to use in the future?	Male sterilization 2	2	
DHS	prefer to use in the rutare.	Pill 3	3	
611		IIID/Coil 4	4	
011		Injections 5	5	
		Implants 6	6	
		Condom 7	0	
			/	
		Lact Amen Method 11	11	
		Dariodic abstinance 12	12	
		Withdrawal 12	12	
		w muaawai15	15	
		Other specify 06	96	
		Outer, specify90	20	
		Don't know999	999	
				•

CP521	Where would you obtain	PUBLIC SECTOR		
	this method from?	Govt. hospital11	11	
DHS		Govt. health center12	12	
320		Family planning clinic13	13	
		Outreach14	14	
		Govt. community based distributor15	15	
		Other public, specify16	16	
		PRIVATE MEDICAL SECTOR		
		Private hospital/clinic21	21	
		Pharmacy/drug shop22	22	
		Private doctor23	23	
		Private nurse/midwife24	24	
		Outreach25	25	
		NGO community based distributor26	26	
		Other private Medical, Specify	27	
		Other Source		
		Religious Institution31	31	
		Friend/relative32	32	
		Other96	96	
		Don't know999	999	

TRUST AND SOCIAL COHESION

Trust module				
Now I want to ask you how much you trust different groups of people. These questions are only to learn more about				
the commu	nity, not individuals' opinions or gossip. Questions are about	t trust and we are interested to know how you		
see trust in the community. On a scale from 1 to 5, where 1 means 'to a very small extent' and 5 means 'to a very				
large extent	', how much do you feel you can trust the people in each of t	he following groups? Show the respondent		
the drawing	of glasses of water to communicate the idea of a scale from	1 to 5, where a glass is drawn with no water,		
a little wate	r, half full of water, mostly full, and completely full of water			
SC600	People in your tribe?	1. To a very small extent or not at all		
	* *	2. To a small extent		
		3. Neither small nor great extent		
		4 To a great extent		
		5 To a very great extent		
		5. To a very great extent		
GG(04		0. DNK		
SC601	People of your religion?			
		1. To a very small extent or not at all		
		2. To a small extent		
		3. Neither small nor great extent		
		4. To a great extent		
		5. To a very great extent		
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
		6. DNK		
SC602	People in other tribes?	1 To a very small extent or not at all		
50002	reopie in other tribes.	2. To a small extent		
		2. Noith on small non-small system		
		5. Neither small nor great extent		
		4. To a great extent		
		5. To a very great extent		
		6. DNK		
SC603	People of other religions?			
		1. To a very small extent or not at all		
		2. To a small extent		
		3. Neither small nor great extent		
		4 To a great extent		
		5 To a very great extent		
		5. To a very great extent		
		6 DNK		
50604	Deeple in your villege/LC 1/cell?	0. DINK		
50004	reopie in your vinage/LC 1/cen?	1 To a community and and a most of all		
		1. To a very small extent of not at all		
		2. To a small extent		
		3. Neither small nor great extent		
		4. To a great extent		
		5. To a very great extent		
		6. DNK		
SC605	The business owners and traders you buy things from or			
	do business with?	1. To a very small extent or not at all		
		2. To a small extent		
		3 Neither small nor great extent		
		A To a great extent		
		5 To a very great extent		
		5. To a very great extent		
		6 DNW		
SCOOL	Deeple in your extended family?	U. DINK		
5000	reopie in your extended family?			
		1. 10 a very small extent or not at all		
		2. To a small extent		
		3. Neither small nor great extent		
		4. To a great extent		
		5. To a very great extent		
		6. DNK		

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SC607	Local/municipal government?	 To a very small extent or not at all To a small extent Neither small nor great extent To a great extent To a very great extent DNK
SC608	Judges/courts/police?	 To a very small extent or not at all To a small extent Neither small nor great extent To a great extent To a very great extent DNK
SC609	Providers at for-profit private healthcare facilities?	 To a very small extent or not at all To a small extent Neither small nor great extent To a great extent To a very great extent DNK
SC610	Providers at not-for-profit or NGO healthcare facilities?	 To a very small extent or not at all To a small extent Neither small nor great extent To a great extent To a very great extent DNK
SC611	Providers at mission hospitals?	 To a very small extent or not at all To a small extent Neither small nor great extent To a great extent To a very great extent DNK
SC612	Sellers at drug shops and chemists?	 To a very small extent or not at all To a small extent Neither small nor great extent To a great extent To a very great extent DNK
SC613	Providers at government/public healthcare facilities?	 To a very small extent or not at all To a small extent Neither small nor great extent To a great extent To a very great extent DNK

Generalized Norms – respondents are asked to rank order the norms of their community in each of the following questions. Ask them to think of a scale from 1 to 5. Show the respondent the drawing of glasses of water again to communicate the idea of a scale from 1 to 5, where a glass is drawn with no water, a little water, half full of water, mostly full, and completely full of water.			
SC614	Think of a scale from 1 to 5. At number 1 you feel that people in the village can not be trusted. At the number 5 you feel people in the village can generally be trusted. On that scale from 1 to 5, where would you rank the trustworthiness of people in the village?	 You should be very careful Most people can be trusted 	
8C615	Would you say that most of the time people in the village are just looking out for themselves, or they are trying to be helpful?	 Are just looking out for themselves 3. 4. 5. Trying to be helpful 	
SC616	Do you think that most people in the village would try to take advantage of you if they got the chance, or would they try to be fair?	 Would take advantage of you Would try to be fair 	
SC617	On a scale from 1 to 5, where 1 is very unlikely and 5 is very likely, how likely is it that you would ask your neighbors to take care of your children for a few hours if you were sick?	 Very unlikely Unlikely Neither unlikely nor likely Likely Very likely 	
SC618	How likely is it that you would ask your neighbors for help if you were sick?	 Very unlikely Unlikely Neither unlikely nor likely Likely Very likely 	
SC618A	How many groups or organizations do you belong to? These could be religious groups, sports teams, clan groups, or just groups of people who get together regularly to do an activity or tasks.	PROBE FOR NUMBER OF GROUPS	
SC618B	On average, how much money, if any, do you contribute to the groups to which you belong in a month?	ENTER UGANDA SHILLINGS	
SC618C	On average, how many days do you participate in the activities of the groups to which you belong in a month?	ENTER NUMBER OF DAYS	

SC619 Do people in this community generally trust one another in matters of lending and borrowing?

- [] 1 Trust each other a great deal
- [] 2 Trust each other somewhat
- [] 3 Distrust each other somewhat
- [] 4 Distrust each other a great deal

SC 620 what do you mean by your response above? Can you give an example? INTERVIEWER: COMPARE SC614 and SC619. PROBE for any inconsistent answers.

SC621 In the last year, has the level of trust improved, worsened, or stayed the same?

- [] 1 Improved
- [] 2 Worsened
- [] 3 Remained the same

WHY? ____

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SC622 Compared with other villages in the district, how much do people in this community trust each other in matters of lending and borrowing?

- [] 1 More trust than in other communities
- [] 2 Same as in other communities
- [] 3 Less trust than in other communities
- [] 4 Don't know

SC 623 what do you mean by your response above? Can you give an example?