

UPHOLD LQAS Survey Report 2005: Results from 20 Districts of Uganda



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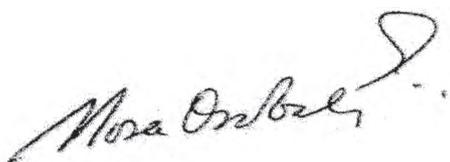
This LQAS Survey provides vital benchmark information for identifying priority areas and measuring progress in implementation of UPHOLD supported activities. UPHOLD once again wishes to acknowledge the contribution of the districts and UNICEF during the implementation of LQAS and data collection.

Special thanks go to communities in the 20 UPHOLD districts who freely gave their time to be interviewed, the District Officials and the District Leadership who conducted this Survey and provided logistical support.

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Last but not least, we wish to acknowledge the input of the various stakeholders within and outside UPHOLD.

Thank you all for your tremendous contribution.

A handwritten signature in black ink, appearing to read "Nosa Orobato". The signature is fluid and cursive, with a large, stylized initial 'N'.

Nosa Orobato
Chief of Party
UPHOLD

List of Abbreviations

ABC	Abstinence, Be Faithful, consistent and correct Condom Use
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
BCC	Behavior Change Communication
CCT	Center Coordinating Tutors
CDO	Community Development Officer
CSOs	Civil Society Organizations
CIE	Community Involvement in Education
DEO	District Education Officer
DHS	Demographic and Household Surveys
DPT	Diphtheria-Pertussis-Tetanus
EMIS	Education Management Information Systems
EMS	Education Management Systems
GOU	Government of Uganda
HBMF	Home Based Management of Fever
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IDP	Internally Displaced Persons
ITN	Insecticide Treated Nets
JSI	John Snow, Inc
LQAS	Lot Quality Assurance Sampling
LSS	Life Saving Skills
M&E	Monitoring and Evaluation
MOES	Ministry of Education and Sports
MOH	Ministry of Health
MOGLSD	Ministry of Gender, Labor and Social Development
PIASCY	Presidential Initiative on AIDS Strategy for Communicating to Youth
PLWHA	People Living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
PTA	Parent Teacher Association
SA	Supervision Area
SC	Sub Counties
SMC	School Management Committee
TE	Teacher Effectiveness
UNICEF	United Nations Children's Fund
UPHOLD	Uganda Program for Human and Holistic Development
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing

1.0 Introduction

The August 2005 Household Lot Quality Assurance survey (LQAS) is a follow up to the baseline household survey conducted in August 2004. The 2005 survey was implemented by the 20 district governments¹ with support from the Uganda Program for Human and Holistic Development (UPHOLD) and the United Nations Children's Fund (UNICEF). The household survey measured and collected quantitative data on: community involvement in education, HIV/AIDS, reproductive health, utilization of services and community social behaviors.

The 2004 LQAS household and facility survey results were used by the districts and sub-districts to identify under-performing areas in education, health and HIV/AIDS. The 2005 household survey has been designed to assess the current performance levels and inform districts, UPHOLD, UNICEF, and national partners the progress of program implementation and particularly identifying at district level, those areas that require more inputs. To recap here briefly, the quest for localized information at the district and sub-district levels led to the introduction of and the adoption of LQAS as the main means of monitoring program performance. The major goal was to enhance skills and competence at the district level in the use of evidence-based information for planning and decision making, and to sustain a low-cost and rapid method of collecting information for monitoring and evaluation. A detailed discussion on the rationale for adopting LQAS and its significance to the districts and other stakeholders is included in the report of the baseline survey².

1.1 Lot Quality Assurance Sampling (LQAS)

The LQAS method involves the division of a program area into smaller management units or 'supervision areas' and for each area assessing the level of performance compared to an established benchmark. Details of the history and statistics behind the method have been discussed elsewhere^{2,3}. In this survey, existing lower level administrative structures such as counties and sub-counties are used as supervision areas and a district as a program area or 'supervision unit'. A minimum of five supervision areas per unit is required to obtain an acceptable 95% confidence level in LQAS. Program area coverage is used as a benchmark or threshold against which supervision area coverage is performing either below or above the average. If the coverage of a supervision area is below the threshold, then it is considered a priority for a particular improved or enhanced intervention.

1.2 Methods

The survey methods and training used in this survey are entirely consistent with those applied in the 2004 baseline survey and are discussed in detail in the baseline survey report.

1.2.1 Questionnaire Preparation

Like the 2004 baseline survey, the questionnaires used in this round were based on the program indicators and intervention areas of interest for GOU/district governments, UPHOLD and UNICEF. Consideration was given to the district governments' reporting requirements, and indicators useful for comparison with routinely collected service statistics were favored. The questions were structured according to the standard questions used internationally to measure the chosen indicators. The majority of questions followed the UNICEF Multiple Indicators Cluster Survey (MICS) questionnaire format. The questionnaire was pre-tested and revised as accordingly.

The questionnaires were designed for mothers with children under two years, parents/caretakers with children 24 to 59 months, parents/caretakers with children 5 to 14 years (inclusive), women aged 15 to 49 years and men aged 15 to 54 years. To ensure comparability across groups, each questionnaire contained some common blocks of questions, such as the household listing and personal identification data. In addition, each questionnaire included some specific questions relevant to the target group. For instance, questions on birth preparedness and maternal and new born health were posed only to mothers with children under-two years.

1.2.2 Training

District officials that attended the initial eleven days LQAS training in 2004 and participated in the baseline survey were invited for an orientation on the methodology, and questionnaire training. The questionnaire was pre-tested by the survey team and modifications especially in the interview approach were made. For the 2005 exercise, there was a 97% retention rate among those who participated in the exercise in 2004, meaning that

¹ Previously, UPHOLD has been in partnership with 20 districts before redistricting to 33 districts.

² Joseph Mabinzi, Nosa Orobato, Patricia David, Xavier Nsabagasani. UPHOLD LQAS Survey Report 2004: Results from 20 Districts of Uganda. August 2004.

³ Lemeshow S, Taber S. Lot quality assurance sampling: single and double-sampling plans. World Health Statistics Quarterly 44, 115-132

experience in the LQAS methodology and capacity at the district level is being built – a move that will serve to further lower costs of the annual survey.

1.2.3 Sampling

For this exercise, the employed household listing was the updated one used in the baseline survey; it was also used for selecting interview locations. A two-stage sampling plan, first randomly selected 19 villages per supervision area by sampling proportional to size. Sampling proportional to size (PPS) is a sampling technique for use with surveys or mini-surveys in which the probability of selecting a sampling unit (e.g., village, camp) is proportional to the size of its population. It is most useful when the sampling units vary considerably in size because it ensures that those in larger sites have the same probability of getting into the sample as those in smaller sites, and vice versa. The second step randomly selected a household within the village. Step 2 involved using the Village Local Council household listings register that is periodically updated when in- or out-migration and movement within the village takes place. In cases where a household list was not available, the interviewer compiled a list together with the village leader(s).

1.2.4 Sampling in Conflict areas

With respect to the conduct of LQAS in displaced populations such as those living in Internally Displaced Persons (IDP) camps in the northern part of the country, every effort was made to preserve the principle of a county as the 'supervision area'. Several interviews with key government informants and indeed our analysis confirmed that in the IDP camps' locations of residents from a displaced village were documented and well-known. So, when residents of a village in a county were found to be displaced, the camps where these residents were relocated were identified. Thereafter, one camp was randomly selected for interviews based on sampling proportionate to the size of the displaced population. Military clearance and security protection services were provided for survey and data collection personnel.

1.3 Ethical Considerations

Informed Consent

Every respondent had the right to refuse the interview, or to refuse to answer specific survey questions. In this survey, the interviewers respected this right and verbally administered informed consent before conducting the interview.

Privacy

For increased validity, it was important that the interview with each respondent be conducted in a manner that is comfortable for her or him, and in which she or he is able to speak openly and honestly. Therefore, all interviews were conducted in the respondent's home and in a private area. During the interview, no other adult man, woman or older child was present or able to hear details of the interview. Younger children in some instances were allowed to be present during the interview. If the respondent indicated that she or he was uncomfortable holding the interview at home, the interview was then done at another location preferred by the interviewee.

1.4 Data Sources and Analysis

The main data source of the LQAS survey were households within the 20 UPHOLD districts that included the 13 UNICEF-served districts. Overall, the survey involved a sample of 12,380 individual households with 12,380 individual index and target respondents.

The household survey explored the current levels of population knowledge, use of services and behaviors in the community. The survey sought responses from five key index respondents: mothers of children under-two years, mothers or caretakers of children between 24 to 59 months, parents or caretakers of children aged 5 to 14 years, women aged between 15 to 49 years, and men aged between 15 and 54 years.

As in the baseline survey analysis, data were weighted by supervision area population sizes using the direct adjustment method. While weighting is not needed when making LQAS adjustments of a supervision area, it was used when aggregating 'supervision area' specific data to calculate overall district coverage. In this section and other subsequent sections, N represents the total sample size whereas n represents correct responses from the selected sample.

2.0 Integrated Primary School Education

UPHOLD supports the integrated primary school education strategy designed by the Government of Uganda (GOU) to strengthen education at the district, community and school levels. The strategy is intended to forge a link between public and private sector systems at the district and lower levels, and support child-friendly education in primary schools. The strategy includes the following core interventions: community involvement in education (CIE), Education Management Strengthening (EMS), Teacher Effectiveness (TE) and Cooperative Learning (CL).

2.1 Primary School Attendance

UPHOLD supports the Ministry of Education and Sports (MoES) school-based quality reform strategy to increase daily school attendance rates of pupils among other things also includes the EMS and TE components. The EMS component improves the performance of education managers at district, county, sub-county level and in schools through training and other support activities. The TE component strengthens teachers' capacity to plan and deliver child-centered and participatory lessons.

During the household survey, parents/caretakers were asked whether their children attend school and how many days they had attended school in the last week preceding the survey week. These questions were meant to calculate the school attendance rates among the official primary school age going pupils (aged between 6 to 12 years).

Overall, information on education and birth registration was collected on 16,077 children aged between 6 to 12 years. 412 (2.5%) of the school-aged children have never attended school. There were significant increases between baseline and follow-up regarding the proportion of children currently attending school ($P < 0.001$). Table 1 below shows information on the schooling status of children aged 6-12 years. Children are grouped as never attended school, dropped out of school, and currently attending school. A similar comparison of results from the 2004 household survey is presented in Appendix C below. Overall, 95.7% ($n = 15,382$) children aged between six to twelve years were reportedly attending primary school during the 2005 household survey compared to 91.3% ($n = 1,244$) in the baseline survey. The reported proportion increase from 91.3% to 95.7% exceeds the natural population increase and may be attributed to the Government of Uganda education interventions currently being supported by UPHOLD.

*School Club Assessment
in Amuca Primary
Lira District*



Table 1: School attendance of Pupils in the 2005 LQAS Survey

Characteristics	Never attended school	Ever Attended school	
		But....Dropped Out	And...Currently attending
Age in Years			
6	184 (6.5%)	55 (1.9%)	2,611 (91.6%)
7	86 (3.8%)	47 (2.1%)	2,114 (94.1%)
8	63 (2.5%)	39 (1.5%)	2,454 (96.0%)
9	31 (1.5%)	29 (1.4%)	1,982 (97.1%)
10	31 (1.2%)	47 (1.8%)	2,579 (97.1%)
11	16 (1.1%)	14 (1.0%)	1,407 (97.9%)
12	1 (0.1%)	52 (2.3%)	2,235 (97.6%)
Region⁴			
Central	57 (2.2%)	35 (1.3%)	2,561 (96.5%)
Eastern	81 (2.2%)	67 (1.8%)	3,624 (96.1%)
Western	76 (1.9%)	56 (1.4%)	3,975 (96.8%)
Northern	198 (3.6%)	125 (2.3%)	5,222 (94.2%)
Sex			
Female	203 (2.6%)	144 (1.8%)	7,628 (95.7%)
Male	209 (2.6%)	139 (1.7%)	7,754 (95.7%)
Conflict Areas	156 (4.2%)	105 (2.8%)	3,477 (93.0%)
Non-Conflict Areas	256 (2.1%)	178 (1.4%)	11,905 (96.5%)
Total	412 (2.5%)	283 (1.8%)	15,382 (95.7%)

In the 2004 household survey, parents/caretakers were asked whether their child attended school the previous school day preceding the survey. 85.1% (n=1,059) of the parents/caretakers reported that their school-aged child had attended the previous school day preceding the survey. This indicator, however, has limitations when compared with net attendance ratios generated from service statistics. Therefore, during the 2005 household survey, parents/caretakers were asked whether their child attended all the last five school days of the week preceding the survey. 82.3% (n=13,326) of the parents/caretakers reported that their school-age going children had attended daily school for the last five school days. Comparing the results from the two surveys, Nakapiripirit District consistently reported the lowest proportions (38.5%) and Rukungiri District (94%) reported the highest proportion of school-aged children attending daily for the last five school days.

2.1.1 Reasons for School Dropout

The survey questionnaire for children aged 6 to 14 years was structured in such a way that parents/caretakers of children who dropped out of school were asked reasons as to why they did dropped out, and those who are currently in school were asked reasons as to why their children in any instance may have missed a school day at anytime during the school year.

Among children who were reported to have dropped out of school, the average age at which children dropped out of school from school was found to be 9.6 years. This is the age when most pupils are progressing from grade four to five. Only the Northern and Eastern region (that includes Nakapiripirit District in this analysis) reported children dropping out of school because of insecurity. A quarter of children in the Northern region and 7% in the Eastern region drop out of school due to insecurity. Overall, 22.2% of children drop out to assist with home domestic work and the Northern region was found to have the highest reported percentages (33.3%). Eight percent of children drop out to take care of a sick family member or relative while 6% drop out to attend to family businesses.

⁴ Central Districts: Wakiso, Luwero, Rakai, Mubende; Eastern Districts: Pallisa, Bugiri, Mayuge, Kamuli, Nakapiripirit; Western Districts: Mbarara, Rukungiri, Bushenyi, Bundibugyo, Kyenjojo; Northern Districts: Arua, Yumbe, Gulu, Kitgum, Lira, Katakwi

Table 2: Reasons as to why children dropped out of school, by region

Reasons	Central	Eastern	Western	Northern	Overall
Domestic work	12.5%	14.3%	22.2%	33.3%	22.2%
Care for sick	6.3%	14.3%	11.1%	8.3%	7.9%
No school materials	43.8%	21.4%	33.3%	33.3%	33.3%
Work at farm or family business	12.5%	14.3%	11.1%	0%	7.9%
Work for employer	6.3%	7.1%	11.1%	12.5%	9.5%
Insecurity	0%	7.1%	0%	25%	11.1%
Failed exams or requested to repeat	6.3%	21.4%	11.1%	12.5%	12.7%
Did not want	18.8%	21.4%	11.1%	16.7%	19.1%

Among children currently attending school, 18% of parents/caretakers reported that their child missed school during the last school year because s/he was needed to do domestic work such as caring for younger siblings, cooking or cleaning or fetching water or wood at home. 20.6% of parents/caretakers reported that their child missed school because s/he was needed at home to take care of a sick family member or relative. The Northern (25.4%) region had the highest reported proportions. This may be attributed to the high HIV prevalence rates reported in the region in the 2005 National Sero-prevalence and behavioral survey compared to other regions⁵. 31.8% of parents/caretakers reported that their child had missed school because s/he had no school materials with the Northern region (37%) reporting the highest proportions. 28.2% of the parents/caretakers in the Northern region reported that their child had missed school because of insecurity in the area.

Table 3: Reasons Given by Caretakers Why Children Miss School, by Region

Reasons	Central	Eastern	Western	Northern	Overall
Domestic work	17.4%	19.3%	16.5%	18.5%	17.9%
Care for sick	18.5%	19%	18.5%	25.4%	20.6%
No school materials	31.9%	31.4%	25.5%	36.3%	31.2%
Work at farm or family business	6.8%	5.1%	4.7%	4.6%	5.2%
Work for employer	2%	2.6%	2.6%	1.7%	2.2%
Insecurity	3.1%	7.4%	4.8%	27.5%	11.5%
Attend funeral, wedding or other ceremony	16.3%	11.4%	14.8%	12.8%	13.7%
Did not want	7.9%	11.1%	11.1%	17.9%	12.4%
Mistreated by teachers or by other pupils	5.1%	9.7%	5.6%	7.2%	7.0%
Child was sick	73.6%	62.8%	72.6%	68.9%	69.3%

2.2 Community Involvement in Education (CIE)

UPHOLD supports the MoES Community Involvement in Education (CIE) strategy that is centered on the concept that, "it takes a community to raise a responsible child and children are a social capital to society". CIE encourages parents and communities to actively participate in their children's learning in schools by:

- a. Visiting schools to monitor teaching/learning and hygiene in the classroom
- b. Discuss pupils' performance with teachers
- c. Provide support to their children's quality learning.

The CIE strategy promotes school-community partnerships for quality pupils' learning by encouraging dialogue between parents-teachers, teachers-pupils, schools and community leaders. The household survey assessed the level of participation of parents in CIE activities by asking questions whether they parents visited the school at any time during the school year to; meet or conference with school management; observe teachers teaching in classrooms; and review child's performance with teacher. The CIE intervention is strategically positioned to improve parental participation through observing teachers teaching in classrooms and reviewing the child's performance with teacher. Therefore, In order to increase the number of parents visiting schools to observe teachers teaching in the classroom and to review pupil's performance, 762 District Education Officials and Community Development Workers (CDWs) were trained with UPHOLD support to facilitate action-oriented meetings in the 20 districts three months before the household survey. By the time of the survey, only Mbarara, Wakiso and Pallisa districts had organized all planned action-oriented meetings in communities and schools using UPHOLD local government support funds.

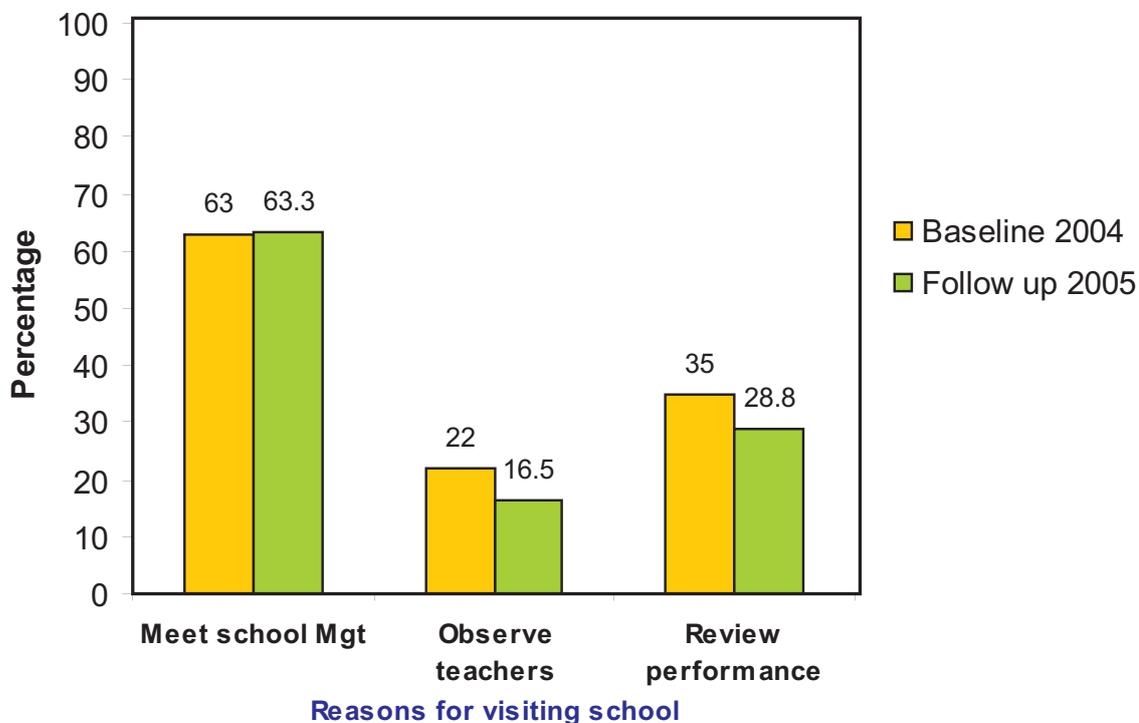
⁵ Uganda HIV Sero-Prevalence and Behavioral Survey, MoH 2005.

2.2.1 Reviewing of Child Performance with Teachers

The significant 4.4% increase in school attendance from baseline to follow-up over the last 12 months, that exceeds the 2.8% natural population increase, had a dilution effect on the CIE interventions in place.

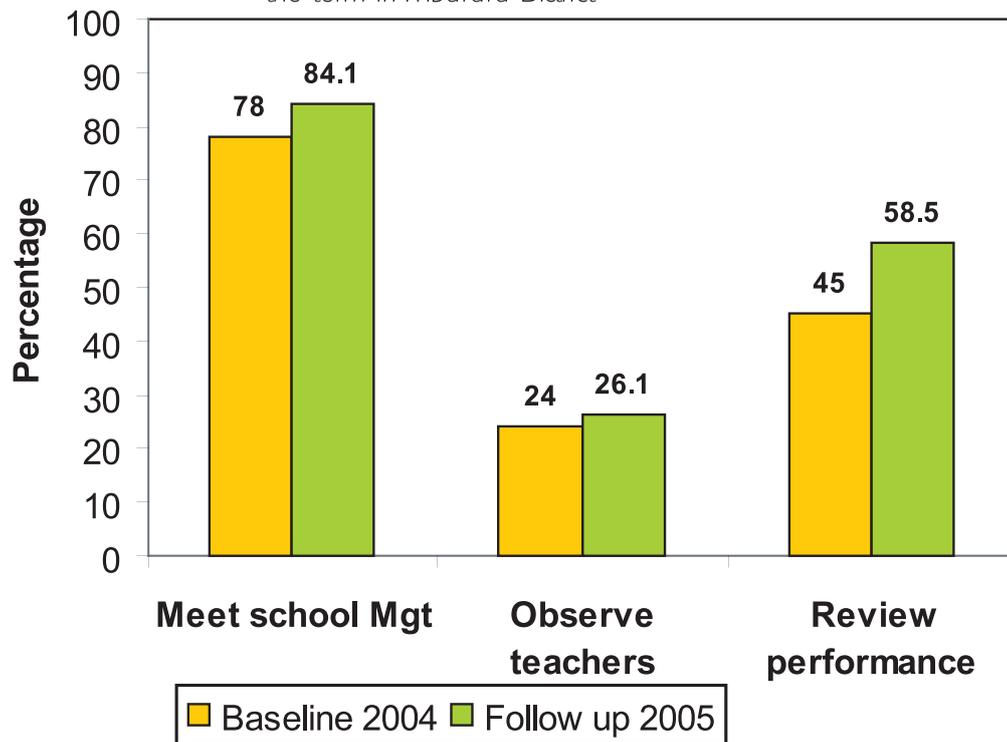
Figure 1 show the percentage of parents who reportedly participated in their children's learning during the school term during the baseline and follow up surveys.

Fig 1: Parents who reported visiting their children's schools during the term



Overall, participation of parents in strategic CIE activities (observing teachers teaching and reviewing of child's performance) did not keep pace with increases in the net number of households adding children to school as evidenced by increases in primary school attendance. Though not significant ($P>0.05$), there was a reduction in the reported proportion of parents who visited schools to review their child's performance with teacher from 35% ($n=703$) during baseline to 28.8% ($n=719$) in follow up. However, in the districts that implemented CIE interventions two months before the survey, by organizing action oriented meetings in schools and communities, had increased parental participation in education. These districts included Mbarara (58.5%), Yumbe (32.7%) and Rukungiri (34.4%). Figure 2 show the percentage of parents who reportedly participated in their children's learning during the school term during the baseline and follow up surveys in Mbarara District.

Fig 2: Parents who reported visiting their children's schools during the term in Mbarara District



2.2.2 Observing Teachers Teaching in Class

Likewise, there was a significant reduction in the proportion of parents/caretakers who reported to have visited the school to observe teachers teaching in the classroom ($P < 0.001$). The proportion of parents/caretakers who visited their child's school to observe teachers teaching in classroom reduced from 22% ($n=441$) in the baseline survey to 16.5% ($n=412$) during the follow up survey (Figure 1).

2.2.3 Meet or Conference with School Management

There were no significant changes between baseline and follow up findings regarding parents/caretakers visiting their children's schools to meet or conference with school management. 63.3% ($n=1,579$) of the parents or caretakers reportedly visited their children's school to meet or conference with school management (Figure 1). However, reported parental visits to their children's schools to meet or conference with school management is not a good measure of parental participation in their children's learning as the majority may visit schools for issues not related to classroom learning.

A conclusion may be made that the increase in school attendance was a result of more children registering in schools. In the absence of CIE interventions across all districts, more parents may have visited schools to register their children and this may also explain why reported percentages of parents visiting schools to meet school management was the same for baseline and follow up surveys.

2.2.4 Provision of meals

It was mentioned during the 2004 baseline report that provision of school lunch facilitates a pupil to pay more attention especially during the afternoon classes – a factor that may ultimately improve performance. During this household survey, parents/caretakers were asked whether they provide lunch to their children or they have knowledge on whether the school their child attends provides any kind of meals.

There were no significant differences in the reported proportions of parents/caretakers packing lunch for their children. Overall, 33% of parents/caretakers reported packing lunch for their children in both baseline and follow up surveys. It is not surprising that districts in the conflict areas had the lowest reported proportions of parents/caretakers packing meals for their children as free meals are provided at school by the World Food Program⁶. Likewise, 33.2% of parents/caretakers reported that the schools their children attend provide meals to their children. Again, it is not surprising that schools in the conflict that provide meals to children through the World Food Program had the highest reported percentages. The highest reported percentages were in Gulu (57.5%), Nakapiripirit (50%) and Kitgum (47.6%) districts. Kyenjojo District (7.9%) and Yumbe District (13%) reported the lowest percentages.

⁶ Joseph Mabinzi, Nosa Orobato, Patricia David, Xavier Nsabagasani: UPHOLD LQAS Survey Report 2004: Results from 20 Districts of Uganda, August 2004.

On further analyzing the data on school attendance and provision of meals, schools that were providing meals had the highest attendance ratio during the school year. In schools that were reportedly providing meals to pupils, 97.2% (n=524) of parents reported that their children attended school during the school year compared to the reported 86.5% (n=1,004) school attendance in schools not providing meals.

Similarly, of the 553 parents/caretakers that reported to pack food for their children to take to school, 98% (n=542) of the children were reported to have not missed school compared to 86% (n=986) school attendance among those who never carry packed lunch.

The link between provision of meals and school attendance varied by age among the school-age going pupils. There were significant differences between school attendance and age among children who were not provided any meal either to carry to school or at school ($P < 0.001$). Children under eight years of age and not provided any meal (75.5%, n=215) were reportedly missing school more compared to the older age groups (89.6%, n=772). Adjusting for age and sex of child, the likelihood that a child never missed school was higher for those provided meals (OR=7.6, 95% CI: 4.1-14.2) compared to the ones that were not provided meals at schools (OR=5.4, 95% CI: 3.1-9.3). The data from this survey, therefore, suggests that provision of school lunch reduces the rate of dropout among children under-8 years.

Table 1 shows that school drop out is higher among children aged below 8 years of age, and this is also true to children who have never attended school. Though data from this survey can not be used to establish an association between school drop-out and provision of lunch, but it can be argued that lack of meals during school especially for young pupils can influence their choice to stay away from school.

2.2.5 School Homework

The Community Involvement in Education component promotes homework through action oriented meetings with parents and teachers. In the household survey, parents/caretakers were asked about their knowledge regarding their children’s homework irrespective of whether it was done outside of school or during school day and whether they had offered any kind of support. The kind of assistance surveyed related to any kind of support that creates a conducive environment for the child to do his/her homework. This included discussing and getting actively involved in the homework, providing a peaceful and suitable place, making sure that the child understands the assignments and directions, and allowing the child to complete the homework especially by relieving him/her of any household chores.

Fig 3: Percentage of children who brought school homework, able to complete it, and were assisted by parents

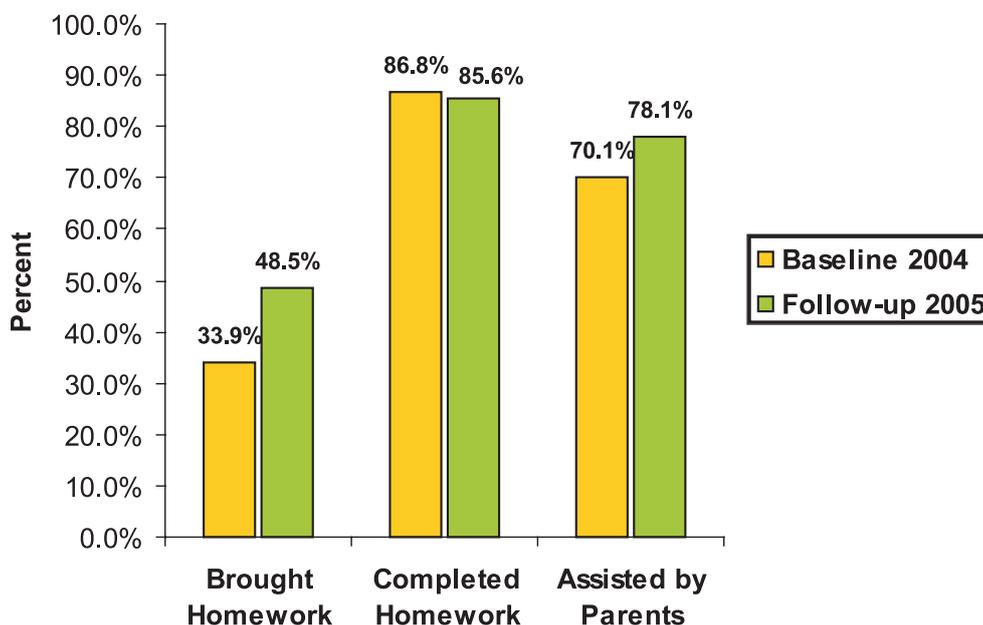


Figure 3 shows the proportion of children who brought home school homework, the proportion that was able to complete the work and the proportion that was assisted by parents to complete the work. Overall, the reported percentages of school aged going children who took home school homework significantly increased from 33.9% during the baseline to 48.5% in the follow-up survey (P=0.041). Of those children that took home school homework, 85.6% were able to complete the assignments. The proportion of parents/caretakers that offered assistance to their child in completing the homework significantly increased from 70.1% in the baseline to 78.1% during follow-up.

Fig 4: Percentage of children who brought school homework, able to complete and were assisted by parents in Mbarara District

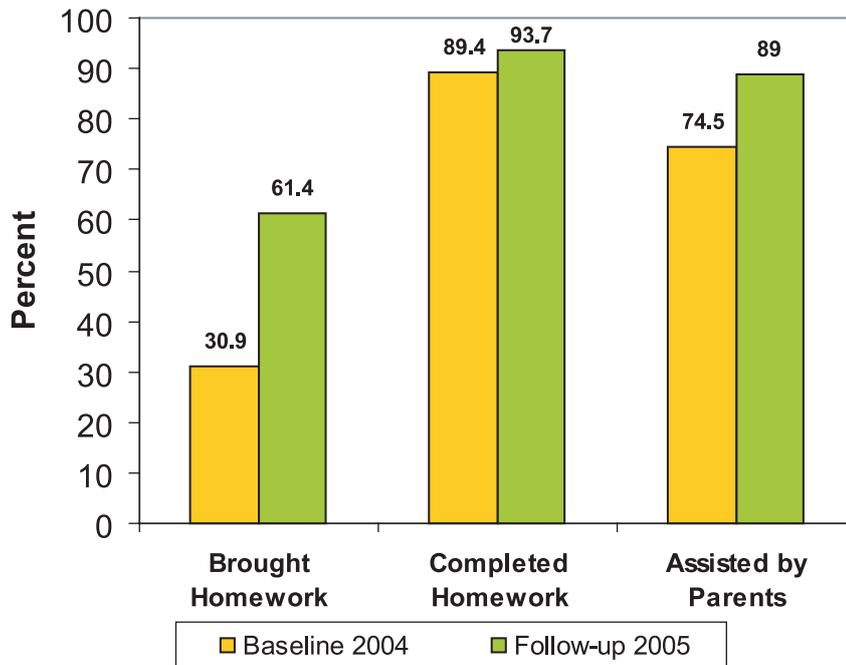


Figure 4 compares baseline and follow up reported percentages for Mbarara District that had implemented the CIE activities two months before the survey. There was significant increases in the proportion of parents reporting their children bringing home and assisting them with school homework in the districts that had implemented CIE intervention activities before the survey.

2.2.6 Keeping Children Safe from HIV infection through emphasizing Abstinence

In the baseline report, it was reported that the Ministry of Education, with UPHOLD support, was implementing the Presidential Initiative on AIDS Strategy for Communicating to Young people (PIASCY) in primary schools. The overall goal of the programs is to increase the capability of young people to adopt life-long attitudes and practices that contribute to the prevention of disease, with special attention to HIV/AIDS, at individual, community and national levels. The program aims at enabling young people to postpone sexual debut as long as possible, make prevention of disease part of their (sexual) lifestyles, and seek proper sexual health services (including counseling) whenever necessary. Therefore parental involvement is key to the success of this program.

In the baseline and follow up surveys, parents/caretakers were asked whether they had had discussions with their children concerning the prevention of HIV/AIDS. Specifically, the study sought information on the discussions of the parents/caretakers about safer sex practices with their children.

Fig 5: Percentage of Parents who discussed with their children under 15 years about sex or delaying sex in Pallisa District

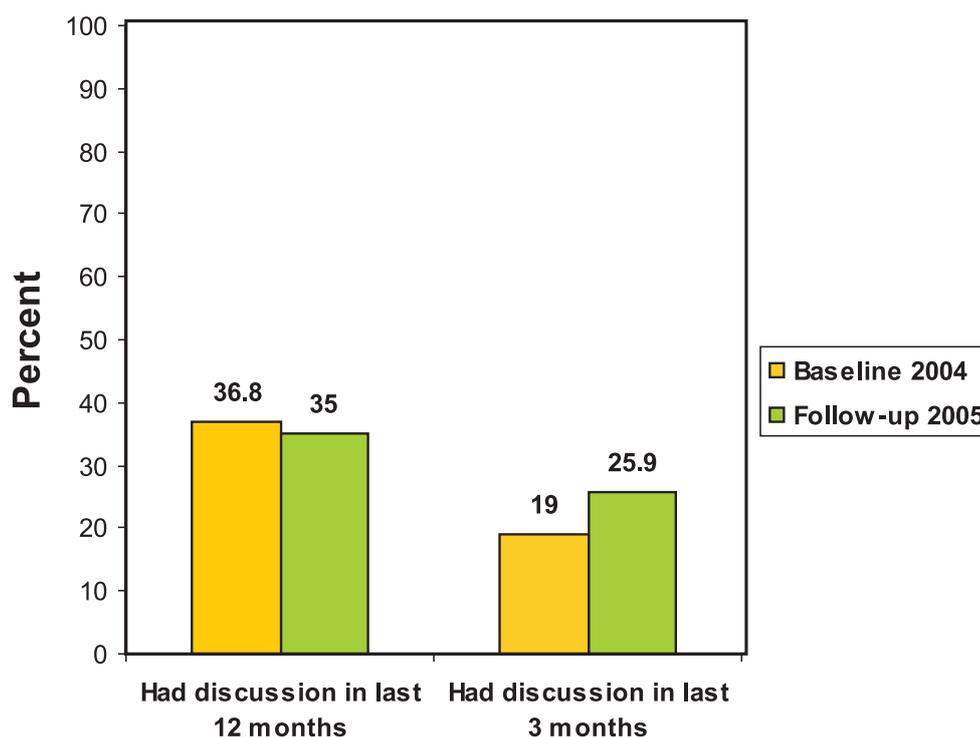


Figure 5 shows the reported percentages of parents who talked to their children about sex or delayed sex in Pallisa District that implemented CIE interventions 2 months before the survey. Overall, there was an increase in the reported proportions of parents/caretakers who had discussions with their children about HIV/AIDS and delay in sex practices from 32.4% during the baseline to 34.2% in the follow up. This increase, though not significant ($P=0.0614$), can be attributed to the Community Involvement in Education (CIE) and PIASCY that are being implemented by MoES with support from UPHOLD and other partners.

3.0 Integrated Health

In order to assist the Government of Uganda in achieving its goals for insuring access to a National Minimum Health Care Package, UPHOLD is strategically positioned to invest in increasing the utilization, quality and sustainability of health services within the four main core interventions. These core intervention areas include integrated child and adolescent health, integrated HIV/AIDS, integrated reproductive health and integrated communicable diseases.

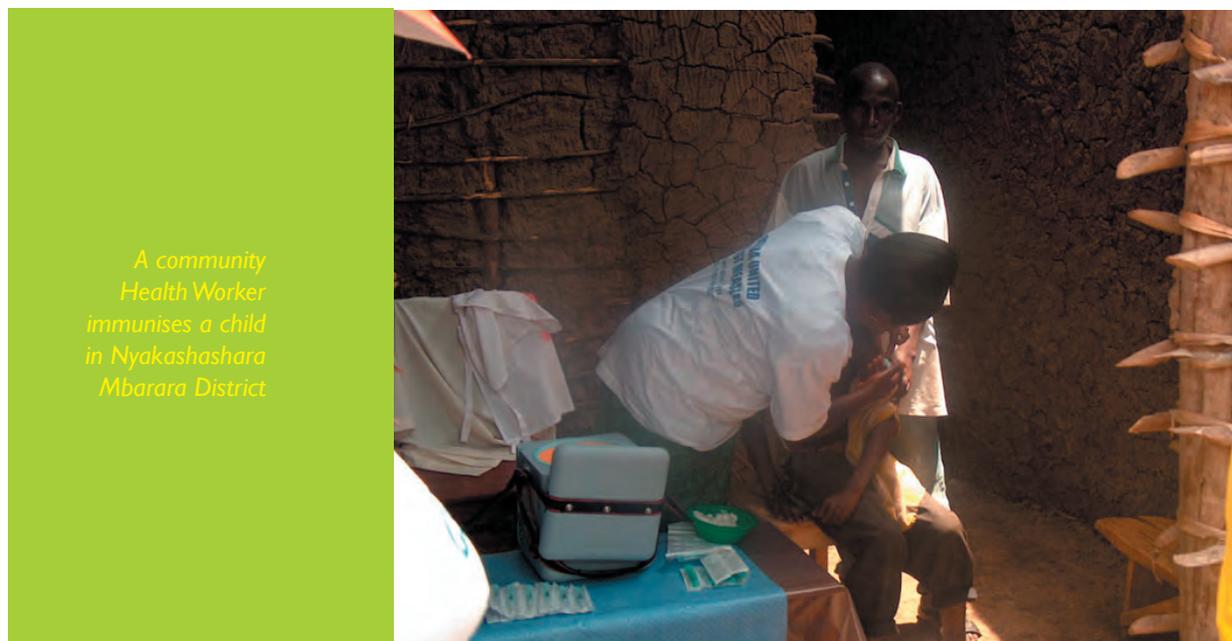
3.1 Integrated Child and Adolescent Health

UPHOLD's support to the Ministry of Health Child and Adolescent Health Development interventions include the integrated management of childhood illness, routine immunizations and adolescent sexual and reproductive health. This intervention mainly concerns the health, growth and development for the age group 0-24 years.

3.1.1 Immunization

Mothers with children under-two years and mothers or caretakers with children aged between 24 to 59 months were asked to present their child health cards, in case they were available, or could recall as to whether their children had been immunized.

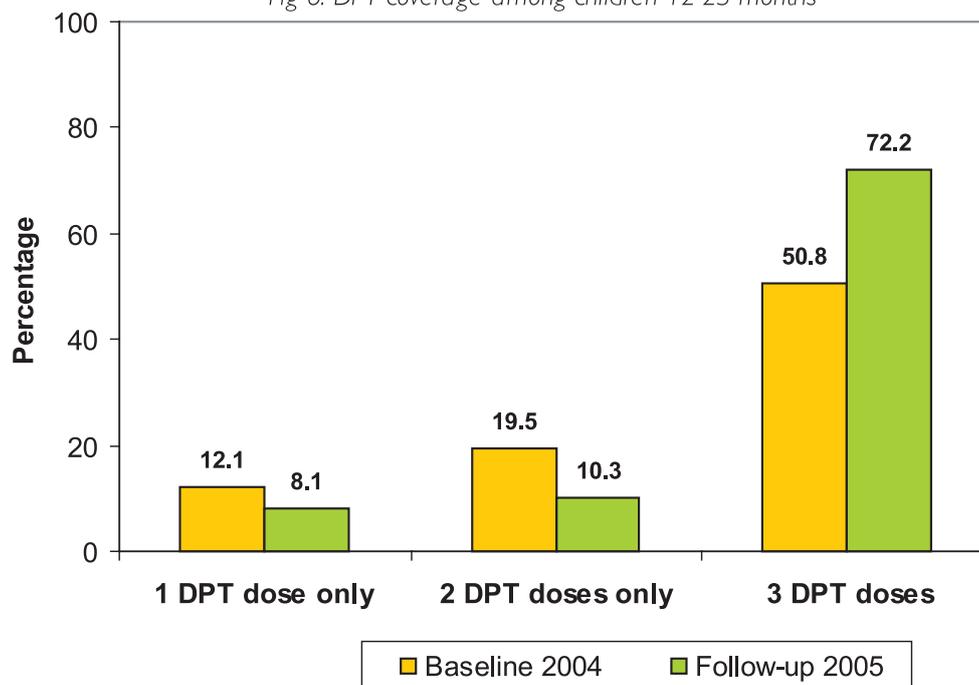
Overall, only 36.3% (n=1,804) of mothers and caretakers with children under 60 months of age were able to present their child health cards as a confirmation that their children had been immunized. For those with younger children (12-23 months), a slightly higher proportion of 38.6% (n=499) presented the child health card. Child health card retention was consistently high in Yumbe (85.4%) and Arua (57.1%) and low in Nakapiripirit (11.5%) and Luwero (14.3%) districts. However, 73.6% of the mothers in Nakapiripirit district reported that their child had a child health card but could not present it when requested. It was reported and confirmed with the local authorities that due to the cattle rustling activities in the area that may involve burning of homes, child health cards and other personal documents are kept at the sub-county offices and health units.



Diphtheria, Pertussis and Tetanus (DPT) Coverage

The third dose of Diphtheria-Pertussis-Tetanus (DPT) is used as a revealing and vital gauge of immunization coverage. In this survey, immunization coverage was measured as the proportion of children aged between 12 to 23 months who have received a third dose of DPT before the age of 12 months. Data on immunization coverage was obtained from the child health cards that were presented by the mothers and through the mother's recall. When a mother of a child aged 12 to 23 months was unable to present a child health card, she was asked whether her child had received a third injection given in the thigh or buttocks sometimes at the same time as polio drops.

Fig 6: DPT coverage among children 12-23 months



Immunization coverage has significantly increased ($P < 0.001$) since the baseline survey (Figure 6). Overall, 72.2% ($n=937$) of the mothers with children aged 12 to 23 months reported through documentation and recall that their child had received a third dose of DPT by the age of 12 months compared to 50.8% during the baseline. Likewise, there were reductions in the children taking only the first and second doses of DPT as shown in Figure 6. Immunization coverage significantly differed by mother's recall and presentation of child health card ($P < 0.001$). 79.8% ($n=398$) of those children aged 12 to 23 months of age with a child health card had received DPT3 by the age of 12 months compared to the reported 64.4% ($n=449$) from mother's recall.

Table 4: children 12 to 23 months who received DPT by age of 12 months				
Immunized by 12 months of age	DPT Vaccine			No. of respondents
	1 dose only	2 doses only	Full 3 doses	
Child health card	8.6%	11.6%	79.8%	499
Mother's recall	25.7%	9.9%	64.4%	697
Either Source	17.6%	10.2%	72.2%	1,298
Region				
Central	16.8%	9.4%	73.8%	267
Eastern	12.9%	10.2%	76.9%	294
Western	18.5%	9.6%	71.9%	384
Northern	21.0%	11.6%	67.4%	353
Total	17.6%	10.3%	72.2%	1,298

There were remarkable improvements in immunization coverage especially in the districts of Mubende (67.2%), Yumbe (82.9%), Rakai (82.5%), Mayuge (82%), Nakapiripirit (81.1%), Pallisa (81.1%) and Bugiri (60.3%). The 2004 LQAS baseline survey highlighted Mubende, Bugiri and Bundibugyo as the districts with the lowest immunization coverage and therefore priority areas for improvement. However, based on the HMIS data, the same districts had over 65% immunization coverage. Comparing HMIS data with household data for other districts showed similar coverage.

HMIS data are facility-based and they reflect facilities' performance. HMIS data only reflect those people who visited the health facilities and thus a selection bias is inbuilt, which is not the case in household surveys. It was noted that, in Bugiri and Mayuge Districts, the majority of patients visiting health facilities cross from Kenya to access free and nearby services in the districts. This also applies to Arua and Bundibugyo districts where patients

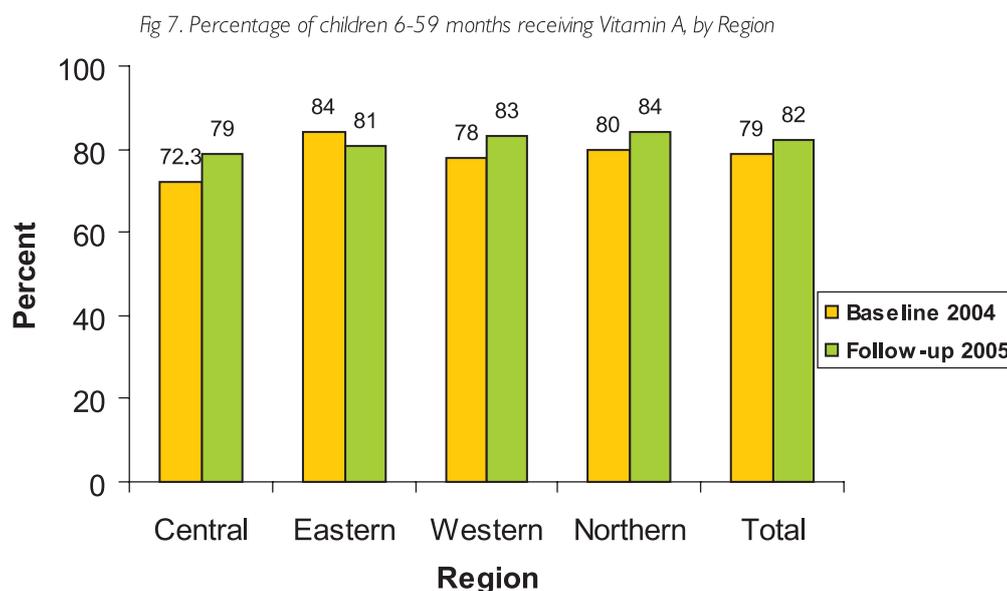
cross from neighboring Congo. There is also some administrative bias for under or over reporting of HMIS data. It was further noted that Mubende, Kyenjojo and Bundibugyo Districts had the lowest coverage in the National child health day campaigns. Using the LQAS household information, the Ministry of Health with support from UPHOLD assisted the districts in the planning and mobilization campaigns for immunization and this has evidently led to doubling of coverage in the districts.

Thus, household surveys serve as an incentive to improve facility data by improving service coverage. By comparing household data with health facility data, it is possible to check gaps in HMIS data, though the reverse can not be done. The Ministry of Health is aware of the constraints in the HMIS system and UPHOLD is assisting to improve data quality and use through HMIS Strengthening plan of action.

3.1.2 Vitamin A Supplementation

Vitamin A is essential for the functioning of the immune system. While most people know that vitamin A deficiency can lead to blindness, many are unaware that even before blindness occurs, a vitamin A deficient child faces a 25% greater risk of dying from a range of childhood ailments such as measles, malaria or diarrhea⁷. Supplementing children aged six to fifty nine months with two high-dose vitamin A capsules a year has been identified as a safe, cost-effective, efficient strategy for preventing vitamin A deficiency.

There was a significant increase in Vitamin A supplementation from 79% (n=3,154) during the baseline to 82% (n=3,627) in the follow up (P<0.001). However, there was a significant reduction in vitamin A supplementation in the last six months in the districts of Bundibugyo (70.1%), Mayuge (71.4%) and Gulu (73.9%). Kyenjojo (90.1%) and Mubende (83.3%) districts had significant increases in reported vitamin A supplementation. This is as a result of the direct intervention by the Ministry of Health supported by UPHOLD and other partners in increased campaigns to improve coverage especially in the two mentioned districts.



The Central region with 79% vitamin A coverage was consistently lower than the other regions despite the improvement in coverage in Mubende and Rakai districts. This is a result of no significant improvement in coverage in Luwero district (64.9%). Therefore, the Ministry of Health and partners need to focus on improving coverage in Luwero district.

3.2 Integrated Reproductive Health

UPHOLD supports the Ministry of Health's reproductive health interventions such as family planning, goal-oriented antenatal care, safe and clean deliveries, prevention of mother-to-child transmission of HIV/AIDS (PMTCT) and emergency obstetric care including post-abortion care.

⁷ Vitamin A Deficiency, UNICEF report to World Summit for Children 2A001.

3.2.1 Clean Deliveries

It was reported in the baseline report that the place where the mother delivers influences the delivery outcome especially the health of the mother and the infant. It is very important; therefore, that all deliveries are catered at health facilities under the supervision of qualified health personnel.

Overall, there was a significant increase from the baseline proportions in the reported deliveries that took place at health facilities. 46.9% (n=673) of the mothers with children under-one year of age, who had a delivery in the last 12 months preceding the survey, reportedly delivered from a health facility compared to 38.6% (n=240) reported during baseline. For mothers with children under-two years who delivered within two years preceding the survey, overall, 1,144 (45.9%) reported delivering from the health facility during this survey compared to 819 (41%) reporting on the same indicator during the baseline survey.

Fig 8: Percent Distribution of Mothers by Place of Delivery in last one year preceding survey

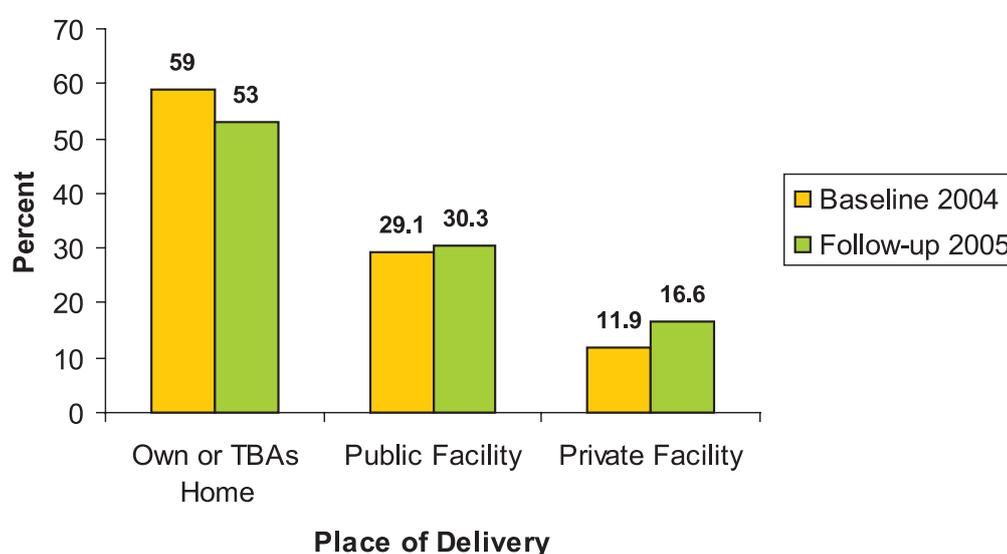


Figure 8 shows the percent distribution of mothers by place of delivery in the last one year preceding the survey. There was a significant reduction in the proportion of deliveries at traditional birth attendant's (TBAs) and own homes. This reduction resulted in an increase in deliveries at health facilities. The proportion of deliveries significantly increased in private deliveries (P=0.009) from 11.9% (n=78) in 2004 to 16.6% (n=239) in 2005. The significant increase in deliveries at private facilities may be attributed to the services of the Uganda Private Midwives Association that was awarded a grant by UPHOLD to train private reproductive health providers in nine districts to improve delivery of quality services.

Table 5: Percentage of births in last one year by place of delivery disaggregated by conflict and non-conflict areas

Place of Delivery	Conflict Areas		Non-Conflict Areas	
	2004	2005	2004	2005
Own home	60.4	64.5	48.8	39.1
TBA's home	11.2	3.9	8.8	10.1
Government Facility	23.1	23.5	27.2	32.0
Private Facility	5.3	8.1	15.2	18.8

Table 5 above compares reported births by place of delivery between conflict and non-conflict areas during baseline and follow-up surveys. It is not surprising that most mothers in conflict areas deliver from their homes despite the close proximity of health facilities especially in the camps. This may be attributed to a number of factors that include the short hours of operation of facilities as most facility personnel do not stay in the camps;

lack of antenatal delivery requirements such as basins, gloves, polythene bags e.t.c.; and quality of services at these facilities that also lack space. UPHOLD is assisting the Ministry of Health by providing free Maama Kits to mothers in conflict areas attending antenatal care and the training of health providers at facilities in the delivery of quality services. The Maama kit is a clean delivery kit that consists of a small packet of two plastic sheets, a gauze roll, two razor blades, two pairs of gloves, one small piece of soap and a small cord tie and tape. It's packed locally in Uganda.

Table 6: Percent distribution of mothers by place of their last delivery in one year preceding the survey by selected background characteristics

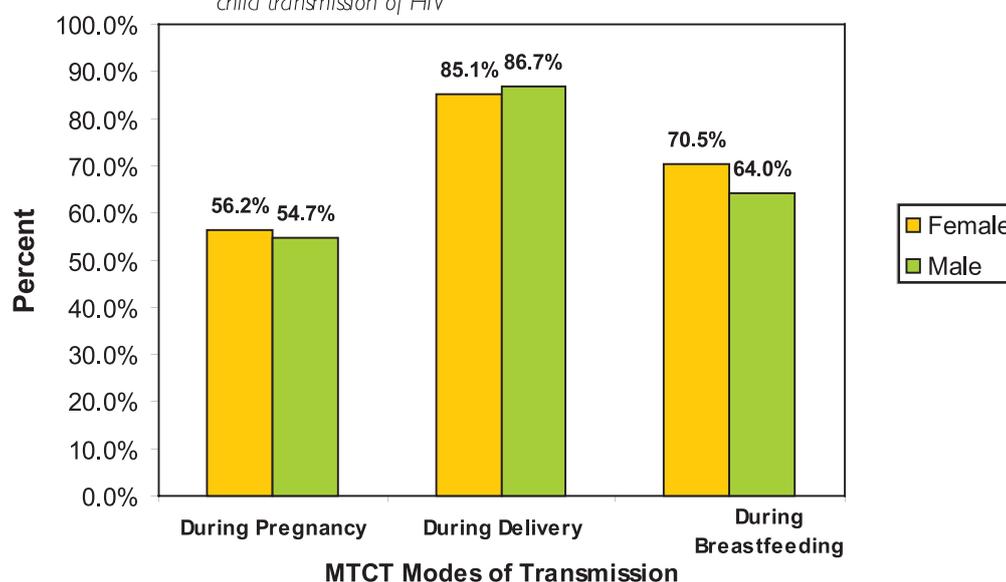
Background characteristics	Place of Delivery				Number
	Home	TBAs Home	Government Facility	Private Facility	
HIV test during ANC	Percentage delivering from place				
Tested and Received	30.2	6.3	42.1	21.4	285
Did not Test	47.7	9.5	27.4	15.5	1,150
Region					
Central	21.4	20.0	33.3	25.3	285
Eastern	43.1	6.3	32.6	18.0	383
Western	40.0	10.3	30.6	19.1	350
Northern	64.3	2.4	25.9	7.4	417
Total	44.2	8.9	30.3	16.6	1,435

Knowledge of a woman's HIV sero-status has an influence on where a mother delivers from. Overall, 63.5% (n=181) of mothers who attended ANC and received HIV testing services delivered from government and private health facilities. In conflict areas, 47.3% (n=26) of mothers who attended ANC and received HIV testing delivered from facilities compared to 67.4% (n=155) in non-conflict areas.

3.2.2 Prevention of Mother To-Child Transmission

Respondents were asked on knowledge about mother-to-child transmission of HIV (MTCT) and at which stages of child development this could be avoided. The majority of respondents (94%, n=4,696) knew that it was possible for a child to get HIV from its mother. 85.9% (n=4,287) of the respondents knew that MTCT through delivery while 55.4% (n=2,767) mentioned during pregnancy. MTCT via breast milk was know by 67.2% (n=3,356) of the respondents. Females (70.5%, n=1,757) were knowledgeable about MTCT through breast milk than males (64%, n=1,599), with P<0.001 (Figure 9).

Fig 9: Percent of adults 15-49 years knowledgeable about mother-to-child transmission of HIV



The introduction of HIV/AIDS prevention and care into the antenatal care and maternal/child health setting has meant that health workers have been asked to greatly expand their responsibilities and tasks. This probably explains why among the 91.9% (n=2,288) of mothers attending antenatal care, only 52.1% (n=1,298) were given information and counseled about HIV/AIDS and the virus that causes AIDS. Therefore, skills development through training, good management practices and strong leadership at health facilities may encourage health workers to commit themselves to PMTCT goals.

Likewise, among mothers attending antenatal care whose pregnancy and birth took place in the last 12 months preceding the survey, 422 (29.4%) were offered an HIV test. Overall, there was a significant increase in the proportion of mothers, whose pregnancy and birth took place in the last 12 months preceding the survey, testing and receiving their HIV results ($P < 0.001$). 19.9% (n=285) pregnant mothers whose pregnancy and birth took place in the last 12 months preceding the survey were tested and received their HIV test results compared to 11.2% (n=223) during baseline.

Among districts, Bundibugyo District (44.2%) had the highest proportion of pregnant women tested and receiving results in the last one year preceding the survey followed by Bushenyi (40%), Wakiso (34.7%) and Rakai (30.3%). Pallisa (4.8%), Bugiri (4.9%) and Nakapiripirit (8.2%) had the lowest proportion of pregnant women testing and receiving their HIV test results. The increase in the proportion of pregnant women testing and receiving HIV results especially in Bundibugyo (increased from 5% during baseline to 44.2%) and other districts is attributed to the PMTCT grants awarded to Civil Society Organizations (CSOs) in the areas that included a social transformation activity to improve access to social services at both facility and community level.

Positive social transformation is a process in which social norms, structures, and systems change in such a way as to improve the choices and opportunities available to people, particularly to those who are vulnerable, marginalized or disadvantaged. Positive social transformation is also associated with a better quality of life by causing changes in the people's relationships with each other through a more equitable balance of power and access to resources. UPHOLD's CSO grants target four focus areas for positive social transformation to improve the social dynamics and relationships that affect the quality, management and use of social services. These include: family dialogue and decision-making for effective use of social services; prevention and mitigation of gender-based violence; consumer-provider/community-facility relationships; and delivery of social services at household and community level and mitigation of gender-based violence at the household level.

There was an association between HIV testing during antenatal and subsequent delivery at a health facility. 63.5% (n=181) of women who tested and received their HIV test results during antenatal care delivered from health facilities ($P < 0.001$). Women above 20 years of age tested more than women in the age range 15-19 years. 16.3% (n=35) of mothers aged 15-19 years tested and received their HIV test results compared to 19.2% (n=427) of mothers above 20 years. Adjusting for the age, the likelihood that a woman would deliver from a health facility was higher if she received HIV testing at the facility (OR=8.1, 95% CI: 6.5-9.9). It is likely that HIV testing and all the associated PMTCT services and promises attract the mothers to deliver at facilities. Though HIV testing for PMTCT happens before delivery, it is also possible that institutional delivery is associated with testing from a behavioral aspect. Mothers who know that institutional delivery is safe will also seek for HIV testing during ANC as a precaution of a safe delivery. It can also be argued that the increase in ANC attendance over the years to over 90% in combination with intensive and integrated PMTCT services in the routine ANC is a contributing factor to increased institutional deliveries.

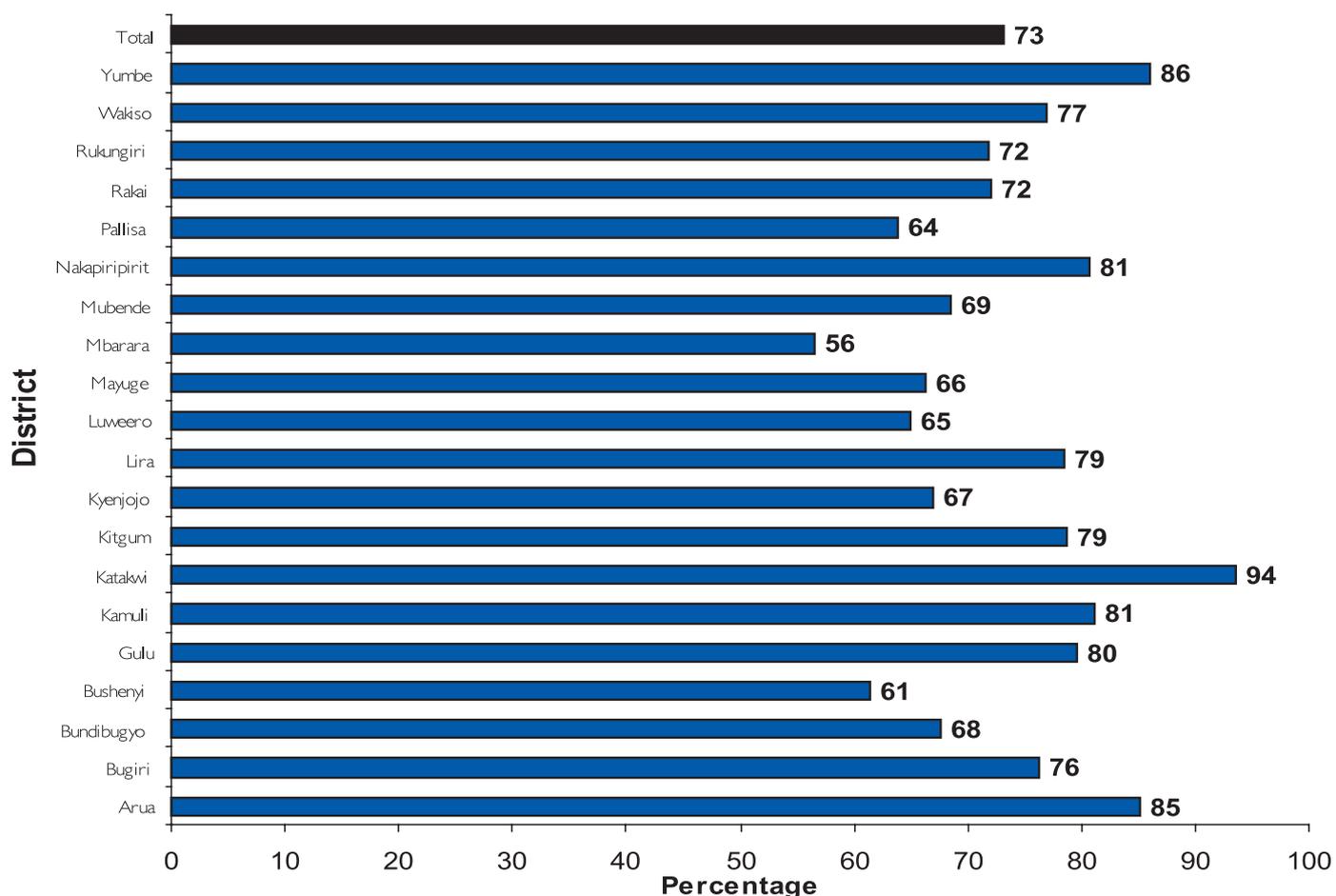
The data also suggest a significant increase in deliveries from private facilities. This increase in deliveries is associated with an increase in ANC attendance. This increase in private facility deliveries might be linked to people's perception of good quality services at these facilities, but the majority of these private facilities do not offer HCT services.

Unfortunately the survey did not collect data on HIV status of respondents. However, we suspect that positive status may be associated with institutional delivery. Therefore, further research through in-depth interviews of a subset of those who delivered at facilities during LQAS is recommended.

3.2.3 Tetanus Toxoid Vaccination

Tetanus toxoid injections are given to expectant mothers to prevent neonatal tetanus, a frequent cause of infant deaths when sterile procedures are not observed in cutting the umbilical cord following delivery. To estimate the extent of tetanus toxoid vaccination coverage during pregnancy, women were asked to report if they received injections against tetanus during pregnancy for all births in the last two years preceding the survey. However, tetanus injection among pregnant women was not investigated during the baseline survey.

Fig 10: Proportion of women receiving at least one dose of Tetanus Toxoid during pregnancy in last 2 years preceding survey



Overall, 1,821 (73.1%) of women received at least one dose of tetanus toxoid during pregnancy in the last two years preceding the survey. Among regions, the Northern region (83.8%, n=601) had the highest vaccination coverage followed by the Eastern (73%, n=440), Central (70.5%, n=359) and the Western region (63.7%, n=421) had the lowest in tetanus toxoid vaccination coverage for pregnant women. 1,356 (54.5%) of pregnant women received at least two doses of tetanus toxoid during pregnancy in the last two years preceding the survey.

3.2.4 Goal-Oriented Antenatal Care

Overall, 2,288 (91.9%) of mothers attended antenatal care from a health unit or facility. Only 1,104 (48.3%) attended antenatal care at least four times during their pregnancy.

There was a significant increase in the reported number of mothers who made arrangements for the births of their child. Nearly a third (64%, n=1,593) of the mothers reported that they had made arrangements for birth of their child during the follow up survey compared to 55% (n=1,092) reported in the baseline survey. 14.5% (n=720) of the mothers reported that they had made transport arrangements, 24.3% (n=1,209) had saved money, 9.2% (n=456) had identified a skilled provider to assist in the delivery, while 15.2% (n=753) had acquired a Maama kit. The increase in birth planning arrangements can be attributed to the free Maama kits that had been distributed in selected districts, with UPHOLD support, to pregnant mothers attending antenatal care, especially in the Central and Western region where the campaign has been intensive.

3.3 Integrated Communicable Disease Control

UPHOLD's integrated communicable disease control intervention includes malaria prevention and control, Tuberculosis (TB) prevention and control, and Schistosomiasis control in primary schools.

3.3.1 Malaria Prevention and Control

Malaria continues to be a major health problem in Uganda, contributing significantly to morbidity and mortality especially in under-five children. UPHOLD supports 20 districts to focus more efforts on the most vulnerable groups namely pregnant women, under-five year children and People Living With AIDS (PLWA). In this regard, UPHOLD supports interventions for increasing access to and effective use of Insecticide Treated Nets (ITNs), Intermittent Presumptive Treatment (IPT) of malaria in pregnant women, and Home Based Management of Fever (HBMF), which are the Ministry of Health (MoH) recommended cost-effective approaches for prevention and treatment of malaria.

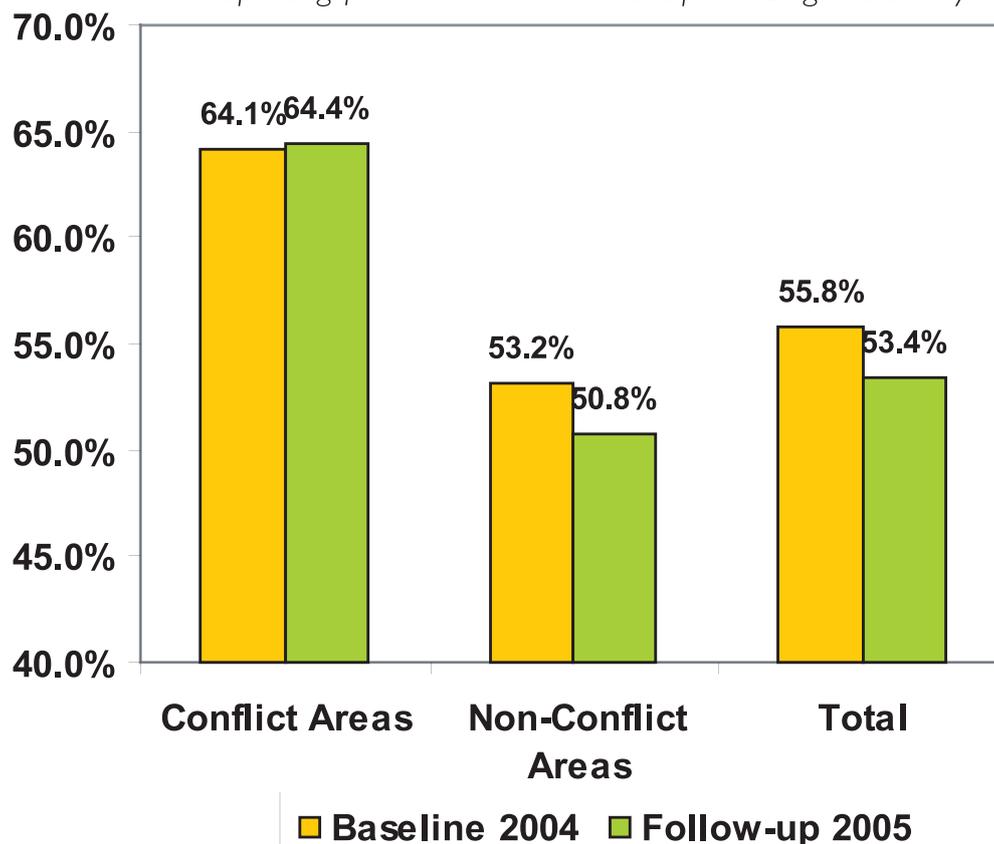
3.3.2 Home-Based Management of Fever

UPHOLD and partners use the Home-Based Management of Fever/Malaria (HBMF) strategy to distribute free anti-malarials packaged as Homapak using Community Medicine Distributors (CMDs). Homapak is distributed in color-coded individual boxes: children ages 2 to 24 months are given red packages, and children ages 24 to 59 months receive green packages.

Parents/caretakers of children under five years were asked whether their children had had fever over the last 2 weeks preceding the survey. Fewer children under five years of age reported fever during the follow up survey. The prevalence of reported fever within the last two weeks preceding the survey significantly reduced from 56% (n= 2,226) during baseline to 53.4% (n=2,654), with $p=0.0117$.



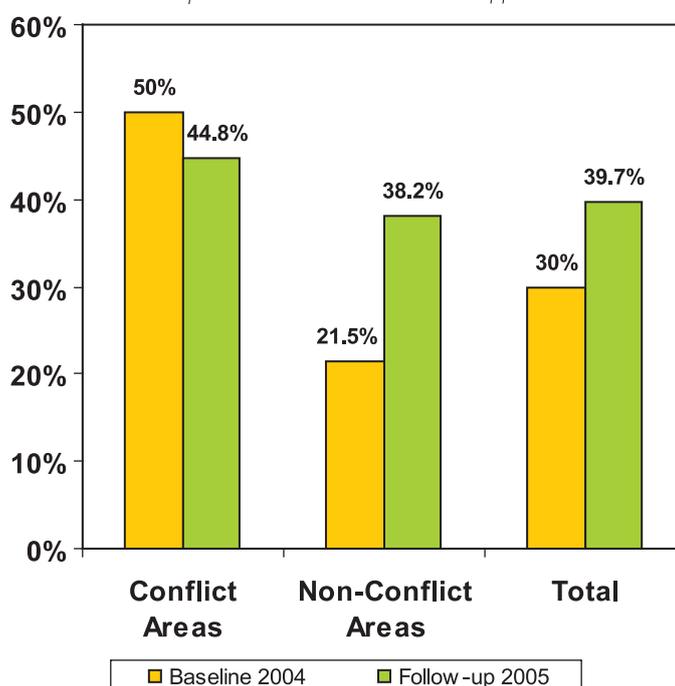
Fig 11: Percentage of children under-five years reporting fever within two weeks preceding the survey



Overall, the intensification in campaigns towards behavioral change and communication (BCC) on the use of insecticide treated bed nets and improvement on home hygiene supported by UPHOLD contributed to the reduction in the reported prevalence of fever in the 20 districts. Conflict areas persistently had a high reported prevalence of fever compared to non-conflict areas (Figure 11).

Overall, prompt and adequate treatment of children with MoH recommended drugs significantly increased from 30% (n=469) in the baseline to 39.7% (n=1,054) during follow up (P<0.001).

Fig 12: Percentage of under-five children receiving adequate treatment within 24 hours of fever onset



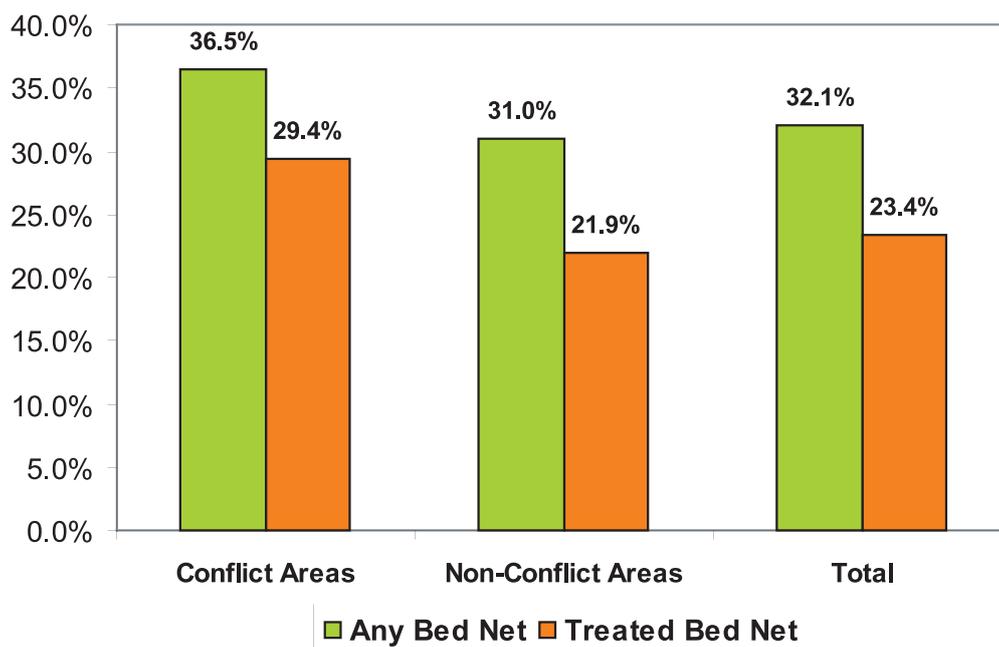
The overall increase in prompt and adequate treatment of under-five children was partly due to the reduction in attrition of Community Medicine Distributors (CMDs) through training and retraining. UPHOLD supported the retraining and training of 15,880 CMDs and raised the total CMDs to 23,839 in the 20 districts. UPHOLD also financed the procurement of 27,100 registers for the CMDs and supported district supervision of CMDs through the local government grants. Bushenyi district that experienced a malaria epidemic during the baseline survey had an increased proportion of children accessing prompt and adequate treatment within 24 hours of fever onset.

More under-five year children in conflict areas received prompt and adequate treatment of fever within 24 hours of fever onset compared to those in non-conflict areas (Figure 12). However, there was a decline in prompt and adequate treatment of fever in the conflict areas. This was as a result of a drop in district-led follow up and supervision in the districts of Gulu and Kitgum. These districts have not accessed the local government grants due to delays in accounting for funds from the previous disbursements from UPHOLD. But more specifically, sustainability of services in conflict areas remains a problem because of the daily instability that disrupts service delivery.

3.3.3 Insecticide Treated Mosquito Nets (ITNs)

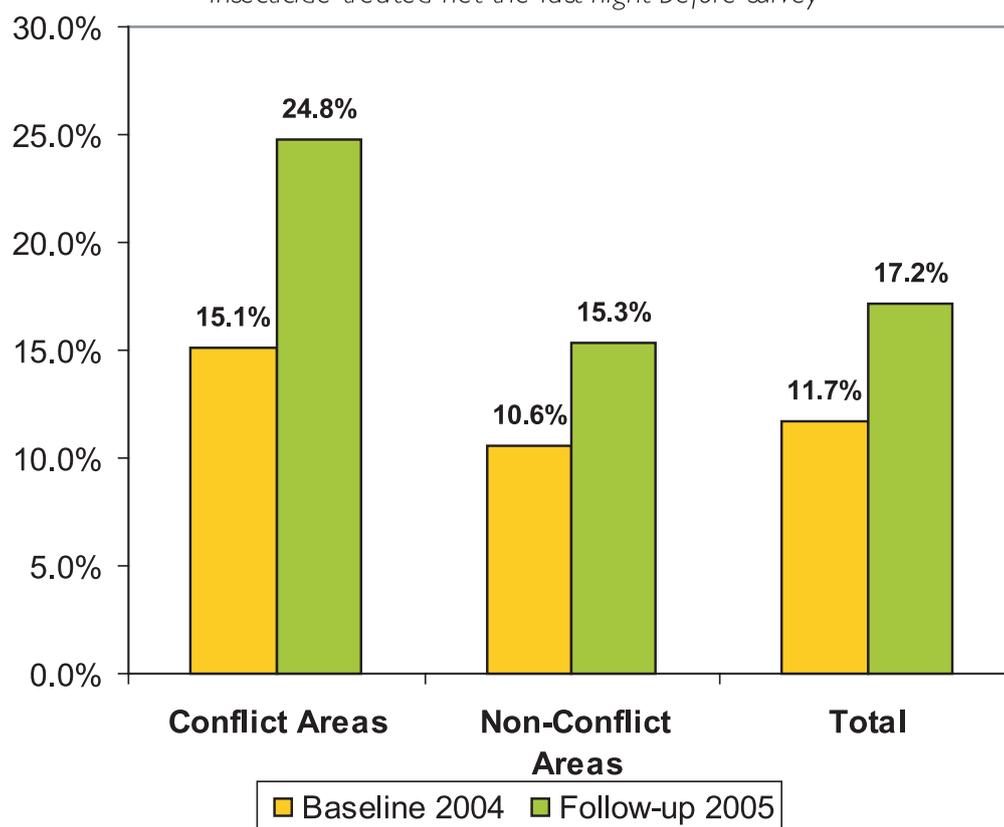
In all households surveyed, respondents were asked whether they had a mosquito net and if that mosquito net had been treated with a mosquito insecticide solution. Of the 12,397 households surveyed, 3,521 (28.4%) of the households had a mosquito net that is used during sleep. 2,472 (70.2%) of the nets were treated with a mosquito insecticide solution.

Fig 13: Percentage of Households with Mosquito Bed Nets



Parents/caretakers of children under five years were asked whether their children slept under a mosquito bed net the night before the survey and whether the mosquito bed net was treated. 32.1% (n=1,594) of the households with children under five years had a mosquito net. Only 1,162 (23.4%) of the households had an insecticide treated bed net. Districts in the conflict areas had more bed nets compared to the non-conflict areas as a result of free distribution of nets by UPHOLD and partners in the conflict areas. There was a significant increase from the baseline survey in the reported proportions of children under five years sleeping under a treated mosquito net (P<0.001).

Fig 14: Proportion of under-five children sleeping under an insecticide treated net the last night before survey



Of the 4,969 parents/caretakers interviewed, 854 (17.2%) reported that their children under-five years had slept under an insecticide treated mosquito bed net the night before the survey compared to 466 (11.7%) during the baseline survey. More children under-five in conflict areas sleep under insecticide treated nets compared to those in non-conflict areas (Figure 14). This is as a result of free long lasting bed nets distributed by UPHOLD and partners to households with children under-five and pregnant mothers attending antenatal care services in the conflict areas.

Overall, these interventions supported by UPHOLD have demonstrated that increase in the utilization of insecticide treated nets has a positive association on the reduction of reported fevers among children under five years of age. This is consistent with the findings in Bushenyi District and in conflict areas.

Overall, the proportion of reported fevers within the last 2 weeks preceding the survey significantly reduced from 55.8% to 53.4%. It is known that children in malaria endemic areas like Uganda suffer an average of 6 malaria episodes annually. While Household Surveys in Kabarole and Bundibugyo Districts showed that the direct cost of treatment for an episode of suspected malaria averages 2,000/= (US \$ 1.80) in rural area and 4,500/= (US \$ 4.10) in urban areas⁸. If the population of under 5 children in the 20 UPHOLD districts is estimated at about 2,156,650, and assuming that each child suffers an average of 6 episodes of malaria annually. This means that between the 2004 and 2005 household survey, 517,596 ($24/1000 \times 2,156,650 \times 6$) episodes of malaria in children under 5 years in the 20 UPHOLD districts have been prevented and Shs. 1,035,192,000/= ($517,596 \times 2,000$) has been saved by families with children under 5 years.

4.0 Integrated HIV/AIDS

UPHOLD supports the Ministry of Health's gender-focused and behavioral-centered HIV/AIDS approach that promotes the delivery and effective use of quality HIV/AIDS services. The core areas include: Counseling and Testing; Prevention of Mother to Child Transmission (PMTCT); Prevention and Treatment of TB, Sexually Transmitted Infections (STI) and Opportunistic Infections; Facility and Home-Based Care and Support to People Living with HIV/AIDS; Orphans and Vulnerable Children (OVC); HIV/AIDS prevention, mitigation and education; and Violence prevention and mitigation.

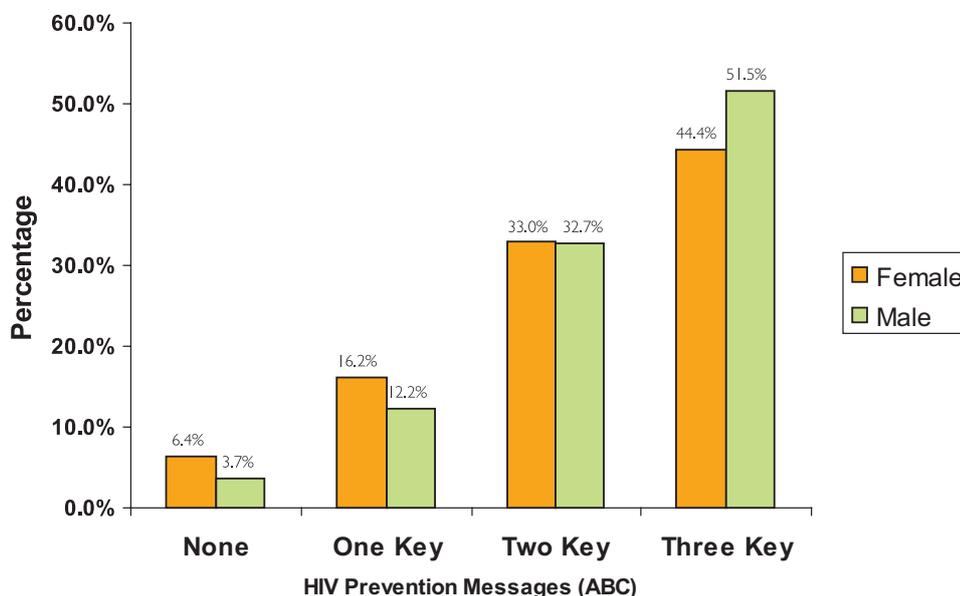
4.1 HIV/AIDS Prevention and Mitigation

Abstaining from sexual activity, mutual monogamy, and condom use are three behaviors that can prevent or reduce the likelihood of sexual transmission of the AIDS virus. These behaviors are often included together under a comprehensive "ABC" approach – A for abstinence (or delayed sexual initiation among youth), B for being faithful (or reducing one's number of sexual partners), and C for correct and consistent condom use, especially for casual sexual activity and other high-risk situations.

This survey reports on responses of women aged 15-49 years and men aged 15-54 years concerning HIV/AIDS prevention and mitigation. The survey established current levels of knowledge and awareness of modes of transmission of HIV.

There was a significant increase in the proportion of adults who correctly mentioned the three major ways of preventing HIV transmission from 46% (n=1,828) in the baseline to 48% (n=2,394) during follow up survey, with P=0.0317. This is attributed to the Behavior Change and Communication (BCC) campaigns launched by the Ministry of Health and districts with support from UPHOLD. Knowledge on the three major ways of HIV prevention was higher among men (51.5%, n=1,286) than in women (44.4%, n=1,108).

Fig 15: Knowledge of Key HIV/AIDS Prevention Messages



Despite efforts by the Ministry of Health with support from UPHOLD and partners to educate people about HIV/AIDS, there are many misconceptions about HIV/AIDS: what causes it, how a person can contract it and how a person can protect him or herself from it. The survey investigated the common misconceptions about HIV/AIDS that included the idea that HIV can be transmitted through mosquito bites, by sharing food with a person who has AIDS, by witchcraft or supernatural means, and that HIV-infected people always appear ill. These misconceptions, unfortunately, can be harmful because they can contribute to the spread of HIV/AIDS and promote stigma and discrimination.

Table 7: Rejection of misconceptions about AIDS

Percentage of adults 15-49 years who know:	Females	Males	Total
A healthy looking person can have the AIDS virus	2,070 (83.0%)	2,127 (85.2%)	4,197 (84.1%)
People cannot get AIDS virus from mosquito bites	1,245 (49.9%)	1,470 (58.9%)	2,715 (54.4%)
People cannot get AIDS virus by sharing food with a person who has AIDS	1,866 (74.9%)	1,962 (78.5%)	3,828 (76.7%)
People cannot get AIDS virus from witchcraft or other supernatural means	1,933 (77.5%)	1,958 (78.4%)	3,891 (78.0%)

Table 7 indicates that the majority of the population knows that a healthy looking person can have the AIDS virus. Eighty three percent of adult women and 85.2% of adult men know that a healthy looking person can have the AIDS virus. Seventy five percent of women and 78.5% of men know that a person cannot get the AIDS virus by sharing food with a person who has AIDS. Only 50% of women and 58.9% of men know that AIDS cannot be transmitted by mosquito bites.

Attitudes relating to HIV/AIDS were also investigated in this survey. Respondents were asked whether they would be willing to take care of a sick relative or family member with AIDS in their own households, whether they can buy fresh vegetables from an HIV-infected person, and whether female or male teachers who have the AIDS virus but not sick should be allowed to continue teaching. Table 8 presents results from the household survey.

Table 8: Accepting attitudes towards people who are HIV-infected

Percentage of adults 15-49 years who:	Females	Males	Total
Would be willing to care for a relative sick with AIDS in own household	2,222 (89.1%)	2,281 (91.3%)	4,503 (90.2%)
Would buy fresh vegetables from a shopkeeper or vendor who had the AIDS virus	1,438 (57.7%)	1,633 (65.4%)	3,071 (61.5%)
Believes a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	1,365 (54.8%)	1,534 (61.4%)	2,899(58.1%)
Believes a male teacher who has the AIDS virus but is not sick should be allowed to continue teaching	1,091 (43.8%)	1,313 (52.6%)	2,404 (48.2%)
If a family member got infected with the AIDS virus, would not necessarily want it to remain a secret	1,234 (49.5%)	1,348 (53.9%)	2,582 (51.7%)

The survey results indicate that 9 in 10 adults would be willing to care for a relative who is sick with AIDS in their own households. Fifty eight percent of women and 61.5% of men say they would buy fresh vegetables from a shopkeeper or vendor who had the virus. Fifty eight percent believe that a female who has the AIDS virus but is not sick should be allowed to continue teaching while 48% believe that a male teacher who has the AIDS virus but is not sick should be allowed to continue teaching. Half of the respondents say that if a family member got infected with the virus that causes AIDS, they would not necessarily want it to remain a secret.

4.2 HIV/AIDS Counseling and Testing

Respondents were asked whether they knew where HIV/AIDS testing services are offered in the area. Table 4 presents the HIV/AIDS counseling and testing patterns among adults aged between 15 to 49 years in the 20 districts. Knowledge of where testing services are offered is significantly higher in males (70.5%, n=1,762) than in females (62.4%, n=1,555), and high among adults in the age range 24-35 years (69.5%, n=1,233). Knowledge of testing sites is high in the districts of Arua (72%), Bushenyi 83.7%) and Rukungiri (82.1%) that can be attributed

to the sister partner, the JSI AIDS Integrated District Model program (AIM), that has been offering HIV/AIDS interventions for the last five years in the district.

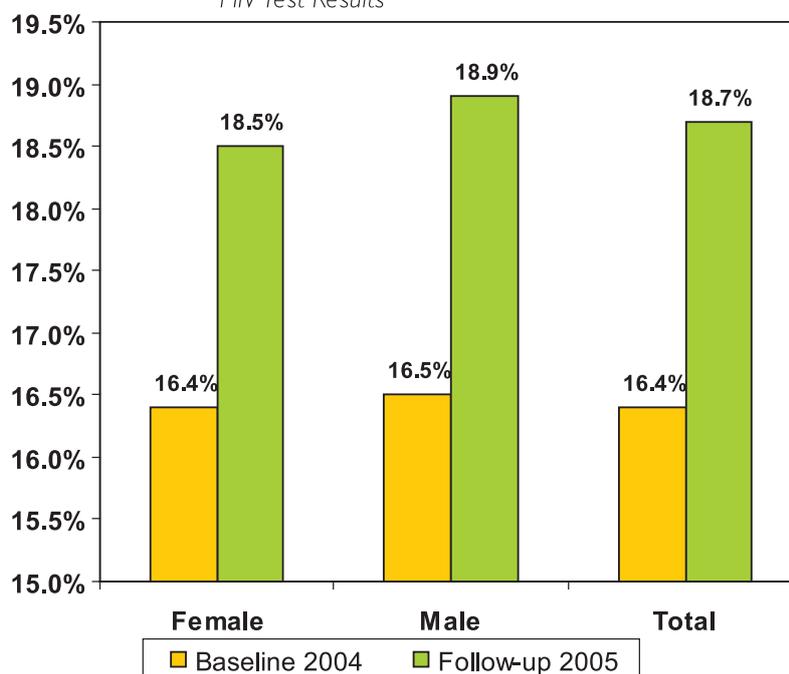
Respondents were asked whether they had been ever taken an HIV test. There was a significant increase, with $P < 0.001$, in the proportion of adults who reported to have taken an HIV test from 20% (n=795) during the baseline survey to 23.1% (n=1,151) in the follow up survey.

Table 9: HIV/AIDS Counseling and Testing Patterns among adults aged between 15 to 49 years

Characteristics	Female			Male		
	Know where testing services are offered	Have ever tested	Have ever tested and received HIV results	Know where testing services are offered	Have ever tested	Have ever tested and received HIV results
Age in Years						
15-24	435 (60.8%)	168 (23.5%)	136 (19.0%)	273 (67.1%)	75 (18.4%)	56 (13.8%)
24-35	623 (67.7%)	245 (26.6%)	207 (22.5%)	610 (71.4%)	217 (25.4%)	185 (21.6%)
35+	497 (58.0%)	160 (18.7%)	117 (13.7%)	879 (71.1%)	286 (23.1%)	232 (18.8%)
Region						
Central	340 (66.8%)	129 (25.3%)	102 (20.0%)	369 (72.6%)	123 (24.2%)	110 (21.7%)
Eastern	290 (48.0%)	96 (15.9%)	71 (11.8%)	378 (62.1%)	134 (22.0%)	106 (17.4%)
Western	483 (73.6%)	154 (23.5%)	129 (19.7%)	506 (77.1%)	125 (19.1%)	98 (14.9%)
Northern	442 (61.1%)	194 (26.8%)	158 (21.8%)	509 (70.2%)	196 (27.0%)	159 (21.9%)
Conflict Areas	253 (51.2%)	101 (20.5%)	78 (15.8%)	289 (58.2%)	97 (19.5%)	72 (14.5%)
Non-Conflict Areas	1,302 (65.1%)	472 (23.6%)	382 (19.1%)	1,473 (73.6%)	481 (24.0%)	401 (20.0%)
Total	1,555 (62.4%)	573 (23.0%)	460 (18.5%)	1,762 (70.5%)	578 (23.1%)	473 (18.9%)

Among those who tested and received their HIV test results, there was a significant increase in the reported percentages between baseline and follow up household surveys. 933 (18.7%) of the respondents had tested and received their HIV test results during the follow up survey compared to 653 (16.4%) reported in the baseline survey (Figure 15). There was no significant difference in proportion of men and women having an HIV test. HIV testing was higher in adults in the age range of 24-35 years. There were significant increases in counseling and testing uptake in the districts that UPHOLD awarded HIV/AIDS grants to Civil Society Organizations, especially in the districts of Mayuge (31.6%) and Wakiso (37.9%).

Fig 16: Proportion of Adults Testing and Receiving their HIV Test Results



UPHOLD's support to the Ministry of Health in increasing the number of HIV/AIDS service outlets through refurbishment/upgrading of existing facilities and facilitation of community outreaches has contributed to the increase in the accessibility of HIV testing services to the communities. However, the opt-in approach wherein the client must request to be tested (i.e. voluntary testing) is contributing to the many missed opportunities of having a greater proportion of the population testing and receiving results. This is evident from the findings of the survey whereby respondents who took the HIV test were asked whether they were offered and accepted the test or they had requested for it. The majority of respondents that tested for HIV reported that they had asked for the test (63.7%, n=733) while 29.7% (n=342) had been offered and accepted to test either at the health facilities or through community outreach campaigns. The evidence suggests that men are likely to utilize more services when appropriately delivered. The data shows that men requested more for the HIV tests (68.5%, n=396) compared to women (58.8%, n=337).

5.0 Conclusions and Recommendations

Overall, most indicators showed improvement over baseline particularly in malaria management, immunization, reproductive health, prevention of mother to child transmission, HIV/AIDS, parental involvement in education, and primary school attendance.

5.1 Conclusion

- *Primary school attendance*

There was an overall increase in primary school attendance from 91.3% (n=1,244) during baseline to 95.7% (n=15,382) in the follow up survey. This increase exceeds the natural population increase and is attributed to the education interventions currently being supported by UPHOLD that include teacher effectiveness, cooperative learning and community involvement in education. Primary school attendance was consistently lower in conflict areas (93%, n=3,477) compared to non-conflict areas (96.5%, n=11,905). School attendance needs to be improved in the districts of Nakapiripirit, Bundibugyo, Gulu, Katakwi and Lira.

- *School dropout*

The average age of school dropout in the survey was 9.6 years, and this is the age when most children are progressing from grade four to five. In the conflict areas, most children dropped out of school because of insecurity whereas staying at home for domestic work was the main reason for school dropout in this survey. The high school dropout rates due to domestic work need to be addressed in the districts of Nakapiripirit, Gulu, Katakwi, Arua, Bundibugyo and Kitgum.

A fifth of the households (20.6%) with a child currently in school reported that their children miss school because they are needed at home to take care of a sick family member or relative. The Northern region (25.4%) had the highest reported proportions of households where pupils missed school because they had to stay home and take care of sick relatives or family members. The 2005 National Sero-prevalence and behavioral survey showed that the Northern region had the highest HIV prevalence rates and this may explain why more children stay at home to take care of their sick family members or relatives.

- *Parental Involvement in Education*

Though the survey reveals that net school attendance increased between the baseline and follow up surveys, parental and community involvement in strategic education activities did not increase. This is as a result of the late roll out of planned interventions by the districts. In districts where these interventions were implemented before the survey, there was marked increase in strategic parental and community involvement in education. These districts included Mbarara, Wakiso and Pallisa.

- *Provision of meals*

The survey established a link between school attendance and provision of meals. It was established that provision of packed lunch to the pupil or a school providing any kind of meals increased daily school attendance. This is reinforced by the fact that schools in the conflict areas where food is provided free by the World Food Program registered high daily attendance ratios than in any other regions.

- *School Homework*

The follow up survey reported more children carrying home school homework compared to the baseline survey. The proportion of parents providing a conducive environment and assisting their children in completing the school homework was reportedly high during the follow up survey compared to the baseline especially in the districts that implemented the community involvement in education activities. This activity needs to be reinforced in the districts of Gulu, Katakwi and Nakapiripirit.

- *Keeping children safe from HIV infection through emphasizing Abstinence only*

The follow up survey reports an increase in the percentages of parents and guardians who had discussions with their primary school children about HIV/AIDS and delay in sex practices. This increase is mainly attributed to the PIASCY and the community involvement in education interventions with a component of parent-child dialogue that are being implemented by the MoES in primary schools with support from UPHOLD.

- *Immunization*

As a result of the increased campaigns through the National Immunization Days (NIDs) and grants to the local Government, there has been an increase in immunization coverage, especially in the districts that UPHOLD supported in the planning and community mobilization for the national and sub-national immunization days targeting polio immunization that also included DPT3 and deworming. However, the districts of Luwero, Bundibugyo, and Gulu are still performing below the expected levels.

- *Home-Based Management of Fever*

Overall, there was a significant increase in the management of fever at the community and facility levels. UPHOLD has supported the training of 15,880 Community Medicine distributors and raised the total CMDs in the 20 districts to 23,839. In addition to distributing free ITNs in conflict areas, UPHOLD has supported BCC campaigns designed to increase utilization of ITNs and the number of children under-five years sleeping under a mosquito treated bed net significantly increased during the past 12 months. Currently, UPHOLD is distributing free ITNs to communities identified during the baseline and follow up survey with low ITN coverage.

- *Clean Deliveries*

There was a significant increase in deliveries from health facilities especially in private facilities. The survey found an association between women receiving HIV testing and delivery at health facilities. This might be as a result of the grants UPHOLD awarded to Civil Society Organizations including the Uganda Private Midwives Association that had a social transformation components designed to increase utilization of social services, reduction in gender-based violence, and improving consumer-provider relations. However, most mothers in the conflict areas prefer delivering from their homes despite the fact that the camps in which they live are formed around or near health facilities. Lack of antenatal delivery kits and quality of services at these health facilities has been identified as major obstacles for mothers to deliver from health facilities and UPHOLD is assisting the Ministry of Health by providing free Maama Kits to mothers in camps in addition to supporting the retraining of health providers.

- *Prevention of Mother To-Child Transmission*

Uptake of mother-to-child transmission (MTCT) is still very low despite the fact that UPHOLD has awarded grants to CSOs to mobilize mothers to seek PMTCT services at the health facilities. The survey reveals that of the 91.9% mothers attending antenatal care at the facilities, only half are provided with information and counseled about HIV/AIDS. UPHOLD has identified skills development through training, good management practices and strong leadership as factors that can motivate health facility workers to commit themselves to the goals of PMTCT. Overall, they survey revealed a strong association between antenatal HIV testing and delivery at health facility. Mothers who tested and received their HIV test results were eight times more likely to deliver from the health facility. These findings suggest that knowledge of a mother's HIV status positively influences her choice of place for safe delivery.

- *HIV/AIDS*

UPHOLD awarded grants to 29 CSOs working in HIV/AIDS and this has resulted in a significant increase in the number of adults reporting to have received HIV testing services. Knowledge on HIV transmission, though apparently mixed up in some areas, increased over the implementation period.

There is greater knowledge among men compared to women on the three key ways of HIV prevention. Likewise, contrary to conventional wisdom, evidence from this survey suggests that men are likely to utilize more HIV testing services when appropriately delivered. In districts that UPHOLD awarded grants to CSOs, there was an increase in counseling and testing uptake especially in the districts of Mayuge and Wakiso. However, there are still misconceptions about HIV/AIDS despite the increased HIV/AIDS awareness campaigns.

5.2 Recommendations

- *Education*

The program should refocus on encouraging communities to participate in school management and Parent-Teacher meetings by supporting school open days and community action-oriented meetings that encourage community participation. In addition to retention and attendance rates, the program should work towards improving children's learning in literacy and numeracy through innovative approaches in teaching and learning, and improved school and classroom organization and curriculum delivery. Already the program is supporting the Cooperative Learning and Education Management Strengthening initiatives but more initiatives that will increase and support teacher knowledge and understanding of the issues affecting children learning are needed.

- *Health*

In addition to encouraging mothers to have their children's immunization completed by 12 months, more emphasis is needed in ensuring the retention of child health cards for effective monitoring of immunization coverage.

Access to free insecticide treated nets and availability of recommended anti-malarial drugs at the community level should be scaled up. This has been more effective in reducing malaria prevalence rates, mortality and morbidity in the community. Retraining and improved support supervision will motivate community medicine distributors in addition to provision of registers and regular feedback on performance to the community.

The program should support free distribution of Maama kits to encourage pregnant mothers deliver in health facilities in addition to supporting retraining of existing health providers. The program should continue supporting CSOs that are addressing gender-based violence and encouraging family dialogue at the community level. The survey has demonstrated that mothers who test are more likely to deliver from health facilities and further action research is needed.

- *HIV/AIDS*

Much as the program has supported and increased HIV testing and uptake at the community level, there is need to strengthen interventions that will improve community access to free antiretroviral therapies, and care and support for orphans.

Appendix A

Lot Quality Assurance Sampling

Lot quality assurance sampling (LQAS) is a small-sample classification technique used in manufacturing industry to judge the quality of a batch (lot) of manufactured items. In this context, LQAS is used to identify batches (lots) that are likely to contain an unacceptably large number of defective (faulty) items.

In the public health context, LQAS may be used to identify communities with (e.g.) unacceptably low immunization coverage or worrying levels of disease prevalence.

The LQAS method produces data that is easy to analyze. Data analysis is performed as data is collected and consists solely of counting the number of defects (e.g. children with a specific disease) in the sample and checking whether a predetermined threshold value has been exceeded. This combination of data collection and data analysis is called a sampling plan.

Preparing to use LQAS

In order to use **LQAS** you must first decide upon:

THE SURVEY TOPIC : The intervention to assess, the prevalence to estimate, &c.

THE TARGET POPULATION : The criteria used to identify eligible subjects.

A TRIAGE SYSTEM : A classification system that defines high, medium, and low categories of the phenomenon of interest. For example, with vaccine coverage you might define a community with a vaccine coverage of 50% or lower to be at high risk and a community with a vaccine coverage of 80% or higher to be at low risk. You really only have to decide upon the threshold values that define bad and good situations. In this example, a vaccine coverage of 50% or less is bad and a vaccine coverage of 80% or more is good. These thresholds are usually based on universally agreed standards or worked out using interviews and focus groups with interested parties.

AN ACCEPTABLE PROBABILITY OF ERROR: In **LQAS** surveys there are two probabilities of error. These are termed provider probability of error (**PPE**) and consumer probability of error (**CPE**):

PROVIDER PROBABILITY OF ERROR (PPE): The risk that the survey will indicate that a community is at high risk when it is, in fact, at low risk. A provider error may lead you to divert resources to a community that does not need them. PPE is analogous to type I error in statistical hypothesis testing.

CONSUMER PROBABILITY OF ERROR (CPE): The risk that the survey will indicate that a community is a low risk when it is, in fact, at high risk. A consumer error will leave at-risk communities undetected. **CPE** is analogous to type II error in statistical hypothesis testing.

PPE and CPE are often called provider risk and consumer risk. When calculating LQAS sample sizes you often have to trade provider risk for consumer risk. The different levels of provider risk and consumer risk that you find acceptable will depend upon the importance of the health problem being assessed and the availability of resources.

Once the upper and lower levels of the triage system and acceptable levels of error have been decided, a set of probability tables are constructed that are used to select a maximum sample size (n) and the number of defects or cases (d) that are allowed in the sample of n subjects before deciding that a population is a high prevalence population. The combination of maximum sample size (n) and number of defects (d) form the stopping rules of the sampling plan. Sampling stops when either the maximum sample size (n) is met or the allowable number of defects (d) is exceeded:

- If d is exceeded then the population is classified as high prevalence.
- If n is met without d being exceeded then the population is classified as low prevalence.

The values of n and d used in a sampling plan depend upon the threshold values used in the triage system and the acceptable levels of error.

There is no middle ground with LQAS sampling plans. Populations are always classified as either high or low prevalence. Populations with prevalences between the upper and lower standards of the triage system are classified as high or low prevalence populations. The probability of a moderate prevalence population being classified as high or low prevalence is proportional to the proximity of the prevalence in that population to the triage standards. Moderate prevalence populations close to the upper standard will tend to be classified as high prevalence populations. Moderate prevalence populations close to the lower standard will tend to be classified as low prevalence populations. This behaviour is summarized by the operating characteristic (OC) curve for the sampling plan.

How LQAS probability tables are calculated

Let the vaccine coverage in a population be defined as p. In this population the probability (Pa) of selecting a number (a) of vaccinated individuals in a sample of size n is:

$$P_a = \frac{n!}{a!(n-a)!} p^a q^{n-a}$$

where:

- p = the vaccine coverage in the population
- q = (1 - p)
- n = sample size (n in the LQAS decision rule)
- a = number of vaccinated persons in the sample
- n - a = number of unvaccinated persons in the sample (d in the LQAS decision rule)
- x! = factorial of x (e.g. if x = 4 then x! = 4 * 3 * 2 * 1 = 24, note 0! = 1)

If we assume a vaccine coverage in a population of 80%, the probability of finding none, one, two, or three unvaccinated children in a sample of 12 children from this population is:

Unvaccinated in sample	Probability
0	$\frac{12!}{11!(12-11)!} 0.8^{12} 0.2^0 = 0.0687$
1	$\frac{12!}{11!(12-11)!} 0.8^{11} 0.2^1 = 0.2062$
2	$\frac{12!}{10!(12-10)!} 0.8^{10} 0.2^2 = 0.2835$
3	$\frac{12!}{9!(12-9)!} 0.8^9 0.2^3 = 0.2362$

The probability of selecting three or fewer unvaccinated children is the sum of these probabilities:

$$0.0687 + 0.2062 + 0.2835 + 0.2362 = 0.7946$$

The results can be presented as follows:

Sample Size : 12

D P:80% P:50% Error

0	7%	100%	93%	<----	7%	»	0.0687
1	27%	100%	73%	<----	27%	»	0.0687 + 0.2062
2	56%	98%	46%	<----	56%	»	0.0687 + 0.2062 + 0.2835
3	79%	93%	28%	<----	79%	»	0.0687 + 0.2062 + 0.2835 + 0.2362

Appendix B

Rationale for Using LQAS

The emergence of decentralization at district level for improving good governance and accountability in developing countries, created need for district and lower level data for social services planning and management. Unfortunately, the Government collects data at national or regional levels, which do provide estimates at district level. The examples include demographic, health status survey (DHS), maternal and child mortality and morbidity, fertility, nutrition surveys etc. Thus, to fulfill data gaps, surveys at district levels are needed, which should be cost-efficient, small sample size and easy to carry out. From a management perspective, it is useful to collect information which are helpful in identifying gaps, setting priorities and standards, and using resources efficiently and effectively to fulfill gaps and needs. Thus, district management needs a sampling technique which is cost efficient and easy to use. Two sampling techniques – 30 cluster sampling and LQAS - are available to collect data using small sample size. We provide a comparison between the two techniques leading conclusion why LQAS was preferred for collecting data at household and facility levels.

World Health Organization (WHO), UNICEF and many other agencies and donors promoted 30 clusters sampling for assessing district immunization coverage. Johns Hopkins University applied the same technique for conducting baseline and final evaluation survey for knowledge, practices and coverage (KPC) surveys. The strengths of the sampling method were being simple, easy to conduct and cost effective. However, the sample size, calculated on probability of finding unit of interest is almost double or triple due to design effect and logistical reasons. Second, the 30 cluster sampling only provides overall estimates, and sub-grouping reduces sample size for calculating estimates with confidence.

Lot Quality Assurance Sampling (LQAS) was established in 1920s in industry to check quality of products. The purpose is to check whether product meet certain standard. LQAS sample size calculation tables are available. The LQAS sample is random and based on binomial distribution. Second, probabilities of false positive and false negative are calculated for different sample sizes for different standards. Thus, it is easier to calculate confidence interval based on these probabilities.

LQAS use in health started in late 80's with emphasis on quality of health services. In mid-nineties, KPC surveys for maternal and child health program funded by USAID started employing LQAS. A lot (supervisory area, local area, group of health workers, etc) provides information about whether a certain standard of performance was achieved with confidence interval. Because units of interest in lots are selected randomly, it is easier to get a big sample size by adding lots. It is recommended⁹ that a minimum of five lots, with lot size of 19, provide a sample size ($19 \times 5 = 95$), which is equal to sample size calculated based on 50% probability of finding something, with 10% error rate and 95% confidence¹⁰. Thus, a sample size of 95 provides an overall estimate of specific indicator. This sample size provides the same coverage estimate as a sample size of 210 in 30 cluster sampling¹¹. The cluster sample is increased because of design effect. While the cluster sample estimate could not be calculated as sample size becomes small. However, the lots (supervisory area) could be compared whether they fall below and above overall estimate. It also identifies which indicators within a lot are doing well and which are not. These are the advantages of LQAS over 30 cluster sampling. Second since the data collection is decentralized it is more cost effective. Since selection of unit of interest is random, there is no design effect and sample size remains the same and small.

The district management thus, could benefit from using LQAS for collecting data at district level which could be disaggregated at lower administrative levels or supervision areas. Keeping LQAS advantages and goal of strengthening decentralization, UPHOLD project has introduced LQAS in its target districts for household and facility baseline surveys, monitoring project activities and strengthening HMIS data quality and health and education services. District management recognized its utility and many districts started using it.

Does LQAS technique provide good population estimate?

Yes, LQAS provide good population estimates for the following reasons:

- It is random sample, meaning that each individual was given equal opportunity to be selected for interview.
- It is based on probability sample, thus error rate of 10% was set a priori, indicating that a confidence interval could be calculated on the estimates.
- The probabilities of false positive and false negative are inbuilt for sample size calculation in LQAS tables, again providing estimates of errors.
- A sample size¹² calculated based on finding unit of interest with 50% probability with 95% confidence and 10% error rate was 96, which is equal to five lots of 19 sample size in LQAS. This sample size is used for calculating district estimate.
 - All 20 district lot are aggregated to create a sample size for calculation of National estimates

Other Factors Affecting Population Estimates

Reliability of the data depends upon the reliability of the instrument used. The instrument used for collecting information on maternal and child health, HIV/AIDS are standards questions used in KPC and DHS surveys. The technical experts also reviewed the questions. The data analysis showed variations in responses indicating that there was no response bias.

Locating individuals for interviews was done using a list of all households. A sampling interval is calculated and used for selecting the household. Interviewers were well trained to substitute the subjects, when no one was available in the household, thus maintaining random selection.

Validity of the results is checked by various means. First, content validity of the instrument was checked by technical expert, beside questions were picked from existing standardized questionnaire such as KPC, DHS etc, thus confirming the content validity of the instrument. Second, the results are compared with other household surveys to provide some valid of data.

Appendix C

Table A1: Age-specific schooling status among children age 6-12 years.

Percent distribution of children age 6-12 by schooling status, according to background characteristics				
Characteristics of children	Not Attending		Attending	Number of children surveyed (n)
	Never attended (%)	Dropped out (%)	Attended (%)	
Age				
6	17.6	4.6	77.8	153
7	5.6	4.5	89.8	177
8	2.5	2.0	95.5	201
9	5.3	4.0	90.7	150
10	3.0	3.4	93.6	234
11	4.9	2.4	92.7	164
12	3.2	2.5	94.4	284
Region				
Central	3.9	2.0	94.1	255
Eastern	3.8	3.2	93.0	344
Western	3.1	1.4	95.5	352
Northern	10.2	5.1	84.7	412
Sex				
Male	5.2	3.1	91.7	709
Female	6.0	3.1	91.0	654
Total	5.6	3.1	91.3	1363



GOU/UPHOLD/UNICEF
LQAS HOUSEHOLD SURVEY QUESTIONNAIRE
AUGUST – SEPTEMBER 2005

Hello. My name is _____, and I am a district official working for the district departments of health, education and community development. We are conducting a survey to learn more about families and children in the district and I would appreciate your participation. First, I would like to know if you are the primary caretaker or guardian in the household. By primary caretaker or guardian I mean the person primarily responsible for feeding, clothing and caring for children in case you have one.

No → **STOP**. Interviewer: *Is there a person here who is the primary caregiver of the household?* If primary caretaker at home, begin introduction again. If primary caretaker not at home, go to next scheduled interview.

Yes → Continue with interview

IDENTIFICATION	CODES For Office Use Only
QUESTIONNAIRE IDENTIFICATION	
LQAS NUMBER _____ OF 19	
SUPERVISION AREA _____	
Interviewer : _____ District : _____ County : _____ Sub-County : _____ L.C.1 (Village, Zone) _____ L.C.1 (Village, Zone) Leader/Guide _____ Household Number __ __ Name of Respondent : _____	NAME CODE DISTRICT CODE COUNTY CODE SUB- COUNTY CODE
DATE OF INTERVIEW : __/__/__	

DISTRICT FIELD SUPERVISOR	UPHOLD/UNICEF EDITOR	KEYED BY
NAME _____	NAME _____	
DATE _____	DATE _____	

Now we would like some information about the people who usually live in your household.

LINE NO.	USUAL RESIDENTS	SEX	RELATIONSHIP TO HEAD OF HOUSE-HOLD	ORPHAN	AGE	RESIDENCE	ELIGIBILITY		
HL1	HL2	HL3	HL4	HL5.	HL6	HL7	HL8.	HL9.	HL10.
	Please give me the names of the persons who usually live in your household, starting with the head of the household.	Is (NAME) male or female?	What is the relationship of (NAME) to the head of the household?*	Are both of (name)'s natural mother and father still alive?	How old is (NAME)? RECORD MONTHS FOR CHILDREN UNDER 5 YEARS	Did (NAME) stay here last night?	FOR EACH CHILD UNDER 24 MONTHS: WHO IS THE MOTHER OF THIS CHILD? Record Line no. of mother	FOR EACH CHILD 24 TO 59 MONTHS WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD? Record Line no. of mother/ caretaker	FOR EACH CHILD AGE 5-14: WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD? Record Line no. of mother/ caretaker
01		M F	01	YES NO 1 2	YRS ___ MTHS_98_	YES NO 1 2			
02		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
03		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
04		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
05		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
06		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
07		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
08		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
09		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
10		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
11		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
12		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
13		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___
14		1 2	<input type="checkbox"/> <input type="checkbox"/>	1 2	YRS ___ MTHS___	1 2	___	___	___

*
01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW

10 = ORPHAN
11 = STEP CHILD
12 = BOTHER/SISTER IN LAW

13=OTHER

Instructions: LINE NUMBER, NAME OF ELIGIBLE CHILD; COPY FROM HOUSEHOLD SCHEDULE COLUMNS (1) AND (2)

LINE NO.	FOR HOUSEHOLD MEMBERS UNDER AGE 5 YEARS				FOR HOUSEHOLD MEMBERS AGE 5 TO 14 YEARS							
	CH1 CH2. NAME (INSERT NAME FROM HOUSEHOLD LISTING ABOVE FOR CHILDREN UNDER 5 YEARS AND BETWEEN 5 TO 14 YEARS) INSERT LINE NO.	CH3. Has (NAME) been registered with the Parish Development Committee, LC1 or health facility? 1. PDC 2. LC 3. Health facility 4. Not registered 8. DK	CH4. Does (NAME) have a birth certificate? IF YES, MAY I SEE THE CARD YES, SEEN....1 YES, NOT SEEN.....2 NO.....3 DK.....8	CH5. Is (NAME) currently enrolled in a Preschool or Nursery? YES NO	CH6. Has (NAME) been registered with the Parish Development Committee or LC1? 1. PDC 2. LC 3. Health facility 4. Not registered 8. DK	CH7. Does (NAME) have a birth certificate? IF YES, MAY I SEE THE CARD YES, SEEN...1 YES, NOT SEEN.....2 NO.....3 DK.....8	CH8. Has (NAME) ever attended school or preschool?	CH9. During this school year, did (name) attend school or preschool at any time?	CH10. In the last school week, how many days did (name) attend school? Insert number of days in space below.	CH11. During this school year, which class is (name) attending? CLASS: 0 Preschool 1 P1 2 P2 3 P3 4 P4 5 P5 6 P6 7 P7 8 SENIOR	CH12. Did (name) attend school or preschool at any time during the previous school year? YES NO	CH13. During that previous school year, which class did (name) attend? CLASS: 0 Preschool 1 P1 2 P2 3 P3 4 P4 5 P5 6 P6 7 P7 8 SENIOR
			YES NO	YES NO		YES NO DK	YES NO	YES NO	DAYS	CLASS	YES NO	CLASS
		<input type="checkbox"/>	<input type="checkbox"/>	1 2	<input type="checkbox"/>	<input type="checkbox"/>	1 2 (WS1) ↓	1 2 (CH12) ↓	—	—	1 2 (WS1) ↓	—
		<input type="checkbox"/>	<input type="checkbox"/>	1 2	<input type="checkbox"/>	<input type="checkbox"/>	1 2 (WS1) ↓	1 2 (CH12) ↓	—	—	1 2 (WS1) ↓	—
		<input type="checkbox"/>	<input type="checkbox"/>	1 2	<input type="checkbox"/>	<input type="checkbox"/>	1 2 (WS1) ↓	1 2 (CH12) ↓	—	—	1 2 (WS1) ↓	—
		<input type="checkbox"/>	<input type="checkbox"/>	1 2	<input type="checkbox"/>	<input type="checkbox"/>	1 2 (WS1) ↓	1 2 (CH12) ↓	—	—	1 2 (WS1) ↓	—
		<input type="checkbox"/>	<input type="checkbox"/>	1 2	<input type="checkbox"/>	<input type="checkbox"/>	1 2 (WS1) ↓	1 2 (CH12) ↓	—	—	1 2 (WS1) ↓	—
		<input type="checkbox"/>	<input type="checkbox"/>	1 2	<input type="checkbox"/>	<input type="checkbox"/>	1 2 (WS1) ↓	1 2 (CH12) ↓	—	—	1 2 (WS1) ↓	—
		<input type="checkbox"/>	<input type="checkbox"/>	1 2	<input type="checkbox"/>	<input type="checkbox"/>	1 2 (WS1) ↓	1 2 (CH12) ↓	—	—	1 2 (WS1) ↓	—
		<input type="checkbox"/>	<input type="checkbox"/>	1 2	<input type="checkbox"/>	<input type="checkbox"/>	1 2 (WS1) ↓	1 2 (CH12) ↓	—	—	1 2 (WS1) ↓	—

WATER AND SANITATION MODULE		
WS1	<p>What is the main source of drinking water for members of your household?</p> <p><i>Select only one</i></p>	<p>Piped water Piped into dwelling 11⇒ws3 Piped into yard or plot 12⇒ws3 Public tap/standpipe 13 Borehole 21 Dug well Protected well/spring 31 Unprotected well/spring..... 32</p> <p>Rainwater collection 41 Tanker-truck 51 Cart with small tank/drum..... 61 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) 71</p> <p>Bottled water 81 Other (<i>specify</i>) 96</p>
WS2	<p>What is the main source of water used by your household for other purposes such as cooking and hand washing?</p> <p><i>Select only one</i></p>	<p>Piped water Piped into dwelling 11⇒ws3 Piped into yard or plot 12⇒ws3 Public tap/standpipe 13 Borehole 21 Dug well Protected well/spring 31 Unprotected well/spring..... 32</p> <p>Rainwater collection 41 Tanker-truck 51 Cart with small tank/drum..... 61 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) 71</p> <p>Bottled water 81 Other (<i>specify</i>) 96</p>
WS3	<p>How long does it take to go there, get water, and come back?</p>	<p>No. of minutes ____ ____ Water on premises 995 DK 998</p>
WS4	<p>How many jerry cans do you use a day for drinking, cooking, washing and bathing?</p> <p>PROBE FOR THE SIZE OF JERRY CANS AND OTHER CONTAINERS/POTS</p>	<p>Number of litres ____ ____</p>
WS5	<p>What kind of toilet facility do members of your household usually use?</p> <p><i>If necessary, ask permission to observe the facility.</i></p>	<p>Flush / pour flush..... 11 Ventilated Improved Pit latrine (VIP) 21 Pit latrine with slab 22 Pit latrine without slab / open pit 23</p> <p>Hanging toilet/hanging latrine..... 51 No facilities or bush or field 95</p> <p>Other (<i>specify</i>) 96</p>
WS6	<p>Do you share this facility with other households?</p>	<p>Yes..... 1 No 2 ⇒Go to next module</p>
WS7	<p>How many households in total use this toilet facility?</p>	<p>No. of households (if less than 10)..... 0 ____</p> <p>Ten or more households 10 DK 98</p>

ITN MODULE		
TN1	Does your household have any mosquito nets that can be used while sleeping?	Yes.....1 No.....2 ⇒ Go to next module
TN2	How many mosquito nets does your household have? <i>If 7 or more nets, record '7'.</i>	Number of nets..... ____
TN3	Is the net (are any of the nets) any of the following brands: <i>Read each brand name, show picture card, and circle codes for Yes or No for each brand. If possible, observe the net to verify brand.</i> LONG-LASTING TREATED NETS: TN3L1. <i>SmartNet?</i> TN3L2. <i>PermaNET?</i> PRE-TREATED NETS: TN3P1. <i>SafiNet?</i> TN3P2. <i>K-ONet?</i> TN3P3. <i>IcoNet?</i> OTHER NETS: TN3O1. <i>Unbranded Net?</i> TN3O3. ANY OTHER BRAND OF NET? TN3O4. AN UNKNOWN BRAND OF NET?	Y N DK Long-lasting treated nets: SmartNet1 2 8 PermaNet1 2 8 Pre-treated nets: SafiNet.....1 2 8 KO Net.....1 2 8 IcoNet1 2 8 Other nets: Unbranded.....1 2 8 Other brand (specify brand)..... 1 2 Unknown brand 1 2
TN4. Check TN3 for brand of net(s). Go through the above list in order until <i>one</i> box is checked and follow instructions: 1. <input type="checkbox"/> Long-lasting treated net (brand A or brand B) mentioned? ⇒ Go to Next Module 2. <input type="checkbox"/> Pre-treated net (brand C or brand D) mentioned? ⇒ Go to TN6 3. <input type="checkbox"/> Other net (brand E, brand F or any other net, or an unknown brand) mentioned? ⇒ Continue with TN5		
TN5	When you got the (most recent) net, was it already treated with an insecticide to kill or repel mosquitoes?	Yes 1 No.....2 DK/not sure 8
TN6	How many months ago was the (most recent) net obtained? <i>If less than 1 month ago, record '00'. If answer is "12 months" or "1 year", probe to determine if net was obtained exactly 12 months ago or earlier or later.</i>	Months ago..... ____ More than 24 months ago 95 Not sure..... 98
TN7	Since you got the net(s) has it (have any of these nets) ever been soaked or dipped in a liquid to kill/repel mosquitoes?	Yes.....1 No.....2 ⇒ TN9 DK8 ⇒ TN9
TN8	How long ago was the most recent soaking/dipping done? <i>If less than 1 month, record '00'. If answer is "12 months" or "1 year", probe to determine if net was treated exactly 12 months ago or earlier or later.</i>	Months ago..... ____ More than 24 months ago 95 Not sure 98
TN9	Did you sleep under a mosquito net last night?	Yes 1 No.....2

HIV/AIDS EDUCATION MODULE		
ED8	Do you talk with any of your children below 15 years about HIV/AIDS?	Yes..... 1 No 2
ED9	Do you talk with any of your children below 15 years about sex or delaying sex?	Yes.....1 No2 ⇒ Go to QUESTIONNAIRE
ED10	In the past 3 months, have you discussed with any your children below 15 years about delaying sex and safer sex practices?	Yes..... 1 No 2



GOU/UPHOLD/UNICEF
LQAS HOUSEHOLD SURVEY QUESTIONNAIRE
AUGUST – SEPTEMBER 2005

QUESTIONNAIRE FOR CHILD UNDER TWO YEARS

QUESTIONNAIRE IDENTIFICATION	<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 15%;"></td> </tr> </table>						
LQAS NUMBER OUT OF 19 _____	<table border="1" style="width: 60px; height: 20px;"> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"></td> </tr> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"></td> </tr> </table>						
SUPERVISION AREA _____	<table border="1" style="width: 60px; height: 20px;"> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"></td> </tr> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"></td> </tr> </table>						
Household Number __ _							
Name of Mother : _____							
Name of Child _____							
MOTHER LINE NUMBER	<table border="1" style="width: 60px; height: 20px;"> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"></td> </tr> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"></td> </tr> </table>						
CHILD LINE NUMBER	<table border="1" style="width: 60px; height: 20px;"> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"></td> </tr> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"></td> </tr> </table>						

TO BE ADMINISTERED TO MOTHER OF CHILD UNDER TWO YEARS ONLY

Now I would like to ask you some questions about your last pregnancy and birth that took place between August 2003 and July 2005.

MATERNAL AND NEWBORN HEALTH MODULE		
MN1	During (NAME)'s pregnancy, did you receive antenatal care from a health unit or facility?	Yes.....1 No2⇒ MN7
MN2	How many times did you receive antenatal care during this pregnancy?	No. of times..... <input type="text"/> <input type="text"/> <input type="text"/> Don't know 98
MN3	During any of the antenatal visits for the pregnancy, were you given any information or counseled about AIDS or the AIDS virus?	Yes..... 1 No 2 DK..... 8
MN4	Were you offered a test for the AIDS virus as part of your antenatal care?	Yes.....1 No2⇒MN7
MN5	I don't want to know the results, but were you tested for the AIDS Virus as part of your antenatal care?	Yes.....1 No2⇒MN7
MN6	I don't want to know the results, but did you get the results of the test?	Yes..... 1 No 2
MN7	Who assisted with the delivery of your last child (name)? Anyone else? Probe for the type of person assisting and circle all answers given.	Health professional: Doctor 1 Nurse/midwife 2 Nursing Aide 3 Other person Traditional birth attendant 4 Community health worker 5 Relative/friend 6 Other (specify)..... 7 No one 8
MN8	Where did you give birth to (NAME)? <i>If source is hospital, health center, or clinic, write the name of the place below. Probe to identify the type of source and circle the appropriate code.</i> _____ (NAME OF PLACE)	HOME Your home 1 TBA's Home 2 Other home 3 PUBLIC SECTOR Govt hospital 4 Gov't Clinic/Health Centre 5 Other public (specify)_____ 6 PRIVATE MEDICAL SECTOR Private hospital 7 Private clinic 8 Private maternity home 9 Other private medical (specify)_____ 10

TETANUS TOXOID (TT) MODULE		
TT1	Do you have a card or other document with your own immunizations listed? <i>If a card is presented, use it to assist with answers to the following questions.</i>	Yes (card seen) 1 Yes (card not seen) 2 No 3 DK 8
TT2	When you were pregnant with your last child, did you receive any injection to prevent him or her from getting tetanus, that is, convulsions after birth (an anti-tetanus shot, an injection at the top of the arm or shoulder)?	Yes.....1 No2⇒TT5 DK.....8⇒TT5
TT3	If yes: How many times did you receive this anti-tetanus injection during your last pregnancy?	No. of times..... __ __ DK..... 98
TT4	How many TT doses during last pregnancy were reported in TT3? <input type="checkbox"/> At least two TT injections during last pregnancy. ⇒ Go to Next Module <input type="checkbox"/> Fewer than two TT injections during last pregnancy. ⇒ Continue with TT5	
TT5	Did you receive any tetanus toxoid injection at any time before your last pregnancy?	Yes.....1 No2⇒ Go to Next Module DK.....8⇒ Go to Next Module
TT6	How many times did you receive it?	No. of times..... __ __
TT7	In what month and year did you receive the last anti-tetanus injection before that last pregnancy? <i>Skip to next module only if year of injection is given. Otherwise, continue with TT8.</i>	Month..... __ __ DK month.....98 Year __ __ __ __ ⇒ Go to Next Module DK year.....9998
TT8	How many years ago did you receive the last anti-tetanus injection before that last pregnancy?	Years ago __ __

BIRTH PREPAREDNESS MODULE																							
BP1	Prior to this birth, did you or your family make any arrangements for the birth of (NAME)?	YES.....1 NO.....2⇒ BP3																					
BP2	How did you or your family arrange for the birth of (NAME)? (CIRCLE ALL RESPONSES GIVEN) THEN PROBE: Did you [ANY REMAINING ARRANGEMENTS]?	<table border="0"> <thead> <tr> <th></th> <th>UNPROMPTED</th> <th>PROMPTED</th> </tr> </thead> <tbody> <tr> <td>Identify Transport</td> <td>01</td> <td>01</td> </tr> <tr> <td>Save Money</td> <td>02</td> <td>02</td> </tr> <tr> <td>Identify blood donor</td> <td>03</td> <td>03</td> </tr> <tr> <td>Identify skilled provider</td> <td>04</td> <td>04</td> </tr> <tr> <td>Acquire a Mama Kit</td> <td>05</td> <td>05</td> </tr> <tr> <td>Other _____</td> <td></td> <td>06</td> </tr> </tbody> </table>		UNPROMPTED	PROMPTED	Identify Transport	01	01	Save Money	02	02	Identify blood donor	03	03	Identify skilled provider	04	04	Acquire a Mama Kit	05	05	Other _____		06
	UNPROMPTED	PROMPTED																					
Identify Transport	01	01																					
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Identify blood donor	03	03																					
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Acquire a Mama Kit	05	05																					
Other _____		06																					
BP3	During (NAME)'s pregnancy, did you usually sleep under a mosquito net?	YES.....1 NO.....2⇒ BP5																					
BP4	Was this net ever treated with a product to kill mosquitoes?	YES.....1 NO.....2 DON'T KNOW.....8																					

BP5	Did you sleep under a mosquito net last night?	YES..... 1 NO..... 2
-----	--	-------------------------

BREASTFEEDING MODULE

BF1	Now I'd like to ask you some questions about breastfeeding. Has (name) ever been breastfed?	Yes..... 1 No 2⇒ BF4 DK..... 8⇒ BF4
BF2	Is (NAME) still being breastfed?	Yes..... 1 No 2
BF3	For how many months have you breastfed (NAME)?	Months <input type="text"/> <input type="text"/> Don't Know 98
BF4	After how many months did you start giving (NAME) fluids, including water? <i>IF NOT YET, RECORD '90'</i>	Months <input type="text"/> <input type="text"/> Don't Know 98
BF5	After how many months did you start giving (NAME) solid foods, including porridge? <i>IF NOT YET, RECORD '90'</i>	Months <input type="text"/> <input type="text"/> Don't Know 98

CARE OF ILLNESS MODULE

CA1	Has (NAME) had diarrhea in the last two weeks? <i>Diarrhea is determined as perceived by mother or caretaker, or as three or more loose or watery stools per day, or blood in stool.</i>	Yes.....1 No 2⇒ Go to Next Module DK..... 8⇒ Go to Next Module
CA2	During this last episode of diarrhea, did (name) drink any of the following: Read each item aloud and record response before proceeding to the next item. CA2A: A fluid made from a special packet called (LOCAL NAME OR ORS PACKET SOLUTION)? CA2B: Government-recommended homemade fluid? (a mixture of water, sugar and salt) CA2C: A pre-packaged ORS fluid for diarrhea?	Yes No DK A. Fluid from ORS packet..... 1 2 8 B. Recommended homemade fluid .. 1 2 8 C. Pre-packaged ORS fluid 1 2 8
CA3	During (name's) illness, did he/she drink much less, about the same, or more than usual?	Much less or none 1 About the same (or somewhat less)..... 2 More..... 3 DK..... 8
CA4	During (name's) illness, did he/she eat less, about the same, or more food than usual? <i>If "less", probe: much less or a little less?</i>	None 1 Much less..... 2 Somewhat less 3 About the same..... 4 More..... 5 DK..... 8

MALARIA MODULE FOR UNDER-FIVES		
ML1	In the last two weeks, has (name) been ill with a fever?	Yes.....1 No2⇒ML11 DK.....8⇒ML11
ML2	Was (NAME) taken to a health facility during this illness?	Yes.....1 No2⇒ML7 DK.....8⇒ML7
ML3	Was (name) attended to at a health facility during this illness?	Yes.....1 No2⇒ML7 DK.....8⇒ML7
ML4	Did (name) take a medicine for fever or malaria that was provided or prescribed at the health facility?	Yes.....1 No2⇒ML6 DK.....8⇒ML6
ML5	What medicine did (name) take that was provided or prescribed at the health facility? <i>Circle all medicines mentioned.</i>	Anti-malarials: SP/Fansidar 1 Chloroquine..... 2 HOMAPAK..... 3 Amodiaquine/Camaquine 4 Quinine..... 5 Artemisinin-based combinations..... 6 Other anti-malarial (specify) _____ 7 Other medications: Paracetamol/Panadol/Acetaminophen ... 8 Aspirin 9 Ibuprofen..... 10 Traditional Medicine..... 11 Other (specify) _____ 12 DK..... 97
ML6	Was (name) given medicine for the fever or malaria before being taken to the health facility?	Yes..... 1⇒ML8 No 2⇒ML9 DK..... 8⇒ML9
ML7	Was (name) given medicine for fever or malaria during this illness?	Yes.....1 No2⇒ML9 DK.....8⇒ML9
ML8	What medicine was (name) given? <i>Circle all medicines given. Ask to see the medication if type is not known. If type of medication is still not determined, show typical anti-malarials to respondent.</i>	Anti-malarials: SP/Fansidar 1 Chloroquine..... 2 HOMAPAK..... 3 Amodiaquine/Camaquine 4 Quinine..... 5 Artemisinin-based combinations..... 6 Other anti-malarial (specify) _____ 7 Other medications: Paracetamol/Panadol/Acetaminophen ... 8 Aspirin 9 Ibuprofen..... 10 Traditional Medicine..... 11 Other (specify) _____ 12 DK..... 97

ML9	<p>Check ML5 and ML8: Anti-malarial mentioned (codes 1 - 7)?</p> <p><input type="checkbox"/> Yes. ⇒ Continue with ML10</p> <p><input type="checkbox"/> No. ⇒ Go to ML12</p>	
ML10	<p>How long after the fever started did (name) first take (name of anti-malarial from ML5 or ML8)?</p> <p><i>If multiple anti-malarials mentioned in ML5 or ML8, name all anti-malarial medicines mentioned.</i></p> <p><i>Record the code for the day on which the first anti-malarial was given.</i></p>	<p>Same day 0</p> <p>Next day 1</p> <p>2 days after the fever 2</p> <p>3 days after the fever 3</p> <p>4 or more days after the fever 4</p> <p>DK..... 8</p>
ML11	<p>Check ML4 and ML7: HOMAPAK mentioned (code 3)?</p> <p>Ask or Show picture:</p> <p>ML10A: Was the HOMAPAK Red or Green?</p> <p>ML10B: Where did you get the HOMAPAK PROBE SOURCE</p>	<p>Red 1</p> <p>Green 2</p> <p>Health unit..... 1</p> <p>Community Drug Distributor/CORP (free).. 2</p> <p>Bought..... 3</p>
ML12	<p>Did (name) sleep under a mosquito net last night?</p>	<p>Yes.....1</p> <p>No2⇒ Go to Next Module</p> <p>DK.....8⇒ Go to Next Module</p>

IMMUNIZATION MODULE

If an immunization card is available, copy the dates in IM2-IM8 for each type of immunization or vitamin A dose recorded on the card. IM10-IM18 are for recording vaccinations that are not recorded on the card. IM10-IM18 will only be asked when a card is not available^e

IM1	<p>Is there a vaccination card for (NAME)?</p> <p>IF YES, MAY I SEE THE CARD</p>	<p>YES, SEEN.....1</p> <p>YES, NOT SEEN.....2⇒IM10</p> <p>NO.....3⇒IM10</p>																																																																		
<p>(a) Copy dates for each vaccination from the card.</p> <p>(b) Write '44' in day column if card shows that vaccination was given but no date recorded.</p>		<table border="1"> <thead> <tr> <th colspan="3"></th> <th colspan="3">Date of Immunization</th> </tr> <tr> <th></th> <th>DAY</th> <th></th> <th>MONTH</th> <th></th> <th>YEAR</th> </tr> </thead> <tbody> <tr> <td>IM2.</td> <td>BCG</td> <td>BCG</td> <td></td> <td></td> <td></td> </tr> <tr> <td>IM3a.</td> <td>Polio at birth</td> <td>OPV0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>IM3b.</td> <td>Polio 1</td> <td>OPV1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>IM3c.</td> <td>Polio 2</td> <td>OPV2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>IM3d.</td> <td>Polio 3</td> <td>OPV3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>IM5a.</td> <td>HepB1 (or DPTHepB1)</td> <td>(DPT)H1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>IM5b.</td> <td>HepB2 (or DPTHepB2)</td> <td>(DPT)H2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>IM5c.</td> <td>HepB3 (or DPTHepB3)</td> <td>(DPT)H3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>IM6.</td> <td>Measles (or MMR)</td> <td>Measles</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Date of Immunization				DAY		MONTH		YEAR	IM2.	BCG	BCG				IM3a.	Polio at birth	OPV0				IM3b.	Polio 1	OPV1				IM3c.	Polio 2	OPV2				IM3d.	Polio 3	OPV3				IM5a.	HepB1 (or DPTHepB1)	(DPT)H1				IM5b.	HepB2 (or DPTHepB2)	(DPT)H2				IM5c.	HepB3 (or DPTHepB3)	(DPT)H3				IM6.	Measles (or MMR)	Measles			
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IM8a.	Vitamin A (1)	VitA1							
IM8b.	Vitamin A (2)	VitA2							

IM9	In addition to the vaccinations and vitamin A capsules shown on this card, did (name) receive any other vaccinations – including vaccinations received in campaigns or immunization days? <i>Record 'Yes' only if respondent mentions BCG, OPV 0-3, DPT 1-3, Hepatitis B 1-3, Measles, Yellow Fever vaccine(s), or Vitamin A supplements.</i>	Yes 1⇒Go to next module <i>(Probe for vaccinations and write '66' in the corresponding day column on IM2 to IM8B.)</i> No.....2⇒Go to next module DK8⇒Go to next module
IM10	Has (name) ever received any vaccinations to prevent him/her from getting diseases, including vaccinations received in a campaign or immunization day?	Yes.....1 No.....2⇒Go to next module DK8⇒Go to next module
IM11	Has (name) ever been given “DPT vaccination injections” – that is, an injection in the thigh or buttocks – to prevent him/her from getting tetanus, whooping cough, diphtheria? (sometimes given at the same time as polio)	Yes.....1 No.....2⇒IM13 DK8⇒IM13
IM12	How many times?	No. of times
IM13	Has (name) ever been given “Measles vaccination injections” or MMR – that is, a shot in the arm at the age of 9 months or older - to prevent him/her from getting measles?	Yes 1 No.....2 DK8

VITAMIN A MODULE

VA1	Has (name) ever received a vitamin A capsule (supplement) like this one? <i>Show capsule or dispenser for different doses – 100,000 IU for those 6-11 months old, 200,000 IU for those 12-59 months old.</i>	Yes.....1 No2 ⇒Go to next module DK.....8⇒Go to next module
VA2	How many months ago did (name) take the last dose?	Months ago..... DK.....98
VA3	Where did (name) get this last dose?	On routine visit to health facility1 Sick child visit to health facility2 National Immunization Day campaign.....3 Other (<i>specify</i>)6 DK.....8



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LQAS HOUSEHOLD SURVEY QUESTIONNAIRE

QUESTIONNAIRE FOR CHILD 24 TO 59 MONTHS

QUESTIONNAIRE IDENTIFICATION	<table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>						
LQAS NUMBER OUT OF 19 _____ SUPERVISION AREA _____	<table border="1"> <tr> <td></td><td></td> </tr> <tr> <td></td><td></td> </tr> </table>						
Household Number __ __ Name of Parent/Caretaker : _____ Name of Child _____							
PARENT/CARETAKER LINE NUMBER CHILD LINE NUMBER	<table border="1"> <tr> <td></td><td></td> </tr> <tr> <td></td><td></td> </tr> </table>						

TO BE ADMINISTERED TO CARETAKER OF CHILD AGED BETWEEN 24 TO 59 MONTHS

Check Household listing Questionnaire. If CH8 is Yes and CH9 is Yes, ask

CHILDREN CURRENTLY ATTENDING SCHOOL																																																		
ED1	<p>Now I would like to ask you some questions about (NAME)'s school attendance. There are many reasons that children sometimes do not attend school, even though school is open and classes are meeting.</p> <p>In the last school year, did (NAME) miss school for any of the following reasons?</p> <p>(NAME) was needed to do domestic work such as caring for younger children, cooking or cleaning, fetching water or wood etc</p> <p>(NAME) was needed to take care of sick family member or relative</p> <p>(NAME) had no school materials such as books, uniform, shoes etc</p> <p>(NAME) was needed to tend animals, or work on the family farm or in the family business</p> <p>(NAME) was needed to work for an employer</p> <p>Travel to school was unsafe for (NAME)</p> <p>(NAME) was attending a funeral, wedding or other ceremony</p> <p>(NAME) did not want to go to school.</p> <p>(NAME) was canned or mistreated by teachers or by other pupils</p> <p>(NAME) missed school because of illness</p> <p>(NAME) missed school for any other reasons</p>	<table> <thead> <tr> <th></th> <th>Y</th> <th>N</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>DOMESTIC WORK.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>CARE FOR SICK.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>NO MATERIALS.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>FARM/FAMILY BUSINESS</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>WORK FOR EMPLOYER.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>INSECURITY.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>CEREMONY.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>DID NOT WANT</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>MISTREATED</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>ILLNESS.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>OTHER.....</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		Y	N	DK	DOMESTIC WORK.....	1	2	8	CARE FOR SICK.....	1	2	8	NO MATERIALS.....	1	2	8	FARM/FAMILY BUSINESS	1	2	8	WORK FOR EMPLOYER.....	1	2	8	INSECURITY.....	1	2	8	CEREMONY.....	1	2	8	DID NOT WANT	1	2	8	MISTREATED	1	2	8	ILLNESS.....	1	2	8	OTHER.....	1	2	8
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ED2	Sometimes children are given work from school to do at home, did (NAME) bring home any home work from school during the term?	Yes.....1 No2⇒ED5 Don't know8⇒ED5																																																
ED3	If yes to previous question, was (NAME) able to complete the school home work?	Yes.....1 No.....2 Don't know.....8																																																
ED4	Did you or anyone in the household assist (NAME) in doing the home work? <i>By assistance I mean providing necessary materials like lamp, paper/books; schedule homework time; be sure (name) understands the assignments and directions.</i>	Yes.....1 No2																																																
ED5	Does (NAME)'s school provide any kind of meal including porridge to him or her?	Yes.....1 No2 Don't know8																																																
ED6	Does (NAME) carry any packed food to school? <i>By packed food, I mean any kind of food or fruit</i>	Yes.....1 No2 Don't know8																																																
ED7	During this school year, did you or any caretaker/parent residing in this home visit (NAME)'s school for any of the following reasons? 1. Meeting or conference with school management 2.To observe teachers' teaching classes 3.To review (NAME)'s performance with teacher	<table> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>1. Meeting or conference with school management</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>2.To observe teachers' teaching classes</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>3.To review (NAME)'s performance with teacher</td> <td>1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>		Yes	No	DK	1. Meeting or conference with school management	1	2	8	2.To observe teachers' teaching classes	1	2	8	3.To review (NAME)'s performance with teacher	1	2	8																																
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Check Household listing Questionnaire. If CH8 is yes and CH9 is No, ask

CHILDREN WHO HAVE DROPPED OUT OF SCHOOL		
SD1	How old was (NAME) when he/she stopped attending school? <i>Record age in completed years</i>	AGE <input type="text"/> <input type="text"/>
SD2	<p>There are many reasons why a child may have stopped attending. Please tell me if any of these reasons are important in explaining why (NAME) stopped attending school.</p> <p>Did (NAME) stop attending school partly because he/she was needed to</p> <p>SD2A: Do domestic work such as caring for younger children, cooking or cleaning, fetching water or wood etc</p> <p>SD2B: Take care of sick family member or relative</p> <p>SD2C: Had no school materials such as books, uniform etc</p> <p>SD2D: Tend animals, or work on the family farm or in the family business</p> <p>SD2E: Work for an employer</p> <p>SD2F: Travel to school was unsafe</p> <p>SD2G: Failed examinations or had to repeat classes of schooling</p> <p>SD2H: Did not want to attend school or had enough schooling</p> <p>SD2J: Any other reason that helps to explain why not attending</p>	<p style="text-align: right;">Y N</p> <p>DOMESTIC WORK 1 2</p> <p>CARE FOR SICK 1 2</p> <p>NO MATERIALS 1 2</p> <p>FARM/FAMILY BUS..... 1 2</p> <p>WORK FOR EMPLOYER 1 2</p> <p>SECURITY 1 2</p> <p>REPEAT 1 2</p> <p>DID NOT WANT 1 2</p> <p>OTHER..... 1 2</p>



GOU/UPHOLD/UNICEF

LQAS HOUSEHOLD SURVEY QUESTIONNAIRE

**QUESTIONNAIRE FOR WOMEN 15 TO 49 YEARS
AND
MEN 15 TO 54 YEARS**

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Household Number ____ ____ Name of respondent : _____							
RESPONDENT LINE NUMBER	<table border="1"> <tr> <td></td><td></td> </tr> </table>						

TO BE ADMINISTERED TO FEMALE RESPONDENT 15 TO 49 YEARS

Care/ Support for Chronically Ill Individuals & Orphans																														
CS1	Please think back over the <u>past 12 months</u> . Has anyone in your household, including yourself, been very sick or bedridden for a period of three or more months, or has anyone <u>died</u> after being sick for more than three months?	Yes.....1 No.....2⇒ CS5 DK8⇒ CS5																												
CS2	Did your household receive any of the following because of the sick person/people: FREE medical support once/month during the illness FREE emotional support in the last 30 days FREE material support in the last 30 days FREE social support in the last 30 days	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Y</th> <th style="text-align: center;">N</th> <th style="text-align: center;">DK</th> </tr> </thead> <tbody> <tr> <td>a) MEDICAL.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>b) EMOTIONAL.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>c) MATERIAL.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>d) SOCIAL.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> </tbody> </table>		Y	N	DK	a) MEDICAL.....	1	2	98	b) EMOTIONAL.....	1	2	98	c) MATERIAL.....	1	2	98	d) SOCIAL.....	1	2	98								
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CS3	For the sick person/people, did your household receive help or care from any of the following? [READ EACH RESPONSE ALOUD AND CIRCLE '1' (YES), '2' (NO), OR '98' (DON'T KNOW)]	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Y</th> <th style="text-align: center;">N</th> <th style="text-align: center;">DK</th> </tr> </thead> <tbody> <tr> <td>a) HOSP./CLINIC STAFF.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>b) RELATIVE(S).....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>c) FRIEND(S).....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>d) RELIGIOUS ORG.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>e) COMMUNITY GROUP, ORG., OR WORKER.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>f) OTHER (specify).....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> </tbody> </table>		Y	N	DK	a) HOSP./CLINIC STAFF.....	1	2	98	b) RELATIVE(S).....	1	2	98	c) FRIEND(S).....	1	2	98	d) RELIGIOUS ORG.....	1	2	98	e) COMMUNITY GROUP, ORG., OR WORKER.....	1	2	98	f) OTHER (specify).....	1	2	98
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CS4	I'm going to ask some questions about the type of care received by your household for the sick person/people <u>in the last 12 months</u> . Did anyone in the household or the sick person receive any of the following? [READ THE RESPONSES ALOUD TO THE RESPONDENT. MORE THAN ONE ANSWER IS ALLOWED.]	COUNSELING ABOUT DEALING WITH THE ILLNESS/ ITS EFFECTS.....1 FREE MEDICINES2 FOOD3 MONEY FROM GOVERNMENT.....4 MONEY FROM FRIENDS.....5 MONEY FROM AN ORGANIZATION.....6 MONEY FROM RELATIVES7 INCOME-GENERATION TRAINING8 HELP WITH SCHOOL FEES9 CHILD HEALTH SERVICES10 OTHER (specify)11																												
CS5	[IF THE RESPONDENT IS ≥18, READ:] Are there any children under the age of 18 years in your household whose mother, father, or both parents died? [IF THE RESPONDENT IS < 18, READ:] Are there any children under the age of 18 years in your household, <u>including yourself</u> , whose mother, father, or both parents died?	Yes.....1 No2 ⇒ Go to next module Don't know8 ⇒ Go to next module																												
CS6	Did your household receive any of the following because of the presence of an orphan in your household: FREE medical support once/month during the illness FREE emotional support in the last 30 days FREE material support in the last 30 days FREE social support in the last 30 days	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Y</th> <th style="text-align: center;">N</th> <th style="text-align: center;">DK</th> </tr> </thead> <tbody> <tr> <td>a) MEDICAL.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>b) EMOTIONAL.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>c) MATERIAL.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> <tr> <td>d) SOCIAL.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">98</td> </tr> </tbody> </table>		Y	N	DK	a) MEDICAL.....	1	2	98	b) EMOTIONAL.....	1	2	98	c) MATERIAL.....	1	2	98	d) SOCIAL.....	1	2	98								
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CS7	For the orphan, did your household receive help or care from any of the following?		<u>Y</u>	<u>N</u>	<u>DK</u>
		a) HOSP./CLINIC STAFF	1	2	98
		b) RELATIVE(S)	1	2	98
		c) FRIEND(S)	1	2	98
		d) RELIGIOUS ORG.	1	2	98
		e) COMMUNITY GROUP, ORG., OR WORKER	1	2	98
f) OTHER (specify)_____	1	2	98		

HIV/AIDS MODULE		HA		
HA1. Can people protect themselves from getting infected with the AIDS virus by having one sex partner who is not infected and also has no other partners?	Yes 1 No 2 DK..... 8			
HA2. Can people get infected with the AIDS virus because of witchcraft or other supernatural means?	Yes 1 No 2 DK..... 8			
HA3. Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	Yes 1 No 2 DK..... 8			
HA4. Can people get the AIDS virus from mosquito bites?	Yes 1 No 2 DK..... 8			
HA5. Can people reduce their chance of getting infected with the AIDS virus by not having sex at all?	Yes 1 No 2 DK..... 8			
HA6. Can people get the AIDS virus by sharing food with a person who has AIDS?	Yes 1 No 2 DK..... 8			
HA6a. Can people get the AIDS virus by getting injections with a needle that was already used by someone else?	Yes 1 No 2 DK..... 8			
HA7. Is it possible for a healthy-looking person to have the AIDS virus?	Yes 1 No 2 DK..... 8			
HA8. Can the AIDS virus be transmitted from a mother to a baby?				
HA8a. During pregnancy?	During pregnancy 1 2 8	Yes	No	DK
HA8b. During delivery?	During delivery 1 2 8			
HA8c. By breastfeeding?	By breastfeeding 1 2 8			
HA9. If a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in school?	Yes 1 No 2 DK/not sure/depends 8			
HA10. If a male teacher has the AIDS virus but is not sick, should he be allowed to continue teaching in school?	Yes 1 No 2 DK/not sure/depends 8			
HA11. Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	Yes 1 No 2 DK/not sure/depends 8			

HA12. If a member of your family became infected with the AIDS virus, would you want it to remain a secret?	Yes 1 No 2 DK/not sure/depends 8	
HA13. If a member of your family became sick with the AIDS virus, would you be willing to care for him or her in your household?	Yes 1 No 2 DK/not sure/depends 8	
HA14. I do not want to know the results, but have you ever been tested to see if you have HIV, the virus that causes AIDS?	Yes 1 No 2	2⇒HA17
HA15. I do not want you to tell me the results of the test, but have you been told the results?	Yes 1 No 2	
HA16. Did you, yourself, ask for the test, was it offered to you and you accepted, or was it required?	Asked for the test..... 1 Offered and accepted 2 Required 3	
HA17. At this time, do you know of a place where you can go to get such a test to see if you have the AIDS virus?	Yes 1 No 2	

Indicator definition	Arua		Bugiri		Bundibugyo		Bushenyi		Gulu		Kamuli		Katakwi		Kitgum		Kyenjojo		Lira		Luwero		Mayuge		Mbarara		Mubende		Nakapiripirit		Palisa		Rakai		Rukungiri		Wakiso		Yumbe		TOTAL			
	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005				
% of households with a person who is very sick or bedridden for a period of three or more months, or anyone died after being sick for more than three months in the last 12 months	Total		19	13.3	18.5	14.2	28.9	17.2	32.5	15.9	13.5	24.5	11	23.2	13.5	20.6	32.5	11	15.9	17.4	20.5	16.8	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3		
% of households receiving care and support for a sick bedridden person or someone who died after being sick or bedridden for more than 3 months (Home-based care)	Total		8.3	16.3	5.3	10	6.8	14.1	8.4	14.2	13.9	27.3	4.2	14.5	7.4	33	17.9	16.9	7.4	11.2	7	31	2.6	6.3	7.9	16.8	7.3	9.4	3.2	11.5	3.2	28.3	6.4	11.3	12.9	11.8	3.1	20.5	13.1	16.3	5.8	12.9	7.6	15.8
% of households with any children under 18 years whose father, mother, or both parents died (orphans)	Total		17.2	7	16.9	19	30.4	18.2	25	18.5	17.6	30.6	16.8	14.7	9.6	19.3	11	16.1	14	16.8	22.1	16.3	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	
(those with an orphan) % of households receiving care and support because of the presence of an orphan	Total		36.4	47.8	50	36.1	49.2	42.9	57.5	37.1	23.4	60	18.8	46.4	55	35.5	61.9	42	40.9	46.9	40.5	27.3	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	
Water and Sanitation																																												
% of households using improved fecal disposal facilities	Total		83.8	86.5	97.2	98.6	96.4	89.5	42.5	83.7	95.3	87	95.8	89.7	97.7	96.6	14.3	76	96.8	99	96.9	72.7	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	
	<i>Pit latrines/pour flush</i>		16.2	13.5	2.8	1.5	3.6	10.5	57.5	16.3	4.7	13	4.2	10.3	2.3	3.5	85.7	24	3.2	1	3.2	27.4	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14		
	<i>No facilities or bush or field</i>		5.3	2.8	25.3	16.0	11.9	1.7	1.3	24.1	5.0	15.3	8.0	5.1	21.8	6.5	0.0	2.2	2.1	13.1	33.8	0.0	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	
	<i>Borehole</i>		34.3	36.2	7.7	4.0	62.9	83.0	77.6	56.8	11.3	39.7	58.7	46.2	6.4	22.0	57.7	46.1	19.0	5.1	24.6	52.0	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6		
	<i>Protected well/spring</i>		32.9	13.0	13.9	35.4	22.3	3.4	5.1	0.9	30.4	15.5	6.5	7.2	9.6	14.9	0.0	23.6	10.4	46.1	21.0	8.9	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7		
	<i>Unprotected well/spring/surface water</i>		26.2	47.6	52.3	43.6	2.8	12.0	16.0	18.3	53.3	28.7	26.1	41.4	57.7	55.3	41.1	28.0	66.2	32.6	19.3	38.7	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8		
	<i>Rainwater collection</i>		0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0	3.1	0.8	1.3	0.0	0.9	0.0	0.4	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5			
	<i>Tanker-truck or cart</i>		0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.9	0.3	0.0	0.0	0.4	3.0	0.9	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3			
Average time (in minutes) taken to go to the water source, get water and take it back home	Total		47.0	55.0	58.0	34.0	111.0	55.0	77.0	133.0	35.0	74.0	56.0	53.0	60.0	50.0	57.0	54.0	80.0	36.0	29.0	65.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
Average liters of water used by household per day for drinking, cooking, washing and bathing	Total		95.0	79.0	88.0	65.0	100.0	94.0	104.0	78.0	71.0	102.0	81.0	92.0	64.0	71.0	59.0	96.0	63.0	70.0	84.0	101.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	
Birth Registrations																																												
% of children 0-96 months, whose births are reported registered with:	PDC/LC		45.7	19.2	18.9	24.9	6	16.7	14.3	34.8	39.6	32	25.9	2.6	31.1	22.7	21.9	45.2	7.9	12.3	2	38	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7			
	Health facility		10.5	12.7	16.7	6.3	23.2	16.9	18.9	5.6	13.9	6.4	38.9	41.2	11	7.2	10.8	1	15.8	22.3	36.2	7.6	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14			
	Not registered/Do not know		43.8	68.1	64.4	68.8	70.8	66.4	66.8	59.6	46.5	61.6	35.2	56.2	57.9	70.1	67.3	53.8	76.3	65.4	61.8	54.4	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3			
% of children 0-59 months, whose births are reported registered with:	PDC/LC		59.7	22.3	28.3	33.5	10.3	25.9	25	59.9	50.4	56.2	33.8	3.7	30.6	32.1	33.4	76	12.1	20.3	3.4	57.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7			
	Health facility		12.6	12.7	18.2	8.2	30.1	16.2	21.7	8	12.5	8.8	45.2	44.6	12.3	8.8	14	1	17.3	24.1	41.6	8.7	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16				
	Not registered/Do not know		27.7	65	53.5	58.3	59.6	57.9	53.3	32.1	37.1	35	21	51.7	57.1	59.1	52.6	23	70.6	55.6	55	33.6	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3				
% of children 60-96 months, whose births are reported registered with:	PDC/LC		24.9	14.3	7	11.5	1.1	1.8	1	25.8	4	10.9	3.6	1	31.9	9.3	6.8	1.9	1	1.4	1	12.9	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2				
	Health facility		7.4	12.6	14.6	3	14.9	17.8	14.9	2.2	15.5	3.6	26.5	35.6	8.9	5	6.6	1	13.2	19.7	28.6	6	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1				
	Not registered/Do not know		67.7	73.1	78.4	85.5	84	80.4	84.1	96.8	58.7	92.4	62.6	63.4	59.2	85.7	86.6	97.1	85.8	78.9	70.4	81.1	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7				
% of children 0-96 months, with a birth certificate	Have, Seen		12.2	9.4	3	8.7	9.1	1.8	2	5.5	6.2	6.2	3.3	3.8	7	3.1	3.9	4.3	2.4	1.9	10.7	5.1	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9					
	Have, Not seen		19	10.4	17.4	16.3	15.1	11.6	16.1	17.4	14.1	41.3	38	32.6	16.1	8	16.1	10.7	19.8	28.6	28.1	5.1	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9					
	Don't have		68.8	80.2	79.6	75	75.8	86.6	81.9	77.1	79.7	52.5	58.7	63.6	76.9	88.9	80	85	77.8	69.5	61.2	89.8	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2					
% of children 0-59 months with a birth certificate	Have, Seen		14.2	9.7	2.1	6.9	11.5	2.1	2.3	7.3	6.2	8	3	4.7	5.1	2.9	5.2	4	3.1	1.8	15.7	6.8	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5						
	Have, Not seen		18.3	12.5	19	16.9	18.1	11.7	15.8	17.5	15	39.8	40.2	36.1	13.7	7.5	18.2	10.1	20.8	29.4	28.8	5.6	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3						
	Don't have		67.5	77.8	78.9	76.2	70.4	86.2	81.9	75.2	78.8	52.2	56.8	59.2	81.2	89.6	76.6	85.9	76.1																									

Indicator definition	Arua		Bugiri		Bundibugyo		Bushenyi		Gulu		Kamuli		Katakwi		Kitgum		Kyemijjo		Lira		Luwero		Mayuge		Mbarara		Mubende		Nakasongola		Palisa		Rakai		Rukungiri		Wakiso		Yumbe		TOTAL	
	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005	2004	2005				
% of primary school children who take home some homework from school during the term	53.4	48.7	13.7	38.4	48.4	48	27.1	57.9	46.3	33.3	30.6	52.6	46.3	33	29.5	37	24.7	42	39	52.6	30.5	52.6	20	53.1	30.9	61.4	27.4	51.2	15.8	28.9	28.5	49.4	31.2	44.5	39	64.6	55.2	70.2	32.6	45.5	33.9	48.5
% of primary who were able to complete the school homework taken home	90.1	90.7	92.3	74.2	82.6	73.3	73.1	83.6	70.5	75	83.1	98	93.2	83.9	92.9	85.3	78.3	74.6	89.2	85	75.9	94	94.7	80.4	89.4	93.7	96.2	91.6	86.7	96.4	82.1	88.3	86.2	88.4	94.6	74.2	90.6	93.9	83.9	69.6	85.6	
% of households who assisted the children in doing their homework	83.1	89.8	69.2	66.7	65.2	76.7	61.5	74.6	65.9	53.1	65.5	86	93.2	74.2	39.3	67.7	52.2	65.5	73	73.3	62.1	76	73.7	72.6	74.5	89	76.9	85.6	86.7	75	57.2	74	69	84.1	75.7	79	69.8	72.7	61.3	84.8	70.1	78.1
% of households with primary school children in which a parent/guardian reported visiting the school during this school year to:	73	60.4	67	40.7	68	56.8	72	73.7	68	60.4	74	73.7	68	78.7	40	47.8	62	59.5	48	57.9	66	72.6	66	57.3	78	84.1	67	72.2	21	34	51	75.6	70	60.7	73	69.8	56	59.6	62	60.4	63	63.3
To observe teachers teaching in classes	26	11.7	11	7.6	39	19.2	26	22.1	15	7.3	23	24.2	19	14.9	15	12	26	11.5	20	28.8	17	14.7	15	17.7	24	26.1	31	11.7	7	16.5	13	12.2	39	18.1	14	13.5	34	20.21	27	24.8	22	16.5
To review child's performance with teacher	39	20.7	33	8.1	44	28	42	28.4	27	16.7	29	45.3	27	20.2	27	12	41	16.8	26	35.1	43	31.6	27	30.2	45	58.5	41	34	15	13.4	31	27.6	51	27.1	21	34.4	58	50	29	32.7	35	28.8