

UGANDA PROGRAM FOR HUMAN
AND HOLISTIC DEVELOPMENT

LQAS SURVEY REPORT 2004

Results from 20 Districts of Uganda



Recommended citation:

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

Edited by:

Samson Kironde, Katrina Kruhm

UPHOLD

The Uganda Program for Human and Holistic Development (UPHOLD) is a five-year program designed to assist Ugandans to offer and use quality social services in three sectors: education, health and HIV/AIDS. UPHOLD is funded by the U.S. Agency for International Development (USAID) under contract no. 617-A-00-02-00012-00. Partners are John Snow, Inc., American Institutes for Research, The Futures Group International, The Malaria Consortium, The Manoff Group Inc, World Education, and Education Development Center, Inc.



This report does not represent the views or opinion of USAID. It may be reproduced if credit is properly given.



UPHOLD
Plot 3-7 PortBell Road, 2nd Floor Nakawa House
P.O Box 40070 Kampala, Uganda
Tel: +256 41 222856/ 31 262164/5
Fax: +256 41 222860
E-mail: info@upholduganda.org
Website: www.upholduganda.org

TABLE OF CONTENTS

Executive Summary	i
Acknowledgements	iv
List of Abbreviations	v

Chapter 1 Introduction

1.1 UPHOLD Program Design	1
1.2 Background	1
1.3 Background to the Lot Quality Assurance Survey (LQAS)	2
1.3.1 LQAS as a Methodology in Monitoring and Evaluation	2
1.4 Objectives of LQAS 2004 Survey	2

Chapter 2 Methods

2.1 Consultation with Stakeholders	3
2.2 Defining Lots	3
2.3 Sample	3
2.4 Special Data Collection in Conflict Areas	3
2.5 Questionnaire Preparation	4
2.6 Training Workshops in Survey Methodology	4
2.7 Data Entry and Analysis	5

Chapter 3

3.1 Education	6
3.1.1 Integrated Primary school Education	6
3.1.2 Background of schools	6
3.1.3 Community Involvement in Education	7
3.1.4 School Management Committees and Parents Teacher Association	7
3.1.5 Local Councils and Private sector Involvement in Schools	9
3.1.6 Primary School Net Attendance Ratios	9
3.1.7 Age-Specific Schooling Status	11
3.1.8 School Homework	12
3.1.9 School Lunch	12
3.1.10 HIV/AIDS, Guidance and Counseling Activities in Education	13
3.2 Support Supervision in Education	14
3.2.1 Centre Coordinating Tutor Supervision	14
3.2.2 Teacher Support Supervision	15
3.2.2.a Teacher Appraisal	15
3.2.2.b Classroom Observation	15
3.2.2.c School Health Supervision	16

Chapter 4

4.1 Integrated Child and Adolescent Health	18
4.1.1 Immunisation	18
4.1.1.a Child Health Cards	19
4.1.1.b DPT3 Coverage	19
4.1.1.c Vitamin A Supplementation	21
4.1.3 Youth-Friendly Programs	22
4.2 Integrated Reproductive Health	23
4.2.1 Emergency Obstetric Care	23
4.2.2 Clean Deliveries	26
4.2.3 Goal-Oriented Antenatal Care	26

4.3 Integrated Communicable Disease Control	28
4.3.1 Malaria Prevention and Control	28
4.3.1.a Home-Based Management of Fever	28
4.3.1.b Insecticide Treated Mosquito Nets (ITNs)	29
4.3.1.c Stock outs and Stock Availability	17

Chapter 5

5.1 HIV/AIDS Prevention and Mitigation	32
5.2 Discussion of AIDS with partners	33
5.3 HIV/AIDS Counseling and Testing	34
5.4 Prevention of Mother-to-Child Transmission	35
5.5 Sexually Transmitted Infections	35
5.6 Diagnosis and Treatment of Tuberculosis	36

Chapter 6

Discussion	37
------------------	----

Chapter 7

Summary of Findings	37
7.1 School Facility LQAS Survey	39
7.2 Health Facility LQAS Survey	39
7.3 Household LQAS Survey	39

Chapter 8

Conclusions	41
8.1 Education	41
8.2 Health	41
8.3 HIV/AIDS	41

Chapter 9

Justification for use of LQAS	42
-------------------------------------	----

Chapter 10

References	43
ANNEX 1	45
APPENDIX A	46
APPENDIX B	47
APPENDIX C	48
APPENDIX D	49
Survey Team	50
APPENDIX E	52

TABLES AND FIGURES

Chapter 1 Introduction

Figure1: UPHOLD's Seven Technical Domains	1
---	---

Chapter 3 Results

Table 1: Primary Schools By Ownership	6
Table 2.2.1: Percentage of Parents/Guardians who have gone to a primary school for a meeting or conference with school management, review children's performance with teacher, or observe teachers in classrooms, by background characteristics of children	8
Table 3.1.5: Primary School Net Attendance Ratios by region, UDHS 2001 and LQAS 2004	10
Table 3.1.6: Age Specific Schooling Status Among Children Aged 6-12years	11
Table 3.1.9: Percentage of parents/guardians who discussed with their children on how to prevent HIV/AIDS using safer sex practices, by background characteristics of children	13
Table 3.2.2: Percentage of schools with Teacher Performance Appraisal, by Region	15
Table 3.2.3: School Health Status, by Region	16

Fig 2.3: Primary School Net Attendance Ratios For Household Population Aged 6-12 years, by sex and region	9
---	---

Chapter 4 Integrated Health

Table 4.1.1: Percentage Distribution of Child Health Cards, by gender and region	19
Table 4.1.2: Percentage of Children 12-23 months who received DPT by age of 12 months	20
Table 4.1.3: DHS 2001 and LQAS 2004 DPT coverage	20
Table 4.1.4: Knowledge of General Child Danger Signs among sampled Practitioners	22
Table 4.1.5: Friendly Services by Ownership and Facility	23
Table 4.2.1: Signal Function to identify Basic and Emergency Obstetric Care	23
Table 4.2.2: Profile of Surveyed Districts	24
Table 4.2.3: Amount of EmOC Services Available in the 20 Districts plus Referral Hospitals	24
Table 4.2.4: Status of EmOC services in 20 Districts	25
Table 4.2.5: Missing EmOC services at HCIV	25
Table 4.2.6: Missing EmOC Services at HCIII (Basic EmOC Facility)	25
Table 4.2.7: Percent Distribution of Mothers by place of their last delivery in two years preceding the survey by selected background characteristics	26
Table 4.2.8: Percentage of adult population who know the signs and symptoms that a pregnancy is in danger, by background characteristics	27
Table 4.3.1: Percentage of children under five years receiving adequate Treatment, by Region	29
Table 4.3.2: Percentage of children under five years who slept under a mosquito net	30
Fig 4.1.2: Proportion of children under five years receiving Vitamin A Supplementation, by region	21
Fig 5: Type of Malaria Tablets taken by children in last two weeks preceding the survey	28
Fig 4.3.2: Stock-outs over the last six months prior to the survey	30

Chapter 5 Integrated HIV/AIDS

Table 5.1: Percentage Distribution of Adult Population who have ever received HIV testing services by Region	34
Table 5.2: Percentage of Facilities offering VCT that meet certain criteria for offering services, by facility type and region	35
Table 5.3: Percentage of Facilities offering STI Services that meet certain criteria for offering services, by facility type and region	36
Table 5.4: Percentage of Facilities offering TB that meet certain criteria for offering services, by facility type and region	36

Executive Summary

The 1994 decentralisation process in Uganda led to the transfer of public planning, management, and decision-making from the national to district and sub-district levels. Local authorities are sensitive and responsive to local circumstances and priorities and keep communities informed given their closer proximity. However, the program is hampered by suboptimal capacity both centrally and in local government units. There is lack of localized information for identifying low performing areas and to design appropriate priority interventions.

The general quest for localized information at the sub-district levels led to the institutionalization and adoption of the Lot Quality Assurance Survey method (LQAS). Approximately 200 district officials were trained in the use of LQAS for data collection and analysis. The major goal was developing and enhancing human capacity at the district level in use of evidence-based information for planning and decision making, and in sustaining a low-cost and rapid method of collecting information for monitoring and evaluation.

Between June and August of 2004, UPHOLD conducted the LQAS Household and Health Facility Surveys in 20 districts covering a population of 10,393,377 (UBOS, 2002) representing 42% of the total population of Uganda. Out of the 423 facilities (HCIII, HCIV and Hospitals) visited, 6 were regional referral hospitals, 28 district hospitals, 87 HCIV and 302 HCIII. A sample of 1,449 primary schools were surveyed, constituting 25% of the total primary schools in the 20 UPHOLD districts, and 9,975 households were visited.

Results

In order to establish the extent to which schools involve the parents and community in their operations, the survey sought information on a number of aspects including involvement of parents in teaching and learning of their children together with what goes on in the school, local council support to education, School Management Committee (SMC) and Parent Teachers Association (PTA) involvement in the development and implementation of the school development plan, and the private sector support to education.

Overall, reported parental involvement in the children's learning was below average. A quarter of the parents/guardians (25%, n=441) reportedly visited their children's schools to observe teachers in classrooms. Over a third of parents (39%, n =703) had visited their children's school to review the performance of their children with their teachers.

A quarter of the schools (25%, n=365) reported facilitating discussions or conducting talks for children and parents about HIV/AIDS during parents' day activities. Less than half (47%, n=675) had conducted HIV/AIDS activities outside school assembly.

Overall, 91% (n=1,363) of children aged 6 to 12 years were reported as having attended school the previous school day. However, regional disparities in primary school attendance among primary school-age children exist. Primary school attendance is highest in the western region (96%) and lowest in the northern region (85%) probably due to the conflict in the northern part of the country which impedes school attendance because of the fear for abduction, despite the free Universal Primary Education (UPE).

40% (n=611) of pupils who were currently attending school carried packed lunch to the school the day before the produce them during the day of the survey.

38% (n=675) of the parents/guardians interviewed reported their children bringing home school homework during the last schooling day and provided conducive environment in completing the homework.

A third of the schools, (most of them government-aided) that were visited (33%, n=481) received more than two support supervision visits from CCTs in the term prior to the survey.

The health facility survey covered all health units from Health Center IIs to Referral Hospitals in the 20 districts as no supervision area (county) had the required minimum number of 19 samples. Overall, 21% (n=89) of the health facilities offer EmOC services. 40 out of the 121 (33.1%) and 27 out of 302 (8.9%) qualified as comprehensive and basic EmOC facilities respectively while 334 (79%) were non-EmOC.

44% (n=184) of the surveyed facilities offered VCT services; 86.4% (n=159) had trained counsellors and staff; and 65.8% (n=121) had trained laboratory technicians. (57%, n=54) of HC III facilities had no trained laboratory technicians.

Only 9% (n=36) health facilities were offering PMTCT services by the time of the survey. All these facilities had personnel trained in the provision of PMTCT plus protocols and guidelines on display during the survey.

Youth-friendly services were available in 33% of 423 facilities in the twenty districts surveyed: 5% (n=14) of the hospitals, 40% (n=34) of HCIVs and 30% (n=90) of the HCIIIs.

The household survey sought information on a number of aspects including immunization and child health, home-based management of malaria, reproductive health and HIV/AIDS.

Complete third dose of DPT was used as a measure of complete immunization coverage. Only half of the children (50.8% n=698) in the 20 districts had received the third dose of DPT by 12 months of age as recommended. 80% (n=3,154) of children aged 6 to 59 months had received a vitamin A capsule within the last six months prior to the survey.

Over half (56%, n= 2,226) of the parents/guardians reported that a child had been ill with malaria fever during last 2 weeks preceding the survey. Of the 2,226, 93% (n=2,070) had reportedly sought treatment for their children. The percentage of parents/guardians who reported prompt treatment of their children within 24 hours of the onset of malaria fever and receiving recommended treatment was 30% (n=469).

Only 466 (11.7%) reported that their under five-year old children had slept under an insecticide treated mosquito net (ITN) the night before the survey. However, 24% (n=952) reported their under-five year children having slept under some mosquito net (treated or untreated).

Nearly a third of parents/guardians reported prompt treatment of their children within 24 hours of the onset of malaria with recommended treatment. Districts that received UPHOLD support with free Homapak and HBMF activities performed better than those that had none.

The household survey revealed that the offer of Voluntary Counseling and Testing during Ante-natal Care was not universal. Of the 1,798 who reported attending ante-natal care services, only 439 (24%) were offered an HIV test, and of these, 288 (n=16%) had actually been tested.

Nearly half (55%, n=1,092) of the women reported that they had plans on who would attend to the deliveries of their babies. 63% (n=1,254) knew where the delivery would take place, and 68% (n=1,349) had 58% (n=2,319) mentioned two or more programmatic ways of reducing the risk of getting HIV/AIDS. Among men, 70% (n=1,390) mentioned two or more ways of reducing the risk of getting HIV compared to 47% (n=929) of women. Three quarters of the respondents (75%, n=2,966) reportedly knew the benefits of having an HIV test. However, only 16% (n=653) of the adult population interviewed had ever tested for HIV and received their results.

Recommendations

This survey recommends that community and parental involvement in children's learning should be double-faceted. Program stakeholders including the districts and communities should encourage and support each individual school in an effort to enhance its place as a social and cultural center of community life, and as a source of community pride. The program should further explore current community participation; expand this effort as needed through the support of parents and school festival days, sensitization of school management committees of the need for school participation in community activities, and work with other community agencies to encourage and motivate families with school children to provide a conducive home learning environment. This should be complemented with support of the schools in developing work plans that reflect community participation and support.

There should be an increase in community based promotion of ITNs. Given the fact that the voucher system may not increase demand at the current moment, free distribution of ITNs to PLWAs, pregnant mothers and families with children under five years of age is recommended.

In addition to scaling up the distribution of free Homapak, community based drug distributors should be trained, and old ones attend refresher trainings in order to increase the awareness and availability of free Homapak in the communities.

The program should strengthen referral facilities for obstetric emergencies through training of health workers. Though the survey did not investigate the capacity of facilities in terms of equipment and supplies and staff competence in handling pregnancy complications, there is considerable scope for improving the readiness of services to detect and manage obstetric emergencies.

Through the support of local community based organizations in order to improve and strengthen public-private partnerships, intensive work should be done with communities to encourage women and their families to increase the number of pregnant mothers who seek antenatal care in addition to training traditional birth attendants in faster detection and referral of pregnant complications to health facilities in time.

Health care workers should be trained to utilize the opportunity of women's ante-natal visits as a crucial point of contact between health services and pregnant women. These visits can be used to teach women about danger signs and hygienic practices, in addition to sensitization on malaria management especially with regard to the expected baby.

Counseling and testing among pregnant mothers should be universal across facilities and should be provided as an integrated antenatal care service at the facilities. Pregnant mothers should be encouraged to bring with them their couples for counseling and testing.

Acknowledgements

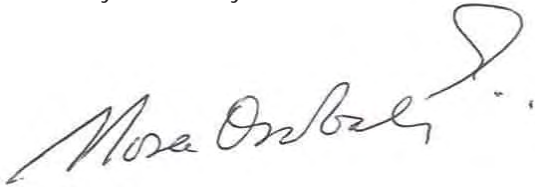
This LQAS Baseline Survey provides vital benchmark information for identifying priority areas and measuring progress in implementation of UPHOLD activities. UPHOLD would therefore wish to acknowledge the contribution of various stakeholders during the implementation of LQAS and data collection for this baseline study.

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 Baseline Survey and provided logistical support.

Special thanks go to the Ministry of Health, Ministry of Education and Sports, Ministry of Gender, Labor and Social Development and their line District Departments who provided the technical input to the survey.

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", with a large, stylized flourish extending from the end of the name.

Nosa Orobato
Chief of Party
UPHOLD

List of Abbreviations

ABC	Abstinence, Be Faithful, consistent and correct Condom Use
AIDS	Acquired Immune Deficiency Syndrome
AIM	AIDS/HIV Integrated Model District Programme
ANC	Antenatal Care
ASRH	Adolescent Sexual and Reproductive Health
BCC	Behavior Change Communication
BEmOC	Basic Emergency Obstetric Care
CCT	Center Coordinating Tutors
CDO	Community Development Officer
CEmOC	Comprehensive Emergency Obstetric Care
CPC	Community Participation Coordinator
CSOs	Civil Society Organizations
CIE	Community Involvement in Education
DDHS	District Directorate of Health Services
DEO	District Education Officer
DHAC	District HIV/AIDS Committee
DHS	Demographic and Household Surveys
DPT	Diphtheria-Pertussis-Tetanus
DPU	District Planning Unit
EMIS	Education Management Information Systems
EmOC	Emergency Obstetric Care
EMS	Education Management Systems
FP	Family Planning
GAMET	Global AIDS Monitoring and Evaluation Support Team
GOU	Government of Uganda
HBMF	Home Based Management of Fever
HC II	Health Centre Grade II
HC III	Health Centre Grade III
HC IV	Health Centre Grade IV
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HSD	Health Sub-district
HSSP	Health Sector Strategic Plan
HW	Health Worker
IDP	Internally Displaced Persons
IEC	Information Education and Communication
IPT	Intermittent Presumptive Treatment of Malaria
ITN	Insecticide Treated Nets
JSI	John Snow, Inc
LQAS	Lot Quality Assurance Sampling

LSS	Life Saving Skills
M&E	Monitoring and Evaluation
MEMS/MSI	Monitoring and Evaluation Management Services/Management System International
MOES	Ministry of Education and Sports
MOH	Ministry of Health
MOGLSD	Ministry of Gender, Labor and Social Development
NGO	Non Governmental Organization
OI	Opportunistic Infection
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
SDP	School Development Plan
SHN	School Health and Nutrition
SMC	School Management Committee
STI	Sexually Transmitted Infections
TB	Tuberculosis
TBA	Traditional Birth Attendant
TE	Teacher Effectiveness
UAC	Uganda AIDS Commission
UACP	Uganda AIDS Control Project
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
YSP	Yellow Star Program

1. Introduction

1.1 UPHOLD Program Design

The Uganda Program for Human and Holistic Development (UPHOLD) is an integrated social services program designed by the Government of Uganda and the United States Agency for International Development (USAID). Funded by USAID, the program supports the Government of Uganda's social sector policies and priorities, as well as USAID's Strategic Objective 8 Results Framework for improved human capacity. UPHOLD is strategically oriented to increase the utilization, quality and sustainability of services in Education, Health and HIV/AIDS through an integrated approach.

The program's four main goals are to:

- ◆ improve the Educational Status
- ◆ reduce the spread of HIV/AIDS and Sexually Transmitted Infections (STIs)
- ◆ decrease child and maternal mortality, and
- ◆ stabilize population growth in 20 districts in Uganda

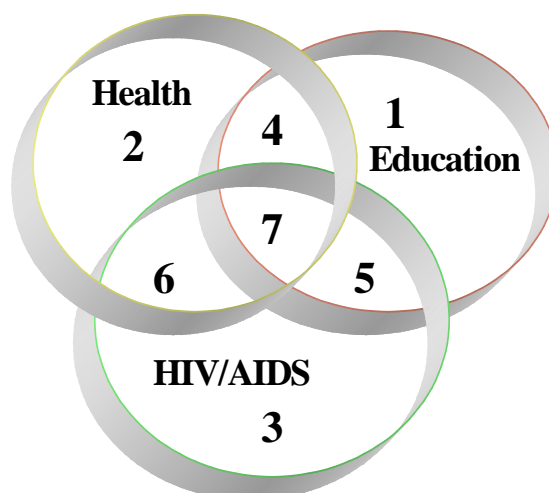
A map outlining the 20 districts supported by UPHOLD, and tables of the demographic groups of beneficiaries are attached in Appendices A, B, and C.

UPHOLD's activities are implemented in seven broad technical domains, as shown in the model below. Some of UPHOLD'S technical activities are implemented strictly within one of the three sectors: Education (domain #1), Health (domain #2), or HIV/AIDS (domain #3). Other technical activities are implemented through four areas of integration between the sectors: Education/Health (domain #4), Education/HIV/AIDS (domain #5), Health/HIV/AIDS (domain #6), and Education/HIV/AIDS/Health (domain #7).

1.2 Background

UPHOLD initially conducted a re-analysis of the 2000-2001 Uganda Demographic Household Survey (Uganda DHS) data to establish a baseline for the program. However, it was realized that the DHS measurements could not be consistently aligned to places of implementation. The DHS stratified sampling method could not provide data disaggregated to places of implementation. In order to provide disaggregated data for designing program activities based on existing performance measurements, the Lot Quality Assurance Sampling method (LQAS) was adopted.

Figure 1: UPHOLD's Seven Technical Domains



1.3 Background to the Lot Quality Assurance Survey (LQAS)

The LQAS method was developed in the 1920s and widely used in the manufacturing industry for quality control of goods produced on a production line. The idea was to divide a production line into a number of lots and then examining a small sample of units from each lot. If the number of defective units tested in that sample exceeded the predetermined and allowable number of defects, then the lot was discarded, otherwise it passed the quality control check.

The LQAS procedure for determining whether to accept or reject a lot is equivalent to performing a one-sided hypothesis test. For the null hypothesis, H_0 , the proportion P of infected individuals in a studied community is greater than or equal to a predetermined or given proportion P_0 (threshold prevalence beyond which health planners will intervene). Rejecting the null hypothesis means accepting the lot and accepting the null hypothesis means rejecting the lot. LQAS is not designed to provide an accurate estimation of the proportion P in the community but only classifies P as being above or under a given value. The choice of these hypotheses is explained by the fact that wrongly identifying a community as low-prevalence would be a serious error ($\hat{\alpha}$ -error), while falsely identifying it as high-prevalence ($\hat{\beta}$ -error) would merely represent a financial problem. Providing treatment to non-infected individuals is not dangerous. If less than or equal to a critical number of 'd' subjects are found presenting the study parameter (d denotes the number of infected individuals in a sample of n subjects), the hypothesis H_0 is rejected (and $P < P_0$ is admitted). If the number of individuals who present the study parameter is higher than d , then the null hypothesis is not rejected (P not equal P_0 is admitted). As soon as $d + 1$ subjects have been found presenting the studied parameter, the study of the remaining individuals of the sample can be stopped, unless one wants to assess also the prevalence and its confidence interval. Setting the sample size n and the number d of permissible infected individuals among the sample can be achieved in two ways.

The first is the use of a series of tables, where different upper and lower performance levels are shown for given type I and type II errors (Appendix C). The second is the use of Receiver Operating Characteristic (ROC) curves plotting the probability of rejecting H_0 according to the true prevalence of infected individuals in the lot (Appendix B).

1.3.1 LQAS as a Methodology in Monitoring and Evaluation

Unlike other stratified sampling methods, LQAS allows programs to identify areas with levels of coverage that are at or above expectation versus those that are below expectation. When a program divides the target population into socio-economic characteristics such as ethnicity, religion, or socio-economic status, it is acknowledging the possibility of certain confounders (external factors) that affect the desired outcomes. However, those factors are not very responsive to short-term intervention. More specifically, it is very hard to change long-standing and deeply rooted cultural or religious practices within a five year period—the time frame allotted to most USAID projects to implement activities and demonstrate effectiveness. On the other hand, dividing the catchment area into lots or supervision areas and determining whether coverage in each sub-division is at the desired expectation, above, or below, helps the program re-allocate resources accordingly and scale up activities in order to demonstrate overall effectiveness.

1.4 Objectives of LQAS 2004 Survey

UPHOLD conducted the LQAS survey as a first stage of establishing a monitoring and evaluation system for the program and the grantees. The specific objectives of the LQAS survey were:

To provide data to inform community leaders, stakeholders and partners on the prevailing performance regarding use of services and behaviors that will stimulate discussion and promote involvement in the achievement of change with the district as a unit of measure;

To reinforce capacity building and conduct surveys, to help districts identify areas of priority so as to match resource allocation to areas of need.

2. Methods

2.1 Consultation with Stakeholders

UPHOLD initially held consultative meetings with the Uganda AIDS Commission (UAC) team that had implemented LQAS in 19 districts of Uganda which included nine of UPHOLD districts to get acquainted with LQAS. A series of other consultative meetings were later organized. These included officials from the Ministries of Health, Education and Sports, Gender Labor and Social Development, District Local Governments, USAID, UNICEF, AIM, MEMS/MSI, GAMET, UAC and UACP.

In addition to achieving a consensus on the indicators to be monitored and stakeholders' participation in LQAS, the composition of the data collection team was identified as a key issue for institutionalization, ownership and sustainability of LQAS in the districts. Community Development Officers (CDOs), employed by the Local Governments at the sub-county level and cross-cutting in all sectors with the ability to work rapidly within communities, were selected together with the District Planning Units to spearhead LQAS data collection and analysis.

2.2 Defining Lots

In Uganda, the existing administrative structures and varied homogeneous socio-economic indicators, were used as lots or supervision areas. The district was defined as a supervision unit and a minimum of five counties within a district constituted the supervision areas. The reason for having five supervision areas was to obtain a representative sample for the district. In circumstances where the district was a county or had less than five counties, homogeneous sub-counties according to proximity, political and socio-economic factors were grouped into a minimum of five supervision areas to ensure a representative sample size for the district.

2.3 Sample

LQAS uses a small sample size for making judgements. Random selection is key in selecting items in this methodology. For most applications, a sample of 19 randomly selected individuals is required in each supervision area (SA) to judge whether it is below average or has reached a performance benchmark. To calculate a coverage proportion for the catchment area, the individual samples of 19 are added together and an average is calculated.

In the household survey, lists of the catchment population within each village were obtained from data from the Uganda National Bureau of Statistics 2002 Census. A two-stage sampling plan first randomly selected 19 villages by sampling proportional to size (Appendix D). The second step randomly selected a household within the village. Step two involved using the Village Local Council household listings Register that is periodically updated when in-out-migration and movement within the village takes place. This is the best up-to-date household list, and in cases where one is not available, the interviewer compiled a list together with the village leader(s).

A similar sample selection procedure was used for the school facility surveys where 19 schools were randomly selected from each SA. None of the defined SA had the desired total of 19 health units and therefore all targeted health units were surveyed. 423 facilities (HCIII, HCIV and Hospitals) were surveyed. These included 6 regional referral hospitals, 28 district hospitals, 87 HCIV and 302 HCIII.

Five classes of respondents were surveyed during the household survey: women 15-49 years with a child under-two years, women 15-49 years with a child under-five years, women 15-49 years with children of school going age group (5-14 years) and women of child-bearing age (15-49 years). Five different types of respondents were interviewed from different randomly selected households.

2.4 Special Data Collection in Conflict Areas

The sampling procedure in conflict areas was different from that used in non-conflict and post-conflict areas. In areas of conflict, Internally Displaced People (IDPs) camps are organized according to villages from which the displaced persons came from originally. These villages still have their Local Council leaders and they try to make

sure that the setting in the camps corresponds to that in their original villages. Initially, village people sought refuge at health units which then developed into camps as a nucleus. Schools from different villages also shifted to these camps, and in most cases share premises in the same camp but maintain their old school names, with staff and pupils reporting to their respective administrations.

Military clearance and protection was sought prior to the survey. The original administrative settings of the district were considered and 19 villages were randomly sampled from each Supervision Area/ County for the Household survey. The camps in which the sampled villages had relocated were identified and the eligible respondents interviewed from there. In situations where a sampled village was found to have been relocated in different camps, only one camp was randomly selected based on sampling proportional to the size of the relocated village. Probability 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, health center, school) is proportional to the size of its population. It is most useful when the sampling units vary considerably in size because it assures that those in larger sites have the same probability of getting into the sample as those in smaller sites, and vice versa.

In one of the supervision areas (SAs) in Nakapiripirit District, a mountainous area occupied by Karamajong warriors, the sampling approach used was different from other SAs. The population in that SA resides either on the top of the mountains, valleys or caves. Access to these households is very difficult and dangerous as the inhabitants may suspect you to be a cattle rustler. However, with the help of a former chief who mobilized the whole area using a customary horn of a bull, the sampled villages were accessed. The populations of these villages assembled in the trading center and were grouped according to their villages and households, and sampled villages and households were identified and the interviews conducted.

2.5 Questionnaire Preparation

Questionnaire development was based on the indicators that are key to the technical area interventions and useful at district level for setting baselines and planning action to achieve results. In addition, consideration was given to UPHOLD's annual reporting requirements and indicators useful for comparison with District HMIS and EMIS data.

The questions were structured according to the standard questions used internationally to measure the chosen indicators. The questionnaires were translated into nine local languages and back translated by different teams at UPHOLD central offices. Pre-testing of the questionnaire followed suit in two non-UPHOLD districts and revised as necessary.

2.6 Training Workshops in Survey Methodology

UPHOLD organized a series of six survey research training workshops between May and June 2004 for approximately 200 district officials (from the 20 UPHOLD districts) from the three district departments of Health, Education and Community Development. These workshops lasted for fourteen days. District officials included the District Directorate of Health Services, District Education Officials, District Planning Unit and their assistants plus Community Development Officials. In addition to those above, officials from the Ministries of Health, Education and Gender and Social Development, and UPHOLD regional staff (mainly CPCs) participated in the training workshops. In order to build capacity at the district and lower level in data collection and analysis, it was the participants in the training who subsequently carried out the baseline surveys; no outside data collectors were employed. Further field support was provided to the district data collectors from the UPHOLD team.

The field supervision team was trained first so that it would be able to participate in the trainings to collect survey data as well as supervise its collection. An excellent understanding of the methodology- especially the principles of Lot Quality Assurance Sampling (LQAS), village mapping, selection of villages and households and interviewing techniques- was essential for effective field supervision and maintenance of quality data collection. A strong emphasis was also placed on error control omissions in the questionnaires generated by the data collectors. Each field supervisor made sure that the data collector went back to the facility or household to make corrections before logging in the questionnaire.

2.7 Data Entry and Analysis

Data entry for the LQAS survey was done in two phases in order to validate the results. The first phase was undertaken by the field data collectors under the supervision of the field supervisor and selected district officials from the District Planning Unit.

As outlined above, respondents' answers were recorded using a separate questionnaire for each interview. Each indicator was then listed with 19 columns so that responses could be tallied using a simple system of "C" if correct or "I" if incorrect or "S" if skipped or "X" if missing (see Appendix E for an example of result tabulation form). The results of the "correct" responses were then summarized in tables that compare results by supervision areas (see Appendix F for an example of summary tabulation form). Overall coverage benchmarks or averages and coverage averages for each supervision area were then calculated, and indicators not reaching or below average benchmarks were identified.

Phase 2 was a validation of the manual tabulation and involved electronic data entry of each individual questionnaire using data management software (FoxPro 2.6) and analysis done using Stata 8.2.



District officials manually tabulating and analysing LQAS data

3. Results

Introduction

Results from three surveys, School facility, health facility and household LQAS surveys are presented in the following sections. The school facility LQAS survey targeted Head Teachers or their deputies and was conducted in 19 randomly selected schools in each supervision area (SA). The health facility survey targeted heads of facility service units and the unit-in-charge in some instances and was conducted in a total of 423 health centre Ills, IVs and Hospitals of the targeted 436 facilities. The household survey, however, asked questions of five different categories of respondents: mother of child under two years; parent/guardian of child aged 2-5 years; parent/guardian of child aged 6 -14 years; women aged 15-49 years and men aged 15-54 years. For children under 15 years, the index respondent was the primary adult member of the household, and specifically the mother for child under 2 years. Overall, 9,975 households were visited during the household survey.

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

3.1. Education

The school facility LQAS survey targeted head teachers or their deputies and was conducted in 19 randomly selected schools in each supervision area (SA).

The household survey, however, asked questions of five different categories of respondents: mother of child under two years; parent/guardian of child aged 2-5 years; parent/guardian of child aged 6 -14 years; women aged 15-49 years and men aged 15-54 years. For children under 15 years, the index respondent was the primary adult member of the household, and specifically the mother for a child under 2 years. Overall, 9,975 households were visited during the household survey.

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

3.1.1 Integrated Primary School Education

UPHOLD's integrated primary school education strategy is designed 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 Systems (EMS), Teacher Effectiveness (TE) and children's learning.

3.1.2 Background of Schools

A total of 1,449 randomly selected schools from the 20 UPHOLD districts were included in the school facility LQAS survey. The survey explored the degree of influence of government on schools by looking at various school parameters. These included school ownership, funding source, founding body, and schools by gender. The LQAS survey results were validated with results obtained from the School Census 2003 exercise conducted in March 2003 by the Ministry of Education. Table 1 presents primary schools by ownership. It is worthy to note that since the introduction of the Universal Primary Education policy in 1997, the Government has steadily maintained its share of ownership of primary schools.

Table 1: Primary Schools by Ownership

Ownership	No. of Schools	% of Schools
Government	1256	86%
Private	111	7.7%
Community	59	4.1%
Not stated	23	1.6%
Total Sampled (N)	1449	100.0%

The survey revealed that 98% (n=1,419) of the sampled schools admit both boys and girls (co-educational) which renders it favourable for all pupils to compete in class regardless of gender or sex. It also gives a chance to pupils to interact socially.

3.1.3 Community Involvement in Education

To ensure the provision of sustainable quality education in primary schools, parents and communities need to participate actively in the education of their children. This is because parental and community participation in education has been found to be one of the crucial factors that influence the quality of teaching and learning in primary schools.

Parents play a complementary role in the education system by contributing to the teaching and supervision of their children. Both these roles if well played could lead to higher quality teaching and greater improvement in learning. To establish the extent to which schools involve the parents and the general community in their operations, school and household surveys were carried out to gather information on a number of aspects including participation of parents in the teaching and learning of their children.

The two formal bodies which involve parents are the advisory School Management Committee (SMC) and the Parent Teacher Association (PTA). There are many ways parents can help both at the school and within the classroom. Pupils are always very proud of seeing their parents in school and such positive and active support often improves their self-esteem.

In order to assess community involvement in education at the school, head teachers and/or their deputies were asked questions on the existence of SMC/PTAs and SMC/PTAs roles and responsibilities, documented evidence of School Development Plans (SDP) and SMC/PTAs' role in the SDPs development and implementation, records of last minutes of SMC/PTA meetings, and local council and private entrepreneur involvement in education.

3.1.4 School Management Committees and Parents Teacher Association

SMCs are responsible for the implementation of government policies, but there is a varied understanding of their roles and responsibilities in improving the school and increasing children's learning. They consist of nine members, whose selection vary and mainly depend on the interests of the foundation bodies, government and/or the head teacher.

SMCs hold a supervisory and monitoring role, which includes conflict resolution; discipline of teachers, parents, and pupils; and playing a linking role between teachers, pupils and parents. They also look after the welfare of teachers and pupils and the relationship between the school and the community.

The PTA is the body that has the most credibility with the community and plays a major role in linking parents, teachers and the community to each other and with the school. In addition, they play important other roles including supervising and monitoring schools; encouraging parents to send their children to school; taking care of children and teachers' welfare; collecting funds from parents; mobilizing the community to contribute materials and participate in construction and other activities. The PTA executives vary from six to eleven members and the selection of parent's representation on the committee is influenced by the foundation bodies, head teachers and/or SMCs.

Properly constituted and functional SMCs and PTAs are linked to an increase in community and parental involvement in the education of their children and management of schools. The survey explored various proxy

indicators that qualify SMC/PTAs as active, properly constituted and functional. These included: minutes of meetings that took place during the previous term; involvement in development, implementation and monitoring of the School Development Plan (SDP); evidence of wide participation/consultation with the community and representation which meets the standard (i.e. gender balance).

The survey established that about nine out of every ten of the schools (94%, n=1,361) kept minutes of the meetings of the SMC. These responses were obtained from the head teachers or deputy head teachers present at the time of interview. Over half of which (54%, n=788) reportedly had the last recorded meeting taking place during the previous term. Out of these, three out of ten schools (29%, n=413) had the last recorded meeting taking place one month prior to the survey. However, about one out of every ten schools (12%, n=167) had the last records of a meeting that took place a year prior to the survey.

An overwhelming majority of the schools (96%, n=1,352) had the names and positions of responsibility for the SMC members documented and available. About eight out of every ten of the lists of SMC members (84%, n=1,140) were presented to the interviewers. It was noted that about six out of every ten school committee members (62%, n=841) were men.

Almost forty percent (43%, n=620) of the schools had a documented school development plan. It was established that the School Management Committee participated in the development of school development plan(s) in four tenth of schools (41%, n=594). Similarly, head teacher involvement in the development of the school development plans was also reported in four out of every ten surveyed schools (42%, n=610).

41% (n=591) of the surveyed schools reported the SMC's involvement in the implementation of the school development plan. Head teachers/teachers' involvement in the implementation of the SDP was also reported in (42%, n=605) of the surveyed schools. About four out of every ten (38%, n=556) of the surveyed schools reported the PTA's involvement in the implementation of the school development plan.

At the household level, a child aged 6-14 years was randomly selected from a sampled households (that had children within that age bracket). A total of 1,993 index respondents (parents/guardians) were asked questions about the target respondent (child aged between 6-14 years).

The household survey established that more than two thirds of the parents/guardians (70.4%, n=1,261) with children currently attending primary school had ever visited their children's school 12 months prior to the survey either to attend meetings or conferences with school management (Table 2.2.1).

A quarter of the parents/guardians (25%, n=441) reportedly visited their children's schools to observe teachers teaching classes and over a third of parents (39%, n=703) had visited their children's school to review the performance of their children with the teacher.

Background Characteristics	Meeting of conference with school management	Review children's performance with teacher	Observe teachers in classroom(s)	Number of parents/guardians
Region				
Central	70.3	52.3	32.6	350
Eastern	70.6	31.9	17.3	439
Western	76.9	42.3	27.5	494
Northern	63.9	33.6	22.6	509
Sex of Child				
Male	71.5	39.9	25.1	927
Female	69.1	38.5	24.1	865
Overall Total	70.4	39.2	24.6	1,792

Overall, a third (33%, n=478) of the sampled schools had active and properly constituted and functional SMCs. Twelve UPHOLD districts performed below average on this particular proxy indicator, and according to LQAS

principles, are a potential target for improvement. 40% of the SMCs/PTAs had operational procedures and capacity to develop and implement SDP.

3.1.5 Local Councils and Private Sector Involvement in Schools

The system of Local Government in Uganda is based on the District as a unit under which there are lower Local Governments and Administrative unit Councils. Elected Local Government Councils which are accountable to the people have powers to make local laws and enforce implementation. They serve as political units to advise on planning and implementation of services. They assist in the resolution of disputes, monitor the delivery of services and assist in the maintenance of law, order and security

In the education sector, Local Councils contribute in the design and implementation of education policies, provide financial support, mobilization, planning and monitoring of education programs. Likewise, the private sector in Uganda has contributed to the improvement of the quality of education through financial and logistical support as well as infrastructural development in primary schools.

The school survey established that 31% (n=453) of the surveyed schools reported Local Council members' involvement in the development of the school development plan. About a third of the schools (30%, n=427) reported receiving some support in form of grants from the Local Council in the 12 months prior to the survey. About four out of every ten of the schools (45%, n=645) reported receiving some support other than financial from the local council in the 12 months prior to the survey. Such support from local councils included participation in mobilizing resources for the school, enforcing education policies, and involvement in the implementation of the SDP. Almost a third of the schools (31%, n=450) reported receiving some support from the private sector in form of scholastic materials, text books, financial assistance and food especially from the World Food Program (WFP) for schools in areas of conflict.

3.1.6 Primary School Net Attendance Ratios

The household survey collected information about primary school attendance among children aged 5-14 years. This information is used to calculate the primary school Net Attendance Ratios (NARs). If the majority of children in primary schools are outside the official age range, this will have a serious impact on the educational infrastructure, the experience in the classroom, and educational planning. Attendance ratios indicate the percentage of children who generally attend school based on the question: "Is [name] currently attending school?"

Fig 2.3: Primary School Net Attendance Ratios for Household Population aged 6-12 years, by sex and region

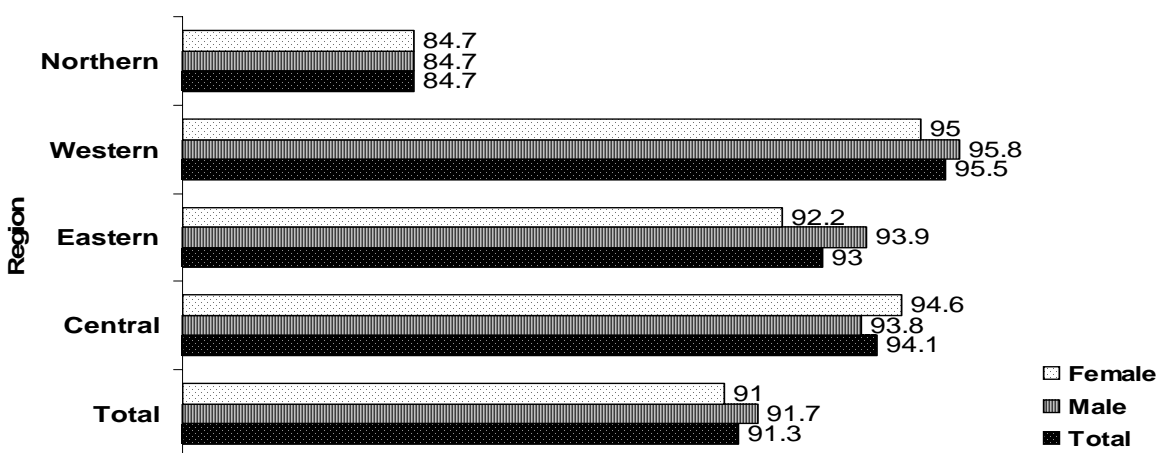


Figure 2.3 presents primary school net attendance ratios for the household population aged 6-12 years, inclusive of sex and region.

The household survey found high rates of attendance in primary schools with an overall average of 91% (n=1,363) attendance for children aged 6 to 12 years. There was virtually no gender disparity in primary school attendance among primary school-age children. 92% (n=650) of school-age males attend primary school, compared to 91% (n=595) of females. However, regional disparities in primary school attendance do exist among school-age children. Primary school attendance is highest in the western region (96%) and lowest in the northern region (85%), a factor that can be attributed to the conflict in the northern part of the country which impedes school performance, despite the free Universal Primary Education policy (UPE).

During the school survey, it was observed that most of the primary schools in the conflict areas had shifted to safer primary schools referred to as “learning centres” but maintained their identities, pupils and teachers. On average, a learning centre could accommodate and share infrastructure with two displaced primary schools. This, of course, restricts the delivery of basic education services and affects quality of education.

It is interesting to note that compared to the 2001 Uganda Demographic Household Survey (DHS), the LQAS household survey has demonstrated an increase in the percentage of primary school-age children attending primary school as illustrated in Table 3.1.5. The western region has experienced the greatest increase followed by the central and northern regions.

Table 3.1.5 Primary School Net Attendance Ratios by Region, UDHS 2001 and LQAS 2004

	2001 DHS Uganda (%)	2004 UPHOLD LQAS (%)
Central	84.7	94.1
Eastern	93.6	93.0
Western	85.9	95.5
Northern	82.4	84.7
Total	87.1	91.3

There were district and gender disparities in primary school attendance among primary school-age children. The lowest attendance ratios were in Nakapiripirit District (59%) and Kitgum District (82%), which also had the highest gender disparity in school attendance among school-age children. In Nakapiripirit district, 48% of boys and 68% of girls among primary school-age attended school, while 93% of boys and 72% of girls attended school in Kitgum District. These high disparities in gender could be attributed to cultural, socio-economic and security factors.

For instance, in Kitgum District, low school attendance ratios may be attributed to bad conditions in displaced schools due to overcrowding and appalling sanitary conditions. The high attendance rate among boys in Kitgum District can be partly attributed to the fear of boys being abducted by the Lords Resistance Army (LRA) rebels while ploughing the field and to the World Food Program (WFP) school feeding program that provides free meals on top of weekly food package to take home to pupils in schools. In Nakapiripirit District, in the Karamoja Region, school attendance is mainly affected by cultural, inter-clan conflicts, infrastructure and socioeconomic factors. Children are considered a resource not because they go to school but because they can till the land, collect water and firewood, and gather food in the wild. Additionally young boys can look after small livestock, and girls are a potential for wealth through bride wealth. A family is therefore considered well-off because of their potential to engage in various productive activities such as looking after cattle for the boys. Even if the family does not own livestock at certain time, the boys will still go with others to assist in cattle herding. The WFP school feeding program, on the other hand, has improved school attendance in the region especially for girls who are sent to schools to get lunch. The photograph below, taken during the school term, is a picture of an UPHOLD staff talking to young boys registered in primary school but herding cattle in Nakapiripirit district.



UPHOLD Staff talking to school-age children during a school day in Nakapiripirit District

3.1.7 Age-Specific Schooling Status

Table 3.1.6 presents information on the schooling status of children aged 6-12 years. Children are grouped as having never attended school, dropped out of school, or currently attending school.

Table 3.1.6 Age-specific schooling status among children aged 6-12 years

Percent Distribution of Children aged 6-12 by schooling status, according to background characteristics				
Characteristics	Not Attending		Attending	
	Never attended (%)	Dropped-out (%)	Attended (%)	Number of children surveyed (n)
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

Not surprising, the Northern region of the country that is characterised by the 18 year old conflict had the lowest school attendance compared to the overall average. The proportion of children who reportedly never attended school in the northern region (10.6%) is almost double the average of all regions combined (5.6%).

3.1.8 School Homework

Homework in primary schools is a very vital activity as it develops an effective partnership between the school and parents/guardians in fostering children's learning. Homework consolidates and reinforces the children's skills and understanding particularly in literacy and numeracy. A supportive parent/guardian is supposed to encourage children, especially as they grow older, to develop the confidence and self discipline needed to study on their own initiative and to prepare them for the often more rigorous requirements of secondary school education. Parents/guardians play different roles in supporting homework which include: providing a reasonably peaceful and suitable place in which pupils can complete their homework; by encouraging pupils and praising them when they have completed their homework; and getting involved in interactive homework when it is set. These activities provide pupils' acknowledgement on how their parents value homework.

During the household survey, parents/guardians 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 personally discussing and getting actively involved in the homework, providing a peaceful and suitable environment, and allowing the child to complete the homework especially by relieving him/her of any household chores. The survey did not track the time spent on completing school homework.

Overall, 38% (n=675) of the parents/guardians interviewed reported their children bringing homework during the last schooling day prior to the survey and providing a conducive environment in completing the homework. The lowest reported proportions of children bringing homework were in Bugiri (14%), Mayuge (22%) and Kyenjojo (27%). Wakiso (60%) and Arua (54%) districts had the highest reported proportions. There existed significant regional disparities in homework ($P=0.011$), with parents/guardians in the Eastern region reporting lower proportions of pupils carrying homework (30%) and highest proportions in the Northern (44%) and Central (39%) regions.

It was further established, through discussions during the survey with the school teachers in the conflict areas, that due to the lack of enough teaching staff teachers in the learning centres use homework as a means of keeping pupils busy and engaging parents/guardians who have not much work to do in the camps to assist with the children's learning. Among those pupils that brought homework, 87% (n=586) of the parents/guardians reported that their children were able to complete the homework before the next school day, and 71% (n=473) were able to assist the pupils in completing their work. However, the survey did not interview children to assess parental involvement in homework.

3.1.9 School Lunch

The Ugandan policy on Universal Primary Education stipulates that the government will be responsible for provision of tuition fees, textbooks, construction of classrooms, teacher salaries and teacher training. Parents, on the hand, would remain responsible for provision of tuition in excess of four pupils per family, school lunch, uniforms, and exercise books. Additionally, parents have to provide labour for construction of new classrooms. Even in rural schools, where UPE schools are not allowed to charge extra tuition, parents have to pay for lunch, uniforms and supplies. Recently, the President of Uganda warned schools against charging compulsory lunch fees as this would discourage low income parents from sending their children to school. This has left school authorities in a difficult position: either they have hungry pupils trying to pay attention or have no pupils at all.

During the household survey, it was established that only four out of every ten children (40%, n=611) who were currently attending school carried packed lunch to school the day preceding the survey.

In the school facility survey, it was established that about one third (37%, n=536) of the surveyed schools reported providing meals of any kind to pupils at lunch time. About nine out of ten of these schools (88%, n=474) reportedly prepared meals on the day of the survey.

3.1.10 HIV/AIDS, Guidance and Counseling Activities in Education

Studies carried out in Uganda indicated that 17% of young people in primary schools are sexually active with the median age of sexual debut standing at 14.98 years. Like youth in many parts of Africa, Ugandan youth begin sexual activity at fairly young ages and with little sexuality information. It is however recognized that with intense IEC (Information, Education and Communication) campaigns, young people are the ones contributing to the HIV declining trends in the country.

In 2001, the President of Uganda launched PIASCY (The Presidential Initiative on AIDS Strategy for Communicating to Young people) whose overall goal 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 the initiation of sexual activities (sexual debut) for as long as they can. The youth are also encouraged to consider disease prevention as part of their (sexual) lifestyles, and to seek proper sexual health services (including counseling) whenever necessary.

The LQAS surveys examined various ways of communication to youth including interpersonal communication and community capacity building and mobilization. Questions included child-parent discussions, guidance to children on HIV/AIDS and HIV/AIDS activities at the school.

During the household survey, parents 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 about safer sex practices of their children. It was established that a third of the parents (34%, n=626) had held discussions with their children on how to prevent HIV/AIDS using safer sex practices in the 12 months prior to the survey (Table 3.1.9). In this survey, "safer sex practices" discussions included abstinence, life skills, puberty, relationships, sexual responsibility, having only one partner etc.

Table 3.1.9 Percentage of parents/guardians who discussed with their children on how to prevent HIV/AIDS using safer sex practices, by background characteristics of children.

Age of Child	Ever discussed HIV/AIDS in last 12 months	Discussed HIV/AIDS in last 3 months	Number of parents/guardians
6	17.0	12.4	153
7	19.2	14.1	177
8	21.9	14.9	201
9	27.3	19.3	150
10	31.2	21.4	234
11	32.9	23.8	164
12	41.6	30.3	284
13	42.9	34.4	282
14	48.8	37.7	244
Region			
Central	20.0	14.5	366
Eastern	35.0	25.6	446
Western	33.7	23.4	508
Northern	40.4	31.8	569
Sex of Child			
Male	31.7	23.2	964
Female	35.0	26.3	925
Total	33.4	23.9	1889

For the parents/guardians that had ever discussed safer sex practices with their children in the last 12 months, about three quarters (76%, n=474) reportedly discussed with their children about safer sex practices three months prior to the survey.

From Table 3.1.9, it is clear that parents are keen to discuss safer sex practices with children above 10 years of age. There were significant differences in reported discussions within the last three months by region of child ($P < 0.001$) and age ($P < 0.001$). However, there were no significant differences by gender in reported discussions among parents and their children.

In the school facility survey, a quarter of the surveyed schools (25%, $n=365$) reported facilitating discussions or conducting talks for children and parents about HIV/AIDS during parents' days. The school facility survey also established that about a sixth (58%, $n=837$) of the surveyed schools reported that some teachers had received training in guidance and counseling skills while about half (52%, $n=755$) of the surveyed schools reported that some teachers had received training in life skills education in the last 12 months prior to the survey. Slightly less than three quarters of the schools (72%, $n=1,044$) had some teachers who had received training in delivering HIV prevention messages in school assemblies in the previous 12 months.

The school facility survey also established the nature of HIV/AIDS activities that took place during the last 12 months. Slightly less than half of the surveyed schools (47%, $n=675$) reported that they had conducted some HIV/AIDS activities other than during the school assembly. These activities included peer training and clubs, anti-AIDS or Straight Talk clubs, debates etc. Over a quarter (28%, $n=407$) reported organizing some inter-class discussions or debates on HIV/AIDS while 26.5% had some functional young/straight talk or HIV/AIDS clubs at the school. In terms of classroom sessions, a third reported having held some HIV/AIDS sessions in classes during the previous 12 months.

3.2 Support Supervision in Education

3.2.1 Centre Coordinating Tutors' Supervision

The main functions of Centre Coordinating Tutors (CCTs) include: supporting licensed teachers on the in-service course; working with and providing management training to head teachers; conducting regular continuous professional development workshops; visiting schools to observe and conference with teachers; and community mobilization to support the primary school programme.

District Education Officers and District School Inspectors now see CCTs as essential partners who provide them with information about what is happening in the schools, and also identify needs and problems with teachers, facilities, and school operations. Inspectors on average oversee more than 75 primary schools and post-primary institutions and therefore do not have the time or resources for regular visits to all schools. As a result the Inspectors depend on information from the CCTs to plan and focus their work.

Each CCT is expected to pay at least two visits to each school in a circuit monthly. An evaluation of the role, performance and contribution of CCTs to education quality revealed that CCTs are not able to effectively fulfill their responsibilities because of the high number of schools allocated in their circuits. The opening up of a number of new private schools since UPE in many urban and peri-urban areas has over-stretched the capacity of CCTs thus leading both government-aided and private schools to miss the inspection. Until recently CCTs were only serving government-aided schools and despite the mushrooming private schools everyday there has been no contribution from the private sector towards the facilitation of these tutors.

During the school survey, head teachers were asked whether they had received support supervision from CCTs in the term preceding the survey. The survey defined two or more CCT visits to a school as adequate for support supervision, i.e. at least one CCT visit per term. Overall, a third of the schools visited (33%, $n=481$) received more than two support supervision visits from CCTs in the term prior to the survey. Mostly, government aided schools (35%, $n=450$) were visited more than twice compared to private schools (16%, $n=31$). The data also indicates that government aided schools in urban environments had more than two CCT visits compared to those in rural areas. This is partly due to the fact that more CCTs are being deployed in urban areas. There were also significant differences in CCT supervision by region ($P < 0.001$). The Eastern and Western Regions reported 33% ($n=254$) of the schools having received more than two CCT supervisory visits, Central region recorded 45% ($n=116$) and Northern region 27% ($n=116$).

3.2.2 Teacher Support Supervision

3.2.2.a Teacher Appraisal

The purpose of teacher appraisals is to improve teaching and learning standards. Appraisals are based on the best practice in the field and assist teachers to clarify how their work is contributing to the school's goals as expressed in the school action plan.

Teacher appraisal supports and recognizes individual achievements and provides directions for teacher development. Teacher development is an on-going process which takes into account the teacher's role as a professional, as a member of the school team working within the framework of the school plan, as well as a valued professional within the public education system.

During the household survey, head teachers were asked whether they had a documented performance appraisal system for teachers. The study established that 55% (n=794) of the surveyed schools reported having a documented performance appraisal system for teachers. In addition to significant regional differences in reporting ($P=0.014$), there were notable differences in reporting in Yumbe (16%) and Rakai (26%) districts with the least proportions while Kyenjojo (81%) and Lira (83%) had the highest proportions.

In terms of ongoing professional development, almost half of the surveyed schools (48%, n=698) conducted at least one school-based professional development workshop in the 12 months preceding the survey. There was a strong positive correlation between training in management skills and use of appraisal systems among head teachers in primary schools. More than two thirds (69%, n=993) of the head teachers reported that they had attended some training in management within the last three years. Of these, 60% (n=594) had an appraisal system for teachers ($P<0.001$).

3.2.2.b Classroom Observation

Classroom observation provides information which is different to the information acquired and given through other appraisal practices. Classroom observation can include peer observation, observation by a mentor/head teacher and observation by District Education Officer/CCT. Teachers have the opportunity, through peer, mentor or CCT observation, to play the role of an observer. In turn teachers can benefit from both observing and being observed. Classroom observation is a developmental process for both the teacher doing the observation, and being observed.

The school-facility survey did not conduct classroom and other observations in order to effectively assess participatory teaching approaches, effective head teacher leadership, and administration and management skills. However, head teachers were asked whether they maintained a documented observation proforma or supervision form used for class observation. 62% (n=898) of the surveyed schools had head teachers who maintained a documented observation proforma or supervision form. Schools where the head teacher had attended management training in the last three months maintained documented supervision forms (68%, n=677).

Region	Documented performance appraisal system for teachers	Documented observation proforma or supervision	Annual school-based professional development workshops
Central	53.6	70.0	58.9
Eastern	47.4	57.6	53.3
Western	58.2	66.9	32.4
Northern	57.5	55.5	53.8
Total	54.8	62.0	48.2

3.2.2.c School Health Supervision

School health supervision is an important part of the school and public health program. Children attending school must be protected against communicable diseases from children whose parents may be ignorant or negligent of the infectious stages of some diseases. When a country or community, such as Uganda with the UPE program, introduces a policy that makes education compulsory, it must also assume the responsibility for providing a healthy environment for the children. It is important to educate the child within the principles of healthy living so that s/he may have sound health and thus safeguard their community in the future.

Health supervision is therefore vital for early detection and prevention of the spread of communicable diseases among school children and ensuring adequate sanitary conditions at the school. Early detection of diseases in children is also necessary for guiding the child to get appropriate care for correction of physical and mental defects. The promotion of a positive environment is also important for the child's body development and a sound mind.

The school administration was asked how many times they had been visited by a health worker for supervisory activities. Overall, 63% (n=913) of the surveyed schools reported a health worker supervisory visit in the term preceding the survey (Table 3.2.3).

The school facility survey also gathered information on water sources, health, sanitation and hygiene in schools. This information was also verified through observation and counting by the interviewers. The majority of schools surveyed have access to protected water sources (piped water, boreholes, protected well/spring) as presented in Table 3.2.3.

Characteristic	Central	Eastern	Western	Northern
Piped water	17.2	3.6	15.6	11.4
Borehole	31.6	59.8	14.7	65.9
Protected well/spring	9.6	5.6	24.1	11.6
Unprotected well/ spring	30.8	17.9	19.8	6.1
Rain water	9.2	5.3	14.5	2.0
Lake/River	0.4	5.0	6.7	1.8
Other water sources	0.8	2.8	4.6	1.3
Separate latrines for boys and girls	2.3	75.1	86.7	94.7
Latrines with doors/ shutters	82.7	84.4	78.0	76.8
Hand washing facility within 6 meters from latrine	48.5	29.9	41.2	48.7
Hand-washing facility with soap	52.4	46.7	59.2	53.4
Latrine Stance: pupil ratio	1:56	1:85	1:51	1:74
Availability of refusal disposal site	83.1	72.1	69.2	76.3
Health worker supervision	60.8	62.5	56.6	71.2

The Ugandan Ministry of Education and Sports latrine: pupil ratio is targeted at 1:40 just as the UNICEF global target. However, among the surveyed schools, the latrine:pupil ratio was 1:67, which indicates that more latrines are needed especially in the Eastern and Northern regions. The majority of the surveyed schools (85%, n=1,235) reported having separate latrines for boys and girls, with a latrine: pupil ratio of 1:68 and 1:65 for boys and girls respectively.

The latrine:pupil ratios varied according to school ownership. Government aided schools had a latrine:pupil ratio of 1:69 compared to 1:50 in privately owned schools. 80% (n=986) of all schools reported having latrine door shutters.

During the survey, it was also observed that 42% (n=605) of the schools had a hand washing facility within six meters from latrines, but only a quarter (25%, n=363) had soap at the time of interview. It was also observed that about three quarters of the surveyed schools (74%, n=1,077) had a refuse disposal site nearby.

Regarding functioning first-aid and school clinic, the survey reported that only a third of the schools (32%, n=464) had an operational and/or functioning first aid kit and only 7% (n=103) had a children's sick bay.

4.0 Integrated Health

The five successes in health, since the development of the National Health Policy (NHP) and Health Sector Strategic Plan (HSSP), have been:

1. Increased availability of essential medicines and deployment of additional trained staff
2. The virtual eradication/elimination of guinea worm, polio and leprosy
3. Reduction in incidence of HIV infection
4. Increase in out-patient attendance
5. Increase in DPT3 coverage

The HSSP is designed around a minimum health package which is based on the predicted impact of cost-effective interventions for the prevention and control of the major causes of the disease burden. The components of the minimum health care package include:

- a) Prevention and control of communicable diseases especially: malaria, STI/HIV and TB.
- b) Integrated Management of Childhood illnesses (IMCI).
- c) Sexual and reproductive health and rights including: ante-natal care and delivery, family planning, adolescent reproductive health and advocacy and counseling concerning violence-against women.
- d) Other public health interventions namely: immunization, environmental health and sanitation, health education and promotion, epidemics and disaster prevention, preparedness and response, nutrition and diseases targeted for eradication/elimination namely: guinea worm, onchocerciasis, polio, measles and neonatal tetanus.
- e) Mental health and rehabilitation
- f) Essential clinical care including injuries and rehabilitation, non communicable diseases, palliative care and oral/dental health.

In order to assist the Government of Uganda in achieving its goals for ensuring access to a National Minimum Health Care Package, UPHOLD is strategically positioned to increase the utilization, quality and sustainability of health services within the four main core interventions. These include (1) Integrated Child and Adolescent health: (2) Integrated HIV/AIDS: (3) Integrated Reproductive health: and (4) Integrated communicable diseases

The following section presents results from the LQAS household and health facility surveys for the four main core interventions.

4.1 Integrated Child and Adolescent Health

UPHOLD's integrated child and adolescent health intervention includes 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.

4.1.1 Immunization

Immunization remains the single most feasible and cost-effective way of ensuring that all children enjoy their rights to survival and good health. In the developing world, immunizations save the lives of 2.5 million children every year. Because of its recognized power and efficacy, renewed efforts are being made globally to mobilize more resources for another push to ensure that all children are protected by immunization and that new vaccines for other common killer diseases are developed .

The Uganda MOH has initiated the Community Problem Solving and Strategy Development (CPSSD) program that is designed to help health workers learn to work with communities, understand community perspectives about the services, and encourage community support and participation in the delivery of services so that immunization coverage is raised and sustained. The program has introduced immunization coverage and drop out rate monitoring to help health workers track their progress and provide information to the communities they serve.

This section presents results of the household survey that relates to questions asked only of mothers of children aged 0-23 months and parents/guardians of children aged 24-59 months. Issues covered included recent behaviours and knowledge of factors affecting their child's survival and well being.

4.1.1.a Child Health Cards

The child health card contains essential health information parents need to know during a child's early years. It is a relatively cheap and effective measure in the promotion of health and in the early detection and prevention of disease in infants and children. It serves as a record of birth data, growth in mass, immunization, neurological development and episodes of illness. It can also facilitate advantageous family spacing.

During the household survey, parents/guardians with children under five years were asked whether they had a child health card and if they could show it to the interviewer. The majority of parents/guardians reported having their children's health cards (90%), although only 45% could show them during the day of survey.

There existed significant variations in child health card retention among districts. Child health card retention was generally low especially in Luwero district (17%), and high in Yumbe district (65%) where the World Food Program gives out free food to parents who produce valid child health cards.

Table 4.1.1 Percentage Distribution of Child Health Cards, by gender and region

Characteristics	Whether the child had the health card			Total sampled
	Yes, seen	Yes, Not seen	No	
Age of child				
<2 years	46.9	43.1	10.0	2454
2-4 years	40.4	50.2	9.5	1312
5 years	41.3	50.7	8.0	225
Region				
Central	32.1	56.9	11.0	761
Eastern	55.4	44.4	11.2	952
Western	46.3	45.6	8.1	1061
Northern	42.2	48.8	9.0	1217
Overall Total	44.5	45.8	9.7	3991

4.1.1.b DPT3 Coverage

The series of immunizations known as DPT (Diphtheria-Pertussis-Tetanus) can prevent diphtheria, pertussis (whooping cough) and tetanus, but these three diseases still kill 600,000 children and afflict millions of others every year in developing countries. To be fully protected, children must receive three doses of the vaccine, administered at the ages of one month, one month and a half and three months. The percentage of children receiving the final dose (DPT3) is therefore a revealing and vital gauge of how well countries are providing immunization coverage for their children.



Girl taking baby sister for immunization in Nakapiripirit District

During the household survey, data on immunization coverage of children under-two years was obtained from immunization cards and mothers' recall. If the mother was able to present a vaccination card to the interviewer, information on immunization was extracted from the card. If the mother was not able to provide the card, then she was asked to recall whether the child had received an injection given in the thigh or buttocks sometimes at the same time as polio drops.

Table 4.1.2: Percentage of Children 12-23 months who received DPT by age of 12 months

Vaccinated by 12 months of age	DPT			No. of respondents
	1	2	3	
Vaccination card	42.5	38.1	29.5	624
Mother's report	39.8	32.2	21.3	751
Either Source	82.3	70.3	50.8	1375
Region				
Central	76.9	67.7	52.5	282
Eastern	85.6	70.9	45.7	333
Western	82.1	69.1	54.8	347
Northern	83.5	72.4	50.4	413
Total	82.3	70.3	50.8	1375

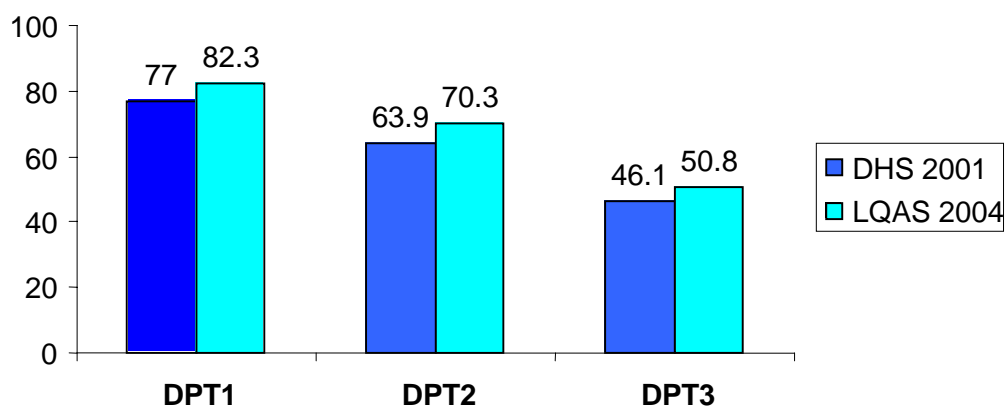
Overall, 50.8% (n=698) of children 12-23 months had received three doses of DPT (DPT3) by 12 months of age as recommended. The Western region had the highest proportion of DPT3 coverage followed by the Central and Northern regions. This trend is consistent with results obtained during the Uganda DHS 2001 survey (Table 4.1.3).

Table 4.1.3 DHS 2001 and LQAS 2004 DPT coverage

Region	DPT1 (%age)		DPT2 (%age)		DPT3 (%age)	
	DHS 2001	LQAS 2004	DHS 2001	LQAS 2004	DHS 2001	LQAS 2004
Central	68.5	76.9	52.6	67.7	37.9	52.5
Eastern	78.4	85.6	63.8	70.9	44.7	45.7
Western	83.5	82.1	75.1	69.1	57.7	54.8
Northern	78.9	83.5	65.9	72.4	44.9	50.4
Total	77	82.3	63.9	70.3	46.1	50.8

Notably, Rukungiri (80%), Luweero (65.4%) and Kamuli (64.5%) districts had the highest DPT3 immunization coverage while Bugiri (25.5%), Bundibugyo (35.7%) and Mubende (37.3%) had the lowest coverage.

Fig 3: Comparison of DPT coverage between DHS 2001 and LQAS 2004



4.1.1.c Vitamin A Supplementation

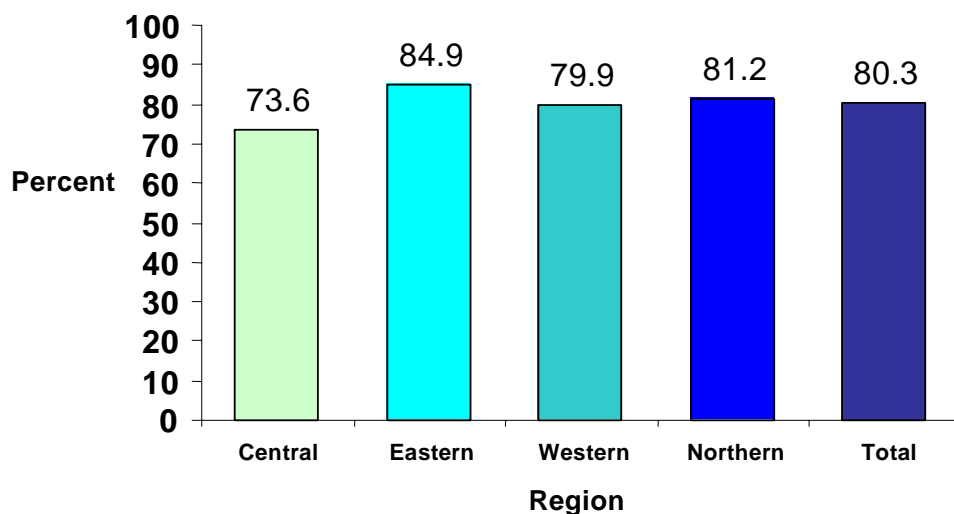
Vitamin A is essential for the functioning of the immune system. While most people know that vitamin A deficiency can lead to blindness, many are unaware that even before blindness occurs, a vitamin A deficient child faces a 25% greater risk of dying from a range of childhood ailments such as measles, malaria or diarrhea.

Ensuring that children get enough vitamin A enhances their chances of survival, reduces the severity of childhood illnesses, eases the strain on health systems, and contributes to the well-being of children, their families and communities. Improving the vitamin A status of pregnant women may reduce their risk of dying during pregnancy and childbirth, improves their resistance to infection, and helps reduce anaemia.

Supplementing children aged six months to five years with two high-dose vitamin A capsules a year has been identified as a safe, cost-effective, efficient strategy for ending vitamin A deficiency. Giving vitamin A to new mothers who are breastfeeding helps protect their children during the first months of life.

In the household survey, 98% (n=3,927) of the mothers/caretakers interviewed had children between 6 to 59 months of age. Overall, 80% (n=3,154) of mothers/caretakers reported that their children aged 6 to 59 months had received a vitamin A capsule within the last six months prior to the survey. There were appreciable regional and district variations in Vitamin A coverage (Figure 3). Overall, the Central region had the lowest vitamin A coverage (74%) below the overall average. Notably, Wakiso (72.6%) and Mubende (73.3%) had the lowest vitamin A coverage compared to Katakwi (92.6%), Rukungiri (92%) and Kitgum (89.4%) districts.

Fig 4.1.2 Proportion of children under-five years receiving Vitamin A Supplementation, by region



4.1.2 Integrated Management of Childhood illness (IMCI)

IMCI is an integrated approach to child health that focuses on the well-being of the whole child. IMCI aims to reduce death, illness and disability, and to promote improved growth and development among children under-five years of age. IMCI includes both preventive and curative elements that are implemented by families and communities as well as by health facilities.

In health facilities, the IMCI strategy promotes the accurate identification of childhood illnesses in outpatient settings, ensures appropriate combined treatment of all major illnesses, strengthens the counselling of caretakers, and speeds up the referral of severely ill children. In the home setting, it promotes appropriate care-seeking behaviours, improved nutrition and preventative care, and the correct implementation of prescribed care.

Strengthening the case management skills of health workers is an important objective of the IMCI strategy. The health facility survey explored whether staff involved with IMCI at facilities had received any in-service training in the last three years, their level of knowledge on the major danger signs that indicate a child needs urgent medical care and whether the IMCI unit received any training and support supervision.

Out of the 423 health facilities surveyed, 96% (n=404) reportedly offered IMCI services at the facility. 50% (n=201) of the facilities offering IMCI services reported receiving regular support supervision for the IMCI unit. Out of the 404 facilities, 38% (n=153) health facilities had received at least one support supervision in the last six months. Only 33% (n=133) had received support supervision in the quarter, with only 11% (n=46) visited during the month of the survey. 57% (n=1,459) of staff providing IMCI services reportedly received in-service training within the last three years.

Among the health facilities offering IMCI services, one IMCI practitioner was randomly selected and asked whether s/he could accurately mention the general danger signs (listed in Table 3.1.4). General danger signs are signs used by IMCI practitioners to identify children who need to be referred urgently to hospital or who need urgent attention. In addition to monitoring the condition of the child through observation, it is recommended that practitioners should also first ask about the general danger signs whenever the child is assessed. Out of the 404 sampled IMCI unit staff, 85% (n=343) mentioned at least three danger signs and only 3.7% (n=15) were unable to mention any general danger sign.

Table 4.1.4 Knowledge of General Child Danger Signs among sampled IMCI Practitioners

General Danger Signs	Percentage of IMCI health workers (n=404)
Convulsions	91.8
Lethargic or unconscious	76.1
Difficulty in breathing	70.1
Vomiting everything/severe vomiting	82.0
Child unable to drink or breastfeed	82.2

4.1.3 Youth-Friendly Programs

All young people, including those with special needs and from the most vulnerable groups, have the right to quality health care services. Unfortunately, this right is not a reality, particularly in the case of sexual and reproductive health services. Many youth in need of sexual and reproductive health care may either decline or be denied access to health services for a variety of reasons. These reasons may include (1) Provider bias against youth; (2) Providers do not feel comfortable serving youth who are sexually active; (3) youth do not feel comfortable accessing existing services because they are not "youth-friendly" and may not meet their needs; and, (4) community members do not feel that youth should have access to sexual and reproductive health services.

To address provider and site bias toward serving youth, UPHOLD through the local government and innovation grants, is funding community and facility youth-friendly programs. UPHOLD has provided funds to set up counseling and entertainment rooms for the youth at health facilities in addition to equipping them with games and infotainment (information and entertainment) facilities. These programs address adolescent audiences and focus on youth participation, utilisation of services, and outreach services provided by the facility. These services may relate to preventative education for HIV, VCT, diagnosis and treatment of STIs, family planning and safe motherhood services.

Youth-friendly services were reportedly available in a third of the surveyed facilities. Overall, 35% (n=14) of the hospitals, 40% (n=34) of HCIVs and 30% (n=90) of the HCIIIs have youth-friendly programs.

Among those facilities that reported having youth-friendly programs, 83% (n=114) have outreach programs. 91% (n=126) of these facilities offer STI diagnosis and treatment. VCT for HIV is offered in 53% (n=73) of those programs. Table 4.1.5 describes the level of the various program components in youth-friendly services by ownership and facility type.

Table 4.1.5 Table of friendly services by ownership and facility type

Among facilities with youth-friendly services, percentage of facilities offering various specific services, by ownership and facility type.							
Ownership/facility type	Group meetings	Information campaigns	VCT	STI Diagnosis and Treatment	Family planning	Safe motherhood	Outreaches
Ownership							
Government(n=115)	53.9	58.3	50.4	90.4	97.4	85.2	81.7
Non-government (n=23)	60.9	43.5	65.2	95.7	87.0	95.7	87.0
Facility type							
District Hospital (n=11)	57.1	50.0	85.7	100	85.7	85.7	85.7
Health centre IV (n=45)	55.9	58.8	58.8	97.1	97.1	85.3	85.3
Health centre III (n=120)	54.4	55.6	45.6	87.8	96.7	87.8	81.1
Total (n=138)	55.1	55.8	52.9	91.3	95.7	87.0	82.6

4.2 Integrated Reproductive Health

UPHOLD’s integrated reproductive health intervention includes family planning, goal-oriented antenatal care, clean deliveries, prevention of mother-to-child transmission of HIV/AIDS (PMTCT) and emergency obstetric care including post-abortion care.

4.2.1 Emergency Obstetric Care

Emergency Obstetric Care (EmOC) refers to that medical care given in case of complications occurring during pregnancy, labor and immediately after childbirth. Varied complications can lead to the death of the mother and/or the newborn unless effective intervention comes in at the right time. Skilled professionals should therefore attend to every pregnancy and delivery under a conducive environment.

There are two levels of care namely basic and comprehensive:

- A basic EmOC facility is the one that is performing all the six functions as listed below while
- A comprehensive EmOC facility is the one performing all the six functions plus ability to perform surgery (caesarean section, laparotomy for ectopic pregnancy or pelvic abscess) and availability of blood transfusion services (see Table 4.2.1 below).

Table 4.2.1 Signal function used to identify Basic and Comprehensive EmOC

Basic EmOC Services	Comprehensive EmOC Services
<ol style="list-style-type: none"> 1. Administer parenteral* antibiotics 2. Administer parenteral oxytocic drugs 3. Administer parenteral anticonvulsants for pre-eclampsia and eclampsia 4. Perform manual removal of placenta 5. Perform removal or retained products (e.g. manual vacuum aspiration) 6. Perform assisted vaginal delivery 	<ol style="list-style-type: none"> (1-6) All of those included in Basic EmOC 7. Perform surgery (caesarean section) 8. Perform blood transfusion
<p>A Basic EmOC facility is one that is performing all functions 1-6 A Comprehensive EmOC facility is that performing all functions 1-8</p>	
<p>*Parenteral administration of drugs means by injection or intravenous infusion ('drip')</p>	

Source: Status of EmOC in Uganda, 2003

The Ministry of Health in conjunction with UNICEF conducted a needs assessment study between February and March 2003 and gathered information on 197 facilities including national and regional referral hospitals, district hospitals, health centers IV (HCIV) and III (HCIII) in order to assess the level of EmOC services in 19 districts. The study revealed that 20.8% (n=41) of the surveyed facilities offered EmOC services. 88.9% (n=32) of HCIVs and 96.1% (n=124) of HCIIIs surveyed had no facilities for EmOC. The survey revealed that, overall, only 5% of delivering mothers receive EmOC services, where the expected minimum for a country like Uganda would be 15% of all deliveries.

The LQAS health facility survey was conducted in 423 facilities (HCIII, HCIV and Hospitals). These included six regional referral hospitals, 28 district hospitals, 87 HCIV and 302 HCIII.

Table 4.2.2 Profile of Surveyed Districts

UPHOLD District	Population size	Number of Hospitals	Number of HC IV	Number of HC III
ARUA	855,055	3	6	28
BUGIRI	426,522	1	1	10
BUNDIBUGYO	212,884	1	4	4
BUSHENYI	723,427	2	7	21
GULU	468,407	4	1	3
KAMULI	712,079	1	5	20
KATAKWI	307,032	0	3	13
KITGUM	286,122	2	1	6
KYENJOJO	380,362	0	3	19
LIRA	757,763	2	7	4
LUWERO	474,627	2	8	23
MAYUGE	326,567	1	2	4
MBARARA	1,089,051	4	12	36
MUBENDE	706,256	2	8	15
NAKAPIRIPIRIT	153,862	1	3	5
PALLISA	522,254	1	4	29
RAKAI	471,806	2	3	24
RUKUNGIRI	308,696	2	3	9
WAKISO	957,280	2	4	25
YUMBE	253,325	1	2	4
Total	10,393,377	34	87	302

Source: UBOS 2002 Preliminary Results

The survey captured data which was used to calculate the two United Nations (UN) process indicators of the amount of EmOC services available. The formulae used to compute these indicators are shown in Annex 1. The UN process indicators are based on the understanding that, in order to prevent maternal deaths, certain types of obstetric services must be available.

Table 4.2.3 Amount of EmOC Services available in the 20 districts plus referrals hospitals

Level of facility	Number surveyed	Availability of CEmOC	Availability of BEmOC	Non-EmOC
Hospitals (All)	34	32 (94.1%)	2 (5.9%)	0
Health Centre IV	87	8 (9.2%)	20 (23.0%)	59 (67.8%)
Health Centre III	302	N/A	27 (8.9%)	275 (91.1%)
Total	423	40 (9.4%)	49 (11.6%)	334 (79.0%)

Out of the 423 surveyed facilities, 21% (n=89) of the facilities offer EmOC services. 40 out of the 121 (33.1%) and 27 out of 302 (8.9%) qualified as comprehensive and basic EmOC facilities respectively while 334 (79%) failed to meet the criteria for the status they are supposed to serve: comprehensive or basic EmOC [see table 4.2.3 above]. However, the two hospitals and 20 of the 79 HCIV, served as basic-EmOC. This scenario translates into 1.9 and 2.4 (see computation of these values in the Annex 1) as the amount of comprehensive and basic EmOC available in the 20 UPHOLD districts. The minimum acceptable level is 1 for comprehensive and 4 for basic EmOC for every 500,000 population. This implies that more effort is required to upgrade several facilities to the required level of EmOC.

Table 4.2.4 The status of EmOC services in the 20 districts

	Minimum required level	Current status	Gap
CEmOC	21	40	+19
BEmOC	84	49	-45

Table 4.2.4 shows the minimum required level of EmOC as per the catchment's population of the 20 districts (10,393,377). This implies that in the catchment's population, there should be a minimum of 21 CEmOC facilities and 84 BEmOC facilities. The current status is that there are 40 CEmOC facilities and 49 BEmOC facilities present. There is a gap as far as basic EmOC services are concerned for which efforts should be directed to upgrade them.

Table 4.2.5: Missing EmOC services at HCIV

EmOC services	Number of Facilities with Missing EmOC services	Percentage
Parenteral antibiotics	5	5.7
Parenteral oxytocics	15	17.2
Parenteral sedatives	36	41.4
Manual removal of placenta	12	13.8
Removal of retained products	37	42.5
Assisted vaginal delivery	27	31.0
Blood transfusion	75	86.2
Caesarean section	71	81.6

Of the 87 HCIVs surveyed, there were only eight (9.2%) that offered all the signal functions for a comprehensive EmOC. Twenty (23%) of the HCIVs offered the services for a basic EmOC and the rest, 59 (68%) failed to meet the status and were thus considered non-EmOC.

Table 4.2.6: Missing EmOC services at HCIII (Basic EmOC Facility)

EmOC Services	Number of Facilities with Missing EmOC services	Percentage
Parenteral Antibiotics	42	13.9
Parenteral Oxytocics	81	26.8
Parenteral sedatives	202	66.9
Manual Removal of Placenta	88	29.1
Removal of Retained Products	216	71.5
Assisted Vaginal Delivery	133	44.0

Of the 302 HCIIIs surveyed, only 27 (8.9%) health facilities offered a full range of signal functions for basic EmOC. The rest 275 (91.1%) were non-EmOC as they were found missing one or so signal functions.

4.2.2 Clean Deliveries

The place where a delivery takes place is an important factor that influences the delivery outcome, the health of the mother and the infant. Therefore, it is imperative that all deliveries are catered for at health facilities under the supervision of qualified health personnel. However, it is noted that 59% women had delivered their last babies at home and only 41% deliveries occurred in government and private health facilities (Table 4.2.7). There are differentials among geographical regions with the majority of health facility deliveries occurring in the Central region (57%) and the minority in the Northern region (30%).

Table 4.2.7: Percent Distribution of Mothers by Place of their last delivery in two years preceding the survey by selected background characteristics

Background Characteristics	Place of Delivery				Number
	Home	Government Facility	Private Facility	Other	
Region					
Central	22.6	36.5	20.0	20.9	381
Eastern	40.6	32.6	13.7	13.1	475
Western	48.0	26.6	13.3	12.1	533
Northern	60.2	25.2	4.6	10.0	608
Total	45.1	29.5	12.0	13.4	1,997

Overall, 90% (n=1,798) of the women reportedly visited the health facilities for antenatal care during the last pregnancy. There were not many differences in geographical regions.

4.2.3 Goal-Oriented Antenatal Care

Goal-oriented antenatal care differs from traditional antenatal care in that it considers all pregnant women at risk for complications and in need of the same basic services and monitoring during pregnancy. Fewer visits are needed than in traditional antenatal care. Goal-oriented antenatal care visits concentrate on interventions aimed at the following goals:

- ◆ Detection and prevention of problems that might affect a woman's pregnancy
- ◆ Counseling and health promotion to encourage good health throughout pregnancy and to increase a woman's ability to identify possible problems
- ◆ Preparation for birth and possible complications.

The household survey focused on birth preparedness plans, HIV testing during antenatal care and knowledge of pregnancy complications. On birth preparedness plans and HIV testing, survey questions were basically on guidance on choosing a birth location and attendant; arrangements for supplies, transport, fees; and receipt of HIV test during ANC. Questions were addressed to women who had a delivery in the two years preceding the survey. Knowledge of pregnancy complications was administered to the adult population (both women and men) between 15 to 49 years of age.

Nearly half (55%, n=1,092) of the women reported that they had made arrangements on who would attend to the deliveries of their babies. 63% (n=1,254) knew where the delivery would take place from, and 68% (n=1,349) had saved money in case of emergency.

Out of the 1,798 (90%) women who reported receiving antenatal care services from health facilities, 439 (24%) had been offered an HIV test and only 288 (n=16%) had been tested. The majority of women that had been tested were in the Northern region (22%, n=119) and Central region (19%, n=62). Overall, 39.6% (n=790) of women and 32.5% (n=644) of men knew at least three danger signs during pregnancy.

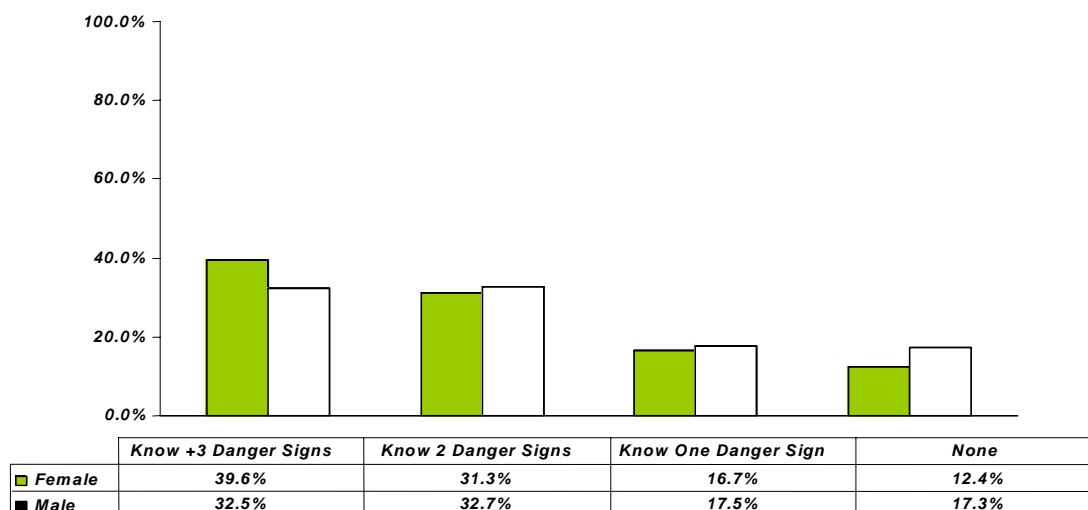
There was marked variation in knowledge levels of pregnancy complications among age groups, gender, districts and regions ($P < 0.01$). In the Central region, 28.1% of the adults in the reproductive age group mentioned three or more pregnancy danger signs compared to 42.4% in the Northern region. Mubende (13.3%), Mayuge (14.7%) and Kyenjojo (16.8%) distinctively had the lowest proportion of knowledge levels while Katakwi (52.6%), Luweero (52.1%), Rukungiri (51.8%) and Kitgum (51.6%) distinctively had the highest proportion of knowledge levels. The study results showed a significant difference in knowledge of three or more pregnancy danger signs between males and females ($P < 0.001$). Lack of knowledge of danger signs could lead to a delayed vital decision whether to seek medical assistance which could result in possible death of the mother and/or baby. To reduce recall bias, mothers of children under-two years were interviewed when considering pregnancy care and support.

Table 4.2.8 Percentage of adult population who know the signs and symptoms that a pregnancy is in danger, by background characteristics

	None	Know one danger sign	Know 2 danger signs	Know 3+ danger signs	Number of respondents
Age					
15-19	32.3	19.5	29.0	19.2	297
20-24	19.8	20.5	31.0	28.7	575
25-29	13.5	18.9	35.4	32.2	667
30-39	15.0	16.4	33.4	35.2	1,170
40-49	8.1	15.2	33.3	43.5	745
50+	10.8	13.8	25.3	50.1	521
Region					
Central	21.5	21.5	29.0	28.1	755
Eastern	17.9	17.3	32.7	32.1	946
Western	11.5	17.8	32.6	38.1	1,066
Northern	11.3	13.5	32.8	42.4	1,208
Sex					
Male	17.3	17.5	32.7	32.5	1,981
Female	12.4	16.7	31.3	39.6	1,994
Total	14.9	17.1	32.0	36.1	3,975

Figure 4 presents the proportion of the respondents who knew at least three danger signs/symptoms of pregnancy complications by gender.

Figure 4 Adult knowledge of pregnancy complications by gender



4.3 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.

4.3.1 Malaria Prevention and Control

Malaria continues as a major health problem in Uganda, contributing significantly to morbidity and mortality especially in under-five year children. UPHOLD focuses 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 among 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.

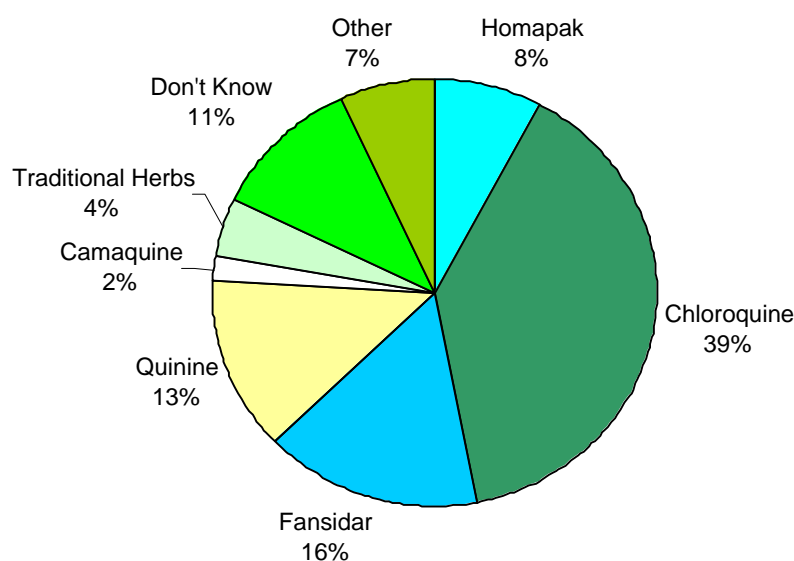
4.3.1.a Home-Based Management of Fever

During the household survey, parents/guardians of children under-five years were asked whether their children had had fever over the last two weeks preceding the survey. Out of the 3,991 parents/guardians interviewed, 56% (n=2,226) reported that their children had been ill with fever in the last two weeks preceding the survey. Out of the 2,226, 93% (n=2,070) had reportedly sought for treatment for their children.

To address the problems of access and timeliness of treatment, the Government of Uganda adopted the Home-Based Management of Fever/Malaria strategy to improve the recognition, management, and treatment of fever/malaria among children under-five years of age at the community and household levels. The strategy was developed in conjunction with a change in the first-line treatment of malaria from chloroquine to a combination therapy of chloroquine and sulfadoxine-pyrimethamine (SP) and with the development of age-specific, unit-dose packages of antimalarials called "Homapak". Homapak was developed with strong involvement of the Uganda MOH and is intended to improve delivery of proper drug quantities to children of different ages. Homapak is distributed in color-coded individual boxes: children ages 2 to 24 months are given red packages, and children ages 25 to 59 months receive green packages.

Figure 5 shows the percent distribution of reported children who took malaria tablets in the last 2 weeks preceding the survey by the type of drug. Almost 40% (n=1,198) of the children who had fever in the last 2 weeks took chloroquine, 16% (n=486) took Fansidar and only 8% (n=240) took Homapak. 11% (n=329) of the parents/guardians were unable to report the type of drug given to their children.

Fig 5 Type of Malaria Tablets taken by children in last two weeks preceding the survey



Overall, the percentage of parents/guardians who reported prompt treatment of their children within 24 hours of onset of malaria fever with recommended treatment was 30% (n=469). Before the household survey, UPHOLD, working through the Malaria Consortium, had distributed free Homapak and ITNs in selected districts. Districts where UPHOLD intervened through the provision of free Homapak and HBMF campaigns were above the average benchmark. Rukungiri district that has received HBMF support in the past through Save the Children Foundation and Malaria Consortium reported the highest proportion of prompt treatment using recommended drugs (63.2%), followed by UPHOLD HBMF supported districts that included Kitgum (59.7%), Gulu (58.1%), Kyenjojo (44.4%) and Katakwi (42.9%).

The districts with the lowest reported proportions included Mubende (9.8%), Mayuge (5.5%) and Pallisa (2.9%). Overall, the Northern region, where UPHOLD and other funding organizations' support has been intensive, had significantly higher treatment response rates in terms of this indicator compared to any other regions (P<0.001). However, the survey did not investigate the proportion of under-5 years who had recovered following prompt and adequate malaria treatment.

Table 4.3.1 Percentage of children under 5 years receiving adequate Treatment, by geographical region

Characteristics	Treatment within:			Overall treatment
	24 hours	Two days	Three or more days	
Region				
Central	23.0	3.5	10.5	17.4
Eastern	14.6	13.2	19.6	13.3
Western	29.0	29.7	21.4	26.4
Northern	45.5	29.4	40.7	40.7
Overall Total	29.8	19.6	23.2	25.6

4.3.1.b Insecticide Treated Mosquito Nets (ITNs)

UPHOLD provided free ITNs targeted to pregnant women, PLWA and children under 5 years. These efforts were complemented with appropriate behavioral change communication (BCC) activities targeted at increasing appropriate utilization of ITNs by pregnant women and under-5 years.

During the household survey, parents/guardians of children under 5 years were asked whether their children slept under a mosquito bed net the night before the survey and whether the mosquito net was treated. By the time the survey was conducted, UPHOLD through the Malaria Consortium had distributed free ITNs among pregnant women attending antenatal care. The districts that benefited were Katakwi, Gulu, and Kitgum and conducted BCC activities in several districts targeted at utilization and retreatment of bednets.

Out of the 3991 parents/guardians interviewed, only 11.7% (n=466) reported that their under-five year old children had slept under an insecticide treated mosquito net the night before the survey. However, 24% (n=952) had reported that their under-five year children had slept under a mosquito net (treated or untreated). Mbarara district reported the highest proportion of children under-5 years sleeping under an ITN (24.9%) while Mayuge district reported the lowest proportion (2.1%). UPHOLD ITN supported districts were among the top five districts that performed well on this particular indicator i.e. Katakwi (21.1%), Kitgum (19%) and Gulu (16.1%).

In addition to the provision of free ITNs to selected districts, UPHOLD participated in a national ITN retreatment exercise between the months of April and May 2004, three months preceding the survey. Out of the 20 districts targeted for the exercise, six were UPHOLD districts (Kamuli, Mbarara, Kyenjojo, Arua, Wakiso, and Luwero). Households with children under-five years were asked how long ago the mosquito net was treated with an insecticide. On average, nets were dipped in insecticide more than four months prior to the survey (see Table 3.3.2). In the UPHOLD districts where the national net re-treatment exercise was conducted, the average period reported was three months. These districts included Luweero (3.4 months), Mbarara (3.1 months), Kamuli (3.2 months) and Arua (3.7 months). Wakiso (4.3 months) and Kyenjojo (6.2 months) had the lowest reported compliance rates during the net treatment campaign with 55.3% and 32.3% achieved treatment targets respectively in the two districts as also evidenced in the long average period since nets were dipped in insecticide.

Table 3.3.2: Percentage of children under-5 years who slept under a mosquito net

	Slept under <u>any</u> net last night	Slept under <u>ITN</u> last night	Average months since last treatment	Number of respondents
Region				
Central	19.6	9.3	4.7	761
Eastern	17.5	5.8	4.8	952
Western	21.8	11.8	4.6	1,061
Northern	33.3	17.7	5.0	1,217
Overall Total	23.9	11.7	4.8	3,991

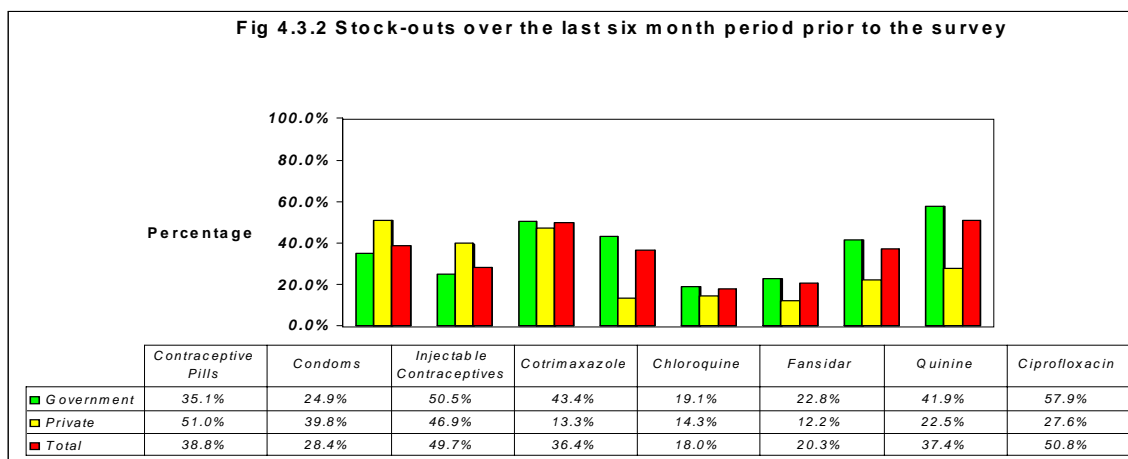


UPHOLD staff Handing out insecticide treated nets to mothers in Kitgum IDP Camp

4.3.1.c Stockouts and Stock Availability

At each health facility visited for this survey, staff were interviewed and stock records reviewed to collect information on stock availability on the day of the visit and the six-month period prior the survey. A six month period is reviewed in order to capture a more accurate picture of stock availability at each facility and to allow for seasonal trends in consumption (e.g. periodic shipments of supplies).

Figure 3.3.2 shows the results of this review of stock records for a sample of commodities studied. The graph shows the distribution of facilities that experienced at least one stockout of each commodity during this six-month period, shown separately for 325 Government and 98 Non-government facilities.



In the last six months, a large percentage of facilities had stockouts of Microgynon more than the other contraceptives studied. Only around 28% (n=120) and 39% (n=164) of all facilities experienced a stockout of condoms and Injectable contraceptives respectively during this period. 51% (n=165) of government facilities experienced a stockout of co-trimoxazole, and 18% (n=58) of chloroquine. For contraceptive pills and condoms, the non-government facilities had a higher frequency of stockouts than government facilities. For the essential drugs distributed through the kits (like co-trimoxazole and chloroquine), government facilities were much more likely to experience a stockout than non-government facilities. In theory, contraceptives are kept in full supply to meet the needs of all clients. All hospitals, HC IVs and HC IIIs should have co-trimoxazole and chloroquine in stock. As noted in Figure 4.3.2, this is not happening. Each stockout that takes place represents clients who will not receive the treatment that they were seeking at the health care facility.

5.0 Integrated HIV/AIDS

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

5.1 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 HIV/AIDS. These behaviors are often included together under a comprehensive "ABC" approach - A for abstinence (including delayed sexual initiation among youth), B for being faithful (or reducing one's number of sexual partners), and C for correct and consistent condom use, especially for casual sexual activity and other high-risk situations. The substantial decline in Uganda's HIV prevalence has been attributed to the successful combination of ABC strategies, especially faithfulness or partner reduction behaviors by Ugandan men and women whose reported casual sex encounters declined by well over 50% between 1989 and 1995 (USAID Country Report, Uganda 2002).

The household 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 of the three programmatically recognised ways to avoid contracting HIV: to abstain from sex, to limit the number of sexual partners, and use of condoms. This survey asked respondents to mention ways a person could avoid getting the virus that causes AIDS.

Of the 3,975 adults interviewed, 58% (n=2,319) mentioned two or more programmatic ways of reducing the risk of getting HIV/AIDS. There were marked variations according to gender and region ($P < 0.01$). Among men, 70% (n=1,390) mentioned two or more ways of reducing the risk of getting HIV compared to 47% (n=929) of women. Similarly, 7% (n=136) of men did not mention any of the three programmatic ways compared to 22% (n=447) of women. Additionally, 13% (n=251) of women and 10% (n=202) of men mentioned only one programmatic way of avoiding the disease (see Figure 5.1).

Fig 5.1 Knowledge of Programmatic ways of HIV/AIDS Prevention

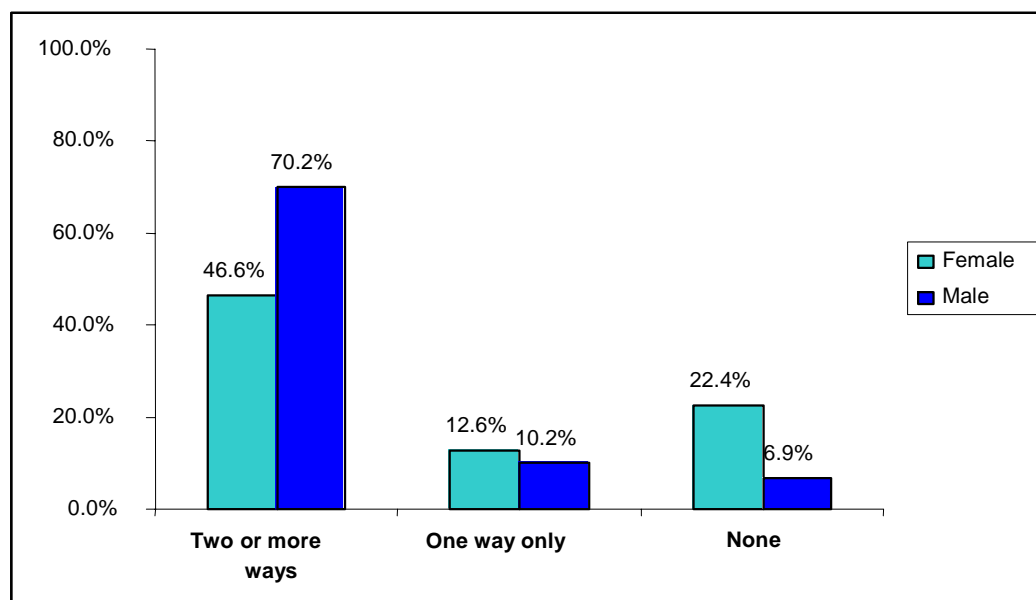
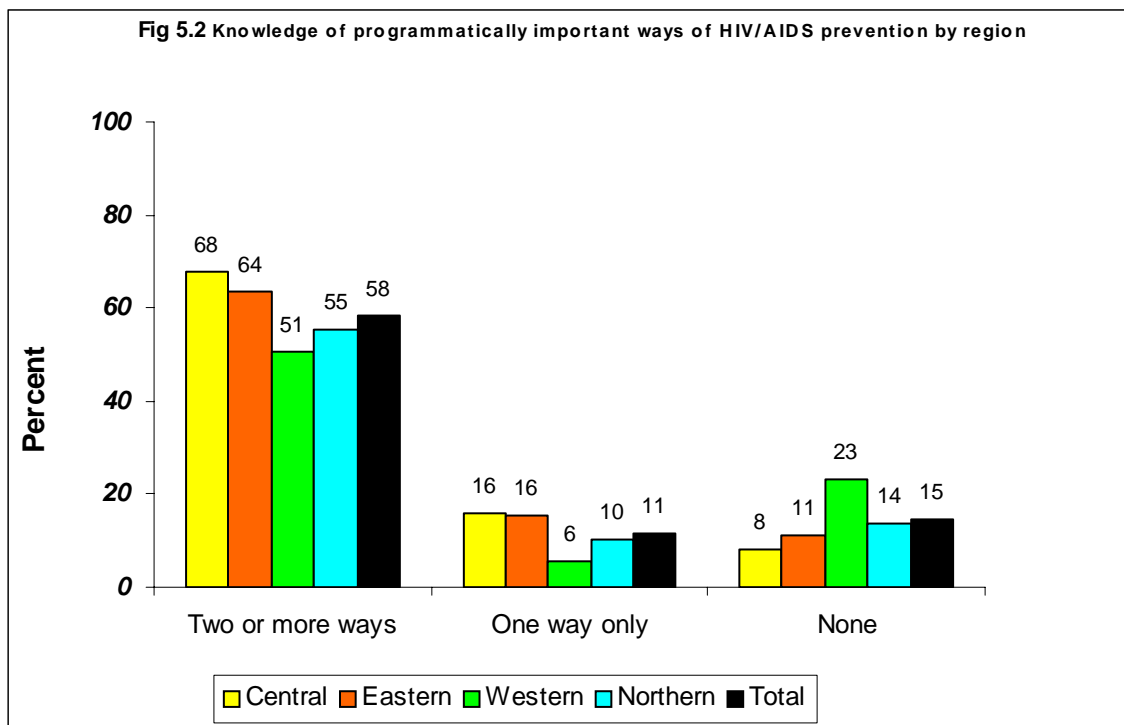


Figure 5.2 shows knowledge distribution of programmatic ways of preventing the risk of HIV/AIDS transmission by region. The majority of the adult population surveyed in the Central region mentioned more than two major ways of HIV transmission as compared to the Western region. According to districts, the highest proportion of population that knew more than two programmatic ways to avoid contracting HIV was in Arua district (67.3%, n=179) and the lowest was in Nakapiripirit district (29.6%, n=56).

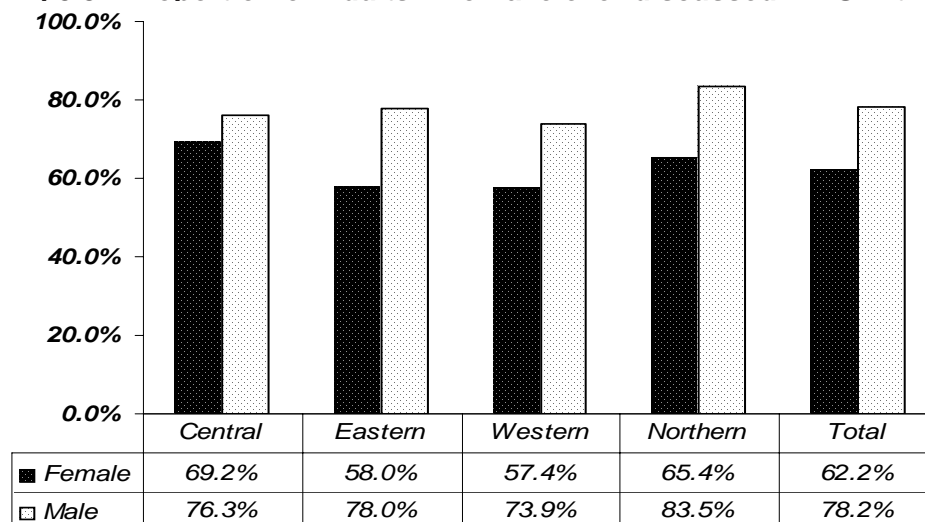


5.2 Discussion of AIDS with partners

Discussions about HIV/AIDS with a spouse, partner, friend or relative are important in guarding against infection of either or both members. Women and men were asked whether they had ever talked about ways of preventing the spread of the virus that causes AIDS to their partners, friends or relatives.

There were significant differences in gender with 62%, (n=1,241) of women and 78%, (n=1,550) of men reporting that they had ever talked to their partners, friends and relatives about ways to prevent the spread of the virus that causes AIDS (P<0.01). No significant regional variations were observed (see Figure 8 below). However, there were significant variations among districts (P<0.01). Lira district (82%, n=152) registered the highest proportion of the respondents who had ever talked about ways to prevent the spread of the virus that causes AIDS to their partners, friends or relatives. Rukungiri district registered the lowest proportion of the respondents (47%, n=90).

Fig 5.3 Proportion of Adults who have ever discussed AIDS with their partners



5.3 HIV/AIDS Counseling and Testing

In addition to knowing where to receive HIV testing services and the benefits of taking an HIV test, respondents were asked whether they have ever requested and received an HIV test during the household survey.

Overall, three quarters of the respondents (75%, n=2,966) reportedly knew the benefits of having an HIV test. However, there were significant differences ($P<0.001$) in knowledge of HIV testing benefits between women (71%, n=1,406) and men (79%, n=1,560). When asked whether they knew where they could go for an HIV test, 55%, (n=1,093) of women and 64% (n=1,260) of men knew where they could go for an HIV test. These gender differences in knowledge of where one could take an HIV test were highly significant ($P<0.001$).

When asked whether they had ever taken an HIV test, 20% (n=405) of women and 20% (n=390) of men had ever tested for the AIDS virus. Among the districts, the lowest reported proportions were in Nakapiripirit where 3% (n=3) of women and 6% (n=6) men had ever tested for the AIDS virus. Rakai district, considered the epicenter of the AIDS epidemic in Uganda⁴², was among the districts that reported higher proportions of adults receiving HIV testing (30%, n=55). Others included Wakiso (29%, n=56), Luwero (31%, n=58) and Kitgum (32%, n=60) districts.

Of the 795 adult population that received HIV testing, 81%, (n=327) of women and 84%, (n=326) of men reported receiving their HIV test results. However, only 16% (n=653) of the 3,975 adult population interviewed had ever tested and received their HIV test results. In addition, regional variations in HIV testing and receiving of results existed ($P<0.001$) as shown in Table 5.1 below.

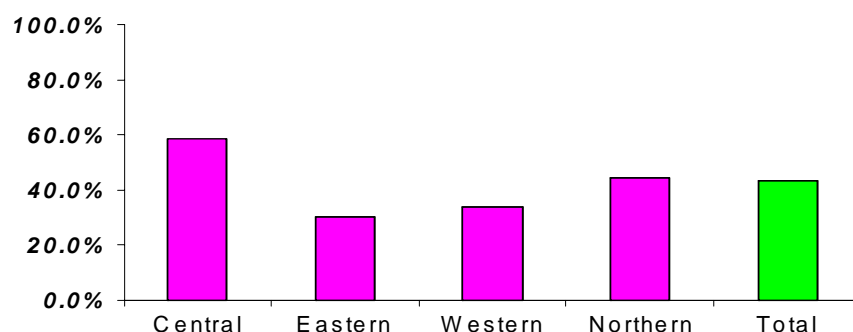
Table 5.1 Percentage Distribution of Adult Population who have ever received HIV testing services by region

Characteristics	Know the benefits of HIV test	Know where they could be tested	Have ever taken an HIV test	Have ever received HIV test results	Number of respondents
Region					
Central	77.6	63.4	26.9	21.9	755
Eastern	71.1	48.4	13.7	10.5	946
Western	82.7	71.8	19.0	16.2	1066
Northern	68.4	53.9	21.4	17.9	1208
Overall Total	74.6	59.2	20.0	16.4	3975

The health facility survey asked questions about program components, availability of trained staff, availability of guidelines, existence of registers to record program data, existence of private space for confidential counselling, and whether VCT is offered on request. VCT centers that meet a minimum standard requirement were defined as those with trained counselling staff, private space and functional HIV testing laboratory facilities.

Of the 423 health facilities surveyed, 44% (n=184) offered VCT services. The highest proportion of facilities offering counselling and testing (see Figure 5.4) were in the Central region (69 out of 118) followed by the Northern region (40 out of 90).

Fig 5.4: Proportion of Facilities providing VCT services by Region



	Central	Eastern	Western	Northern	Total
■ Proportion of Facilities	58.5%	30.4%	33.9%	44.4%	43.5%

184 facilities were offering VCT services. 64% (n=118) of these maintained registers for recording information on VCT clients. 86.4% (n=159) had trained counsellors and staff involved in the provision of VCT and 65.8% (n=121) had trained laboratory technicians. The majority of HC III facilities had no trained laboratory technicians. The Central and Eastern regions, overall, are not doing well in VCT services (see Table 5.2 below).

Table 5.2 Percentage of facilities offering VCT that meet certain criteria for offering services, by facility type and region

	Trained service provider	Trained laboratory technician	Availability of VCT guidelines	Availability of registers	Availability of private space	No. of Facilities offering VCT
Facility type						
Hospital	97.0	100	97.0	93.9	78.8	33
HC IV	92.9	83.9	71.4	76.8	60.7	56
HC III	78.9	43.2	46.3	46.3	51.6	95
Region						
Central	79.7	58.0	58.0	52.2	58.0	69
Eastern	84.4	46.9	59.4	53.1	50.0	32
Western	90.7	90.7	67.4	88.4	62.8	43
Northern	95.0	67.5	70.0	67.5	65.0	40
Total	86.4	65.8	63.0	64.1	59.2	184

5.4 Prevention of Mother-to-Child Transmission

Overall, 9% (n=36) health facilities were offering PMTCT services by the time of the survey. All these facilities had personnel trained in the provision of PMTCT and had protocols and guidelines on display during the survey.

5.5 Sexually Transmitted Infections

The close association between the presence of an STI and HIV infection has made STI prevention and treatment an important component of HIV/AIDS prevention. However, the implementation of HIV/AIDS strategies through prevention and treatment of STIs has been hampered by a limited number of trained personnel in STI syndromic management, low partner notification of STI infection, and inadequate treatment of STIs resulting in drug resistance.

The health facility survey asked questions about program components, availability of trained staff, availability of guidelines, existence of registers to record program data, existence of private space for confidential counselling of STI clients. STI service facilities that meet a minimum standard requirement were defined as those with trained counselling staff, private space and functional STI testing laboratory facilities. The majority of (96%, n=406) facilities surveyed were offering STI services. Of the 406 facilities with STIs services, 65% (n=262) of the health facilities had staff who had received in-service training in STI syndromic management within the last three years preceding the survey (see table 5.3).

More than half of the health facilities (58%, n=234) had no trained STI laboratory technicians, and especially facilities in the Eastern region lacked qualified STI laboratory technicians. As evidenced in facilities providing VCT, the Central and Eastern regions were not doing well in STI services (see Table 4.3.1). Overall, 14% (n=56) of the health facilities met evaluation criteria for providing STI services.

Table 5.3: Percentage of facilities offering STI services that meet certain criteria for offering services, by facility type and region

	Trained service provider	Trained laboratory technician	Availability of STI guidelines	Availability of registers	Availability of equipments and reagents	All Components	No. of Facilities
Facility type							
Hospital	76.5	100.0	91.2	82.4	82.4	47.1	34
HC IV	66.3	67.4	88.4	65.1	53.5	22.1	86
HC III	62.6	28.0	86.7	52.5	20.6	7.3	286
Region							
Central	58.9	50.9	84.8	39.3	35.7	10.7	112
Eastern	69.8	26.7	88.4	73.3	23.3	12.8	86
Western	64.5	46.0	93.6	70.2	34.7	16.9	124
Northern	66.7	41.7	81.0	47.6	35.7	14.3	84
Total	64.5	42.4	87.4	57.6	32.8	13.8	406

5.6 Diagnosis and Treatment of Tuberculosis

The health facility surveyed asked questions about program components, availability of trained staff, availability of guidelines, existence of registers to record program data, and existence of private space for confidential counselling. TB service facilities that meet a minimum standard requirement were defined as those with trained counselling staff, private space and functional TB testing laboratory facilities. 307 out of the 423 (72.6%) facilities surveyed were offering TB services.

Overall, 29% (n=87) of the health facilities met the minimum criteria of offering TB diagnostic services. Of those that met the minimum acceptable criteria, 74% (n=64) were government facilities. Table 5.4 shows that only half of the facilities that offer TB diagnostic services had qualified staff for laboratory diagnosis.

Table 5.4: Percentage of facilities offering TB diagnostic services that meet certain criteria for offering services, by facility type and region

	Trained service provider	Trained laboratory technician	Equipment availability	Availability of registers	All Components	No. of Facilities
Facility type						
Hospital	78.8	100.0	100.0	81.8	66.7	33
HC IV	82.4	77.0	79.7	94.6	56.8	74
HC III	81.0	31.8	31.3	78.0	11.8	195
Region						
Central	84.2	60.5	56.6	86.8	38.2	76
Eastern	69.1	38.2	34.6	70.9	20.0	55
Western	86.9	50.5	48.6	86.0	26.2	107
Northern	78.1	48.4	60.9	81.3	29.7	64
Total	81.1	50.3	50.7	82.5	28.8	302

6.0 Discussion

Education

In this survey, almost all schools visited had School Management Committees and Parent Teacher associations though their involvement in the development and implementation of the school development plan was very low. This is consistent with the findings from the Ministry of Education and USAID evaluation of the Teacher Development and Management System (TDMS) conducted in 2000 among a sample of schools. In the evaluation report, it was noted that SMCs and PTAs existed in all schools but committee members expressed ignorance of relationships within the school system such as school finance, regulations governing disbursements, and notably the roles and powers of committees and the handling of personnel matters.

The existence of a few schools with school development plans is also consistent with the 2004 April Education Standards Agency (ESA) survey on Monitoring Learning Achievement at Lower Primary in Uganda (MALP), supported by UNICEF and USAID. The survey revealed that almost forty percent (37.5%) of primary schools had school development plans. Similar survey results on HIV/AIDS sessions in classes and existence of peer counseling initiatives in schools are consistent with results obtained in this LQAS school facility survey.

The primary net attendance ratios have increased since the DHS 2001 survey. The regional variations in net attendance ratios are consistent with the DHS 2001 survey with the Eastern and Western regions highest and the Northern region, characterised by the 20 year long civil war, with the lowest reported percentages.

The household survey results on children bringing home school homework were consistent with results obtained during the 2001 DHS survey. The DHS 2001 reported that about one in three primary school pupils brought home school homework and more than half of the pupils received assistance with homework from someone in the household.

Results on CCT supervision were consistent with the recent findings from the evaluation of CCTs by the USAID EQUIP-2 supported program in July 2003. Both studies indicate that government aided schools in urban environments had more than two CCTs visits compared to those in rural environments. They conclude that this is partly due to more CCTs being reported in urban environments.

Health

The trend of immunization by region was consistent with that observed during the 2001 DHS survey. The western region had the highest proportion of DPT3 coverage compared to other regions. This is consistent with the results presented in the annual Ministry of Health generated league table generated from the routine HMIS facility records. However, the proportions presented in the league table are higher than the data from the household survey. HMIS data is facility-based and reflect facilities performance. HMIS data only reflects those clients who visited the health service unit and thus a selection bias is inbuilt, which is not the case in household surveys. There is also some administrative bias for under or over reporting. However, HMIS still reflects what is going on in the service units. By comparing household data with health facility outreach data, it is possible to check gaps in HMIS data, but the reverse is not true. Thus, household survey could serve as an incentive to improve facility data by improving service coverage.

Likewise, the proportion of deliveries in health facilities reported during the annual HMIS league table was less than the proportion reported in the household survey and the above arguments apply. Worthy-to-note are the high disparities within districts reported between the HMIS and LQAS household data. For instance, Wakiso district, with the highest disparity, surrounds Kampala district and access to most Wakiso health facilities and other areas is through Kampala district. Wakiso LQAS household estimates are higher than the HMIS league table results due to the fact that most women from Wakiso deliver from Kampala district in the major referral hospitals. It is therefore not surprising that Kampala HMIS League table estimates are higher with Wakiso the least and vice-versa during the household surveys.

Comparing HMIS data with the LQAS household data showed that, overall, 11 out of 20 districts were reporting correctly within margin or error, indicating that 50% of data on DPT3 is reliable when compared

with household data. This finding is substantiated with other studies and situation analysis that showed problems in data quality.

HIV/AIDS

Results obtained in the LQAS 2004 household survey were consistent with those obtained during the LQAS household survey conducted by Uganda HIV/AIDS Control Project (UACP) between October and November of 2003. The UACP LQAS household survey did not find any significant gender differences among adults who had ever taken an HIV test. 14% of men and 14% of women had ever taken an HIV test. This is consistent with 20% of women and 20% of men found to have taken an HIV test during the UPHOLD LQAS household survey.

Likewise, knowledge of two or more programmatic ways of HIV/AIDS prevention was consistent in both LQAS household surveys. 64.5% of men and 38.8% of women mentioned that they knew at least 2 ways of HIV/AIDS prevention during the UACP LQAS survey. In the UPHOLD LQAS survey, 70.2% of men and 46.6% of women mentioned that they knew at least 2 ways of HIV/AIDS prevention.

7 Summary of Findings

7.1 School Facility LQAS Survey

Only 43% of the schools had a documented school development plan. A third (33%, n=478) of the schools had active and properly constituted and functional SMCs. 40% of the SMCs/PTAs had operational procedures and capacity to develop and implement School Development Plan (SDP).

Community involvement in the documentation and implementation of SDP was very low. Schools reported 41% of SMCs, 38% of PTAs and 31% of local council involvement in the implementation of the SDP.

A quarter of the schools (25%, n=365) reported facilitating discussions or conducted talks for children and parents about HIV/AIDS during parents' day. Slightly less than half of the surveyed schools (47%, n=675) reported that they had conducted some HIV/AIDS activities other than during the school assembly.

A third of the schools visited (33%, n=481) received more than two support supervision visits from CCTs in the term prior to the survey. Mostly, government aided schools (35%, n=450) were visited more than twice compared to private schools (16%, n=31).

7.2 Health Facility LQAS Survey

Overall, 44% (n=184) of the surveyed facilities offered VCT services, of which 86.4% (n=159) had trained counsellors and staff involved in the provision of VCT while 65.8% (n=121) had trained laboratory technicians. The majority (57%, n=54) of HC III facilities had no trained laboratory technicians.

Only 9% (n=36) health facilities were offering PMTCT services by the time of the survey. All of these facilities had personnel trained in the provision of PMTCT and had protocols and guidelines on display during the survey. Youth-friendly services were reportedly available in 33% of 423 facilities in the twenty districts surveyed.

Overall, 35% (n=14) of the hospitals, 40% (n=34) of HCIVs and 30% (n=90) of the HCIIIs have youth-friendly programs.

The survey revealed that 21% (n=89) of the facilities offer EmOC services. 40 out of the 121 (33.1%) and 27 out of 302 (8.9%) qualified as comprehensive and basic EmOC facilities respectively while 334 (79%) did not meet the minimum standards to be considered.

7.3 Household LQAS Survey

Overall, parental involvement in education was below average. A quarter of the parents/guardians (25%, n=441) reportedly visited their children's schools to observe teachers teaching classes and over a third of parents (39%, n =703) had visited their children's school to review the performance of their children with the teacher.

School net attendance rates for children aged 6 to 12 years was 91% (n=1,363). However, regional disparities in primary school attendance among primary school-age children exist. Primary school attendance is highest in the western region (96%) and lowest in the northern region (85%), a factor that can be attributed to the conflict in the Northern part of the country which impedes school performance, despite the free Universal Primary Education policy (UPE).

It was further established that only four out of every ten of the children (40%, n=611) who were currently attending school carried packed lunch to the school the day preceding the survey.

38% (n=675) of the parents/guardians interviewed reported their children bringing homework during the last schooling day prior to the survey and providing a conducive environment in completing the homework.

The majority of parents/guardians reported having their children's health cards (90%), although only 45% could show them during the day of survey. Child health card retention was highest in the Yumbe district (79%) as a result of the World Food Program giving food to mothers presenting the card.

Half (50.8% n=698) of children in the 20 districts had received the third dose of DPT by 12 months of age as recommended, and 80% (n=3,154) of children aged 6 to 59 months had received a vitamin A capsule within the last six months prior to the survey.

Over half (56%, n=2,226) of the parents/guardians reported that their children had been ill with fever in the two weeks preceding the survey. Of the 2,226, 93% (n=2,070) had reportedly sought for treatment for their children. The percentage of parents/guardians who reported prompt treatment of their children within 24 hours of fever onset with recommended treatment was 30% (n=469).

Only 466 (11.7%) reported that their under-five year old children had slept under an insecticide treated mosquito net the night before the survey. However, 24% (n=952) had reported that their under-five year children had slept under any mosquito net (treated or untreated).

Nearly a third of parents/guardians reported prompt treatment of their children within 24 hours of fever onset with recommended treatment. Districts that received UPHOLD support with free Homapak and HBMF activities performed better than those that never benefited.

The household survey revealed that the offer of VCT testing during ANC was not universal. Of the 1,798 who reported attending antenatal care services, only 439 (24%) had been offered an HIV test and 288 (n=16%) had been tested.

Nearly half (55%, n=1,092) of the women reported that they had made arrangements on who would attend to the deliveries of their babies. 63% (n=1,254) knew where the delivery would happen from, and 68% (n=1,349) had saved money in case of any emergency. The household survey revealed that only 41% of deliveries occurred in health facilities, of which 12% were in private facilities.

58% (n=2,319) mentioned two or more programmatic ways of reducing the risk of getting HIV/AIDS. Among men, 70% (n=1,390) mentioned two or more ways of reducing the risk of getting HIV compared to 47% (n=929) of women. Three quarters of the respondents (75%, n=2,966) reportedly knew the benefits of having an HIV test. However, only 16% (n=653) of the adult population interviewed had ever tested and received their HIV test results.

8 Conclusions

8.1 Education

Community involvement in education should be double-faceted. Program stakeholders including the districts and communities should encourage and support each individual school in an effort to enhance its place as a social and cultural center of community life, and as a source of community pride.

The program should further explore current community participation; expand this effort as needed through the support of parents and school festival days, sensitization of school management committees of the need for school participation in community activities, and work with other community agencies to encourage and motivate families with school children to provide a home learning environment.

8.2 Health

There should be an increase in community based promotion of ITNs. Given the fact that the voucher system may not increase demand at the current moment, free distribution of ITNs to PLWAs, pregnant mothers and families with children under five is recommended.

Stakeholders should work with and facilitate community-based organizations to increase demand and access to vaccination services (provider-based systems) in addition to the improving the existing health facility-based systems. Through provider reminder interventions, those who administer vaccinations will be informed of individual children due for specific vaccinations.

Community-based drug distributors should be trained, and the old ones attend refresher courses in order to increase the awareness and availability of free Homapak drugs in the community.

The program should strengthen referral facilities for obstetric emergencies through training of health facilities workers. Although the capacity of facilities in terms of equipment and supplies and staff competence in handling complications was not included in the survey, there is considerable scope for improving the readiness of services to detect and manage obstetric emergencies.

Through the CSO grants, work should be done intensively with communities to encourage women and their families to increase the number of women who seek antenatal care in addition to training traditional birth attendants in faster detection of complications that need urgent referrals to health facilities.

Health care workers should be trained to utilize the opportunity of women's ante-natal visits as a crucial point of contact between health services and pregnant women. These visits can be used to teach women about danger signs and hygienic practices.

8.3 HIV/AIDS

The program should foster more collaboration and coordination between the district and community NGOs. This partnership will increase the availability of more testing services at the lower community levels through increased outreaches.

The district and NGO partnership should increase community understanding of HIV and AIDS in addition to increasing PMTCT care and referrals services. Offer of VCT testing services for pregnant mothers attending ANC should be universal across all facilities. The program should increase the number of health workers trained in offering PMTCT services.

9 Justification for use of LQAS

In the Ugandan decentralized structure, each district and county pursues its own priorities and resolves its own needs for evidence in a way that permits eventual aggregation to the national level. District leaders and program managers are in need of information about what works and what does not work, what needs to be done to improve the effectiveness and efficiency of services. The service information systems are very poor and lack representativeness. Districts therefore need to avoid existing information systems that produce evidence that is predominately service-based. The five year Demographic Household Surveys, that are centrally managed, cannot provide information disaggregated to lower local levels.

UPHOLD is tasked with strengthening the existing information systems in addition to promoting of local evidence-based planning. Local evidence-based planning implies that decision takers should have increased local capacity to plan strategically and should have better access to updated data in addition to the abilities to obtain and use local evidence. The LQAS method, a simple and rapid assessment methodology that generates information disaggregated to lower administrative levels, has been implemented and used to identify areas that are performing below or above a desired coverage or benchmark.

LQAS is relatively easy to implement and does not need specialized training compared to some other methodologies. LQAS requires a sample of 19 items from each supervision area and a minimum of five supervision areas from each unit in order to achieve a 95% confidence level. In this survey, each county designated as a supervision had 19 households randomly sampled from it and a minimum of 95 households were surveyed for each questionnaire type within the district.

Evidence from other studies suggest that using LQAS is less expensive than studies using cluster sampling. A cost analysis of PLAN/Nepal's LQAS assessment at midterm indicated that the total cost of the study was less than half of the project's baseline cluster (KPC) survey. A cost analysis of the UPHOLD LQAS survey has is underway but estimates are that the cost of collecting data in 475 households per district range between \$2,500 to \$4,000 depending on the security and local environment and terrains.

In addition to collecting baseline information for the program, local district capacity was created in collecting and analysing information. The LQAS results were hand tabulated and analysed and were used as part of the district planning process.

LQAS surveys will be conducted annually to measure program success and identify areas to focus in order to create program impact. These annual surveys will also guide partners to focus on impact and in designing future interventions.



District official conducting interview in Kitgum District IDP camp

10 References

2000/2001 DHS EdData Survey Uganda

Donald PR, Kibel MA: The child health care—a cornerstone of preventive and promotive pediatrics. 1984

Donna Espeut: Effective Monitoring with Efficient Methods; PLAN/Nepal's experience with LQAS in project monitoring

DW Batega, GJ Greer, BA Plowman. Home-Based Management of Fever Strategy in Uganda: Assessment of Implementation and Operation at the District and Community Levels. 2004 MOH/WHO/BASICS II/USAID

Eric Sarrot, Peter Winch, William M Weiss, Jennifer Wagman. Methodology and sampling issues for KPC surveys, 1999.

Health Sector Strategic Plan II, 2005/06-2009/2010.

Hogle J, Green EC, Nantulya V, Stoneburner R, Stover J. What happened in Uganda? Declining HIV prevalence, behaviour change and the national response. Washington, D.C.: USAID, 2002.

Increasing Immunization Coverage in Uganda: The Community Problem Solving and Strategy Development Approach, MOH/UNEPI Report 2003.

Joseph Valadez, Corey Leburg, Lusine Mirzoyan, Vardan K Matevosyan, Liliana Veloso. Network for Health in Armenia: Baseline survey report for three partner organizations: ADRA, CARE and Save the Children, March 2001.

2003 Lancet Child Survival Series: UNICEF Child and Adolescent Health and Development

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

L. P. Rabarijaona et al: Lot Quality assurance sampling for screening communities hyperendemic for *schistosoma mansoni*: *Tropical Medicine and International Health*, Vol 8 No 4 pp 322-328 April 2003.

MOH Uganda, ORC Macro, JSI/DELIVER, 2003. Uganda Health Facilities Survey 2002.

National young people HIV/AIDS communication program for young people: UAC Concept paper 2001.

Poverty Eradication Action Plan 2001-2003 Vol 1

Serwadda D; Mugerwa RD; Sewankambo NK; Lwegaba A; Carswell JW; Kirya GB; Bayley AC; Downing RG; Tedder RS; Clayden SA; et al, "Slim disease: a new disease in Uganda and its association with HTLV-III infection". *Lancet*. October 19 1985, 2 (8460):849-52

Straight Talk Gulu Youth Centre report 2004.

Strategies for enhancing basic education system performance: the role, performance and contribution of coordinating centre tutors to education quality. July 2003.

Susan E. Robertson, Martha Anker, Alain J. Roisin et al. The lot quality technique: a global review of applications in the assessment of health services and disease surveillance.

The progress of nations 2000: UNICEF 2000

The Role of Democracy in Uganda's move to Universal Primary Education, 2004.

"Towards sustainable community participation for quality primary education" A training report on effective team building for community participation, UPHOLD 2004.

Uganda Education Statistics Abstract, 2003.

Uganda Participatory Poverty Assessment Process; MFPED, Moroto District Report, 2002.

USAID. The "ABCs" of HIV Prevention: Report of a USAID technical meeting on behaviour change approaches to primary prevention of HIV/AIDS. Washington, D.C.: Population, Health and Nutrition Information Project, 2003. http://www.usaid.gov/pop_health/aids/TechAreas/prevention/abc.pdf

Vitamin A Deficiency: UNICEF report to World Summit for Children 2001.

"Youth-Friendly Services" A Manual for service providers: 2002 Engender Health

ANNEX 1

Computation of UN Emergency Obstetric Care process indicators

Indicator: Amount of EmOC services available: Basic and comprehensive EmOC facilities.

Indicator: Amount of EmOC services available: Basic and comprehensive EmOC facilities.

Basic EmOC services,

Number of basic EmOC facilities	X 500,000	= Number of basic EmOC facilities
Total population		per 500,000 population

Acceptable level = At least 4 basic EmOC facilities per 500,000 population.

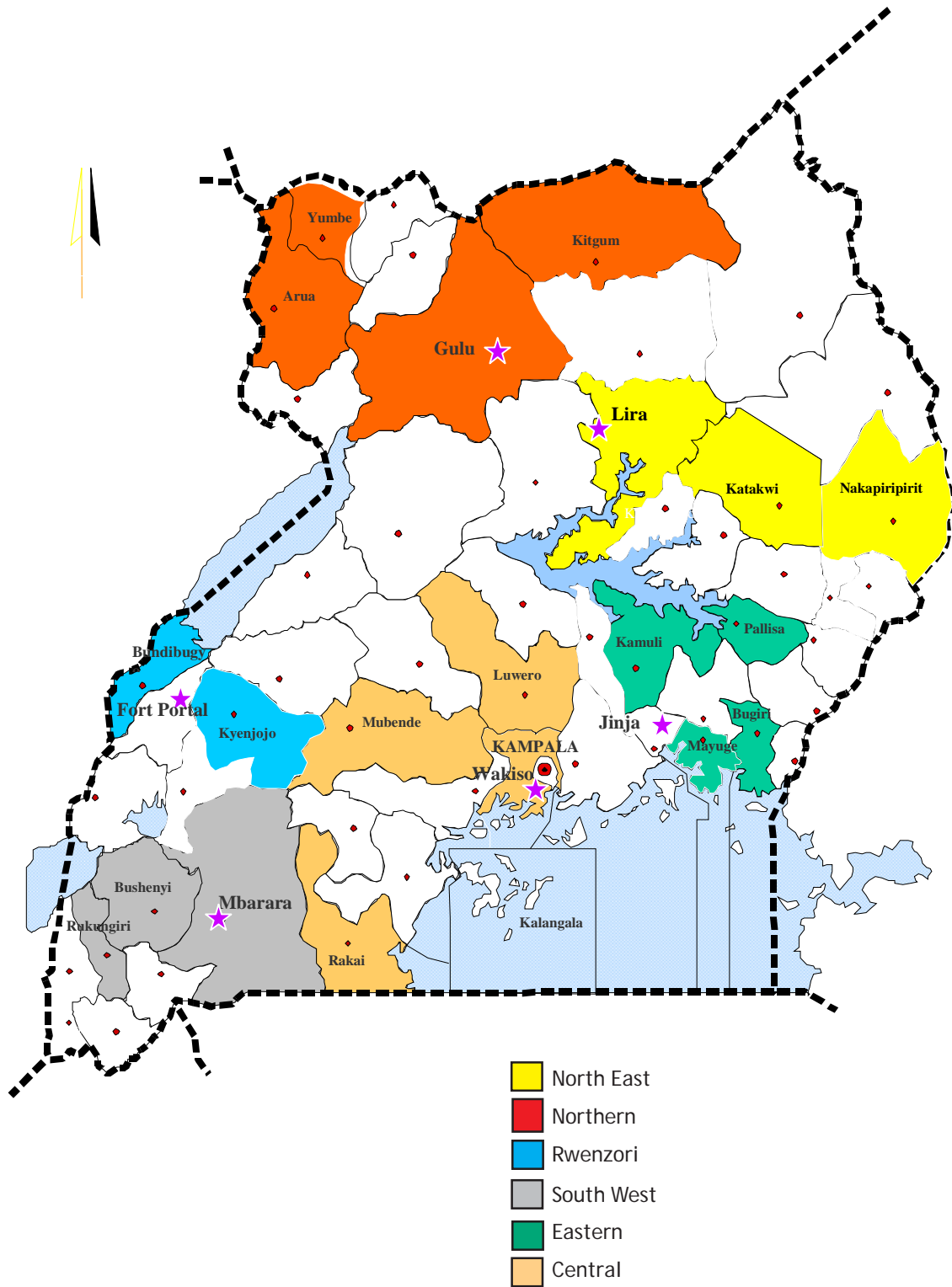
Comprehensive EmOC services

Number of comprehensive EmOC facilities	X 500,000	= Number of comprehensive EmOC
Total population		facilities per 500,000 population

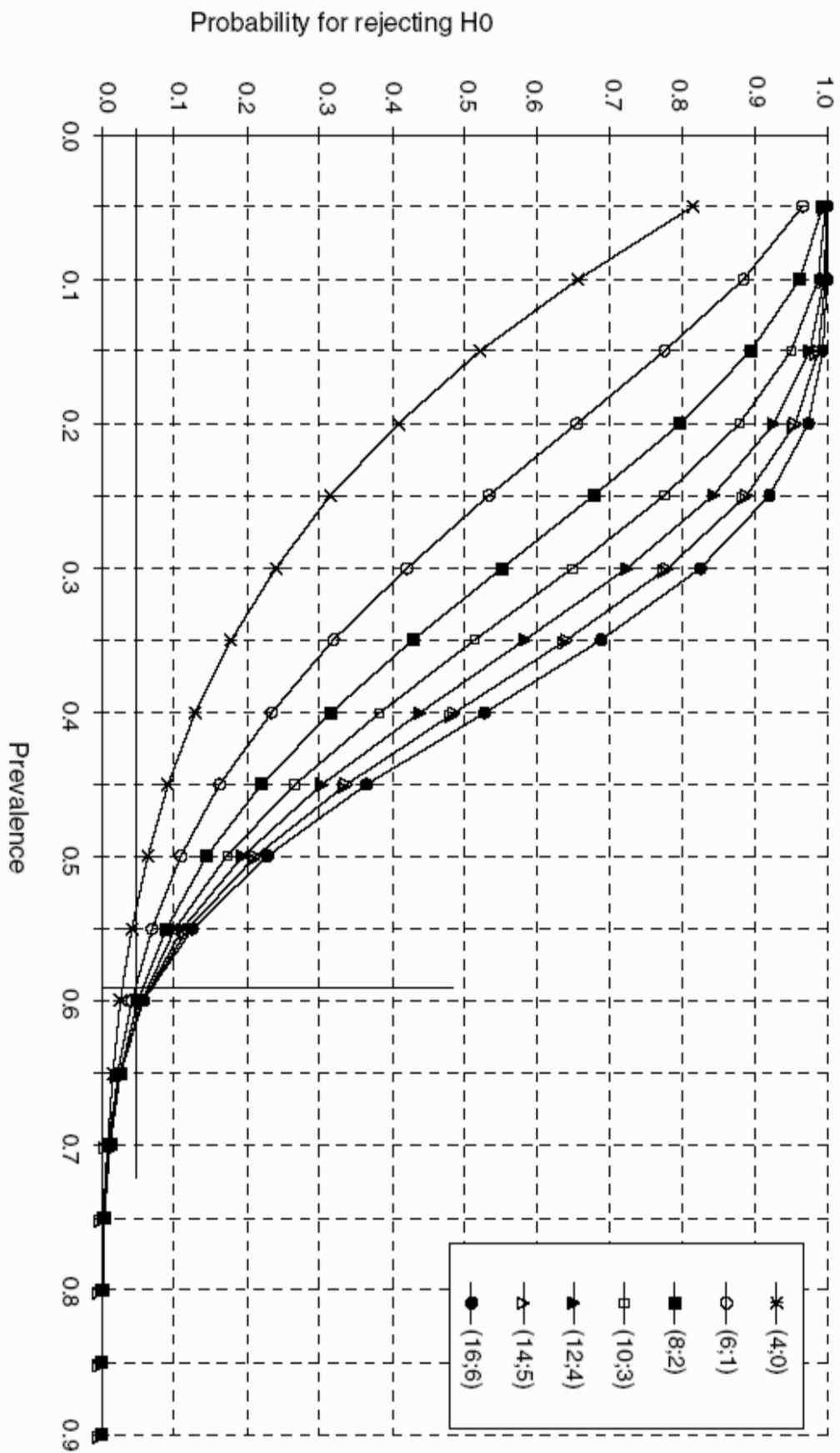
Acceptable levels = At least 1 comprehensive facility per 500,000 population.

APPENDIX A

Map of Uganda showing UPHOLD Highlighted districts and Regional Offices



APPENDIX B



LOAS Table: Decision Rules for Sample Sizes of 12-30 and Coverage Targets/Average of 10%-95%

Sample Size*	Average Coverage (Baselines) / Annual Coverage Target (Monitoring and Evaluation)																	
	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%
12	N/A	N/A	1	1	2	2	3	4	5	5	6	7	7	8	8	9	10	11
13	N/A	N/A	1	1	2	2	3	4	5	6	6	7	8	8	9	10	11	11
14	N/A	N/A	1	1	2	2	3	4	5	6	7	8	8	9	10	11	11	12
15	N/A	N/A	1	2	2	2	3	4	5	6	7	8	9	10	10	11	12	13
16	N/A	N/A	1	2	2	2	3	4	5	6	7	9	9	10	11	12	13	14
17	N/A	N/A	1	2	2	2	3	4	5	6	8	9	10	11	12	13	14	15
18	N/A	N/A	1	2	2	2	3	5	6	7	8	10	11	11	12	13	14	16
19	N/A	N/A	1	2	2	3	4	5	6	7	9	10	11	12	13	14	15	16
20	N/A	N/A	1	2	3	3	4	5	6	7	8	11	12	13	14	15	16	17
21	N/A	N/A	1	2	3	4	5	6	8	9	10	11	12	13	14	16	17	18
22	N/A	N/A	1	2	3	4	5	7	8	9	10	12	13	14	15	16	18	19
23	N/A	N/A	1	2	3	4	6	7	8	10	11	12	13	14	16	17	18	20
24	N/A	N/A	1	2	3	4	6	7	9	10	11	13	14	15	16	18	19	21
25	N/A	1	2	2	4	5	6	8	9	10	12	13	14	16	17	18	20	21
26	N/A	1	2	3	4	5	6	8	9	11	12	14	15	16	18	19	21	22
27	N/A	1	2	3	4	5	7	8	10	11	13	14	15	17	18	20	21	23
28	N/A	1	2	3	4	5	7	8	10	12	13	15	16	18	19	21	22	24
29	N/A	1	2	3	4	5	7	9	10	12	13	15	17	18	20	21	23	25
30	N/A	1	2	3	4	5	7	9	11	12	14	16	17	19	20	22	24	26

N/A: not applicable, meaning LOAS can not be used
 high to assess an SA. In this assessment because the coverage

is either too low or too

: Shaded cells indicate where alpha or beta errors are > 10%.
 : Shaded cells indicate where alpha or beta errors are > 15%.

APPENDIX D

Household Selection

Households were selected using the following two-stage collection

Stage-one: Sampling villages within supervision areas (counties or sub-counties)

The process for selecting villages is analogous to the process for selecting clusters when cluster sampling is used. Nineteen villages from each SA are randomly selected with probability proportional to size (the chance of a village being selected is proportional to the size of its household population). UPHOLD's household listing obtained from UBOS includes the following information:

1. All district, county, sub-county, parish and village listing. UBOS provided household listings based on enumeration areas, and UPHOLD had to redefine the villages.
2. Each village with its household population size
3. A column that tallies the cumulative total household population for that particular SA.

A sampling interval was then calculated by dividing the total household population of that SA by 19. The district data collectors then selected a random with digits corresponding to the sampling interval and between 1 and the sampling interval. The selection of a random number between 1 and the sampling interval ensures that not more or less than 19 villages are selected in addition to selecting the first interview location (village) randomly without bias. The second interview location (village) was selected by adding the first randomly selected number to the sampling interval. The process was repeated (by adding the sampling interval to the previous number) until 19 villages were selected. Because of the PPS method, some villages were selected more than once.

Step Two - Sampling Households within each selected village

The survey had five sample populations: mothers with children under 2 years, parents/guardians with children aged between 2 to five years (24-59 months), parents/guardians with children aged 5 to 14 years, women of reproductive age (15-49 years) and men 15 to 54 years. Parallel sampling was not considered in this survey because of the small sample sizes and averaging between households. Therefore, each questionnaire was administered in a different household with the eligible sampling population. In this survey, a household was defined as a person or group of persons who usually live and eat together.

The selection of the first household within the village was done by the village leader guided by the data collector. A household village listing was used or generated in some instances depending on the number of households in the village. If the number of households in the village exceeded 30, a village was sub-divided into sections of households about 30 households or less and a section randomly selected. A household listing of that section was then generated and a household selected at random. The first interview was then conducted in the second next nearest household depending on the presence of the eligible sampling population. Each data collector visited 5 different households within a village. In households where more than one eligible sampling population was presented; the sampling population for interview was randomly selected and identified.

2004 LQAS BASELINE SURVEY TEAM

UPHOLD/JSI TEAM

Mabirizi Joseph, M&E, Survey Team Leader	Abwang David
Nosa Orobato	Onesmus Dralega
Nsabagasani Xavier	Otin Charles Dicken
Patricia David	Nakamatte Naomi
Anwer Aqil	Erukwaime Godfrey
Dierdre Rogers	Kakiiza Specy
Lubaale Yovanni	Ofwono Richard
Akello Francesca	Mwebembezi Susan
	Turyamwijuka Silvanus

DISTRICT TEAM

Arua District

Endriaku Robert
Candia Edward
Anguaku Anthony
Adriko George
Dratele.A Richard
Onziru Zakia
Drate Judith
Onyiru Sarah
Niku Geoffrey
Cakuru Christine
Atayi Jane
Apio Freda
Ewachabo Sandra
Dramani Sam

Bugiri District

Ojutu William
Namutamba Apophia
Waiba T Agnes
Tereka Suzan
Ouma Charles
Kayenga Irene
Byayi Henry
Lubanga Said

Bundibugyo District

Mwesige Charles
Assimwe Jane
Agaba James
Alinga Gideon
Tibasaga Vanice
Kintu Luke
Namusoke Sarah
Bagonza Sikahwa
Matte Bantaliza

Bushenyi District

Akugizibwe Annet Lukumo
Nimukama Anthony
Mugizi Obed
Bayendeza Save

Mugumya Amos
Mushaija Fulman
Natukunda Annet
Twinejinya Aggrey

Gulu District

Odong V.K
Loum Alfred
Opira Christopher
Luwa John Charles
Komakech F.W
Kisembo Mathias
Onen George
Paco-Otoo Collins
Aciro D. WinniFred
Acen Hellen.K
Odur Willis Africanus

Kamuli District

Mwigo P Simon
Wanyana T Betty
Nabirye Zowena
Kiiza David
Ndirugendawa Fred
Kirunda David
Obbo Moses
Baganzi Simon
Naiga Harriet
Katuntu Benon
Kaiso Moses

Katakwi District

Emeru Richard
Anukur John Robert
Ebiru Samuel
Erabu J Kokas
Abwalu Cyprian
Ocaloi John Michael
Okiring Job
Edimu Peter
Ojulong Charles Martin

Kitgum District

Akidi Joan
Lamakiyo Celes Ondoga
Okello James P Okidi
Ojok Thomas
Ogweng Michael
Aling Rose
Ogal Gaudensio
Otim Walter Odongkara

Kyenjojo District

Kanami Kaganda
Asimwe Diclerk
Rwiragira Annet
Mugisha Steven
Kyomya Valentine
Birungi Agnes
Kabajweki Susan
Mugume Isaac

Lira District

Okello Stephen
Adekere Daniel
Omara Rosemary
Awor Christine Jane
Odongo Bosco
Olea Jackson
Ngombo Francis

Luwero District

Galabuzi Paul
Lubowa Lionel
Mirembe Margeret
Kadiida James
Lukenge Robert
Ssekibengo Joacham

Mayuge District

Asinze Dhikusoka
Musanya Robert
Balondemu Enock
Kyebogola Juliet

Mbarara District

Kafeero Wilberforce
 Kabegambire Patrick
 Nuwagira Vicent
 Muhangi Nelson
 Tumusiime Dez
 Isuba Simon
 Byakatonda Teodoro
 Nuwanya Robert
 Katungye F Izongooza
 Owumukama John Bosco
 Mutatiina Alex
 Tumwine Innocent
 Asiiimwe Maureen Bayenda
 Kemirembe Norah
 Tumuboine Gerald

Mubende District

Nabossa Doreen
 Muzira David
 Nazzimbe Rosemary
 Muwereza Peter
 Namirembe Sylvia
 Kuruhiira Godfrey
 Katongole Godfery
 Eribankya Moses
 Mureebe Blair

Nakapiripirit District

Aliat Grace
 Akol Risa Anne
 Emuron Stephen
 Achia John Baptist
 Sogal Ben Paul
 Lorika Esther
 Adyaka Paul
 Irama Faustino
 Musooka Mark Aol
 Adiaka Regina
 Manga Ibrahim Lyadda
 Katawera Andrew
 Ogut Simon Peter
 Achia John

Pallisa District

Ochola Robert
 Tembeiza Owen
 Oluku Gerald
 Okwalinga John
 Katoke Fatuma
 Namugha Stephen
 Omaido Sam
 Otim Robert
 Teru Timothy

Rakai District

Ssemakula John
 Balojja Tom
 Mutagubya Joseph
 Mugisha Ereazer
 Ssegirinya John
 Ssemwezi Patrick
 Ssekanjako Willy

Rukungiri District

Bakashaba Mugarura Julius
 Katabazi Alfred Mutuza
 Kanyiima Stanley
 Ruyooka Topher
 Tusingwire Florence
 Tukamushaba Jackline
 Arinaitwe James

Wakiso District

Muwonge Douglas
 Serwada Joseph
 Namugga Annette
 Kivumbi Alex
 Nakazibwe Mary
 Katongole Moses
 Musasisi Racheal
 Njoola Charles
 Kabugo Timothy

Yumbe District

Dramani Albert
 Wawa R. Badur
 Andemani .A
 Andima Jackson
 Muto Maliamungu
 Chandiru Doris

Appendix E:
Household Survey (Percentage figures)

	UPHOLD	Wakiso	Luwero	Mubende	Rakai	Mbarara	Bushenyi	Rukungiri	Kyenjojo	Bundibugyo	Kamuli	Bugiri	Mayuge	Palisa	Nakapiripiri	Katakwi	Lira	Gulu	Kitgum	Yumbe	Arua
Supportive parental behaviors for education																					
% of households with children of primary school age in which a parent reported visiting school during previous term (by reason for visit)	63	56	66	67	70	78	72	73	62	68	74	67	66	51	21	68	48	68	40	62	73
1.Meeting or conference with school management	22	34	17	31	39	24	26	14	26	39	23	11	15	13	7	19	20	15	15	27	26
2.To observe teachers' teaching classes	35	58	43	41	51	45	42	21	41	44	29	33	27	31	15	27	26	27	27	29	39
3.To review children's performance with teacher																					
% of children (of primary school age 6-14 YRS) in households surveyed who attended school on the previous school day, by gender	77	83	93	79	86	76	83	86	84	86	79	62	70	67	46	85	78	86	48	73	90
1.Girls	77	72	81	79	64	88	84	89	76	87	77	68	72	63	40	86	76	79	71	80	88
2.Boys																					
% of parents (men or women) who have talked to their primary school-age child about delaying sex and avoiding risky situations in the last 3 months	26	24	20	14	22	22	28	26	13	38	19	18	18	31	19	30	33	28	20	35	47
1.Girls	22	13	7	11	2	13	29	11	11	44	23	20	26	7	21	53	39	15	27	45	32
2.Boys																					
% of children who take home some homework and have conducive environment to do it	24	39	19	21	22	23	17	29	13	32	20	9	15	17	14	43	28	31	12	20	44
% of children (of primary school age 6-14 years) in households surveyed who carried packed lunch to school on the previous day.	34	61	34	51	58	59	52	56	48	31	25	25	18	24	8	28	27	11	9	26	14
REPRODUCTIVE/MATERNAL HEALTH																					
% of women with birth in previous two years who report being offered voluntary HIV testing at antenatal visit, took the test and received their results	11	28	8	4	9	13	9	16	0	4	7	4	8	5	1	6	4	23	35	6	23
% of women with birth in previous two years who report having a birth plan for last delivery	37	58	40	41	45	52	34	42	34	26	42	22	33	25	13	41	58	36	32	17	32
% of women/men who know at least 3 pregnancy danger signs	38	28	52	19	29	37	49	52	19	42	48	41	15	41	34	56	39	50	52	26	38

% of births (last 2 years) that took place in a health facility	UPHOLD	41	76	54	48	44	41	46	48	28	32	69	28	60	35	11	38	33	45	36	19	32
MALARIA MANAGEMENT																						
Mosquito Nets																						
% of under-fives who slept under a treated bednet (ITN) last night		11.7	14.7	13.7	3.7	5.3	24.9	4.2	8.0	10.4	13.7	4.2	2.1	4.2	4.7	21.1	15.0	16.1	18.9	11.6	21.8	
Average months since last treatment		4.8	4.3	3.4	10.7	5.9	3.1	4.5	5.8	6.2	8.8	3.2	9.6	5.0	5.5	5.5	3.6	4.7	8.4	3.2	10.1	3.7
Antimalarial drugs																						
Percentage of children under 5 years with reported fever in previous 2 weeks who received adequate malaria treatment (with HOMAPACK or equivalent treatment dose) with in 24 hrs of onset		127.18.3	138.15.5	0.0.21.7	0.0.10.8	20.0.10.8	0.0.21.4	2.7.25.7	39.5.23.8	38.0.4.0	0.0.12.5	6.3.9.01	2.2.14.4	0.9.4.3	0.0.4.5	0.0.37.0	36.3.17.7	17.2.20.3	32.9.31.9	35.3.29.3	327.17.5	5.9.30.8
1.HOMAPACK 2.Chloroquine and SP (Fansidar)																						
CHILD HEALTH and NUTRITION																						
% of children under 1 year of age who received DPT3		50.8	57.4	65.4	37.3	52.6	59.8	46.4	80.0	49.3	35.7	64.5	25.5	50.8	42.6	57.4	57.1	39.6	47.2	46.8	56.7	52.0
% of children < 23 months old who have a child health card (observed)		47	42	16	39	34	42	45	60	57	23	75	43	57	64	40	53	29	42	25	79	65
% of children 6-59 months who received vitamin A in the past 6 months		79	61	64	64	66	63	69	85	65	77	74	81	79	72	73	88	60	83	84	76	80
HIV/AIDS																						
% of women/men who have ever been tested		16	25	29	16	17	24	18	12	11	12	12	11	16	10	4	15	14	18	25	17	18
1.Women		16	25	29	18	15	25	21	11	11	11	8	14	13	6	2	15	12	19	28	12	21
2.Men		16	25	29	14	19	23	15	7	12	14	15	9	19	14	5	16	16	17	22	20	16
Among those tested, percentage who got results		828.0	85.7.85.7	96.6.96.6	88.2.81.0	56.4.58.3	94.7.95.0	87.2.87.0	85.2.84.2	70.0.67.7	74.2.71.4	84.6.88.9	67.7.68.4	81.1.75.0	70.4.60.0	77.8.66.7	85.3.87.5	86.7.91.7	73.9.72.0	80.0.77.1	93.8.91.7	86.0.80.0
1.Women		84	85.7	96.6	100	54.8	94.4	87.5	87.5	73.3	76.5	82.4	66.7	85.7	76.5	83.3	83.3	83.3	76.2	84.0	95.0	95.5
2.Men																						
% of men and women who have talked to their partners about protecting themselves from HIV/AIDS in the past month		70	80	69	69	73	66	73	47	67	75	66	62	61	71	57	79	81	79	74	74	74
1.Women		62	82	66	62	66	59	65	43	56	64	44	57	54	64	51	72	74	69	65	60	71
2.Men		78	77	73	75	80	74	81	51	79	86	87	68	69	79	65	87	89	88	83	89	86
% of women/men who have provided care to a household affected by HIV/AIDS in the past month		12	21	5	8	14	10	14	8	11	16	7	10	14	9	4	15	12	18	23	8	15

% who used a condom the last time they had sexual intercourse with a non regular partner in the last 12 months Women Men	UPHOLD	44	62	56	31	43	62*	80	61	52	63	49	69	33	56	59	32	32	22	61	
	Wakisso	26	50	50	28	*	80*	69	60	63	38	48	64	30	67	67	22	16	11	82	
	Luweero	57	69	59	32			71	54	70	70	50	71	35	54	56	37	65	41	26	50
% of women/men who correctly identify all three major ways of preventing the sexual transmission of HIV	UPHOLD	37	48	34	32	48	68*	80*	45	32	38	43	31	38	50	58	47	57	59	44	52
	Wakisso	46	70	59	80	*			66	50	58	43	60	44	21	36	44	78	55	65	59
	Luweero	46	70	59	80	*			66	50	58	43	60	44	21	36	44	78	55	65	59

School Facility Survey

IR 8.1.1 Improved Quality of Services																									
Percent of schools with separate latrines for boys and girls	UPHOLD	85	93	90	74	78	92	90	91	88	60	72	95	79	46	47	96	98	94	95	92				
	Wakisso	81	67	75	86	67	76	79	82	75	64	86	61	92	74	72	67	85	97	66	74				
	Luweero	84	84	84	79	81	65	67	79	39	58	75	68	88	51	82	83	78	48	55	82				
Percent of schools with lockable girl stances	UPHOLD	74	86	84	84	79	81	65	67	79	39	58	75	68	51	82	83	78	48	55	82				
	Wakisso	58	51	33	55	43	31	58	46	26	16	33	30	43	14	37	57	49	39	32	49				
	Luweero	91	86	51	55	69	66	84	63	60	87	65	47	76	74	91	81	99	97	89	92				
Percent of schools with access to a safe water source in a good working condition (e.g. a bore hole, protected well, protected spring, rain-water tank, GFs, piped water, public tap)	UPHOLD	76	91	86	51	55	69	66	84	63	60	87	65	47	74	91	81	99	97	89	92				
	Wakisso	63	57	33	39	13	11	7	5	82	61	21	30	32	10	5	21	71	52	0	27				
	Luweero	54	37	41	29	27	9	38	28	30	19	26	32	30	20	49	39	28	21	37	44				
Percent of schools with a functioning emergency/first-aid kit / or nursing bay	UPHOLD	32	63	57	33	39	13	11	7	5	82	61	21	30	32	30	20	71	52	0	27				
	Wakisso	54	37	41	29	27	9	38	28	30	19	26	32	30	20	49	39	28	21	37	44				
	Luweero	32	63	57	33	39	13	11	7	5	82	61	21	30	32	30	20	71	52	0	27				
Percent of schools with documented supervision of teachers' planning and assessment	UPHOLD	76	77	86	91	68	82	68	80	77	74	78	75	57	94	77	85	90	67	42	59				
	Wakisso	70	77	86	91	68	82	68	80	77	74	78	75	57	94	77	85	90	67	42	59				
	Luweero	71	71	86	91	68	82	68	80	77	74	78	75	57	94	77	85	90	67	42	59				
Percent of schools with documented system for classroom observation (i.e. observation proforma)	UPHOLD	62	70	71	76	63	70	54	78	68	63	49	63	44	61	74	72	60	39	34	46				
	Wakisso	70	77	86	91	68	82	68	80	77	74	78	75	57	94	77	85	90	67	42	59				
	Luweero	71	71	86	91	68	82	68	80	77	74	78	75	57	94	77	85	90	67	42	59				

Percent of schools with documented inventories of learning resources	77	77	76	81	72	81	77	76	54	61	83	68	70	78	89	81	88	89	85	53	75
Percent of schools conducting school-based continuous professional development workshops	48	65	71	57	49	33	28	39	37	25	62	39	61	57	57	44	72	55	48	42	41
IR 8.1.2 Increased access and availability of services																					
Percent of schools in district with one or more HIV/AIDS activities (other than assembly e.g. peer training, anti-AIDS or straight talk clubs, curriculum, meetings) during the term	47	51	73	45	57	51	29	46	39	32	57	23	75	43	46	46	43	46	21	47	52
Percent of schools receiving more than support supervision visits per term from CCTs, disaggregated by public/private	36	31	56	62	58	42	40	35	22	15	25	28	23	41	18	58	30	40	29	23	25
1. Public	16	00	00	28	17	24	25	23	33	00	20	00	10	14	10	50	22	20	17	33	00
2. Private															0						
Percent of schools receiving two or more support supervision visits per term from district education officials, disaggregated by public/private	39	55	29	50	61	36	40	33	30	15	42	37	45	36	65	51	27	52	33	40	35
1. Public	18	14	0	11	42	23	0	8	33	0	25	33	20	33	0	0	14	0	0	50	12
2. Private																					
IR 8.3 Strengthened Enabling Environment for social services																					
Percent of public schools with evidence of private sector involvement in education in the last 12 months	31	26	39	34	42	16	11	14	25	79	14	16	33	13	94	37	16	73	88	10	27
Percent of schools holding participatory Annual General Meetings.	43	39	31	49	37	54	31	28	37	61	42	23	63	26	66	51	61	30	21	42	50
IR 8.3. 1 Increased community participation and advocacy																					
Percent of schools in which local councils participate and support education programmes	7	5	2	3	1	6	3	13	7	7	7	4	16	8	6	9	11	9	3	5	6
Percent of schools with SMCS/TAs with operational procedures and capacity to develop and implement SDP	40	44	35	11	20	27	21	28	18	14	42	19	60	29	63	65	86	53	39	50	61
Percent of school with active and properly constituted and functional SMCS	33	28	35	9	18	25	20	20	18	12	38	18	56	26	49	49	64	44	30	32	48

