



MSH and Health Systems Strengthening in Uganda

**Use of LQAS, Facility Assessments, and Service
Performance Improvement in increasing service
coverage and quality**

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Acronyms

DIP	Detailed implementing plan
FA	Facility assessment
HCT	HIV counseling and testing
LQAS	Lot quality assurance sampling
MSH	Management Sciences in Health
NUMAT	Northern Uganda Malaria, AIDS, Tuberculosis Programme
SA	Supervision area
SPAI	Service performance assessment and improvement
UACP	Uganda AIDS Control Project
UPHOLD	Uganda Program for Human and Holistic Development
Decision rule	The number used to decide whether a “red flag” is raised or not

Background

MSH is executing a 5-year Cooperative Agreement with USAID to strengthen TB and AIDS response in the Eastern region of Uganda. A component of this Agreement, STAR-E LQAS is responsible for the institutionalization of LQAS methodology for routine monitoring of services in districts through other USAID projects (implementing partners) across the country.

MSH LQAS activities in Uganda build, partly, on earlier LQAS applications carried out in the country through projects such as AIM, UPHOLD, NUMAT and the World Bank’s MAP over the years. Currently, MSH in partnership with LATH, is at the forefront of expanding the LQAS application in the health and other social sectors in the country and is continuing to explore innovative ways in which the methodology, together with Facility Assessments, can be used to add value to routine data generated through service monitoring information systems.

MSH believes that the most important component of STAR-E LQAS is to enable district teams and facilities to make immediate use of the data being captured and analyzed from the community and facility assessments. Processes, guidelines, and formats have been developed for use by planning teams at the district level. MSH is, therefore, working with districts through implementing partners to institutionalize three processes:

1. Monitoring services using population-based indicators that are tracked with LQAS community based surveys;
2. Assessments of facility-based services (FA)
3. Service performance assessment and improvement (SPAI) process using data from the community LQAS and facility assessments and any other routine information systems.

These processes will reinforce the maintenance of the district and facility monitoring frameworks which will draw on data from several sources including the routine information systems. The ultimate goal of applying these processes is to scale-up quality service delivery and improve coverage.

Planning with implementing partners (IPs) and districts

STAR-E LQAS works in collaboration with IPs and beneficiary districts to develop detailed implementation plans and in the implementation of all the three processes mentioned below. At the initial stage, staff from IPs are oriented in the methodologies prior to engaging districts in the planning and implementation phase. District staff and staff from Civil Society agencies supporting district activities are then trained by an MSH-led team in the implementation of the processes. This collaboration enhances coordination and the generating of sustainable capacity both among IPs and beneficiary districts.

Process 1: LQAS

Background to LQAS

Lot Quality Assurance Sampling (LQAS) was first used in the 1920s as a quality control method to assess quality of batches in the manufacturing industry. It has since become adapted for public health programs. It is a sampling and analysis method that uses small sample sizes to identify poor and well-performing lots (Supervision Areas) to support decision-making during planning and resources allocation. Aggregated results quantify performance for larger areas, such as regions or a country. LQAS has become a reliable and relatively easy-to-use, low-cost approach for assessing coverage and establishing facts leading to performance for some indicators.

Although LQAS has been in use in Uganda since 2003 tracking mainly outcome indicators for projects such as the World Bank's UACP, USAID-funded UPHOLD and NUMAT, these applications were not primarily focusing on building long-term district-level capacity in the use of the methodology. MSH's mandate is to institutionalize LQAS as a monitoring methodology in the districts working through social sector implementing partners (IPs). The mandate is being executed in partnership with Liverpool Associates in Tropical Health (LATH) through the following procedures:

Training Master Trainers

A team of persons is identified and trained using standardized training materials to support IPs in planning, training, and technical supervision. Master Trainers are selected using clear criteria. The selected persons are trained in LQAS methodology, application, and facilitating skills. They then apply their skills through training district monitoring teams. This is followed by supervision of data collection and then supervision of hand tabulation and report writing. The whole process can take up to 5 weeks.

Training district workers

The training of teams from IP supported districts is done by LQAS Master Trainers. IPs are given strategic guidance on the selection of the data collectors and data collection supervisors. The data collectors and their supervisors are given comprehensive training following a curriculum that includes LQAS methodology, data collection tools and techniques, data collection processes,

and supervision of data collection. The training also includes data cleaning, collation, data hand tabulation, and report generation.

Data collection

Data collection normally takes five days immediately following the five day intensive training. The data is collected using a pre-tested tool which was developed using agreed upon indicators. Key terms of the data collection tool have to be translated in the language understood by the population to be surveyed.

Data hand tabulation and preliminary results sharing

Data collectors, who are also the potential users of the survey results, hand-tabulate the data using pre-designed formats. This step is of double benefit:

- i. It enables the district workers (data collectors) to better appreciate the data
- ii. It provides immediate, although preliminary, results

The preliminary results are used to identify SAs that need supplementary intervention and those that are well performing from where lessons can be drawn.

Intensive analysis and dissemination

More in depth data analysis is undertaken either at a central place for a group of districts or it can be done within a district if facilities are available. Soft copies of the data can be stored for future use or further analysis.

Process 2: Facility assessment (FA)

STAR-E LQAS works with implementing partners (IPs) to plan for and apply FA data collection, either as part of a baseline survey or for annual project monitoring purposes. Coordinating the FA applications among projects ensures harmonization of approaches and the development of districts' capabilities to undertake facility assessments on their own. Districts use a detailed implementation plan (DIP) prepared with the support of the MSH project team in collaboration with the district authorities.

Process 3: Service performance assessment and improvement (SPAI)

MSH believes that the most important component of this LQAS institutionalization strategy is to enable teams of district and facility managers to make immediate use of the data being captured and analyzed from the community and facility assessments. The SPAI process brings together data from the LQAS, FAs, and routine data sources and reports and facilitates district teams of managers and supervisors to use this data for performance improvement. The teams identify service or facility performance gaps and then devise immediate and longer-term interventions for addressing those gaps, while minimizing the requirement for additional resources. Such ideas

are placed within implementation plans of two types: 1) interventions for immediate resolution of performance problems, and 2) as input to annual district planning and budgeting. Such data-use processes also help construct modest monitoring frameworks consisting of selected health and service indicators. During the implementation of their intervention plan, emphasis is placed upon maintaining these district and facility monitoring (Health Watch) frameworks which draw on data from several sources, particularly the routine information systems, special programme reporting, and the community LQAS assessments.

The district teams and their collaborating NGOs are thus reinforced in fulfilling their defined responsibility and accountability for fully serving their geographic responsibility area with essential services, continuously monitoring their service coverage, and identifying and addressing gaps in performance (in terms of coverage, quality, and client satisfaction).

Central level institutionalization

In Uganda, the STAR-E LQAS project also carries out institutional capacity-building aimed at achieving national sustainability in the use of LQAS monitoring and data management and use for the benefit of the social sectors. The project pursues this end through the following activities:

1. Supporting the schools of higher education (for example, schools of public health, schools of education etc.) in establishing degree and short course training in LQAS application and data use.
2. Designating and supporting a cross-sector institutional home for the management and coordination of LQAS-based monitoring and data use.
3. Supporting the sharing, integration, maintenance, and analysis of various LQAS databases developed over time and geographic areas.
4. Establishing and supporting a national Technical Advisory Group for monitoring and supporting the LQAS institutionalization process that involves key national stakeholders and interested collaborating partners.

Practical uses of LQAS methodology

The power of LQAS methodology is in the ability to raise “red flags” for poor performing services in SAs. Different approaches can be used to raise “red flags”, for example:

1. Hypothetically, a district health team may be interested in detecting supervision areas with target populations of about 1500 people in a district with inadequate knowledge of HIV needed for behavior change where the district target is 70% of the mothers. Using LQAS methodology by randomly selecting 19 people in each supervision area (from the target population), if at least 2 people are found with inadequate knowledge of HIV, the supervisor can confidently say (with 95% confidence) that the proportion of the people with adequate knowledge of HIV is below the target of 70%. A “red flag” is raised and questions must be asked to identify the causes for the lack of adequate knowledge of HIV.

2. From a recent application of LQAS methodology in one of the districts in Eastern Uganda, one of the indicators of interest was: *the percentage of mothers of children (0-11 months) who know two or more benefits of HCT*. The district had six supervision areas from which 19 women with babies under 12 months of age were randomly selected from each of the supervision areas. The results were:

Indicator: % of mothers of children (0-11 months) who know two or more benefits of HCT	Supervision Areas						Total	District average coverage (percent)	Decision Rule (number)
	A	B	C	D	E	F			
Number who know two or more benefits of HCT	12	9	11	15	13	7	67	58.8	9
Mothers sampled	19	19	19	19	19	19	114		

A “red flag” was raised for supervision area F as an area that needed priority attention for this indicator because LQAS methodology indicated that it was performing below the district average.