

HEALTH SYSTEMS STRENGTHENING ROUNDTABLE  
***CLOVER COUNTRY REPORT: UGANDA***



Between 2003 and 2004, Ethiopia, Uganda, Zambia and Tanzania were included in an eight month partner consultative process called Roll Back Malaria Essential Actions, Products and Interventions to address Gaps or 'REAPING' which explored the health systems gaps that needed to be addressed to enable these countries to achieve the 2005 Abuja targets for malaria.

The identified health systems bottlenecks formed the basis for phase II of the Clover project, a health systems strengthening (HSS) programme, which was implemented between 2005 and 2007.

In Uganda, the second phase of the Clover project covered five districts in the mid-western part of Uganda viz. Buliisa, Hoima, Kibaale, Kiboga and Masindi districts. Its activities were focussed at district level with some limited ones at national. The main weaknesses that were targeted included weak district planning, poor information sharing between partners at national level, weak information systems, drug supply management systems and support supervision. Solutions to these weaknesses were tried and those that produced beneficial effects were consolidated and scaled up in Phase III. Some of the improvements demonstrated in Phase II include improved quality of district annual work plans, improved completion and timely submission of health management information system reports, use of peer mentoring to improve health worker practices in the management of malaria in pregnancy and improved practices of severe malaria case management among facility-based health workers. Technical support was provided to the MoH in the preparation of proposals to the Global Fund to support malaria prevention and control as well as tuberculosis control.

Phase III of the Clover project commenced in 2007 and is due to end later in 2010. The focus areas in this phase are to improve delivery of malaria drugs, supplies and commodities, improve planning and budgeting through better availability and utilisation of evidence, improve quality of care and prevention using best practices in health system strengthening to inform national and regional policy makers.

### Background

Uganda currently has an estimated population of 33 million people. The delivery of health services is through both the public and private sectors. Government of Uganda (GoU) owns 71% of the facilities, while the rest belong to Private not-for-Profit (PNFP) and Private for-profit (PFP) Health providers. Seventy two (72%) of the households live within 5km from a health facility (public or PNFP). The public health services are delivered through Health Centre IIs, Health Centre IIIs, Health Centre IVs, general hospitals, district hospitals, regional referral hospital, and National Referral Hospitals. The Ministry of Health provides overall stewardship and oversight. Over the past 15 years, Uganda has made incremental progress in improving key health systems indicators. Between 1995 and 2006; the Child Mortality Rate have decreased from 156 to 137 per 1000 live births, Infant Mortality Rate decreased from 85 to 75 deaths per 1000 live births,

Maternal Mortality Rates reduced from 527 to 435 per 100,000 live births. In 2000 the Neonatal Mortality Rate was at 33% per 1000 live births but went down to 29% in 2006. These figures bring to the fore key health systems challenges that need critical attention namely inadequate human resources for health, limited health financing, limited health infrastructure and costly and not readily available drugs, vaccines and other health supplies. Malaria contributes to these poor indicators because 63% of Uganda's population is exposed to high transmission intensity, while 25% is exposed to moderate to low transmission. With regard to malaria control indicators, the proportion of outpatient clients receiving malaria microscopy diagnosis is 38%; pregnant women receiving the second dose of Sulphadoxine/pyrimethamine for intermittent preventive treatment (IPT) based on ante natal care clinics is 12%. Under fives who slept under an ITN the night before the survey has increased from 9.7% in 2006 to 32.8% in 2009 and the percentage of pregnant women aged between 15-49 who slept under an ITN increased from 10% in 2006 to 43.7% in 2009 2, 4 (Table.1).

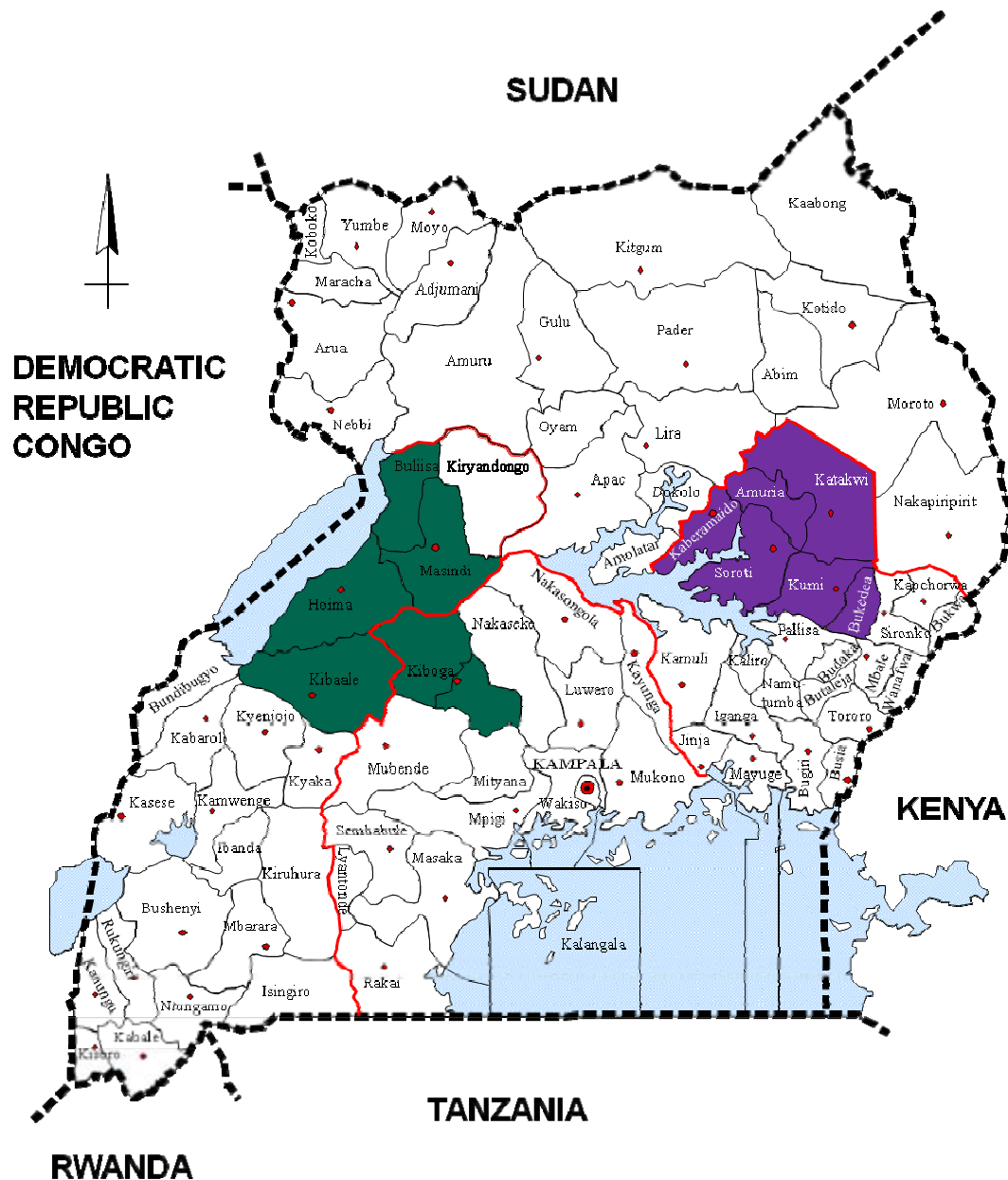
## ANNEXES

**Table 1: Main malaria coverage indicators for Uganda: UDHS 2006 and MIS 2009**

	Indicator	UDHS 2006	MIS 2009
Net	% of HH with ITN for prompt management of severely ill patients intervention	21.4	46.7
	% of HH with LLINs		45.6
	% of under fives who slept under ITN in the past night	9.7	32.8
	% of under fives who slept under LLINs in the past night		32.1
	% of pregnant women age 15-49 who slept under ITN	10.0	43.7
	% of pregnant women age 15-49 who slept under LLINs		43.3
IPT	% of women age 15-49 with a live birth who received 2 or more doses, at least one during an ANC visit for their last live birth in the two years preceding the survey	16.2	31.7
Treatment	% of under fives with fever in the two weeks preceding the survey who took the drugs the same or next day following the onset of fever	28.9	35.7
	% of under fives with fever in the two weeks preceding the survey who took Coartem	3.0	23.3

Clover covers 11 districts; 5 in the Mid-west region and 6 in the Teso sub-region (Fig.1). The work approach is an interactive and consensus building process that promotes ownership, continuity and integration of activities into existing health systems.

Baseline assessments were used to gather information on the situation at the time, health system bottlenecks within the scope of the project were prioritised and feasible solutions identified based on experiences of what worked in the second phase of the project as well as experiences from other partners and other countries.



**Legend**

- Western Districts (Buliisa, Hoima, Kiboga, Kibaale and Masindi)
- Eastern Districts (Amuria, Katakwi, Kaberamaido, Bukaedea, Kumi and Soroti)
- Clover II = Western Districts
- Clover III = Western + Eastern Districts

*Capacity development of health workers and health manager's skills and work environments to make them more efficient and effective in delivering quality health care.*

### **Capacity building**

Capacity development of health workers and health manager's skills and work environments to make them more efficient and effective in delivering quality health care. This has included training of health workers on medicines management, health management information systems, severe malaria case management and malaria microscopic diagnosis; equipping them with tools – medicines management manuals, medicines consumption books, computers, health facility integrated data bases, clinical audit manual and malaria diagnosis job aids that are all aligned to national and district priorities and guidelines. This alignment to national and district programmes ensures that our capacity development provides for sustainable continuity by the districts after Clover

### **Planning and budgeting**

Under Clover 555 health facility staff and district health team managers were trained in the development of evidence based health work plans and annual Essential Medicines and Health Supplies procurement plans. This has enabled district and health sub-district health managers to align health plans to district health priorities and available resources. Increasingly district and health sub-district planning meetings have become more resourceful and interactive platforms for discussion between health managers and health workers with decisions driven by information; held on a quarterly basis and are a prioritized activity during the district budget allocation process at the beginning of each financial year.

### **Health Management Information Systems (HMIS)**

Earlier assessments of the country situation in 2003 showed that HMIS were inadequate in providing a good basis for planning and monitoring of implementation. Planning at district level was failing to include malaria control activities in work plans, allocate funds in proportion to the disease burden or use evidence based interventions in line with National Policy and strategies. Sustained support of interventions at the district level has led to the development of a reliable information system that is more effective and responsive to the needs of the district health service. Strengthened district health management information systems have provided information to drive decisions, for example in writing the Global fund round 10 proposals this year, estimates on the quantities of ACTs and RDTs were based on readily available, updated, valid and accurate data from Clover supported districts.

A quantitative assessment done in Clover project districts in May 2010, showed that there is more use of information for decision making (Figure 2) and planning and priority setting are based on information generated from HMIS (Figure 3).

Integrated Information and Communication Technology (ICT) support enabled the piloting of web-enabled and electronic HMIS. The lessons learned have informed the HMIS review process for Health Sector Strategic Plan (HSSP) III, highlighting the limitations of the web-enabled HMIS, and recommending electronic HMIS as the better option for Uganda. It is envisaged that e-HMIS will be incorporated into policy and resources will be committed by government and partners for it scaling up.



*Kiboga district DHO illustrating a point using graphic displays generated from HMIS*

Over the project life there have been increased investments in information infrastructure and capacity building; computers, internet connectivity, data management software and data management training and supervision. Consequently there has been noticeable improvement in the data management capabilities of the supported districts with information being used to inform district planning and budgeting processes. HMIS reports submitted to the centre are more accurate, complete and timely. For example analysis of HMIS performance in the 11 Clover project districts between 2007/08 – 2009/10 done by MoH-Resource Centre, shows that timeliness of outpatient reporting (HMIS 123), improved from 76% in 2007/08 to 85% in 2009/10, while completeness over the same period increased from 87% to 100%. Similarly inpatient reporting (HMIS 124) timeliness increased from 40% in 2007/08 to 56% in 2009/10, while completeness increased from 59% in 2007/08 to 98% in 2009/10.

"Before now information was very hard

to obtain because the district was using a manual system to process data. However after being provided with computers for HMIS by Malaria Consortium-Clover, all our data has been computerized, thus making it easy to access it whenever required. This availability of information has resulted into increased utilization and demand. This has also improved quality of the district work plans which now contain detailed situation analysis, which is used to set priorities and apportion resources proportionately. The significant improvement of the depth and quality of our district annual work plans has been based on increasingly accurate and timely data. It has enabled us to lobby and justify our positions to Government. Government has subsequently increased the district Public Health Care Non Wage funding from Ug. Shs: 240,000,000/= in 2006/07 to Ug. Shs: 280,000,000/= in 2007/08, it has also attracted support for HIV/AIDS activities where previously the district almost had no funding for HIV/AIDS activities. Based on availability of quality information on HIV/AIDS, our district was able to successfully bid and win a grant of funding from PRE-FAR/CDC through the Infectious Disease Institute (IDI) to be part and parcel of a 10 million dollar project to be executed over a five year period 2008/09 -2013/2014 in two districts .Allan Muruta District Health Officer, Kiboga district, Uganda.

During 2009/10 financial year, in the Clover supported districts, there is a written HMIS work plan in use that addresses all HMIS components and emphasizing integration of different data sources. This is being implemented at the district and Health Sub-district (HSD) level. The district/HSD statistics offices have established coordination mechanisms (e.g. task force on health statistics) and it is an established official practice to conduct regular meetings at HSD/district level to review HMIS information and take action based upon such information. At district/HSD level capacity has been established in core health information sciences to meet health information needs (epidemiology, demography, statistics, health planning). Additionally there is a functional central HMIS administrative unit in the district/HSD for design, development and support of health information collection, management, analysis, dissemination and use for planning and management. The health workers are appreciative of the support from Clover and are confident about their HMIS skills(Figure 4).

Data analysis was not being done at all, due to lack of skills in data analysis and lack of a computer to simplify the data analysis pro-

cess. But after the training of health facility in-charges and records personnel of all health facilities, in the revised new HMIS curriculum, they now analyze the data regularly and use it to set realistic SMART targets. They draw graphs and visually display them at strategic points in their health facilities and use them to assess achievement towards set targets. Previously it was cumbersome and time consuming to come-up with a monthly district summary report, because I had to aggregate data from all the 40 health facilities manually - using a calculator, pen and paper. This process could take me about 5-7 days, but after Malaria Consortium provided to my department, training and the integrated information and communication technology (ICT) package; computer, HMIS software, anti-virus and internet connectivity-, the process takes just 30 seconds. All I have to do now is to simply enter individual health facility reports and automatically generate district aggregated report." Isa Kimuli Kiboga district HMIS Focal Person.

A recent data validation exercise done by the Ministry of Health resource centre to verify improvements in data consistency at different levels of reporting in six selected districts – two Clover supported districts that had piloted an integrated health facility data base – Kumi and Kiboga, two Clover districts that had not participated in the pilot – Soroti and Kibaale - and two that had never received Clover project support – Mbale and Mubende. Selected malaria indicators were chosen and compared for consistency at different levels of reporting –health facility, district and Ministry of Health - and then compared to a similar study undertaken in 2008. In Kiboga and Kumi the proportion of health facilities with data matching what was recorded in health facility registers to that at the district improved from 41% to 93% for Kiboga and 28% to 83% in Kumi respectively, while in the control districts of Kibaale, it remained at 67%, Soroti improved from 56% to 60% and in Mubende slumped from 44% to 23 %.

### **Medicine supply management**

Through Clover, Malaria Consortium collaborated with the Pharmacy division, Ministry of Health to improve the delivery of essential medicines and health supplies (EMHS) for malaria in 11 districts. A baseline assessment done prior to the intervention identified the areas that urgently needed to be addressed to improve the medicines supply chain. They included training of district team members and health facility staff on supply chain to equip them with the skills and knowledge for quantifying, forecasting

and monitoring the availability of health commodities essential for providing quality preventive and curative health services. Additionally guidelines, manuals, forms and job aids were; developed and provided to support improved medicine & commodity supply management. These included 447 copies of the medicines logistics and stores management procedures manual for districts and health facilities and 90 copies of the accompanying trainer's guides, and 900 copies of the dispensary records of issue for tracking medicine consumption at health facility dispensaries (Figure 5). An electronic copy of the logistics management information system job aids for use by health facilities was also availed.

Capacity building of district and health facility staff on medicines supply management was done through training and support supervision with on the job hands on training. A total of 448 health workers in 344 health facilities in the 11 Clover project districts were trained and supervised on medicines supply chain management and logistics management information systems.

A checklist aimed at identifying weaknesses and challenges was developed and used during the support supervision. Briefing sessions with the district health and administrative leaders after each supervisory visit helped to ensure follow up of the identified gaps and implementation of appropriate actions.

Subsequent to Clover support, improvements in medicines supply chain management have been realised in the supported districts (Fig. 6 and 7).

- Increased proportion of health facility staff and district health team members trained on medicines supply chain management to 53% compared to 14% at baseline (July 2008) (Fig.6)
- Increased capacity of HF staff to order essential medicines and health supplies; proportion of HWs with knowledge on how to calculate average monthly consumption has increased from 7% at baseline to 44%
- HFs that regularly report stock consumption information to the next higher level in the health system has increased from 36% at the baseline to 65%.
- Improvement in storage of EMHS, with the number of HFs with supplies and boxes raised off the floor increased from 3% at the baseline to 63%.
- Review of the medicines management procedures manual that has been endorsed by Ministry of Health Pharmacy division and adopted by other partners.

- Development of the commodity security component of the integrated community case management (ICCM) of malaria, pneumonia and diarrhoea guidelines to ensure continuous availability of the ICCM commodities.

### **Case management**

In 2009, an assessment of severe malaria treatment practices was done to understand the prevailing situation of severe malaria clinical practices in the 11 Clover supported districts. It covered 52 randomly sampled health facilities, 4 hospitals, 9 health centre IVs, 16 health centre IIIs and 23 health centre IIs. The main weaknesses identified in case management were weak or nonexistent triage of patients practiced in only 44% of facilities, inadequate malaria microscopy services 77% of facilities, nonexistent or ill equipped high dependence areas for severely ill patients, vital test for haemoglobin and blood sugar levels were on done in 39% and 19% of facilities surveyed respectively.

Critically however was inappropriate administration of intravenous quinine in multiple doses over considerably shorter periods of time in one 500 ml bottle aimed at using the fluids sparingly. The quinine dose and regimen was correct in the majority of patients 70.4%; but was administered in the correct volumes of 5% dextrose in only 18%. Most patients 80.1% had 3 or more doses of quinine administered in one single 500ml bottle of 5% dextrose at the time of the survey (Fig. 8). Others findings from the survey identified poor record keeping, inadequate history taking and weak counselling of patients among others<sup>7</sup>.

Previously capacity development of health workers regarding case management for malaria was through workshop oriented training, continuing medical education (CMEs) and continuing professional development (CPDs). Over time it has been realised that these approaches have had limited effect in the long term as they have not translated into tangible and sustained good case management clinical practices. This type of training was limited to the clinical aspects of case management and did not empower health workers to identify administrative and other non clinical bottle necks that constrained their work.

Clover working hand in hand with the Ministry of Health - National Malaria Control Programme (NMCP) developed the "Clinical audit "concept for severe malaria case management and adopted it to the suit the Ugandan context. Earlier clinical audits had hitherto been piloted on a very limited scale

in Mulago hospital maternity wing with focus on maternal death audits limited to only mortality.

Clinical audits have employed a quality improvement approach of assessing the situation, identifying the bottle necks, implementing change to overcome the bottle necks, re-assessing and making further adjustments in approach as appropriate. Subsequently these weaknesses are addressed through refresher training on severe malaria coupled with bedside teaching, coaching and mentoring, reinforced through regular on site support supervision. Job aids on severe malaria management were printed and availed to all health facilities in the supported districts (Figure 9).

During supervision a root cause analysis is done for all the bottlenecks identified. A time bound action plan with time frame and responsible persons is drawn up. Implementation of this plan is reviewed during the next supervision round and any unimplemented actions discussed and carried forward with stronger action points (Figure 10)

Some of the key practices selected for monitoring severe malaria management practices were; triage, out patient and in patient records, waiting time, clinical consultation, and resuscitation and essential laboratory investigations. These parameters were checked on a quarterly basis by the supervisors/clinical auditors from the central level to gauge progress made. At facility level internal supervisors used similar tools to assess performance and advise the facility in charges to institute appropriate remedial actions.

After 10 months of implementation, covering three rounds of clinical audit, improvements have been noted; triage is being implemented (figure 11) or has been strengthened in all participating facilities and, multiple quinine doses have been stopped, emergency areas have been set up on the wards. Recording of patient information has improved (Figure12). It may be too early to expect significant changes in malaria case fatality (a proxy measure for quality of severe malaria management), however preliminary findings suggest its reduction in some facilities (figure;13, 14). In some facilities, for example Hoima hospital, apparent increase in case fatality stimulated further enquiry to identify the root cause, which was found to be related to acute shortage of blood during 2009/ 2010 which could have accounted for the increased deaths in under fives who commonly present with

severe anaemia requiring blood transfusion. The hospital has since conducted a separate audit of the paediatric ward and used the findings to develop a proposal presented to government and other partners seeking to establish of a regional blood bank in Hoima regional referral hospital. Currently blood is delivered from Kampala 250km away by public transport which is often erratic and time consuming.

The lessons learned so far have been used to inform policy through dissemination to stakeholders, MoH-NMCP-case management technical working group. As a result, the malaria control programme prioritised clinical audits in its recent Global Fund Round 10 proposal. The USAID funded Stop Malaria Project currently implementing the approach in 12 districts and intends to scale it up in an additional 14 districts in 2011.

“Previously very sick patients were not triaged. Health workers had little understanding of this concept and many very sick patients spent a long time in the waiting lines. However with the comprehensive training that clinical audits provided to health workers with regards to severe malaria management, our staff now have the capacity to identify very sick patients and triage them for quick emergency care”.

Dr Musinguzi Patrick, Malaria Zonal Coordinator and Physician Hoima Regional Referral Hospital

### **External Quality Assurance System (EQA)**

Quality diagnosis of malaria is key to delivery of appropriate treatment. In the recent past MoH-Uganda changed the first line treatment for uncomplicated malaria to Artemisinin-based Combination Therapy (ACT), namely Artemether/Lumefantrine (AL); an expensive drug. This necessitates definitive diagnosis using microscopy or rapid diagnostic tests (RDTs ) to reduce mis-diagnosis and improve treatment outcomes. In order to improve the quality of malaria microscopic diagnosis, Clover supported and worked closely with MoH-CPHL and NMCP to establish the malaria microscopy EQA which re-checks slides through three levels to identify disagreement in slide results between the 1st reader (peripheral level) 2nd reader (regional referral level) and the 3rd reader (experts at central level) and implement remedial measures as appropriate. Clover worked with CPHL and NMCP to create guidelines, procure equipment and supplies, and provide refresher training and supportive supervision for personnel at every stage. Prior to establishing the EQA a

baseline assessment was done to determine the functionality of the laboratories, especially with regards to presence of personnel, reagents, supplies and equipment. Findings indicated that; only 7% of the laboratories assessed had adequate staffing according to MoH staffing norms, 33 out of 43 (77%) health facilities assessed had laboratories and only 29 facilities (67%) had functional laboratories (functional microscope, supplies and personnel), 10% of the laboratories were non-functional because of faulty microscopes and/or lack of supplies (slides, reagents, buffer). Six months, prior to the survey – April 2009 - 53% and 40% of health facilities had experienced stock out of TB and malaria reagents respectively8.

The interventions instituted by Clover and the central laboratories have enhanced the capacity of laboratory technicians and the quality of laboratories in the region at each level of the system. Discordance rates decreased from 31% to 18% over nine months (Figure 15). Involvement of MoH and sub-national level officials at every stage created ownership and sustainability of the system as it built it into the existing Government health structures. EQA has subsequently been included in the CPHL five year strategic plans and the round 10 Global Fund proposal. This will ensure that quality malaria microscopic diagnosis will be prioritized in the immediate and long term, leading to better treatment and rational use of ACTs in Uganda.

### **Establishment of District Malaria Task Forces (MATFs)**

The district malaria task force concept that has been successfully implemented in Zambia was reviewed with the Uganda NMCP and accepted for adaptation to the Uganda context. This platform is very useful for coordination of district level activities and mobilization of resources. It will enable closer working relationship between the multiple stakeholders (public and private) in the districts and the district leadership to plan, budget and disseminate information on malaria in a coordinated manner A NMCP official from MoH-Uganda was supported by Clover, to visit the Zambia national malaria control committee and the Zambia Clover team, to study modalities for establishing the task forces and benefit from the lessons learned and the best practices. Subsequently upon her return district malaria task forces have been established in 5 Mid-Western Clover-supported districts of Uganda. The membership of the task forces is composed of government line ministries; Forestry, Agriculture, Animals and Fisheries (MAAIF), Community Development, Dis-

tract and Population Planning office, District Education Office, District Information Office, Office of the resident district commissioner and chief administrative officer), religious organisations, oil companies, cultural institutions (Kingdoms), radio and television stations, Banks (Barclays, Centenary, Equity, Stanbic, FINCA), telecommunication companies and Security organisations (army, Prisons, Police). The concept of MATFs has been welcomed by the districts and the MoH who have pledged support to scale them up to other districts because of their anticipated benefits of public-private partnership. Another MoH partner, a USAID supported project; Stop Malaria has already implemented MATFs in 2 additional districts (Kumi, Soroti) in Eastern Uganda.

“When I visited Zambia and learned about their district malaria task forces and how much they have contributed to district malaria activities, I was excited because we have been thinking of how to establish such coordination bodies, but we were still grappling with how to do it. It is an approach that is essential and ties in very well with a similar national coordination system that is currently being formulated involving as many stakeholders as possible. I have briefed my boss about my trip and he has pledged to support this intervention because it should improve district mobilisation and advocacy”

Mary Byangire, Senior Health promotion officer MoH-NMCP.

### **Policy related support to Ministry of Health**

Clover supported the National Malaria Control Programme (NMCP) to review the national malaria control policy and streamline especially the insecticide treated nets policy and the malaria case management policy. A section on health systems systems was included in the policy for the first time. Subsequently HSS is receiving more focus nationally especially in NMCP proposals for funding like in the round 10 Global fund proposal.



*Illustration of multiple doses of quinine in single 500 ml bottle*



*developed to support improved medicines management*



*Instructions and job aids on management of severe malaria*

*Cllover sought to work smoothly within the existing system in order institutionalise the approaches found beneficial.*

Cllover sought to work smoothly within the existing system in order institutionalise the approaches found beneficial. This entailed the identification of health system problems through research and consultative meetings with the government and other stakeholders to formulate appropriate solutions. Bringing the different partnerships to the fore creates buy in and ownership especially by the government counterparts.

Quality assurance was at the heart of the Cllover design and observed the cycle of: assess, identify bottle necks, formulate solutions, implement formulated approaches, learn lessons, use lessons learned to make appropriate adjustments for further improvements. Responsiveness, flexibility, adaptability of pace to cope and meet the demands of the ever changing implemen-

tation environment, enabled alignment with existing plans and strategies (districts & NMCP). Cllover worked closely with and in partnership with the MoH and the district authorities, agreeing priorities and schedules as appropriate, sometimes, rescheduling activities to enable participation of district and MoH staff

Cllover created firm relations with different levels of management and sometimes linked them with each other working closely with central level MoH to effect the required change in clinical practice of HWs, which necessitated continuous hands on, guidance and demonstration on how to do things correctly. Firm partnership with other stakeholders where it made sense-worked with other MoH partners operating in Cllover supported districts, to streamline

efforts and avoid duplication; Stop Malaria (EQA, Clinical Audit,), Pioneer project; HMIS and Malaria case management

**What did not work out?**

The motivational schemes for health workers did not work out because all discussions at different levels indicated that HWs wanted a pay rise or top up of their salaries considering that their pay was extremely low in all cadres. This approach was not tried out because the project set up did not have a provision for it. It was also envisaged that if started salary top ups or increments would not be sustainable because the government had not committed to increase salaries.

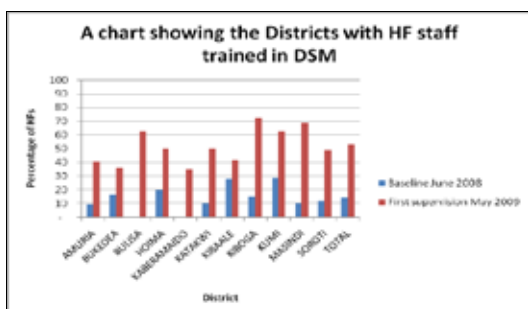


Figure 6: Distribution of District staff trained in medicines supply management in 11 Cllover project districts, 2008-2009



Figure 10: Samples of findings and agreed actions from a clinical audit facility supervision, Hoima Hospital March 2010

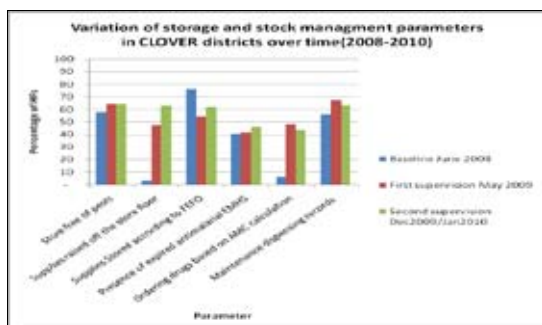


Figure 7: Stock management parameters in 11 Cllover project districts, 2008-2009 (FEFO= First to Expire First Out, AMC =Average Monthly Consumption)

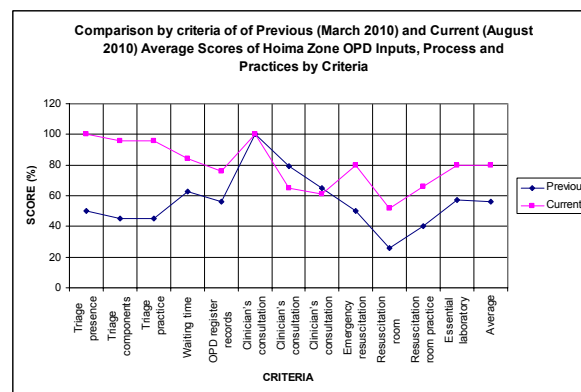


Figure 11: Comparison of OPD, inputs, processes and practices, Western region Uganda, March-August 2010



*Some quality improvements in response to problems identified do not require expensive or sophisticated inputs. Reorganisation of existing resources can produce the desired effects.*

**Quality Improvements** Some quality improvements in response to problems identified do not require expensive or sophisticated inputs. Reorganisation of existing resources can produce the desired effects. For example through clinical audit work on severe malaria management, Clover facilitated establishment of a system of triaging with prompt intervention that simply involved reorganisation of space and placement of available equipment and supplies.

**Simple Innovations** Simple innovations can result in significant improvements. In response to the problem of shortage of stationery and the loss of data resulting from loose papers the integrated health facility HMIIS data base was innovatively re-designed. The binding of a set of data tallying sheets that can generate copies in triplicate form for later submission to higher levels together into one book overcame the problem of tedious filing, retrieval, loss of valuable forms and data validation for accuracy and consistency. This greatly improved data quality and data management at district and health facility levels.

**Situation analysis** is critical to identifying gaps, determining priorities and designing appropriate interventions. Clover examples identified from situation analysis include; using wireless modems for internet connectivity in rural settings, stopping of inappropriate quinine administration and development of a dispensing logbook (record of medicine issue) to more accurately track stock dispensed.

**Training Approaches** The workshop and cascade modes of training do not seem to produce the desired effects of improving quality of care. The hands on mentoring participatory approaches seem to create bonding with trainees and are more conducive to positive change. They need to be given more prominence; however this requires investment of more resources for scaling up the innovations.

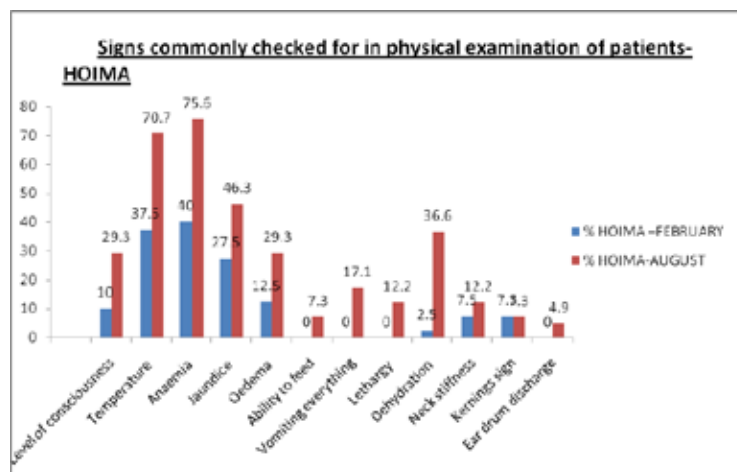


Figure 12: Improvement in conducting and recording of physical examination, Hoima Hospital, Uganda March – August 2010

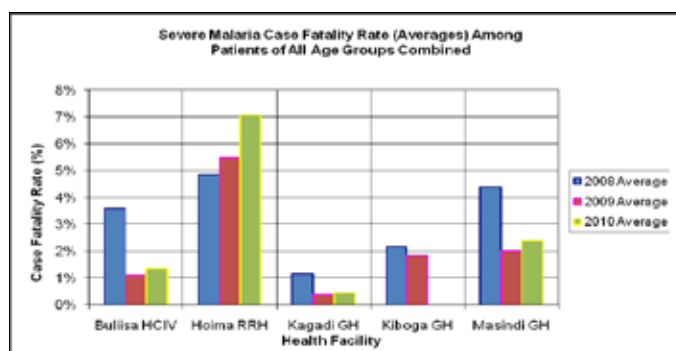


Figure 13: Severe malaria case fatality rate among patients of all age groups in selected Clover supported health facilities in Western Region. Uganda 2009-2010

- Clinical Audit is continuing in 37 districts through another partner Stop Malaria project and has the potential for country wide scale up if the Global fund proposals get funded. This will be necessary to implement this approach on a larger scale for a longer period to achieve greater impact.
- The medicine tools, guideline, training material generated through the different components of Clover and adopted by MoH will continue in use.
- The HMIS activities have built capacity for data management and provided the equipment. There is potential for their scale up because their lessons were fed into the ongoing MoH-HMIS review that will feed into the HSSP III.
- The district malaria task force have the potential for mobilization and advocacy at district level and are being implemented by another partner- Stop Malaria in two districts. Stop Malaria has plans to expand to more districts during the remaining project life of three years.
- The medicine supply management activities have faced challenges in the recent past following the MoH change of distribution mechanism from a pull system to a mixed push and pull and the frequent stock out of essential medicines and supplies. Against this background more effort and investment will be required orient the district health management teams and staff to the changed approaches in order to improve medicine supply management in Uganda

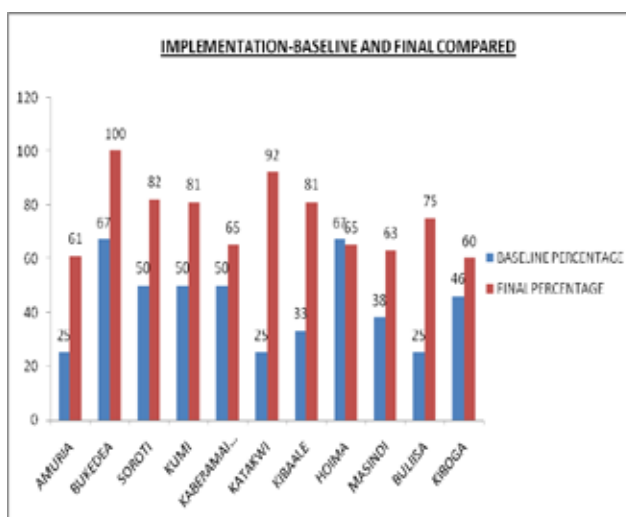


Figure2: Comparison of baseline and end of project use of information for decision making, 11 districts, Uganda May 2010

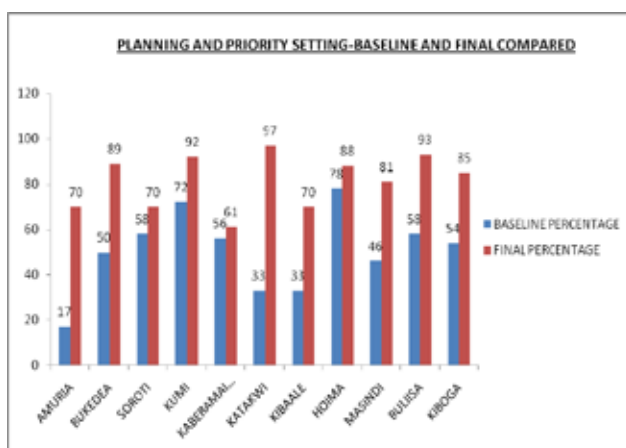


Figure 3: Use of information for priority setting, 11 Clover supported districts Uganda May 2010.

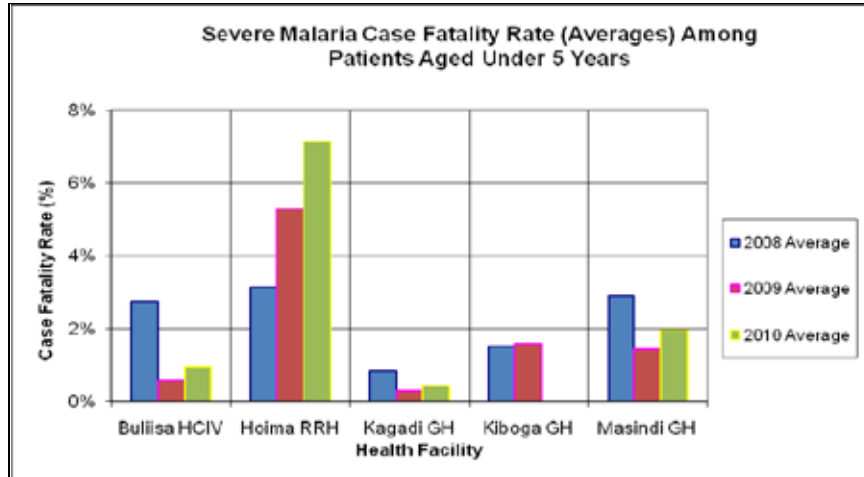


Figure 14: Severe malaria case fatality rate among patients aged 5 years Clover supported HF, Western Region, Uganda 2009-2010

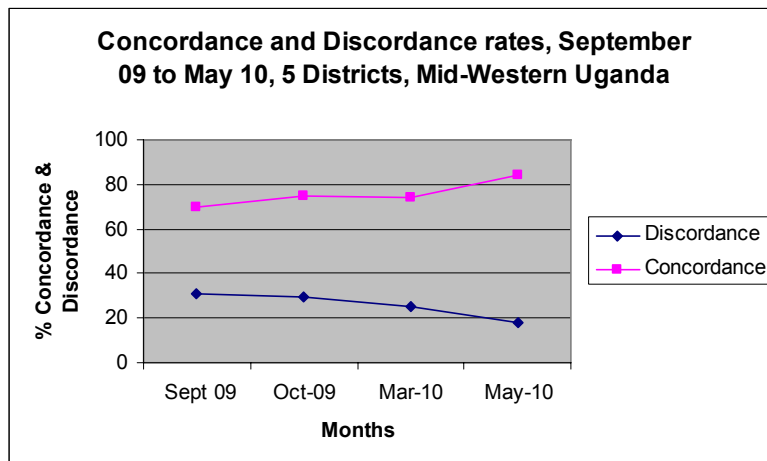


Figure 15: Concordance and Discordance rates, 5 Mid-Western Uganda districts September 09 to May 10

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