PROJECT BASELINE SURVEY REPORT

PROJECT NAME: "PREVENTING LEAKAGE OF ANTI MALARIA MEDICINES IN UGANDA'S HEALTH SECTOR: A CASE STUDY OF SELECTED HEALTH CENTRES IN LIRA DISTRICT".

25TH JULY – 30TH AUGUST 2011

WITH FINANCIAL SUPPORT FROM PARTNERSHIP FOR TRANSPARENCY FUND

IMPLEMENTED BY ANTI CORRUPTION COALITION UGANDA

Foreword

Anti Corruption Coalition Uganda (ACCU) brings together Civil Society Organizations, individuals, religious leaders, academicians, media practitioners and key institutions involved in the fight against corruption in Uganda.

ACCU with the support of Partnership for Transparency Fund is implementing a 12 month project aimed at reducing leakage of essential medicines and improving their availability in the public health centers in Lira District. The goal of the project is to improve public access to free malaria medicines destined for public health centers in Lira District.

One of the activities of this project is to carry out a baseline survey in 8 selected health centers in Lira District. The objectives of the survey were to;

1) Establish the delivery chain of medicine from National Medical stores to selected health centres in Lira District and distribution mechanisms of malaria medicines.
2) Determine the availability of malaria medicines in selected public health centres.
3) Ascertain current data on the number of malaria cases
4) Assessment of health user satisfaction.

The findings of the survey are intended to enable the project to set clear measurable targets that are indicative as progressively the above parameters will be the basis upon which the project will be monitored and assessed. It will enable the carrying out of an assessment of the impact of the intervention.

Cissy Kagaba
Executive Director
Anti Corruption Coalition Uganda

Contents

Acronyms

ACCU	**Anti-Corruption Coalition Uganda**
C.A.O	**Chief Administrative Officer**
FGDs	**Focused Group Discussion**
HC	**Health Centre**
HSSP	**Health Sector Strategic Plan**
DHO	**District Health Officer**
MoFED	**Ministry of Finance, Planning and Economic Development**
MoH	**Ministry of Health**
NDA	**National Drug Authority**
NMS	**National Medical Stores**
NRH	**National Referral Hospital**
NUACC	**Northern Uganda Anti-Corruption Coalition**
PHPs	**Private Health Providers**
PNFPs	**Private Not for Profit**
PTF	**Partnership for Transparency Fund**
RACCs	**Regional Anti-Corruption Coalitions**
RRH	**Regional Referral Hospital**
ULS	**Uganda Law Society**

Disclaimer

The views expressed in this publication do not necessarily reflect the views of Partnership for Transparency Fund.

Acknowledgement

ACCU together with its partners NUACC and Uganda Law Society acknowledges with appreciation the financial support from Partnership for Transparency Fund which enabled the successful conducting of the baseline survey.

In addition, we are grateful to the people of Lira especially those we interacted with at the health centres of Ogur, Bar, Barapwo, Ayago, Lira Municipal, Abunga, Ober and Lira regional referral Hospital. ACCU remains grateful to the office of the District Health Officer, Staff of the various health centres, Health Resident District Commissioner, National Medical Stores, and Community Leaders.

At national level we appreciate and are grateful for the continued support from National Medical Stores, Directorate for Ethics and Integrity, Malaria Consortium, Heps-Uganda, Directorate of Public Prosecutions, National Drug Authority, Ministry of Health and Medicines and Health Service Delivery Monitoring Unit.

Last but not least, the survey team and the entire ACCU staff are acknowledged for the support given to the entire process.

Executive Summary

Anti Corruption Coalition Uganda (ACCU) brings together Civil Society Organizations, individuals, religious leaders, academicians, media practitioners and key institutions involved in the fight against corruption in Uganda.

ACCU with the support of the Partnership for Transparency Fund is implementing a 12 month project aimed at reducing leakage of free malaria medicines by monitoring the supply chain right from National Medical Stores to eight selected public health centers in Lira District. The project activities include conducting a baseline survey, training of independent monitors, holding public Accountability Forums (PAFs), and formation of a Health Sector Anti Corruption Working Group.

From 25th July to 30th August 2011, ACCU conducted a baseline survey in eight selected health centres in Lira District that explored the status of the delivery chain of medicine from National Medical Stores (NMS). A total of 200 people participated in the baseline survey including: District Leaders, District Health Office, Nurses, Clinical Officers, Medical Superintendents, in charges, health users, NMS officials, and representatives of Civil Society Organizations. This report presents and analyzes the outcomes of the survey as follows:

The delivery chain of medicine from National Medical Stores and the distribution mechanisms of malarial medicines.

The survey mapped the delivery chain of malaria medicines from NMS to the public health centres. It also revealed that free anti malarial medicines are categorized as third party Supplies or donors and are based on the 'push principle' were upon receipt NMS

uses a basic kit developed by the MoH guides NMS in distributing the medicine. It also established that there are key institutional players in drug delivery from NMS. They include; District Health Officer (DHO), Chief Administrative Officer (CAO), District Hospital, Health Centres I –IV, Village Health team,and Health Unit Management Committees

Availability of malaria medicines

All the health centres surveyed at the time of the baseline still had stock of anti-malarial drugs. However the lower health centres I –II claimed their stock don't last for more than a month. It was further established that 80% of the health centres had experience stock outs of anti-malarial medicines. The survey indicated that malaria medicines face the stock outs in most of the lower public health centres in Lira District due to a high influx of people upon receiving information on their availability and leakages. The anti-malarial drugs were also not labeled which increases the opportunities of leakages. Labels were only found on the packages.

Current data on the number of malaria cases

The survey team interacted with the in charges of eight project health centres and it was noted that malaria treatment is one of the most sought after from the facilities. This was confirmed upon observation of the malaria charts. However, not all health facilities were able to avail data on the current number of malaria cases during the survey due to varying reasons.

Health user satisfaction

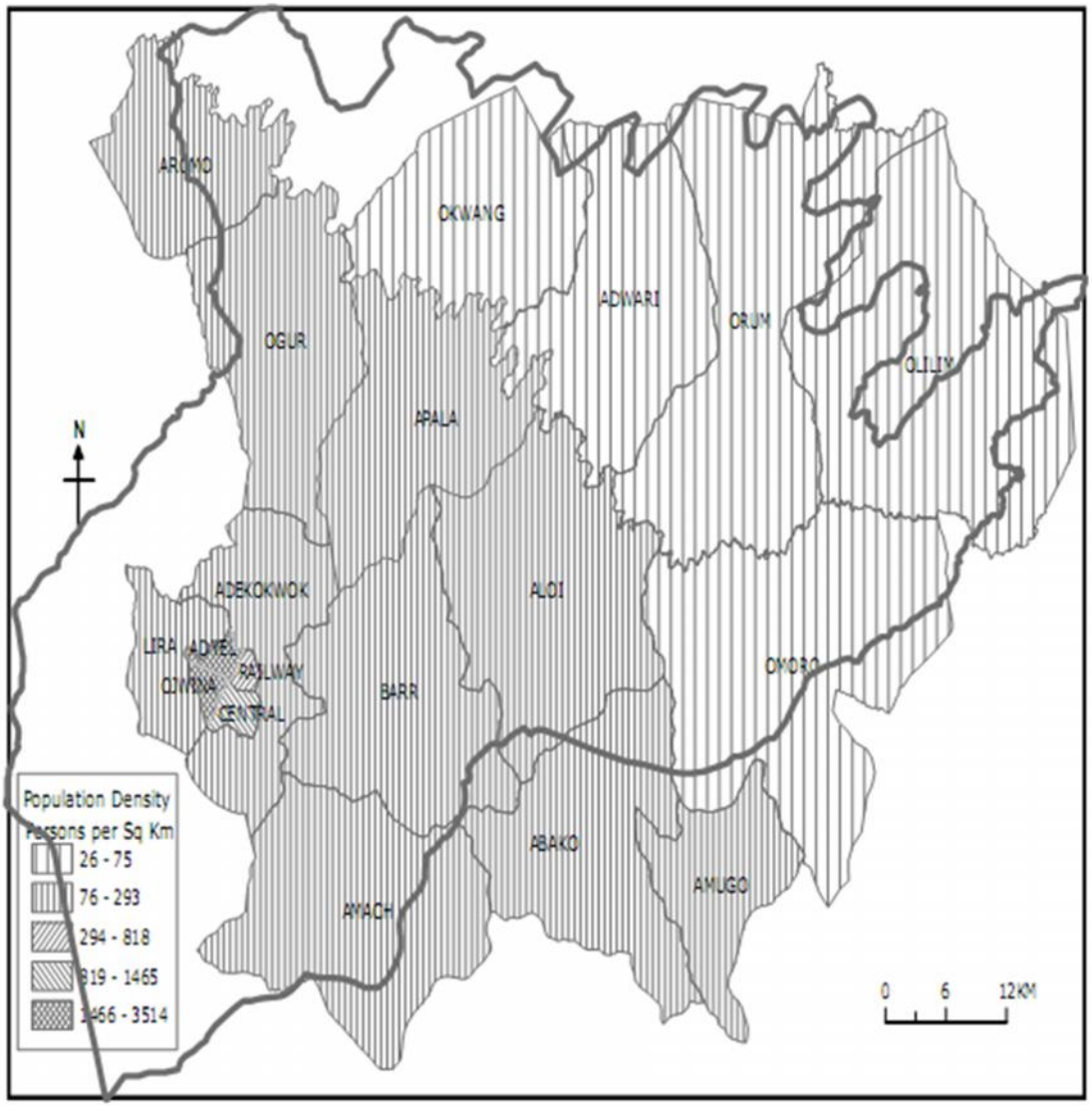
The survey team noted that most of health users they interacted with had at a particular time received malarial treatment at their respective health facility. The challenges to health user satisfaction are: long queues, staff absenteeism, insufficient supplies, poor sanitation, and rudeness by the health workers

Recommendations

The survey elicited recommendations from the participants and the following were key:

- Review a kit supply system for lower-level health facilities.
- There is a need to reinvigorate the Health Unit Management Committees.
- An assessment on the performance of the last mile distribution service provider contracted by NMS.
- Ministry of Health sets up a team to investigate complaints regarding drug leakages in Lira District.
- Embossing the free anti-malarial tablets.
- Strengthening the capacity of health facility staff in the Logistic Management and Information System.
- An increase in the number of malaria testing kits and microscopes to health facilities.
- General improvement in the welfare of the health workers.

Map Showing Lira District



CHAPTER ONE: INTRODUCTION

1.1 Uganda's Healthcare System

The National Health System (NHS) in Uganda constitutes of all institutions, structures and actors whose actions have the primary purpose of achieving and sustaining good health. It is made up of the public and the private sectors. The public sector includes all Government health facilities under the Ministry of Health (MoH), health services of the Ministries of Defence (army), Internal Affairs (Police and Prisons) and Ministry of Local Government (MoLG). The private health delivery system consists of Private Health Providers (PHPs), Private Not for Profit (PNFPs) providers and the Traditional and Complimentary Medicine Practitioners (TCMPs).

The delivery of health services in Uganda is done by both the public and private sectors with Government of Uganda being the owner of most facilities. Public health services in Uganda are delivered through HC IIs, HC IIIs, HC IVs, general hospitals, RRHs and NRHs. The range of health services delivered varies with the level of care. In all public health facilities curative, preventive, rehabilitative and promotive health services are free, having abolished user fees in 2001. However, user fees in public facilities remain in private wings of public hospitals.

The MoH provides leadership for the health sector: it takes a leading role and responsibility in the delivery of curative, preventive, promotive, palliative and rehabilitative services to the people of Uganda in accordance with the Health Sector Strategic Plan II.

The provision of health services in Uganda has been decentralized with districts and health sub-districts (HSDs) playing a key role in the delivery and management of health services at district and health sub district (HSD) levels, respectively. Unlike in many other countries, in Uganda there is no 'intermediate administrative level (province, region). The health services are structured into National Referral (NRHs) and Regional Referral Hospitals (RRHs), general hospitals, health centre IVs, HC III and HC IIs. The HC I has no physical structure but a team of people (the Village Health Team (VHT)) which works as a link between health facilities and the community.

The National Hospital Policy, adopted in 2005, spells out the role and functions of hospitals at different levels in the NHS and was operationalized during the implementation of the HSSP II. Hospitals provide technical back up for referral and support functions to district health services. Hospital services are provided by the public, PHPs and PNFPs.

The 1995 Constitution and the 1997 Local Government Act mandates the District Local Government to plan, budget and implement health policies and health sector plans. The Local Governments have the responsibility for the delivery of health services, recruitment, deployment, development and management of human resource (HR) for district health services, development and passing of health related by-laws and monitoring of overall health sector performance. These Local Governments manage public general hospitals and health centers and also provide supervision and monitoring of all health activities (including those in the private sector) in their respective areas of responsibility. The public private partnership at district level is however still weak.

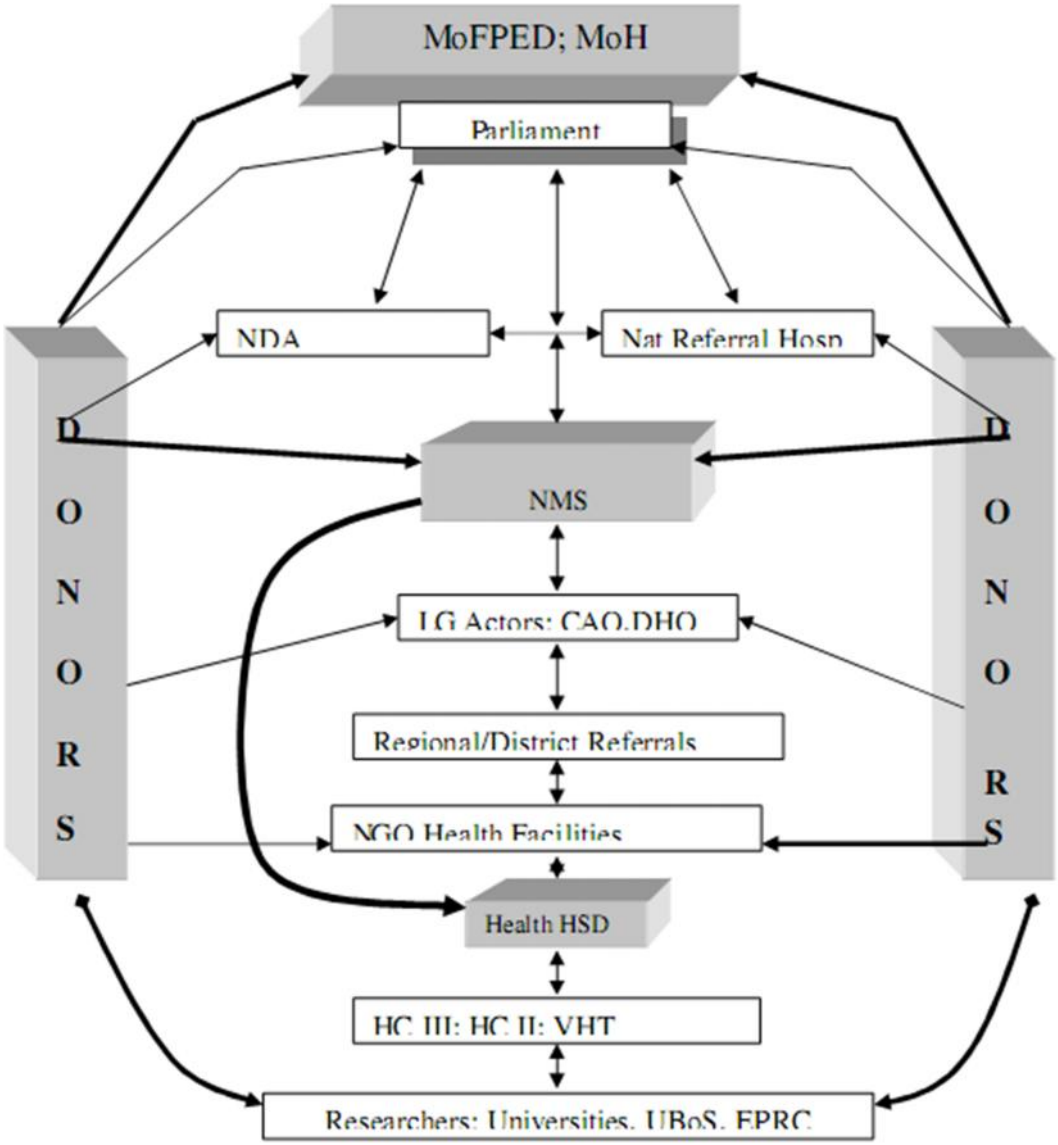
The Health sub-district (HSD) system is a lower level after the district in the hierarchy of district health services organization. The health Sub District is mandated with planning, organization, budgeting and management of the health services at this and lower health center levels. It carries an oversight function of overseeing all curative, preventive, promotive and rehabilitative health activities including those carried out by the PNFP, and PFP service providers in the health sub district; Health centres III, II and I HC IIIs provide basic preventive, promotive and curative care and provides support supervision of the community and HC II under its jurisdiction. There are provisions for laboratory services for diagnosis, maternity care and first referral cover for the sub-county. The HC IIs provide the first level of interaction between the formal health sector and the communities. HC IIs only provide out patient care and community outreach services. An enrolled comprehensive nurse is key to the provision of comprehensive services and linkages with the village health team (VHT). A network of VHTs has been established in Uganda which is facilitating health promotion, service delivery, community participation and empowerment in access to and utilization of health services.

The NMS was established by the National Medical Stores Statute, which came into effect on December 03, 1993. The NMS replaced the Central Medical Stores (CMS), which was a department within the Ministry of Health (MoH). The main concern, then, was that the functionality of CMS was constrained by lack of autonomy. Second, the fusion of money and medicines in one institution – the MoH – was widely associated with inefficiency, lack of accountability and the absence of institutional checks on the flow of pharmaceuticals and medical supplies. As a major outcome, essential

drugs/medical supplies were not reaching the people at the right time. Nor were they being delivered in the right quantities via a supply-driven approach.

To overcome the anomalies associated with the old supply-driven CMS regime, government created NMS in 1993. Through the NMS statute, the MoH delegated its drug supply function to NMS. Drug supply involves the identification of therapeutic needs, quantification of the current and future needs, procurement, distribution and use. NMS operates under the national health policies defined by the line MoH and works in the context of the national drug policy that is enforced by the NDA. The NDA was created by the National Drug Policy and Authority Act, 1993, and came into effect on the same day as the NMS. In line with its mandate of enforcing the national drug policy, the NDA oversees the quality-related operations of pharmacies including the NMS.

Illustration Showing Key institutional players in drug delivery in Uganda



Source: Adapted from Kiiza, et al, 2006

Notes:

MoFPED	Ministry of Finance, Planning and Economic Development (most dominant ministry)
NPA	National Planning Authority (Semi-autonomous, under supervision of MoFPED)
UBoS	Uganda Bureau of Statistics (Responsible for government data collection)

1.2 Lira District Health Profile

1.2.1 Historical Background

Lira district is situated in Northern Uganda. Lira was the main metropolitan center of the now defunct Lango District (which corresponds geographically with the current Lango sub-region). Lira is located approximately 110 kilometres by road, southeast of the city of Gulu, on the highway between Gulu and Mbale. This location lies approximately 270 kilometres, by road, north of Kampala, the capital of Uganda. Lira District is part of Lango sub-region, which consists of the following districts: Alebtong District, Amolatar District, Apac District, Dokolo District, Lira District, Kole District, Otuke District and Oyam District. The city of Lira remains the principle commercial centre of the sub-region.

The 2002 national census estimated the population of Lira at 80,879. In 2008, the Uganda Bureau of Statistics (UBOS), estimated the population of Lira at 98,300. In 2011, UBOS estimated the mid-year population of Lira at 108,600

The main economic activity in Lira district is subsistence farming. The traditional economic /cash crop is cotton and has a continental climate modified by the swamp area surrounding the southern part of the district. The predominant ethnic group is the Langi.

Lira district has a Regional Referral Hospital, 2 Health Centres IVs, 5 Health Centre IIIs, and 7 Health centre IIs that are supplemented by numerous private health centres in the district.

Table Showing Health Centres located in Lira District

NO	NAME OF FACILITY	STATUS	COUNTY
1	Lira	Regional Referral Hospital	Lira Municipality
2	Amach	Health center IV	Erute South
3	Ogur	Health center IV	Erute North
4	Agali	Health center III	Erute south
5	Bar	Health center III	Erute south
6	Aromo	Health cent III	Erute south
7	Bar Apwo	Health center III	Erute north
8	Ober	Health center III	Lira municipality
9	Ayago	Health center II	Adekokwok
10	Lira municipal	Health center II	Lira municipal
11	Onywako	Health center II	Erute south
12	Anyagatir	Health center II	Erute south
13	Alik	Health center II	Erute south
14	Ongica	Health center II	Erute south
15	Abunga	Health Centre II	Erute south

Regional Referral = 1, Health Centre IV=2, Health Centre III=5

Health Centre II= 7

Source: secondary data 2011

1.3 Baseline Survey Objectives

The key objectives of the survey were:

a) Establish the delivery chain of medicine and distribution mechanisms of malaria medicines to selected health centres in Lira District.
b) Determine the availability of malaria medicines in selected public health centres.
c) Ascertain current data on the number of malaria cases.
d) Assess health user satisfaction.

1.4 Baseline Survey Questions

The key questions of the survey were:

a) What is the delivery chain of malaria medicines and how are they distributed?
b) Who are the main actors in the medicine delivery chain?
c) What is the level of health user satisfaction in regard of the malarial medicines?
d) What are the current trends of malaria in the public health centres?
e) What are the challenges facing the availability of anti-malarial medicines?
f) What recommendations would you make to ensure availability of anti-malarial medicines
g) What is the level of availability of anti malarials in the public health centres?

1.5 Scope of the Survey

The baseline was carried out between 25th July to 30th August 2011. The survey team visited the District Health Office, Lira regional referral hospital, Northern Uganda Anti Malaria project office, Ober health centre III, Lira Municipal health centre II, Bar Apwoo health centre III, Bar heath centre Ogur health centre IV, Bar health centre III, Abunga health centre II and Lira Regional Referral Hospital.

The survey examined the delivery chain and distribution mechanisms of anti-malarial, the availability of the antimalarial medicines, current data on malaria cases and health users' satisfaction in relation to the availability of medicines. Possible recommendations were generated.

1.6 Structure of the Report

This report has three chapters; the first chapter includes the introduction, the second chapter states the methodology of the survey, and chapter three presents the findings (both qualitative and quantitative) using, tables, graphs, bars and pie charts. All other instruments used like survey guide, interview guides, Focused Group Discussion guides are annexed.

CHAPTER TWO: METHODOLOGY

2.0 Introduction

This chapter outlines data sources and data collection method

2.1 Data Sources

Primary sources of data included the District Health Officer, Logistics officers (NMS), health facility users, senior clinical officer, Pharmacy Assistant, Enrolled Nurse, Doctors, and health facility in charges. Secondary sources included; Reports on the health sector, Annual report 2010 Medicines and Health Service Delivery Monitoring Unit and the internet

2.2 Data Collection Methods

One on one interviews were conducted on selected individuals who were knowledgeable and experienced in health related matters and health facility users.

Focused Group Discussions were held with the health facility users. 20 groups of 5 members each were interacted with during meetings. FGD guides helped generate issues of concern related around the availability of anti-malarial and health user satisfaction. All the above discussions were participatory. Desk research was also fundamental in acquisition of data.

CHAPTER THREE: DISCUSSIONS AND PRESENTATION OF FINDINGS

3.0 Introduction

This section presents the findings of the survey both qualitatively and quantitatively. The findings are classified according to the categories of informants talked by the survey team and statistics got from some local authority offices. Findings were sorted, organized, inspected and coded according to the objectives of the survey.

3.1 Delivery Chain of Medicine from National Medical Stores

The survey established that Medicines are distributed to health facilities through three modes: credit line medicines, PHC medicines and third party where funds are released to third parties – mainly by the development partners to purchase medicines.

Free Anti-malarial medicines are categorized as third party Supplies. Such items are restricted for public health facilities in accordance with an agreement between the MOH and health development partners. The challenge with this is that NMS does not have control over the quantity and the quality of supplies stored and distributed on behalf of TP organizations. Orders for these items should be placed directly with the program and not with NMS. Donors and Government are the main funders of anti-malarials (mainly coartem) in Uganda.

3.1.1 Ordering of Medicines

The new policy for ordering from NMS uses both Push and Pull systems.[1] The supply and distribution of anti-malaria medicines and ARVs, which are supplied exclusively by "third parties" or donors, is based mainly on the "push" principle as opposed to the "pull" principle[2]. Furthermore, the NMS that is expected to supply "essential" medicines on credit is not responsible for the procurement of anti-malarials and HIV/AIDS medicines that address the highest proportion of the country's disease burden. Donors pay cash to NMS for the storage and distribution of "third party" medicines. Once donors have procured medicine, the attention of NMS turns to storage and distribution of those medicines. (See order processing flow chart)

NMS determines the quantities of free anti- malarial medicines to supply to the health centres in Lira District according to the basic kit approved by the Ministry of Health. In an attempt to rectify the unsatisfactory supply situation and improve the availability of life saving drugs, the MOH and NMS re-introduced a kit supply system for lower-level health facilities, whose staff typically have the weakest medicines management skills. Each health centre at the II and III levels receives one kit customized to that level of care six times annually regardless of the facility's catchment area population or patient load which partly contributes to stock outs. The original list of kit items for HC II included

[1] Pull system is when a health unit generates its own request/order of medical supplies to NMS which appropriately responds according to the pre-communicated budget per release. HCIV and hospitals order for their needs

[2] Push system applies to Health Centre IIs and IIIs. A kit has been developed by MOH to cater for needs at these levels. NMS uses this list for all health centres at these levels and supplies the same items to them.

56 items of which 34 are medicine and 22 are commodities; the HC III kit contains 115 items, of which 73 are medicines and 42 are commodities. The kit values are 470USD and 825 for HC II and HCIII, respectively.

As a result of resistance to chloroquine, fansidar and a combination of both chloroquine and fansidar, the government changed its treatment policy for malaria making coartem (ACTs) as the first line treatment of the disease. Although anti-malarial medicines are part of the essential medicines, they are not procured directly by NMS as is the case with other essential medicines. Instead, the funds for ACTs and ARVs are allocated to QCIL to supply GoU. The QCIL delivers the ARVs and ACTs at the NMS and JMS for distribution to the public health facilities and PNFP units. In this regard, coartem and ARVs are considered as third party drugs.

The survey established that the free anti-malarial medicines are supplied bi-monthly as per the published delivery schedule. However the timely delivery of these medicines to some of health facilities in Lira District has remained a challenge. (See delivery schedule)

Delivery Schedule for the Financial Year 2011/2012

NMS MEDICAL LOGISTICS
Passionate about your Life

Sales & Marketing Department Direct Lines
Toll Free: 0800 200015 (MTN)
Toll Free: 0800 12221 (uganda telecom)
Tel: 0414 320089
Fax: 0414 321323
Email: sales@nms.go.ug

FY 2011/12 NATIONAL MEDICAL STORES DELIVERY SCHEDULE

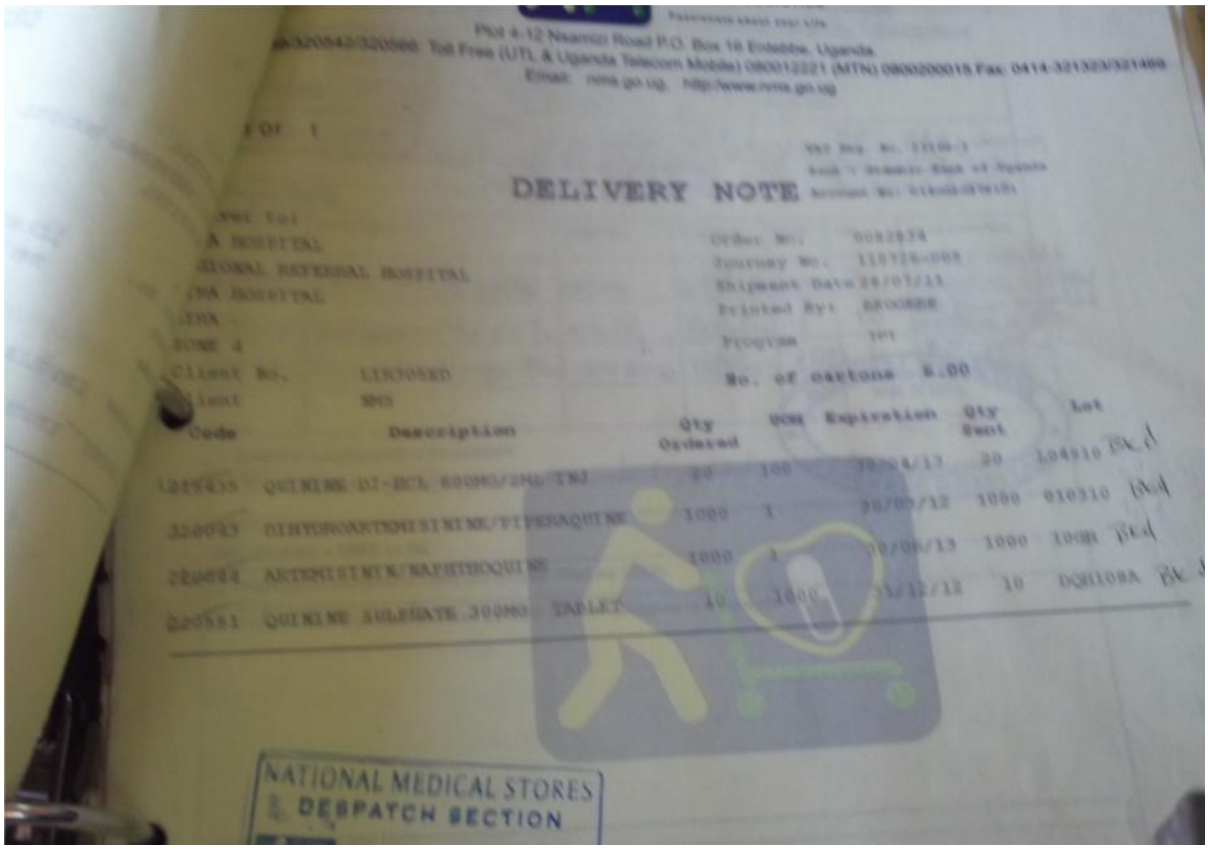
ZONE	DISTRICTS	CYCLE	ORDER DEADLINE	DELIVERY ENDS
ZONE 1	Abim, Amolatar, Amudat, Amuria, Budaka, Bududa, Bugiri, Buikwe, Bukedea, Bukwo, Bulambuli, Busia, Butaleja, Buvuma, Buyende, Iganga, Jinja, Kaabong, Kaberamaido, Kaliro, Kamuli, Kapchorwa, Katakwi, Kayunga, Kibuku, Kotido, Kumi, Kween, Luuka, Manafwa, Mayuge, Mbale, Moroto, Mukono, Nakapiripirit, Namayingo, Namutumba, Napak, Ngora, Pallisa, Sironko, Soroti, Serere, Tororo	CYCLE 1	13-Jun-11	26-Jul-11
		CYCLE 2	16-Aug-11	20-Sep-11
		CYCLE 3	11-Oct-11	15-Nov-11
		CYCLE 4	05-Dec-11	18-Jan-12
		CYCLE 5	09-Feb-12	16-Mar-12
		CYCLE 6	06-Apr-12	16-May-12
ZONE 2	Buhweju, Bukomansimbi, Bushenyi, Butambala, Gomba, Ibanda, Isingiro, Kabale, Kalungu, Kanungu, Kiruhura, Kisoro, Lwengo, Lyantonde, Masaka, Mbarara, Mitooma, Mpigi, Ntungamo, Rakai, Rubirizi, Rukungiri, Sembabule, Sheema	CYCLE 1	29-Jun-11	09-Aug-11
		CYCLE 2	01-Sep-11	04-Oct-11
		CYCLE 3	27-Oct-11	29-Nov-11
		CYCLE 4	30-Dec-11	02-Feb-12
		CYCLE 5	27-Feb-12	30-Mar-12
		CYCLE 6	26-Apr-12	30-May-12
ZONE 3	Buliisa, Bundibugyo, Hoima, Kabarole, Kamwenge, Kasese, Kibaale, Kiboga, Kiryandongo, Kyankwanzi, Kyenjojo, Kyegegwa, Masindi, Mityana, Mubende, Ntoroko	CYCLE 1	21-Jul-11	19-Aug-11
		CYCLE 2	15-Sep-11	14-Oct-11
		CYCLE 3	10-Nov-11	09-Dec-11
		CYCLE 4	13-Jan-12	14-Feb-12
		CYCLE 5	13-Mar-12	11-Apr-12
		CYCLE 6	11-May-12	11-Jun-12
ZONE 4	Adjumani, Agago, Alebtong, Amuru, Apac, Arua, Dokolo, Gulu, Kitgum, Koboko, Kole, Lamwo, Lira, Luweero, Maracha, Moyo, Nakasongola, Nebbi, Nwoya, Otuke, Oyam, Pader, Yumbe, Zombo	CYCLE 1	02-Aug-11	31-Aug-11
		CYCLE 2	27-Sep-11	26-Oct-11
		CYCLE 3	22-Nov-11	29-Dec-11
		CYCLE 4	25-Jan-12	24-Feb-12
		CYCLE 5	23-Mar-12	25-Apr-12
		CYCLE 6	23-May-12	21-Jun-12
ZONE 5	Kampala, Kalangala, Nakaseke, Wakiso	CYCLE 1	12-Aug-11	02-Sep-11
		CYCLE 2	07-Oct-11	28-Oct-11
		CYCLE 3	02-Dec-11	02-Jan-12
		CYCLE 4	07-Feb-12	28-Feb-12
		CYCLE 5	04-Apr-12	27-Apr-12
		CYCLE 6	04-Jun-12	25-Jun-12

NOTES

1. Facilities should place orders for the next Cycle before the "**Order Deadline**" date indicated
2. Facilities should **always** submit **all** order types (EMHS, ARV, PMTCT, LAB & FLUCONAZOLE) at the **same time** to ensure that **all orders get delivered at the same time**. Adherence to this requirement shall reduce/eliminate the need for emergency orders.
3. NMS shall not process orders during its bi-annual stock take. Stock take dates are **4th - 11th July 2011** and **19th - 23rd December 2011**

3.1.2 Distribution

Survey finds revealed that NMS packs supplies in appropriately labeled packaging and generates a delivery note and invoice with an order number. The dispatch section personnel including driver and dispatch personnel are noted. The delivery note shows supplies dispatched and is crucial for the verification exercise on delivery. The invoice should help health units keep an eye on their accounts at NMS. Findings reveal discrepancies on actual drugs delivered from the delivery note. A case in point was a delivery note at Ogur HC IV



Caption: A sample delivery note

3.1.2.1 Distribution at the District Level

NMS trucks deliver to the District Health Office and the District Health Officer is in charge of receiving the supplies. The process of delivery is witnessed by district officials like the Internal Auditors and the supplies are ideally kept at district stores.

Three ways Shipping Services (a private freight service company) was contracted by NMS to execute last mile distribution to lower facilities under the guidance of a district representative nominated by the District Health Officer to ensure all supplies are delivered to the intended facilities after which a sign off of delivery documents is done by the recipients. However findings of the survey reveal that at times three ways shipping services delivers drugs at night and rushes the health centre personnel in signing the delivery documents without verifying the actual drugs delivered.

Box body and open trucks that can accommodate a tarpaulin are used to transport the medicines to the different health centres.

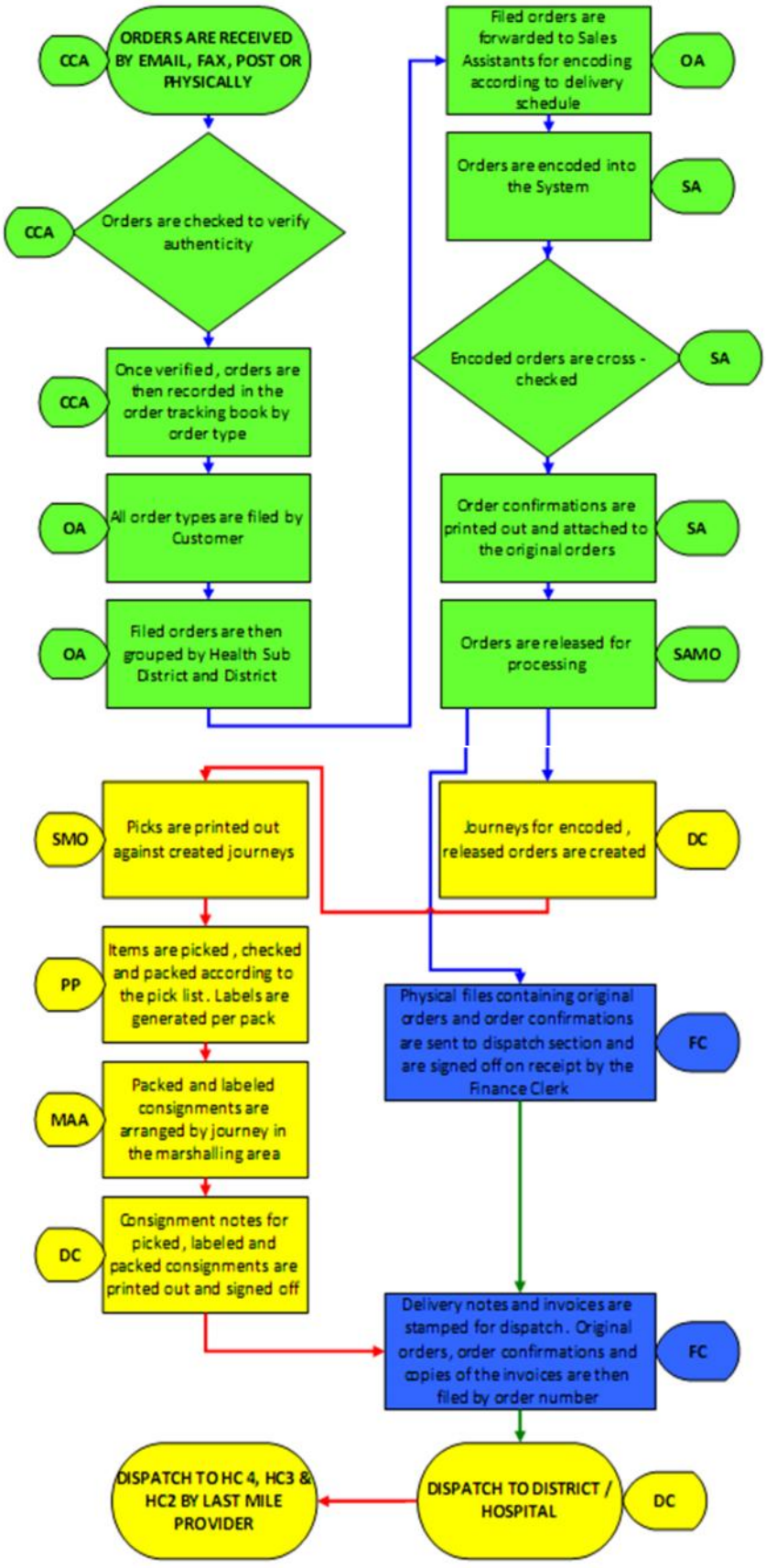
All supplies for the cycle are delivered hand in hand and it usually takes an average of 7 (seven) working days from the time supplies are delivered at the District Health Offices. Usually NMS consignments are embossed with the Government of Uganda for Public Use Only **NOT FOR SALE.** The smallest units (Capsules, Tablets) have UG on them

NMS trucks deliver directly to most hospitals especially the regional referral hospitals like Lira Regional Referral hospital and other national referrals hospitals. The supplies are received and a detailed verification process takes place at this stage with the witness of local leaders and representation from the Health Unit Management Committee.

The local level institutions that play key roles in the acquisition, distribution and utilization of medicines from NMS include the Chief Administrative Office (CAO); the DHO, the HSD Medical Officer; the regional referral hospitals (which are self-accounting units); all health facilities (ranging from district hospitals and the HC IVs to HC IIs); and the HUMC.

At the district level, the CAOs must ensure that medicines reach the beneficiaries. Additionally, the DHO, the HSD medical officer, the in-charges of lower level health centres and very importantly, the police, ISO and DISO and GISO have an important leadership role to play in inspecting, monitoring or even evaluating the availability of medicines.

ORDER PROCESSING FLOW CHART



KEY TO COLOURS AND ABBREVIATIONS

SALES & MARKETING DEPARTMENT	
STORES & OPERATIONS DEPARTMENT	
FINANCE & ACCOUNTING DEPARTMENT	

Abbreviations	
CCA	Customer Care Assistant
DC	Dispatch Clerk
FC	Finance Clerk
MAA	Marshalling Area Attendant
OA	Office Attendant
PP	Picker Packer
SA	Sales Assistant
SAMO	Sales & Marketing Officer
SMO	Stores Management Officer

3.1.2.1 Distribution at the Health Sub-Districts

Three ways Shipping Services was contracted by NMS to execute last mile distribution service provider contracted by NMS takes supplies to lower facilities under the guidance of a district representative nominated by the District Health Officer to ensure all supplies are delivered to the intended facilities after which a sign off of delivery documents is done by the recipients

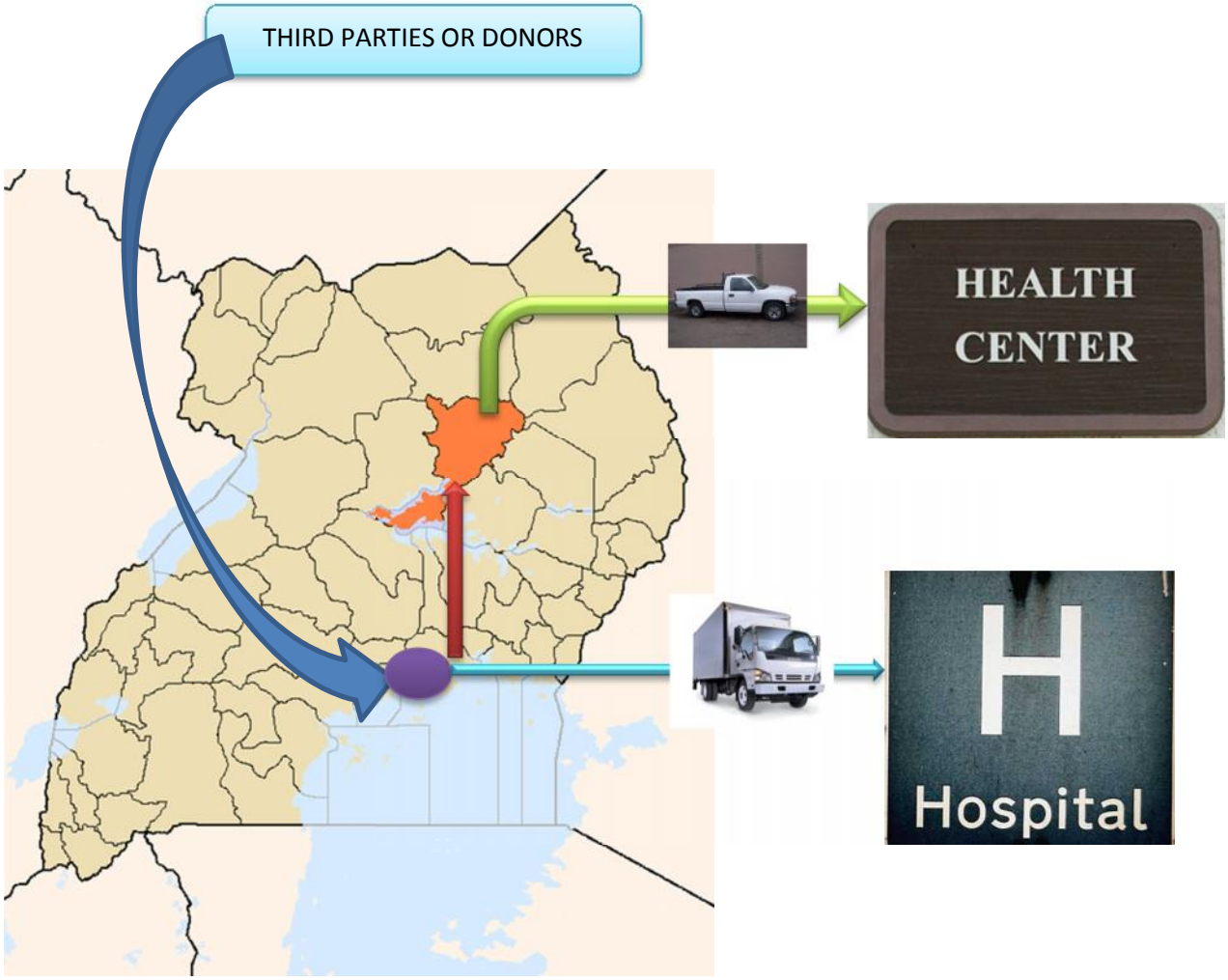
Each county is a health sub-district, with a health facility either as a hospital or HC IV. In-charges of HSDs report to the DHO. The MoH recognizes the HSDs as key administrative units in the delivery of health services. The services at a HC IV should include theatre services, in-patients, maternity, and Out Patient Department (OPD). The HC IV is a referral health facility for lower level health centres. Accordingly, a Medical Officer (MO) presides over a HSD.

Lower level health facilities (HC III and HC II) are expected to play a role in the acquisition and of medicines. HC IIIs are sub-county level health facilities whose ranges of services include OPD, laboratory services, and maternity. Ideally, a Clinical Officer heads a HC III. HC IIs are parish-level (Muluka) health facilities whose services are limited to OPD. The in-charges of these lower HCs report to the DHO through the HSD in-charge.

In the management of medicines, health facilities have stock cards to track the movements and balance of all commodities stored at any place in the health unit. In as far as medicines stock outs are concerned; the stock cards provide useful information to know whether stock levels are sufficient, and whether the medicines are used properly. Health facilities are expected to complete information on the extent of stock-out monthly.

Health Unit Management Committees (HUMCs) are “voices” of the final beneficiaries of medicine. They are supposed to witness the arrival of medicines and ensure that the medicines actually reach the community. At HC IIIs and HC IIs, the committees serve as a link between the management of a health facility and the beneficiary community. They are expected to ensure a harmonious relationship between the health workers and the community. Findings however reveal that with the exception of Ogur HC IV and Lira Regional Referral Hospital, the other health facilities have almost nonfunctional HUMCs yet they have a key role in ensuring that medicines reach the community.

A MAP SHOWING THE DISTRIBUTION CHAIN OF ANTI MALARIAL MEDICINES TO PUBLIC HEALTH CENTERS IN LIRA DISTRICT



KEY

Anti-malarial medicines are categorized as third party supplies and National Medical Stores (NMS) is not responsible for their procurement. Donors pay National Medical Stores for storage and distribution.

Anti-malarial medicines are moved from Lira District health stores by a private freight company called three ways shipping services to the lower health facilities Health Centres II –IV.

National Medical Stores trucks deliver drugs directly to the district hospital (Lira Regional Referral Hospital).

National Medical Stores packs supplies in appropriately labeled packaging and generates a delivery note and invoice with an order number .

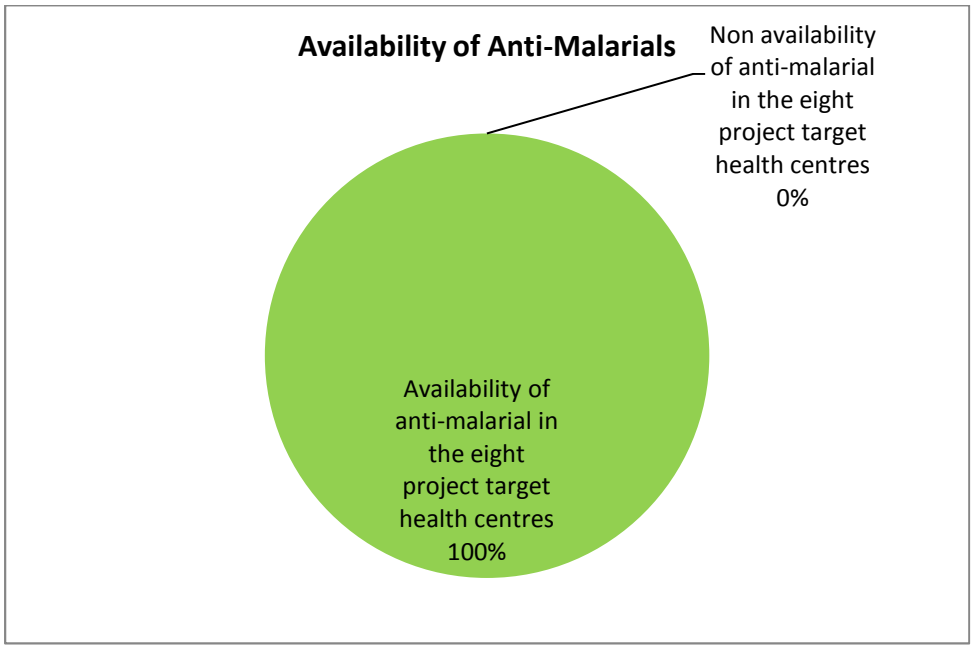
Anti-malarial drugs destined for Health Centre II-IV are dispatched by NMS to the Lira District Health Office and kept at the district stores were the last mile distributor contracted by NMS picks them.

3.2 Availability of Malaria Medicines in the Selected Public Health Centres

At the time of the survey, an attempt was made to establish the availability of anti-malaria medicines in the project target health centres. 100% of the project health centres at the time of the survey had free anti-malarials available. However the amounts in the stores varied with the lower health facilities expecting stock outs within two weeks. Lira regional referral Hospital and Ogur HC IV had substantial stocks to last them more than a month.

The in charges of the project target health centres were interviewed and the stock cards observed and stores checked to correlate the information given. With the exception of Lira Regional Referral Hospital and Ogur Health Centre IV the other health centres had partially filled stock cards.

Chart showing the availability of anti malarials



It was also observed during the time of the survey that the anti-malarial drugs available in the health facility stores were only labeled on the package and not the tablets which makes them prone to theft as they cannot be identified when sold in private drug shows.

Caption: Example of an anti-malarial drug labeled on a box

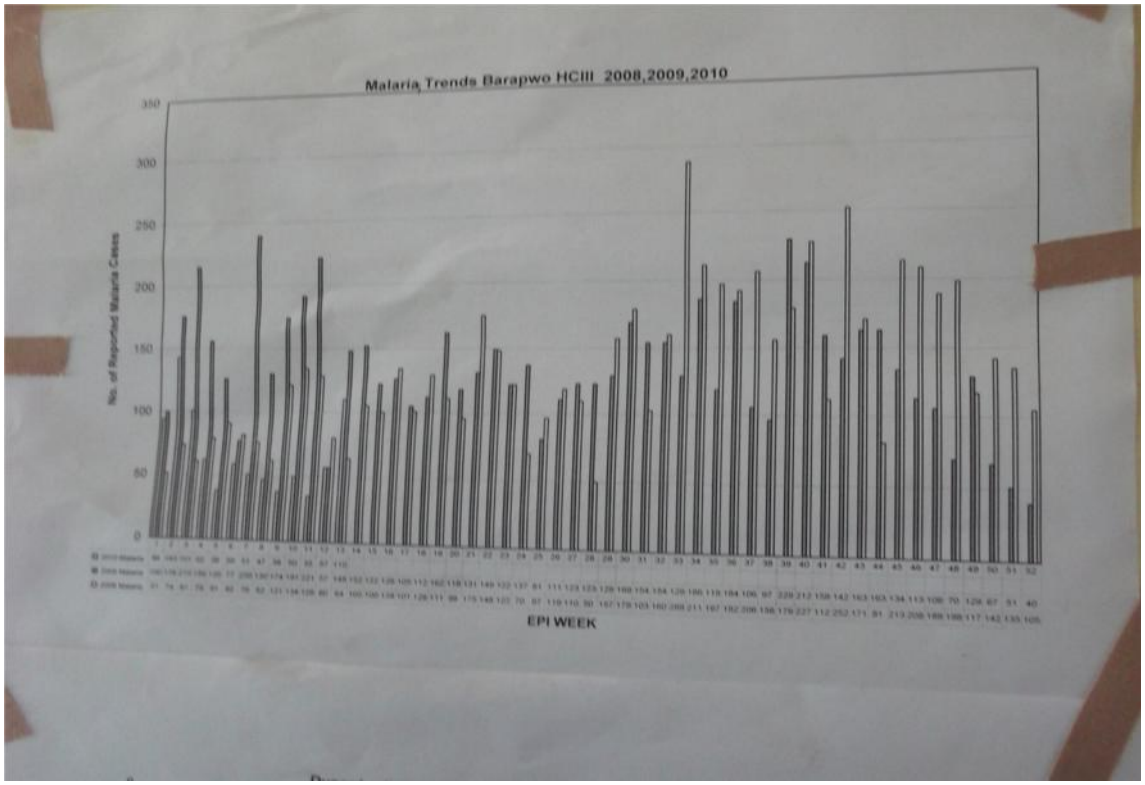
80 % of the health centres surveyed had experienced stock out on anti-malarial medicines in 2011. The survey further revealed that this can be attributed to several factors as explained below; the survey team noted that the availability of these anti malarials was dependent on several factors:

3.2.1 Drug Ordering System

The survey established that kit supply system is used for lower health facilities (HCII-HCIII). The lower health facilities don't determine the amounts of medicines needed for their respective health centres. Government pushes drugs to the lower health centres irrespective of the demand. The supply of anti-malarials continues to be inadequate given the high prevalence of malaria are very in the district.

3.2.1 High Incidences of Malaria

From observation of the malaria charts and patients registers, the survey team noted that malaria treatment was one of the most sought for treatment by the health facilities users. The prevalence rates of malaria were very high compared to other diseases. Stock outs of malarial drugs were more frequent than for the other drugs. It was also noted by the survey team that upon delivery of drugs by NMS, there is a rush for the medicines that leads to quick stock outs. As the in charge of Barapwo HC II noted "***families usually bring their members to claim dosage of medicines when they are not sick because they know the medicines will run out"***.



Caption: A sample of of a malaria prevalence graph from Barapwo Health Centre II for the past three years

3.2.3 Leakages of the medicines

a) Poor anti-malaria medicines management. Stock cards are not updated and properly filled making it difficult to ascertain whether the stock out is as a result of leakages or drug dispensation.

b) Several health users interviewed complained of drug theft though they did not have evidence to support such claims.

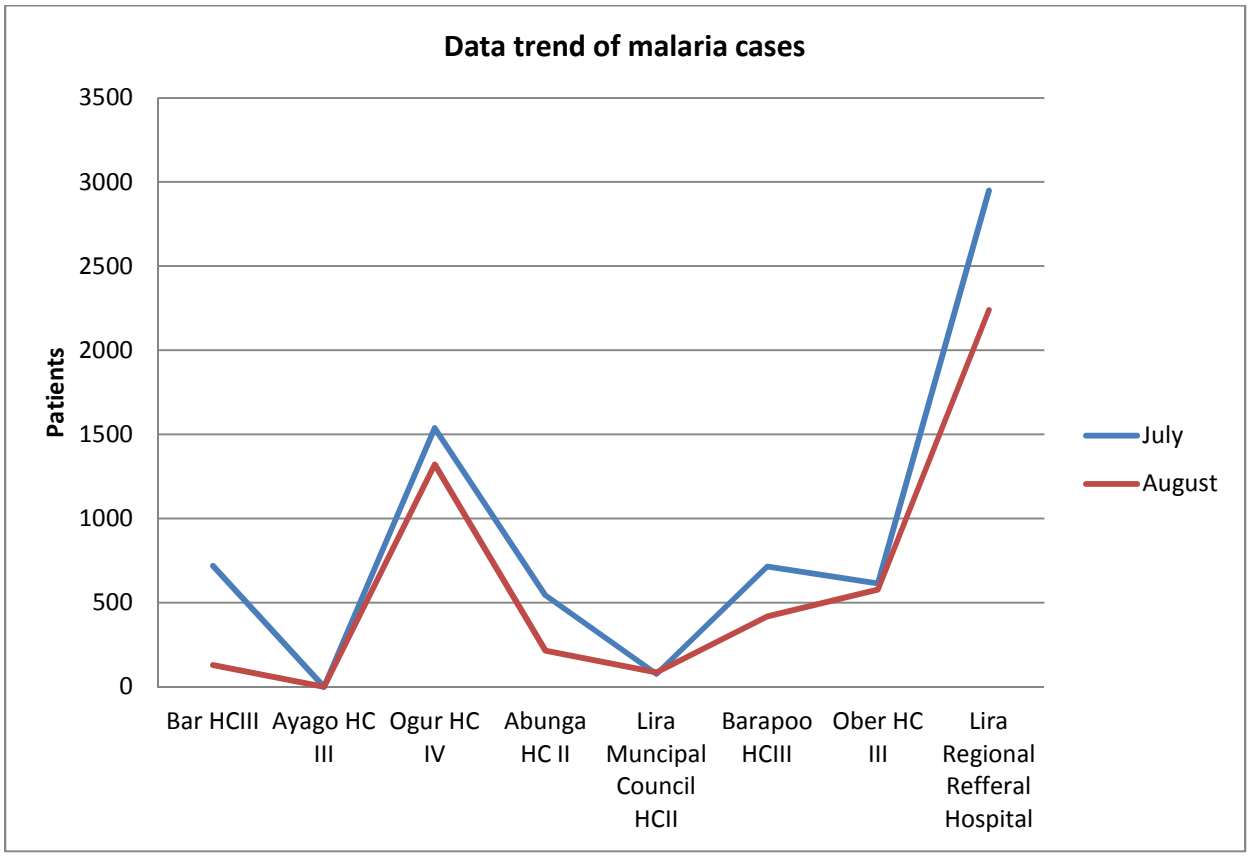
c) In some instances the quantities of anti-malarial drugs delivered by NMS through the private freight company do not match with the actual quantities on the delivery note.

3.3 Current Data on the number of malaria cases

The survey compiled data on the current number of malaria cases. Data was collected and compiled on the cases for the months of July and August at the project target health centres.

Findings from the survey indicate that Lira Regional referral hospital and Ogur Health centre had the highest number of patients seeking for malaria treatment for the months of July and August. This is attributed to the fact that a wide range of health services and health supplies are received by these facilities. They order for their supplies unlike the other lower health services that operate on the push system

Illustration showing the trends of malaria cases

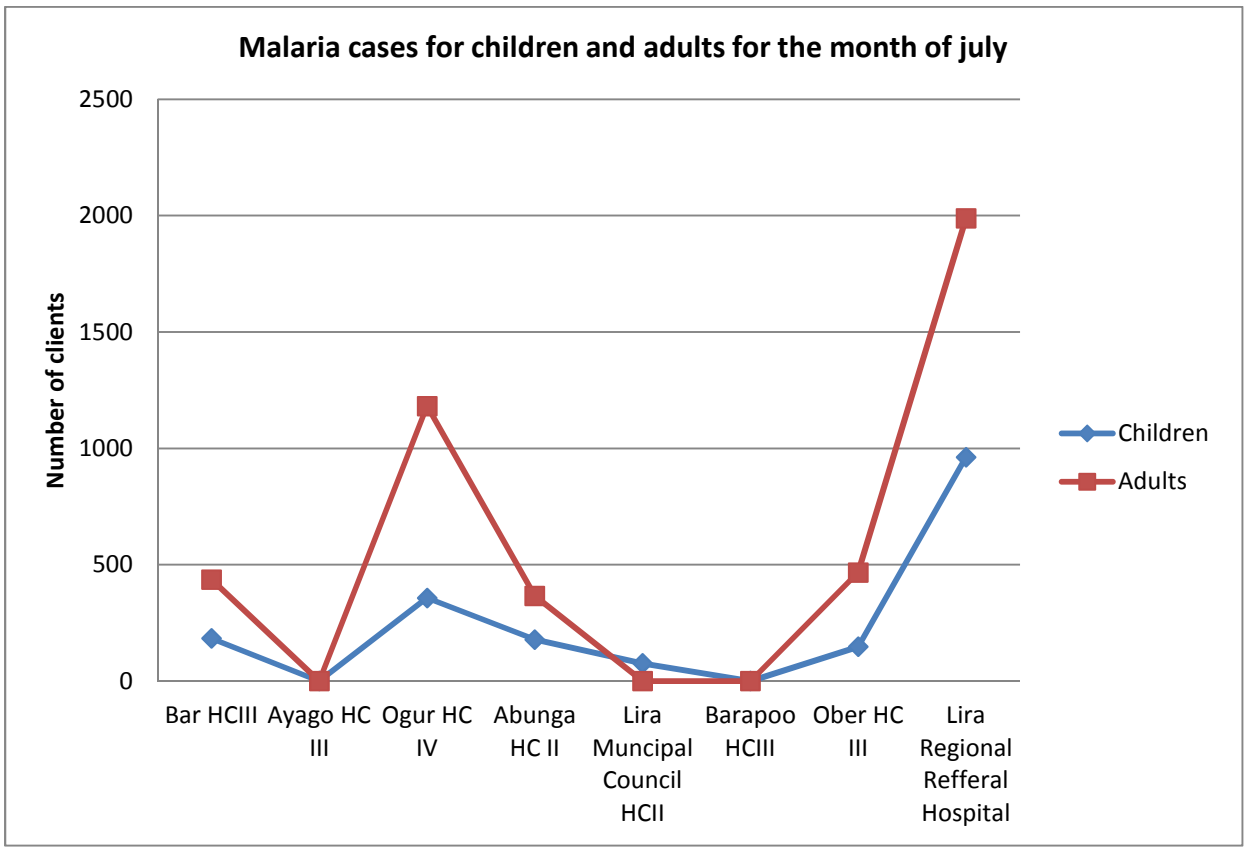


.

The process of compiling data on the trends of malaria further revealed that record management is poor in the lower health facilities as an attempt by the survey team to compile statistics for 2011 malaria data trends had scanty information being presented.

Note: Information from Ayago Health Centre III was not captured in these trends due to unavailability of records personnel to avail it to the survey team. Similarly a categorical breakdown of malaria cases at Barapwo was not availed at the time of the survey.

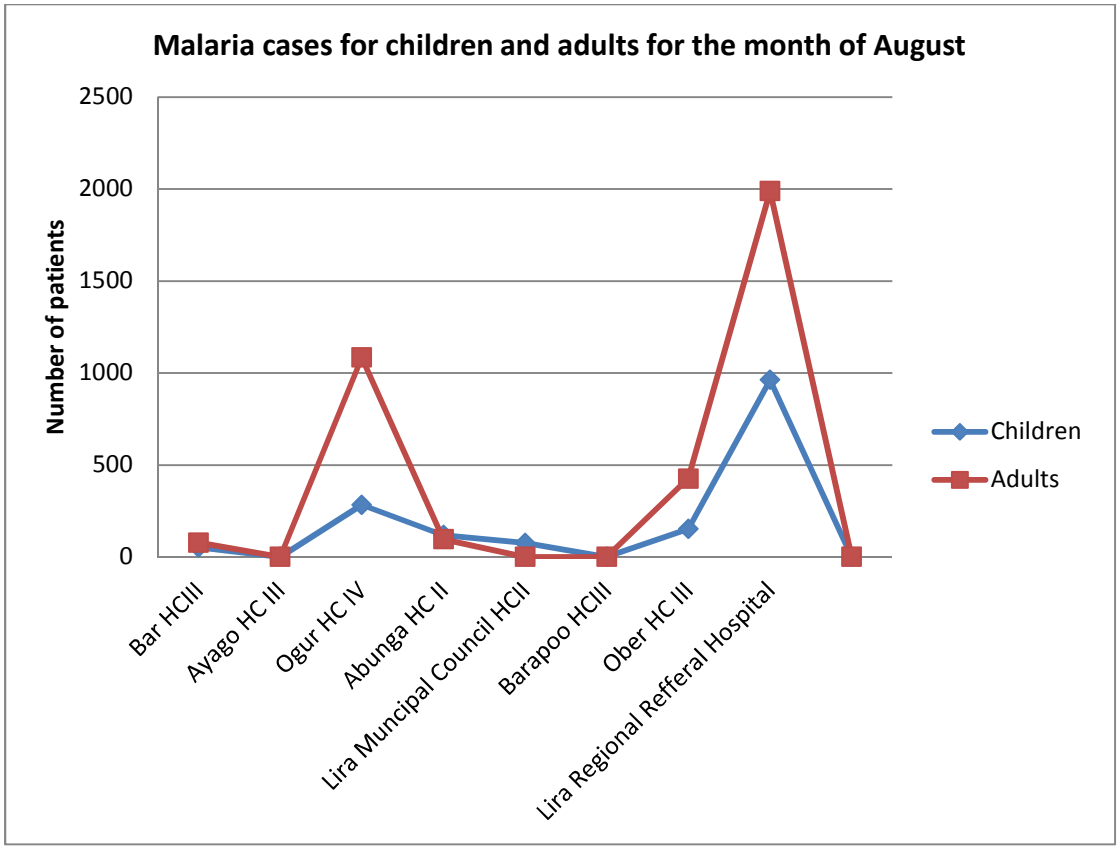
Chart showing cases of malaria for the month of July



Source: Primary data 2011

The survey further established that adults seek more malaria treatment than the children which can be interpreted that malaria in Lira District prevails more in adults than children. An attempt was made to compare who between the adults and children sought for malaria treatment in the months of July and August and this is illustrated by the graphs below.

Chart showing cases of malaria for the month of August 2011



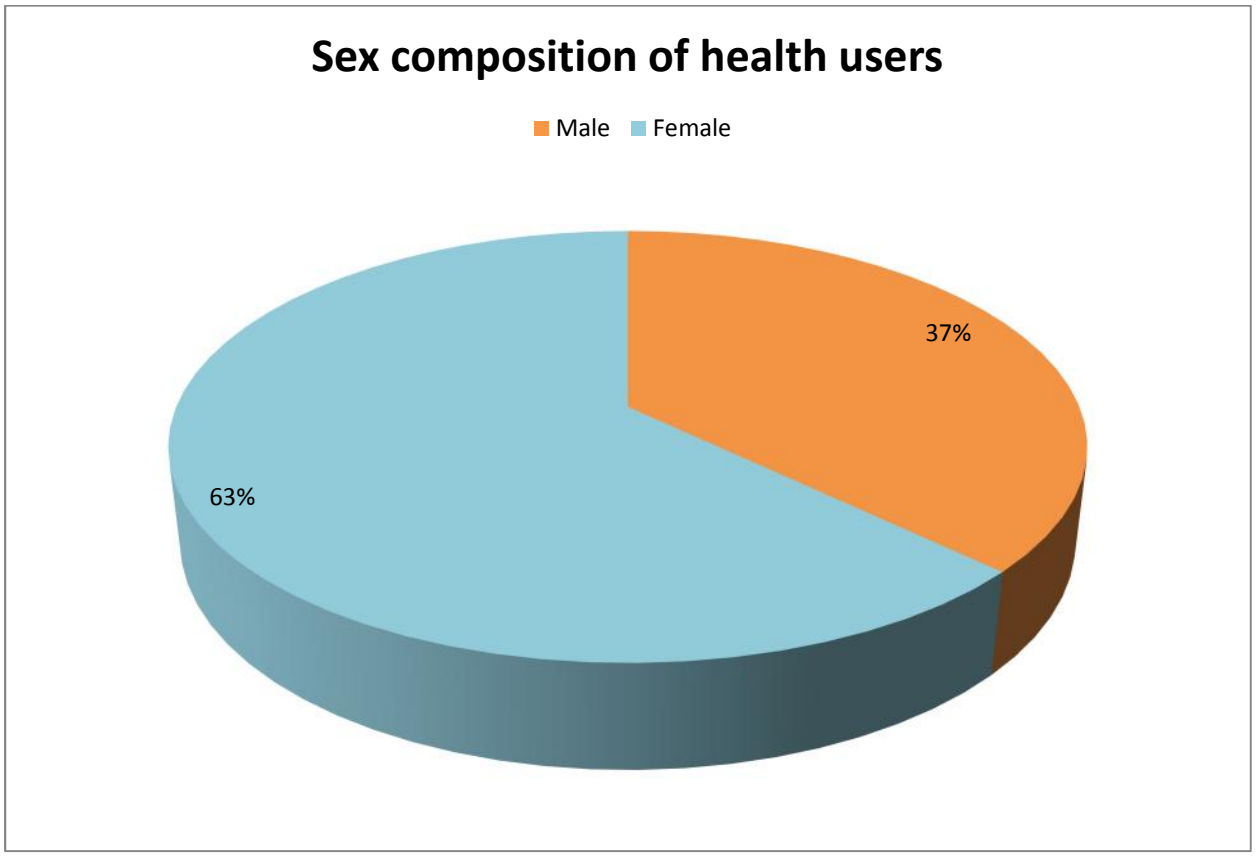
Source: Primary data 2011

The month of August similarly say incidences of malaria in adults outstrip those of children

3.4 Assessment of Health User Satisfaction

The survey assessed the user satisfaction at the eight project health centres. A total of 175 health users were engaged in Focused Group Discussions and interviews to ascertain their levels of satisfaction in the respective health centres they were found to be seeking health services. Of these 110 were female and 65 were male. This implied that more female visit health facilities more than the males in the eight project target health centres.

Illustration of the sex composition of health users

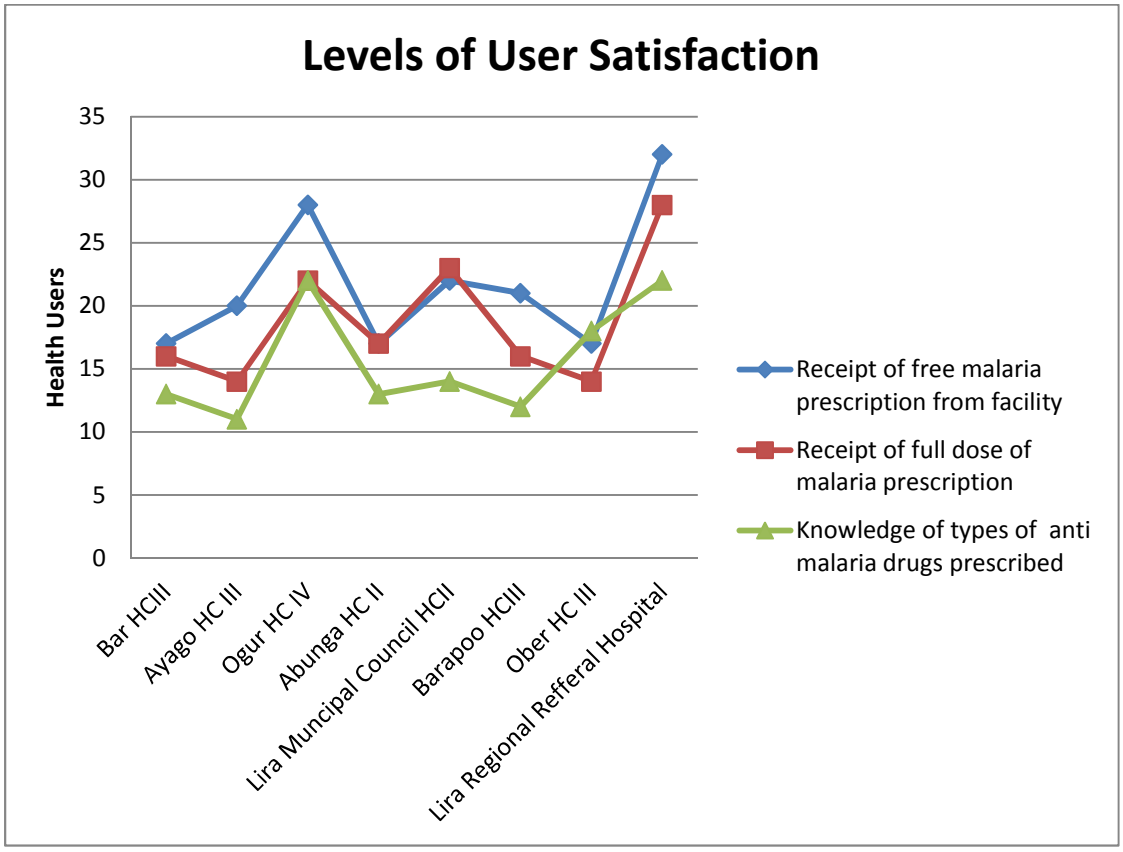


Source: Primary data 2011

3.4.1 Levels of accessibility and knowledge on anti-malarial medicine

The findings from the health user satisfaction further established that 99% of the health users found at the eight project target health centres had accessed free anti-malarial medicines from their respective health centres within Lira District. The survey team further discovered that 86% of the health users had received all the prescribed anti-malaria drugs. However 29% of the health users acknowledged not knowing the names of the anti-malarial drugs that were prescribed to them

Chart Showing Levels of Accessibility and Knowledge on antimalarial medicines

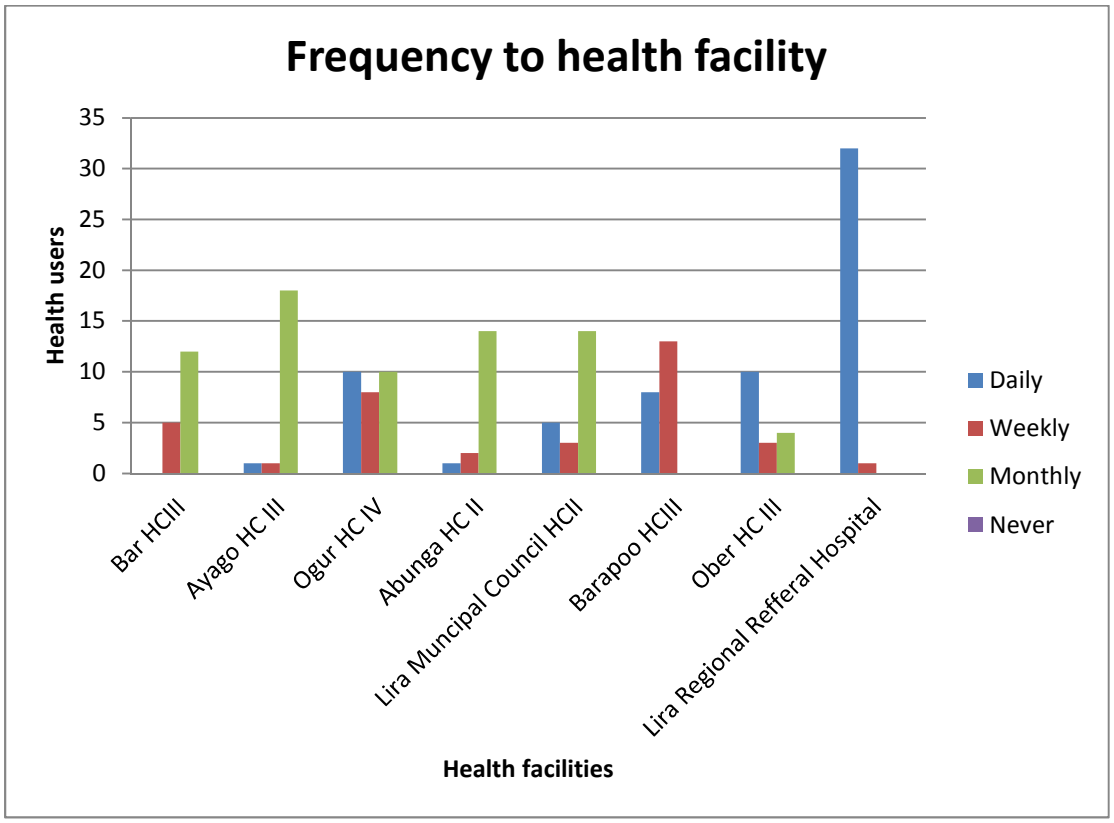


Source: Primary data 2011

3.4.2 Frequency of Visits to a Health Facility

The survey team further found out that 38% of the health users visit the project target health facilities on daily basis with 21% of the health users visiting the health centres on weekly basis and 41% of the health users visiting the project health centres monthly.

Graph Showing frequency of the health users to a health facility



Source: Primary data 2011

3.4.3 Challenges to user satisfaction

The survey team interacted with the health users and noted that there were problems that the health users faced in obtaining free anti-malarial medication and they include but are not limited to the following:

a) Long queues whenever anti-malarial medicines are available at the various project target health centres. Drugs are used up before all the patients receive the anti-malarial drugs.
b) Late coming by some health facilities Staff causing delays in availing the anti malarials to the patients. Desperate patients usually seek alternatives from nearby clinics/drug shops by purchasing anti-malarial drugs at a fee.
c) Insufficient supply of these free anti-malarial medicines vis- a vis the demand given the high prevalence rates of malaria in the catchment population of the project target areas.
d) Stock outs of anti-malarial medicines were a common occurrence in the lower health centres HC II –III, at Barapwo HC III the survey established that supplies are used up two weeks from the supply date.
e) Health users were ignorant of the expected delivery of new stock of anti-malarial medicines following stock outs at the lower health centres.
f) Absenteeism of staff from duty especially in the afternoon. Most of the lower health facilities surveyed by the team in the afternoon were closed by 1:00pm and had no staff to attend to patients while others had acting staff that lacked competencies in handling health related issues.
g) Poor attitude of some health workers towards to patients. Health users complained of rude treatment from some health workers.
h) The hygiene and sanitation of the lower health centres was appalling, there was poor disposal of waste like used gloves, cotton wool and wards were dirty.

i) In some instances the malaria dosage is partially administered to cater for the high demand which has further compounded the problem of malaria.

4.0 Recommendations

The baseline survey elicited recommendations from the survey participants and the following were key;

a) Review a kit supply system for lower-level health facilities. It was discovered that each health centre at the II and III levels receives one kit customized to that level of care six times annually regardless of the facility's catchment area population or patient load. Most of the lower health centres experience stock outs of anti-malarial medicines and other medicines as a result of this.
b) There is a need to reinvigorate the Health Unit Management Committees at the lower level health facilities especially given their role of ensuring transparency and accountability in the recieving of the medical supplies at the health facilities.
c) An assessment on the performance of the last mile distribution service provider contracted by NMS takes supplies to lower facilities should be carried out in liaison with the health facilities to ascertain the complaints of night deliveries and coercion in signing off .
d) MoH sets up a team to investigate complaints regarding drug leakages in Lira District.
e) There is need to emboss free anti-malarial tablets to counter leakages and theft of drugs from health centres.

f) There is need to strengthen the capacity of health facility staff in the Logistic Management and Information System especially at the lower health facilities to improve on record management.

g) The number of malaria testing kits and microscopes at the lower health facilities be increased to facilitate proper diagnosis of malaria illness.

h) As a strategy more effort should be put in home based management of malaria through the Village Health Teams and Community Medicine Distributors (It should be noted that these were trained but don't have medicine so they keep on referring people to the health centres for malaria treatment)

i) General welfare of the health workers be improved at if they are to effectively and efficiently deliver health services. Staff accommodation, remuneration and the general working conditions need to be reviewed.

5.0 Conclusion

Anti-malarial medicines constitute a large percentage of medical consignments from national medical stores to public health centres because malaria is the most endemic disease in Uganda registering the highest number of mortality and morbidity cases. Nearly half of hospital in-patients deaths among children under five are attributed to clinical malaria. Anti-malarial drugs also constitute most of the stolen medicines which in turn exacerbates malaria related morbidity and mortality.

There is need for a review and overhaul some areas of Uganda's health care with a specific focus on improving public access to free anti-malarial medicines in public health centres given the high prevalence of malaria in Lira district and Uganda.

Caption: A survey team member with health users at Ogur HC IV

Caption: Survey team member with the in charge of Barapwo HC II

6.0 Appendices

Appendix 1: Baseline Survey Guides
ANTI CORRUPTION COALITION UGANDA (ACCU)
Baseline Survey Guide for District Health Office

Date: Title of the person interviewed:

Mobile number…….....Gender:

Number of years you have worked at the District Health Office:

1. Who is the principle person for managing medical supplies (free anti malarials) to health facilities in Lira district?
2. How is the distribution of free anti-malarials done by the District Health Office to health facilities in Lira?
3. What mechanisms does the District Health Office have in place to ensure that drugs (free anti malaria medicines) reach their intended destination?
4. Who determines the quantities of medicines ordered at the district?
5. What is the procedure for ordering anti malarial drugs?
6. What type of free anti-malarial medicines (product name) is supplied by NMS to the health centers in Lira District?
7. How often are free anti-malarial medicines supplied to health centers in Lira District.
8. When was the last supply of free anti malaria medicines done in Lira District?

10 . Who transports the drugs (anti malarials) to the different health centres in Lira District?

11. What type of transportation is used to deliver this medicine to the different health centres?

12. On average approximately how long does it take to distribute the medicines (anti malarials) to the various health centres in Lira District?

13. What distinguishes free anti-malarial medicines supplied by NMS from other malarial medicines?

14. What is the delivery chain of malaria medicines and how are they distributed from the district?
15. Who are the main actors in the medicine delivery chain at the district?
16. What recommendations would you make to ensure availability of anti-malarial medicines in all the health facilities in Lira District.

THANK YOU VERY MUCH FOR YOUR TIME

ANTI CORRUPTION COALITION UGANDA (ACCU)

Baseline Survey Guide for National Medical Stores

Date……..Title of the person interviewed……

Mobile number……..Gender……

Number of years you have worked at NMS…

1. Who is the principle person for managing medical supplies (free anti malarials) to health facilities ?
2. How is the procurement and supply of free anti-malarials done by National Medical Stores to health facilities in Lira?
3. What mechanisms does the National Medical Stores have in place to ensure that drugs (free anti malaria medicines) reach their intended destination?
4. How does NMS determine the quantities of free anti-malarial medicines to supply to the health centers in Lira District?
5. What type of free anti-malarial medicines (product name) are supplied by NMS to the health centers in Lira District?
6. How often are free anti-malarial medicines supplied to health centers in Lira District.
7. When was the last supply of free anti malaria medicines done in Lira District?
8. Who transports the drugs (anti malarials) to the different health centres in Lira District?
9. What type of transportation is used to deliver this medicine to the different health centres?
10. On average approximately how long does it take to distribute the medicines (anti malarials) to the various health centres in Lira District?

11. What distinguishes free anti-malarial medicines supplied by NMS from other malarial medicines?

12. In your view how can leakages of free anti-malaria medicines in Uganda's health Sector be prevented?

THANK YOU VERY MUCH FOR YOUR TIME

ANTI CORRUPTION COALITION UGANDA (ACCU)

Baseline Survey Guide for Health Facility Staff in Lira District

Health facility……..facility code……...Date……

Title of the person interviewed……Mobile number……

Number of years you have worked in this facility……..

Catchment population of the facility……..

Total number of staff…….

1. Who is the principle person for managing medical supplies at this facility?
2. What is the level of availability of anti-malarial drugs at this health facility ?
3. How is drug supply and procurement of free anti malarials done at this facility?
4. What stock keeping logistics do you use to manage the health products (free anti malarials) in this facility?
5. What Logistic Management and Information system do you use for reporting/ordering?
6. What are the current trends of malaria in your health facility?
7. What is the level of availability of anti malarials in the public health centres?
8. For how long do the anti-malarial supplies last in your health facility?
9. When was the last time you sent an order/report for the free anti malarial medicines at this facility?
10. Who determines the facility's resupply quantities?
11. How many cases of malaria have your handled in the past two months?
12. Who is responsible for transporting these anti malarial medicines at your facility?

13. What type of transportation is often used?
14. On average approximately how long does it take between ordering and receiving anti malarial medicines.
15. What is the level of health user satisfaction in regard of the malarial medicines?
16. When did you receive your most recent supervision visit?
17. What are the challenges facing the availability of anti-malarial medicines?
18. What recommendations would you make to ensure availability of anti-malarial medicines.

THANK YOU VERY MUCH FOR YOUR TIME

ANTI CORRUPTION COALITION UGANDA (ACCU)

Baseline Survey Guide for Focused Group Discussion

1. Have you received a free malaria prescription from this facility?
2. What are the names of the free malaria drugs that were prescribed to you?
3. Did you receive all the prescribed free anti malaria drugs?
4. What did the health workers tell you about the drugs you did not received?
5. Did you pay for the malaria drugs received?
6. How much did you pay?
7. What problems do you face in obtaining free anti malaria medication?
8. How often do you use this facility?
9. Is there a place in your community where you can buy anti-malarial drugs?
10. Are the anti-malarial drugs available whenever you need them at this health facility?
11. What recommendations would you make to ensure availability of anti-malarial medicines

THANK YOU VERY MUCH FOR YOUR TIME

Appendix 2: Baseline Survey Participants

Number of Participants	Category	Designation/Health facilities
25	Representatives from key institutional players in drug delivery from NMS	District Health Officer, Senior Clinical Officers, Nurses, Doctors, Pharmacy Assistant, Ophthalmic Clinical Officer, Members of the Health Unit Management Committees, Stores Assistants, Medical superintendent, transport and Logistics officer(NMS) ,and Deputy RDC Lira
175	Health Users	Lira Regional Referral Hospital, Ogur HC IV, Barapwo HC II, Lira Municipal Council HC II, Abunga HC II, Bar HC III, Ayago HC III and Ober HC III

Appendix 3: List of Documents Reviewed

1. Economic Policy Research Centre, Governing Health Service Delivery in Uganda: A Tracking Study of Delivery Mechanisms (January 2010).
2. FHRI, Lira district Baseline Survey Report
3. Government of Uganda health sector strategic plan III 2010/2011-2014/2015).
4. Government of Uganda, Assessment of the Essential Medicines Kit-Based Supply system in Uganda
5. Government of Uganda, The Second National Health Policy (NHP 2010/19)
6. http:www.holyinnocentsuganda.com/childhooddiseaseinuganda.htm
7. Medicines and Health Service Delivery Monitoring Unit Annual Report 2010
8. MoH, Annual Health Sector Performance Report 2010/11
9. MoH, Stock status report August 2011
10. Taryn V, Corruption in the Health Sector 2002