



# RAPID ASSESSMENT OF THE NEW MALARIA TREATMENT POLICY IMPLEMENTATION

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**UPHOLD**

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ACRONYMS

ACT	Artemisinin-based Combination Therapy
CQ	Chloroquine
DDHS	District Director of Health Services
DHT	District Health Team
EANMAT	East African Network for Monitoring Antimalarial Treatment
GAFATM	Global Fund to Fight Aids, Tuberculosis and Malaria
HC II	Health Centre II
HC III	Health Centre III
HC IV	Health Centre IV
HMIS	Health Management Information System
IPT	intermittent preventive treatment
JMS	Joint Medical Stores
MFP	Malaria Focal Persons
MoH	Ministry of Health
NDA	National Drug Authority
NMS	National Medical Stores
OPD	Out-Patient Department
SP	Sulfadoxine/Pyrimethamine

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- The health facility in-charges and other health workers within the health facilities (see table ) for their cooperation and assistance

## EXECUTIVE SUMMARY

The burden of disease due to malaria in Uganda is unacceptably high and the resistance of the malaria parasites to Chloroquine (CQ) and Sulfadoxine/Pyrimethamine (SP) has aggravated the situation. Because of this, in May 2004, the Ministry of Health decided to change the malaria treatment policy from CQ+SP combination to the more effective artemisinin based combination therapy (ACT).

The process of rolling out the new policy which started in May 2004 involved many players and activities and was not completed till May 2006. The main components of the rolling out process included: the development, production and distribution of guidelines and work aids; sensitisation of leaders and the public to the new malaria treatment policy; orientation and training of health workers on the management of malaria according to the national policy guidelines; and procurement and distribution of the recommended antimalarial medicines and other supplies essential for the management of malaria.

In September 2006 UPHOLD gave an assignment to Dr. Kato and Dr. Byarugaba to rapidly assess the implementation status of the new malaria treatment policy. Specifically they were to assess: the training of health workers; the availability of treatment guidelines and work aids; the availability of COARTEM® and other antimalarial medicines; the prescription practices of the health workers; and the opinions and experiences of health managers and health workers within districts.

### Districts and health facilities assessed

Twelve UPHOLD supported districts representative of the eastern (Kaliro, Pallisa and Amuria) central (Mubende, Rakai and Wakiso) northern (Yumbe, Amolatar and Gulu) and western (Ibanda, Kyenjojo, Rukungiri) areas of the country were selected for rapid assessment. In each of the 12 districts it was agreed to assess the office of the DDHS and five health facilities. Altogether sixty health facilities were assessed.

### Availability of guidelines and work aids

The most commonly available guide was *'Management of Uncomplicated malaria, a Practical Guide for Health workers, 3<sup>rd</sup> Edition, December 2005'*. It was present in 51 (93%) of the 60 health facilities and health workers had personal copies. Availability of the other four guidelines within health facilities was not satisfactory. Only 11 (18%) of the 60 health facilities had all the five types of guides and 5 health facilities had none.

### Availability of COARTEM® within health facilities

Most health facilities had all the four types of COARTEM® (i.e. YELLOW, BLUE, BROWN and GREEN). Some health facilities lacked one or more of the dosage types (usually BLUE and BROWN) while others lacked all. For example, at the time of the survey, health facilities in Amuria District which were visited did not have any COARTEM® at all.

### Availability of antimalarial medicines other than COARTEM®

Antimalarial medicines other than COARTEM® registered by the National Drug Authority were found in all the health facilities visited. The most widely available antimalarial medicines were: Quinine injection, Chloroquine injection, Sulfadoxine/Pyrimethamine tablets, Quinine tablets, Chloroquine tablets, Amodiaquine tablets, Homapak Red tablets and Homapak Green tablets. Artemisinin derivatives such as Artesunate tablets, Artemether tablets and Dihydroartemisinin tablets were scarce.

### Health workers trained

The total number of health workers in the 60 health facilities was 1,298 and 1,011 (78 %) had been trained in the management of malaria according to the new policy guidelines. Apart from three health



facilities in Wakiso District where none of their health workers had been trained the rest of the health facilities had some or all of their health workers trained.

#### Health workers' prescription practices

Analysis of records in the OPD registers during one month when all the 4 dosage types of COARTEM® were available showed that the overall proportion of prescriptions for malaria that were COARTEM® prescriptions for all patients was 41% (Range: 12% ~ 70%). Among patients aged less than 5 years the proportion of COARTEM prescriptions was 42% (Range: 10% ~ 73%) and among those aged 5 years and above it was 40% (Range: 14% ~ 70%).

#### OPD attendances due to malaria

Analysis of HMIS data of the 60 health facilities showed that the overall proportion of malaria cases in the 60 health facilities in 6 months for all age groups was 47% (Range: 31% ~ 69%). The proportion of attendances due to malaria among patients aged less than 5 years was 62% (Range: 42% ~ 85%) and that for patients aged 5 years and above was 42% (range 23% ~ 59%).

#### Opinions of health managers and health workers

Generally there was a positive attitude towards the use of COARTEM® to treat uncomplicated malaria. Health workers and patients appeared to like COARTEM® because, apart from its perceived efficacy, it is not bitter and it does not cause itching like Chloroquine. Pre-packaging of COARTEM® into four dosage types appeared to be another factor in its favour. However there were a few complaints about the need to swallow so many tables and occasional cases of failure to get relief for those patients who were presumptively treated with COARTEM® although, apparently, their fevers were not caused by malaria.

#### Conclusions and recommendations

The training of health workers was successfully done. It appears all health workers who were available in health facilities at the time of the training were trained. There is need for a 'mop up training' for the untrained health workers.

At the time of the assessment only one guide entitled '*Management of uncomplicated malaria, a Practical Guide for Health workers 3<sup>rd</sup> Edition, December 2005*' was widely available and in use within health facilities. Availability of other guidelines was not satisfactory. There is need to distribute the already printed guides and work aides. If there is still a gap left more guides should be printed and distributed.

At the time of the survey the availability of COARTEM® the health facilities was erratic. This was due to weaknesses in the supply chain system. There is need to put in place a reliable supply chain system from National Medical Stores to the health facilities.

Antimalarial medicines other than COARTEM which are registered by NDA were widely available and in use within the health facilities. A national mechanism for the selective gradual phasing out of antimalarial monotherapies to the health facilities and reliable replacement with ACTs should be put in place.

The prescriptions of COARTEM® as first line treatment for malaria were below expectations in many health facilities. The health workers need be reminded that COARTEM® must be used as first line treatment of uncomplicated malaria unless it is contraindicated.

The proportions of out-patient attendances due to malaria were alarmingly high. There is urgent need to increase coverage of preventive measures such as the use of insecticide treated mosquito nets in addition to making early diagnosis and prompt treatment with effective antimalarial medicines universally accessible.

There were occasional cases of failure to get relief for those patients who were presumptively treated with COARTEM® although, apparently, their fevers were not caused by malaria. This points to the need for parasitological confirmation of malaria diagnosis especially in adults.

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## 1. INTRODUCTION

In May 2004, the Ministry of Health decided to change the malaria treatment policy from CQ+SP combination to the more effective artemisinin based combination therapy (ACT). This new policy was launched officially on 25th April 2006. The process of implementing the new policy which started in May 2004 involved many players and activities and was not completed till May 2006.

In September 2006 UPHOLD gave an assignment to Dr. Kato and Dr. Byarugaba to rapidly assess the implementation of the new malaria treatment policy. This is the report of their findings.

## 2. BACKGROUND

The burden of disease due to malaria in Uganda is unacceptably high and the resistance of the malaria parasites to Chloroquine (CQ) and Sulfadoxine/Pyrimethamine (SP) has aggravated the situation. This is what prompted the Ministry of Health to change the malaria treatment policy from CQ+SP to ACT and a cascade of training workshops was conducted to train the health workers.

### 2.1 The burden of disease due to malaria in Uganda

In Uganda malaria causes more illness and death than any other single disease. It is officially reported to be responsible for 25-40 % of out-patient attendances; 20 % of in-patient admissions; and 9-14% of deaths among in-patients (20-23% of deaths among those aged less than five years). It is estimated that 70,000 to 110,000 malaria-specific deaths occur every year.

Malaria contributes to poor academic performance in schools. Some of the children who recover from cerebral malaria have neurological and cognitive sequelae which affect their learning abilities. Also children who are sick don't attend classes and teachers who are sick don't teach.

Malaria is a major contributor to poverty in Uganda. Sickness due to malaria causes loss of days of gainful work for the patient and the caretakers in addition to the actual expenditure on treatment and nursing. Also preventive measures are expensive. The annual per capita expenditure on malaria is estimated to be US\$24.7. Most of this cost is met by individuals and households.

### 2.2 The reasons for the malaria treatment policy changes

A major factor contributing to the large burden of disease due to malaria in Uganda is the emergence of *P.falciparum* resistance to the commonly used antimalarial medicines, Chloroquine (CQ) and Sulfadoxine/Pyrimethamine (SP).

*P.falciparum* resistance to CQ was first reported in East Africa in 1979, and it was first demonstrated in Uganda in 1988. By the year 2000 it had become unacceptably high. The average CQ clinical treatment failure was 30% (ranging from 10% to 48%) and that of SP was 10% (ranging from 0% to 19%). This CQ clinical failure had exceeded 25% which was the cut off point at that time at which WHO recommended a change in malaria treatment policy. Therefore in June 2000 a national consensus building meeting recommended changing from monotherapy to combination therapy and the combination of CQ + SP was chosen as an interim measure while waiting for more effective and affordable alternatives. This interim policy was officially launched by His Excellency the President of Uganda on June 17<sup>th</sup> 2002.

Resistance of *P. falciparum* to the CQ+SP combination rose rapidly and by 2004 the mean clinical failure was 21.4 % (range 3- 45%) after 14 days' follow up. This CQ+SP clinical failure had exceeded 15% which was the cut off point, at that time, at which WHO recommended a change in malaria treatment policy.

On the 17<sup>th</sup> of May 2004 the malaria treatment policy was changed from CQ+SP combination therapy to artemisinin based combination therapy (ACT) for the treatment of uncomplicated malaria.

### **2.3 The current malaria treatment policy, launched on 25<sup>th</sup> April 2006**

Now the malaria treatment policy is as follows:

- For the treatment of uncomplicated malaria artemisinin combination treatments (ACTs) should be used. Artemether/Lumefantrine is the ACT selected by the Ministry of Health (MoH) as the first line treatment for uncomplicated malaria and the alternative ACT is Artesunate+Amodiaquine. Artemether/Lumefantrine and other ACTs are not recommended for children below 5 kg body weight (or 4 months of age) and pregnant women during the first trimester. The recommended second line medicine for uncomplicated malaria is oral quinine for all patients.
- For the treatment of severe malaria parenteral quinine is the recommended treatment for all patients. Parenteral artemisinin derivatives may be used if quinine is contraindicated or not available. Artemisinin derivatives should not be used during the first trimester of pregnancy.
- For the intermittent preventive treatment (IPT) of malaria in pregnancy Sulfadoxine/Pyrimethamine (SP) is the recommended medicine.
- For the treatment of uncomplicated malaria in pregnant women during the first trimester and children below 5Kg body weight quinine should be used instead of ACTs. After the first trimester and for children above 5Kg body weight, Artemether/Lumefantrine and other ACTs may be used.

This new malaria treatment policy was officially launched by the Rt. Honourable Prime Minister of Uganda, on behalf of His Excellency the President of Uganda, on 25<sup>th</sup> April 2006 during the commemoration of Africa Malaria Day.

Having decided that the malaria treatment policy should be updated to include the more effective artemisinin based combination therapies (ACTs) the MoH:

- updated the existing malaria treatment guidelines and work aids to comply with the new malaria treatment policy
- trained health workers on management of malaria according to the new malaria treatment policy
- procured Artemether/Lumefantrine (COARTEM<sup>®</sup>) for use in public and private-not-for-profit health facilities

### **2.4 The training cascade**

On the 11<sup>th</sup> of January 2006 a one-day briefing of a core team of 30 national level trainers of trainers met to familiarise themselves with the resource materials and to agree on the training process.

The training of district level trainers was done in two large two-day workshops facilitated by the core team of 30 national level trainers of trainers. The first workshop took place on 14<sup>th</sup> and 15<sup>th</sup> February 2006 and the second took place on 17<sup>th</sup> and 18<sup>th</sup> February 2006. Altogether for the 2 workshops, out of a total of 712 participants expected 588 (83%) turned up.

The training of health workers within districts started in the week beginning Monday 20<sup>th</sup> March 2006 and by the end of May 2006 trainings in all districts had been completed. Each district was allocated a supervisor from the centre and also the District Director of Health Services (DDHS) was assigned as a supervisor<sup>1</sup>.

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<sup>1</sup> The supervisors were responsible for sensitising the district leaders to the new malaria treatment policy before the training of health workers commenced and for supervising the actual training of the health workers. They also served as backup trainers.

In every district, before the commencement of the training of health workers, the facilitators held a one-day seminar to sensitise the district leaders to the new malaria treatment policy. The actual training of health workers was done by the trainers from within the district who had already been trained during the training of district level trainers' workshops. Ideally two workshops were supposed to be conducted at each health facility. However, in practice, health workers from Health Centre II were trained at the nearest higher level unit. Table 1 is a summary of the planned versus the actual numbers trained at each stage of the cascade.

**Table 1: Numbers of health workers trained throughout the country**

Activity	Output	Planned number	Actual number	% trained
Briefing of a core team of national level trainers	Trainers of trainers	30	30	100%
Training of district level trainers	Trainers of health workers	712	588	83%
Training of health workers	Trained health workers	35,153	30,473	87%
<b>Overall</b>		<b>35,895</b>	<b>31,091</b>	<b>87%</b>

### 3. OBJECTIVES

#### 3.1 General objective

The general objective was to rapidly assess the implementation status of the new malaria treatment policy.

#### 3.2 Specific objectives

The specific objectives were to assess:

- i. the availability of updated treatment guidelines and work aides as perceived at district level and according to observations made at health facility level
- ii. the availability of COARTEM® as perceived at district level and according to health facility stores records
- iii. the availability of antimalarial medicines other than COARTEM® as perceived at district level and according to health facility stores records
- iv. the proportion of health workers trained in malaria case management according to the new malaria treatment policy as recorded at district level and health facility level
- v. the malaria prescription practices of the health workers when COARTEM® was available within health facilities
- vi. the proportion of outpatient attendances that were due to malaria as recorded at district level and health facility level
- vii. the opinions of the DHT and health workers regarding the new malaria treatment policy implementation

### 4. METHODOLOGY

- i. With guidance from Dr. Mpeka of UPHOLD, Dr. Kato and Dr. Byarugaba developed a tool in the form of a checklist for use in collecting essential information from the districts and health facilities

- ii. A meeting was organised by UPHOLD in which Dr. Kato and Dr. Byarugaba presented the tool to malaria zonal coordinators and UPHOLD officers. During this meeting the tool was studied and improved and 12 districts were selected for rapid assessment. In each of the 12 districts it was agreed to assess the office of the DDHS and five health facilities. The health facilities to be assessed were to include 1 hospital, 1 HC IV, 2 HC III and 1 HC II for districts with hospitals; and 2 HC IV, 2 HC III and 1 HC II for districts without hospitals. The selected districts with corresponding zonal coordinators and UPHOLD officers are shown in table 2.
- iii. The zonal coordinators with assistance of officers from within the districts then collected information from the districts and health facilities.
- iv. After the information collection was completed UPHOLD arranged a meeting in which the zonal coordinators made general comments about their field experiences. Dr. Kato and Dr. Byarugaba were among the facilitators of this meeting.
- v. Dr Kato and Dr Byarugaba with the assistance of Computer Experts (Mr. Mugagga and Mr. Kitto who did data entry and analysis using Epiinfo and Excel) produced this report.

**Table 2: The districts selected for rapid assessment**

	District	Zone	Zonal Coordinator	UPHOLD Officer
1.	Amolatar	Gulu	Dr. Kilama	JCOkello
2.	Amuria	Soroti	Dr. Engoru	JC Okello
3.	Gulu	Gulu	Dr. Kilama	Christine Lalobo
4.	Ibanda	Mbarara	Dr. Bagenda	Richard
5.	Kaliro	Jinja	Dr. Wanume	Martin Ndifuna
6.	Kyenjojo	Hoima	Dr. Mulwooza	Betty Mpeka
7.	Mubende	Fort Portal	Dr. Okui	Silvanus
8.	Pallisa	Mbale	Dr. Amongin	Naomi Nakamatte
9.	Rakai	Masaka	Dr. Kamugisha	Silvanus
10.	Rukungiri	Kabale	Dr. Tumwesigire	John Tumwesigye
11.	Wakiso	Kampala	Dr. Atai	Silvanus
12.	Yumbe	Arua	Dr. Ondoa	Christine Lalobo

## 5. RESULTS AT DISTRICT LEVEL

At district level information was obtained by interviewing members of the District Health Team (DHT) particularly the DDHS and the District Malaria Focal Person and by examining district level records, particularly the HMIS

### 5.1 Contacts of District Directors of Health Services (DDHSs) and Malaria Focal Persons (MFPs)

The telephone contacts of the DDHSs and MFPs of the 12 selected districts are recorded in Appendix 1 to enable those who read this report and would like more information to talk to them directly.

### 5.2 Health services delivery structure in the 12 districts

The total number of health facilities in the 12 districts was 551. These included 325 (59%) HC II; 181 (33%) HC III; 25 (5%) HC IV; and 20 (4%) hospitals.

The majority of the health facilities were owned by the public sector. Of the 325 HC II, 233 (72%) were public while 92 (28%) were private; of the 181 HC III, 132 (73%) were public while 49 (27%) were private; all the HC IV were public; and of the 20 hospitals 10 (50%) were public and 10 (50%) were private. Overall the public sector owned 400 (73%) of the health facilities while the private sector owned 151 (27%).

Table 3 is a summary of the health services delivery structure and appendix 2 is a more detailed record of the same information.

**Table 3: Summary of the health services delivery structure in the 12 district**

District	Health Centre 2		Health Centre 3		Health Centre 4		Hospital		Total	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
Amolatar	7	2	2	0	1	0	0	1	10	3
Amuria	16	4	7	3	2	0	0	0	25	7
Gulu	21	8	9	3	3	0	3	2	36	13
Ibanda	26	1	6	1	2	0	0	1	34	3
Kaliro	3	5	4	1	1	0	0	0	8	6
Kyenjojo	12	6	14	4	3	0	0	0	29	10
Mubende	28	7	8	2	2	0	1	0	39	9
Pallisa	10	3	27	7	3	0	1	1	41	11
Rakai	47	10	22	12	1	0	3	0	73	22
Rukungiri	22	26	9	1	2	0	0	2	33	29
Wakiso	37	18	18	13	5	0	1	3	61	34
Yumbe	4	2	6	2	0	0	1	0	11	4
Total	233	92	132	49	25	0	10	10	400	151
Proportion (%)	72%	28%	73%	27%	100%	-	50%	50%	73%	27%
Total (Public + Private)	325		181		25		20		551	
Proportion (%)	59%		33%		5%		4%		100%	

### 5.3 Experience of malaria treatment policy implementation as recorded at district level in 12 UPHOLD supported districts

#### 5.3.1 Training of health workers according to reports of the DHTs

According to the DHTs the training of health workers was successfully carried out in the 12 UPHOLD supported districts which were assessed. However records of the numbers trained were not available within five of the districts. In these districts all records of the training had been collected by the supervisors and taken to MoH Headquarters and no copies were available at district level. The districts where complete data were available had a total of 1,803 health workers and 1,360 (75%) of them had been trained in malaria case management according to the new malaria treatment policy. The proportion of health workers who had been trained varied from district to district. It ranged from as low as 21% to as high as 100%. Table 4 is a summary of the proportions of health workers trained in the 6 districts where information was available. A more detailed record is in appendix 3.

**Table 4: Proportion of Health workers trained in 6 districts where records of the training were available.**

District	All Health Workers	Those trained	Proportion Trained
Amolatar	142	142	100%
Amuria	102	96	94%
Ibanda	90	90	100%
Rakai	618	525	85%
Rukungiri	502	433	86%
Yumbe	349	74	21%

Overall	1,803	1,360	75%
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### 5.3.2 Availability of treatment guidelines and work aids according to reports of the DHTs

Five guidelines and work aids were printed using funds from GFATM for distribution to health facilities throughout the country. Members of the DHT in each district were asked to express their opinion as to which of those updated guidelines and work aids were available anywhere in their district. According to their replies, availability varied from district to district.

The book entitled *Management of uncomplicated malaria, a Practical Guide for Health workers 3<sup>rd</sup> Edition, December 2005* was reported to be available in all the 11 districts. This book was distributed during the roll out of the new malaria treatment policy from March to May 2006 and each health worker received a personal copy during the training workshops. Whereas five of the 11 districts (Ibanda, Mubende, Pallisa, Rukungiri and Yumbe) had all the five types of guidelines, Amuria District had only one type. Table 5 is a summary of the opinions of the DHTs regarding the availability of guides in their districts.

**Table 5 Availability of treatment guidelines and work aids**

District	Guide 1	Guide 2	Guide 3	Guide 4	Guide 5	Number of types of guides available in the district
Amuria	1	0	0	0	0	1
Wakiso	1	0	0	0	0	1
Rakai	1	0	1	0	0	2
Amolatar	1	1	1	0	0	3
Kaliro	1	1	1	0	0	3
Gulu	1	1	1	1	0	4
Mubende	1	1	0	1	1	4
Ibanda	1	1	1	1	1	5
Kyenjojo	1	1	1	1	1	5
Pallisa	1	1	1	1	1	5
Rukungiri	1	1	1	1	1	5
Yumbe	1	1	1	1	1	5
Number of districts with this type of guide	12	9	9	7	6	
% of districts with this type of guide	100%	75%	75%	58%	50%	

Key to table 5

Yes = 1

No = 0

Guide 1 = Management of uncomplicated malaria, a Practical Guide for Health workers 3<sup>rd</sup> Edition

Guide 2 = Flow Chart on Malaria in pregnancy, 2<sup>nd</sup> Edition, December 2005

Guide 3 = Flow Chart on Management of Malaria, December 2005

Guide 4 = Malaria Treatment Policy Brochure, 2<sup>nd</sup> Edition, December 2005

Guide 5 = Malaria treatment policy Chart, 2<sup>nd</sup> Edition, December 2005



### 5.3.3 Availability of COARTEM according to verbal reports of the DHTs

The practice at the time of the survey was to deliver COARTEM® directly from the National Medical Stores to hospital and to HC IV from where it was distributed to HC III and HC II. Therefore, there were no stock cards of COARTEM® kept in the district store.

Nevertheless, members of the DHT were asked whether any of the 4 dosage types (yellow, blue, brown, green) were available anywhere in their respective districts. According to their replies, at the time of the survey 9 of the 12 districts had all the four dosage types, 1 of the districts had only two of the dosage types and two districts (Wakiso and Amuria) had no COARTEM® at all.

COARTEM Yellow and Green were available in 10 of the 12 districts while COARTEM Blue and Brown were available in 9 of the districts.

Tables 6 and 7 are summaries of the availability of COARTEM® according to verbal reports by the DHTs. Appendix 4 is a more detailed record of the same information.

**Table 6 Table 6: Districts where specific dosage types of COARTEM® were reported by the DHT to be available**

COARTEM dosage pack	Number of districts	Proportion
COARTEM Yellow (6 tablets)	10	83%
COARTEM Blue (12 tablets)	9	75%
COARTEM Brown (18 tablets)	9	75%
COARTEM Green (24 tablets)	10	83%

Table 7: Proportion of the 11 districts where specific types of COARTEM were reported to be available

Types of COARTEM dosage pack available	Number of districts	Proportion
NONE of the four types of dosage packs	2	18%
ONE of the four types of dosage packs	0	0%
TWO of the four types of dosage packs	1	9%
THREE of the four types of dosage packs	0	0%
All FOUR types of dosage packs	9	82%

### 5.3.4 Availability of antimalarial medicines other than COARTEM according to DHT reports

According to verbal reports by DHTs antimalarial medicines other than COARTEM® were still widely available in the 12 districts. However the record of responses from Kaliro district DHT was not made. Quinine injection and SP tablets were reported to be available in all the 11 districts where responses were recorded.

The district with the widest variety of antimalarial medicines other than COARTEM® was Mubende where 10 of the 13 different types were reported to be available. None of the districts was reported to have all the 17 registered antimalarials. Tables 8 and 9 are summaries of the availability of antimalarial medicines other than COARTEM® and appendix 5 is a more detailed record of the same information.

**Table 7 Number of districts where specific antimalarial medicines were reported to be available**

Antimalarial medicine	Number of districts
Quinine injection	11

Sulfadoxine/Pyrimethamine (SP) tablets	11
Chloroquine tablets	10
HOMAPAK RED tablets	10
HOMAPAK GREEN tablets	10
Chloroquine injection	9
Quinine tablets	9
Artemether suppositories	3
Amodiaquine tablets	3
Artesunate + Amodiaquine tablets	1
Artemether tablets	1
Artesunate tablets	0
Artemether injection	0

**Table 8: Number of types of antimalarial medicines other than COARTEM® found in specific districts**

District	Types of medicines
Mubende	10
Kyenjojo	8
Pallisa	8
Rakai	8
Amolatar	7
Ibanda	7
Rukungiri	7
Wakiso	7
Yumbe	7
Gulu	5
Amuria	4

### 5.3.5 Out-patient attendances

The HMIS records at district level for six months including those months when COARTEM® was introduced were analysed. According to information from 9 of the 12 districts from where complete sets of data were obtained malaria is the most frequent cause of OPD attendances. Among patients aged under five years the proportion of attendances due to malaria was 67% overall (range 65% ~ 70%); and among patients aged above five years the proportion of attendances due to malaria was 52% (range 48% ~ 54%). The overall proportion of attendances due to malaria for all age groups was 56% (range 54% ~ 58%). Table 10 is a summary of OPD attendances. For a more detailed record see appendix 6.

**Table 9 Proportion of OPD attendances due to malaria in 8 districts as recorded at district headquarters**

Age Group	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Total
TNA U5	60,600	55,543	62,561	69,958	77,018	80,350	406,030
MA U5	40,595	39,091	42,374	46,512	52,676	52,088	273,336
%M	67%	70%	68%	66%	68%	65%	67%
TNA A5	162,277	145,069	161,516	159,304	178,568	200,363	1,007,097
MA A5	83,082	77,339	77,616	80,148	96,546	106,266	520,997

%M	51%	53%	48%	50%	54%	53%	52%
TNA U5+ A5	222,877	200,612	224,077	229,262	255,586	280,713	1,413,127
TNA U5+U5	123,677	116,430	119,990	126,660	149,222	158,354	794,333
%M U5+A5	55%	58%	54%	55%	58%	56%	56%

Key to table 10:

- TNA <5 = total new attendances; patients under 5 years of age  
 MA <5 = attendances due to malaria; patients under 5 years of age  
 %M = proportion of patients attending due to malaria
- TNA A5 = total new attendances; patients above 5 years of age  
 MA A5 = attendances due to malaria; patients above 5 years of age  
 %M = proportion of patients attending due to malaria

### 5.3.6 Effect of COARTEM availability on OPD attendance according to opinions of DHTs

The DHT members were asked to express an opinion as to whether the introduction of COARTEM® increased OPD malaria attendances. The DHTs of five of the 12 districts were of the opinion that there was an increase in OPD attendance when COARTEM® became available (see table 11). However examination of the HMIS records (table 11) does not show an upward trend in the proportions of OPD malaria attendances.

**Table 10: Effect of COARTEM availability on OPD attendance according to opinions of DHTs**

District	Increase or Decrease
Amolatar	Decreased
Amuria	Increased
Gulu	No comment
Ibanda	No comment
Kaliro	Increased
Kyenjojo	No comment
Mubende	Increased
Pallisa	Increased
Rakai	No comment
Rukungiri	Increased
Wakiso	No comment
Yumbe	No comment

## 6. RESULTS AT HEALTH FACILITY LEVEL

### 6.1 Contacts of in-charges of health facilities

Sixty health facilities were visited and assessed. The names of the health facilities and the names and telephone contacts of their in-charges are recorded in appendix 9.

### 6.2 Availability of guidelines within health facilities

The presence of five types of updated guidelines and work aides within health facilities was physically checked. The most commonly available guide was *Management of Uncomplicated malaria, a Practical*

*Guide for Health workers, 3<sup>rd</sup> Edition, December 2005*. It was present in 51 (93%) of the 60 health facilities and health workers had personal copies.

Only 11 (18%) of the 60 health facilities had all the five types of guides; 9 health facilities had 4 types; 9 health facilities had 3 types; 6 health facilities had 2 types; 20 health facilities had only one type; and 5 health facilities had none at all.

For details of the names of health facilities where the guides were available and those where they were not see appendix 10. A summary is shown in tables 12 and 13.

**Table 11: Number of health facilities with particular types of guides**

Name of Guide	health facilities with the guide	% of health facilities with the guide
Management of uncomplicated malaria, a Practical Guide for Health workers, 3 <sup>rd</sup> Edition, December 2005	51	93%
Flow Chart on Malaria in pregnancy, 2 <sup>nd</sup> Edition, December 2005	32	58%
Flow Chart on Management of Malaria, December 2005	24	44%
Malaria Treatment Policy Brochure, 2 <sup>nd</sup> Edition, December 2005	17	31%
Malaria treatment policy Chart, 2 <sup>nd</sup> Edition, December 2005	26	47%

Table 13: Availability of types of guides by number of health facilities

Number of types of guides available	Number of health facilities	Proportion of health facilities
NONE of the 5 types of guides	5	8%
ONE of the 5 types of guides	20	33%
TWO of the 5 types of guides	6	10%
THREE of the 5 types of guides	9	15%
FOUR of the 5 types of guides	9	15%
ALL of the 5 types of guides	11	18%
Total	60	100%

### 6.3 Availability of COARTEM within health facilities – physically verified

The availability of the four dosage types of COARTEM<sup>®</sup> within health facilities was physically verified. Most health facilities had all the four types of COARTEM<sup>®</sup>. Some health facilities lacked one or more of the dosage types while others had none at all. For example, at the time of the survey health facilities in Amuria District which were visited did not have any COARTEM<sup>®</sup> at all.

Altogether the total number of treatment doses in the 60 health facilities was 285,640 (31,023 Yellow, 49,938 Blue, 30,603 Brown and 174,076 Green). Table 14 is a summary of the availability of COARTEM<sup>®</sup> within health facilities and appendix 11 is a more detailed record.

**Table 12: Summary of availability of COARTEM within the health facilities**

District	COARTEM <sup>®</sup> Yellow (6 tablets)	COARTEM <sup>®</sup> Blue (12 tablets)	COARTEM <sup>®</sup> Brown (18 tablets)	COARTEM <sup>®</sup> Green (24 tablets)	Total
Amolatar	5,186	12,552	10,252	57,152	85,142
Amuria	0	0	0	0	0
Gulu	4,350	3,000	2,170	17,220	26,740
Ibanda	1,190	1,540	1,090	1,870	5,690
Kaliro	33	0	0	120	153
	10,759	17,092	13,512	76,362	117,725

Mubende	291	162	2	447	902
Pallisa	1,904	703	223	3,325	6,155
Rakai	642	397	199	4,722	5,960
Rukungiri	886	20	37	46	989
Wakiso	4,990	13,560	1,300	5,810	25,660
Yumbe	792	912	1,818	7,002	10,524
<b>Total</b>	<b>31,023</b>	<b>49,938</b>	<b>30,603</b>	<b>174,076</b>	<b>285,640</b>

#### 6.4 Availability of antimalarial medicines other than COARTEM® within health facilities

The physical presence of 12 antimalarial medicines (other than COARTEM®) registered by the National Drugs Authority (NDA) was verified. The most widely available antimalarial medicines were: Quinine Injection, Chloroquine Injection, Sp Tablets, Quinine Tablets, Chloroquine Tablets, Amodiaquine Tablets, Homapak Red Tablets and Homapak Green Tablets. Artemisinin derivatives such as Artesunate tablets, Artemether tablets and Dihydroartemisinin tablets were scarce. A summary is shown in table 15. For details of availability in individual health facilities see appendix 12:

**Table 13 Availability of antimalarial medicines other than COARTEM within the 60 health facilities**

District	A	B	C	D	E	F	G	H	I	J	K	L
Amolatar	0	0	0	0	943	1,304	18,000	0	49,000	0	6,330	817
Amuria	0	0	0	0	1,189	2,201	38,000	0	22,000	1,000	17,510	12,005
Gulu	0	0	0	0	160	825	9,000	1,000	173,000	0	0	3,300
Ibanda	100	0	0	0	2,630	710	4,250	46,500	22,300	0	11,688	20,524
Kaliro	0	0	0	0	70	220	18,000	116	4,000	6,000	0	143
Kyenjojo	0	0	0	0	756	964	6,000	96	18,050	0	1,800	1,800
Mubende	0	0	0	0	172	176	11,393	3,000	12,687	0	706	617
Pallisa	0	0	0	0	3,564	2,680	25,200	34,200	53,000	0	1,125	980
Rakai	0	96	0	0	1,048	1,403	1,597	1,165	2,345	508	321	750
Rukungiri	0	0	0	0	1,066	10,250	8,000	3,200	9,050	0	900	400
Wakiso	0	0	0	0	829	1,238	7,000	1,619	11,000	0	300	600
Yumbe	0	0	0	0	1,620	2,070	32,850	1,100	65,400	0	750	3,750
<b>Total</b>	100	96	0	0	14,047	24,041	179,290	91,996	441,832	7,508	41,430	45,686

Key to table 15

A Artesunate + Amodiaquine Tablets  
 B Artesunate tablets  
 C Artemether tablets  
 D Dihydroartemisinin tablets  
 E Quinine Injection (ampoules)  
 F Chloroquine Injection (ampoules)

G Sp Tablets  
 H Quinine Tablets  
 I Chloroquine Tablets  
 J Amodiaquine Tablets  
 K Homapak Red Tablets  
 L Homapak Green Tablets

#### 6.5 Health workers trained in the 60 health facilities

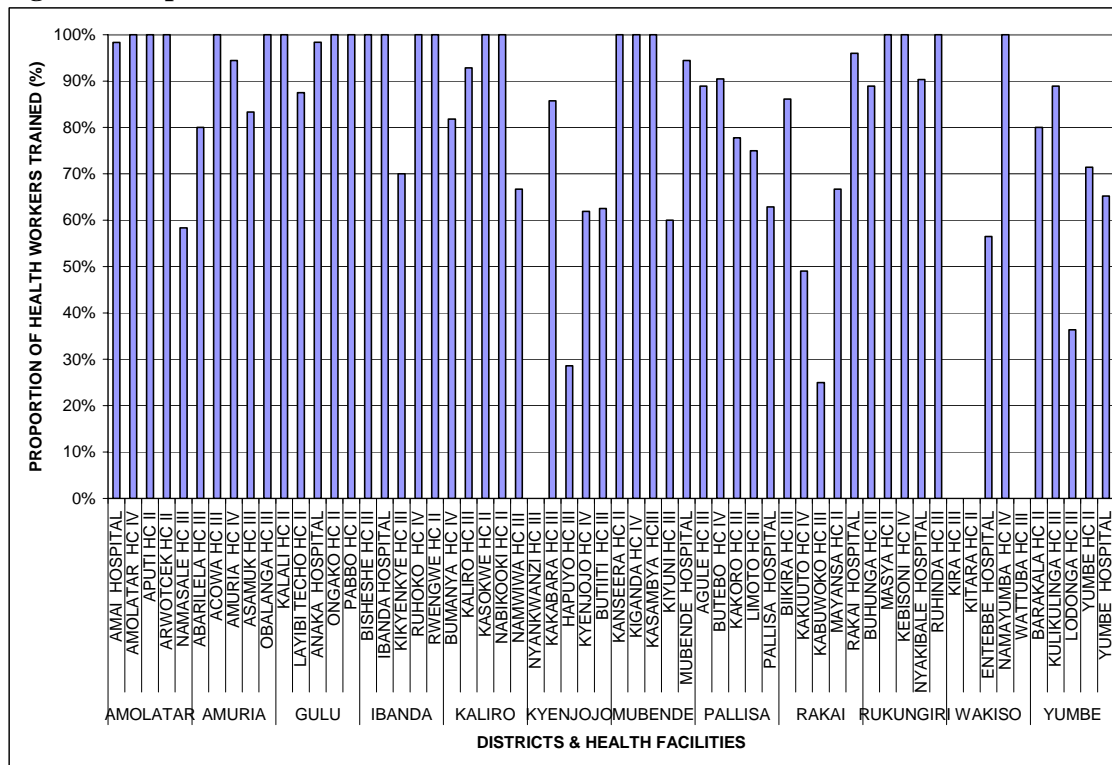
The in-charges of health facilities were asked to state the number of health workers in their health facility that had been trained on the management of malaria according to the new malaria treatment policy. The total number of health workers in the 60 health facilities was 1,298 and 1,011 (78 %) had been trained. Apart from 3 health facilities in Wakiso District where none of their health workers had been trained the rest of the health facilities had some or all of their health workers trained. Table 16 is a

summary of the health workers trained and Figure 1 is a graphic representation of the proportion of health workers trained in each health facility. A detailed record is in appendix 13.

**Table 14 Proportion of health workers trained in 55 health facilities**

Health workers	Clinical		Nursing		Paramedical		Other		Total		Total
	M	F	M	F	M	F	M	F	M	F	M&F
All Health Workers	115	30	149	686	99	31	123	65	486	812	1,298
Those Trained	94	22	115	543	84	24	74	55	367	644	1,011
% trained	82%	73%	77%	79%	85%	77%	60%	85%	76%	79%	78%

**Figure 1 Proportion of health workers trained**



**6.6 OPD prescription practices – Health facility level**

Records of prescriptions in the OPD registers during one month when all the 4 dosage types of COARTEM® were available were analysed.

The total number of malaria prescriptions in the 60 health facilities in one month was 65,092 of which 22,035 (34%) were for patients below five years of age and 43,057 (66%) were for patients aged 5 years and above.

The overall proportion of prescriptions for malaria that were COARTEM® prescriptions for all patients was 41% (Range: 12% ~ 70%). The proportion of COARTEM prescriptions was 42% (Range: 10% ~ 73%) among patients aged less than 5 years and 40% (Range: 14% ~ 70%) among those aged 5 years and above.

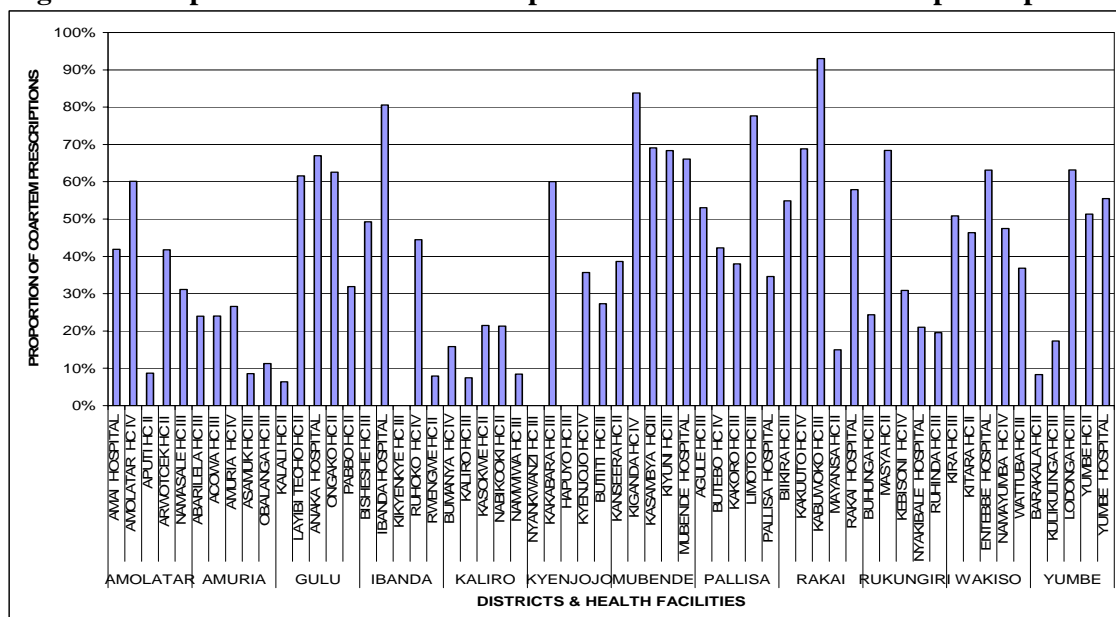
Out of the 26,646 COARTEM prescriptions, 9,257 (35%) were for patients below 5 years of age while 17,389 (65%) were for patients aged 5 years and above.

Table 17 is a summary of the prescriptions and figure 2 is a graphic representation of the proportion of malaria prescriptions at individual health facilities. For details of numbers of malaria prescriptions and proportions of COARTEM® prescriptions see appendix 14.

**Table 15: OPD prescription practices**

District	Patients < 5yrs(a)		Patients > 5yrs(b)		All Patients (a +b)		% ACT Prescriptions		
	Malaria	ACT	Malaria	ACT	Malaria	ACT	% < 5yrs	% >5yrs	% Overall
Amolatar	1,165	411	1,172	542	2,337	953	35%	46%	41%
Amuria	753	127	857	178	1,610	305	17%	21%	19%
Gulu	2,206	735	2,227	841	4,433	1,576	33%	38%	36%
Ibanda	332	80	934	558	1,266	638	24%	60%	50%
Kaliro	1,491	146	2,054	285	3,545	431	10%	14%	12%
Kyenjojo	352	138	1121	431	1473	569	39%	38%	39%
Mubende	757	550	2,566	1,785	3,323	2,335	73%	70%	70%
Pallisa	2,035	801	1,673	852	3,708	1,653	39%	51%	45%
Rakai	1,506	632	4,754	3,041	6,260	3,673	42%	64%	59%
Rukungiri	3,716	1,795	19,208	5,907	22,924	7,702	48%	31%	34%
Wakiso	4,636	2,381	3,443	1,747	8,079	4,128	51%	51%	51%
Yumbe	3,086	1,461	3,048	1,222	6,134	2,683	47%	40%	44%
<b>Overall</b>	<b>22,035</b>	<b>9,257</b>	<b>43,057</b>	<b>17,389</b>	<b>65,092</b>	<b>26,646</b>	<b>42%</b>	<b>40%</b>	<b>41%</b>

**Figure 2 : Proportion of Malaria Prescriptions which were COARTEM prescriptions**



### 6.7 OPD attendances

The attendances in the OPD register for 6 months including the months when COARTEM became available in the health facility were analysed.

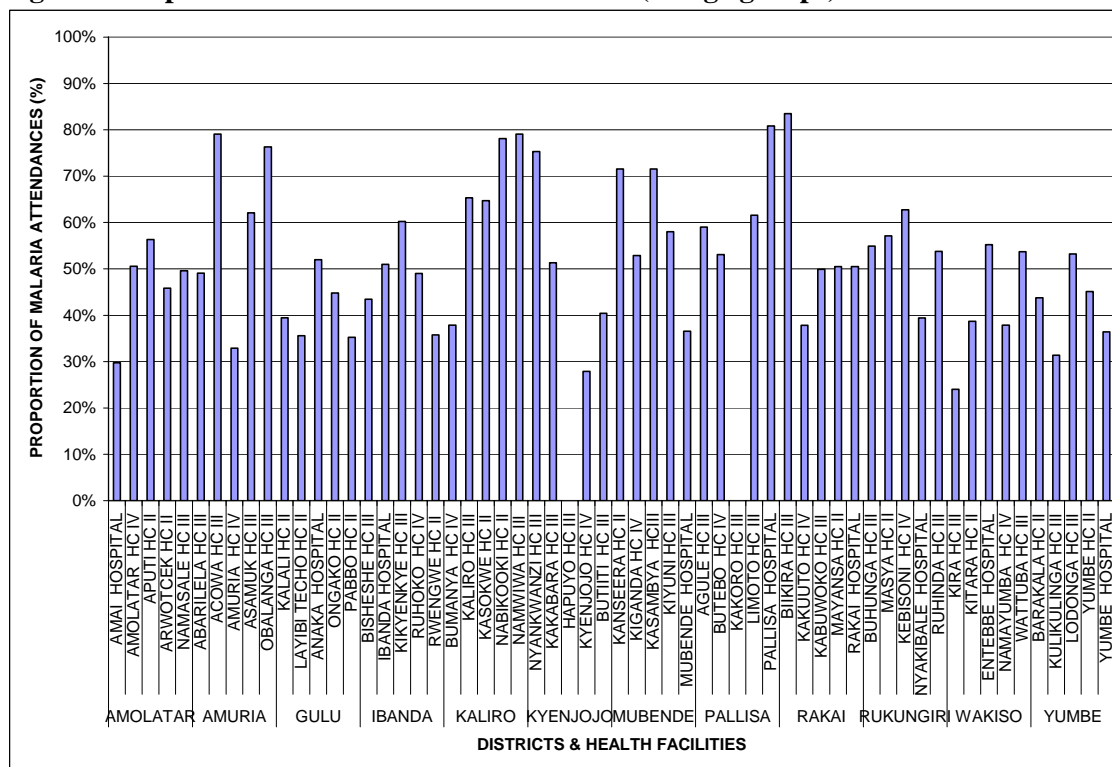
The total number of new attendances for all patients in the 60 health facilities in 6 months was **450,447** of which **213,878** (47%) was due to malaria. The proportion of attendances due to malaria among patients aged less than 5 years was 62% (Range: 42% ~ 85%) and that for patients aged 5 years and above was 42% (range 23% ~ 59%). The overall proportion of malaria cases for all age groups was 47% (Range: 31% ~ 69%). Table 18 is a summary of the OPD attendances and Figure 3 is a graphic

representation of the proportion of new attendances due to malaria. For a detailed record of attendances by health facility see appendix 15.

**Figure 3: Summary of OPD attendances from health facility records**

District	Patients < 5yrs(a)		Patients >5yrs (b)		Total (a +b)		Proportion Malaria (%)		
	Total New attendances	Malaria attendances	New attendances	Malaria attendances	New attendances	Malaria attendances	< 5yrs(a)	> 5yrs(a)	Overall (a& b)
Amolatar	11,396	6,622	19,437	8,260	30,833	14,882	58%	42%	48%
Amuria	22,879	13,729	33,137	16,059	56,016	29,788	60%	48%	53%
Gulu	15,376	7,906	26,631	8,945	42,007	16,851	51%	34%	40%
Ibanda	3,726	2,185	18,169	8,529	21,895	10,714	59%	47%	49%
Kaliro	7,053	5,662	14,978	7,956	22,031	13,618	80%	53%	62%
Kyenjojo	7,760	3,272	18,530	7,944	26,290	11,216	42%	43%	43%
Mubende	7,636	4,977	29,535	13,492	37,171	18,469	65%	46%	50%
Pallisa	9,545	8,137	14,949	8,774	24,494	16,911	85%	59%	69%
Rakai	8,985	6,267	31,259	14,281	40,244	20,548	70%	46%	51%
Rukungiri	6,320	3,896	39,212	20,294	45,532	24,190	62%	52%	53%
Wakiso	11,375	7,326	47,091	10,940	58,466	18,266	64%	23%	31%
Yumbe	16,113	10,109	29,355	8,316	45,468	18,425	63%	28%	41%
<b>Total</b>	<b>128,164</b>	<b>80,088</b>	<b>322,283</b>	<b>133,790</b>	<b>450,447</b>	<b>213,878</b>	<b>62%</b>	<b>42%</b>	<b>47%</b>

**Figure 4 Proportion of malaria OPD attendances (all age groups)**





## **7. CONCLUSIONS AND RECOMMENDATIONS**

### **7.1 The training of health workers**

The training of health workers was successfully done as judged from the data obtained at national, district and health facility levels and it appears all health workers who were available in health facilities at the time of the training were trained.

The strategy of using cascade training appears to be satisfactory and should be used in future. Its strong points are the components of (i) sensitisation of district leaders; (ii) on-site training of health workers at or near their places of work; and (iii) a strong element of central supervision.

At the time of the survey some health workers who had not been trained were found within some health facilities. This was probably because new health workers had since been recruited and some health workers had missed the training because they were not available due to illness or annual leave. There is need for a 'mop up training' for the untrained health workers.

### **7.2 Availability of updated guidelines and work aids.**

At the time of the assessment only one guide entitled *'Management of uncomplicated malaria, a Practical Guide for Health workers 3<sup>rd</sup> Edition, December 2005'* was widely available and in use within health facilities. Availability of other guidelines was not satisfactory. By the time the printing of the work aids was completed the training of health workers was well underway and it was too late for them to be distributed by the trainers during the training process.

There is need to distribute the already printed guides and work aides. If there is still a gap left more guides should be printed and distributed.

### **7.3 Availability of COARTEM**

At the time of the survey the availability of COARTEM® in the health facilities was erratic. This was due to weaknesses in the supply chain system. Delivery of the COARTEM® to this country by the manufactures was on schedule but distribution to the health facilities was unsatisfactory.

There is need to put in place a reliable supply chain system from National Medical Stores to the health facilities. Since the current policy of the MoH is to use a 'PULL SYSTEM' rather than a 'PUSH SYSTEM' of replenishment of stocks there is need to assist health facilities by training the relevant staff to quantify their needs accurately and make timely orders of COARTEM so as to avoid stock-outs or wastages through expiry.

### **7.4 Availability of antimalarial medicines other than COARTEM**

Antimalarial medicines other than COARTEM which are registered by NDA were widely available and in use within the health facilities. Unfortunately some of them were being used as monotherapies as first line treatment of uncomplicated malaria which is against the current malaria treatment policy.

A national mechanism for the selective gradual phasing out of the supply of the antimalarial monotherapies to the health facilities and reliable adequate replacement with ACTs should be put in place. Medicines needed for specific purposes (e.g. quinine injection for severe malaria, SP tablets for IPTp, etc) should continue to be supplied to the health facilities even though they are also 'monotherapies'.

#### **7.4 OPD prescription practices**

The prescriptions of COARTEM® as first line treatment for malaria when all dosage types of COARTEM® were available in health facilities were below expectations in many health facilities. Some health workers erroneously thought that patients should be treated with COARTEM® only if their malaria did not respond to Chloroquine and SP.

The health workers need be reminded that COARTEM® must be used as first line treatment of uncomplicated malaria. They should use other medicines only when COARTEM® is not available or is contraindicated.

#### **7.5 OPD attendances due to malaria**

The proportions of new out-patient attendances due to malaria were alarmingly high. They were much higher than those often quoted in MoH documents.

There is urgent need to increase coverage of preventive measures such as the use of insecticide treated mosquito nets. Efforts to make early diagnosis and prompt treatment with effective antimalarial medicines universally accessible should be intensified.

#### **7.6 Comments by DHTs and health facility staff.**

Remarks by the DHTs and health facility staff demonstrated a general positive attitude towards the new malaria treatment policy in general and the use of COARTEM® to treat uncomplicated malaria in particular. Health workers and patients appear to like COARTEM® because apart from its perceived efficacy it is not bitter and it does not cause itching like Chloroquine. Pre-packaging of COARTEM® into four dosage types is another factor in its favour. However there were a few complaints about the need to swallow so many tables and occasional cases of failure to get relief for those patients who were presumptively treated with COARTEM® although, apparently, their fevers were not caused by malaria.

There is need for COARTEM® availability within health facilities to be made more reliable and for parasitological confirmation of malaria diagnosis especially in adults.



**Appendix 1: Contacts of District Directors of Health Services and Malaria Focal Persons of the 11 districts**

District	Date	DDHS	Phone of DDHS	Malaria Focal Person	Phone of MFP
Amolatar	21-08-2006	Dr. Awanyo James	0772614354	Mr. Oyado James	
Amuria	15-08-2006	Dr. D. Kababa	04563283		
Gulu	18-08-2006	Dr. Onek. P.A	0772602947	Opwonya John Odong	0772612758
Ibanda	16-08-2006	Dr. Bamwine	0752338417	Mr. Louis Kaboine	0752610161
Kaliro	22-08-2006	Dr. Mugerwa Shaban	0782701525	Mr. Wadero .P. Charles	0782462083
Kyenjojo	28-08-2006	Dr. Balinda Julius	0772589588	Mr. Mujaasi Julius	0762531637
Mubende	14-08-2006	Dr. Mubiru .W	0772670556	Dr. Eyiiga .J	0772883101
Pallisa	15-08-2006	Dr. Namonyo Adrewn	0772441522	St. Mary Pistan	0772634424
Rakai	21-08-2006	Dr. Robert Mayanja	0772664776	Mr. Ereazer Mugisa	0772684549
Rukungiri	29-08-2006	Dr. Karyabakabo	0772681785	Mr. Bijurenda M.	0772853269
Wakiso	14-08-2006	Dr. Mukisa E.	0772408885	Mr. Robert Kagwire	0782451532
Yumbe	18-08-2006	Dr. Mande Nelson	0772438200	Mr. Abassi Mansoor	0772536106

**Appendix 2: Number of all health facilities in the 12 districts**

District	Health Centre 2		Health Centre 3		Health Centre 4		Hospital		Total		Total (Public & Private)
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	
Amolatar	7	2	2	0	1	0	0	1	10	3	<b>13</b>
Amuria	16	4	7	3	2	0	0	0	25	7	<b>32</b>
Gulu	21	8	9	3	3	0	3	2	36	13	<b>49</b>
Ibanda	26	1	6	1	2	0	0	1	34	3	<b>37</b>
Kaliro	3	5	4	1	1	0	0	0	8	6	<b>14</b>
Kyenjojo	12	6	14	4	3	0	0	0	29	10	<b>39</b>
Mubende	28	7	8	2	2	0	1	0	39	9	<b>48</b>
Pallisa	10	3	27	7	3	0	1	1	41	11	<b>52</b>
Rakai	47	10	22	12	1	0	3	0	73	22	<b>95</b>
Rukungiri	22	26	9	1	2	0	0	2	33	29	<b>62</b>
Wakiso	37	18	18	13	5	0	1	3	61	34	<b>95</b>
Yumbe	4	2	6	2	0	0	1	0	11	4	<b>15</b>
Total	233	92	132	49	25	0	10	10	400	151	551

**Appendix 3: Health workers trained in 6 districts (district totals)**

District		Clinical		Nursing		Paramedical		Others		Total		Total
		M	F	M	F	M	F	M	F	M	F	M & F
Amolatar	All Health Workers	14	2	30	80	5	1	8	2	57	85	142
	Those trained	11	1	30	80	5	1	8	2	54	84	138
	% trained	79%	50%	100%	100%	100%	100%	100%	100%	95%	99%	97%
Amuria	All Health Workers	10	0	10	62	8	1	2	9	30	72	102
	Those trained	10	0	10	62	8	1	2	3	30	66	96
	% trained	100%		100%	100%	100%	100%	100%	33%	100%	92%	94%
Ibanda	All Health Workers	9	3	16	47	5	1	7	2	37	53	90
	Those trained	9	3	16	47	5	1	7	2	37	53	90
	% trained	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Rakai	All Health Workers	50	9	28	290	30	18	167	26	275	343	618
	Those trained	48	9	28	290	30	12	90	18	196	329	525
	% trained	96%	100%	100%	100%	100%	67%	54%	69%	71%	96%	85%
Rukungiri	All Health Workers	40	11	41	170	22	6	60	152	163	339	502
	Those trained	36	7	35	155	15	3	54	128	140	293	433
	% trained	90%	64%	85%	91%	68%	50%	90%	84%	86%	86%	86%
Yumbe	All Health Workers	27	3	76	101	22	6	93	21	218	131	349
	Those trained	6	2	16	36	10	4	0	0	32	42	74
	% trained	22%	67%	21%	36%	45%	67%	0%	0%	15%	32%	21%
Overall	All	150	28	201	750	92	33	337	212	780	1023	1803
	Trained	120	22	135	670	73	22	161	153	489	867	1356
	% trained	80%	79%	67%	89%	79%	67%	48%	72%	63%	85%	75%

**Appendix 4: Availability of COARTEM as reported at district headquarters**

District	COARTEM® Yellow (6 tablets)	COARTEM® Blue (12 tablets)	COARTEM® Brown (18 tablets)	COARTEM® Green (24 tablets)
Amuria	0	0	0	0
Wakiso	0	0	0	0
Ibanda	1	0	0	1
Amolatar	1	1	1	1
Gulu	1	1	1	1
Kaliro	1	1	1	1
Kyenjojo	1	1	1	1
Mubende	1	1	1	1
Pallisa	1	1	1	1
Rakai	1	1	1	1
Rukungiri	1	1	1	1
Yumbe	1	1	1	1
<b>Total</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>10</b>
Proportion (%)	83%	75%	75%	83%

Key to appendix 4:

Yes = 1

No = 0

**Appendix 5: Availability of antimalarials other than COARTEM® at the time of the survey as reported at district level**

Medicine	A	B	C	D	E	F	G	H	I	J	K	L	M	Total
Amuria	1	1	0	1	1	0	0	0	0	0	0	0	0	4
Gulu	1	1	1	0	0	1	1	0	0	0	0	0	0	5
Amolatar	1	1	1	1	1	1	1	0	0	0	0	0	0	7
Ibanda	1	1	1	1	1	0	1	1	0	0	0	0	0	7
Rukungiri	1	1	1	1	1	1	1	0	0	0	0	0	0	7
Wakiso	1	1	1	1	1	1	1	0	0	0	0	0	0	7
Yumbe	1	1	1	1	1	1	1	0	0	0	0	0	0	7
Kyenjojo	1	1	1	1	1	1	1	0	1	0	0	0	0	8
Pallisa	1	1	1	1	1	1	1	0	1	0	0	0	0	8
Rakai	1	1	1	1	1	1	0	1	0	1	0	0	0	8
Mubende	1	1	1	1	1	1	1	1	1	0	1	0	0	10
Total	11	11	10	10	10	9	9	3	3	1	1	0	0	
%	100%	100%	91%	91%	91%	82%	82%	27%	27%	9%	9%	0%	0%	

Key to appendix 5

- |   |  |   |                                  |
|---|--|---|----------------------------------|
| A | Quinine injection                      | H | Artemether suppositories         |
| B | Sulfadoxine/Pyrimethamine (SP) tablets | I | Amodiaquine tablets              |
| C | Chloroquine tablets                    | J | Artesunate + Amodiaquine tablets |
| D | HOMAPAK RED tablets                    | K | Artemether tablets               |
| E | HOMAPAK GREEN tablets                  | L | Artesunate tablets               |
| F | Chloroquine injection                  | M | Artemether injection             |
| G | Quinine tablets                        |   |                                  |

**Appendix 6: OPD Attendances as recorded at district level**

District		MON1	MON2	MON3	MON4	MON5	MON6	TOTAL
		FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	
AMOLATAR	TNA U5	1708	2612	5097	2685	3182	1247	16531
	MA U5	854	1227	2469	1437	1669	533	8189
	%M	50%	47%	48%	54%	52%	43%	50%
	TNA A5	3882	4905	8740	4101	5151	2391	29170
	MA A5	1230	1881	3046	1572	2263	620	10612
	%M	32%	38%	35%	38%	44%	26%	36%

		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	
AMURIA	TNA U5	3738	4912	5391	6221	9340	7682	37284
	MA U5	3013	3930	3796	5185	6437	6040	28401
	%M	81%	80%	70%	83%	69%	79%	76%
	TNA A5	4869	7744	8319	5426	11738	10305	48401
	MA A5	4792	5145	4148	5534	6320	6675	32614
	%M	98%	66%	50%	102%	54%	65%	67%

		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	
KALIRO	TNA U5	2383	1541	1693	2207	2486	2924	13234
	MA U5	1535	1161	1164	2117	1867	2223	10067
	%M	64%	75%	69%	96%	75%	76%	76%
	TNA A5	4789	3162	3636	4214	3805	5886	25492
	MA A5	2628	1814	1865	2404	2458	3019	14188
	%M	55%	57%	51%	57%	65%	51%	56%



*Rapid Assessment of Malaria Treatment Policy Implementation*

District		MON1	MON2	MON3	MON4	MON5	MON6	TOTAL
KYENJOJO		FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	
	TNA U5	4550	5566	6556	6357	5883	6327	35239
	MA U5	4351	5338	6408	5339	5384	3852	30672
	%M	96%	96%	98%	84%	92%	61%	87%
	TNA A5	13289	21389	22086	20735	19012	16792	113303
	MA A5	7401	9145	9800	9989	10117	7069	53521
%M	56%	43%	44%	48%	53%	42%	47%	
MUBENDE		DECEMBER 2005	JANUARY 2006	FEBRUARY 2006	MARCH 2006	APRIL 2006	JUNE 2006	
	TNA U5	8379	4848	3974	3754	4532	4962	30449
	MA U5	6105	3512	2670	2619	2777	3614	21297
	%M	73%	72%	67%	70%	61%	73%	70%
	TNA A5	27239	12979	10369	11594	10934	14027	87142
	MA A5	11075	8387	9130	9809	9159	9579	57139
%M	41%	65%	88%	85%	84%	68%	66%	
RAKAI		FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	
	TNA U5	10860	12612	14440	21159	21538	18764	99373
	MA U5	5279	6264	7790	11605	14644	12668	58250
	%M	49%	50%	54%	55%	68%	68%	59%
	TNA A5	24969	18845	31341	42861	44708	43228	205952
	MA A5	9791	11789	13524	17993	23102	22019	98218
%M	39%	63%	43%	42%	52%	51%	48%	

*Rapid Assessment of Malaria Treatment Policy Implementation*

District		MON1	MON2	MON3	MON4	MON5	MON6	TOTAL
RUKUNGIRI		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	
	TNA U5	4764	3644	3991	4224	5855	7699	30177
	MA U5	3657	2363	2519	2714	3653	5664	20570
	%M	77%	65%	63%	64%	62%	74%	68%
	TNA A5	32590	25891	25534	23095	29470	43729	180309
	MA A5	20736	14535	14395	13019	18794	29768	111247
%M	64%	56%	56%	56%	64%	68%	62%	
WAKISO		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	
	TNA U5	18494	13429	14575	17518	19485	26398	109899
	MA U5	11885	10983	10780	11657	13495	14569	73369
	%M	64%	82%	74%	67%	69%	55%	67%
	TNA A5	39161	36746	41693	38588	44203	56068	256459
	MA A5	19946	18973	18020	16720	20956	24637	119252
%M	51%	52%	43%	43%	47%	44%	46%	
YUMBE		JULY	JUNE	MAY	APRIL	MARCH	FEBRUARY	
	TNA U5	5724	6379	6844	5833	4717	4347	33844
	MA U5	3916	4313	4778	3839	2750	2925	22521
	%M	68%	68%	70%	66%	58%	67%	67%
	TNA A5	11489	13408	9798	8690	9547	7937	60869
	MA A5	5483	5670	3688	3108	3377	2880	24206
%M	48%	42%	38%	36%	35%	36%	40%	

*Rapid Assessment of Malaria Treatment Policy Implementation*

District		MON1	MON2	MON3	MON4	MON5	MON6	TOTAL
Overall	AGE GROUP	MON1	MON2	MON3	MON4	MON5	MON6	TOTAL
	TNA U5	60,600	55,543	62,561	69,958	77,018	80,350	406,030
	MA U5	40,595	39,091	42,374	46,512	52,676	52,088	273,336
	%M	67%	70%	68%	66%	68%	65%	67%
	TNA A5	162,277	145,069	161,516	159,304	178,568	200,363	1,007,097
	MA A5	83,082	77,339	77,616	80,148	96,546	106,266	520,997
	%M	51%	53%	48%	50%	54%	53%	52%
	TNA U5+ A5	222,877	200,612	224,077	229,262	255,586	280,713	1,413,127
	TNA U5+U5	123,677	116,430	119,990	126,660	149,222	158,354	794,333
%M U5+A5	55%	58%	54%	55%	58%	56%	56%	

Key to appendix 6

TNA U5 = total new attendances; patients under 5 years of age  
 MA U5 = attendances due to malaria; patients under 5 years of age  
 %M = proportion of patients attending due to malaria

TNA A5 = total new attendances; patients above 5 years of age  
 MA A5 = attendances due to malaria; patients above 5 years of age  
 %M = proportion of patients attending due to malaria

## Appendix 7: Successes, Constraints and Experiences as expressed by DHT

District	Remarks
Amolatar	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ Successfully trained all health workers present in the district in April 2006</li> <li>▪ COARTEM® has been distributed to all the health units in the district and is being used.</li> <li>▪ CO-ARTEM is easy to store, dispense and administer</li> </ul>
Amolatar	<b>Constraints</b> <ul style="list-style-type: none"> <li>▪ Quantities of COARTEM® so far supplied were very few as the push system was used.</li> <li>▪ A few health units received COARTEM® for the first time in late July 2006.</li> <li>▪ Local politicians demand for COARTEM® for First Aid for their homes even when nobody is ill.</li> <li>▪ Use of COARTEM depends on only the clinical features of Malaria as laboratory services are still poor in the district.</li> </ul>
Amolatar	<b>Experiences</b> <ul style="list-style-type: none"> <li>▪ Clinically febrile patients not due to malaria but given COARTEM did not improve</li> <li>▪ COARTEM® is only available in oral form hence useless for a patient who is too sick and vomits any drug given to him.</li> </ul>
Amuria	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ Increased appreciation from the public</li> <li>▪ All health staff now uses new policy when the drug is available.</li> <li>▪ COARTEM® was delivered once</li> </ul>
Amuria	<b>Constraints</b> <ul style="list-style-type: none"> <li>▪ Use of milk to take the medicine</li> <li>▪ Stock runs out. This is a National Medical Stores problem.</li> </ul>
Amuria	<b>Experiences</b> <ul style="list-style-type: none"> <li>▪ Use of milk to take the medicine</li> </ul>
Gulu	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ Good packaging in blisters</li> <li>▪ Clear instruction on dosages</li> </ul>
Gulu	<b>Constraints</b> <ul style="list-style-type: none"> <li>▪ Adult packages (Green) has been generally inadequate</li> <li>▪ New staff not trained on ACT</li> </ul>
Gulu	<b>Experiences</b> <ul style="list-style-type: none"> <li>▪ No serious side effects reported</li> <li>▪ Being a new drug, patients demand for it instead of being prescribed by health workers</li> </ul>
Ibanda	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ ACTs are always available since programme started.</li> <li>▪ All the health workers were trained.</li> </ul>
Ibanda	<b>Constraint</b> <ul style="list-style-type: none"> <li>▪ There is leakage of COARTEM to the private sector</li> <li>▪ The two middle packs are in short supply</li> <li>▪ The laminated charts for malaria treatment were inadequate.</li> <li>▪ We have no transport at the district.</li> </ul>
Ibanda	<b>Experiences</b> <ul style="list-style-type: none"> <li>▪ The severe cases have reduced and no deaths have been reported</li> </ul>
Kaliro	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ Training of health workers on the new malaria treatment.</li> </ul>
Kaliro	<b>Constraints</b> <ul style="list-style-type: none"> <li>▪ Inadequate stationery for Pre- and Post- test and treatment policy.</li> <li>▪ Short time for the training (only 3 days).</li> </ul>

District	Remarks
Kaliro	<b>Experiences</b> <ul style="list-style-type: none"> <li>▪ Majority of patients on COARTEM® complimented it for its efficiency.</li> <li>▪ Economically COARTEM® is an expensive drug.</li> <li>▪ There are very many tablets to swallow with a COARTEM® dose.</li> </ul>
Mubende	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ The ACT Drugs arrived on time.</li> <li>▪ Prescription was made easy by the packaging</li> <li>▪ Almost all health works were trained.</li> </ul>
Kaliro	<b>Constraints</b> <ul style="list-style-type: none"> <li>▪ Health Workers in private sectors were not Trained</li> <li>▪ Training material was inadequate (books and charts)</li> <li>▪ Training allowance for health workers was inadequate e.g. transport.</li> </ul>
Kaliro	<b>Experiences</b> <ul style="list-style-type: none"> <li>▪ Some health workers are reporting treatment failure and slow response as compared to SP/CQ</li> <li>▪ COARTEM® is easy to swallow.</li> </ul>
Kyenjojo	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ Social mobilisation for the policy was good</li> <li>▪ Training sessions were well organised</li> </ul>
Kyenjojo	<b>Constraints</b> <ul style="list-style-type: none"> <li>▪ The new policy is suffocating HBMF strategy. Communities are rejecting HOMAPAK which is still in stock</li> <li>▪ There was hoarding of the drug due to excessive community mobilisation</li> </ul>
Kyenjojo	<b>Experiences</b> No adverse effects reported
Rakai	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ Training of health workers in administering the new malaria treatment policy</li> <li>▪ Sensitization of district leaders to the new policy</li> </ul>
Rakai	<b>Constraints</b> <ul style="list-style-type: none"> <li>▪ Delay and little supply of COARTEM®</li> <li>▪ Stock-outs of alternative drugs especially Quinine.</li> </ul>
Rakai	<b>Experiences</b> <ul style="list-style-type: none"> <li>▪ Good attractive packaging of COARTEM®</li> <li>▪ No side effects</li> <li>▪ high pill burden</li> </ul>
Rukungiri	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ Health workers trained</li> <li>▪ First consignment of COARTEM® delivered on time</li> </ul>
Rukungiri	<b>Constraints</b> <ul style="list-style-type: none"> <li>▪ During delivery of Coartem under credit line 5 health units missed the supply</li> <li>▪ General complaint of not enough Coartem in health facilities</li> <li>▪ Administering Coartem alongside Coartem has raised complaints</li> </ul>
Rukungiri	<b>Experiences</b> <ul style="list-style-type: none"> <li>▪ Coartem is doing well on malaria treatment and has caused no bad effects</li> <li>▪ No reports of misuse of Coartem in health units</li> <li>▪ Coartem has been out of stock in most health units</li> </ul>
Wakiso	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ Sensitisations of district leaders was good</li> <li>▪ High demand</li> <li>▪ Politicians requested for copies of the policy booklet</li> </ul>

District	Remarks
Wakiso	<b>Constraints</b> <ul style="list-style-type: none"> <li>▪ Guidelines and manuals were not enough</li> <li>▪ Not all health workers were included (schools, universities)</li> <li>▪ Health workers in private-for-profit health facilities need training and drugs (list submitted to NMCP)</li> </ul>
Wakiso	<b>Experiences</b> <ul style="list-style-type: none"> <li>▪ High public demand for Coartem. Therefore drug supplies allocated for the health facility seem to be inadequate</li> <li>▪ Patients complain that the tablets are too many</li> <li>▪ Some of the Coartem has leaked out to the private clinics</li> </ul>
Yumbe	<b>Successes</b> <ul style="list-style-type: none"> <li>▪ Training of health workers in new drug policy</li> <li>▪ Distribution of COARTEM® for case management.</li> <li>▪ Sensitization of District and Sub-County leaders on new policy.</li> <li>▪ Support from IRC and UPHOLD to scale up and access new policy.</li> </ul>
Yumbe	<b>Constraints</b> <ul style="list-style-type: none"> <li>▪ Not all health workers have been trained in new policy.</li> <li>▪ Unavailability of transport and funds for support supervision</li> <li>▪ Not enough work aids for all health units.</li> <li>▪ More involvement of private clinics and drug shops in new policy</li> </ul>
Yumbe	<b>Experiences</b> <ul style="list-style-type: none"> <li>▪ Good Compliance</li> <li>▪ Increased preference for COARTEM® at facility, hence decreased use of Homapak in the community</li> </ul>

### Appendix 8: Persons met at district headquarters level

District	Name	Designation	Phone
Amolatar	Dr. Awanyo James	DDHS	0772614354
	Ms. Adong Hellen	Stores Assistant	0782016787
	Mr. Oyado James	Malaria Focal Person	
Amuria	Dr. Kababa	DDHS	04563283
	Ojrot Steven	Stores Assistant	0772998949
Ibanda	Mr. Louis Kaboine	Malaria Focal Person	0752610161
Kaliro	Wadero .P Charles	Malaria Focal Person	
	Kikomeku Moses	HMIS Officer	0782394839
	Hamoone Nimroo	Stores Assistant	
Mubende	Dr. Mubiru .W	DDHS	0772670556
	Senzizi .T	HMIS Officer	0782525330
Pallisa	Namungha S.W.	DHI	0782861595
	Siraji Mulira	DHE	0772407443
	Mutema J.P	DTL Supervisor	
	Kambeiza Jane	Records Assistant	0782606668
Rakai	Ereazer Mugisha	Malaria Focal Person	0772684549
	Kijjambo Christine	DADI	0772557979
	Bwanika Emmy	Stores Assistant	
	Katongole	HMIS Officer	0752809452
Rukungiri	Michael Bijurenda	Malaria Focal Person	0772853269
Yumbe	Abassi Mansook	Malaria Focal Person	0772536106
	Hassan Gouule	HMIS Officer	0772969787
	Dr. Mubarak Nassur	Medical officer	

## Appendix 9: Health facilities and the names and telephone contacts of their in-charges

District	HSD	Health Facility	Level	Name of the In-Charge	Designation	Phone
Amolatar	Kioga	Aputi	HC II	Mr. Obur J.B	MCO	782556495
		Amai	Hospital	Dr. Okwir Mark	MO	712883744
		Arwotcek	HC II	Mr. Agom Sam	EN	0752545367
		Amolatar	HC IV	Dr. Otucu Benard	MO	
		Namasale	HC III	Mr. Denis M. Ekoch	MCO	0752642586
Amuria	Amuria	Abarilela	HC III	Omujul Richard	MCO	0772903980
		Amuria	HC IV	Dr. Kababa .D	MO	0712549130
		Asamuk	HC III	Mr. P. Ebau		0782695640
	Kapelebyong	Acowa	HC III	Opio Martin		
		Obalanga	HC III	Mr. Alacu Peterson	MCO	
Gulu	Aswa	Kalali	HC II	Oryem Patrick	MCO	0712240074
	Gulu Mun	Layibi Techo	HC II	William Labongo	MCO	0772040890
	Kilak	Pabbo	HC II	Joyce Aponi	EN	0782697944
	Nwoya	Anaka	Hospital	Dr. Mulwani Erisa	MO	0712130478
	Omoro	Ongako	HC II	Ms. Nancy Odong		0772666040
Ibanda	Ibanda South	Rwengwe	HC 2	Kunihira M. Imelda		0752811234
		Kikyenkye	HC III	Nabalindwa Dorothy	NO	0782447070
		Ibanda	Hospital	Dr. .E. Byaruhanga	Obstetrician	772460948
		Ruhoko	HC IV	Ekaru Bernard	MCO	0772869181
	Ibanda North	Bisheshe	HC III	Ahimbisibwe M. Goretti	EN	0782666472
Kaliro	Bumanya	Nabikooki	HC II	Mr. Paulo Muwumba	EN	
	Bulamogi	Bumanya	HC IV	Mr. Mwenekira James	MCO	0782577586
		Kasokwe	HC II	Martin Nseera	EN	0782682205
		Namwiwa	HC III	Mr. Kikomoko R. Moses		0782394839
		Kaliro	HC III	Mr. Wadero P.I Charles		0782462083
Kyenjojo	Kyarusenzi	Nyankwanzi	HC III	Ms. Kabamoli Rachael	MCO	0772874598
	Kyegegwa	Kakabara	HC III	Mr. Mulumba Richard	MCO	0772938802
		Hapuyo	HC III	Mr. Turimanya Jude	MCO	0772988687
	Kyenjojo	Kyenjojo	HC IV	Dr. Mwinganiza David	MO	0752956466
		Butiiti	HC III	Mr. Ouma Robert	MCO	0782302292
Mubende	Buwekula	Mubende	Hospital	Dr. Ngobi Aggrey	MED SUP	0772410746
		Kanseera	HC II	Najjuma Juliet		0772957311
		Kiyuni	HC III	Ssekandde Robert	MCO	0782841558
		Kasambya	HC III	Kyewalabye John	MCO	
Pallisa	Butebo	Kakoro	HC III	Mr. Mugulusi M. Samuel		0752297171
		Butebo	HC IV	Dr. Kabweru .W		782961484
	Pallisa	Agule	HC III	Mr. Obuya Bazil	EN	
		Pallisa	Hospital	Dr. Katimbo Charles	MO	0782412830
		Limoto	HC III	Mrs. Omona Florence	EN	



District	HSD	Health Facility	Level	Name of the In-Charge	Designation	Phone
Rakai	Kooki	Rakai	Hospital	Dr. Watima John		0772608604
	Kyotera	Kabuwoko	HC III	Mr. Augustin Kateregga	EN	0772324812
		Biikira	HC III	Joseph Mukasa	ADMIN	077296733
	Kakuuto	Kakuuto	HC IV	Dr. Sakor Moses	MO	0752813577
		Mayansa	HC II	Naqayi Christine	EN	
Rukungiri	Rujumbura	Ruhinda	HC III	Ahimbisibwe Andrew		0782053878
		Masya	HC II	Kwikiriza Rhoda		0782623524
		Buhunga	HC III	Ms. Adong Rose Nancy		0772649416
	Rubabo	Kebisoni	HC IV	Dr. Rutahigwa . E. Kasse		0772671442
	Rujumbura	Nyakibale	Hospital	Dr. Baquma Joseph	MED SUP	
Wakiso	Entebbe	Entebbe	Hospital	Dr. Muwanga Moses	MO	0772455619
	Busiro North	Namayumba	HC IV	Kabugo Timothy	MCO	0772631270
	Kasangati	Wattuba	HC III	Ms. Lubanga Zainabu		0782507957
		Kira	HC III			772527222
		Kitara	HC II	Ms. Kiwala Laura	MCO	0772327266
Yumbe	Aringa	Lodonga	HC III	Sr. Theresa Anguparu		0772360056
		Yumbe	HC II	Aroma Swadiki	EN	0782109197
		Yumbe	Hospital	Dr. Mwanje Joseph	MO	0782317935
		Kulikulinga	HC III	Bakole A. Karala		0721655451
		Barakala	HC II	Mohamad Alli	EN	0772884957
		Yumbe	HC II	Aroma Swadiki Eyn		0782109197

### Appendix 10: Availability of guidelines within health facilities

District	Healthfacility	Level	Guide 1	Guide 2	Guide 3	Guide 4	Guide 5	Total	Proportion
Amolatar	Amal	Hospital	1	1	1	0	0	3	60%
	Amolatar	HC IV	1	1	0	0	0	2	40%
	Aputi	HC II	1	1	0	0	0	2	40%
	Arwotcek	HC II	0	0	1	0	0	1	20%
	Namasale	HC III	0	0	0	0	0	0	0%
Amuria	Abarilela	HC III	1	1	1	1	1	5	100%
	Acowa	HC III	1	1	1	1	1	5	100%
	Amuria	HC IV	1	1	1	1	1	5	100%
	Asamuk	HC III	1	1	1	1	1	5	100%
	Obalanga	HC III	1	1	1	1	1	5	100%
Gulu	Anaka	Hospital	1	1	1	0	0	3	60%
	Kalali	HC II	1	1	0	0	1	3	60%
	Layibi Techo	HC II	0	0	0	0	0	0	0%
	Ongako	HC II	0	0	0	0	0	0	0%
	Pabbo	HC II	1	0	0	0	0	1	20%
Ibanda	Bisheshe	HC III	1	0	0	0	0	1	20%
	Ibanda	Hospital	1	1	1	0	1	4	80%
	Kikyenkye	HC III	1	0	1	0	1	3	60%
	Ruhoko	HC IV	1	0	0	0	0	1	20%
	Rwengwe	HC 2	1	0	0	0	0	1	20%
Kaliro	Bumanya	HC IV	1	0	0	0	0	1	20%
	Kaliro	HC III	1	1	1	1	1	5	100%
	Kasokwe	HC II	1	0	0	0	0	1	20%
	Nabikooki	HC II	1	0	0	0	0	1	20%
	Namwiwa	HC III	1	0	0	0	0	1	20%
Kyenjojo	Nyankwanzi	HC III	0	1	1	0	0	2	80%
	Kakabara	HC III	0	0	1	0	0	1	40%
	Hapuyo	HC III	1	1	1	1	0	4	40%
	Kyenjojo	HC IV	1	1	0	1	1	4	20%
	Butiiti	HC III	1	1	0	0	0	2	40%
Mubende	Kanseera	HC II	1	0	0	0	1	2	40%
	Kasambya	HC III	1	0	0	1	0	2	40%
	Kiyuni	HC III	1	0	0	0	0	1	20%
	Kiganda	HC IV	1	0	0	0	0	1	20%
	Mubende	Hospital	1	0	0	0	0	1	20%
Pallisa	Agule	HC III	0	1	1	0	1	3	60%
	Butebo	HC IV	1	1	1	1	1	5	100%
	Kakoro	HC III	1	1	1	0	1	4	80%
	Limoto	HC III	1	1	1	0	1	4	80%
	Pallisa	Hospital	1	1	1	1	1	5	100%

District	Healthfacility	Level	Guide 1	Guide 2	Guide 3	Guide 4	Guide 5	Total	Proportion
Rakai	Bikira	HC III	1	0	0	0	0	1	20%
	Kabuwoko	HC III	1	0	0	0	0	1	20%
	Kakuuto	HC IV	1	1	0	0	1	3	60%
	Mayansa	HC II	1	0	0	0	0	1	20%
	Rakai	Hospital	0	0	0	0	0	0	0%
Rukungiri	Buhunga	HC III	1	1	1	1	1	5	100%
	Kebisoni	HC IV	1	1	1	0	1	4	80%
	Masya	HC II	1	0	0	0	0	1	20%
	Nyakibale	Hospital	1	0	0	0	0	1	20%
	Ruhinda	HC III	1	1	1	0	0	3	60%
Wakiso	Entebbe	Hospital	1	1	1	1	1	5	100%
	Kira	HC III	0	0	0	0	0	0	0%
	Kitara	HC II	1	0	0	0	0	1	20%
	Namayumba	HC IV	1	1	1	1	1	5	100%
	Wattuba	HC III	1	0	0	0	0	1	20%
Yumbe	Barakala	HC II	1	1	0	0	1	3	60%
	Kulikulinga	HC III	1	1	0	1	1	4	80%
	Lodonga	HC III	1	1	0	1	1	4	80%
	Yumbe	HC II	1	1	0	1	1	4	80%
	Yumbe	Hospital	1	1	0	0	1	3	60%

Guide 1 -> Management of uncomplicated Malaria, a Practical Guide for Health Workers, 3rd Edition

Guide 2-> Flow Chart on Malaria in pregnancy, 2nd Edition, December 2005

Guide 3-> Flow chart on Management of Malaria, December 2005

Guide 4->Malaria treatment Policy Brochure, 2nd Edition, December 2005

Guide 5->Malaria treatment Policy Chart, 2nd Edition, December 2005

**Appendix: 11: Availability of COARTEM® within health facilities**

District	Health Facility	Level	COARTEM® Yellow (6 tablets)	COARTEM® Blue (12 tablets)	COARTEM® Brown (18 tablets)	COARTEM® Green (24 tablets)	Total
Amolatar	Amai Hospital	Hospital	2,300	9,960	8,290	50,840	71,390
	Amolatar	HC IV	2,160	2,520	1,080	1,440	7,200
	Aputi	HC II	102	0	342	1,848	2,292
	Anwotcek	HC II	444	72	540	1,584	2,640
	Namasale	HC III	180	0	0	1,440	1,620
Sub-Total			5,186	12,552	10,252	57,152	85,142

Amuria	Abarilela	HC III	0	0	0	0	0
	Acowa	HC III	0	0	0	0	0
	Amuria	HC IV	0	0	0	0	0
	Asamuk	HC III	0	0	0	0	0
	Obalanga	HC III	0	0	0	0	0
Sub-Total			0	0	0	0	0

Gulu	Anaka Hospital	Hospital	0	0	0	0	0
	Kalali	HC II	180	180	60	0	420
	Layibi Techo	HC II	300	60	0	60	420
	Ongako	HC II	270	240	30	600	1,140
	Pabbo	HC II	3,600	2,520	2,080	16,560	24,760
Sub-Total			4,350	3,000	2,170	17,220	26,740

Ibanda	Bisheshe	HC III	0	90	0	30	120
	Ibanda Hospital	Hospital	240	660	330	930	2,160
	Kikyenkye	HC III	180	30	0	150	360
	Ruhoko	HC IV	760	760	760	760	3,040
	Rwengwe	HC 2	10				10
Sub-Total			1,190	1,540	1,090	1,870	5,690

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District	Health Facility	Level	COARTEM® Yellow (6 tablets)	COARTEM® Blue (12 tablets)	COARTEM® Brown (18 tablets)	COARTEM® Green (24 tablets)	Total
Kaliro	Bumanya	HC IV	3	0	0	0	3
	Kaliro	HC III	0	0	0	10	10
	Kasokwe	HC II	0	0	0	0	0
	Nabikooki	HC II	0	0	0	110	110
	Namwiwa	HC III	30	0	0	0	30
Sub-Total			33	0	0	120	153

Kyenjojo	Nyankwanzi	HC III	0	0	0	0	0
	Kakabara	HC III	113	214	0	0	327
	Hapuyo	HC III	0	0	0	0	0
	Kyenjojo	HC IV	0	0	0	0	0
	Butiiti	HC III	150	60	30	120	360
Sub-Total			<b>263</b>	<b>274</b>	<b>30</b>	<b>120</b>	<b>687</b>

Mubende	Kanseera	HC II	71	40	2	121	234
	Kasambya	HC III	0	0	0	0	0
	Kiyuni	HC III	0	0	0	0	0
	Mubende	Hospital	160	122	0	326	608
	Kiqanda	HC IV	60	0	0	0	60
Sub-Total			291	162	2	447	902

Pallisa	Agule	HC III	0	0	0	0	0
	Butebo	HC IV	0	0	0	0	0
	Kakoro	HC III	0	0	0	0	0
	Limoto	HC III	804	368	108	1,728	3,008
	Pallisa	Hospital	1,100	335	115	1,597	3,147
Sub-Total			1,904	703	223	3,325	6,155

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District	Health Facility	Level	COARTEM® Yellow (6 tablets)	COARTEM® Blue (12 tablets)	COARTEM® Brown (18 tablets)	COARTEM® Green (24 tablets)	Total
Rakai	Biikira	HC III	366	173	84	499	1,122
	Kabuwoko	HC III	180	120	30	0	330
	Kakuuto	HC IV	48	104	85	703	940
	Mayansa	HC II	0	0	0	3,504	3,504
	Rakai	Hospital	48	0	0	16	64
Sub-Total			642	397	199	4,722	5,960

Rukungiri	Buhunga	HC III	0	0	0	0	0
	Kebisoni	HC IV	270	0	30	0	300
	Masya	HC II	270	0	0	0	270
	Nyakibale	Hospital	16	20	7	34	77
	Ruhinda	HC III	330	0	0	12	342
Sub-Total			886	20	37	46	989

Wakiso	Entebbe	Hospital	2,050	1,170	150	4,410	7,780
	Kira	HC III	0	0	0	0	0
	Kitara	HC II	180	150		150	480
	Namayumba	HC IV	420	0	70	330	820
	Wattuba	HC III	2,340	12,240	1,080	920	16,580
Sub-Total			4,990	13,560	1,300	5,810	25,660

Yumbe	Barakala	HC II	24	12	6	54	96
	Kulikulinga	HC III	720	900	1,800	6,720	10,140
	Lodonga	HC III	0	0	0	0	0
	Yumbe	HC II	0	0	0	0	0
	Yumbe	Hospital	48	0	12	228	288
Sub-Total			792	912	1,818	7,002	10,524

**Appendix 12: Availability of medicines other than COARTEM within health facilities**

District	Health facility		A	B	C	D	E	F	G	H	I	J	K	L
Amolatar	Amolatar	HC IV	0	0	0		800	850	2,000	0	21,000	0	6,000	500
	Aputi	HC II	0	0	0	0	33	98	1,000	0	1,000	0	330	317
	Arwotcek	HC II	0	0	0	0	10	56	8,000	0	18,000	0	0	0
	Namasale	HC III	0	0	0	0	100	300	7,000	0	9,000	0	0	0
	Amai	Hospital	0	0	0	0								
	Sub-Total						0	143	454	16,000	0	28,000	0	330
Amuria	Asamuk	HC III					270	820	8,000	0			100	100
	Acowa	HC III					70	600	2,000		21,000	1,000		
	Abarilela	HC III						180						
	Obalanga	HC III					449	601	1,000	0	1,000		410	905
	Amuria	HC IV	0				400	0	27,000				17,000	11,000
	Sub-Total		0	0	0	0	1,189	2,201	38,000	0	22,000	1,000	17,510	12,005
Gulu	Pabbo	HC II	0				110	490	3,000	1,000	3,000	0	0	0
	Ongako	HC II					0	300	1,000	0	0	0	0	0
	Anaka	Hospital		0	0	0					167,000			3,300
	Kalali	HC II	0	0	0	0	50	35	5,000	0	3,000	0	0	0
	Layibi Techo	HC II												
	Sub-Total		0	0	0	0	160	825	9,000	1,000	173,000	0	0	3,300
Ibanda	Bisheshe	HC III	0	0	0	0	30	100	1,000	0	1,700		7,200	16,800
	Kikyenkye	HC III	0	0	0	0	510	380	2,000	8,000	3,600	0	4,488	3,724
	Ruhoko	HC IV					340	230	0	22,000	12,000		0	0
	Ibanda Hospital	Hospital	100				1,700		1,000	16,000				
	Rwengwe	HC 2					50	0	250	500	5,000			
	Sub-Total		100	0	0	0	2,630	710	4,250	46,500	22,300	0	11,688	20,524

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District	Health facility		A	B	C	D	E	F	G	H	I	J	K	L
Kaliro	Nabikooki	HC II	0	0	0	0	0	0	0	0	0	0	0	0
	Bumanya	HC IV	0	0	0	0	20	200	18,000	0		6,000		
	Kasokwe	HC II					0	0	0					
	Namwiwa	HC III	0	0	0	0	0	0	0	0	4,000			
	Kaliro	HC III					50	20	0	116				143
	Sub-Total		0	0	0	0	70	220	18,000	116	4,000	6,000	0	143
Kyenjojo	Nyankwanzi	HC III	0	0	0	0	0	0	0	0	0	0	1,800	1,800
	Kakabara	HC III	0	0	0	0	96	109	0	96	50	0	0	0
	Hapuyo	HC III			0	0	70	70	4,000	0	0	0	0	0
	Kyenjojo	HC IV	0	0	0	0	580	655	1,000	0	10,000	0	0	0
	Butiiti	HC III	0	0	0	0	10	130	1,000	0	8,000	0	0	0
	Sub-Total		0	0	0	0	756	964	6,000	96	18,050	0	1,800	1,800
Mubende	Kiganda	HC IV							1,000					
	Mubende	Hospital					172	176	1,393	3,000	1,687			
	Kanseera	HC II							3,000				706	617
	Kiyuni	HC III					0		6,000		11,000			
	Kasambya	HC III												
	Sub-Total		0	0	0	0	172	176	11,393	3,000	12,687	0	706	617
Pallisa	Kakoro	HC III		0	0	0	2	400	500	0	8,000			300
	Agule	HC III					401	390	4,700	1,200	9,000	0	670	0
	Pallisa	Hospital					2,435	600	15,000	30,000	20,000			
	Limoto	HC II					236	290	4,000	2,000	7,000		155	380
	Butebo	HC IV					490	1,000	1,000	1,000	9,000		300	300
	Sub-Total		0	0	0	0	3,564	2,680	25,200	34,200	53,000	0	1,125	980



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District	Health facility		A	B	C	D	E	F	G	H	I	J	K	L
Rakai	Rakai	Hospital					550	700					21	68
	Kakuuto	HC IV					405	473						32
	Kabuwoko	HC III					20				300			350
	Biikira	HC III		96			73	61	597	1,165	1,045	508		
	Mayansa	HC II	0					169	1,000		1,000		300	300
	Sub-Total		0	96	0	0	1,048	1,403	1,597	1,165	2,345	508	321	750
Rukungiri	Ruhinda	HC III	0	0		0	70	0	1,000	200	50	0		
	Masya	HC II		0	0	0	0	0	2,000	1,000	0			
	Buhunga	HC III	0	0	0	0	240	0	1,000	0	3,000	0	300	0
	Kebisoni	HC IV		0	0		730	250	4,000	2,000	6,000		600	400
	Nyakibale	Hospital	0	0	0	0	26	10,000	0	0	0	0	0	0
	Sub-Total		0	0	0	0	1,066	10,250	8,000	3,200	9,050	0	900	400
Wakiso	Entebbe	Hospital		0										
	Namayumba	HC IV	0	0	0	0	363	560	1,000	1,000	8,000	0	300	600
	Wattuba	HC III	0	0	0	0	350	500	4,000	0	3,000	0		
	Kira	HC III												
	Kitara	HC II		0	0	0	116	178	2,000	619				
	Sub-Total		0	0	0	0	829	1,238	7,000	1,619	11,000	0	300	600
Yumbe	Lodonga	HC III					620	270	3,400	1,100	400			
	Yumbe	HC II					100	200	10,000		20,000			2,500
	Yumbe	Hospital					500	1,100	4,000	0	10,000			
	Kulikulinga	HC III					130	400	14,000		24,000		750	750
	Barakala	HC II					270	100	1,450		11,000			500
	Sub-Total		0	0	0	0	1,620	2,070	32,850	1,100	65,400	0	750	3,750

Key to appendix 12

A Artesunate + Amodiaquine Tablets

D Dihydroartemisinin

G Sp Tablets

J Amodiaquine Tablets

B Artesunate  
C Artemether

E Quinine Injection  
F Chloroquine Injection

H Quinine Tablets  
I Chloroquine Tablets

K Homapak Red Tablets  
L Homapak Green Tablets

**Appendix 13: Health workers trained in 60 health facilities**

District	Health Facility	Level	Health Workers	Clinical		Nursing		Paramedical		Other		Total		Total	% Trained
				M	F	M	F	M	F	M	F	M	F	M&F	
Amolatar	Amai	Hospital	All Health Workers	4	1	8	20	13	3	10	1	35	25	60	
			Those Trained	3	1	8	20	13	3	10	1	34	25	59	98%
	Amolatar	HC IV	All Health Workers	3	0	0	10	2	0	1	0	6	10	16	
			Those Trained	3	0	0	10	2	0	1	0	6	10	16	100%
	Aputi	HC II	All Health Workers	0	0	2	1	0	0	0	0	2	1	3	
			Those Trained	0	0	2	1	0	0	0	0	2	1	3	100%
	Arwotcek	HC II	All Health Workers	0	0	2	1	0	0	0	0	2	1	3	
			Those Trained	0	0	2	1	0	0	0	0	2	1	3	100%
	Namasale	HC III	All Health Workers	2	0	1	7	0	1	0	1	3	9	12	
			Those Trained	2	0	1	3	0	0	0	1	3	4	7	58%
	Summary	All Health Workers		9	1	13	39	15	4	11	2	48	46	94	
		Those Trained		8	1	13	35	15	3	11	2	47	41	88	
% trained		89%	100%	100%	90%	100%	75%	100%	100%	98%	89%	94%			

Amuria	Abarilela	HC III	All Health Workers	1	0	1	3	0	0	0	0	2	3	5	
			Those Trained	1	0	1	2	0	0	0	0	2	2	4	80%
	Acowa	HC III	All Health Workers	1	0	1	4	1	0	3	1	6	5	11	
			Those Trained	1	0	1	4	1	0	3	1	6	5	11	100%
	Amuria	HC IV	All Health Workers	2	0	1	10	1	0	4	0	8	10	18	
			Those Trained	2	0	1	10	1	0	3	0	7	10	17	94%
	Asamuk	HC III	All Health Workers	1	0	0	2	2	0	1	0	4	2	6	
			Those Trained	1	0	0	2	1	0	1	0	3	2	5	83%
	Obalanga	HC III	All Health Workers	1	0	0	3	1	0	6	5	8	8	16	
			Those Trained	1	0	0	3	1	0	6	5	8	8	16	100%
	Summary	All Health Workers		6	0	3	22	5	0	14	6	28	28	56	
		Those Trained		6	0	3	21	4	0	13	6	26	27	53	
		% trained		100%		100%	95%	80%		93%	100%	93%	96%	95%	

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District	Health Facility	Level	Health Workers	Clinical		Nursing		Paramedical		Other		Total		Total	% Trained
				M	F	M	F	M	F	M	F	M	F	M&F	

Gulu	Kalali	HC II	All Health Workers	1	0	1	2	0	0	0	0	2	2	4	
			Those Trained	1	0	1	2	0	0	0	0	2	2	4	100%
	Layibi Techo	HC II	All Health Workers	1	1	2	3	0	1	0	0	3	5	8	
			Those Trained	1	1	2	3	0	0	0	0	3	4	7	88%
	Anaka	Hospital	All Health Workers	7	0	3	34	3	0	14	0	27	34	61	
			Those Trained	7	0	4	34	4	0	11	0	26	34	60	98%
	Ongako	HC II	All Health Workers	0	1	0	1	0	0	0	0	0	2	2	
			Those Trained	0	1	0	1	0	0	0	0	0	2	2	100%
	Pabbo	HC II	All Health Workers	2	0	2	3	0	0	0	0	4	3	7	
			Those Trained	2	0	2	3	0	0	0	0	4	3	7	100%
Summary	All Health Workers		11	2	8	43	3	1	14	0	36	46	82		
	Those Trained		11	2	9	43	4	0	11	0	35	45	80		
	% trained		100%	100%	113%	100%	133%	0%	79%	#DIV/0 !	97%	98%	98%		

Ibanda	Bisheshe	HC III	All Health Workers	1	0	0	4	1	0	0	0	2	4	6	
			Those Trained	1	0	0	4	1	0	0	0	2	4	6	100%
	Ibanda Hospital	Hospital	All Health Workers	6	1	2	47	6	3	0	25	14	76	90	
			Those Trained	6	1	2	47	6	3	0	25	14	76	90	100%
	Kikyanky	HC III	All Health Workers	0	1	0	5	2	0	0	2	2	8	10	
			Those Trained	0	1	0	3	2	0	0	1	2	5	7	70%
	Ruhoko	HC IV	All Health Workers	1	0	1	9	1	1	0	0	3	10	13	
			Those Trained	1	0	1	9	1	1	0	0	3	10	13	100%
	Rwengwe	HC 2	All Health Workers	0	0	0	1	0	0	0	0	0	1	1	
			Those Trained	0	0	0	1	0	0	0	0	0	1	1	100%
Summary	All Health Workers		8	2	3	66	10	4	0	27	21	99	120		
	Those Trained		8	2	3	64	10	4	0	26	21	96	117		
	% trained		100%	100%	100%	97%	100%	100%		96%	100%	97%	98%		

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District	Health Facility	Level	Health Workers	Clinical		Nursing		Paramedical		Other		Total		Total	% Trained
				M	F	M	F	M	F	M	F	M	F	M&F	
Kaliro	Bumanya	HC IV	All Health Workers	2	1	1	6	1	0	0	0	4	7	11	
			Those Trained	2	1	1	4	1	0	0	0	4	5	9	82%
	Kaliro	HC III	All Health Workers	2	0	3	5	4	0	0	0	9	5	14	
			Those Trained	2	0	3	4	4	0	0	0	9	4	13	93%
	Kasokwe	HC II	All Health Workers	0	0	2	5	0	0	0	0	2	5	7	
			Those Trained	0	0	2	5	0	0	0	0	2	5	7	100%
	Nabikooki	HC II	All Health Workers	0	0	3	3	0	0	0	0	3	3	6	
			Those Trained	0	0	3	3	0	0	0	0	3	3	6	100%
	Namwiwa	HC III	All Health Workers	2	0	4	9	0	0	0	0	6	9	15	
			Those Trained	1	0	4	5	0	0	0	0	5	5	10	67%
Summary	All Health Workers		6	1	13	28	5	0	0	0	24	29	53		
	Those Trained		5	1	13	21	5	0	0	0	23	22	45		
	% trained		83%	100%	100%	75%	100%				96%	76%	85%		
Kyenjojo	Nyankwanzi	HC III	All Health Workers	0	1	0	3	0	0	4	1	4	5	9	
			Those Trained	0	0	0	0	0	0	0	0	0	0	0	
	Kakabara	HC III	All Health Workers	1	0	2	2	0	0	2	0	5	2	7	
			Those Trained	1	0	2	2	0	0	1	0	4	2	6	
	Hapuyo	HC III	All Health Workers	1	0	0	4	0	0	2	0	3	4	7	
			Those Trained	0	0	0	1	0	0	1	0	1	1	2	
	Kyenjojo	HC IV	All Health Workers	4	1	2	12	0	0	2	0	8	13	21	
			Those Trained	3	1	2	7	0	0	0	0	5	8	13	
	Butiiti	HC III	All Health Workers	1	0	1	4	1	0	1	0	4	4	8	
			Those Trained	0	0	1	3	1	0	0	0	2	3	5	
	Summary	All Health Workers		7	2	5	25	1	0	11	1	24	28	52	
		Those Trained		4	1	5	13	1	0	2	0	12	14	26	
		% trained		57%	50%	100%	52%	100%		18%	0%	50%	50%	50%	

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District	Health Facility	Level	Health Workers	Clinical		Nursing		Paramedical		Other		Total		Total	% Trained
				M	F	M	F	M	F	M	F	M	F	M&F	
Mubende	Kanseera	HC II	All Health Workers	2	0	0	5	1	0	0	1	3	6	9	
			Those Trained	2	0	0	5	1	0	0	1	3	6	9	100%
	Kiganda	HC IV	All Health Workers	2	0	1	9	1	1	0	0	4	10	14	
			Those Trained	2	0	1	9	1	1	0	0	4	10	14	100%
	Kasambya	HC III	All Health Workers	2	0	0	5	1	0	0	1	3	6	9	
			Those Trained	2	0	0	5	1	0	0	1	3	6	9	100%
	Kiyuni	HC III	All Health Workers	1	0	0	4	0	0	0	0	1	4	5	
			Those Trained	1	0	0	2	0	0	0	0	1	2	3	60%
	Mubende	Hospital	All Health Workers	2	0	1	10	1	0	4	0	8	10	18	
			Those Trained	2	0	1	10	1	0	3	0	7	10	17	94%
	Summary	All Health Workers		9	0	2	33	4	1	4	2	19	36	55	
Those Trained		9	0	2	31	4	1	3	2	18	34	52			
% trained		100%	#DIV/0 !	100%	94%	100%	100%	75%	100%	95%	94%	95%			
Pallisa	Agule	HC III	All Health Workers	1	0	3	3	0	1	1	0	5	4	9	
			Those Trained	0	0	3	3	0	1	1	0	4	4	8	89%
	Butebo	HC IV	All Health Workers	4	0	1	11	2	0	3	0	10	11	21	
			Those Trained	4	0	1	9	2	0	3	0	10	9	19	90%
	Kakoro	HC III	All Health Workers	1	0	1	1	2	0	1	3	5	4	9	
			Those Trained	1	0	0	1	1	0	1	3	3	4	7	78%
	Limoto	HC III	All Health Workers	0	0	0	4	0	0	0	0	0	4	4	
			Those Trained	0	0	0	3	0	0	0	0	0	3	3	75%
	Pallisa	Hospital	All Health Workers	10	0	4	59	10	5	17	0	41	64	105	
			Those Trained	7	0	4	40	10	5	0	0	21	45	66	63%
	Summary	All Health Workers		16	0	9	78	14	6	22	3	61	87	148	
		Those Trained		12	0	8	56	13	6	5	3	38	65	103	
		% trained		75%	#DIV/0 !	89%	72%	93%	100%	23%	100%	62%	75%	70%	

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District	Health Facility	Level	Health Workers	Clinical		Nursing		Paramedical		Other		Total		Total	% Trained
				M	F	M	F	M	F	M	F	M	F	M&F	

Rakai	Biikira	HC III	All Health Workers	2	0	0	26	2	2	1	3	5	31	36	
			Those Trained	2	0	0	24	2	2	0	1	4	27	31	86%
	Kakuuto	HC IV	All Health Workers	4	1	3	25	3	1	12	2	22	29	51	
			Those Trained	3	1	1	15	1	1	2	1	7	18	25	49%
	Kabuwoko	HC III	All Health Workers	0	0	1	3	0	1	3	0	4	4	8	
			Those Trained	0	0	1	1	0	0	0	0	1	1	2	25%
	Mayansa	HC II	All Health Workers	0	0	0	3	0	0	0	0	0	3	3	
			Those Trained	0	0	0	2	0	0	0	0	0	2	2	67%
	Rakai	Hospital	All Health Workers	6	4	2	39	6	2	14	2	28	47	75	
			Those Trained	6	3	2	37	6	2	14	2	28	44	72	96%
Summary	All Health Workers		12	5	6	96	11	6	30	7	59	114	173		
	Those Trained		11	4	4	79	9	5	16	4	40	92	132		
	% trained		92%	80%	67%	82%	82%	83%	53%	57%	68%	81%	76%		

Rukungiri	Buhunga	HC III	All Health Workers	1	1	1	4	0	1	1	0	3	6	9	
			Those Trained	0	1	1	4	0	1	1	0	2	6	8	89%
	Masya	HC II	All Health Workers	0	0	0	4	0	0	0	0	0	4	4	
			Those Trained	0	0	0	4	0	0	0	0	0	4	4	100%
	Kebisoni	HC IV	All Health Workers	2	1	4	8	1	0	0	1	7	10	17	
			Those Trained	2	1	4	8	1	0	0	1	7	10	17	100%
	Nyakibale	Hospital	All Health Workers	4	1	12	38	3	1	0	3	19	43	62	
			Those Trained	4	1	10	35	2	1	0	3	16	40	56	90%
	Ruhinda	HC III	All Health Workers	1	1	0	7	2	0	3	0	6	8	14	
			Those Trained	1	1	0	7	2	0	3	0	6	8	14	100%
Summary	All Health Workers		8	4	17	61	6	2	4	4	35	71	106		
	Those Trained		7	4	15	58	5	2	4	4	31	68	99		
	% trained		88%	100%	88%	95%	83%	100%	100%	100%	89%	96%	93%		

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District	Health Facility	Level	Health Workers	Clinical		Nursing		Paramedical		Other		Total		Total	% Trained
				M	F	M	F	M	F	M	F	M	F	M&F	

Wakiso	Kira	HC III	All Health Workers	0	1	0	4	1	0	0	1	1	6	7	
			Those Trained	0	0	0	0	0	0	0	0	0	0	0	0
	Kitara	HC II	All Health Workers	0	1	1				1	1	2	2	4	
			Those Trained	0	0	0	0	0	0	0	0	0	0	0	0
	Entebbe	Hospital	All Health Workers	15	8	32	115	11	4	7	8	65	135	200	
			Those Trained	8	5	17	66	6	2	4	5	35	78	113	57%
	Namayumba	HC IV	All Health Workers	1	2	0	16	1	1	1	0	3	19	22	
			Those Trained	1	2	0	16	1	1	1	0	3	19	22	100%
	Wattuba	HC III	All Health Workers	0	1	0	1	0	0	0	0	0	2	2	
			Those Trained	0	0	0	0	0	0	0	0	0	0	0	0
Summary	All Health Workers		16	13	33	136	13	5	9	10	71	164	235		
	Those Trained		9	7	17	82	7	3	5	5	38	97	135		
	% trained		56%	54%	52%	60%	54%	60%	56%	50%	54%	59%	57%		

Yumbe	Barakala	HC II	All Health Workers	0	0	3	2	0	0	0	0	3	2	5	
			Those Trained	0	0	2	2	0	0	0	0	2	2	4	80%
	Kulikulinga	HC III	All Health Workers	1	0	3	5	0	0	0	0	4	5	9	
			Those Trained	1	0	3	4	0	0	0	0	4	4	8	89%
	Lodonga	HC III	All Health Workers	1	0	1	7	1	1	0	0	3	8	11	
			Those Trained	0	0	1	3	0	0	0	0	1	3	4	36%
	Yumbe	HC II	All Health Workers	0	0	2	2	0	0	1	2	3	4	7	
			Those Trained	0	0	1	1	0	0	1	2	2	3	5	71%
	Yumbe	Hospital	All Health Workers	5	0	28	43	11	1	3	1	47	45	92	
			Those Trained	3	0	16	30	7	0	3	1	29	31	60	65%
Summary	All Health Workers		7	0	37	59	12	2	4	3	60	64	124		
	Those Trained		4	0	23	40	7	0	4	3	38	43	81		



**Appendix 14: OPD prescription practices in 60 health facilities**

District	Health Facility	Level	Patients < 5yrs(a)		Patients > 5yrs(b)		All Patients (a+b)		% ACT Prescriptions		% Overall
			Malaria	ACTs	Malaria	ACTs	Malaria	ACTs	% < 5yrs	% >5yrs	
Amolatar	Amai	Hospital	96	26	107	59	203	85	27%	55%	42%
	Amolatar	HC IV	316	185	501	306	817	491	59%	61%	60%
	Aputi	HC II	75	6	121	11	196	17	8%	9%	9%
	Arwotcek	HC II	49	17	54	26	103	43	35%	48%	42%
	Namasale	HC III	629	177	389	140	1018	317	28%	36%	31%
	<b>Total</b>			1165	411	1172	542	2337	953	35%	46%
Amuria	Abarilela	HC III	118	28	132	32	250	60	24%	24%	24%
	Acowa	HC III	88	21	145	35	233	56	24%	24%	24%
	Amuria	HC IV	205	43	258	80	463	123	21%	31%	27%
	Asamuk	HC III	169	15	158	13	327	28	9%	8%	9%
	Obalanga	HC III	173	20	164	18	337	38	12%	11%	11%
	<b>Total</b>			753	127	857	178	1610	305	17%	21%
Gulu	Anaka	HC V	1111	84	618	27	1729	111	8%	4%	6%
	Kalali	HC II	176	125	178	93	354	218	71%	52%	62%
	Layibi Techo	HC II	454	333	688	432	1142	765	73%	63%	67%
	Ongako	HC II	143	59	172	138	315	197	41%	80%	63%
	Pabbo	HC II	322	134	571	151	893	285	42%	26%	32%
	<b>Total</b>			2206	735	2227	841	4433	1576	33%	38%
Ibanda	Bisheshe	HC III	102		314	205	416	205		65%	49%
	Ibanda	Hospital	103	73	242	205	345	278	71%	85%	81%
	Kikyankyeye	HC III	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
	Ruhoko	HC IV	90	5	225	135	315	140	6%	60%	44%
	Rwengwe	HC 2	37	2	153	13	190	15		8%	8%
	<b>Total</b>			332	80	934	558	1266	638	24%	60%

District	Health Facility	Level	Patients < 5yrs(a)		Patients > 5yrs(b)		All Patients (a+b)		% ACT Prescriptions		% Overall
			Malaria	ACTs	Malaria	ACTs	Malaria	ACTs	% < 5yrs	% >5yrs	
Kaliro	Bumanya	HC IV	322	48	488	80	810	128	15%	16%	16%
	Kaliro	HC III	467	33	708	55	1175	88	7%	8%	7%
	Kasokwe	HC II	96	15	234	56	330	71	16%	24%	22%
	Nabikooki	HC II	91	14	223	53	314	67	15%	24%	21%
	Namwiwa	HC III	515	36	401	41	916	77	7%	10%	8%
	<b>Total</b>			1491	146	2054	285	3545	431	10%	14%
Kyenjojo	Nyankwanzi	HC III	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
	Kakabara	HC III	130	78	275	165	405	243	60%	60%	60%
	Hapuyo	HC III	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
	Kyenjojo	HC IV	99	33	310	113	409	146	33%	36%	36%
	Butiiti	HC III	123	27	536	153	659	180	22%	29%	27%
	<b>Total</b>			352	138	1121	431	1473	569	39%	38%
Mubende	Kanseera	HC II	155	123	676	451	831	574	79%	67%	69%
	Kiganda	HC IV	125	105	437	366	562	471	84%	84%	84%
	Kasambya	HC III	155	123	676	451	831	574	79%	67%	69%
	Kiyuni	HC III	163	112	491	335	654	447	69%	68%	68%
	Mubende	Hospital	314	210	962	633	1276	843	67%	66%	66%
	<b>Total</b>			912	673	3242	2236	4154	2909	74%	69%
Pallisa	Agule	HC III	208	165	329	120	537	285	79%		53%
	Butebo	HC IV	434	119	212	154	646	273	27%	73%	42%
	Kakoro	HC III	250	101	366	133	616	234	40%	36%	38%
	Limoto	HC III	206	153	259	208	465	361	74%	80%	78%
	Pallisa	Hospital L	937	263	507	237	1444	500	28%	47%	35%
	<b>Total</b>			2035	801	1673	852	3708	1653	39%	51%

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District	Health Facility	Level	Patients < 5yrs(a)		Patients > 5yrs(b)		All Patients (a+b)		% ACT Prescriptions		% Overall
			Malaria	ACTs	Malaria	ACTs	Malaria	ACTs	% < 5yrs	% >5yrs	
Rakai	Biikira	HC III	155	15	211	186	366	201	10%	88%	55%
	Kakuuto	HC IV	280	149	621	471	901	620	53%	76%	69%
	Kabuwoko	HC III	119	116	210	190	329	306	97%	90%	93%
	Mayansa	HC II	18	8	69	5	87	13	44%	7%	15%
	Rakai	Hospital	1053	460	3853	2379	4906	2839	44%	62%	58%
	<b>Total</b>		1625	748	4964	3231	6589	3979	46%	65%	60%
Rukungiri	Buhunga	HC III	304	200	1874	330	2178	530	66%	18%	24%
	Kebisoni	HC IV	932	515	4482	3189	5414	3704	55%	71%	68%
	Masya	HC II	691	330	2225	570	2916	900	48%	26%	31%
	Nyakibale	Hospital	1347	510	8065	1470	9412	1980	38%	18%	21%
	Ruhinda	HC III	442	240	2562	348	3004	588	54%	14%	20%
	<b>Total</b>		3716	1795	19208	5907	22924	7702	48%	31%	34%
Wakiso	Entebbe	Hospital	2633	1257	1925	1061	4558	2318	48%	55%	51%
	Kira	HC III	810	480	400	81	1210	561	59%	20%	46%
	Kitara	HC II	736	436	538	368	1274	804	59%	68%	63%
	Namayumba	HC IV	286	171	306	110	592	281	60%	36%	47%
	Wattuba	HC III	171	37	274	127	445	164	22%	46%	37%
	<b>Total</b>		4636	2381	3443	1747	8079	4128	51%	51%	51%
Yumbe	Barakala	HC II	307	40	368	16	675	56	13%	4%	8%
	Kulikulinga	HC III	537	120	525	64	1062	184	22%	12%	17%
	Lodonga	HC III	338	240	145	65	483	305	71%	45%	63%
	Yumbe	HC II	339	122	477	297	816	419	36%	62%	51%
	Yumbe	Hospital	1565	939	1533	780	3098	1719	60%	51%	55%
	<b>Total</b>		3086	1461	3048	1222	6134	2683	47%	40%	44%

### Appendix 15: OPD attendances

District	Health facility	Level	New Attendances	District	Health Facility	Level	Patients < 5yrs(a)	Patients >5yrs(b)	Total (a+b)	Proportion Malaria (%)	Overall (a&b)
Amolatar	Amai	HOSPITAL	1,704	734	1,998	367	3,702	1,101	43%	18%	30%
	Amolatar	HC IV	4,330	2,579	6,701	2,999	11,031	5,578	60%	45%	51%
	Aputi	HC II	1,807	1,063	3,530	1,942	5,337	3,005	59%	55%	56%
	Arwotcek	HC II	1,042	676	2,707	1,042	3,749	1,718	65%	38%	46%
	Namasale	HC III	2,513	1,570	4,501	1,910	7,014	3,480	62%	42%	50%
	<b>Total</b>			<b>11,396</b>	<b>6,622</b>	<b>19,437</b>	<b>8,260</b>	<b>30,833</b>	<b>14,882</b>	58%	42%
Amuria	Abarilela	HC III	4,282	1,939	4,764	2,504	9,046	4,443	45%	53%	49%
	Acowa	HC III	3,611	2,977	4,514	3,448	8,125	6,425	82%	76%	79%
	Amuria	HC IV	8,176	3,528	13,945	3,751	22,121	7,279	43%	27%	33%
	Asamuk	HC III	2,806	2,165	5,079	2,730	7,885	4,895	77%	54%	62%
	Obalanga	HC III	4,004	3,120	4,835	3,626	8,839	6,746	78%	75%	76%
	<b>Total</b>			<b>22,879</b>	<b>13,729</b>	<b>33,137</b>	<b>16,059</b>	<b>56,016</b>	<b>29,788</b>	60%	48%
Gulu	Anaka Hospital	HC V	6,105	2,920	7,437	2,427	13,542	5,347	48%	33%	39%
	Kalali	HC II	1,660	706	3,014	957	4,674	1,663	43%	32%	36%
	Layibi Techo	HC II	2,466	1,526	4,367	2,025	6,833	3,551	62%	46%	52%
	Ongako	HC II	1,033	672	2,260	803	3,293	1,475	65%	36%	45%
	Pabbo	HC II	4,112	2,082	9,553	2,733	13,665	4,815	51%	29%	35%
	<b>Total</b>			<b>15,376</b>	<b>7,906</b>	<b>26,631</b>	<b>8,945</b>	<b>42,007</b>	<b>16,851</b>	51%	34%
Ibanda	Bisheshe	HC III	1,102	506	3,047	1,298	4,149	1,804	46%	43%	43%
	Ibanda	Hospital	642	554	2,690	1,145	3,332	1,699	86%	43%	51%
	Kikyenkye	HC III	615	392	4,060	2,423	4,675	2,815	64%	60%	60%
	Ruhoko	HC IV	595	433	6,303	2,947	6,898	3,380	73%	47%	49%
	Rwengwe	HC 2	772	300	2,069	716	2,841	1,016	39%	35%	36%
	<b>Total</b>			<b>3,726</b>	<b>2,185</b>	<b>18,169</b>	<b>8,529</b>	<b>21,895</b>	<b>10,714</b>	59%	47%

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District	Health facility	Level	New Attendances	District	Health Facility	Level	Patients < 5yrs(a)	Patients >5yrs(b)	Total (a+b)	Proportion Malaria (%)	Overall (a&b)
Kaliro	Bumanya	HC IV	1,335	980	4,505	1,231	5,840	2,211	73%	27%	38%
	Kaliro	HC III	2,582	2,045	4,242	2,414	6,824	4,459	79%	57%	65%
	Kasokwe	HC II	843	595	2,224	1,390	3,067	1,985	71%	63%	65%
	Nabikooki	HC II	457	389	1,521	1,156	1,978	1,545	85%	76%	78%
	Namwiwa	HC III	1,836	1,653	2,486	1,765	4,322	3,418	90%	71%	79%
	<b>Total</b>			<b>7,053</b>	<b>5,662</b>	<b>14,978</b>	<b>7,956</b>	<b>22,031</b>	<b>13,618</b>	80%	53%
Kyenjojo	Nyankwanzi	HC III	1,420	847	3,083	2,544	4,503	3,391	60%	83%	75%
	Kakabara	HC III	2,206	920	2,557	1,526	4,763	2,446	42%	60%	51%
	Hapuyo	HC III	no data	no data	no data	no data	no data	no data	no data	no data	no data
	Kyenjojo	HC IV	3,169	961	8,822	2,384	11,991	3,345	30%	27%	28%
	Butiiti	HC III	965	544	4,068	1,490	5,033	2,034	56%	37%	40%
	<b>Total</b>			<b>7,760</b>	<b>3,272</b>	<b>18,530</b>	<b>7,944</b>	<b>26,290</b>	<b>11,216</b>	42%	43%
Mubende	Kanseera	HC II	1,469	1,154	3,047	2,076	4,516	3,230	79%	68%	72%
	Kasambya	HC III	713	549	3,081	1,458	3,794	2,007	77%	47%	53%
	Kiganda	HC IV	1,469	1,154	3,047	2,076	4,516	3,230	79%	68%	72%
	Kiyuni	HC III	1,041	683	4,083	2,291	5,124	2,974	66%	56%	58%
	Mubende	Hospital	2,944	1,437	16,277	5,591	19,221	7,028	49%	34%	37%
	<b>Total</b>			<b>7,636</b>	<b>4,977</b>	<b>29,535</b>	<b>13,492</b>	<b>37,171</b>	<b>18,469</b>	65%	46%
Pallisa	Butebo	HC IV	2,542	1,827	2,835	1,346	5,377	3,173	72%	47%	59%
	Kakoro	HC III	1,243	1,081	3,025	1,185	4,268	2,266	87%	39%	53%
	Agule	HC III	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA
	Limoto	HC III	1,156	842	1,584	845	2,740	1,687	73%	53%	62%
	Pallisa	Hospital	4,604	4,387	7,505	5,398	12,109	9,785	95%	72%	81%
	<b>Total</b>			<b>9,545</b>	<b>8,137</b>	<b>14,949</b>	<b>8,774</b>	<b>24,494</b>	<b>16,911</b>	85%	59%

Rapid Assessment of Malaria Treatment Policy Implementation

District	Health facility	Level	New Attendances	District	Health Facility	Level	Patients < 5yrs(a)	Patients >5yrs(b)	Total (a+b)	Proportion Malaria (%)	Overall (a&b)
Rakai	Biikira	HC III	1,893	1,765	2,809	2,161	4,702	3,926	93%	77%	83%
	Kakuuto	HC IV	1,690	1,099	8,490	2,754	10,180	3,853	65%	32%	38%
	Kabuwoko		1,595	1,065	5,171	2,312	6,766	3,377	67%		
	Mayansa	HC II	907	440	2,265	1,163	3,172	1,603	49%	51%	51%
	Rakai	Hospital	2,900	1,898	12,524	5,891	15,424	7,789	65%	47%	50%
	<b>Total</b>		<b>8,985</b>	<b>6,267</b>	<b>31,259</b>	<b>14,281</b>	<b>40,244</b>	<b>20,548</b>	70%	46%	51%
Rukungiri	Buhunga	HC III	820	493	5,989	3,245	6,809	3,738	60%	54%	55%
	Kebisoni	HC IV	1,869	1,395	12,189	6,636	14,058	8,031	75%	54%	57%
	Masya	HC II	616	290	5,040	3,259	5,656	3,549	47%	65%	63%
	Nyakibale	Hospital	1,347	903	8,065	2,806	9,412	3,709	67%	35%	39%
	Ruhinda	HC III	1,668	815	7,929	4,348	9,597	5,163	49%	55%	54%
	<b>Total</b>		<b>6,320</b>	<b>3,896</b>	<b>39,212</b>	<b>20,294</b>	<b>45,532</b>	<b>24,190</b>	62%	52%	53%
Wakiso	Entebbe	Hospital	5,283	3,494	32,776	5,653	38,059	9,147			
	Kira	HC III	2,505	1,544	7,866	2,468	10,371	4,012		31%	39%
	Kitara	HC II	2,803	1,693	4,108	2,126	6,911	3,819	60%	52%	55%
	Namayumba	HC IV	660	513	1,802	419	2,462	932	78%	23%	38%
	Wattuba	HC III	124	82	539	274	663	356	66%	51%	54%
	<b>Total</b>		<b>11,375</b>	<b>7,326</b>	<b>47,091</b>	<b>10,940</b>	<b>58,466</b>	<b>18,266</b>	64%	23%	31%
Yumbe	Barakala	HC II	2,467	1,410	4,249	1,530	6,716	2,940	57%	36%	44%
	Kulikulinga	HC III	2,978	1,530	5,741	1,206	8,719	2,736	51%	21%	31%
	Lodonga	HC III	3,774	2,569	2,837	949	6,611	3,518	68%	33%	53%
	Yumbe	HC II	3,447	1,773	4,634	1,870	8,081	3,643	51%	40%	45%
	Yumbe	Hospital	3,447	2,827	11,894	2,761	15,341	5,588	82%	23%	36%
	<b>Total</b>		<b>16,113</b>	<b>10,109</b>	<b>29,355</b>	<b>8,316</b>	<b>45,468</b>	<b>18,425</b>	63%	28%	41%

## Appendix 16: Successes, constraints and experiences as expressed at health facility level

District	Health Facility	Level	Remarks
Amolatar	Amolatar	HC IV	<ul style="list-style-type: none"> <li>▪ Patients report good responses and getting the next malarial attack takes long.</li> <li>▪ Dizziness headaches were reported by some patients.</li> <li>▪ When vomiting oral COARTEM® has little role in treatment of the patient.</li> <li>▪ Expectant mothers in the 1st trimester are not supposed to take COARTEM®</li> <li>▪ COARTEM® is well packaged and easy to dispense</li> <li>▪ Not bitter; easier to administer to most of the patients</li> </ul>
Amolatar	Aputi	HC II	<ul style="list-style-type: none"> <li>▪ Good response to COARTEM®</li> <li>▪ Drug not bitter, making it easier to swallow.</li> <li>▪ Stock cards were not properly filled or updated regularly</li> <li>▪ Only 10 days of COARTEM® use could not reveal much</li> </ul>
Amolatar	Arwotcek	HC II	<ul style="list-style-type: none"> <li>▪ Good response by the majority of patients treated with COARTEM®.</li> <li>▪ Little side effects.</li> <li>▪ Drug well packaged, easy to store and follow.</li> <li>▪ Don't have facilities for 1st dose in the Health Facility</li> <li>▪ Low morale of Health Workers due to no salaries for over 9 months</li> <li>▪ No weighing scale.</li> <li>▪ Most patients appreciate the drug and report high cure rates.</li> <li>▪ Easy to dispense</li> </ul>
Amolatar	Namasale	HC III	<ul style="list-style-type: none"> <li>▪ Response is good</li> <li>▪ Little side effects</li> <li>▪ Some patients complain of severe headache</li> <li>▪ Not all staff are trained on COARTEM use</li> <li>▪ Poor stocking of COARTEM® was generally experienced in the Health Facility</li> <li>▪ First consignment of COARTEM® COARTEM® was received very late.</li> <li>▪ Easy to store by the patient and Health workers.</li> <li>▪ Easy to dispense C COARTEM®</li> <li>▪ Patients don't finish the course of treatment.</li> </ul>
Amolatar	Amai Community Hospital	HC V	<ul style="list-style-type: none"> <li>▪ All the staff were trained on COARTEM® use.</li> <li>▪ Regular supply ensured constant drug availability since introduction. This is coupled with the low usage of COARTEM® in Amai Hospital.</li> <li>▪ Few uncomplicated malaria are handled in this Health Facility</li> <li>▪ Community not all aware of the existence of COARTEM®.</li> <li>▪ All staff have not been paid their salaries for over 4 months, hence have low morale for work.</li> <li>▪ Hospital administrations use their own money to go to JMS to collect some supplies.</li> <li>▪ Recrudescence is rare after a complete treatment with COARTEM® COARTEM®</li> <li>▪ It's difficult to administer on vomiting or very sick patients.</li> <li>▪ Not used in 1st Trimester of pregnancy.</li> <li>▪ Good response to COARTEM® and few side effects from the drug was reported.</li> <li>▪ Most complicated cases are in Amai Hospital.</li> </ul>

District	Health Facility	Level	Remarks
Amuria	Asamuk	HC III	<ul style="list-style-type: none"> <li>▪ Drug appreciated and there is increased demand.</li> <li>▪ All staff knows how to prescribe new treatment.</li> <li>▪ one delivery made</li> <li>▪ stock out (National Medical Stores)</li> <li>▪ No side effects and Good taste</li> <li>▪ The drug is effective.</li> </ul>
Amuria	Acowa	HC III	<ul style="list-style-type: none"> <li>▪ Staff trained and now know how to prescribe</li> <li>▪ COARTEM® delivered</li> <li>▪ Less supply</li> <li>▪ Stock-outs</li> <li>▪ Drug is Effective.</li> <li>▪ No side-effects reported.</li> <li>▪ Pill Burden.</li> </ul>
Amuria	Abarilela	HC III	<ul style="list-style-type: none"> <li>▪ Staff trained and now know how to prescribe COARTEM®COARTEM delivered once.</li> <li>▪ Inadequate quantities of COARTEM® Drug Effective</li> <li>▪ No side effects reported.</li> </ul>
Amuria	Obalanga	HC III	<ul style="list-style-type: none"> <li>▪ CO-ARTEM delivered once.</li> <li>▪ All staff trained and now know how to use the drug.</li> <li>▪ Little stock</li> <li>▪ Stock outs</li> <li>▪ No major side effects</li> <li>▪ Drug effective.</li> </ul>
Amuria	Amuria	HC IV	<ul style="list-style-type: none"> <li>▪ Increased demand from population.</li> <li>▪ All staff trained, and know the new treatment.</li> <li>▪ COARTEM delivered once.</li> <li>▪ stock outs</li> <li>▪ Easy to use, no injections needed.</li> <li>▪ Re-attendances reduced workload less.</li> <li>▪ No side effects reported, drug tasteless.</li> </ul>
Gulu	Pabbo	HC II	<ul style="list-style-type: none"> <li>▪ Good packaging and easy to dispense.</li> <li>▪ Good response from patients.</li> </ul>
Gulu	Ongako	HC II	<ul style="list-style-type: none"> <li>▪ The packaging allows for easy dispensing and storage</li> <li>▪ Patients appreciate the drug</li> </ul>
Gulu	Anaka Hospital	HC V	<ul style="list-style-type: none"> <li>▪ First used in wards then extended to OPD. The drug has been appreciated by users who report good and speedy recovery. Users also like the fact that the treatment lasts only three days.</li> <li>▪ The drug is well packaged and easy to dispense.</li> <li>▪ There was an announcement on radio to the effect the COARTEM was getting finished and it not only worried but also confused Health Workers who had only started using it.</li> </ul>
Gulu	Kalaki	HC II	<ul style="list-style-type: none"> <li>▪ The packaging in blisters allows for easy deepening and storage</li> <li>▪ There has been few reported side effects</li> <li>▪ Supply has been intermittent</li> </ul>



District	Health Facility	Level	Remarks
Gulu	Layibi Techo	HC II	<ul style="list-style-type: none"> <li>▪ The packaging allows for easy dispensing and storage.</li> <li>▪ Clients are reporting that the drug works and cures fast.</li> <li>▪ There are not many reported adverse side effects.</li> <li>▪ Most staff at the Health Unit were trained commencement of use of COARTEM®</li> <li>▪ Mothers for 05-15 months complain that the fever in children heightens on taking of drugs</li> <li>▪ There are no injections so the drug cannot be effectively administered to a patient who is vomiting.</li> <li>▪ Incidences of sporadic non responses reported.</li> <li>▪ Intermittent supply of drugs (at the beginning it was the push system).</li> <li>▪ The drug is not used for 1st trimester pregnancy and children below 4 months hence need to have other drug in the store.</li> <li>▪ The lack of Homapak has increased the workload for the clinic.</li> </ul>
Ibanda	Bisheshe	HC III	<ul style="list-style-type: none"> <li>▪ Training was O.K, everyone passed.</li> <li>▪ Drugs are enough apart from the yellow tablets.</li> <li>▪ No problems</li> <li>▪ The Drugs don't work on the patients.</li> <li>▪ The Drugs have very few side effects.</li> </ul>
Ibanda	Kikyenyke	HC III	<ul style="list-style-type: none"> <li>▪ Training and material were appropriate.</li> <li>▪ Supply of ACT</li> <li>▪ Most patients can't afford fatty meals.</li> <li>▪ Quantity for Brown was inadequate.</li> <li>▪ Need to exhaust the current stock of CO, reduce level of COARTEM prescription</li> <li>▪ No treatment failure and no side effects.</li> <li>▪ COARTEM® has made the community very happy.</li> </ul>
Ibanda	Ruhoko	HC IV	<ul style="list-style-type: none"> <li>▪ Training was successful and we were given guides to refer to.</li> <li>▪ The quantities COARTEM® are adequate</li> <li>▪ No problems</li> <li>▪ The issue of telling patients to eat "fatty foods" while on treatment is a problem, people are poor and can't afford fatty foods.</li> </ul>
Ibanda	Ibanda Hospital	HOSPITAL	<ul style="list-style-type: none"> <li>▪ The guideline has been successfully followed</li> <li>▪ The drug treatment policy is successful.</li> <li>▪ ACT availability is good.</li> <li>▪ The pull process is working well.</li> <li>▪ The initial push cost inadequate.</li> <li>▪ Schools especially boarding school were not taken care of .</li> <li>▪ There is failure of treatment for some people.</li> <li>▪ Some difficulty in taking the drug and completing the dose.</li> </ul>
Ibanda	Rwengwe	HC 2	<ul style="list-style-type: none"> <li>▪ The training was O.K.</li> <li>▪ Not yet received the requested stock of COARTEM®</li> <li>▪ COARTEM® is effective</li> <li>▪ People on the other hand felt thirsty.</li> <li>▪ It demands plenty of rest.</li> </ul>
Kaliro	Nabikooki	HC II	<ul style="list-style-type: none"> <li>▪ All health workers were trained on the new malaria treatment policy</li> <li>▪ COARTEM® out of stock</li> <li>▪ No side effects reported by patients after COARTEM® therapy</li> <li>▪ A few people don't respond to it</li> <li>▪ Increased demand for COARTEM®</li> </ul>

District	Health Facility	Level	Remarks
Kaliro	Bumanya	HC IV	<ul style="list-style-type: none"> <li>▪ All Health Workers in this unit were trained in new malaria treatment policy.</li> <li>▪ There was provision of COARTEM® in the month of June.</li> <li>▪ Immediately after training there was no COARTEM® available in the district</li> <li>▪ No treatment charts have been provided since training.</li> <li>▪ No side effects have been reported.</li> <li>▪ High demand for COARTEM®.</li> <li>▪ Few re-attendances</li> <li>▪ Some patients come back after 3 weeks with similar symptoms</li> </ul>
Kaliro	Kasokwe	HC II	<ul style="list-style-type: none"> <li>▪ All patients treated recovered.</li> <li>▪ No side effects reported.</li> <li>▪ Demand for the drug is high</li> <li>▪ Supply is irregular</li> <li>▪ The quantities supplied are small</li> <li>▪ Easy to prescribe</li> <li>▪ Easy to prescribe to patients</li> <li>▪ Denying pregnant mothers has been a challenge.</li> <li>▪ Easy to swallow since it's not bitter</li> </ul>
Kaliro	Namwiwa	HC III	<ul style="list-style-type: none"> <li>▪ Most health workers trained.</li> <li>▪ COARTEM received.</li> <li>▪ Guidelines for the trained health workers.</li> <li>▪ Few still come back with signs of fever.</li> <li>▪ Lack of wall charts and desktop charts.</li> <li>▪ High demand for the new drug</li> <li>▪ Few/no side effects reported</li> <li>▪ Sharing of tablets when signs disappear early</li> <li>▪ Pill burden</li> <li>▪ Easy for patient compliance.</li> </ul>
Kaliro	Kaliro	HC III	<ul style="list-style-type: none"> <li>▪ Most Health workers trained on ACT.</li> <li>▪ No side effects so far reported and the Majority of the patients cured.</li> <li>▪ Patients have complied.</li> <li>▪ Demand for the new medicine.</li> <li>▪ After training ,it took too long for the medicine to be delivered</li> <li>▪ Out of stock for about one month.</li> <li>▪ Patients are complying</li> <li>▪ After 2-3 weeks post treatment one patient came with positive B/S</li> <li>▪ Staff now used to the medicine</li> </ul>
Kyenjojo	Kyenjojo	HC IV	<ul style="list-style-type: none"> <li>▪ Orientation of district leaders and training of health workers were successful</li> <li>▪ Training of health workers could have been organised better in terms of duration</li> <li>▪ COARTEM is liked by the community because of the taste</li> <li>▪ Clinical response to the treatment with COARTEM is notable</li> <li>▪ There is concern over the tablet load</li> </ul>
Kyenjojo	Kakabara	HC III	<ul style="list-style-type: none"> <li>▪ COARTEM has no side effects</li> <li>▪ COARTEM has quick response</li> <li>▪ The dose package is age specific. It is user friendly</li> <li>▪ Training was successful</li> <li>▪ COARTEM availability is not reliable</li> <li>▪ There is a large tablet load</li> </ul>

District	Health Facility	Level	Remarks
Kyenjojo	Butiiti	HC III	<ul style="list-style-type: none"> <li>▪ The training was short</li> <li>▪ There is need for more working aids</li> <li>▪ COARTEM is Effective</li> <li>▪ The taste is good</li> <li>▪ The tablet load is a problem</li> </ul>
Kyenjojo	Nyankwanzi	HC III	<ul style="list-style-type: none"> <li>▪ Training was successful</li> <li>▪ Frequent stock-out of COARTEM is a problem</li> <li>▪ The community is excited about the new drug (COARTEM)</li> <li>▪ After treatment with COARTEM some patients come back with similar symptoms before a month elapses</li> <li>▪ Difficulty in storage due to bulky boxes</li> <li>▪ There is a large tablet load</li> </ul>
Kyenjojo	Hapuuyo	HC III	<ul style="list-style-type: none"> <li>▪ Training was successful</li> <li>▪ Involvement of district leaders was good</li> <li>▪ Some side effects occurred but were not documented</li> <li>▪ Patients like the drug (COARTEM)</li> <li>▪ Patients appear to respon clinically to the drug (COARTEM)</li> </ul>
Mubende	Kiganda	HC IV	<ul style="list-style-type: none"> <li>▪ Increased demand from population</li> <li>▪ All staff trained know the new treatment</li> <li>▪ COARTEM® delivered once</li> <li>▪ stock-outs</li> <li>▪ Easy to use, no injections needed</li> <li>▪ No side effects reported,</li> <li>▪ Drug tasteless</li> <li>▪ Re-attendances reduced, work load less</li> </ul>
Mubende	Mubende	HOSPITAL	<ul style="list-style-type: none"> <li>▪ The supply of ACT has been efficient</li> <li>▪ Almost all Health Workers in the hospital were trained for two days</li> <li>▪ Training materials e.g charts, guidelines were inadequate</li> <li>▪ Other district leaders and the community at the lower levels were not sensitised</li> <li>▪ There were no samples of ACTs for training</li> <li>▪ ACT are well tolerated (no side effects)</li> <li>▪ Convenience- Patients have no problems with the drug requirements</li> <li>▪ Patients report significant failure rate(decreasing after two weeks)</li> <li>▪ Some patients report , non response to the drug.</li> </ul>
Mubende	Kanseera	HC II	<ul style="list-style-type: none"> <li>▪ All Health Workers in the HEALTH UNIT were trained.</li> <li>▪ Drugs were delivered in time.</li> <li>▪ There is an accepted ACTs response from the patients.</li> <li>▪ No injection provided for the patients who vomit</li> <li>▪ There was a Stock out for almost a month.</li> </ul>
Mubende	Kiyuni	HC III	<ul style="list-style-type: none"> <li>▪ Trainers were competent.</li> <li>▪ Community response to new drug was positive.</li> <li>▪ There have been stock outs of COARTEM®</li> <li>▪ Inadequate training materials especially charts and books.</li> <li>▪ Community sensitization not done.</li> <li>▪ Delay of about one month after training before arrival of ACTs in Health Unit.</li> <li>▪ Drug is easy to swallow.</li> <li>▪ Drug is not bitter and has no side effects.</li> <li>▪ Community reports, its more effect effective than C/Q and SP.</li> </ul>

District	Health Facility	Level	Remarks
Mubende	Kasambya	HC III	<ul style="list-style-type: none"> <li>▪ Drug came in time.</li> <li>▪ Training was adequate (two days).</li> <li>▪ Stock outs after initial introduction.</li> <li>▪ Stocks of brown, blue and green "pushed" were inadequate.</li> <li>▪ ACTs have no side effects.</li> <li>▪ The Drugs are effective (they are working).</li> </ul>
Mubende	Kasambya	HC III	<ul style="list-style-type: none"> <li>▪ All Health Workers in the Unit were trained.</li> <li>▪ Drugs were delivered in time.</li> <li>▪ ACTs received positive response from the patients.</li> <li>▪ No injectable ACTs are available for patients who vomit.</li> <li>▪ Stock out now for one month.</li> <li>▪ Easy to administer because its pre-packaged according to dose and age group.</li> <li>▪ No reported serious side effects, patients only complain of weakness and abdominal pain.</li> <li>▪ ACTs stocked out for about one month, leading to worry about its continuity.</li> <li>▪ Patients report drug is effective.</li> </ul>
Pallisa	Kakoro	HC III	<ul style="list-style-type: none"> <li>▪ There is political will about the new policy.</li> <li>▪ COARTEM® is an effective drug</li> <li>▪ The new drug is available and the new minister of health brought in more stock</li> <li>▪ Cases of Severe Malaria especially among children has reduced.</li> <li>▪ There was stock out of COARTEM® at one time</li> <li>▪ Cure rate of COARTEM® 100%</li> <li>▪ Easy to prescribe dispense/store and easy to account for.</li> </ul>
Pallisa	Agule	HC III	<ul style="list-style-type: none"> <li>▪ No complaints by patients about side effects of COARTEM®</li> <li>▪ All Health Workers were trained on new policy and this has improved on their skills on management of malaria.</li> <li>▪ Easy to dispense because its packaged according to age/weight of patients</li> <li>▪ Cases of severe malaria have reduced.</li> <li>▪ Patients have been sharing the drug with other sick patients ie under dosing themselves.</li> <li>▪ Compliance is low- patients stop taking the drug when they have improved.</li> <li>▪ Drug is effective because patients have got cured.</li> <li>▪ Easy to administer/store/prescribe</li> <li>▪ Patients are reluctant to take other drugs prescribed with COARTEM®</li> </ul>
Pallisa	Pallisa	HOSPITAL	<ul style="list-style-type: none"> <li>▪ Most Health Workers in the Hospital were trained on the new policy.</li> <li>▪ COARTEM® available in the Hospital.</li> <li>▪ Community is aware and sensitized about the new policy.</li> <li>▪ There is political will and involvement about the new policy following their sensitization about it.</li> <li>▪ Negative myths among community about use of oral tablets as opposed to the cherished injection.</li> <li>▪ There was a supply gap which led to stock out of COARTEM® in June.</li> <li>▪ Some age group, drugs get finished faster than the others.</li> <li>▪ COARTEM® is effective.</li> <li>▪ COARTEM® has minimal side effects.</li> <li>▪ COARTEM® is easy to prescribe, administer and store.</li> <li>▪ Worried about the sustained availability of the drug.</li> </ul>

District	Health Facility	Level	Remarks
Pallisa	Limoto	HC III	<ul style="list-style-type: none"> <li>▪ Patients attendances at the unit increased.</li> <li>▪ Community sensitization done ie community became aware of presence of the new drug.</li> <li>▪ Drug reported to be effective ie no re-attendances due to malaria.</li> <li>▪ The drug shows minimal side effects unlike CQ</li> <li>▪ None as yet.</li> <li>▪ COARTEM® is a very effective drug.</li> <li>▪ Easy to administer/dispense/prescribe.</li> <li>▪ No side effects.</li> <li>▪ Easy to store</li> </ul>
Pallisa	Butebo	HC IV	<ul style="list-style-type: none"> <li>▪ Training of all health workers except 2 new ones</li> <li>▪ It improved on health Workers skills</li> <li>▪ The drug was made available soon after training of Health Workers and its use also started immediately.</li> <li>▪ The Community is well sensitised about the new drug.</li> <li>▪ Medical officers and Clinical Officers didn't attend the training as compared to the other Health Workers</li> <li>▪ Low Complaints especially the adults due to " pill burden".</li> <li>▪ Supply lag between 1st and 2nd consignments causing stock outs.</li> <li>▪ Few treatment failures registered in the Health Units.</li> <li>▪ COARTEM® efficiency with few side effects</li> <li>▪ Easy to prescribe, store and administer</li> <li>▪ Pill burden for adults , that is 8 pills daily for 3 days(24 tablets)</li> </ul>
Rakai	Rakai	HOSPITAL	<ul style="list-style-type: none"> <li>▪ 96% of health workers were oriented in the new malaria task policy</li> <li>▪ Community leaders and the population has been sensitized</li> <li>▪ COARTEM® has been availed in the hospital</li> <li>▪ Some alternative ACTs are available</li> <li>▪ Stock out of quinine is so frequent.</li> <li>▪ Poor motivation of the staff (late salary)</li> <li>▪ Good packaging and easy to dispense</li> <li>▪ Concerns about pill burden</li> </ul>
Rakai	Kakuuto	HC IV	<ul style="list-style-type: none"> <li>▪ Training about the policy has involved most health works</li> <li>▪ Community sensitization has been done although more is needed.</li> <li>▪ There has been distribution of the drug.</li> <li>▪ Some times stock outs of Quinine and IV fluids.</li> <li>▪ Staff levels are low</li> <li>▪ Need for more sensitization to the community, that COARTEM® used has no problem</li> <li>▪ The drug has few side effects.</li> </ul>
Rakai	Kabuwoko	HC III	Remarks missing
Rakai	Biikira	HC III	<ul style="list-style-type: none"> <li>▪ Training done and received by most of the Health Workers</li> <li>▪ Availability of the free 1st line medication COARTEM®</li> <li>▪ Delay in receiving the 1st lot of COARTEM® when malaria was severe</li> <li>▪ Patients are still bent to injection treatment.</li> <li>▪ Good drug packaging.</li> <li>▪ Limited side effects.</li> <li>▪ Delayed supply of the initial COARTEM®</li> <li>▪ The consumers have a misconception about having to love COARTEM® with milk</li> </ul>

District	Health Facility	Level	Remarks
Rakai	Mayansa	HC II	<ul style="list-style-type: none"> <li>▪ Noted that, the patients who failed to respond to SP/CQ responded to COARTEM®</li> <li>▪ Good attractive and well understood instructions on COARTEM® packages.</li> <li>▪ Instructions easy to follow.</li> <li>▪ Lack of other alternative anti-malarial drugs.</li> <li>▪ No side laboratory</li> <li>▪ No side effects yet , Good feedback from patients so far</li> </ul>
Rukungiri	Ruhinda	HC III	<ul style="list-style-type: none"> <li>▪ Training &amp; Sensitization about COARTEM® to all health workers.</li> <li>▪ Supply of COARTEM drugs.</li> <li>▪ Safe packaging of COARTEM® and its dispensing.</li> <li>▪ Inadequate supply of COARTEM® especially brown and green .</li> <li>▪ Irregular supply of the COARTEM® drugs.</li> <li>▪ Treatment compliance of COARTEM® upto date with patients.</li> <li>▪ Good packaging of the drug</li> <li>▪ Experienced some failure especially with acute attack of malaria.</li> </ul>
Rukungiri	Masya	HC II	<ul style="list-style-type: none"> <li>▪ Training was good</li> <li>▪ Supplying of COARTEM® is regular</li> <li>▪ Individuals insist on COARTEM® only</li> <li>▪ "Brown" COARTEM is limited in amounts.</li> <li>▪ Drug is effective</li> <li>▪ No drug reactions seen</li> </ul>
Rukungiri	Buhunga	HC III	<ul style="list-style-type: none"> <li>▪ New drug is effective</li> <li>▪ Has high demand</li> <li>▪ No complaints of side effects</li> <li>▪ Pre-packaging is convenient and instructions are clear plus its easy to prescribe</li> <li>▪ Irregular supply</li> <li>▪ Patients insist on using or being given only COARTEM®</li> <li>▪ High tablet load.</li> <li>▪ Drug is not bitter</li> <li>▪ Easy to store.</li> </ul>
Rukungiri	Kebisoni	HC IV	<ul style="list-style-type: none"> <li>▪ Appropriate guidelines and tools are available at our health centres</li> <li>▪ All Health workers were trained</li> <li>▪ Communities have turned up positively for the treatment.</li> <li>▪ COARTEM® has been procured and support supervision done.</li> <li>▪ Demand for COARTEM® has been higher than supply.</li> <li>▪ Communities have shown a great need of the new drug.</li> <li>▪ Some patients expressed to have been weakened by the drug after swallowing it</li> </ul>
Rukungiri	Nyakibale	HOSPITAL	<ul style="list-style-type: none"> <li>▪ Few side effects, not life threatening and treatable</li> <li>▪ Recurrence to malaria parasites below &lt;5 mps/hpf is low</li> <li>▪ Adherence is good</li> <li>▪ There is a limited supply of COARTEM® to health Centres, putting more load to the general Hospital</li> <li>▪ High rate of cure especially with simple malaria .</li> </ul>
Wakiso	Entebbe	HOSPITAL	<ul style="list-style-type: none"> <li>98 % Staff trained.</li> <li>Easy to dispense.</li> <li>Rate of consumption of all anti malarials like Quinine has gone down, even patients needed.</li> <li>School nurses not trained</li> <li>Many new leaders after elections need another round of sensitization</li> <li>Staffing is very low, labs always crowded.</li> </ul>

District	Health Facility	Level	Remarks
			Follow-up of patient compliance not yet done.
			Initially, heavy rush and crowding for the new wonder "drug" but now the patient number has decreased.
			A few "elite" are complaining that the drug doesn't work on them.
			Some unusual drug problems noted e.g. some headaches and abdominal pain.
Wakiso	Namayumba	HC IV	<ul style="list-style-type: none"> <li>▪ Patients like the packaging and numbering of days.</li> <li>▪ Training done of all Health Workers</li> <li>▪ Some side effects observed e.g. itchy skin.</li> <li>▪ The high stocks of Chloroquine need to be prescribed and exhausted before embracing a full scale COARTEM® prescription</li> <li>▪ Manuals, charts not clearly displayed.</li> <li>▪ Patients complain of too many tablets to swallow &amp; so stop taking after 2 days when feeling better.</li> <li>▪ Patients believe that since this is a new drug, it must be better.</li> <li>▪ Patients asking for injectable form of COARTEM®</li> </ul>
Wakiso	Wattuba	HC III	<ul style="list-style-type: none"> <li>▪ Most patients are cured</li> <li>▪ No side effects unlike CQ or Quinine which cause itching and dizziness.</li> <li>▪ Some Health Workers were not trained. i.e Only the Clinical officers and Nursing assistant were trained</li> <li>▪ Respondent confused between training for COARTEM® and excellent training on injection safety</li> <li>▪ Some patients not cured by COARTEM® fall back to Quinine.</li> </ul>
Wakiso	Kira	HC III	<ul style="list-style-type: none"> <li>▪ High class patients are coming for treatment using the new drug.</li> <li>▪ No training; All Health Workers at this Health Unit have not been trained</li> <li>▪ Lack of guidelines</li> <li>▪ Generally in Kasangati HSD, only in-charges of Health Facilities were trained</li> </ul>
Wakiso	Kitara	HC II	<ul style="list-style-type: none"> <li>▪ Training well done</li> <li>▪ Guidelines available to all health workers</li> <li>▪ Drug available -no stock out</li> <li>▪ Easily dispensed due to good packaging</li> <li>▪ High stocks of previously recommended drugs i.e. CQ + SP &amp; HOMAPACK</li> <li>▪ Patients complain that the drug is not effective (10-20 %)</li> <li>▪ Some patients say , there too many tablets to swallow</li> </ul>
Yumbe	Lodonga	HC III	Comments missing
Yumbe	Yumbe	HC II	Comments missing
Yumbe	Yumbe	HOSPITAL	Comments missing
Yumbe	Kulikulinga	HC III	<ul style="list-style-type: none"> <li>▪ Health unit Staff have been trained</li> <li>▪ COARTEM has been supplied to Health Unit.</li> <li>▪ Provision of job/work aids.</li> <li>▪ Few Job/Work aids.</li> <li>▪ Support Supervision to lower level health units has not been implemented.</li> </ul>
Yumbe	Barakala	HC II	<ul style="list-style-type: none"> <li>▪ Training of health unit staff in the new malaria drug policy.</li> <li>▪ Provision of COARTEM® by MOH.</li> <li>▪ Provision of Work Aids</li> <li>▪ Delay in provision of the drugs after ordering.</li> <li>▪ Centre still uses "push system" especially for drugs like Quinine and CQ.</li> </ul>

District	Health Facility	Level	Remarks
Yumbe	Yumbe	HC II	<ul style="list-style-type: none"><li>▪ Health Unit Staff have been trained</li><li>▪ COARTEM has been supplied to Health Units.</li><li>▪ Provision of Job/Work aids.</li><li>▪ Few Job/Work aids</li><li>▪ Support supervision to lower level Health Units has not been implemented.</li><li>▪ Few job/work aids</li><li>▪ Support supervision to lower level health units ,has not been implemented</li></ul>



### Appendix 17: Persons met at health facility level

District	Health Facility	Level	Name	Designation	PhoneNo
Amolatar	Amolatar	HC IV	Mr. Oyado J.	Medical Clinical Officer	
			Ms. Adong H.	Stores Assistant	0782018787
			Mr. Mundo O.T	Records Assistant	0752934656
Amolatar	Arwotcek	HC II	Mr. Omara R.	Chairman, Health Unit Management Committee	
			Mr. Obok J.	Nursing Assistant	
			Mr. Lango J.	Records Assistant	
			Mr. Odongo A.	Community Vaccinator	
Amolatar	Namasale	HC III	Wakello D.	Registered Midwife	
			Apio Mary G.	Records Assistant	
			Ojok David	Community Health Worker	
Amolatar	Amai	Hospital	Dr. Okwir M.	Medical officer	0712883744
			Mr. Okello H.	Stores Assistant	0782465384
			Mr. Okello V.	Deputy Hospital Administrator	
			Mr. Ongom A.	Cahier	0782436394
Amolatar	Aputi	HC II	Ical Albino	Nursing Assistant	
			Atimango S	Enrolled Nurse	
			Mr. Ojok Pat	Community Health Worker	
Amuria	Asamuk	HC III	P. Ebau	Medical Clinical Officer	0782695640
Amuria	Abarilela	HC III	Omujul .R	Medical Clinical Officer	07729034980
Amuria	Acowa	HC III	Aguti Judith .F	Enrolled Nurse	0782488456
Amuria	Obalanga	HC III	Mr. Alacu .P	Medical Clinical Officer	
Amuria	Amuria	HC IV	Dr. Kababa	District Director of Health Services	04563283
			Mr. Epachu .P	Medical Clinical Officer	0772924322

Gulu	Layibi Techo	HC II	Labongo William	Medical Clinical Officer	0772040890
			Oroma Margaret	Enrolled Nurse	0782511710
			Kinyera Walter		0712547302
			Adoyo Filder		0782894025
Gulu	Kalali	HC II	Oryema Partick	Medical Clinical Officer	07712240074
			Omony Jimmy	Nursing Assistant	0782499362
			Aciro Norah	Nursing Assistant	0782722178
Gulu	Anaka Hospital	HC V	Ngeca Ojwang	Medical Clinical Officer	0712622223
			Obai M. S. Stanley	Enrolled Nurse	0712044292
			Akumu Joyce Mary	Registered Nurse	0712688330
Gulu	Pabbo	HC II	Aponi Joyce	Enrolled Midwife	0782697944
			Apiyo Grace	Nursing Assistant	
			Oyet Abwola	Records Assistant	
			Ojok Joseph	Support Staff	
Ibanda	Kikyenkye	HC III	Nabalindwa Dorothy	Registered Nurse	0782447076
Ibanda	Ruhoko	HC IV	Ntamuhira .E	Registered Nurse	0782197617
			Baryasigaho .N	Nursing Assistant	0772665662
Ibanda	Ibanda Hospital	Hospital	Dr. Byaruhanga	Medical Superintendent	0772460945
			Mr. Sarapio Muganyi	Records Officer	07714107588
			Sr. Kabasingye	Phamacist	0772976199
Ibanda	Bisheshe	HC III	Ahimbisibwe Mary	Enrolled Nurse	0782666472
			Nitusima Claire	Enrolled Nurse	0782526862
Ibanda	Rwengwe	HC II	Kunihira M.	Enrolled Nurse	0752811234

District	Health Facility	Level	Name	Designation	PhoneNo
Kaliro	Kasokwe	HC II	Martin Nseera	Enrolled Nurse	0782682205
			Waganda Fred	Nursing Assistant	0782457485
			Nashate Lilian	Nursing Assistant	0712237031
Kaliro	Namwiwa	HC III	Kikomeko .R. Moses	Medical Clinical Officer	0782394839
			Nalungi Efrance	Enrolled Midwife	
			Ekikyoo Judith	Nursing Assistant	
			Muwerewza	Nursing Assistant	
Kaliro	Kaliro	HC III	Mr. Wadero .P. C.	Medical Clinical Officer	0782462083
			Mr Ngero Richard	Records Assistant	0752511770
			Mr Mukunya	Laboratory Assistant	
			Namusobya	Nursing Assistant	0774114705
Kaliro	Nabikooki	HC II	Muwumba Paul	Enrolled Nurse	
			Kisakye Juliet	Nursing Assistant	
			Balungi Pheobe	Nursing Assistant	0752842102
			Kasajja Grace	Nursing Assistant	
Kaliro	Bumanya	HC IV	Mabirya Susan	Medical Clinical Officer	0782955671
			Kasubo Phoebe	Registered Nurse	0772644238
			Nairuba Veronica	Nursing Assistant	
			Nangobi Sarah	Nursing Assistant	0782119188
Kyenjojo	Kyenjono	HC IV	Mwinganiza David	Medical officer	0752956466
			Kaboyo Abbas	Medical Clinical Officer	0772533656
			Birungi Juliet	Enrolled Nurse	0772654476
Kyenjojo	Kakabara	HC III	Mulumba R.	Medical Clinical Officer	0772938802
Kyenjojo	Butiiti	HC III	Sera Vicent	Records Assistant	0782450394
			Rugumbwa Grace	Enrolled Nurse	0782870960
Kyenjojo	Nyankwanzi	HC III	Kabamoli Rachel	Medical Clinical Officer	0772874598
Kyenjojo	Hapuuyo	HC III	Mugisha Gad	Health Assistant	0782810612
			Kagoro Miriam	Enrolled Nurse	0772894095
Mubende	Kiyuni	HC III	Ssekadde R	Medical Clinical Officer	0782841558
			Sanyu .F	Enrolled Nurse	0782141472
Mubende	Kanseera	HC II	Kyewalabye .J	Medical Clinical Officer	0772452919
			Nanyonga .A	Nursing Assistant	
Mubende	Mubende	Hospital	Dr. Eyiiga Jimmy	Medical Officer	0772883101
			Muyeyebwa Gerad	Dispenser	0772981012
			Mukasa Abdu	Records Assistant	0782696938
Mubende	Kasambya	HC III	Wabusimba .S	Medical Clinical Officer	0772332938
			Tabaalu .J	Medical Clinical Officer	0782848240
Mubende	Kasambya	HC III	Kyewalabye .J	Medical Clinical Officer	0772452919
			Nanyonga .A	Nursing Assistant	
Mubende	Mubende	Hospital	Dr. Kababa	District Director of Health Services	04563283
			Mr. Epachy .P	Medical Clinical Officer	0772924322
Mubende	Kiyuni	HC III	Ssekande .R	Medical Clinical Officer	0782841558
			Sanyu .F	Enrolled Nurse	0782141492
Pallisa	Kakoro	HC III	Mugulusi Samuel	Medical Clinical Officer	0752297171
			Mr. Katoko J.M	Enrolled Midwife	
Pallisa	Pallisa	Hospital	Dr. Katimo .C.	Medical Superintendent	0782412830
			Sr. Okanya Lindy	Registered Nurse	0782505232
			Dr. Okotti David	Medical Officer	0772677247
Pallisa	Agule	HC III	Kanyogo Susan	Enrolled Midwife	0782860945
			Mrs. Opio Magret	Nursing Assistant	

District	Health Facility	Level	Name	Designation	PhoneNo
Pallisa	Limoto	HC III	Mrs. Omona Florence	Enrolled Nurse	
			Achom Mary	Nursing Assistant	0782606190
			Auma Grace	Nursing Assistant	0782666017
			Aridcol Christine	Enrolled Midwife	0772903799
Pallisa	Butebo	HC IV	Dr. Kabweru .W.	Medical Officer	0782961484
			Sr. Okwaja Mary	Registered Nurse	0772619452
Rakai	Rakai	Hospital	Dr. Watima .J. Patric	Medical Superintendent	0772608604
			Dr. Kitto Alphose	Medical Officer	0772666412
			Lubega Mark	Hospital Administrator	
Rakai	Kakuuto	HC IV	Mr. Mugoda .W. F	Medical Clinical Officer	0772613707
			Mr. Muhangi	Public Health Nurse	07825082
			Mr. Dousabe	Records Assistant	0782429015
Rakai	Mayansa	HC II	Nakandi Esther	Enrolled Nurse	0782091280
Rakai	Biikira	HC III	Mukasa Joseph	Registered Nurse	
Rukungiri	Masya	HC II	Kwikiriza Rhoda	Enrolled Nurse	0782623524
Rukungiri	Nyakibale	Hospital	Dr. Bosuulwn	Medical Officer	0772656892
			Tushemerarwe .S	Records Assistant	07724417822
Rukungiri	Buhunga	HC III	Ayebazibwe F.	Enrolled Nurse	0782540381
			Byambaya M.	Records Assistant	0772938892
Rukungiri	Kebisoni	HC IV	Niwensiima Joan	Medical Clinical Officer	0772577340
			Ninsiim Allen	Records Assistant	0782835766
Rukungiri	Ruhinda	HC III	Ahombisibwe Andrew	Medical Clinical Officer	0782053878
			Kobusinge Fausta	Enrolled Nurse	0772577125
Wakiso	Kira	HC III	Nakantu Sarah	Medical Clinical Officer	0772527222
			Lunkuse Jane	Nursing Assistant	
Wakiso	Wattuba	HC III	Agnes Kamy	Nursing Assistant	0782400902
Wakiso	Namayumba	HC IV	Kabago Timothy	Medical Clinical Officer	0772681270
			Nassuna Juliet	Medical Clinical Officer	0782385970
Wakiso	Kitara	HC II	Bandobera Grace	Enrolled Nurse	0752503144
			Ssengando Charles	Nursing Assistant	0712864415
			Mubiru Francis	Medical Clinical Officer	0712809091
Wakiso	Entebbe	Hospital	Namugeere Monica	Dispenser	0772517266
			Baguma Chrisostom	Records Assistant	0772661248
			Dr. Mumenga Moses	Medical Superintendent	0772455619
			Mpanga Robert	Assistant Hospital Administrator	0772658768
Yumbe	Yumbe	HC II	Driciru Lucy	Enrolled Midwife	0772901226
			Bakaze Karaba	Medical Clinical Officer	0712655457
			Candiga John	WIASST	
Yumbe	Barakala	HC II	Mohamad Alli	Enrolled Nurse	0772884957
			Chaku Adam	Nursing Assistant	0782830419
			Angapi Beatrice	Enrolled Nurse	0782384676
			Alejo Medina	Nursing Assistant	
Yumbe	Kulikulinga	HC III	Driciru Lucy	Enrolled Midwife	0772901226
			Bakole A. Karala	Medical Clinical Officer	0772655457
			Candiga John	Nursing Assistant	