DESCRIBING THE QUALITY OF A LOGISTICS AND SUPPLIES MANAGEMENT SYSTEMS AT KISASI AND KITENDE HEALTH CENTRE IIS – UNDER NAMIREMBE DIOCESE – CHURCH OF UGANDA.

BY

KITAKA GORDON

STUDENT'S NO; 202014461

REG.NO. 2007/ PGD 20/ 11542u

SUPERVISOR

DR. SAMSON OKUONZI

CO- SUPERVISOR. MR. MORRIES SERU

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DECLARATION

I hereby declare that this study is an original piece of work done by myself. Contributions of other people which were used in the preparation of this report are appreciated and their sources quoted.

This study has not been presented for any award in any academic institution.

Signature:

Kitaka Gordon

Principal Researcher.

Signature:

Dr. Samson Okuonzi Supervisor.

DEDICATION

This work is dedicated to my wife – Florence, my daughter Lear and my son Ethan Mark.

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome			
ARV	Antiretroviral			
CDC	Centres for Disease control			
COU	Church of Uganda			
FPLM	Family Planning Logistics Management			
HIV	Human Immune Virus			
JMS	Joint Medical Store			
JSI	John Snow Inc.			
LMIS	Logistics Management Information System			
LSMS	Logistics and Supplies Management System			
HIV	Human Immune Virus			
AIDS	Acquired Immune Deficiency Syndrome			
LMIS	Logistic Management Information System			
MOH	Ministry of Health			
NGO	Non-Government Organization			
UPMB	Uganda Protestant Medical Bareau			

EXECUTIVE SUMMARY

Logistics and supplies management system is management system that ensures or fulfils the six rights by delivering the right products the right quantities, at the, in right time, in the right condition, for the right cost and to the right place. In many organizations, this management system is neglected leading to unavailability of supplies.

A study to describe the logistics and supplies systems, assess the Usage of HMIS forms 015,017&105, assess the management of stores and determining whether the In-Charges and Administrators had training in logistics and supplies management at both Kisasi and Kitende Health Centre II^s under Namirembe Diocese –Church of Uganda was designed and carried out. A qualitative and quantitative, non –interventional but descriptive cross sectional study was carried out in one phase stretching from May to September 2008.

The findings show that the logistics and supplies management system at the two Health Centres that is Kisasi and Kitende Health Centre II^s did not conform to the standards of a quality Logistic and supplies management system. The logistics and supplies management system at both health units does not deliver the right goods, at the right place, at the right time and at the right cost. Usage of HMIS forms105 is relatively perfect, usage of HMIS 015 stood at 60% and HMIS017 at 0%.The In-Charges and Administrators were found not to have had chance to formally train in logistics and supplies management.

In conclusion, the study being a non- interventional one because of time limitation but descriptive cross sectional in design, proposed recommendations after discovering that the logistics and supplies management system at both Kisasi and Kitende Health Centres II^s had faults leading to drugs/ supplies unavailability at both Health Centres.

CHAPTER 1

INTRODUCTION

A quality logistic management system provides excellent customer service by fulfilling six rights, ensuring that the right goods, in the right quantities, in the right condition, at the right place, at the right time and for the right cost (FPLM/JSI 2000). Many people define quality differently hence the different perspectives of quality. Quality can be defined as a conformance to requirement or specification (Phil Crosby 1979). Again, quality can be a measure of how good something is and this can be an object like car or a service like a Health service. Logistics on the other hand, is the organization of supplies and services for any complex operation. Supplies are goods or commodities. In health, pharmaceutical management forms the biggest part of a logistics system and is a set of practices aimed at ensuring the timely availability and appropriate use of safe, effective quality medicines and related products and services in any health care setting (JMS Manual 2006). The Pharmaceutical management is circular in nature with elements of selection, procurement, distribution and use of medicines and other related supplies. Elements of the pharmaceutical management cycle play complementary roles in that if one element is not functioning, it disrupts the whole management cycle.

In the health sector, essential drugs and other medical supplies like Laboratory reagents unavailability, is to a higher percentage blamed on a poor logistics and supplies management system. Drugs availability world over, is one of the best indicators for a quality health services (FPLM/JSI 2000). In Uganda , many government referral hospitals and lower health units run on intermittent supply of essential drugs more especially antimalarials like Coartem from the known suppliers, National Medical Stores (NMS) and Joint Medical Stores (JMS). This is

mainly because of the inefficient Logistics and supplies management systems, not ruling out other contributing factors like under funding. In a recent Health Minister's survey carried out in six districts of Kampala, Mbale, Hoima, Kabale, Arua and Lira, availability of key Medicines was found at 47.5% in Public Health facilities and dispensaries (New Vision, July 20,2009). Malaria kills three hundred and twenty Ugandans daily, contributing 40% to OPD attendances and 25% Health in patients at everv unit in Uganda (http://www.fightmalaria.gov/countries/profile/Uganda). So, by not at any treatment having Coartem centre in Uganda is SO disastrous and affects the quality of service provided by those centres.

Procurement of Coartem medicine in government aided hospitals is by restricted tender with annual and periodical purchasing models Primary Health Care (PHC) funds from government. For using government aided lower health units, procurement of Coartem medicines is still by restricted tender where the drug is supplied by the gazetted suppliers using Primary Health Care (PHC) funds. However, the Faith Based Health facilities can also use the user fee collected from every patient who visits the health facility to buy essential medicines like Coartem. Because of a low financial base, the lower faith based health units adapt the Perpetual purchasing model characterized by daily or weekly purchasing, lower maximum stock levels, lower inventory holding costs, high risks of stock outs and lower service level.

A Pull or Requisition distribution model would be ideal for both hospitals and lower level units where health units pull Coartem medicines through the supply chain by requisitioning (ordering) the required quantity of medicines at the time the medicines are needed from the suppliers. In Uganda, a Push or Allocation model

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is more preferred where the central level make allocations to hospitals and lower level health units based on what is in the store and data received from the health units like the Facility monthly Stock Out Report (HMIS 105). Situations where both distribution models are used are also common whereby the allocated medicines are put together with other supplies previously ordered for from the same Suppliers by the health units and sent to respective hospitals and lower health units at the same time an integrated Pull Push or Combined Model. thereby having Because of the above, situations of essential medicine supply being irregular, delayed or supplied according to the suppliers not by the orders sent to them, are very common. Lack of knowledge and skills in quantifying drugs and other medical related supplies coupled with Irrational Prescription Practices by incompetent health workers also contribute much to the recurrent stock outs at lower health facilities.

So, a quality and sound logistic system supplies ensures the safety and efficacy of the products by routinely checking for quality throughout the procurement and distribution process. Clear and comprehensive product specifications are the first step in quality assurance followed by routine sampling and testing during manufacture and upon receipt. Subsequently the distribution system provides quality assurance by tracking expiration dates and ensuring good storage and handling practices in order to have an effective, accessible and continuity of health care services.

In assessing how well a Logistics and Supplies management operates, one will need to continuously collect data about the system, analyse it as well as making informed judgments by knowledgeable staff and this one calls for at least having staff trained in Logistics.

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So, the purpose of this study was to assess the quality of logistics supplies management systems at Kisasi and Kitende government aided and Faith Based Health Centres II's with the view of identifying deviations from the standard logistic system in order to inform improvement of the system so as to have a continuous, effective and an efficient Health Service at each Health Unit.

Kisasi C.O.U Clinic and Maternity centre is a Faith Based health centre II started in 1996 with a bed capacity of 5 beds. It's just adjacent to St. Peter's Church Kisasi located at Kisasi, Kawempe Division of Kampala district. Kisasi C.O.U Clinic and Maternity centre is a faith based health centre II under the management of St. Peter's Church Kisasi Parish, Kazo Archdeaconry, Namirembe Diocese, Church of Uganda. It has four departments of out patients department, in patient's department, laboratory department and maternity Centre to offer quality health workers are stationed at Kisasi Maternity Centre to offer quality health care services with an average of 10 patients per day and here down is a list of health workers and support staff.

- One Medical Officer
- One Clinical Officer
- One Comprehensive Nurse
- Two enrolled Mid wives
- Two enrolled Nurses
- One Store Keeper
- One Nursing Assistant
- One Laboratory Assistant
- One Cleaner
- One Askari

Services offered at the Health Unit include; Antenatal care, delivery, immunization, post natal care, diagnosis and treatment of medical conditions, family planning, counseling, community outreach and laboratory services. Commonest diseases managed at Kisasi C.U.O Clinic and Maternity centre are malaria and gastro-enteritis.

Kitende Health Centre II is located at Kitende Trading Centre nine kilometers Kampala –Entebbe road, Entebbe Health Sub district, Wakiso District Uganda. Kitende Health Centre II is a Faith Based under Kitende Parish, Entebbe Archdeaconry, Namirembe Diocese, Church of Uganda. It has different health workers who offer health service to the sick and these are;

- One Medical Officer
- One Administrator
- One Orthopedic Clinical Officer
- One enrolled Midwife
- Two enrolled Nurses
- One Nursing Aid
- One Laboratory Assistant
- One Support Staff and
- One Watchman

Kitende Health Centre II was started in the year 2005 initially occupying the Vestry of St. Steven's Church, Kitende. Later it was moved to a hired building in the community. Services offered at Kitende Health Centre II are community medical out-reaches, diagnosis and management of diseases and laboratory services. Commonest diseases treated at the health centre are Malaria and upper respiratory tract infections.

Both health centres are managed by a health management committee made up of people chosen from the church.

PROBLEM STATEMENT

Coartem, the recommended first line antimalarial now and Lack of Malaria laboratory reagents has continued to be a problem at Kisasi and Kitende Health Centre IIs yet malaria remains the commonest disease of the communities surrounding these health centres. During the quarterly support supervisory visits, the In-charges of both Health centres reported to the supervisor that, supply of the drug and laboratory reagents was so irregular once every 4-6 months yet they were supposed to receive supplies every 3 months (quarterly), delayed and sometimes supplied according to the suppliers (Push System) not the orders sent to them. They also noted that the problem had led to patient's dissatisfaction hence under utilization of health services at the heath units. They attributed the problem to unreliability of the system handling supplies at both health units. They also noted that the problem had also led to demoralization of health workers and many had left the health units saying they had no work at the health unit.

JUSTIFICATION:

A quality logistic system ensures that; the right goods in the right condition and right quantity are at the right place, at the right time and for the right cost. The recurrent situations of lack of drugs and other supplies to have patients tested for infections and given treatment at Kisasi and Kitende Health centres IIs is not only a distress to the health workers at both health centres but had also led to under utilization of health services at the health units by the community. Therefore, the study was aimed at looking deeply at logistic supplies management systems at both health units with a view of identifying deviations within the system, help establish the root causes of these deviations and then propose recommendations.

Secondly, the study was the first of its kind to be tried on lower health units of Namirembe Diocese. So the study findings could be used on other lower health units under the diocese and other Private Not For Profit(PNFP) Health facilities leading to better management of Logistics at health Centre 11 level.

It was expected that an improved logistic supplies management system would lead to continuous supply of essential medicines and other related supplies so that the services offered at the two health units are continuous, efficient and effective.

FIGURE: 1

Conceptual frame work showing the Independent Variables and Moderating factors that influence the Logistics System.



In the conceptual framework above it has been assumed that independent factors and Moderating factors can influence the Logistics system in the delivery of health services.

The framework is indicating that when the health personnel is equipped with knowledge and skill of Quantification of supplies in logistics management, they will be able to use the knowledge and skills to calculate order quantities, the cost of supplies and know when to place orders. Where the skills and knowledge of Quantification lack, the health workers will not be able to calculate order quantities, the cost of supplies or know when to place orders hence the poor or inadequate flow of the drugs. This eventually may affect the quality of a logistics and supplies management system because many will not know how the system operates. In addition to the above, the framework further presupposes that the number of personnel employed to manage the logistics and supplies management systems may have an effect on the supplies system. This is because when the employees are few, they may not be able to deliver services at the right time given other obligations and this eventually may affect the quality of the logistics system because there will be no one to handle orders and supplies delivered to respective stores.

The framework is also indicating that with a timely requisitioning of supplies, the lead time stock is not likely to be affected. With the untimely requisitioning, the lead time stock may be depleted and situations of overstocking are likely hence affecting the effectiveness of a logistic system.

The framework also assumes that when there are Rational prescribing practices, there will be rational use of medicines because only what is needed will be prescribed. With Irrational prescription practices usually made unqualified / incompetent health workers, many drugs are prescribed(Polly Pharmacy) and hence the recurrent stock outs which badly impacts on the Logistics system.

The framework further assumes that the nature or state of the storage facility has bearing on the quality of a logistics and supplies management systems. A store with good and ideal characteristics will offer enough space and condition for better storage of supplies and hence a better delivery of services. Otherwise, if the store is inadequate, this will affect storage of supplies and eventually the quality of logistics and supplies management system since storage is key in the system. The framework proposes that regularity of funding may have an

effect on the quality of a logistics and supplies management

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systems. With irregular funding, there will be no money to buy supplies in bulk hence the recurrent stock outs. Recurrent stock outs lead to perpetual purchases which have a very big bearing on the efficiency and effectiveness of the logistics and supplies management system.

The framework further assumes that management of information health setting may affect the flow in any efficiency and effectiveness of the logistics systems. A good logistics management information system brings out information about stock on hand ,consumption levels ,losses and adjustments, dates of order to accurately anticipate current and future supply requirement hence good forecasting. Poor forecasting due to poor information flow directly affects the efficiency and effectiveness of the logistics systems because forecasting marks the beginning of a supply chain.

All the above explanatory factors do influence the effectiveness and efficiency of the logistics system in presence of good moderating factors like good infrastructure, regular supervision on quarterly basis, peace and stability and better job description for the health workers.

GOAL

To determine the quality of logistic supplies management system at Kisasi and Kitende health centres in order to inform improvement of the system.

OBJECTIVES

- 1. To describe the logistics and supplies system at Kisasi and Kitende health centres.
- 2. To determine whether the In-charges and Administrators had training in logistics and supplies management.
- 3. To assess the state of storage facilities at Kisasi and Kitende health centres.
- To assess the usage of HMIS forms 015 (Stock Card), 017 (Order Form) and 105 (Monthly Stock Out Report) at Kisasi and Kitende health centres.

CHAPTER II

LITERATURE REVIEW:

Site related factors;

Quality is a conformance to requirements or specification (Phil Crosby 1979) Quality can also be proper performance according to standards of interventions that are known to be safe, that are affordable to society in question and have the ability to produce an impact on ability to produce an impact on mortality, morbidity, disability and malnutrition (M.I Roemer and C. Montoya Aguilar, WHO, 1988). Quality may be defined as doing the right thing, right, the first time and doing it better next time (ODI Consulting). Quality can also be doing the right thing, right away (Deming, 1982).

Logistics fulfills the six rights by delivering

- the right products
- in the right quantity
- in the right condition
- to the right place
- at the right time
- for the right cost

(FPLM/JSI 2000)

So, the study intended to find out whether the existing Logistics and Supplies management Systems at the two health units fulfills the six rights.

An assessment report of May 1-21, 2000 by Steve Wilbur etal, about Uganda logistic systems for public Health commodities identified several logistics factors leading to recurrent stock outs at facility level and two of them are poor storage and lack of knowledge about the logistics management systems. So, the study was assess the nature of storage facilities and adequacy of training of some of the staff in Logistics at the two health units.

In a book "The role of logistics" Lemay and Carr (1999) underscored the need to have a modern customer – focused logistics management systems. To this, no customer should ever leave a clinic disappointed because the product he or she needs is out of stock. The study intended to establish whether the existing Logistics systems at Kisasi and Kitende health units are Customer focused.

Kenya has a mature logistic management information system whose goal is to use historical data to accurately anticipate current and future supply requirement and provide a reliable supply of contraceptives to customers to avoid problems rather than just respond to them. Forecasting is estimating the quantity of each product that will be dispensed to customers during future period of time. Forecasting marks the beginning of a supply chain. To operate efficient supply chains that will guarantee their customers a dependable supply of quality drugs and essential products health and other organizations need reasonably accurate forecasting of future consumptions (FLPM/ JSI 2000).The study was to assess whether logistical data is used at the two health units under study to accurately anticipate current and future supply of Coartem.

Assessing stock status is very vital in Logistics management as it is to determine how long supplies will last. In a book "The Logistics hand book', A practical guide for supply chain managers in Family Planning and Health Programs – FPLM / JSI, Inc 2000 said assessing stock status is a management function. To assess stock status, you need to

determine how long the supply of each item will last. Depending on your inventory control system, your assessment will cause you to place an order or in the same case place an emergency order. The study intended to find out whether stock status is regularly assessed by conducting regular Physical counts at the two health units under study

The trend in modern Logistic Management is to increase effectiveness and efficiency by consolidating the logistic management information system, procurement and distribution management at a higher level. Logistics Management Systems have a multiple interrelated components, involve a myriad of players and depend on the flow of timely and accurate data for decision making. In Sub-Saharan Africa, public sector logistics systems are generally fragile and characterized by erratic delivery of supplies, stock imbalances and frequent stock outs of the products that flow through their supply chains (Logistics systems for essential health commodities in the public sector – Kenya Annex Four). The study intended to establish whether data about the existing Logistics systems at the health units under the study is regularly collected and used.

At a regional Logistic workshop held in Nyali Beach Hotel, Mombasa, Kenya February 16th-20th 1998, a regional health professional emphasized the need to promote increased awareness of the importance of logistics. They said that a quality Logistic system ensures the availability of commodities and supplies when they are needed which is essential for a quality health care delivery service. The study would determine whether the existing Logistics systems at the health units under the study ensures the availability of essential medicines. A practical training in logistic should be part of the professional education of service providers (FLPM /JSI 2000) as this will enhance performance improvement efforts of the providers. The study intended to determine adequacy of training in Logistics of some of the service providers at the two health units under study.

Clinic staff welcomes the prospect of reliable supplies. When the Family Planning programme in Jamaica, Pilot tested a top-up delivery system, clinic nurses in other parts of the country heard about the effective new system that would help them provide higher quality service to their customers. The nurses where eager to learn how it worked and what role they would have in ensuring the reliable availability of essential products. The study intended to determine whether a top-up delivery system exists at the two health units under study.

In evaluating a Logistic system, general observations can usually indicate how well the system is functioning and identify what requires further investigations. Since the component activities of a Logistics Management system are highly interrelated, a problem on one is likely to affect other activities leading to recurrent unavailability of products or supplies (FLPM /JSI 2000).The study intended to investigate if all components of the system are functional. This is important because each component is essential for a fully functional system.

Central related factors;

In their manual of December2006, on Logistical aspects of medicine management for NGO lower level health units, Joint Medical Store emphasizes the purpose of a quality logistics management system as getting the right quantities of right items to the right places at the right time in the right condition at the right cost. The study intended to find out whether the suppliers ensure the six rights in Logistics.

Goods store keeping practices and eliminating accumulated clutter in stores will increase usable space in a distribution net work with little cost. Because supplies move from higher to lower administrative levels, supervisory tasks can sometimes be combined with distribution tasks to have a multiple of tasks done at the same time for purposes of saving time and improving quality of health care (FLPM /JSI 2000).The study intended to assess the regularity of supervision of the two health units under the study.

In Uganda, The National Medical Stores (NMS) on many occasions has failed to provide quality services in procurement, storage and distribution of medical supplies due to;

- Lack of planning both at the policy level and within the central medical stores,
- Inadequate supervision and control mechanisms leading commodity losses,
- Demotivated, poorly trained and undisciplined work force,
- Unstable funding and
- Bureaucracy .

This has led to inefficiencies in the National Drug supply system, resulting into inadequate supply of appropriate medicine supplies at health facilities throughout the country. (Logistics support - a publication of the Regional Centre for Quality of Health Care 2000).The study was to determine whether the above mentioned factors are the very factors affecting the existing Logistics Systems at the health units under the study leading to stock outs. In a manual about Family Planning Logistics Management Project, technical advisors at the Centres for Disease Control and prevention(CDC) emphasized the need to be very careful when determining the issue quantities to avoid creating an oversupply or an undersupply of products leading to wastage and unavailability of products at times. The study was to investigate whether there are situations of undersupply or oversupply of Coartem medicines at Kisasi and Kitende health units leading to wastage and unavailability of Coartem medicines.

CHAPTER III

METHODOLOGY

Study area:

The study took place at Kisasi and Kitende Health Care Centre II's. These Health Centres are under Namirembe Diocese – Church of Uganda.

Study population:

The study population comprised of the staff at the two health facilities including two medical officers ,two administrators , two clinical officers(the In-charges) ,one comprehensive nurse , four enrolled nurses, three enrolled midwives, two nursing assistants, two laboratory assistants, one store keeper, one records assistant ,two members of health unit management committee (Chairpersons) .

Study design:

This study was conducted through a Descriptive Cross-sectional study.

Study variables:

The dependent variable was the quality of Logistics and supplies management system and the independent variables were;

- Knowledge of quantifying drugs and processing of orders.
- State of storage facility.
- Level of prescription practices.
- Number of qualified staff at the health unit
- Means of transport
- Availability of qualified health workers at the health unit
- Knowledge of HMIS

- Frequency of supervisory visit by internal and external supervisors.
- Presence of guidelines and order forms at the health unit.
- Utilization of services by the patients

Sample size:

Since the study areas are Health Centre II's with few workers, all workers who happened to be involved in the management of logistics at the health units formed the sample size.

Sampling method:

The researcher deliberately selected all available providers who happened to be involved in the logistics management system on the days of the study, to form the study units at each Health unit.

Data collection:

Since the study was a non- intervention one, data collection was done in one phase using tools designed for data collection. Quantitative data was collected using an observation check list and a questionnaire. Qualitative data was collected through key informants interviews. An observation check list was used to assess management and conditions of the store, laboratory and dispensing Room. Indicators of potential quality problems on medical supplies were observed in the three areas at both Health unit and placed a tick against the statement if what was seen agreed with the statement or a cross if what was seen did not agree with the statement.

A self administered questionnaire was given to participants of each Health Unit separately and on different days mainly to assess knowledge about logistics and supplies system and determine what kind of system is used at each Health Unit. Collection of answered questionnaires was done after three days giving a participant three days to answer. In order to collect varied views, twelve interviews were conducted, six for each Health unit to find out the perception of the key informants about logistics and supplies management systems, problems associated which the system, ordering of supplies, training in logistics and payment of supplies at the two Health Units. Key informants guides were used during the interview and each Key informant had his or her own guide. The key informants were selected from the health workers and other stakeholders. They were administrators of both health units, Health Unit Supervising Medical officers, In-charges of health units, Chairpersons Health Unit management Committees, Storekeepers and Laboratory Assistants. The issues identified and related data were grouped and analyzed to generate the causes of a faulty logistics and supplies system at both Health Units.

Previous HMIS-105(Monthly Stock out Report), delivery notes, receipts, OPD register, HMIS-015 (Stock cards) and Order books/Forms were also reviewed for purposes of collecting secondary supportive data and assessing usage of the three HMIS-015,017, 105.

Study Instruments:

Selection of Study instruments to be used in data collection was based on their feasibility, validity and reliability and these were; Eyes and other senses, pen and paper, Observation checklists, questionnaires, tape recorder and tapes and key informants guides.

Training:

One research assistant was trained on the use of various tools in data collections.

Pretesting:

All the tools were pretested on a group of health workers and support staffs at Bbira Health Centre located 15 kilometers from Kampala City along Mityana road. A few spelling mistakes were identified and corrected.

DATA MANAGEMENT AND ANALYSIS

Collected data was cross-checked at the end of each day to see whether it corresponded with the number of tools used for completeness and internal consistency by the head researcher and the trained research assistant. Inspection and editing of the collected data was done to discover those items that may have been misunderstood by the respondents .After editing the collected data, it was coded, that was giving or assigning a symbol to a response for identification purposes . Collected Qualitative data was analyzed manually while quantitative data was analyzed using a computer soft ware of Epi-Data and SPSS .

For qualitative data, Coding also involved identification of passages of text and applying labels to them that would indicate they are examples of some thematic idea. All the coded passages of texts and other data that associated with different thematic ideas was grouped respectively and examined. Categorization and interpretation of the grouped coded passages of texts followed to give meaning to what was collected as data.

Coded Quantitative data was entered in the computer for purposes of generating frequency and Cross tabulation tables.

ETHICAL CONSIDERATIONS:

Authority to carryout the study was sought from Makerere University College of Health Science, School of Public Health, Regional Centre Quality of Health Care and Namirembe Diocese – Church of Uganda. Consent from the respondents was sought and there were no names on the interview notes for confidentiality purposes.

WORK PLAN:

Work plan or schedule that summarized the tasks to be performed in a research project, the duration of each activity and the staff responsible was used as shown in a Gannt chart.

CHAPTER IV

RESULTS:

The study findings shows that those who participated in study were aged between 24 years -56 years. This is shown in Table 1. Below;

Age in years	Frequency	Percentage	Cumulative Percent
24	1	10.0	10.0
25	1	10.0	20.0
30	1	10.0	30.0
34	1	10.0	40.0
38	1	10.0	50.0
39	2	10.0	70.0
43	1	10.0	80.0
50	1	10.0	90.0
56	1	10.0	100.0
Total	10	100.0	

Table 1:Age Variation

Different levels of education for those respondents who answered the questions on the questionnaire are summarized in table 2 and 3. One respondent was of Secondary level of education, seven were from the Tertiary level and two did not record in anything.

Table 2: Level of education

Level	Frequency	percent	Valid Percent	Cumulative
				Percent
Secondary	1	10.0	10.0	
Tertiary	7	70.0	80.0	
Not recorded	2	20.0	100.0	
Total	10	100.0		

The Tertiary level was further categorized into those with Certificates, Diploma and University Graduates as shown in Table 3:

	Frequency	percent	Valid	Cumulative
			Percent	Percent
Valid	3	30.0	30.0	30.0
CERT.EDUCATION	1	10.0	10.0	40.0
CERT. PLUMBING	1	10.0	10.0	50.0
DIP. ORTHOPEDIC	1	10.0	10.0	60.0
DIP .EDUCATION	1	10.0	10.0	70.0
UNIVERSITY.GRADUATE	3	30.0	30.0	100.0
Total [N]=7	7	100.0	100.0	

Table 3: Tertiary (specify)

Knowledge about logistics and supplies management system by the respondents was captured in the quantitative data collected using the questionnaires. 10% of the respondents thought LSMS was ordering for drugs, 30% put it that LSMS was supply of drugs while 10% of the respondents thought LSMS was procurement of drugs yet 50% had no idea about LSMS as shown below in table 4.

Table 4:	Possible	definitions	of	LSMS
----------	----------	-------------	----	------

Options	Frequency	Percentage
Ordering for drugs	1	10%
Supply of drugs	3	30%
Procurement of commodities	1	10%
No idea/ nothing	5	50%
TOTAL	10	100%

Inadequate knowledge about Logistics and supplies management systems by those in management of the health unit was further revealed in the study and contributed much to what was going on. "Some of us are not knowledgeable enough to handle issues of logistics because we have never received formal training in logistics" retorted one respondent at Kisasi Health Centre during key informants interview. Findings further revealed that 2/6 participants who held the key informants interview at Kisasi Health Centre had received some training in logistic at a workshop while 3/6 participants at Kitende confessed to have had informal training in logistics but cannot put to use what they learnt because of limitations. It was also revealed in the key informants interview that 3/6key informants did not know what constituted a quality logistic and supplies management system at both Health Centres. Findings also show that 2/6 respondents in key informants interviews attempted to name the six rights involved in logistics and supplies management system

Presence of LSMS	Frequency	Percentage
VALID YES	4	40%
NO	б	60%
TOTAL	10	100%

 Table: 5: Existence of Logistics and supplies management system.

The Study findings show that 40% of the participants agreed that a logistics and supplies management system existed at both Health units. 60% of the respondents did agree that there were no logistics and supplies management systems at both Health Units.

Observational study findings show that a storage facility existed at each health units however different ideal characteristics for a good facility were brought forward in the interviews as shown in table 6 &7. Otherwise the ideal characteristics of a store are those features of a store or in the store that enables it to keep the commodities/ supplies well with good store keeping practices. Suggested Ideal characteristics for a storage facility included one with shelves, one with a Fridge ,one with a storekeeper, must be strong and solid ,Lockable ,accessible ,cool and dry ,good air circulation ,quite good , spacious ,dust free while others did not know as illustrated in the table bellow

Characteristics	Kisasi	Kitende	Total
One with shelves	1	1	2
One with Fridge	1	1	2
One with a	1	-	1
storekeeper			
Strong / Solid	1	2	3
Lockable	1	1	2
TOTAL	5	5	10

Table 6: Suggested Ideal characteristics of storage facility

Table	7:	Others

Characteristics	Kisasi	Kitende	Total
Accessible	3	1	4
Cool and dry	-	1	1
Don't know	1	-	1
Good air circulation	1	-	1
Quite good	1	-	1
Spacious, Dust free	1	1	2
TOTAL	7	3	10

Observational findings revealed presence of good lighting systems, drug shelves with drugs but not arranged according to product velocity , cupboards, record keeping books, scrubbed floors, lockable doors, and stock cards in the two storage facilities of both Health Centres respectively. Presence of a stock attendant/storekeeper at kisasi Health Centre and none at Kitende Health Centre was also noted. Presence of foreign matter inside a unit package at Kitende Health Centre and presence of a laboratory technician at Kitende Health Centre and none at Kisasi Health Centre were also noted in observational findings as shown in the tables below

Table 8: Shows some of the observations made

	Kisasi	Kitende	Total
Presence of stock	1	-	1
attendant			
Presence of foreign	-	1	1
matter inside a unit			
package			
Presence of a	-	1	1
laboratory technician			
Total	1	2	3

Table 9 shows that 80% of the participants in the study agreed that there are situations when drugs are undersupplied or oversupplied. "We sometimes receive what we did not order for and little of what we ordered for" a key respondent retorted at Kisasi health centre.

Table 9; Shows situations of undersupply and over supply.

	Kisasi	Kitende	Total
Yes	5	3	8
No	1	1	2
Total	6	4	10

The researcher further probed for the reasons leading to oversupply and

undersupply of the drugs which were given as below in table 10:

Table 10:Reasons for Drug over / under supply.

Reason	Frequency	Percentage
Lack of check system	2	20%
Disregard of the orders made.	1	10%
Lack of enough funds	2	20%
Don't know	5	50%
TOTAL	10	100%

As for the reasons as to why the two Health units kept on receiving under/over supply, 50% of the respondents did not have a reason for what was happening. Other reasons put forward in the study were lack of check system at 20%, disregard of orders made at 10% and lack of enough funds at 20%. Inadequate funds to buy drugs on open market and pay workers was again revealed as problem to both health centres by the key informants. "We collect very little in user fees yet this is the only money we use to buy drugs on open market and pay workers" said one key informant in an interview at kisasi Health Centre. "We normally buy a few items on the order list on a daily basis because of lack of enough funds "said one key respondent at Kitende Health Centre.

It was also revealed in a key informants interview by a key informant at Kisasi Health Centre that the health facility is sometimes supplied with drugs they did not order for. "They disregard the orders we make and send whatever they have. Drugs sent to us in this manner remain unused for a very long time because we do not have the patients who use the drugs. So the drugs are piled there or they expire and right now we have expired and about to expire Diabetic drugs" retorted the key informant at Kisasi. "We recently got several Tins of Septrin but we had not ordered for them" said a key informant at Kitende Health Centre. "We one time received more quinine ampoules than we had ordered for and less Coartem. When we informed the JMS people, they promised to come with the Coartem that had remained with them and pick the extra quinine, that was last year, but up to now we have not seen them" said one respondent in a key informants interview at Kitende Health Centre. As to what is done to the expired drugs/supplies,

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Options	Frequency	Percentage
Send back to	3	30%
suppliers		
Pile at one corner of	1	10%
store		
Pile in another room	1	10%
Dig a pit and burry	2	20%
Send to incinerator&	3	30%
burn		
TOTAL	10	100%

Table 11 shows the options of what is done to expired drugs/supplies.

Study findings revealed that five options of what could be done to the expired drugs/supplies were brought forward. Send back to the suppliers 30%, pile at one corner of store 10%, pile in another room 10%, dig a pit and burry 20% and send to incinerator & burn 30%.Observational findings revealed presence of stockpiles of expired drugs and unused drugs pilled at two different corners of the storage facility at Kisasi Health Centre.

On payments for the supplies at both health units, study findings revealed that payments are made through subscription to UPMB, use of Government credit line and paying cash/cheque directly to the pharmacies.

Table12: shows Payment Options for the drugs/supplies.

Payment option	Frequency	Percentage
Subscription to UPMB	3	30%
Use of Government credit	5	50%
line		
Use Cash/Cheque	2	20%
TOTAL	10	100%

Study findings also revealed that there is a 40% chance to check on the quality of supplies before receiving them as shown in table13: below:

Table 13: Chance to check on condition/quality of supplies before you receive them.

	Frequency	Percentage
VALID YES	4	40%
NO	6	60%
TOTAL	10	100%

60% of the respondents said that there are no chances to check on the condition/ quality of supplies before they receive them because the supplies go through many hands before arriving at the health unit.

Key informants interviews revealed and described the logistics and supplies system at each health unit; as a system used in acquiring drugs and other medical related supplies. In a number of key informants interviews, it was revealed that there were lots of delays in the system leading to drugs unavailability at both health centers. "There are a lot of delays while using the official systems, this is why we resort to buying from private pharmacies" reported one Respondent at Kitende Health Centre during a key informants interview.

Bureaucracy was also raised as problem affecting the systematic flow of supplies. "We are called to get order forms from Namirembe Diocese the Health Department fill them using the drug list provided by JMS through Namirembe Diocese again, take the filled forms back to Namirembe Diocese, they are taken to JMS by the Namirembe people, you are told to wait for a call by the Diocesan Health coordinator who also has to wait for a call from JMS when the order is ready, the process is very long passing through very many hands" said one key respondent of Kisasi Health Centre during key informants interview. "When we receive a call from Namirembe notifying us that the drugs are ready, we organize for transport to collect the drugs from there", said one key informant at Kitende health Centre

Outright theft of drugs and other supplies by health workers at Kisasi was revealed by a key informant as another factor contributing to drug shortage at the health centre. "Many of our staff keep running away because of poor pay". "Whenever one is to go away you will never know, so they use the chance to steal everything at their disposal more especially drugs commonly used like Coartem" one key respondent said at kisasi Health Centre.

Findings revealed and it was further observed that there was adequate usage of HMIS 105 Health Units Monthly Report at Kisasi and kitende Health Centres. Observational Study findings also revealed that previous monthly reports were kept well but there was no evidence to show that the records are used for future planning at both clinics.

Study findings also revealed a 60% usage of stock cards in that some drugs found in use at the two health units did not have stock cards.80%

of the sampled stock cards were not updated. To some cards, expiry dates of drugs were not indicated. Some of the stock cards had no maximum and minimum stock levels because the health workers attached to the two health units were the study was carried out did not know how to calculate the maximum, minimum stock levels and order quantities. "I have never been trained in stores management but I was asked to come and help manage the store" a key respondent said at Kisasi Health Centre. "Getting to know the maximum levels, minimum level and order quantities of drugs involve a lot of calculations". "We are not many on staff who know how to do it, so we end up not updating the stock cards because we have other obligations to attend to" retorted on key respondent at Kitende Health Centre. Observational findings and review of records also revealed that no physical count /De-junking had been conducted as per the sampled stock cards at the two study Health Units. "I fear to remove the expired drugs and other unusable products before there are seen by those who give us the supplies" retorted one key informant at Kisasi Health Centre. There was no evidence to show that the health units were using

HMIS 017-Order Form. Observational findings and review of records revealed that other forms privately prepared by JMS are used as Order Forms. "We have never seen the forms you are talking of" retorted one Key respondent at Kisasi Health Centre. "JMS supplies their own order forms and there are the ones we use" one key respondent said at Kitende Health Centre.

Lack of guidelines in logistics and supplies management at both Health Centres was also brought up as a problem in the process of acquiring supplies. "We do not have guidelines to follow in this all process of buying drugs" a key informant said in key informants interview at Kitende Health Centre. "Kampala City Council has never given us what to follow in acquiring drugs other than ordering us to buy from JMS only" said one key informant in a key informants interview said at Kisasi Health Centre.

It was also revealed in the study that supervision from government and the mother organization that is – Namirembe Diocese was so irregular and at times not there at both Health centres. In 3/6 key informants interviews it was confessed that supervision was so irregular. Observational findings revealed that no one had signed the Visitors book as a Supervisor this year 2008 at both Health units. "We cannot carry out internal supervision because the qualified staff keep running away" one key informant said at Kisasi Health Centre.

"Issues of quantification, requisitioning and prescribing drugs for the sick people are not known to the lower cadres but you find them treating patients" said one key informant from Kisasi health centre. "We have nothing to do because the health unit can not pay for a full time health worker who can see patients appropriately" said another key informant from Kitende health centre. "We are only a few qualified staff at this health unit who work day and night without resting". "We rarely see our medical officer coming to help us with duty so whoever is there, can see the patients and prescribe drugs" retorted a key respondent at Kisasi health centre.

On reviewing the OPD register at Kitende health centre, it was observed that many drugs are prescribed per patient by whoever is prescribing. Patients with malaria get five to seven different types of drugs on average with antibiotics inclusive. On who verifies the prescriptions, one key respondent said that its the In-charge who verifies the prescriptions. When he is not on duty, no one verifies the prescriptions and whoever is there can prescribe.

On status of the Laboratories attached to the Health units under study, observational study revealed presence of a simple laboratory at each Health Unit manned by a laboratory assistant. "We have a small laboratory and a few simple laboratory tests like testing for

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malaria can be handled" said one key informant in an interview at Kitende Health Centre. Presence of pens ,chairs ,tables , microscopes, cupboards where reagents are kept ,reagents, glass slides and books of records was noted at the laboratory of each Health Centre. "Here we can not pay for a full time laboratory assistant so he normally comes in the evening to carry out a few laboratory tests" one key respondent said at Kisasi Health Centre. "I have not had chance to train in logistics/drug management, I'm never supervised but I normally write and forward a list of out of stock reagents to the In-Charge and wait" noted one key informant at Kitende Health Centre.



Figure 11 Fish bone analysis shows broader factors leading to an inefficient logistics and supplies management system at Kisasi and

Kitende Health Centres generated in key informants interviews as enumerated below:

- Bureaucracy
- Lack of funds
- Suppliers
- Personnel

Each broad factor has several branches which stand out to be the root causes of an inefficient LSMS at the two health centres. So the root causes under each broad factor are simplified under a why-why diagram below:



Figure 3: Why- why Diagram on the root causes of an inefficient LSMS

CHAPTER V

DISCUSSION:

It becomes so challenging to provide a quality health service with an intermittent supply of drugs and other medical related supplies due to an inefficient Logistics and supplies management system. Lemay and Carr (The role of Logistics 1999) under scored the need to have a modern customer focused logistics management systems in organizations. To this, no customer should ever leave a Health Centre disappointed because the drug or service he or she needs is out of stock or can't be provided. The opposite is deemed to be happening at Kisasi and Kitende Health Centre IIs under Namirembe Diocese – Church of Uganda after findings of this study have confirmed the existence of an inefficient logistics and supplies management system at both Health units.

The existing Logistics and supplies management systems delay the delivering of supply with situations of under supply or over supply at both Health units as opposed to a quality logistics management system that ensures getting the right quantities of the right items to the right place at the right time in the right condition at the right cost. Disregarding orders by the gazetted supplier JMS, is very common leading to a supply of what was not ordered for. This is not only a sign of poor internal organization but also a sign of technical incompetence. Drug rationing is commonly used in situations where the supplier has little of the supplies to give out to many of his clients. In Uganda, most of our essential drugs like Coartem are rationed because we do not have enough to sufficiently deal with everyone's order. So, rationed portions of essential drugs are sometimes the suppliers to their clients(Push system)or the sent by suppliers wait for an order of drugs and other supplies from their clients and use the opportunity to send both the requisitioned and rationed drugs together to their clients(Integrated Push and Pull system). The Push and Pull systems, as by the study findings are not known to the health workers of the two Health units were the study was carried out.

Inadequate knowledge about logistics and supplies management system was evident when 50% of the respondents could not define or tell what a logistics and supplies management system is, 30% thought it is supply of drugs, 10% thought it is ordering for drugs and 10% thought it is procurement of commodities. The definitions given by respondents form part of a Pharmaceutical cycle but a logistics and supplies management ensures the six rights. Those in management of the two Health Centres under the study ,the In-Charges and Administrators, study findings revealed that they had not got chance to train formally in logistics. They informally trained at workshops but could not use what they acquired in the training workshops. So issues of quantification, requisition and processing of orders which require a lot of knowledge about logistics and drug management remain a nightmare to those in management. Again, only 40% of the respondents in the study confirmed the existence of a logistics and supplies management system, but when told to describe the type of system, only 20% tried to do so. This is again attributed to low levels of staff training in logistics where staff attained some informal training in logistics but could not practice what they learnt because of other limitations.

Uganda logistics systems for Public Health Commodities (An assessment Report may 2000) identified several logistical factors leading to recurrent stock outs at facility level and two of them are poor storage and lack of knowledge about the logistics management system. Lack of knowledge coupled with lack of guidelines compelled health workers at the two health centre to do whatever they perceived right thereby compromising the quality of a logistics and supplies management system at both health centres. The inefficient logistics systems found at the study sites are further constrained by outright theft of drugs and other supplies by health workers and the poor irrational prescribing methods by those who find themselves prescribing at the two Health units. Study findings show that as many as seven drugs are prescribed indiscreminently for a disease which can be treated by two drugs. These are wasteful ventures which lead to recurrent stock outs impacting on the efficiency and effectiveness of a logistics system. Several other issues that compromise the already inefficient Logistics systems at the two Health Centres under the study were also brought forward as elaborated bellow.

Bureaucracy and unstable funding led to inefficiencies at both Health Units resulting into inadequate supply of appropriate medicine supplies at the two health facilities. Study findings established that government is the main funder of these Health Units in form of credit line and the money is entrusted with JMS and very little money is generated internally. There are told to buy from JMS only thereby limiting them to only those drugs which are available with JMS. All orders, study findings show, go through Namirembe Diocese and receive supplies through Namirembe Diocese again. Procurement of supplies using other funds is simple. They an order, go and buy from develop the nearest private pharmacy. Much of the internally generated funds goes to paying salaries of workers so very little, is channeled to buying drugs.

Supervision is a management function that is planned and carried out in order to guide, support and assist staff in carrying out assigned tasks. Study findings established that supervision is irregular, at times not there as confirmed by the observational findings that no one had signed the visitor's book as a Supervisor for the year 2008. Government recommends supervisory а activity every three months. To make matters worse, if supervision is ever done, it's the traditional type of supervision which emphasizes fault finding as opposed to facilitative supervision where the supervisor's role is to enable staff to manage the quality improvement process, to meet the needs of their goals. The approach emphasizes mentoring, joint problem solving and a two-way communication between the supervisor and those being supervised. So the health workers at the two health centres where the study was carried out miss the mentoring and coaching which they need badly.

Good store keeping practices and eliminating accumulated clutter in stores will increase usable space in a distribution net work with little cost. Because supplies move from higher to lower administrative levels, supervisory tasks, can sometimes be combined with distribution tasks to have a multiple of tasks done at the same

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time for purpose of saving time and improving quality of health care (FLPM/ JSI 2000).Observational Study findings, confirmed the presence of a storage facility at both Health units with lockable doors, good lighting systems, scrubbed floors, drug shelves with drugs and cupboards but with piles of expired drugs in one of a storage facility at Kisasi Health Centre. However at Kitende the study established that they had no stock attendant/ store keeper, presence of a foreign matter inside a unit package in the storage facility, empty boxes, tablets thrown on the floor of their dispensing room were noted. These are all indicators of a potential quality problem and a confirmation that De-junking is not done at the two Health Centres under the study. Observational findings and review of records revealed that no physical count had been conducted at the two Health units under the study. So losses due to damage, theft, misuse and expiry remain unnoticed. This coupled with poor stock card updating methods leave stores management at the two Health Units under study at stake.

In Kenya, they have a mature logistic management information system whose goal is to use historical data to accurately anticipate current and future supply requirement and provide a reliable supply of contraceptives to customer to avoid problems rather than just respond to them. Fore casting is estimating the quantity of each product that will be dispensed to customers during future period of time. Fore casting marks the beginning of a supply chain. To operate an efficient supply Chains that will guarantee their customers a dependable supply of quality drugs and essential products, health and other organizations need reasonably accurate forecasting of future consumptions (FLM/JSI 2000). The study established that records of patients attendance, meetings, treatments given to patients, drugs and other supplies received are kept well at both Health Centres. HMIS-105 forms(Monthly stock out Report) are filled and those to be sent to funding agencies are sent. However, after a review of records during the study, there was no evidence of utilization of data on the previous HMIS 105 forms for purposes of forecasting.

Usage of HMIS 015(Stock card) stood at 60% at both Health Centres because some of the drugs found in use at both Health Centres during the study did not stock cards.80% of the sampled stock cards at both Health Centres during the study were not updated. On most of them, maximum and minimum levels had not been indicated, some did not have expiry dates and all did not bear any record of a physical count or De-junking conducted. This can be attributed to low levels of knowledge in drug management because with adequate knowledge one would in position of realizing the importance of having updated stock cards in drug management. Insufficient numbers of qualified health workers can also be hindrance given the many obligations to perform for the smooth running of Health Unit.

HMIS -017(Order Form) study findings revealed was not in use. Instead a locally prepared form from JMS is used. HMIS-017(Order Form) is a standard form used in the ordering process bearing spaces where you fill in the specifics of the drugs you need and order quantities. The absence of standard Order Forms at the Health Units under study, renders the whole ordering process problematic. Study findings also revealed that those who are supposed to be involved in the ordering process like Laboratory Assistants are never invited instead they are told to list down the reagents they don't have and forward the list to the In-Charge.

CHAPTER VI

CONCLUSIONS:

The study project has shown that:

- A poorly conceived but inefficient LSMS that delays supplies, that allows over and under supplies, that disregards orders and one which does not offer opportunities to check on the quality of goods before they are delivered, existed at both Kisasi and Kitende Health Centre II, Under Namirembe Diocese –Church of Uganda.
- HMIS-105 forms are regularly filled at Kisasi and Kitende Health Centres but there was no evidence to show usage of the data on these forms in LSMS. There was an observed reluctance to update HMIS 015-stock cards at Kitende and Kisasi Health Centres. HMIS-017forms had not been introduced in the system and were not in use.
- Management of stores at the two Health Centres was relatively fair except for a few things which need to be introduced like regular updating of stock cards, physical count, De-junking and arrangement of products according to products velocity.
- The In-Charges and Administrators of Kisasi and Kitende Health Centres had not formally trained in logistics and supplies management.

RECOMMENDATIONS:

Drugs and other medical related supplies unavailability can be a major hindrance in the provision of a quality health care service more especially if it is caused by an inefficient logistics and supplies management system.

In order to have improvements, the following recommendations are suggested.

- Accessibility and continuing of service provision are very important dimensions of quality. So management of Kisasi and Kitende Health Centre should endeavor to streamline and improve on the processes of their logistic and supplies management systems to avoid delays in delivering supplies.
- Lack of knowledge affects the technical abilities of health workers so a whole

 site training to address knowledge and skills gap on the whole concepts of
 logistics as a system and how it operates is highly recommended.
- Regular facilitative supervision both internal and external as opposed to the Traditional fault finding support supervision is highly recommended to bring in elements of mentorship and coaching to boost the technical competencies of staff at both health centres.
- Provision of standard operating procedures in medical supplies procurement and distribution is highly recommended.
- Namirembe Diocese be advised to disengage itself from the affairs of handling orders for the supplies at both health centres to avoid the bureaucracy involved.
- Namirembe Diocese should be encouraged to develop a Health Policy that streamlines the activities of a good LSMS.
- Suppliers should be advised to regularly retrain their workers to competently meet their clients needs.
- The suppliers again, should be advised to get organized internally to avoid disregarding orders of their customers.
- The suppliers should be encouraged to give a helping hand in training their clients.

ANNEX

GANNT CHART SHOWING A WORKPLAN FOR DEVELOPMENT OF A

RESEARCH PROPOSAL AND CARRYING OUT RESEARCH

	Task to be	Responsible	Novembe	December	January	February
	performed	Person	r 2009	2009	2010	2010
1.	Finalize	Lead	XXXXXXX			
	development of	Researcher	XXXXXXX			
	Research proposal					
2.	Clear the authority	Lead		XXXX		
		Researcher		xxxx		
3.	Training of	Facilitator		XXXXXX		
	research assistant			XXXXXX		
4.	Pilot test tools	Facilitator +			XXXXX	
		Research			XXXXX	
		assistant			XXXXX	
5.	Analvze H/Units	Research			XXXX	
	records and	Assistant.			xxxx	
	sample study					
	units.					
6.	Administer	Lead			xxx	
	Questionnaires	Researcher			xxx	
	and carry out	and			XXX	
	Observations	Research				
	o boer valions	Assistant.				
7.	Key informants	Lead			XX	
	interviews.	researcher			XX	
		and			XX	
		Research				
		Assistant.				
8.	Data analysis and	Lead				XXXXXX
	report writing and	Researcher				XXXXXX
	feed back H/Units.					
9.	Finalize report and	Lead				XXX
	hand it over to the	Researcher.				XXX
	authority regional					XXX
	centres.					

BUDGET

1. Stationary:		
1 ream of duplicating paper	@Shs.10,000/=	10,000/=
1 dozen of Bic pens	@Shs.2,000/=	2,000/=
Sub total		12,000/=
2. Training		
One (1) facilitator	@Shs.150,000/=	150,000/=
		· · · ·
3. Travel		
45 return trip	@10,000/=	450,000/=
Sub total		450,000/=
4. Subsistence		
60 days	@5,000/=	300,000/=
Sub total		300,000/=
5. Research assist's		
allowances	@70,000/=	140,000/=
2 Research assistants		140,000/=
Sub total		
6. Typing charges		
120 pages	@600/=	72,000
Sub total		72,000/=
Total		Shs. 1,174,000/=
10%		117,400/=
Grand total		Shs. 1,291,400/=
One million, two hundred nir	nety one thousand,	four hundred shillings
only.		

QUESTIONNAIRE for Nurses, Midwives , Nursing assistants , records assistants.

Makerere University

School of Public Health

Regional Centre-Quality of Health Care.

Dear Sir /Madam,

Good morning/afternoon, I am carrying out this study to assess the quality of Logistic supplies management system at Kisasi and Kitende Health Centre II's under Namirembe Diocese so that I recommend appropriate action to Namirembe Diocese and Makerere University. Please answer the following questions as honestly as possible.

There is no need to disclose your name. All the information given will be treated with the highest confidentiality and used for the purpose of this study.

I thank you in advance for your cooperation.

KITAKA GORDON KIKONYOGO

LEAD RESEARCHER

Questions:

Age
Religion
Marital status
Level of education
What is your role in acquisition of drugs and laboratory reagents?
Do you have Logistic supplies management system at Health Unit?
If yes , describe it ?

Describe the state of your storage facility for drugs and other supplies?

Explain what a good a storage facility would look like?
How do you handle expired or damaged drugs?
Are there situations when drugs are over supplied or under supplied?
Please describe how this happens ?
How do you keep records of the malaria drugs and other related supplies like test kits from malaria?
How are the payments for the supplies made?
Who transports the supplies to you?
Is there chance to check on the condition of supplies before you receive them?Yes/No
How are your laboratory services at his Health Unit?

The observation instrument

Observation is the process in which one or more persons look at what is happening is some real life pertinent happenings according to some planned scheme. The observer participates with the group he or she is observing and in the process observes what is going on and collects information (Active Observation).

Date..... Time.....

Place.....

Now the observation check list.

Place a tick against the statement if what you see agrees with the statement or a cross if what you see does not agree with the statement.

At the Dispensing Room

- Lighting system.
- Drug shelves / Cupboard.
- Record keeping books.
- Drug in shelves /Cupboards.
- Drug envelopes.
- Pens
- Tables or capsules thrown everywhere
- Spoons
- Hand washing facility with soap and towel
- Small dustbin
- Empty boxes thrown around
- Dispenser / Nurse / Attendant.
- Wall clock or Watch.

At the Store

- Physical damage of shipping carton
- Damaged malaria test kits
- Water on the floor
- Leakages or stain on syrups.

- Tablets , capsules or syrups on the floor
- Stock cards filled
- Drug shelves / cupboards
- Good lighting system
- Books for records
- Stock attendant
- Illegible labeling on boxes of drugs.
- Presence of foreign matter inside unit package
- Rodents rats
- Hand washing, facility plus soap and towel
- Dispenser / Nurse/ Attendant
- Lockable doors.

At the laboratory:

- Scrubbed floor
- Running water
- Laboratory technician
- Microscope (presence)
- Presence of reagents
- Tables
- Presence of glass slides
- Good lighting systems
- Lockable doors and windows
- Books for records.

KEY INFORMANTS GUIDE for Medical officers

Date.....

Time.....

Place.....

- What is your logistics and supplies management system like at this health facility ?
- What is your role in quantifying, requisitioning and processing of orders of Coartem medicine and malaria laboratory reagents at this health unit?
- How are the payments for the supplies made ?
- Who organizes for the transportation of supplies from the supplier to the health unit?
- How is the health facility staffed in terms of number, qualifications , knowledge and skill in logistics management?
- Who prescribes medicine and how is the prescribing Practice at this health unit ?
- Explain the kind of records kept and how reports are made at this health facility?
- What is the status of your storage facility and how is it managed?
- What is your comment about the staff turn over and the contributing factors at this health facility?
- How regular is both internal and external Supervision ?

KEY INFORMANTS GUIDE for the In-Charges

Date.....

Time.....

Place.....

- What is your level of training in logistics/Medicine management ?
- How is quantification and processing of orders for Coartem and Malaria laboratory reagents done at this health facility?
- What is your level of involvement in making the Monthly Stock out Reports (HMIS 105) and updating Stock Cards (HMIS 015) ?
- Are you satisfied with the level of training of your staff in logistics management ?
- Who verifies the prescriptions made at this health unit and how is it done?
- What is your level of involvement in the management of the store and laboratory at this health unit?
- What is your comment about the promptness of your suppliers in supplying Coartem and malaria laboratory reagents ?
- Do you get supplies on request (order) or allocations from the suppliers?
- Explain what could lead to situations of under or oversupply of Coartem and malaria laboratory reagents ?
- How is internal supervision carried out and who does it ?
- What do you do when you run short of Coartem and malaria laboratory reagents ?

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KEY INFORMANTS GUIDE for the Storekeeper

Date..... Time.....

Place.....

- What is your level of training in stores management ?
- Is there any other person on staff trained in stores management?
- What is the status of your storage facility ?
- What is your level of involvement in the ordering of Essential drugs like Coartem and other supplies like Malaria laboratory reagents ?
- What items are routinely kept ?
- What kind of records do you keep ?
- How are Stock cards kept and updated ?
- How do you conduct physical counts ?
- When is physical assessment of quality of supplies done ?
- Where are losses and damages of supplies reflected
- Are there special needs for the storage of Coartem medicines and malaria laboratory reagents ?

KEY INFORMANTS GUIDE for the Administrator

Date..... Time.....

Place.....

- Have you had any training in logistics / drug management ?
- What is your level of involvement in the acquisition of essential drugs and laboratory reagents at this health unit?
- What is your comment about the frequency of stock outs of essential drugs more especially antimalarials ?
- Are you satisfied with the level of staffing at this health unit in terms of numbers and qualification ?
- What is your level of involvement in store management and assessment of quality of supplies ?
- What is your comment about the relationship between the health facility , the Diocese and the suppliers ?
- How are the payments for the supplies made?
- What is your comment about the high turn over of staff in relation to availability drugs at the health unit?

KEY INFORMANTS GUIDE for Chairman - Health Unit Management Committee.

Date..... Time..... Place.

- What is your level of involvement in purchasing and handling of supplies at this health facility ?
- What can you say about the system that handles supply of essential drugs like Coartem ?
- What kind of records regarding supplies do you keep with you and when do you refer to them ?
- What can you say about the level of staffing at this health facility in relation to handling supplies and other obligations?
- What is the nature of the store in relation to handling supplies?
- How often do you meet over issues of supplies ?
- How regular are your supervisory visits at this health facility ?
- Are you normally notified about stock outs and other losses due to expiry or damage?
- What can you say about the relationship between the health unit and the surrounding community?

KEY INFORMANTS GUIDE for Laboratory Assistants

- Have you had any training in Logistics / drug management ?
- What is your level of involvement in ordering for laboratory reagents ?
- Which laboratory reagents are used most at this health facility?
- What do you do when you run sort of the commonly used reagents?
- How frequent are you supervised ?
- Explain the status of your laboratory to handle laboratory work requirements at this health facility ?
- How do you handle reagents that require special treatment?

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