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MANAGEMENT OF PROCUREMENT AND DISTRIBUTION OF ESSENTIAL MEDICINES AND HEALTH SUPPLIES BY NATIONAL MEDICAL STORES

A REPORT BY THE AUDITOR GENERAL

DECEMBER, 2016

THE REPUBLIC OF UGANDA

MANAGEMENT OF PROCUREMENT AND DISTRIBUTION OF ESSENTIAL MEDICINES AND HEALTH SUPPLIES BY NATIONAL MEDICAL STORES

(A Study on Drug Pricing and Deliveries)

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DECEMBER, 2016

OFFICE OF THE AUDITOR GENERAL

AUDITOR GENERAL'S MESSAGE

31st December 2016

The Rt. Hon. Speaker of Parliament
Parliament of Uganda
Kampala

MANAGEMENT OF PROCUREMENT AND DISTRIBUTION OF ESSENTIAL MEDICINES AND HEALTH SUPPLIES BY NATIONAL MEDICAL STORES (A STUDY ON DRUG PRICING AND DELIVERIES)

In accordance with Article 163 (3) of the Constitution, I hereby submit my report on the audit undertaken on management of procurement and distribution of essential medicines and health supplies by National Medical Stores

My office intends to carry out a follow – up at an appropriate time regarding actions taken in relation to the recommendations in this report.

I would like to thank my staff who undertook this audit and the staff of National Medical Stores and health centers for the assistance offered during the period of the audit.

John F. S. Muwanga
AUDITOR GENERAL

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LIST ABBREVIATIONS

ACT	Anti-Malarial Artemisinin Combination Therapies
AMC	Average Monthly Consumption
ARV	Anti-Retroviral Medicines
CCA	Customer Care Assistant
CQCIL	Cipla Quality Chemicals Industry Limited
EMHS	Essential Medicines and Health Supplies
ERP	External Reference Pricing
GH	General Hospitals
HC	Health Center
HF	Health Facility
IDIPG	International Drug Indicator Price Guide
IMT	Inventory Management Team
JMC	Joint Medical Stores
MOH	Ministry of Health
MSD	Medicine Stores Department
MSH	Management Science of Health
NDA	National Drug Authority
NDP	National Development Plan
NMS	National Medical Stores
PDU	Procurement Disposal Unit
PPDA	Public Procurement and Disposal Authority
RRH	Regional Referral Hospital
SRA	Stringent Regulatory Authority
WHO	World Health Organization

EXECUTIVE SUMMARY

Over the years government has emphasized the importance of efficient and appropriate procurement, storage and distribution of essential medicines and health supplies (EMHS) at all levels of the health management system to ensure effective nationwide delivery of the Uganda National Minimum Health Care Package.

National Medical Stores (NMS) was set up by the National Medical Stores Act 1993 (Cap 207) as an autonomous body responsible for procurement, storage and distribution of essential medicines and health supplies (EMHS), to all Public Health Facilities in the Country.
In 2010 the Office of the Auditor General (OAG) undertook a value for money audit on the Procurement and Storage of drugs in which a number of shortcomings were observed such as failure to meet customer requirements, lack of proper procurement plans, lack of a clear coordination mechanism with third parties in the area of procurement, and improper handling of expired drugs.

Following public concerns, in 2016 the OAG undertook a risk assessment which revealed that the health sector still faced challenges regarding drug pricing and deliveries to health facilities by NMS. Furthermore, an evaluation of the basic kit system in 2013 by the National Pharmaceutical Sector revealed that the majority of health facilities were either over or under supplied. The report further observed that although NMS had implemented district-specific kits for each of these levels of care to better match specific needs, procurement planning remains a challenge at health facility level.

It is against this background that OAG decided to conduct a value for money study to assess the extent to which NMS efficiently delivers EMHS in the right quantities at reasonable prices to public health facilities in Uganda.

KEY AUDIT FINDINGS

DRUG PRICING

To assess the reasonableness of prices charged to Health facilities, comparisons were undertaken between NMS prices and international and local market prices as observed below:

International Reference Prices Vs NMS Supplier Prices

1) NMS procured all the thirteen (13) selected national tracer drugs at relatively lower prices compared to the International Reference prices. 69% of these drugs were procured at prices lower than the international prices by at least 50%.
2) It was observed that in the majority of cases, the prices at which NMS procured Anti-Retroviral medicines (ARVs) from the approved local manufacturer during the period under review were higher than the donated drug prices. The high prices mean fewer quantities are procured for distribution to health facilities with the available resources. This can result in increased donor dependency which exposes government to a risk of

limited availability of ARVs in the event of withdrawal or expiry of donor funding.

3) It was noted that 73% of the fifteen (15) selected most-frequently ordered anti-cancer drugs were procured at a relatively higher price compared to the international median prices. Seven (7) out of the fifteen (15) were procured at prices relatively higher than the international prices by at least 100%.

NMS prices Vs Joint Medical Stores (JMS), and Local Market prices for EMHS

- It was observed that out of the thirteen (13) selected EMHS drugs, 77% were issued by NMS to health facilities at lower than the average market prices. Additionally, 92% were issued at a relatively lower prices compared to Joint Medical Stores prices.

Mark-up Charges

- Significant variations were noted in the rates applied on the drug purchase prices in respect of handling fees to derive the issue prices to the health facilities. This impacted on the price charged to the health facilities.

PLANNING AND DELIVERY OF EMHS

1) It was noted that owing to the budget constraints experienced by NMS and price variations, 94% of the selected seventy two (72) health facilities did not receive EMHS quantities as planned and ordered for in 2013/14 and 2014/15. 53% of the facilities did not receive the drugs that were planned and ordered for in the FY 2015/16. Furthermore, 93% received less EMHS quantities than were ordered for during the three year period under review.
2) 94% and 90% of the selected seventy two (72) health facilities received EMHS quantities that had neither been planned nor ordered for in 2013/14 and 2014/15 respectively.
3) Over 90% of the seventy two (72) selected health facilities received EMHS quantities in excess of what had been ordered for during the 3 years under review.

TIMELINESS OF EMHS DELIVERIES

Whereas efforts were made to deliver EMHS in time, cases of delays were noted. Consequently, stock-outs of essential medicines and health supplies averaging (9-15) days were experienced by the selected health facilities thereby hampering service delivery.

KEY RECOMMENDATIONS

1) The Ministry of Health should work closely with the local company to ensure that the objectives of the Memorandum of Understanding (MoU) to provide low cost pharmaceutical products are achieved. This will require compliance by government to the terms of agreement that give exclusive rights to the local manufacture for purchase of Anti-Malarial Artemisinin Combination Therapies (ACTs) and Anti-Retroviral Medicines (ARVs) since it was envisaged that increased economies of scale would drive prices down.
2) Procurement of anti-cancer drugs should be opened up to all National Drug Authority (NDA) approved manufacturers/suppliers. Drugs on the NDA register should only be rejected if it can be demonstrated that they are of inferior quality. In addition, NMS should co-opt subject matter specialists (UCI and NDA representatives) on the evaluation committee for the procurement of anti-cancer medicines. The procurement of SRA approved drugs should be undertaken in consultation with NDA.
3) NMS should apply the 8% and 7% statutory mark up for EMHS and ARVs, respectively as provided for in the approved annual budgets and as required by the Entity's Financial Reporting Framework.

4) NMS should ensure that the survey reports and procedures are comprehensively reviewed to ensure accuracy.
5) NMS should ensure that the prices communicated to health facilities at the planning stage reflect the running contract prices.
6) NMS should engage MoFPED and MoH to agree on a framework for bridging the financing gaps caused by volatility in exchange rates.
7) Changes in treatment policy and item specification should be properly planned and communicated in order not to impact on the procurement and supply chain.
8) MoH should ensure that arrangements for supplies of emergency drugs are done in full consultation with NMS and the beneficiary health facilities to enable proper planning of procurement and utilization.
9) Procurement planning should be undertaken based on the disease burden other than the average monthly consumption so as to ensure the accuracy of planned drug quantities.
10) NMS should automate the processes of planning, ordering, receipting, storage, distribution and delivery of orders so as to improve on timeliness of drug deliveries.
11) NMS should promptly resolve customer complaints in a timely fashion.

OVERALL AUDIT CONCLUSION

Whereas NMS purchased EMHS at lower prices relative to international market prices, anti-cancer drug prices were found to be on the higher side. Similarly, ARVs prices were found to be higher than the donated drug prices. Further in comparison with market prices NMS prices for EMHS were found to be generally lower than those of comparable providers. However, the excessive charge for the handling fees impacted on the prices charged to health facilities.

Therefore, except for ARVs and anti-cancer drugs, EMHS drug prices were found to be generally reasonable for the sampled drugs.
Overall, health facilities experienced discrepancies in delivered quantities during the period under review.
Whereas efforts were made by NMS to deliver EMHS in a timely fashion, cases of delays were noted.

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CHAPTER ONE

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

National Medical Stores is mandated to procure, store and distribute Essential Medicines and Medical Supplies to all Public Health Facilities in the Country, including those of the Police, Army and Prisons. This includes all Medicines directly or indirectly procured by NMS and those that are donated by various donors. In August 2012 this mandate was further expanded to include distribution of Vaccines across the country.

National Medical Stores receives funds from the Government of Uganda for procurement and storage of Essential Medicines and Health Supplies (EMHS), and their distribution to the various health facilities countrywide. The Management of NMS is accountable for these funds under the purview of the Public Finance Management Act, 2015 and the NMS Act, 1993. For the financial year 2015/16, over UGX.219 billion was budgeted and allocated to NMS for procurement of essential medicines and health supplies to all Health Facilities.

1.2 MOTIVATION

In 2010 the Office of the Auditor General (OAG) undertook a value for money audit on the Procurement and Storage of drugs and observed the following matters: failure to meet customer requirements, lack of proper procurement plans, lack of a clear coordination mechanism with third parties in the area of procurement, and improper handling of expired drugs. Following public concerns, in 2016 the OAG undertook a risk assessment which showed that the health sector still faced challenges regarding drug pricing and deliveries to health facilities by NMS.

An evaluation of the basic kit system in 2013 by the National Pharmaceutical Sector revealed that the majority of health facilities were either over or under supplied. The report further observed that although NMS had implemented district-specific kits for each of these levels of care to better match specific needs, procurement planning remains a challenge at health facility level[1].

It is against this background that OAG decided to carry out an audit on management of procurement and distribution of Essential Medicines and Health Supplies.

1 National Pharmaceutical Sector Strategic Plan 2014-2020 Page 4.

1.3 DESCRIPTION OF THE AUDIT AREA

1.3.1 General Description

Medical supplies are a key input for the efficient operation of Health Facilities. Uganda currently has 2,941 Health facilities distributed in the various regions. The Facilities include Hospitals, HC IVs, HC III and HC II. National Medical Stores (NMS) is mandated to procure, store & distribute Essential Medicines and Medical Supplies to all these Facilities including the police, army and prisons.

The medicines are distributed to all the Government hospitals and health centers on a routine basis against the orders made to them by the health facilities. All medicines and medical supplies are also embossed by NMS with a seal "UG NOT FOR SALE" to ensure that medicines and medical supplies delivered are not stolen and sold on the open market. The "LAST MILE DELIVERY SYSTEM" is used for medicines and other medical supplies to ensure that medical supplies reach the END USER at all government health facilities across the country safe and on time. Medicines and other medical supplies Delivery Schedules are published to make the delivery of medicine predictable throughout the year. NMS ensures effective Management of stock so that health facilities do not run out of medicines and other medical supplies.

Basic Kits which contain the basic Medicines are supplied to all health center IIs and IIIs across the country. The kit is revised every year to make it relevant to the local situation and delivery is done once in every two months to all government health centers IIs and IIIs. HC IVs and hospitals submit their medicine orders and these are supplied to them once in two months (Bi- Monthly) as per delivery schedule.

1.3.2 Mandate, Vision and Mission of NMS

Mandate

National Medical Stores is mandated to Procure, Store and Distribute Essential Medicines and Medical Supplies to all Public Health Facilities in the Country.

Vision

The NMS vision is, "a population with adequate and accessible quality medicines and medical supplies".

Mission

The NMS mission is, "to effectively and efficiently supply essential medicines and medical supplies to Public Health Facilities in Uganda".

1.3.3 Activities

The major activities of NMS are:

i) Procuring Drugs;
ii) Storage of drugs;
iii) Distribution of drugs to health facilities; and
iv) Advisory responsibility on essential issues relating to the state of the Corporation and its future development as well as to related matters including the estimation of drug needs, distribution and use of medicines in the public health service.

1.3.4 Organizational Structure

NMS is a Government Corporation supervised by the Minister of Health. NMS has a Board of Directors comprising a non-executive chairperson, 15 non-executive members and the General Manager (GM). Under the GM are 7 Heads of Departments namely: Corporation Secretary (who is slightly above the rest in hierarchy); Stores and operations, Sales and Marketing, Finance and Accounts, Internal Audit and Human Resource and Support Services. Whereas Quality Assurance is under the Corporation Secretary, Management information system and Public Relations are under the GM's office. Details of the organization structure are in Appendix III.

1.3.5 Funding

NMS obtained and fully utilized funding amounting to UGX 655.9bn for three financial years; 2013/14; 2014/15; 2015/16 as indicated in the Table 1 below:

Table 1: Funding of EMHS and ARVs

	2013/14 (UGX) in millions		2014/15 (UGX) in millions		2015/16 (UGX) in millions	
Vote Output	RELEASE	EXPENDITURE	RELEASE	EXPENDITURE	RELEASE	EXPENDITURE
Supply of EMHS to HC II (Basic Kit)	11,163	11,163	11,163	11,163	11,163	11,163
Supply of EMHS to HC III (Basic Kit)	18,360	18,360	18,360	18,356	18,360	18,360
Supply of EMHS to HC IV	7,992	7,992	7,992	7,992	7,992	7,992
Supply of EMHS to General Hospitals	18,106	18,106	13,106	13,105	13,106	13,106
Supply of EMHS to Regional Referral Hospitals	13,024	13,024	13,024	12,984	13,024	13,024
Supply of EMHS to National Referral Hospitals	12,365	12,365	12,365	12,365	12,365	12,365
Supply of ACTs and ARVs and Anti TB drugs to Accredited Facilities	100,000	100,000	99,535	99,532	100,000	100,000
Supply of EMHS to Specialized units.	27,863	27,863	17,955	17,957	18,103	18,103
Supply of Emergency and Donated Medicines	2,500	2,500	2,500	2,490	2,500	2,500
Supply of Reproductive Health Items	8,000	8,000	8,000	7,994	8,000	8,000
Immunization Supplies			9,000	9,000	9,000	9,000
Laboratory Items			5,000	4,999	5,000	5,000
Totals	219,374	219,374	218,002	217,941	218,614	218,614

Source: IFMS Releases and Expenditure files

1.4 AUDIT OBJECTIVES

Overall Audit Objective: To assess the extent to which NMS efficiently provides EMHS in the right quantity at reasonable prices to public health facilities in Uganda.

Audit Questions

i) To what extent does NMS supply EMHS at reasonable prices?
ii) To what extent does NMS deliver the right quantities of EMHS to the health facilities?
iii) To what extent are EMHS delivered to health facilities in a timely manner?

1.5 AUDIT SCOPE

The audit focused on the procurement and distribution of Essential Medicines and Health Supplies (EMHS) by National Medical Stores (NMS) to government owned health facilities and specifically assessed whether NMS provided EMHS to these health facilities in a timely manner, at the right quantity and at a reasonable price over the three financial years; 2013/14, 2014/15 and 2015/16.

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CHAPTER TWO

CHAPTER TWO

2.0 AUDIT METHODOLOGY

The audit was conducted in accordance with the International Organization of Supreme Audit Institutions(INTOSAI) Performance Auditing Standards and the Value for Money Auditing guidelines prescribed in the Office of the Auditor General (OAG) VFM audit manual. The standards require that the audit is planned in a manner which ensures that an audit of high quality is carried out in an economic, efficient and effective way and in a timely manner.

2.1 SAMPLING

The audit scope covered all government owned health units in the country with various tiers, that is, Regional Referral Hospitals, General hospitals and Health Centre IVs. A two – stage stratified sampling methodology was adopted. In the first stage, the population was stratified into the various tiers as stated earlier. At the second stage, units within each tier were stratified according to the variance in the quantities of medicines received against the quantities ordered.

Sample Size determination

72 out of 238 Health Facilities (HC IVs, General Hospitals and Regional Referrals) were selected using simple random sampling.

Table 2: Sampled Health Facilities (HF) per tier

Tier	No. of HF	Sample
Regional Referral Hospitals	13	7
Hospitals (District & Military)	46	13
Health Centre IVs	179	52
TOTAL	238	72

An additional 47 Health Facilities (IIs and IIIs) were selected for purposes of assessing timeliness taking into account 'Last Mile' deliveries according to the five (5) Delivery Zones as shown in Table 3.

Table 3: Selected HC II & IIIs

Delivery Zone	HC II	HC III
Zone 1	6	6
Zone 2	4	6
Zone 3	4	7
Zone 4	6	6
Zone 5	1	1
Total	**21**	**26**

A list of tracer drugs was obtained from MOH and a sample selected basing on level of importance. Twenty one (21) out of the forty one (41) tracer drugs were selected. The sample included 13 EMHS which are a must have at the different health care levels and 8 ARVs and ACTs.

2.2 DATA COLLECTION METHODS

The data collection methods used to answer each audit question involved document review, conducting interviews and physical inspections as shown in Table 4 below:

Table 4: Methodology used

Audit Questions	Methodology used
Qn 1: To what extent does NMS supply EMHS at reasonable prices?	The team reviewed the National Medicines Policy 2015 to gain an understanding the policy framework governing drug pricing. The WHO pricing guidelines were also reviewed to obtain benchmark to be used for price comparisons. Using the bench marks, the following price comparisons were undertaken on selected EMHS, ARVs and anti-cancer drugs to establish variances and their effect on the issue prices to the Health Facilities: • WHO International Reference Prices Vs NMS Procurement prices • NMS Issue Prices Vs JMS and Local Market Prices Annual Approved budgets and IFMS financial records were also reviewed to establish whether NMS correctly applied the stipulated rates to arrive at handling fees deductible from the quarterly releases. Reviewed the purchase documents to establish whether NMS consistently applied the correct handling fee rates for the different drug categories (EMHS & ARVs) over the period under review.
Qn 2: To what extent does NMS deliver the right quantities of EMHS to the health facilities?	Heads of departments at NMS were interviewed to gain an understanding of the drug supply chain processes and the causes of discrepancies that were being raised by the health facilities. Persons interviewed are detailed in Appendix II Procurement plans submitted by the sampled Health Facilities were also reviewed to ascertain how NMS develops its consolidated Annual procurement plan. Dispatch records were matched with orders and procurement plans to assess extent of order fulfillment by NMS. This was corroborated with interviews with the selected Health Facility in-charges. Details of the reviewed documents and purpose for the review can be seen in Appendix I.
Qn 3: To what extent are EMHS delivered to health facilities in a timely manner?	The NMS Customer charter was reviewed to establish the expected relationship between NMS and Health Facilities with regard to timeliness of services. Delivery and order schedules were reviewed to assess the timelines set by NMS and whether both parties had adhered to these timelines during the period under review. Head of Stores and the Sales and Marketing Manager were interviewed to ascertain causes of delayed delivery of drugs to Health Facilities. The health facility in-charges were also interviewed to establish whether orders are submitted to NMS in time and whether deliveries are done in a timely fashion.

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CHAPTER THREE

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CHAPTER THREE

3.0 SYSTEMS AND PROCESS DESCRIPTION

3.1 ROLES AND RESPONSIBILITIES OF KEY PLAYERS

Ministry of Health

Ministry of Health (MOH) is responsible for;

- Providing policy and communication of future policy changes relating to the procurement and distribution of medicines and health supplies.
- Communicating timely to the districts the budgetary allocations of funds to be disbursed to NMS for the procurement of the EHMS.
- Providing a list of all accredited government Health Facilities that NMS shall provide Medicines and other Health Supplies.
- Providing NMS with the approved list of Medicines, health supplies and laboratory reagents, according to the level of care from which health facilities shall be obliged to make their orders.
- Coordinating and organizing medicine donations and timely communicating to NMS for proper storage and distribution.
- Approving service/handling charges raised by NMS to third party providers of medicines and other health supplies.
- Advising Parliament through MoFPED on allocation of adequate resources for each health facility to enable NMS procure and distribute appropriate medicines and other health supplies for health facilities.

NMS BOARD

The functions of the board are to[2]:

- Formulate and review the policies of the corporation having regard to its purposes as set out in this Act;
- Set targets for the annual performance of the corporation both in terms of public service and financial results;
- Appraise and evaluate the performance of the management of the corporation;
- Make recommendations to the Minister regarding the appointment, performance and dismissal of the general manager of the corporation and the terms of his or her appointment;
- Appoint, appraise and discipline senior members of the staff of the corporation;
- Determine the organisational structure and staffing of the corporation;
- Establish its NMS own operational procedures.

2 NMS_ACT_1993 PART II

NMS Sales and Marketing Department

It is a customer facing department in NMS that handles ; Planning; Needs assessment; Quantification; Order receipt entry and management; Complaint and Feedback Management; Operational Customer Focused Research; Customer Capacity Building and Monitoring and Evaluation[3].

NMS Stores and Operations Department

The main objective of the department is, "To acquire, store and distribute Essential Medicines and Health supplies in the right quantity of the right quality to all health facilities countrywide effectively and efficiently[4]. The department is made up of 3 Sections that is the Stores, Transport, and Vaccines & Cold Chain. The main responsibility of the department is to deliver Essential Medicines and Health Supplies (EMHS) to all 2,941 Health facilities in the country and maintain a stock list approximately 3,000 SKUs.

NMS Procurement Department

The general objective of the department is, "To efficiently and effectively procure quality and affordable trading and non-trading supplies, works and services". The scope of trading stock include: Medicines, Hospital Sundries and Consumables, Hospital Equipment, Antiseptics & Disinfectants; Orthopedic supplies; Edible and IV Nutritional supplements, Laboratory and Diagnostic products, Hospital Stationary and Dental supplies. The main responsibilities of the department are:

- Developing procurement plans for each financial year
- Maintaining an updated pre-qualified suppliers database, and update it periodically
- Monitoring and evaluating management of contracts by Contract Managers
- Ensuring the safety and accessibility of Procurement documents for review and audit purposes
- Build and Maintain supplier relations
- Preparing and disseminating reports and communication in a timely
- Appropriate disposal of out of use supplies

Health Facilities

Health facilities order for drugs and medical supplies from NMS offices. They have a great influence on the supply chain due to the role they play to enhance accuracy in forecasting their needs as well as timely preparations and submission of their orders to NMS.

3.2 PROCESS DESCRIPTION

Product Selection:

Ministry of Health develops Clinical Guidelines and the Essential Medicines and Health Supplies List of Uganda (EMHSLU). The EMHSLU forms a basis by which NMS procures EMHS.

Quantification:

NMS then sends out the list to all health care facilities as a basis for planning and quantification. Quantification is then done according to the needs of each health facility with technical assistance from MOH-Pharmacy Division and NMS Sales and marketing department. The Sales and Marketing Department then acts as the steering group and provides specialist support as required throughout the quantification and drawing up of procurement plans according to the Clinical Guidelines, EMHSLU, Morbidity Patterns and the available budget. This is then amalgamated to inform the NMS procurement plan[5] which is approved by the Board of Directors before onward submission to the Permanent Secretary/ Secretary to Treasury (PSST) and PPDA as prescribed by law.

3 NMS Strategic Plan 2015/16-2019/20

4 Stores_and_operations_manual_version 1.2

5 Interviews with various health center in-charges and the NMS

Procurement:
On approval of the procurement plan, the procurement process as prescribed by PPDA takes off. The User Department initiates the procurement process for EMHS that do not have running contracts by raising the PPDA Form 5. The prices for EMHS on the Form 5 are informed by the Previous procurement prices; Quotations from potential bidders and/or Market surveys. The procurement process concludes by handing over all the valid contracts to the user department for contract management.

Inventory Management and Storage:
Call off, Receipt and Warehousing of EMHS is done according to the Stores and Operations Policies and Procedures Manual. For GOU procured EMHS, on receipt, the NMS Accounting system computes the price by applying a handling fee of 8% on essential medicines and health supplies and 7% on ARVs on the weighted average cost. This is the price at which NMS supplies to health facilities throughout the country. For donated EMHS, NMS supplies to facilities at no cost but charges handling fees appropriately.

Delivery of drugs to health facilities:
After the drugs have been procured and received in the NMS stores, they are then delivered based on orders from the health facilities.

The Orders for drug supply are of 2 types:

- Pull orders – Originated by customers according to their own needs by email, fax, post or physically.
- Push orders – These orders are originated by MoH and third parties specifying the quantity of drugs and medical supplies to be delivered to each specified district and health units.

These orders are received by the Customer Care Assistant (CCA) who checks the orders to for authenticity. Once verified, the CCA records the orders in the order tracking book. The office clerk then categorizes and files orders according to districts and regions. The sales and marketing officer allocates the filed orders to the sales assistants (SA) for encoding according to delivery schedule and order type. The SA then checks the orders to the facility procurement plan whether item codes, item descriptions and quantities are accurately captured. The SA then saves and prints the order confirmation. The order confirmations are then sent to the officer clerk for sorting, filing and recording by district. An order tracking summary report is then prepared by the office clerk and later reviewed by the sales and marketing officer.

The Sales and Marketing officer then releases the orders for processing and sends the order summary report to the finance clerk who receives and signs on receipt of the sorted, files order confirmation. At this point, Physical files containing original orders and order confirmations are sent to dispatch section where the dispatch clerk creates journeys for encoded released orders.
The stores assistant then creates a picking list for the journey, prints them out and distributes them to pickers in the picking zones on a First in First Out basis.

The picker parker then confirms that the stock on the location matches the picking list in terms of product, description, unit measure, and expiry date and batch numbers. Once confirmations have been done, items are then packed in boxes and sent to the marshalling area.

The Marshalling Area attendant receives the packed consignments and verifies the number of boxes packed against each picking list. He then arranges consignments by journey in the marshalling area. The marshalling area attendant then informs the dispatch assistant to print the delivery notes and physically hand over a complete journey to him. The dispatch clerk then confirms the consignment is in line with the delivery documents. Drugs are then released for delivery to the health facility according to the planned journeys as indicated in Appendix IV.
In the case of discrepancies, discrepancy notes are raised by the health facilities and sent to NMS.

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CHAPTER FOUR

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4 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

In an effort to promote service delivery in the health sector across the country, government mandated NMS to procure, store and distribute Essential Medicines and Health Supplies (EMHS) to all public health facilities in the country.Despite efforts by government to enhance service delivery in the health sector, challenges still exist for NMS to deliver these drugs in the right quantities and at reasonable prices to the health facilities as detailed in the findings below.

4.1 DRUG PRICING

The National Medicines Policy 2015 aims at ensuring efficient and cost effective use of the limited available resources in the supply and distribution of Essential Medicines and Health Supplies to the health facilities[6]. The policy emphasizes use of cost effective measures to ensure reasonable pricing of drugs. To assess the reasonableness of drug pricing, the following price comparisons were undertaken;

4.1.1 Comparison of International and Local Market prices with NMS prices

The WHO pricing guidelines, external reference pricing (ERP), also known as international reference pricing 2014, recommends using the price of a pharmaceutical product in one or several countries to derive a benchmark or reference price for the purposes of setting or negotiating the price of the product in a given country. The guidelines note that the use of ERP can be helpful for the aspects of price negotiation, and verification[7].

A comparison between the NMS purchase prices, international prices and licensed NDA market supplier prices revealed variations as explained below:

a) International Reference Prices Vs NMS Supplier Prices

i) EMHS Prices

Through document review, audit noted that NMS used the WHO pricing guidelines in the market surveys undertaken during the procurement process. This was visibly seen from a comparison of the prices of the national tracer medicines which revealed that NMS procured drugs at relatively lower prices compared to the international reference prices as indicated in the Table 5 below:

6 National medicines policy 2015, Guiding principles and focus areas: principle 2 (Equity and Efficiency)

7 WHO guidelines on pharmaceutical, pricing, 2015, page 15

Table 5: Comparison between NMS supplier prices and the median international supplier prices

SN	Medical Supply	Strength	Packaging	Average NMS Supplier Prices (USD)	MSH/ WHO prices (USD)	%age Below WHO Prices
1	Artemether+ lumenfatrine	20mg/120mg	30 Tab	52.1	63.49	22
2	Amoxicillin	250mg	1000 Capsule	15.28	20.6	35
3	Diazepam	5mg	1000 tab	3.42	9.6	181
4	Salbutamol	4mg	1000 tab	1.68	3.8	126
5	Folic acid	5mg	1000 Tab	3.46	3.6	4
6	Ibuprofen	200mg	1000 tab	3.87	7.7	99
7	Magnisium Trisilicate comp	250+120mg	1000 tab	2.43	4.5	85
8	Erythromycin	250mg	1000 Vial	25.2	43.8	74
9	Paracetamol	500mg	1000 tab	3.34	5	50
10	Cotrimoxazole	100 mg	6 pessary	0.22	0.7	218
11	Ciprofloxacin	500mg	100 Tablet	2.49	4.8	93
12	Oral Rehydration salts	1ltr	25	1.22	3	146
13	Vitamin A	200,000 IU	1000 Capsule	47.52	62.5	32

Source: OAG analysis of Average supplier prices to NMS for 2015/16

The above table indicates that all the 13 sampled drugs were procured at prices lower than the WHO international reference prices.

ii) ARVs and ACTs Prices

The National Medicines Policy, 2015 emphasizes the development of a viable national domestic pharmaceutical industry with the potential to serve public health needs, support economic and industrial development, and promote national self-sufficiency by creating a business model in which sufficient economies of scale can be achieved to justify the investment in good quality production, and still achieve competitive prices. To promote local pharmaceutical production, government supported the establishment of a local pharmaceutical manufacturing company. Currently ARVs and ACTs are supplied to NMS by the donor community and the company.

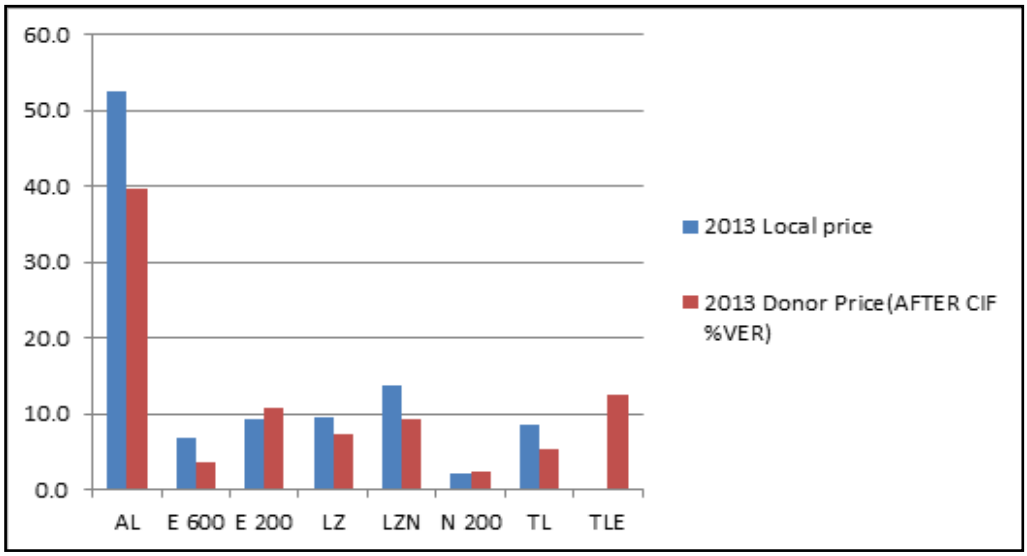
The company has increased foreign exchange inflows through export of medicines and has brought about increased foreign exchange savings on imports as the country now buys its ARVs and ACTs locally[8]. Despite this and many other national benefits, it was observed that in the majority of cases, the prices at which NMS procured ARVs from the local manufacturer during the period under review were higher than the prices of drugs imported under donor supported arrangements as illustrated in the Figure 1, Figure 2, Figure 3 and table 6 below:

8 Untangling the web of antiretroviral price reductions 17th according to part 2 section 3

Key for ARV' Drugs

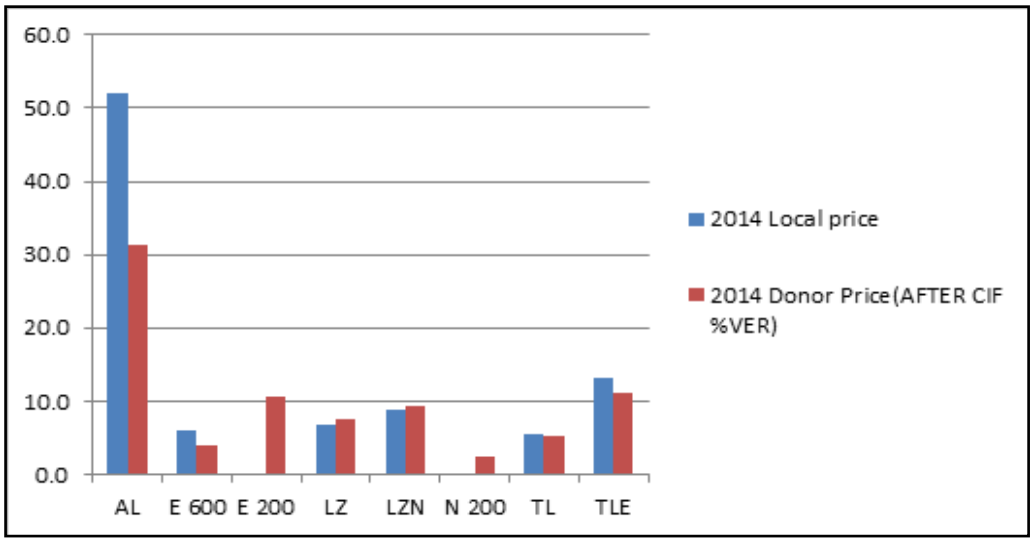
	Full Name of drug	Short name
1.	Artemether 20mg+lumefantrine 120mg(strip of 24)	AL
2.	Efavirenz 600mg tab	E 600
3.	Efavirenz 200 mg cap	E 200
4.	Lamivudine150mg + zidovudine 300 mg tab,	LZ
5.	Lamivudine150mg+zidovudine300mg+nevirapine200mg t	LZN
6.	Nevirapine 200mg tab	N 200
7.	Tenofovir/lamivudine 300mg/300mg tablets	TL
8.	Tenofovir/lamivudine/efavirenz 300mg/300mg/600mg	TLE

Figure 1: Showing 2013 ARVs drug price comparisons with the donor supplies



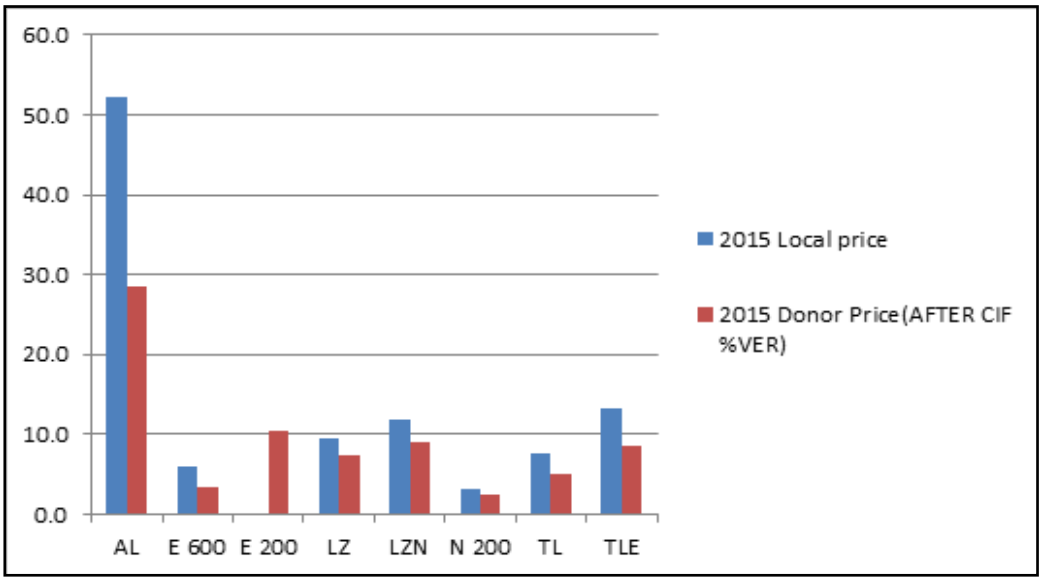
Source: OAG analysis of NMS receipt data

Figure 2: Showing 2014 ARVs drug Price Comparison with the donor suppliers



Source: OAG analysis of NMS receipt data

Figure 3: Showing 2015 ARVs drugs price comparisons with the donor supplies



Source: OAG analysis of NMS receipt data

Table 6: Showing the average range by which Donated ARVs Prices were found to be Lower.

ARV DRUG	Local Manufacturer				Donated					Average Percentage Difference
	2103	2014	2015	Average (USD)	2013	2014	2015	Average (USD)	Average Price Difference (USD)	Average Percentage Difference
AL	52.7	52.1	52.1	52.3	39.7	31.2	28.6	33.17	19.13	37
E 600	6.8	6	6	6.27	3.6	4	3.4	3.67	2.6	41
LZ	9.5	6.7	9.5	8.57	7.3	7.6	7.4	7.43	1.14	13
LZN	13.9	8.8	11.9	11.53	9.2	9.3	9.1	9.2	2.33	20
TL	8.6	5.5	7.7	7.27	5.3	5.2	5.2	5.23	2.04	28

Source: OAG Analysis of Average ARV Prices

The table above shows that the donor prices for five (5) out of the eight (8) selected drugs were on average lower than those of the local supplier prices. The percentage average difference for three (3) out of the five (5) drugs was found to be more than 25%.

It was noted that the local manufacturer's prices were dictated by the MoU that was signed between MoH on behalf of GoU and the company. Whereas the MoU[9] provided for negotiation[10] of prices (Article 6.2) and procurement of all ARVs from the local manufacturer by government and Related Agencies (Article 3.1.1), it was not fully executed in this regard[11] as government continued to procure ARVs from multiple sources. These provisions in the MOU were aimed at attainment of economies of scale that would drive down the prices as a result of reduced unit costs of manufacturing the drugs.

9 Evaluation methodology and criteria, sub-section 6.3 of the standard bidding documents.

10 2014 http://www.nda.or.ug/ug/smenu/61/human-drugs-register-august-2016.html

11 CIPLAQCIL/EC/16-231 dt 22/April/2016

The high prices mean fewer quantities are procured for distribution to health facilities with the available resources (refer to table 7 below). This can result in increased donor dependency which exposes government to a risk of limited availability of ARVs in the event of withdrawal of donor funding. The Table 7 below shows a comparison of the drug quantities procured by NMS and the donors.

Table 7: ARVs quantities procured and donated over a period of three years

Item	2013/14 (Packets)		2014/15 (Packets)		2015/16 (Packets)	
	Quantity bought	Donor input	Quantity bought	Donor input	Quantity bought	Donor input
Artemether 20Mg+Lumefantrine 120Mg(Strip Of 24)	303,476	59,099	534,437	110,719	215,444	330,956
Efavirenz 600Mg Tab	517,843	596,683	178,234	680,267	664,689	1,723,946
Efavirenz 200 Mg Cap	19,067	106,519	-	72,485	-	68,565
Lamivudine150mg + Zidovudine 300 Mg Tab,	608,893	305,219	382,132	221,294	29,204	546,544
Lamivudine150mg+Zidovudine300mg+Nevirapine200mg T	1,228,945	1,314,081	796,741	1,109,908	356,019	1,228,040
Nevirapine 200Mg Tab	53,438	174,857	-	443,179	25,613	534,035
Tenofovir/Lamivudine 300Mg/300Mg Tablets	418,141	196,883	1,140,460	354,275	623,678	1,038,444
Tenofovir/ Lamivudine/Efavirenz 300Mg/300Mg/600Mg	-	1,558,129	88,658	1,774,845	156,554	2,905,176
Totals	**3,149,803**	**4,311,470**	**3,120,662**	**4,766,972**	**2,071,201**	**8,375,706**
Percentage Of Donor Quantities To The Total Supplied Quantities	42%	58%	40%	60%	20%	80%

Source: OAG Analysis of quantities purchased and those donated to NMS

As indicated in the table 7 above, donor dependency on ARVs has increased over the years under review. Additionally, the percentage of quantities of ARVs donated has increased from 58% to 80% of the total ARV supplies.

Management Response

Although the report indicates that NMS was procuring these products at prices higher than those of donors, it should be noted that our procurement prices were well within the range of indicative international prices as provided in both the MoU and the price reference guide. NMS carries out negotiations with Cipla Quality Chemicals Limited to bring the prices within the acceptable pricing mechanism under the MOU.

Audit Comment

The fact that the donor prices are lower implies that opportunities still exist for NMS to procure ARVs at a lower price.

iii) Anti-Cancer Drug Prices

Through document review and analysis, it was observed that 11 out of the 15 most frequently ordered anti-cancer drugs were procured at a relatively higher price than the international median prices as indicated in Table 8 below.

Table 8: Showing the price comparison of NMS average purchase prices and the WHO international median prices

S/N	DRUG	UGX MSH prices (2015 BOU average exchange rate) (A)	UGX NMS prices(2015 BOU average exchange rate) (B)	%age ABOVE MSH price	%age BELOW MSH price
1	Paclitaxel 100Mg Vial	39,615.37	141,161.24	256	
2	Oxaliplatin Inj 5Mg/Ml 10Ml Vial	144,935.04	127,389.41		12
3	Cisplatin Injection Bp 50Mg/100Ml	26,110.88	97,952.13	275	
4	Doxorubicin Hydrochloride 50Mg Vial	126,425.71	75,745.05		40
5	Docetaxel 40Mg/Ml 2Ml Vial	416,460.08	223,792.21		46
6	Carboplatin 10Mg/Ml, 45 Ml Vial	136,313.55	234,981.82	72	
7	L-Asparaginase 10,000Iu Vial	56,713.76	299,537.26	428	
8	Dacarbazine 200Mg Vial	49,523.28	43,725.55		12
9	Rituximab 500Mg 50Ml Vials	307,125.82	5,821,000.00	1,795	
10	Filgrastim 300Mcg/Ml 1Ml Vial	15,240.51	410,000.00	2590	
11	Cyclophosphamide 1Gm Vial	39,047.38	51,644.36	32	
12	Calcium Folinate 50Mg/5Ml Vial	9,201.07	80,737.34	777	
13	Gemcitabine Hcl 1G In 25Ml Vial	99,669.70	154,933.07	55	
14	Capecitabine 500Mg Tablets	657,636.74	1,360,300.00	107	
15	Daunorubicin Hcl 20Mg Vial	82,866.30	115,993.22	40	

Source: OAG Analysis of purchase prices for the year 2015/16

The table 8 above shows significant variations between NMS and international median prices with 7 out of the 15 selected drugs having been procured at prices higher than 100% of the international prices.

The high purchase prices of the anti-cancer drugs as compared to the WHO median prices were attributed to the Stringent Regulatory Authorities (SRAs)[12] quality standards demanded by Uganda Cancer Institute (UCI). UCI insists that NMS procures for them SRA approved drugs. This disadvantages other competitors licensed by the National Drug Authority. A review of some of the SRA approved drug price lists shows that SRA approved drug prices are relatively more costly as compared to the median WHO prices/ non-SRA prices.

Furthermore, it was established that the price of some specialized drugs such as anti-cancer drugs is sometimes determined by the demand volumes. According to the global ecology trend report 2015, the global market size of anti-cancers was estimated to be USD 107bn in 2015[13] while the approved budget for UCI of UGX 7bn [equivalent to roughly to USD 2m per annum] representing roughly 0.002% in value of this global market. The very small market of Uganda could be unattractive to SRA-accredited Manufacturers who therefore target larger markets. Therefore, low supply volumes of SRA approved anti-cancer drugs could be attracting a high cost price to the country.

Furthermore, audit established that in some instances the high prices are also caused by variances in the contract price agreed in the framework contract and actual purchase price. (refer to appendix V). Out of the 15 sampled anti-cancer drugs, 3 drugs had their actual purchase prices higher than the contract price as indicated in the table 9 below:

Table 9: Showing variations between contract prices and actual purchase prices

S/N	DRUG	Procurement reference	Contract sign date	Contract price (USD)	2015 Purchase Price (USD)	Variance
1	Doxorubicin Hydrochloride 50Mg Vial	NMS/ SUPLS/14-15/00036	8-Jan-15	22	16.43	$5.57
2	Filgrastim 300Mcg/Ml 1Ml Vial	NMS/ SUPLS/14-15/00070	22-Jun-15	36	59.88	($23.88)
3	Gemcitabine Hcl 1G In 25Ml Vial	NMS/ SUPLS/14-15/00036	8-Jan-15	45	47.24	($2.24)
4	Capecitabine 500Mg Tablets	NMS/ SUPLS/14-15/00070	24-Apr-15	27	470.36	($443.36)

Source: OAG Analysis of contract and purchase prices

12 The national drug regulatory authorities which are members or observers or associates of the International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) are considered as Stringent Regulatory Authority (SRA). http://www.stoptb.org/assets/documents/gdf/drugsupply/List_of_Countries_SRA.pdf

13 Global Oncology Trend Report: A Review of 2015 and Outlook to 2020

The Table 9 above and Appendix V shows that four (4) of the fifteen (15) anti-cancer drugs sampled had variances between the contract price and the actual purchase price. The price difference ranged between USD 443.36 and USD 2.24. Doxorubicin Hydrochloride 50mg vial with a price difference of USD 5.57 was the only drug that was procured at a price lower than the contract price.

The high purchase prices also impact on the quantities purchased and delivered to the Health Facilities.

Management Response

Comparison of NMS purchase prices with those of the approved SRA price reference confirm that NMS was within the range. As established by the auditors, the market for anti-cancer medicines in Uganda Public Sector is 0.002% of the total global market which further reduces our purchasing power for SRA approved medicines.

Audit Comment

Whereas NMS prices were within range as compared to SRA prices, NMS can still consider procuring drugs approved by WHO at lower prices.

b) NMS price Vs JMS, and Local Market prices for EMHS

To have a realistic comparison of market prices, NMS drug prices were compared with those of an organization with similar characteristics. JMS procures and issues drugs to non- government hospitals while NMS deals with government health facilities. For this purpose, JMS prices were used for comparison since NMS and JMS have comparable scales of operations. Another comparison was made with the average market prices obtained from three local pharmacies operating in Kampala.

Through document review and analysis, it was observed that in majority of cases the NMS prices were lower than the average market prices and the JMS prices. Ten (10) out of the thirteen (13) selected drugs were issued at less than the average market prices while 12 out of 13 were relatively cheaper compared to JMS as detailed in Table 10 below.

Table 10: Showing percentage variances between NMS, MARKET and JMS prices in Uganda shillings

SN	Medical Supply	Weight	Packaging	NMS Average Issue Prices(A)	Average Market Prices (B)	JMS Prices (C)	% Above Market price (A-B)/B	%age Below Market Price (A-B)/B	%age Above JMS (A-C)/C	%age Below JMS (A-C)/C
1	Artemether+ Lumenfatrine	20mg/120mg	30tabs	177,380	67,500	140,400	162		26	
2	Amoxicillin	250mg	1000 Capsule	46,332	50,000	46,440		7		0.2
3	Diazepam	5mg	1000 tab	12,172	60,000	50,400		80		76
4	Salbutamol	4mg	1000 tab	6,021	20,000	30,990		70		81
5	Folic acid	5mg	1000 Tab	6,007	20,000	29,070		70		79
6	Ibuprofen	200mg	1000 tab	10,992	20,000	21,050		45		48
7	Magnesium Trisilicate comp	250+120mg	1000 tab	9,028	20,000	16,487		55		45
8	Erythromycin	250mg	1000 Vial	90,149	75,000	142,750	20			37
9	Paracetamol	500mg	1000 tab	12,420	25,000	17,490		50		29
10	Cotrimazole	100 mg	6 pessary	769	1,000	1,071		23		28
11	Ciprofloxacin	500mg	100 Tablet	8,896	8,000	9,585	11			7
12	Oral Rehydration salts	1Ltr	25	4,533	6,500	5,915		30		23
13	Vitamin A	200.00I U	1000 Capsule	184,987	266,667	444,967		31		58%

Source: OAG analysis of NMS Average delivery prices for 2015/16 (Market prices were obtained from three different pharmacies)

Only three (3) out of the thirteen (13) selected EMHS drugs were issued at higher than the average market price and one (1) out of the thirteen (13) sampled EMHS drugs was issued at a relatively higher price compared to JMS prices.

The cases of higher variations in price could be due to errors/omissions made in undertaking market surveys. For instance it was observed through review of the market survey documentation that the surveys for twelve (12) out of the thirteen (13) sampled drugs had computational errors in both the NMS quoted price and WHO-International Drug Indicator Price Guide(IDIPG) price used for comparison. Singular errors were also observed in the quoted JMS and Tanzanian comparative prices. These errors can lead to inaccurate market surveys resulting into inappropriate pricing decisions. (refer to appendix VI)

Management Response

The nearest market in Uganda to compare NMS procurements with should be JMS as any other market may have other considerations. There is only one drug that is higher than the market and JMS because the brand available at JMS (Lonart) is of an inferior quality.

4.1.2 Mark-up Charge

NMS Purchase price Vs NMS issue price to Health Facility

The drug price charged to a health facility is determined by the rate of mark-up/handling fees charged by NMS on the purchase price. The statutory mark up as set in the NMS budget is approved by parliament at the beginning of each financial year which allows the entity to maintain a mark-up as shown in table 11 below:

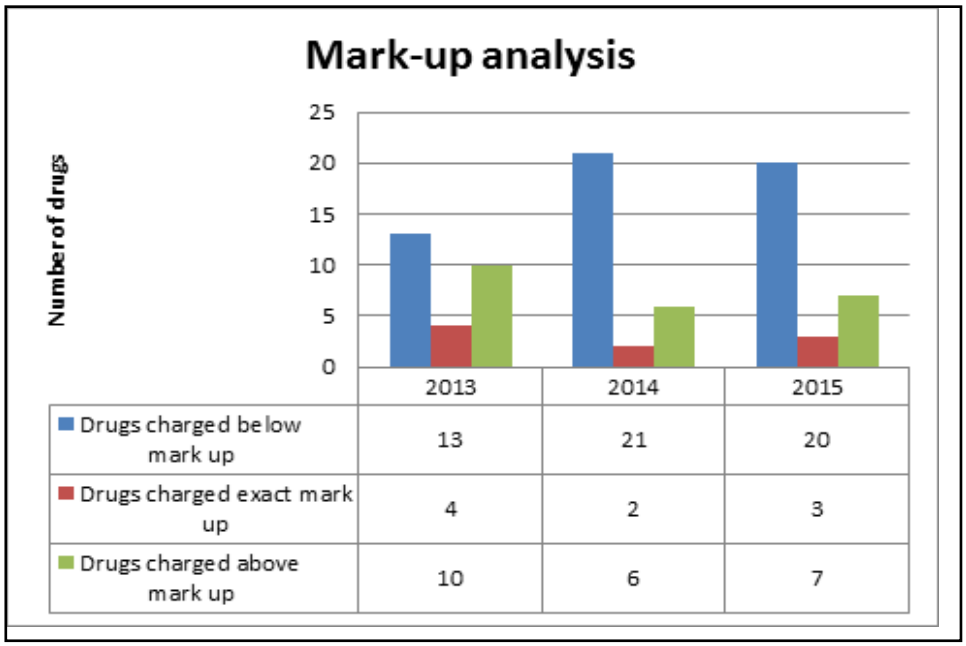
Table 11: Showing statutory Mark-up for EMHS, ARVs and ACTs.

Drug	Percentage Mark-up
EMHS	8%
ARVs and ACTs	7%

Source: NMS approved budgets

Through document review it was noted that the mark-up charged on the purchase price of the drugs to arrive at the issue price to the health facilities varied against the statutory 8% and 7% on EMHS and ARV drugs respectively[14]. In certain instances the mark-up charged on the drugs was below the stated statutory rate by as low as 75%. In other cases it was up to 44% higher than the statutory mark up. (Refer to Figure 4 and appendix VII)

Figure 4: Showing drugs above and below the statutory markup charge



As indicated in the figure above, there were variances over the three years in all sampled drugs between purchase and issue prices. These prices varied over and above the expected statutory charges. This implied additional charges on the cost price of the procured drugs to health facilities, for the rates that exceeded the statutory markup rate.

14 NMS budget statements 2015/16

Conclusion

Whereas NMS purchased EMHS at lower prices relative to international market prices, anti-cancer drug prices were found to be on the higher side. Similarly ARVs were found to be higher than the donated drug prices. Further in comparison with market prices NMS prices for EMHS were found to be generally lower than those of comparable providers.

Except for ARVs and anti-cancer drugs, EMHS drug prices were found to be generally reasonable for the sampled drugs.

Recommendations

- The Ministry of Health should work closely with the local company to ensure that the objective of the MoU to provide low cost pharmaceutical products is achieved. This will require compliance by government to the terms of agreement that give exclusive rights to the manufacture for purchase ARVs and ACTs since it was envisaged that increased economies of scale would drive prices down.
- Procurement of anti-cancer drugs should be opened up to all NDA approved manufacturers/suppliers. Drugs on the NDA register should only be rejected if it can be demonstrated that they are of inferior quality. In addition, NMS should co-opt subject matter specialists (UCI and NDA representatives) on the evaluation committee for the procurement of anti-cancer medicines. The procurement of SRA approved drugs should be undertaken in consultation with NDA.
- NMS should apply the 8% and 7% statutory mark up for EMHS and ARVs respectively as provided for in the approved annual budgets and as required by the Entity's Financial Reporting Framework.
- NMS should ensure that the survey reports and procedures are comprehensively reviewed to ensure accuracy.

4.2 PLANNING AND DELIVERY OF EMHS

According to the National Medical Stores Customer Charter December 2012, under "Product and Services Standards" (d), management undertakes to deliver EMHS according to customer orders in line with individual facility procurement plans and prevailing Ministry of Health Guidelines.

Through document review, interviews and physical inspections, it was observed that health facilities (HC IV, District Hospital and Regional Referral Hospital) experienced discrepancies in the quantities delivered by NMS during the period under review as details in the sections below.

Drugs not delivered

a) Planned, Ordered but not issued

Out of the selected 72 health facilities, 68, 68, 38 health facilities did not receive EMHS quantities as planned and ordered for in 2013/14; 2014/15 and 2015/16, respectively. (Refer to Table 12 below and Appendix VIII)

Table 12: Showing planned, ordered and but not issued quantities over a period of time

Health Facility	2013/14 (Packs)			2014/15 (Pack)			2015/16 (Packs)		
	Planned	Ordered	Issued	Planned	Ordered	Issued	Planned	Ordered	Issued
RRH	24,308	24,308	0	307,925	282,067	0	2,112	1,754	0
GH	31,684	31,684	0	167,037	154,390	0	1,422	1,892	0
HC IV	54,328	54,328	0	21,819	14,925	0	7,020	6,160	0

Source: OAG Analysis of Planned_Ordered_Issued Data from NMS

The above table shows quantities of EMHS planned and ordered for by various levels of health care but not fulfilled by NMS over the years 2013/14, 2014/15, and 2015/16.

b) Planned, Ordered but delivered less
Out of the selected 72 health facilities, 67 received EMHS quantities less than what had been ordered for during the three year period under review. (Refer to Table 13 below and Appendix IX).

Table 13: Showing planned, ordered but issued less quantities over a period of time

Health Facility	2013/14 (Packs)			2014/15 (Packs)			2015/16 (Packs)		
	Planned	Ordered	Issued	Planned	Ordered	Issued	Planned	Ordered	Issued
RRH	1,654,578	1,654,578	853,795	1,309,892	1,124,156	1,053,812	1,165,949	1,205,751	886,131
GH	723,944	723,944	331,420	849,909	929,543	821,726	346,207	425,737	296,770
HC IV	426,133	426,133	155,436	641,804	739,939	644,316	516,470	615,850	407,867

Source: OAG Analysis of Planned_Ordered_Issued Data from NMS

From the review of documentation and analysis of data, it was established that the short deliveries were caused by NMS budget constraints caused by unfavorable exchange rate fluctuations which led to a reduction in the purchasing power of released funds over the years and differences in the prices agreed between NMS and the health units at the planning stage and the actual prices eventually charged on dispatch. These are illustrated in the Table 14 below.

Table 14: Showing reduction in purchasing power due to exchange rate losses over the years

Period		FY Release from MoFPED (UGX)	Statutory Fee [%]	Medicines Budget after deduction of service fee (UGX)	BOU Official Mid-Rate (Average)	Equivalent in USD	Cumulative Decrease in USD Equivalent
FY 2013/2014	EMHS	119,337,586,943	8%	109,790,579,988			
	ARVs	100,000,000,000	7%	93,000,000,000			
Sub Total		219,337,586,943		202,790,579,988	2,538.34	79,891,023.26	
FY 2014/2015	EMHS	118,466,726,861	8%	108,989,388,712			
	ARVs	99,535,663,957	7%	92,568,167,480			
Total		218,002,390,818		201,557,556,192	2,823.22	71,392,791.28	8,498,231.98
FY 2015/2016	EMHS	118,614,466,778	8%	109,125,309,436			
	ARVs	100,000,000,000	7%	93,000,000,000			
Total		218,614,466,778		202,125,309,436	3,442.96	58,706,842.20	12,685,949.07
Cumulative drop in purchasing power							21,184,181.06
%age drop in purchasing power							18%

Source: IFMS Releases and BOU exchange rate.

As indicated in the table above the percentage drop in purchasing power over the 3 years under review was 18% which subsequently affects quantities expected by health facilities. Additionally, Table 15 below shows that in many cases the prices agreed during procurement planning differ from those of the contract.

Table 15: Comparison between the contract prices and the NMS procurement plan prices

Drug	Strength	Packaging	FY 2013/14				FY 2014/15				FY 2015/16			
			Procurement Plan (A)	Contract price (B)	% Below(B)	%Above (B)	Procurement Plan (A)	Contract price (B)	%Below (B)	%Above(B)	Procurement Plan (A)	Contract price (B)	%Below (B)	%Above (B)
Artemether + lumenfatrine	20mg/120mg	30 tab	-	144,685			-	147,090			-	179,378		
Amoxicillin	250mg	1000 Capsule	35,650	34,039		5	35,500	43,139	22		39,600	40,000	1	
Diazepam	5mg	1000 tab	4,750				5,200	9,655	86		9,000	9,655	7	
Erythromycin	250mg	1000 tab	69,800	63,966		8	70,600	71,145	1		70,600	86,763	23	
Salbutamol	4mg	1000 Tab	2,800	3,148	12		3,150	3,501	11		3,550	5,784	63	
Folic acid	5mg	1000 tab	1,650	1,574		5	1,650	2,300	39		1,800	2,300	28	
Ibuprofen	200mg	1000 tab	5,950				5,950	10,926	84		11,000	10,926		1
Magnesium Trisilicate comp	250+120mg	1000 Vial	3,150	6,168	96		3,200	7,679	140		6,850	7,679	12	
Paracetamol	500mg	1000 tab	10,300	9,874		4	10,500	10,982	5		11,250	11,500	2	
Clotrimazole	100 mg	6 pessary	700	558		20	650	621		4	650	689	6	
Ciprofloxacine	500mg	100 Tablet	6,450	6,320		2	6,400	7,030	10		6,850	8,573	25	
Oral Rehydration salts	1Ltr	25	3,650	3,452		5	3,700	4,200	14		3,850	4,200	9	
Vitamin A	200.00I U	1000 Capsule	80,850	83,765	4%		101,500	142,290	40		99,300	173,525	75	

Source: OAG Analysis of procurement plans and contract documents of selected drugs

Consequently, the increment in the prices agreed at the planning stage translates into incremental costs that health facilities had to bear resulting into fewer quantities being delivered to health facilities. (Refer to Table 16 below)

Table 16: Extra cost incurred due to changes in procurement plan/order prices and issue prices to Health Facilities

	2013/14		2014/15		2015/16	
ITEM	QTY (Packs)	SUM OF VALUE LOST (UGX)	QTY (Packs)	SUM OF VALUE LOST (UGX)	QTY (Packs)	SUM OF VALUE LOST (UGX)
Oral rehy dration salts for 1lt	4,113	(185,981)	3,014	(1,093,476)	1,869	(1,367,548)
Amoxicillin 250mg capsule	21,788	(2,783,037)	26,366	(128,379,730)	22,398	(158,409,026)
Ciprofloxacin 500mg tablet	24,115	(1,337,737)	26,825	(14,765,608)	22,064	(40,947,318)
Clotrimazole 100mg pessary	14,619	1,706,117	13,336	500,174	10,149	(1,490,658)
Erythromycin stearate 250mg tablet	3,557	(3,098,892)	3,194	52,125	1,062	(20,888,478)
Folic acid 5mg tablet	3,336	(148,912)	3,358	(1,058,710)	845	(3,336,590)
Ibuprofen 200mg tablet	2,420	(11,427,240)	6,820	(34,125,570)	1,655	(69,510)
Magnesium trisilicate comp 250+120mg tablet	4,043	(7,151,291)	3,164	(11,979,513)	617	(1,446,420)
Diazepam 5 mg tablet	602	(2,728,543)	612	(2,971,848)	371	(698,481)
Paracetamol 500mg tablet,	21,562	(5,381,485)	23,648	(26,136,138)	19,469	(30,566,330)
Salbutamol 4mg tablet	862	(335,194)	1,209	(440,894)	1,090	(2,681,598)
Vitamin a (retinol) 200.000 I u capsule	177	(3,324,786)	238	(875,727)	170	(13,777,322)
	101,194	**(36,196,981)**	**111,784**	**(221,274,915)**	**81,759**	**(275,679,279)**

Source: OAG Analysis of NMS receipts and delivery data.

NMS also attributed the short deliveries to:

- Change in treatment policy for example Amoxicillin 125mg dispersible tabs would not be issued as the policy has changed to Amoxicillin 250mg dispersible tabs.
- Change in item specifications for example sodium hypochlorite 6% 1Litre (at the time of placing an order by the health facility) changing to sodium hypochlorite 6% 5Litre (at the time of issuing).

c) Unplanned, Not Ordered but Issued

Out of the selected 72 health facilities, 68 and 65 health facilities received EMHS quantities that had neither been planned nor ordered for in 2013/14 and 2014/15 respectively. (Refer to Table 17 below and Appendix X)

Table 17: Showing unplanned, not ordered but issued quantities over a period of time

Health Facility	2013/14 (Packs)			2014/15 (Packs)		
	Planned	Ordered	Issued	Planned	Ordered	Issued
RRH	0	0	360,559	0	0	776,460
GH	0	0	20,019	0	0	357,825
HC IV	0	0	16,222	0	0	820,376

Source: OAG Analysis of Planned_Ordered_Issued Data from NMS

The above table indicates that whereas in 2013/14 and 2014/15, the need for drugs was not expressed by the various levels of health care, NMS went ahead to supply RRH- 369,559 and 776,460; GH- 20,019 and 357,825 ; HC IVs- 16,222 and 820,376 packs, respectively.
This was mainly attributed to the centrally pooled items which include ACTs, ARVs, TB commodities, vaccines and items delivered during emergencies and outbreaks.

d) Planned, Ordered but delivered in excess
Out of the selected 72 health facilities, 66, 65 and 66 health facilities received EMHS quantities in excess of what had been ordered for in 2013/14,2014/15 and 2015/16 respectively. (Refer to Table 18 below and Appendix XI)

Table 18: Showing planned, ordered but issued quantities in excess over a period of time

Health Facility	2013/14 (Packs)			2014/15 (Packs)			2015/16 (Packs)		
	Planned	Ordered	Issued	Planned	Ordered	Issued	Planned	Ordered	Issued
RRH	116,835	116,835	169,398	623,445	433,774	748,162	328,691	285,468	397,952
GH	63,103	63,103	88,777	430,005	435,629	585,776	326,331	306,996	375,126
HC IV	18,884	18,884	32,870	184,082	212,551	314,013	136,539	155,337	216,327
Totals	198,822	198,822	291,045	1,237,532	1,081,954	1,647,951	791,561	747,801	989,405

Source: OAG Analysis of Planned_Ordered_Issued Data from NMS

The table above indicates that there were health facilities that ordered for 198,822; 1,081,954; 747,801 packs of EMHS in 2013/14; 2014/15 and 2015/16, respectively but received more. NMS attributed this to push orders originated by MOH and third parties specifying quantities of drugs and medical supplies to be delivered to each specified district and health unit.

e) Planned, not ordered but delivered
Out of the selected 72 health facilities, 35 and 24 health facilities received EMHS quantities that had neither been planned nor ordered for in 2014/15 and 2015/16, respectively. (Refer to Table 19 below and Appendix XII)

Table 19: Showing planned, not ordered but issued quantities over a period of time

Health Facility	2014/15 (Packs)			2015/16 (Packs)		
	Planned	Ordered	Issued	Planned	Ordered	Issued
RRH	14,648	0	12,846	3,996	0	54,502
GH	3,672	0	8,623	4,271	0	1,659
HC IV	4,506	0	3,977	3,876	0	990

Source: OAG Analysis of Planned_Ordered_Issued Data from NMS

The other cause of the above discrepancies in quantities delivered was the preparation of procurement plans based on monthly consumption and the available budget without necessarily considering the disease burden of the treatment population.

Conclusion

Overall, health facilities experienced discrepancies in delivered quantities during the period under review.

Recommendation

- NMS should ensure that the prices provided to health facilities reflect the running contract prices.
- NMS should engage MoFPED and MoH to agree on a framework for bridging the financing gaps caused by volatility in exchange rates.
- Changes in treatment policy and item specification should be properly planned and communicated in order not to impact on the procurement and supply chain.
- MoH should ensure that arrangements for supplies of emergency drugs are done in full consultation with NMS and the beneficiary health facilities to enable proper planning of procurement and utilization.
- NMS should ensure that procurement planning is undertaken based on the disease burden other than the average monthly consumption.

4.3 TIMELINESS OF EMHS DELIVERIES

According to the National Medical Stores Customer Charter December 2012, under Part (b) and (c) of "Product and Services Standards" NMS undertakes to deliver essential medicines and health supplies to the doorstep of all customers, and to deliver essential medicines and health supplies according to the published delivery schedule (Appendix IV) by level of care. NMS adherence to set delivery dates

Through document review and interviews of the delivery dates for the selected health facilities audit established that whereas efforts were made to deliver EMHS in time, cases of delays were noted as indicated in the Table 20 below.

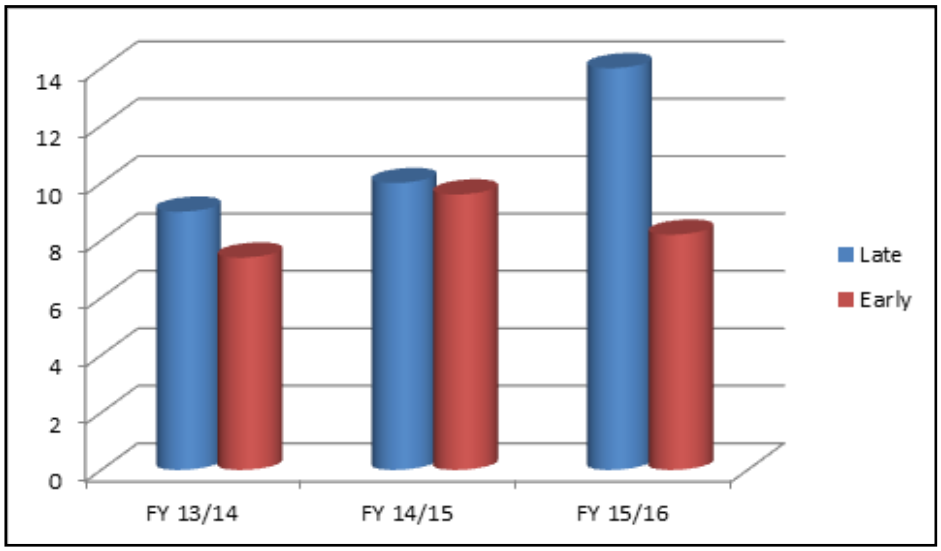
Table 20: Showing average LATE and EARLY deliveries

Years	Late (days)	Early (days)
FY 13/14	9	7.4
FY 14/15	10	9.6
FY 15/16	14	8.2

Source: OAG Analysis of delivery dates to health facilities

The table above indicates the number of days NMS delivered as per the scheduled deadlines and those where it delivered late. Figure 5 below shows a graphical presentation of the above data.

Figure 5: Showing Average Late and Early Deliveries made by NMS



Delayed deliveries were caused by:

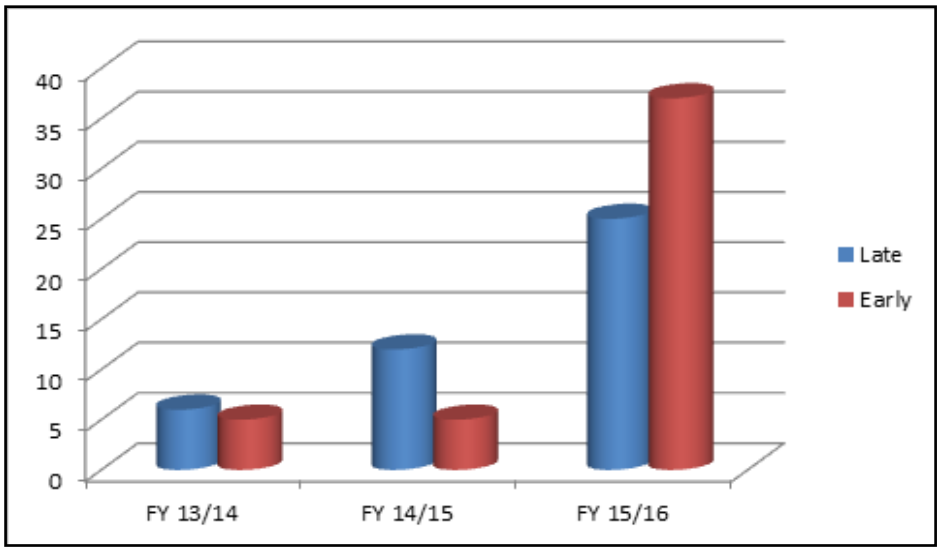
- Late submission of orders by Health facilities as indicated in the table 21 below:

Table 21: Showing average LATE and EARLY orders

	FY 13/14	FY 14/15	FY 15/16
Late	6	12	25
Early	5	5	37

Source: OAG Analysis of order dates to health facilities

Figure 6: Showing Average Late and Prompt Orders made by NMS



- Additionally, audit attributed the delays in deliveries to delayed response to customer complaints within the stipulated period of seven (7) working days and close out period of 14 working days. Out of 72 sampled health facilities, 26,13 and 12 health facilities (Refer Appendix XIII) raised discrepancies in delivery over the three year period that is 2013/14;2014/15 and 2015/16. However by the end of the audit (December 2015), none has been responded to as per NMS commitment on complaint management.

Consequently, there was a stock out of essential medicines and health supplies at the facilities averaging (9-15) days for the selected health facilities thereby hampering service delivery.
Conclusion
Whereas efforts were made by NMS to deliver EMHS in a timely fashion, delays were noted during the period under review.

Recommendations
NMS should:
- Automate the processes of planning, ordering, receipting, storage, distribution and delivery of orders.
- Endeavor to promptly resolve customer complaints in a timely fashion.

OVERALL AUDIT CONCLUSION

Whereas NMS purchased EMHS at lower prices relative to international market prices, anti-cancer drug prices were found to be on the higher side. Similarly, ARVs prices were found to be higher than the donated drug prices. Further in comparison with market prices NMS prices for EMHS were found to be generally lower than those of comparable providers. However, the excessive charge for the handling fees impacted on the prices charged to health facilities.

Therefore, except for ARVs and anti-cancer drugs, EMHS drug prices were found to be generally reasonable for the sampled drugs.
Overall, health facilities experienced discrepancies in delivered quantities during the period under review.
Whereas efforts were made by NMS to deliver EMHS in a timely fashion, cases of delays were noted.

GLOSSARY OF TERMS

Mark up:
A mark-up represents the additional charges and costs that are applied to the price of a commodity in order to cover overhead costs, distribution charges, and profit15.

Related Agencies:
This refers to the MoH, which is the Government Ministry responsible and answerable for the overall health policy, Medicines, medication lf the people in Uganda and has power to bind the Ministry of Local Government, Mulago Hospital, Regional Hospitals, District Hospitals, The Directorate of Medical Services of the UPDF, JCRC, NMS, TASO and any GOU supported entities or Projects for their requirements or consumption of ARVs and Anti-Malarial ACTs.

Reference Price/ Median International Price:
The practice of using the price of a pharmaceutical product (generally ex-manufacturer price, or other common point within the distribution chain) in one or several countries to derive a benchmark or reference price for the purposes of setting or negotiating the price of the product in a given country.

Reasonable price:
Lowest possible price at which the drug can be delivered to the health facility.

Essential Medicines and Health Supplies:
Medicines, medical devices, health supplies, laboratory supplies and consumables, medical and laboratory equipment.

15 WHO guidelines on pharmaceutical, pricing, 2015, page 6

APPENDICES

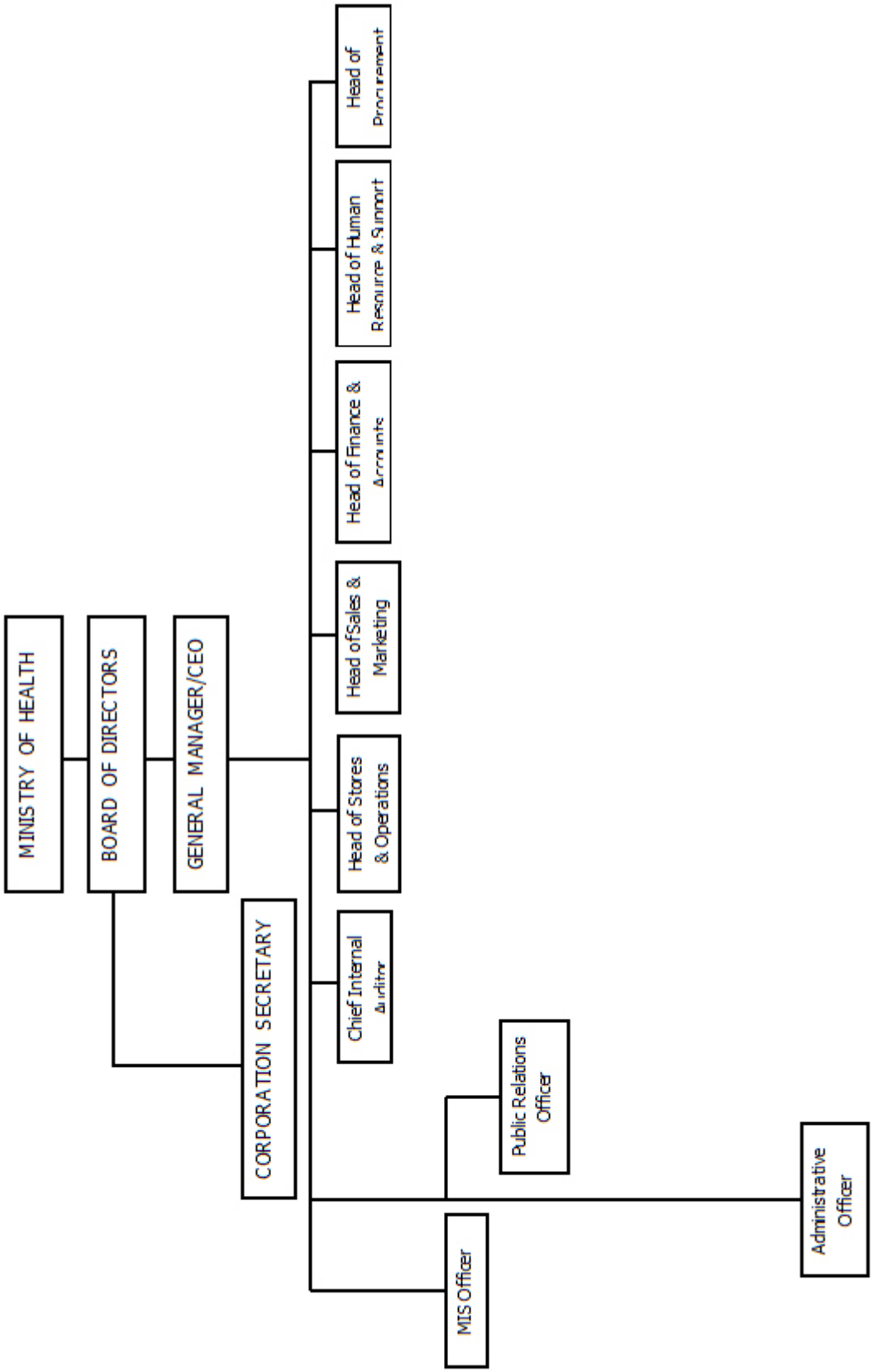
APPENDIX I: DOCUMENTS REVIEWED

Name of the Document	Information Obtained
National Medical Stores ACT 1993	To understand the establishment of National Medical Stores and to provide for its composition, powers, object and functions, administration and finances and other matters connected therewith.
Health Sector Monitoring Reports	To assess the performance of selected programs/ projects within the health sector, detailing their financial and physical progress, implementation challenges and proposed actions for improvement.
National Pharmaceutical Sector Plan 14/15	To understand issues such as the medicines supply chain, financing, pricing and appropriate use of medicine.
Stores and Operations Manual Version 1.2	To check whether NMS has ensured that the medicines and supplies of the required quality are correctly acquired, stored, and distributed to health units under the NMS mandate on time and at the least cost.
National Drug Policy 1993	To understand the continuing development of the pharmaceutical sector in Uganda and the substantive improvements in the national pharmaceutical service provision.
Aggregated Procurement Plans	
National SPARS Performance Report 2015	To understand the management tool that provides information on the medicines management situation in the country as well as the results from 109 districts implementing the supervision, performance assessment and recognition strategy (SPARS).
Sales and Marketing Manual	To understand the NMS' equitable framework for the treatment of all customers in line with the NMS vision.
Annual Pharmaceutical Sector Performance Report 2013/14	To understand the achievement of four out of thirty two key pharmaceutical indicators

APPENDIX II: LIST OF PEOPLE INTERVIEWED

Position	Reason for interview
Commissioner Pharmaceutical-NMS	To understand his role in the drugs supply chain. Obtain the relationship they have with NMS.
Inspector of drugs-NDA	To understand what role they play in the regulation of drugs coming into the country.
Head of Procurement-NMS	To understand what role the procurement department plays in the drugs supply chain.
Head Stores and Operations	To understand what role he plays in the drugs supply chain.
Head of Quality Assurance	To understand the role she plays in the drugs supply chain
Head of sales and marketing	To understand the role the sales and marketing department plays in the drug supply chain.
Stores assistant Nakasongola HCIV	To understand how the HF places orders to NMS and how expired drugs are handled at the HF
Luwero District Health Officer	To understand the general operations of NMS in Luwero district, and how HFs interact with NMS.
Pharmacist, Mukono HCIV	To understand how the HF places orders to NMS and how expired drugs are handled at the HF.
Assistant in charge, Luwero HCIV	To understand how the HF places orders to NMS and how expired drugs are handled at the HF

APPENDIX III: ORGANISATIONAL STRUCTURE



APPENDIX IV: SET ORDER AND DELIVERY TIMELINES

YRS	ZONE 1		ZONE 2		ZONE 3		ZONE 4		ZONE 5	
	Order deadline	delivery deadline	Order deadline	delivery deadline	Order deadline	delivery deadline	Order deadline	delivery deadline	Order deadline	delivery deadline
2013/14	04-06-13	18-07-13	20-06-13	01-08-13	15-07-13	13-08-13	25-07-13	23-08-13	06-08-13	27-08-13
	08-08-13	12-09-13	26-08-13	26-09-13	09-09-13	08-10-13	19-09-13	21-10-13	01-10-13	23-10-13
	03-10-13	08-11-13	22-10-13	22-11-13	05-11-13	04-12-13	15-11-13	02-01-13	27-11-13	06-01-14
	28-11-13	22-01-14	03-01-14	05-02-14	17-01-14	17-02-14	29-01-14	27-02-14	10-02-14	03-03-14
	12-02-14	19-03-14	28-02-14	02-04-14	14-03-14	14-04-14	26-05-14	28-04-14	07-04-14	30-04-14
	09-04-14	19-05-14	29-04-14	02-06-14	14-05-14	16-06-14	26-05-14	26-06-14	06-06-14	30-06-14
2014/15	02-06-14	30-07-14	20-06-14	13-08-14	11-07-14	25-08-14	23-07-14	04-09-14	04-08-14	08-09-14
	06-08-14	24-09-14	22-08-14	18-10-14	05-09-14	20-10-14	17-09-14	31-10-14	29-09-14	04-11-14
	01-10-14	16-11-14	20-10-14	30-11-14	03-11-14	12-12-14	13-11-14	22-12-14	25-11-14	24-12-14
	26-11-14	28-01-15	24-12-14	12-02-15	16-01-15	24-02-15	29-01-15	06-03-15	10-02-15	10-03-15
	12-02-15	23-03-15	02-03-15	06-04-15	16-03-15	18-04-15	26-03-15	02-05-15	07-04-15	04-05-15
	09-04-15	19-05-15	29-04-15	02-06-15	14-05-15	16-06-15	26-05-15	26-06-15	08-06-15	30-06-15
2015/16	17-06-15	05-08-15	06-07-15	14-08-15	28-07-15	24-08-15	05-08-15	02-09-15	14-08-15	07-09-15
	19-08-15	28-09-15	09-09-15	07-10-15	18-09-15	16-10-15	28-09-15	27-10-15	07-10-15	30-10-15
	13-10-15	20-11-15	03-11-15	01-12-15	12-11-15	09-12-15	15-11-15	15-12-15	18-11-15	18-12-15
	04-12-15	05-02-16	18-01-16	16-02-16	28-01-16	24-02-16	05-02-16	04-03-16	16-02-16	10-03-16
	19-02-16	31-03-16	14-03-16	11-04-16	23-03-16	21-04-16	31-03-16	02-05-16	11-04-16	05-05-16
	14-04-16	26-05-16	09-05-16	07-06-16	18-05-16	16-06-16	26-05-16	27-06-16	07-06-16	30-06-16

Source: OAG Extract of delivery schedule

APPENDIX V: CONTRACT PRICES AND PURCHASE PRICES FOR ANTI-CANCER DRUGS

S/n	Drug	Supplier	Procurement reference	Contract sign date	Contract price (usd) (a)	2015 Purchase price (B)	% Above (a)	% Below (a)
1	Paclitaxel 100mg vial	Kimsy meds ltd	Nms/supls/14-15/00036	8-Jan-15	41	41.00		0
2	Oxaliplatin inj 5mg/ml 10ml vial	Kimsy meds ltd	Nms/supls/14-15/00036	8-Jan-15	37	37.00		0
3	Cisplatin injection bp 50mg/100ml	Kimsy meds ltd	Nms/supls/14-15/00036	8-Jan-15	28.45	28.45		0
4	Doxorubicin hydrochloride 50mg vial	Kimsy meds ltd	Nms/supls/14-15/00036	8-Jan-15	22	16.43	25	
5	Docetaxel 40mg/ml 2ml vial	Kimsy meds ltd	Nms/supls/14-15/00036	8-Jan-15	65	65.00		0
6	Carboplatin 10mg/ml, 45 ml vial	Kimsy meds ltd	Nms/supls/14-15/00036	8-Jan-15	68.25	68.25		0
7	L-asparaginase 10,000iu vial	Kimsy meds ltd	Nms/supls/14-15/00036	8-Jan-15	87	87.00		0
8	Dacarbazine 200mg vial	Kimsy meds ltd	Nms/supls/14-15/00036	8-Jan-15	12.7	12.70		0
9	Filgrastim 300mcg/ml 1ml vial	Norvik ent ltd	Nms/supls/14-15/00070	22-Jun-15	36	59.88		66
10	Gemcitabine hcl 1g in 25ml vial	Kimsy meds ltd	Nms/supls/14-15/00036	8-Jan-15	45	47.24		5
11	Capecitabine 500mg tablets	Norvik ent ltd	Nms/supls/14-15/00070	24-Apr-15	27	470.36		1642

Source: OAG Analysis of contract and purchase price

APPENDIX VI: COMPARISON BETWEEN SURVEY PRICES AND PUBLISHED PRICES

SN	Medical Supply	Strength	packaging	NMS Survey Prices Comparison (A)				Audit Established Prices comparison (B)				The percentage Variance (B-A)/B					
				NMS Prices	JMS	MSD	MSH/WHO prices(exchange rate av. FY2014)	NMS Contract Prices	JMS	MSD	MSH/WHO prices(exchange rate av. FY2014)	NMS Prices(A)		JMS	MSD	MSH/WHO prices(exchange rate av. FY2014) (B)	
												Above	Below			Above	Below
1	Artemether+ lumenfatrine	20mg/120mg	30 tab					142,291	140,400		211,022						
2	Amoxicillin	250mg	1000 Capsule	42,320	64,450	47,263	68,791	46,502	64,450	47,263	68,468	9		0	0		
3	Diazepam	5mg	1000 tab	11,901	50,400	15,402	78,096	11,933	50,400	15,402	31,908	0		0	0		145
4	Salbutamol	4mg	1000 tab	5,751	30,990	8,456	22,598	5,954	30,990	8,456	12,630	3		0	0		79
5	Folic acid	5mg	1000 Tab	2,267	29,070	7,701	11,632	2,437	29,070	7,701	11,965	7		0	0	3	
6	Ibuprofen	200mg	1000 tab	13,483	21,050		64,138	10,992	21,050		25,592		23	0			151
7	Magnesium Trisilicate comp	250+120mg	1000 tab	9,450	0		17,614	9,028	16,487	7,701	14,957		5				18
8	Erythromycin	250mg	1000 Vial	83,583	102,820		142,233	90,121	102,820	94,526	145,578	7		0		2	
9	Paracetamol	500mg	1000 tab	11,500	17,006	11,476	22,598	12,420	17,006	11,476	16,619	7		0	0		36
10	Clotrimazole	100 mg	6 pessary	766	1,071		1,949	745	1,071	1,510	2,327		3	0		16	
11	Ciprofloxacine	500mg	100 Tablet	8,665	9,585	9,664	12,927	8,896	9,585	9,664	15,954	3		0	0	19	
12	Oral Rehydration salts	1Ltr	25	4,200	5,915	8,418	4,154	4,533	5,915	33,673	9,971	7		0	75	58	
13	Vitamin A	200.00I U	1000 Capsule	184,929	133,490		185,435	184,987	444,967	200,830	207,731	0		70		11	

Source: OAG Analysis of Survey Reports and different price catalogues

Assume: 1 TZ= 1.51shs; 1 $= 3,323.7shs

APPENDIX VII: SHOWING ADDITIONAL MARK-UP CHARGES AND EXTRA COST INCURRED BY HEALTH FACILITIES BETWEEN PLANNING/ORDERING AND ISSUE.

DRUG	2013/14 (Avg Prices)					2014/15 (Avg Prices)					2015/16 (Avg Prices)				
ARVs and ACTs	Purchase(B)	Issue (C)	Exact	Above mark up	Below mark up	Purchase	Issue	Exact	Above mark up	Below mark up	Purchase	Issue	Exact	Above mark up	Below mark up
Artemether 20mg+lumefantrine 120mg(strip of 24)	133,646	149,521		5%		147,090	147,983			6%	179,378	177,380			8%
Efavirenz 600mg tab	17,186	16,566			11%	16,939	14,574			21%	20,494	20,840			5%
Efavirenz 200 mg cap	-	-				-	-				-	-			
Lamivudine150mg + zidovudine 300 mg tab,	24,039	33,863		34%		18,998	24,812		24%		32,708	-			7%
Lamivudine150mg+zidovudine300mg+nevirapine200mg t	35,188	38,754		3%		24,862	37,544		44%		40,937	44,152		1%	
Nevirapine 200mg tab	-	10,878				-	-				11,293	-			
Tenofovir/lamivudine 300mg/300mg tablets	21,775	24,722		7%		15,529	21,825		34%		26,605	26,077			9%
Tenofovir/lamivudine/efavirenz 300mg/300mg/600mg	-	-				37,305	-				45,494	40,923			17%
Emhs															
Amoxicillin 250mg capsule	34,717	35,616			5%	40,000	40,488			7%	31,338	46,332		40%	
Diazepam 5 mg tablet	8,431	8,864			3%	9,655	9,945			5%	11,775	12,172			5%
Salbutamol 4mg tablet	3,148	3,167			7%	3,883	3,641			14%	5,784	6,021			4%
Folic acid 5mg tablet	1,574	1,693	0%			1,750	1,987		6%		11,900	6,007			58%
Ibuprofen 200mg tablet	9,823	10,665		1%		10,926	10,951			8%	13,324	10,992			26%
Magnesium trisilicate comp 250+120mg tablet	6,168					6,860					4,726				
Erythromycin stearate 250mg tablet	64,431	70,550		1%		-	70,583				86,763	90,149			4%

Paracetamol 500mg tablet,	9,874	10,538			1%	10,982	11,664			2%	11,500	12,420	0%		
Clotrimazole 100mg pessary	532	587		2%		621	613			9%	748	767			5%
Ciprofloxacin 500mg tablet	6,082					6,963				8%	8,565				
Oral rehydration salts for 1lt	3,458	3,673			2%	3,846	4,072			2%	4,200	4,533	0%		
Vitamin a (retinol) 200.000 I u capsule	-					101,636					163,609				
Cancer															
Paclitaxel 100mg vial	156,500	126,912			27%	112,694	120,300			1%	141,161	142,637			7%
Oxaliplatin inj 5mg/ml 10ml vial	101,965	111,646		1%		40	113,571				127,389	133,813			3%
Cisplatin injection bp 50mg/100ml	85,872	89,514			4%	76,114	77,030			7%	97,952	105,011			1%
Doxorubicin hydrochloride 50mg vial	47,500	51,272	0%			50,959	53,022			4%	56,568	53,987			13%
Docetaxel 40mg/ml 2ml vial	248,333	252,279			6%	273,000	294,840	0%			223,792	261,051		9%	
Carboplatin 10mg/ml, 45 ml vial	214,864	230,673			1%	236,958	77,030			75%	234,982	255,829		1%	
L-asparaginase 10,000iu vial	123,494	132,554			1%	245,620	186,220			32%	299,537	322,289	0%		
Dacarbazine 200mg vial	22,484	24,215	0%			35,855	33,291			15%	43,726	46,395			2%
Rituximab 500mg 50ml vials	-					5,291,800	5,715,144	0%		0%	6,501,336	7,184,723		3%	
Filgrastim 300mcg/ml 1ml vial	310,400	336,267	0%			387,952	351,983			17%	206,174	210,754			6%
Cyclophosphamide 1gm vial	-	73,440				54,539	59,609		1%		50,990	55,676		1%	
Calcium folinate 50mg/5ml vial	23,036	24,245			3%	23,036	24,859			0%	80,737	88,728		2%	
Gemcitabine hcl 1g in 25ml vial	137,743	160,414		8%		147,375	150,623			6%	162,633	166,880			5%
Capecitabine 500mg tablets	99,274	107,847		1%		915,598	1,084,902		10%		1,349,521	1,060,575			29%
Daunorubicin hcl 20mg vial	107,300	111,077			4%	95,114	96,866			6%	115,993	124,593			1%
			4	**10**	**13**			**2**	**6**	**21**			**3**	**7**	**20**

Source: OAG Analysis of HF procurement plans, NMS purchase prices and Issued prices

APPENDIX VIII: LIST OF HEALTH FACILITIES THAT PLANNED, ORDERED BUT DID NOT RECEIVE

Health Facility	2013/14	2014/15	2015/16
RRH	Fort Portal Hospital Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital Soroti Hospital	Fort Portal Hospital Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital Soroti Hospital	Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital Soroti Hospital
GH	Bududa Hospital Bugiri Hospital Entebbe Hospital Iganga Hospital Kamuli Hospital Kayunga Hospital Kiryandongo Hospital Kisoro Hospital Masindi Hospital Nakaseke Hospital Tororo Hospital	Bududa Hospital Bugiri Hospital Entebbe Hospital Iganga Hospital Kamuli Hospital Kayunga Hospital Kiryandongo Hospital Kisoro Hospital Masindi Hospital Nakaseke Hospital Tororo Hospital	Kisoro Hospital Masindi Hospital Nakaseke Hospital Tororo Hospital
HC IV	Aduku HCIV Alebtong HCIV Amach HCIV Atiak HCIV Bugangari HCIV Bugembe HCIV Bugobero HCIV Bukomero HCIV Bukulula HCIV Bumanya HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Busia HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kabalye Pts Police HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kasangati HCIV Kawempe HCIV Kidera HCIV Kigorobya HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kitwe HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Lalogi HCIV Luweero HCIV Madi Opei HCIV Maziba HCIV Midigo HCIV	Aduku HCIV Alebtong HCIV Amach HCIV Atiak HCIV Bugangari HCIV Bugembe HCIV Bugobero HCIV Bukomero HCIV Bukulula HCIV Bumanya HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Busia HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kabalye Pts Police HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kasangati HCIV Kawempe HCIV Kidera HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kitwe HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Lalogi HCIV Luweero HCIV Madi Opei HCIV Maziba HCIV Midigo HCIV Mungula HCIV	Aduku HCIV Alebtong HCIV Bugembe HCIV Bugobero HCIV Bukulula HCIV Busesa HCIV Bushenyi HCIV Butenga HCIV Buwambo HCIV Kabalye Pts Police HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kigorobya HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Maziba HCIV Midigo HCIV Mungula HCIV Ntara HCIV Oli HCIV Rubuguri HCIV Ssembabule HCIV Tiriri HCIV

HC IV	Mungula HCIV Muyembe HCIV Nagongera HCIV Namwendwa HCIV Nankoma HCIV Ndejje HCIV Oli HCIV Padibe HCIV Rukungiri HCIV Ssembabule HCIV Tiriri HCIV Tokora HCIV	Muyembe HCIV Nagongera HCIV Namwendwa HCIV Nankoma HCIV Ndejje HCIV Ntara HCIV Oli HCIV Padibe HCIV Rubuguri HCIV Rukunyu HCIV Ssembabule HCIV Tiriri HCIV Tokora HCIV	

APPENDIX IX: SHOWING UNPLANNED, NOT ORDERED BUT ISSUED

Health Facility	2013/14	2014/15	2015/16
RRH	Fort Portal Hospital Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital Soroti Hospital	Fort Portal Hospital Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital Soroti Hospital	Fort Portal Hospital Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital Soroti Hospital
GH	Bududa Hospital Bugiri Hospital Entebbe Hospital Iganga Hospital Kamuli Hospital Kayunga Hospital Kiryandongo Hospital Kisoro Hospital Masindi Hospital Nakaseke Hospital Tororo Hospital	Bududa Hospital Bugiri Hospital Entebbe Hospital Iganga Hospital Kamuli Hospital Kayunga Hospital Kiryandongo Hospital Kisoro Hospital Masindi Hospital Nakaseke Hospital Tororo Hospital	Bududa Hospital Bugiri Hospital Entebbe Hospital Iganga Hospital Kamuli Hospital Kayunga Hospital Kiryandongo Hospital Kisoro Hospital Masindi Hospital Nakaseke Hospital Tororo Hospital
HC IV	Aduku HCIV Alebtong HCIV Amach HCIV Atiak HCIV Bugangari HCIV Bugembe HCIV Bugobero HCIV Bukomero HCIV Bukulula HCIV Bumanya HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Busia HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kabalye Pts Police HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kasangati HCIV Kawempe HCIV Kidera HCIV Kigorobya HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kitwe HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Lalogi HCIV Luweero HCIV Madi Opei HCIV Maziba HCIV Midigo HCIV	Aduku HCIV Alebtong HCIV Amach HCIV Atiak HCIV Bugangari HCIV Bugembe HCIV Bugobero HCIV Bukomero HCIV Bukulula HCIV Bumanya HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Busia HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kabalye Pts Police HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kasangati HCIV Kawempe HCIV Kidera HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kitwe HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Lalogi HCIV Luweero HCIV Madi Opei HCIV Maziba HCIV Midigo HCIV Mungula HCIV	Aduku HCIV Alebtong HCIV Amach HCIV Atiak HCIV Bugangari HCIV Bugembe HCIV Bugobero HCIV Bukomero HCIV Bukulula HCIV Bumanya HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Busia HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kabalye Pts Police HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kasangati HCIV Kawempe HCIV Kidera HCIV Kigorobya HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kitwe HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Lalogi HCIV Luweero HCIV Madi Opei HCIV Maziba HCIV Midigo HCIV

HC IV	Mungula HCIV Muyembe HCIV Nagongera HCIV Namwendwa HCIV Nankoma HCIV Ndejje HCIV Oli HCIV Padibe HCIV Rukungiri HCIV Ssembabule HCIV Tiriri HCIV Tokora HCIV	Muyembe HCIV Nagongera HCIV Namwendwa HCIV Nankoma HCIV Ndejje HCIV Ntara HCIV Oli HCIV Padibe HCIV Rubuguri HCIV Rukunyu HCIV Ssembabule HCIV Tiriri HCIV Tokora HCIV	Mungula HCIV Muyembe HCIV Ndejje HCIV Ntara HCIV Oli HCIV Padibe HCIV Rubuguri HCIV Rukungiri HCIV Rukunyu HCIV Ssembabule HCIV Tiriri HCIV Tokora HCIV

APPENDIX X: SHOWING HEALHT FACILITIES THAT WERE ISSUED DRUGS THAT THEY HAD NEITHER PLANNED NOR ORDERED FOR

Health Facility	2013/14	2014/15
RRH	Fort Portal Hospital Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital Soroti Hospital	Fort Portal Hospital Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital
GH	Bududa Hospital Bugiri Hospital Entebbe Hospital Iganga Hospital Kamuli Hospital Kayunga Hospital Kiryandongo Hospital Kisoro Hospital Masindi Hospital Nakaseke Hospital Tororo Hospital	Bududa Hospital Bugiri Hospital Iganga Hospital Kamuli Hospital Kayunga Hospital Kiryandongo Hospital Kisoro Hospital Masindi Hospital Tororo Hospital
	Aduku HCIV Alebtong HCIV Amach HCIV Atiak HCIV Bugangari HCIV Bugembe HCIV Bugobero HCIV Bukomero HCIV Bukulula HCIV Bumanya HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Busia HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kabalye Pts Police HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kasangati HCIV Kawempe HCIV Kidera HCIV Kigorobya HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kitwe HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Lalogi HCIV Luweero HCIV Madi Opei HCIV Maziba HCIV Midigo HCIV	Aduku HCIV Alebtong HCIV Amach HCIV Atiak HCIV Bugangari HCIV Bugembe HCIV Bugobero HCIV Bukomero HCIV Bukulula HCIV Bumanya HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Busia HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kabalye Pts Police HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kasangati HCIV Kawempe HCIV Kidera HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kitwe HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Lalogi HCIV Luweero HCIV Madi Opei HCIV Maziba HCIV Midigo HCIV Mungula HCIV

HC IV	Mungula HCIV Muyembe HCIV Nagongera HCIV Namwendwa HCIV Nankoma HCIV Ndejje HCIV Oli HCIV Padibe HCIV Rukungiri HCIV Ssembabule HCIV Tiriri HCIV Tokora HCIV	Muyembe HCIV Nagongera HCIV Namwendwa HCIV Nankoma HCIV Ndejje HCIV Ntara HCIV Oli HCIV Padibe HCIV Rubuguri HCIV Rukunyu HCIV Ssembabule HCIV Tiriri HCIV Tokora HCIV

APPENDIX XI: SHOWING HEALTH FACILITIES THAT RECEIVED IN EXCESS OF THEIR ORDERS.

Health Facility	2013/14	2014/15	2015/16
RRH	Fort Portal Hospital Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital Soroti Hospital	Fort Portal Hospital Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital	Fort Portal Hospital Gulu Hospital Lira Hospital Mbarara University Hospital Mubende Hospital Soroti Hospital
GH	Bududa Hospital Bugiri Hospital Entebbe Hospital Iganga Hospital Kamuli Hospital Kayunga Hospital Kiryandongo Hospital Kisoro Hospital Masindi Hospital Nakaseke Hospital Tororo Hospital	Bududa Hospital Bugiri Hospital Iganga Hospital Kamuli Hospital Kayunga Hospital Kiryandongo Hospital Kisoro Hospital Masindi Hospital Tororo Hospital	Bududa Hospital Bugiri Hospital Entebbe Hospital Iganga Hospital Kamuli Hospital Kayunga Hospital Kiryandongo Hospital Kisoro Hospital Masindi Hospital Nakaseke Hospital Tororo Hospital
HC IV	Aduku HCIV Alebtong HCIV Amach HCIV Atiak HCIV Bugangari HCIV Bugembe HCIV Bugobero HCIV Bukomero HCIV Bukulula HCIV Bumanya HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Busia HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kasangati HCIV Kawempe HCIV Kidera HCIV Kigorobya HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kitwe HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Lalogi HCIV Luweero HCIV Madi Opei HCIV Maziba HCIV Midigo HCIV	Aduku HCIV Alebtong HCIV Amach HCIV Atiak HCIV Bugangari HCIV Bugembe HCIV Bugobero HCIV Bukomero HCIV Bukulula HCIV Bumanya HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Busia HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kabalye Pts Police HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kasangati HCIV Kawempe HCIV Kidera HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kitwe HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Lalogi HCIV Luweero HCIV Madi Opei HCIV Maziba HCIV Midigo HCIV	Aduku HCIV Alebtong HCIV Amach HCIV Atiak HCIV Bugangari HCIV Bugembe HCIV Bugobero HCIV Bukomero HCIV Bukulula HCIV Bumanya HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Busia HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kabalye Pts Police HCIV Kakuuto HCIV Karenga HCIV Karugutu HCIV Kasangati HCIV Kawempe HCIV Kidera HCIV Kigorobya HCIV Kihihi HCIV Kikuube HCIV Kinoni [Mbarara] HCIV Kiruhura HCIV Kitwe HCIV Kumi HCIV Kyabugimbi HCIV Kyegegwa HCIV Lalogi HCIV Luweero HCIV Madi Opei HCIV Maziba HCIV

HC IV	Mungula HCIV Muyembe HCIV Nagongera HCIV Namwendwa HCIV Nankoma HCIV Ndejje HCIV Oli HCIV Padibe HCIV Rukungiri HCIV Ssembabule HCIV Tiriri HCIV Tokora HCIV	Mungula HCIV Muyembe HCIV Nagongera HCIV Namwendwa HCIV Nankoma HCIV Ndejje HCIV Ntara HCIV Oli HCIV Padibe HCIV Rubuguri HCIV Rukunyu HCIV Ssembabule HCIV Tiriri HCIV Tokora HCIV	Midigo HCIV Mungula HCIV Muyembe HCIV Ndejje HCIV Ntara HCIV Oli HCIV Padibe HCIV Rukungiri HCIV Rukunyu HCIV Ssembabule HCIV Tiriri HCIV Tokora HCIV

APPENDIX XII: SHOWING HEALTH FACILITIES THAT PLANNED, DID NOT ORDER BUT RECEIVED.

Health Facility	2014/15	2015/16
RRH	Fort Portal Hospital Gulu Hospital Mbarara University Hospital Mubende Hospital	Gulu Hospital Lira Hospital
GH	Bududa Hospital Kisoro Hospital Masindi Hospital Tororo Hospital	Bududa Hospital Bugiri Hospital Kamuli Hospital Kayunga Hospital Kisoro Hospital Nakaseke Hospital
HC IV	Aduku HCIV Atiak HCIV Bududa Hospital Bukomero HCIV Bukulula HCIV Busanza HCIV Busesa HCIV Bushenyi HCIV Buvuma HCIV Fort Portal Hospital Gulu Hospital Karenga HCIV Kisoro Hospital Kumi HCIV Kyabugimbi HCIV Lalogi HCIV Masindi Hospital Mbarara University Hospital Midigo HCIV Mubende Hospital Nagongera HCIV Namwendwa HCIV Ndejje HCIV Ntara HCIV Oli HCIV Rubuguri HCIV Tororo Hospital	Aduku HCIV Amach HCIV Bukulula HCIV Busesa HCIV Butenga HCIV Buvuma HCIV Buwambo HCIV Kabalye Pts Police HCIV Kasangati HCIV Kawempe HCIV Kikuube HCIV Kiruhura HCIV Kumi HCIV Luweero HCIV Ndejje HCIV

APPENDIX XIII: DISCREPANCIES RAISED OVER THE YEARS WITH NO RESPONSE.

DATE	CUSTOMER	FEEDBACK NATURE	ORDER NUMBER	ITEM	INVESTIGATIONS
1/15/2013	Entebbe Hospital	Discrepancy	178832	PGA/Polyglatin G0 PGA/Polglatin G1	1. 1 piece missing 2.Item delivered but does not appear on the delivery note
3/15/2013	Rukunyu HC IV	Discrepancy		200893	
3/15/2013	Kinoni HC IV	Discrepancy		199240, 199731, 199730, 198471	
4/24/2013	Ntara HC IV	Discrepancy	215007	Pethidine inj and Quinine Di-HCL	
5/29/2013	Nakaseke Hospital	Non delivery		TDF/3TC	
6/28/2013	Entebbe Hospital	Discrepancy	233343	Insulin Soluble and Insulin Isophane	
7/2/2013	Mbarara R Hospital	Discrepancy	223017	Suxamethonium, Cotrimox micro discs, Vanco micro discs and Rita micro discs	
7/4/2013	Mubende R Hospital	Discrepancy	206241	Forcep dental, Tube endotracheal nasal plastic 5.5 and Tube endotracheal nasal plastic 6mm	
7/15/2013	Bududa Hospital	Discrepancy	234491	HIV test kits.	
7/25/2013	Kyabugimbi HC IV	Quality issues		Examination gloves	
7/29/2013	Luwero HC IV	Excess supply	233215	ARVs	
8/9/2013	Buvuma HC IV	Discrepancy	236806, 236807	HIV test kits and Insulin	
8/12/2013	DHO Alebtong	Over stocked items	240396	BCG, T, OPV and Droppers	
8/13/2013	Fort Portal R Hospital	Discrepancy	227758	Anti TBs	

8/22/2013	Bugobero HC IV	Discrepancy	234220		
8/28/2013	Kikuube HC IV	Order not fully serviced		Pima beads, Nevirapine syrup and Lopinavir/ Ritonavir	
8/28/2013	Lira R H	Over stocked items	246859	Unigold	
9/6/2013	Entebbe Hospital	Discrepancy	248714	Set infusion Paediatric	
9/9/2013	Lalogi HC IV	Discrepancy	245448 and 247597	De-Ionized water and Gloves	
9/10/2013	Luwero HC IV	Discrepancy	247963	Paracetamol and Neomycin	
9/10/2013	Luwero HC IV	Order not fully serviced	247963		
9/16/2013	DHO Kisoro	Discrepancy	237946	Vitamin A	
9/25/2013	DHO Kayunga	Quality issues		Chlorphenamine tablet and Phenytoin sodium	
10/22/2013	Entebbe Hospital	Discrepancy	259342	Chemistry reagents	
10/25/2013	Bukomero HC IV	Discrepancy	259243	Efavirenz 600mg and Tetracycline eye ointment	
10/25/2013	Bukomero HC IV	Order not fully serviced		Several Items	
11/14/2013	Iganga Hospital	Discrepancy	264724	Metronidazole suspension	
11/29/2013	Kumi HC IV	Discrepancy	268678	HIV test kits , Doxycycline and Coartem	
12/9/2013	Gulu R Hospital	Discrepancy	277629, 277691	Efavirenz, RHE	
12/10/2013	Bukomero HC IV	Non delivery			
12/16/2013	Luwero HCIV	Items not ordered for	247963, 261412	Zidovudine, Albendazole	
12/18/2013	Entebbe Hospital	Not ordered for	276594	Tetanus Antitoxin Injection	
12/20/2013	Entebbe Hospital	Over stocked item	277832	Nevirapine 200MG	

12/20/2013	Entebbe Hospital	Item not ordered for	277804	Cotrimoxazole 960mg tabs	
12/20/2013	Mbarara R Hospital	Items not delivered	278313		
12/27/2013	Mbarara R Hospital	Delivered less by 100	275200	Hepatitis B	
12/30/2013	Luwero HCIV	Items not received	247963	Artesunate inj, ketamine, clotrimazole	
3/10/2014	Gulu R Hospital	RF	Discrepancy	291562	HOSAO
3/26/2014	Luwero HC IV	DR	Item not ordered for	293595	CCA
3/26/2014	Luwero HC IV	DR	Order not fully serviced	293048	CCA
4/3/2014	Kisoro Hospital	RF	Discrepancy	291281	HOSAO
4/24/2014	Kakuto HC IV	DR/ Last mile	Discrepancy	287432	HOSAO
5/6/2014	Iganga Hospital	RF	Discrepancy	313449	HOSAO
6/2/2014	Karugutu HC IV	RF	Discrepancy	318487	HOSAO
7/16/2014	Luwero HC IV	DR/Last mile	Discrepancy	324583	HOSAO
8/15/2014	Luwero HC IV	RF/Last Mile	Discrepancy	0292390, 292386, 324720	HOSAO
8/21/2014	Mbarara R H	RF	Discrepancy	328190	HOSAO
9/1/2014	Fort Portal R Hospital	Letter/Last Mile	Discrepancy	336852	HOSAO
9/1/2014	Fort Portal R Hospital	RF	Excess supply	336852, 335747, 336475	HOSAO
9/15/2014	Mbarara Municipal HC IV	CF	Discrepancy	334701	HOSAO
6/10/2014	Luwero HC IV	DR/Last Mile	Discrepancy	340785	HOSAO
10/28/2014	Kinoni HC IV	CCR Mbarara	Discrepancy	350931	HOSAO

11/10/2014	Bududa Hospital	CCR Mbale	Discrepancy	358619	HOSAO
11/13/2014	Luwero HC IV	DR/Last Mile	Discrepancy	357618	HOSAO
1/26/2015	Bududa Hospital	CF	Discrepancy	375979	HOSAO
2/13/2015	Kyabugimbi HC IV	DF	Discrepancy	382522	HOSAO
2/26/2015	Bugangari HC IV	DF	Discrepancy	382958	HOSAO
2/27/2015	Mbarara Municipal HC IV	DF	Discrepancy	382798	HOSAO
2/27/2015	Fort Portal Hospital	DF	Discrepancy	384904	HOSAO
6/8/2015	Mubende Hospital	DF	Discrepancy	419934	HOSAO
6/10/2015	Bugobero HC IV	RF	Items not ordered for	408131	HOSAO
6/17/2015	Gulu Hospital	DF	Discrepancy	420803	HOSAO
6/29/2015	Atiak HC IV	DF	Discrepancy	420755	HOSAO
6/29/2015	Oli HC IV	DF	Discrepancy	421469	HOSAO
6/30/2015	Naguru MPPU Police Clinic HC IV	DF	Discrepancy	407313	HOSAO
6/30/2015	Luwero HC IV	DF	Discrepancy	423853	HOSAO

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