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All reasonable efforts have been taken to ensure the accuracy of the information presented in this document. The document does not however constitute an endorsement or warranty of the accuracy of forecast figures obtained from different sources as these are indicative forecast figures reflecting the actual and desired health facility and national demand within the public sector supply chain.

#### FOREWARD

Welcome to the second edition of the procurement planning and EM kit revision report. This report has been prepared to support the implementation of the National Pharmaceutical Sector Strategic Plan III 2015-2020. Specifically, the report addresses the policy objective under health commodity and supply chain to ensure that all medicines selected for use in the public health system are relevant to the priority needs of the population in line with the concept of essential medicines. In addition, the report addresses the objective to establish and maintain reliable systems for regular and accurate quantification of medicines needs at all levels of the health system.

The report was developed by National Medical Stores in consultation with key partners including Clinton Health Access Initiative and the Uganda Health Supply Chain Project under the leadership of the Ministry of Health Pharmacy Division.

The report presents the methodology of the annual national quantification process for all public health facilities in the country for the FY2017/2018, key outputs and budgetary implications of the current financial allocations. The report also describes recommendations for optimising the annual quantification process and improving the availability of priority medicines.

I appeal for additional investment in the medicines budget and increased technical support at both the national and subnational level to ensure essential medicines and health supplies required by the people of Uganda are available and accessible to the population.

horas

Morries Seru Acting Assistant Commissioner Pharmacy Ministry of Health

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#### LIST OF ABBREVIATIONS

CCRs	Customer Care Representatives
CHAI	Clinton Health Access Initiative
CMP	Commodity Management Platform
DHIS2	District Health Information System
DHO	District Health Officer
DHT	District Health Team
EM	Essential Medicines
EMHS	Essential Medicines and Health Supplies
EMHLS	Essential Medicines Health and Laboratory Supplies
EMHSLU	Essential Medicines and Health Supplies List of Uganda
FLD	First Line Drugs
FY	Financial Year
GF	Global Fund
GH	General Hospital
GoU	Government of Uganda
HCII	Health Centre II
HCIII	Health Centre III
HCIV	Health Centre IV
HFs	Health Facilities
HPV	Human Papilloma Vaccine
IPD	In-Patient Department
IPF	Indicative Planning Figures
LMD	Last Mile Delivery
LoC	Level of Care
LPG	Liquid Petroleum Gas
MoFPED	Ministry of Finance Planning and Economic Development
МоН	Ministry of Health
mRDTs	Malaria Rapid Diagnostic Test Kits
MoLG	Ministry of Local Government
NDA	National Drug Authority
NMS	National Medical Stores

NRH	National Referral Hospitals
NRI	National Referral Institutes
OPD	Out Patient Department
PFP	Private For Profit
PNFP	Private Not For Profit
PCV	Pneumococcal Conjugate vaccine
QPPU	Quantification Procurement Planning Unit
RH	Reproductive Health
RRH	Regional Referral Hospital
SLD	Second Line Drugs
SPARS	Supervision Performance Assessment Recognition Strategy
TT	Tetanus
UCG	Uganda Clinical Guidelines
UGX	Uganda Shillings
XV	Extra Vital

Term	Interpretation in the context of this report					
Essential Medicines, Health	Medicines, Medical Devices, Health supplies, and consumables, medical and Laboratory					
and Laboratory Supplies	equipment.					
(EMHLS)						
Cycle	A cycle is a specific period of time upon which NMS supply essential medicines to government					
	hospitals. Cycle for RRH, GH, HCIV, HCIII and HCII covers a period of two months and that					
	for NRH and NRI covers a period of one month.					
District Basic Kits/Essential	Kits are standardized packages of EMHS that are regularly delivered to health facilities (HCIIIs					
Medicines Kits	and HCIIs). Kits are generally part of a push (modified push) distribution system where the					
	type and quantities of contents are determined by representatives from NMS, DHOs and					
	facility in-charges.					
Procurement plans	These are planning templates developed by Higher level facilities (HCIV, GH, RRH, NRH, &					
	NRI) where the type and quantities of contents for delivery in a given cycle are determined by					
	representatives from health facilities. Facilities amend quantities on a cycle basis.					
XV items and Non XV items	This is a method used for grouping medicines, health and laboratory supplies according to					
	health impact. The method is used to prioritize items when funding does not allow procurement					
	or ordering of all desired items. Items are categorized in such way that XV items are given first					
	priority in terms of planning, budget allocation and ordering.					
Credit Line Commodities	Credit line commodities are items;					
	<ul> <li>Funded by the Government of Uganda</li> </ul>					
	<ul> <li>Have a budget ceiling</li> </ul>					
	<ul> <li>Budgets are solely under the direct control of Health Facilities</li> </ul>					
	<ul> <li>Quantification is solely under direct control of Health Facilities</li> </ul>					
Non Credit Line (Program)	Non Credit Line/Program commodities are items;					
commodities	<ul> <li>Funded by the Government of Uganda and Development Partners</li> </ul>					
	– Quantification, budgeting and reporting is under the control of Ministry of Health programs					
	- The programs include Uganda National Expanded Program on Immunisation (UNEPI),					
	AIDS Control Program, National Malaria Control Program, TB / Leprosy Control Program,					
	Reproductive Health Program and Neglected Tropical Diseases					

#### GLOSSARY

#### **EXECUTIVE SUMMARY**

This report provides feedback on the FY2017/18 national quantification, an annual exercise conducted by NMS together with MoH and all government Health Facilities (HFs) and aimed to inform accurate planning for the supply of EMHLS in the public sector.

The NMS Act Cap 207 states that the Corporation shall advise the Ministry of Health, Ministry of Finance, Planning and Economic Development, Ministry of Local Government and National Drug Authority 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. The overall objective of this report is therefore to document lessons learnt and advise the government of Uganda on the actual drug needs in the public health sector in line with the NMS mandate.

This report provides a summary of the procurement planning processes for the FY2017/2018 and is divided into five main sections. The first section provides background to the procurement planning and Essential Medicines (EM) Kit revision exercise. The second section provides description of the methodology used. The third section provides key outputs and gap analysis of the Actual versus Current demand on credit line commodities as well as an analysis on the commodities in the central pool (non-credit line commodities). The fourth section provides overall commodity evaluation of all items (credit line and non-credit line) and the funding commitments.

The key conclusions of the FY2017/18 quantification exercise are as follows.

- a) Credit Line commodities have a forecasted need of UGX194.5bn. The confirmed GoU commitment stands at UGX 93.4bn (48%). The unfunded gap is UGX 101.1bn (52%).
- b) Non-credit Line (Program) commodities have a forecasted need of UGX 665.1bn. The confirmed GoU commitment stands at UGX 142.5bn. Confirmed Development partner commitment stands at UGX 225bn. The unfunded gap is about UGX 300bn (45%).

The main recommendations of the FY2017/18 quantification exercise are as follows.

- a) The overall value of unfunded demand for credit line essential medicines is estimated at 52%. The government needs to increase the allocations of each HC2 by 40%, HC3 by 41%, HCIV by 42%, GH by 25%, RRH by 49%, UCI by 47%, UHI by 42%, UBTS by 63%, Mulago NRH by 35% and Butabika NRH by 27% to fully meet the needs of the public health system at these levels.
- b) Government should prioritize increased financial commitment for non-credit line (program) commodities as there was observed unfunded gap of about 45% of the annual forecast.

#### 1.0 BACKGROUND

In June 2010, MOH re-introduced<sup>1</sup> the essential medicines and health supplies (EMHS) kit system. The aim was to address stock out challenges in lower level health facilities (HCIIs and HCIIIs). Since its introduction, the kit has undergone regular assessment and revisions. For example kit 1 was implemented from June to December 2010, kit 2 from January to June 2011, and kit 3 from July to December 2011. This was followed by the introduction of region-specific kits in January 2012. In FY2012/13 MOH made further revisions in the regional kit and came up with the current kit known as district specific kit. The MoH kit revision policy states that the kit is to be revised at least once a year with inputs from the following parties;

- Representatives from MoH
- Representatives from DHOs and HFs
- Representatives from Development partners
- Representatives from NMS
- Representatives from any other relevant body

Once the district kits are revised, deliveries to health facilities are made on a bi-monthly basis. Higher level facilities (HCIVs GHs, RRHs, NRIs and NRHs) develop their own procurement plans. The procurement plans developed are used on to health facility order forms and are used as a guide during order placement. Deliveries to HCIVs, GHs, and RRHs are made on a bi-monthly basis while deliveries to NRHs and NRI are made on a monthly basis. Procurement planning for higher level facilities and Kit revision are annual exercises done by higher level facilities and lower level facilities countrywide in line with the NMS Act Cap 207, with technical assistance from National Medical Stores (NMS) and under the supervision of Ministry of Health (MoH) with the objective of quantifying or determining facility pharmaceutical needs for the next financial year.

The outcomes of this exercise are to;

- Assist NMS execute her mandate of "to Procure, Stores & Distribute pharmaceutical needs to all Public Health Facilities in the Country",
- Advise MoH, MoFPED, MoLG and National Drug Authority (NDA) on essential issues relating to the estimation of drug needs, distribution and use of medicines in the public health sector.

<sup>&</sup>lt;sup>1</sup>In Uganda, the EMHS kits system had been in place since 1997, supported by DANIDA and the Uganda Essential Drugs Programme. The distribution of EMHS using the kit system continued until 2002 when a report showed that drug kits, with pre-determined content have advantages in emergencies and where health systems are in their infancy and not in a decentralised system seeking to build capacity and increase local responsiveness like in Uganda (DANIDA, 2001). The report therefore recommended that the kit system be phased out at that time (MOH, 2013).

#### 2.0 METHODOLOGY

#### 2.1 Approach

A data driven approach was used during the planning process to roll out the FY2017/2018 quantification exercise. With support from Clinton Health Access initiative (CHAI), a quantification model was developed and integrated within the existing planning template. CHAI also provided technical assistance to the Ministry of Health Pharmacy division and National Medical Stores in the coordination and dissemination of information among stakeholders. The planning process was guided by the following policy documents;

- Pharmaceutical Sector Strategic Plan (2015-2020),
- Uganda Clinical guidelines (UCG),
- Essential Medicines and Health Supplies List of Uganda (EMHSLU),
- Indicative planning figures (IPF) FY2017/18 from MoFPED
- NMS stock List (as at 31<sup>st</sup> –November 2016),
- DHIS2 OPD and IPD data,
- Health Facility Consumption data.

NMS in-house system, the Commodity Management Platform (CMP)<sup>2</sup> was also used to guide HF's on budget utilization. This platform provided benchmark levels against which budget adherence could be measured. This was essential to ensure that higher level procurement plans were not exceeding the allocated budgets.

Planning for financial year 2017/2018 commenced in December 2016, and was concluded in January 2017 save for a few cases under NRHs and NRIs.

#### 2.2 Available budget for the 2017-2018 procurement planning process

Budgetary allocation under vote 116 for public health facilities has remained the same in the last couple of years despite elevating some HFs from one level of care to another and/or creating new HFs. Table 1 below provides Indicative planning Figures (IPF) for government HFs for the FY2017/18. These figures were used to guide planning and also acted as a ceiling on the HF demand during planning although actual HF requirements are far higher than this allocation (see section 3.4 for more details).

<sup>&</sup>lt;sup>2</sup> A system co-developed with Clinton Health Access Initiative

Level of care <sup>3</sup>	Number as at 01-Jul-2016	Total budget allocation FY2017/18 (UGX)
HC2	1,757	11,163,237,000
HC3	955	18,360,000,000
HC4	180	7,992,000,000
GH	47	14,456,000,000
RRH	15	13,024,000,000
UCI	1	6,999,999,000
UHI	1	1,181,400,000
UBTS	1	7,888,909,000
Mulago NRH	1	11,366,157,000
Butabika NRH	1	999,443,000

#### Table 1: Health Facility budgetary allocation for the FY2017/2018.

#### 2.3 Preparatory Phase

i. <u>Preparation of the procurement planning templates:</u> NMS prepared templates for HCIVs, GHs, RRHs, NRH, and NRI ensured all Essential Medicines and health supplies were aligned with the Uganda Clinical Guidelines (2015) and Essential Medicines and Health Supplies list of Uganda (2012).

ii. <u>Classification of Items on the Planning templates:</u> A select group of items specifically among higher-level facilities, were assigned an additional category called Extra Vital (XV) to emphasize prioritisation of these commodities.

iii. <u>Review of previous procurement plans and EM kit reports:</u> One of the key recommendations from the earlier kit process reports was utilisation of facility morbidity data to inform decision-making and bridge the gap between demand and supply for key products.

iv. <u>Review of HMIS and Stock Data</u>: Review of caseload and consumption data from various sources including;
 DHIS2, NMS Issues Data, Client Service Visit reports, MOH stock status reports and MOH SPARS reports.

v. <u>Process Harmonization with Stakeholders:</u> MOH Pharmacy Division, District Health Officials were consulted to agree on a data driven approach.

vi. <u>Training:</u> All NMS staff participating in the exercise received refresher training on the new components of the procurement plan and EM kit template during a half-day workshop at NMS.

<sup>&</sup>lt;sup>3</sup> NRH & NRI have different planning arrangements

#### 2.4 Implementation

Through the nine NMS regional offices, the planning processes were conducted in 116 districts across the country with at least two days spent in each district.

#### 2.4.1 District Basic Kits for HCIIs and HCIIIs

The implementation team consisted of the NMS Sales and Marketing department (officers from head office and regional sales officers), health facility in-charges and the DHO who chaired the districts meetings. The District and facility meetings were conducted as below:

- i. <u>Introductory meeting with the DHO and Heads of facility:</u> Each district kit revision and procurement planning process began with an introductory meeting with the DHO who provided an overview of the MOH policies, modifications to the kit and any other updates related to procurement plans.
- ii. <u>Overview of Quantification Kit Template:</u> The NMS technical representative then went through the Kit with each health facility representative having a copy and a decision was made to either, increase, decrease or maintain the quantities against each commodity. In-charges were encouraged to consider recommendations built within the template based on caseload data estimations. In-charges had the final say on the volume of each commodity that was planned for despite the provision of minimum recommendations.
- iii. <u>Quantity Adjustment to Budget:</u> During both planning processes, NMS technical representative verified whether the overall volume of the plan of kit was within the budget allocation. If this wasn't the case, facilities had to review the kit again to make the necessary adjustments until the budgets matched allocations.
- iv. Kit Sign Off: The procurement plan and EM kit were considered complete if;
  - All items in the kit had been planned for;
  - The overall budget remained within the recommended allocation;
  - All heads of facilities were in agreement with the allocations and had officially signed off on orders.
- v. <u>Health facility self-reported need</u>: In addition to completing the planning templates, in-charges were asked to prepare a separate plan indicating their actual facility needs. This was aggregated at a national level to determine the demand in the absence of budget limitations.

#### 2.4.2 Higher Level Procurement Planning

During procurement planning sessions among higher level facilities (HCIVs & GHs), each NMS regional team would have separate meetings at each HCIV or GHs with key staff. Facilities were provided retrospective budget utilisation analyses to guide budgeting. The procurement plan was considered complete if;

- All items in planning templates had been planned for.
- The overall budget remained within the recommended allocation.
- All heads of facilities were in agreement with the allocations and had officially signed off on orders.
- Finally, the plan was signed off by both the pharmacist/dispenser and endorsed by the In-charge/Medical Superintendent/Hospital Director

At the Regional and the National referral level, the FY2017/18 procurement planning templates were sent to the respective pharmacists. Revisions were led by the pharmacists through commodity/therapeutic management committees. A 10-20% deviation of procurement plans against allocations per commodity was permitted.

At each level of care, planning was completed with submission of both soft copy and signed off hard copy to NMS representative. All HFs were left with at least one signed off hard copy for filing.

#### 2.5 Key Outputs of the Planning Process

#### 2.5.1 Essential Medicines Kit

#### Variation in the kit

Overall, kit volumes for the FY2017/2018 were slightly different from the ones in the FY2016/17 with the following items registering major changes:

- Co-trimoxazole 120mg tablets, kit volumes were reduced by over 50%
- Co-Packaged ORS and Zinc tablets, Kit volumes reduced by 20%
- Misoprostol 200mcg tablets, kit volumes were increased by 55%
- Safe Delivery (Maternity) Kit, kit volumes were increased by 27%
- Artesunate injections; kit volumes were increased by 27%

Product Description	Pack Size	FY2016/	17 Kit Volu units)	me (No. of	FY2017	/18 Kit Volu units)	Variance (%)			
	Size	HClls	нсш	Total	нсіі	нсш	Total	нсіі	HCIII	Overall
Amoxicillin 250mg Capsule	1000	58,962	74,364	133,326	67,566	81,696	149,262	14.59	9.86	11.95
AmoxicillinDispersableTablets 250Mg	100	42,960	66,648	109,608	49,338	55,950	105,288	14.85	-16.05	-3.94
Cotrimoxazole 120mg Tablets	1000	48384	45,753	94,137	21,673	25,080	46,753	-55.2	-45.18	-50.3
Cotrimoxazole 480mg Tablet	1000	52,302	49,872	102,174	55,974	54,828	110,802	7.02	9.94	8.44
Tetracycline 1% Eye Ointment 3.5G Tube	1	265,512	285,054	550,566	269,250	300,996	570,246	1.41	5.59	3.57
Artemether 20mg+Lumefantrine 120mg (Strip of 24 Tabs)	30	277,812	255,534	533,346	296,838	275,310	572,148	6.85	7.74	7.28
Artemether 20mg+Lumefantrine 120mg (Strip of 6 Tabs)	30	102,822	139,764	242,586	114,714	121,782	236,496	11.57	-12.87	-2.51
Artesunate Injection 60mg Vial	1		1,648,410	1,648,410	4,497	1,984,752	1,989,249		20.4	20.68
Artesunate Suppositories 50mg	6	11,162	7,488	18,650	10,259	6,879	17,138	-8.09	-8.13	-8.11
Co-Packaged ORS and Zinc Tablets	1	489,000	454,014	943,014	392,736	360,540	753,276	-19.7	-20.59	-20.1
Misoprostol 200mcg Tablets	100	2,414	5,082	7,496	5,512	6,105	11,617	128.3	20.14	54.98
Oxytocin 10IU/1MI Injection	100		4,772	4,772	-	4,706	4,706		-1.37	-1.37
Malaria Rapid Test Kits 25 Tests	25	402,414	376,764		479,586	439,878	919,464	19.18	16.75	18
Safe Delivery (Maternity) Kit	1		493,242	493,242		626,664	626,664		27.05	27.05

#### Table 2: Variation in kit volumes based on previous financial year quantifications

#### Budget allocation by commodity

Table 3 below shows 22 commodities which had the biggest percentage share of EM Kit in the FY2017/18. Amoxicillin 250mg capsules had the most significantly higher proportion of the HC3 and HC2 (combined) budget with 17%. This was one (1) percentage point higher than that in the FY2016/17. Others include; Cotrimoxazole 480mg tablet (9%), and Paracetamol 500mg tablets (6%).

Description	Unit	Therapeutic Use	Fy2016/17 Kit Value (%)	Fy2017/18 Kit Value (%)	
Amoxicillin 250mg Capsule	1000	Antibiotic	15.96	17.01	
Cotrimoxazole 480mg Tablet	1000	Antibiotic	7.36	8.80	
Paracetamol 500mg Tablets	1000	Analgesic	5.58	6.23	
Co-Packaged ORS and Zinc Tablets	1	Rehydration	4.59	3.83	
Gloves Surgeon 7 1/2 Sterile Pairs	50	Sundries	3.00	3.44	
Ciprofloxacin 500mg Tablet	100	Antibiotic	2.82	3.16	
Metronidazole 200mg Tablet	1000	Antibiotic	2.48	3.06	
Gloves Examination Latex, Medium Non-Sterile	100	Sundries	3.53	2.58	
Dispensing Envelopes Plastic 75X110mm	500	Medical Records	2.08	2.55	
Gauze W.O.W Hydrophilic 90cm X 50m	1	Sundries	2.53	2.50	
Sodium Hypochlorite 6% 5L Bottle	1	Disinfectants		2.16	
Pyrimethamine 25mg+Sulfadoxine 500mg Tablet	1000	Antimalarial	1.57	2.09	
Amoxicillin Dispersable Tablets 250mg	100	Antibiotic	2.26	1.80	
Cotton Wool B.P. 500G	1	Sundries	1.07	1.75	
Tetracycline 1% Eye Ointment 3.5G Tube	1	Antibiotic	0.98	1.70	
Ferrous Sulphate/Fumarate 150-200 mg + Folic Acid 0.25 -0.4mg Tab	1000	Vitamins & Minerals	1.29	1.48	
Doxycycline 100mg Caps	100	Antibiotic	1.16	1.34	
Blades Scalpel Size 22	100	Sundries	0.27	1.28	
Magnesium Trisilicate Comp 250+120mg Tablet	1000	Antacid	0.95	1.26	
AD Syringes 5ml+ Needle Disp. Detached	100	Administration Set	1.17	1.25	
Liquid Soap Detergent for Hospital use, 20Ltr	1	Cleaning agents	1.50	1.12	
PGA G2/0 SI 75Cm,1/2 Circle, TF, 30mm	12	Sundries	0.32	1.02	

#### Table 3: Percentage share of selected Items on the EM Kit Budget Allocation

#### 2.5.2 Key output for Higher Level HFs

#### Variation in planned volumes

Table 4 below shows overall variations in the planned annual volumes from HCIVs, GH and RRH for 25 commodities (mainly MoH tracer items) and the following items registered major changes:

- Amoxicillin Dispersable Tablets 250mg, planned volume Increased by 147%
- Misoprostol 200mcg tablets, planned volume were increased by 65%
- Artesunate injection; planned volume were increased by 21%
- Medroxyprogesterone Acetate 150mg/mL W/Syringe, planned volume reduced by 79%
- Acetylsalicylic Acid 75mg tablet (Cardioaspirin), planned volume reduced by 56%
- Insulin Isophane Human 100iu/mL Inj SC, planned volume reduced by 31%
- Chlorhexidine Gluconate 4%W/V 500mL With Dispenser, planned volume reduced by 30%

#### Table 4: Overall variation in higher level planned annual volumes

Description	Unit		FY2016/17		FY2017/18 Overall					
								FY2016/17	FY2017/18	% Change
		HCIV	GH	RRH	HCIV	GH	RRH			
Amoxicillin Dispersable Tablets 250mg	100	9,822	2,844	-	15,699	9,144	6,420	12,666	31,263	146.83
Misoprostol 200mcg Tablets	100	1,346	1,004	1,614	3,956	1,566	1,026	3,964	6,548	65.18
Artesunate Injection 60mg Vial	1	1,536,214	1,065,852	486,600	1,792,008	1,345,800	597,600	3,088,666	3,735,408	20.94
Pyrimethamine 25Mg+Sulfadoxine 500mg Tablet	1000	986	479	210	1,177	546	216	1,674	1,939	15.80
Artemether 20mg+Lumefantrine 120mg (Strip Of 18 Tabs)	30	41,970	18,975	16,200	49,446	18,768	19,008	77,145	87,222	13.06
Safe Delivery (Maternity) Kit	1	239,000	141,864	100,398	272,706	154,218	108,780	481,262	535,704	11.31
Artemether 20mg+Lumefantrine 120mg (Strip Of 24 Tabs)	30	119,396	48,313	56,700	132,186	52,950	57,312	224,409	242,448	8.04
Bendrofluazide 5mg Tablet	1000	1,291	951	804	1,394	996	870	3,046	3,260	7.00
Ceftriaxone Sodium 1G Powder For Inj.Vial	1	311,776	516,750	754,800	367,950	586,626	715,200	1,583,326	1,669,776	5.46
Insulin Mixtard Human 100IU/MI	1	9,027	15,178	25,800	9,213	16,644	26,760	50,005	52,617	5.22

Metformin HCL 500mg Tablet	100	22,442	23,460	31,620	23,366	25,416	30,540	77,522	79,322	2.32
Cotrimoxazole 480mg Tablet	1000	14,340	7,308	4,638	15,633	7,596	2,970	26,286	26,199	- 0.33
Amoxicillin 250mg Capsule	1000	28,684	23,280	15,432	28,689	21,900	15,960	67,396	66,549	-1.26
Artemether 20mg+Lumefantrine 120mg (Strip Of 6 Tabs)	30	42,498	17,242	17,172	46,536	19,830	8,280	76,912	74,646	-2.95
Artemether 20mg+Lumefantrine 120mg (Strip Of 12 Tabs)	30	43,014	17,454	15,822	47,988	18,234	6,936	76,290	73,158	-4.11
Oxytocin 10IU/1MI Injection	100	2,387	1,707	2,376	2,375	1,698	2,034	6,470	6,107	-5.62
Captopril 25 mg Tablets	100	-	6,013	10,950	-	5,538	10,278	16,963	15,816	-6.76
Co-Packaged ORS and Zinc Tablets	1	92,502	63,756	28,596	80,328	62,586	28,080	184,854	170,994	-7.50
Glibenclamide 5mg Tablet	100	16,886	15,690	13,104	15,260	14,220	10,224	45,680	39,704	-13.08
Propranolol 40mg Tablet	1000	1,214	629	162	1,054	609	76	2,006	1,738	-13.33
Insulin Soluble, Neutral, Human 100IU/MI Inj Sc	1	3,413	8,482	4,290	3,339	7,368	3,210	16,185	13,917	-14.01
Chlorhexidine Gluconate 4%W/V 500MI With Dispenser	1	5,426	9,420	9,714	-	9,198	8,100	24,560	17,298	-29.57
Insulin Isophane Human 100lu/MI Inj SC	1	1,556	3,418	6,630	1,473	3,360	3,150	11,604	7,983	-31.20
Acetylsalicylic Acid 75mg SR OR Tablet (Cardioaspirin)	140	1,716	1,994	3,882	1,484	1,857	-	7,592	3,341	-56.00
Medroxyprogesterone Acetate 150mg/MI W/Syringe	200	9,130	2,543	308	-	2,418	80	11,981	2,498	-79.15

#### 2.6 Variations in the Percentage Share of XV and Non-XV Commodities

Table 5 below shows that overall, the annual forecast for XV items increased from 96.3% in the FY2016/17 to 97.1% in the FY2017/18 indicating a reduction in the quantification of Non-XV items to accommodate more XV items (See MoH<sup>4</sup>, 2016).

Level of Care	FY	(16/17 Quantification		FY17/18 Quantification			
	XV	NON-XV (%)	XV	NON-XV (%)			
RRH	93.6	6.4	95.8	4.2			
GH	92.2	7.8	93.5	6.5			
HCIV	93.4	6.6	94.5	5.5			
HCIII	99.8	0.2	100.0	0.0			
HCII	99.9	0.1	100.0	0.0			
Total	96.3	3.7	97.1	2.9			

Table 5: Percentage Share of XV and Non-XV Commodities

#### 2.7 Demand Driven Planning (Desired Situation)

#### 2.7.1 Credit line commodities

The National Pharmaceutical Sector Strategic Plan III (2015-2020) indicates the need for adequate financing for essential medicines for the people of Uganda. However, due to budgetary constraints, health facilities are currently unable to effectively quantify credit line commodities (commodities funded solely by the government of Uganda) according to actual need.

In order to address this, NMS conducted an additional exercise during the planning process where facilities provided their 'wish lists' i.e., quantified as though budget was not a barrier. This was analysed against the current budget allocation to determine the unfunded proportion of demand. Although there were slight changes in the unfunded gap by level of care with NRI ([especially UBTS (62.91%]) having the largest gap per cycle, the overall value of unfunded demand for essential medicines remained the same at **52**% (same as estimated in the FY2016/17).

<sup>&</sup>lt;sup>4</sup> Simplified Guidelines for Health Managers on Management of Essential Medicines and Health Supplies (Specifically, on VEN quantification procedure)

Level of care	Number of	Total budget	Actual Demand	% gap	Desired allocation	Required* increment in
	HFs	allocation	(UGX) (desired	(unfunded	per cycle per level	budget allocation per
		FY2016/17 (UGX)	Allocation)	demand )	of care	cycle by level of care (%)
HC2	1,759	11,163,237,000	24,652,249,075	54.72	2,335,820	40.06
HC3	964	18,360,000,000	39,233,107,035	53.20	6,783,041	41.03
HC4	181	7,992,000,000	22,442,887,720	64.39	20,665,642	41.93
GH	47	14,456,000,000	22,825,760,899	36.67	80,942,415	25.26
RRH	15	13,024,000,000	30,043,007,748	56.65	333,811,197	49.37
UCI	1	6,999,999,000	13,191,965,186	46.94	2,198,660,864	46.94
UHI	1	1,181,400,000	2,042,128,843	42.15	340,354,807	42.15
UBTS	1	7,888,909,000	21,270,187,156	62.91	3,545,031,193	62.91
Mulago NRH	1	11,366,157,000	17,444,659,850	34.84	2,907,443,308	34.84
Butabika NRH	1	999,443,000	1,369,156,380	27.00	228,192,730	27.00
Overall		93,431,145,000	194,515,109,892	52.00	-	-

 Table 6: Allocation of funding by level of care and % of demand unfunded.

\*Required increment is computed using the desired allocation and expected allocation per cycle

Based on the current government allocations, health facilities are only able to fulfil only 48% of the actual demand for essential medicines. In order to achieve 100%, government would need to increase the cycle allocation of each HC2 by 40%, HC3 by 41%, HCIV by 42%, GH by 25%, RRH by 49%, UCI by 47%, UHI by 42%, UBTS by 63%, Mulago NRH by 35% and Butabika NRH by 27%.

#### 2.7.2 Non-credit line (Program) commodities

GoU has been supported over the years by Development Partners through commitments on selected group of items excluded from the credit line budget of essential medicines. A breakdown of this partner support by commodity category is summarised in the table 7 below. As was noted in the FY2016/17 quantification, Artesunate injection (82%), mRDTs (52%), and ACTs (39%) have the highest Development Partner commitment as a proportion of the annual forecast for the public sector. Laboratory commodities had 52% unfunded gap. Government commitment on Non-credit line commodities stood at 21% while Development Partner commitment slightly reduced to 34% [43% in FY2016/17].

Overall forecast for items in the central pool was UGX665bn with an unfunded gap of about 45%.

Commodities in a	Annual Forecast	Annual GoU**	GoU	Annual Partner	Partner	<u>%</u>
central pool	(Public sector)	Commitment (UGX)	commitment	5 Commitment	commitme	<u>Gap</u>
	(UGX)		(%)	(UGX)	nt (%)	
Laboratory <sup>6</sup>	117,221,662,858	5,000,000,000	4.3	53,423,385,053	45.6	51.6
ACTs	77,542,703,537	5,108,625,000	6.6	30,301,102,341	39.1	54.3
Artesunate Injection Vials	29,314,647,872	-	-	24,088,623,866	82.2	17.8
mRDTs	22,653,475,844	-	-	11,759,694,285	51.9	48.1
ARVs	298,279,843,983	94,891,375,000	31.8	103,795,082,177	34.8	33.4
Reproductive Health	93,743,889,702	8,000,000,000	8.5	-	-	91.5
Anti-TB (FLD)7	1,761,011,949	10,000,000,000	100	1,670,961,485	94.9	-
Anti-TB (SLD) <sup>8</sup>	-	-	-	-	-	-
Immunisation	16,032,087,706	9,000,000,000	56.1	-	-	43.9
Hepatitis B	8,622,212,390	8,000,000,000	100	-	-	-
Vaccines						
Emergency supplies	-	2,500,000,000	-	-	-	-
Overall <sup>9</sup>	665,171,535,841	142,500,000,000	21.4	225,038,849,207	33.8	44.7

Table 7: Funding commitments for Non Credit Line (Program) commodities for FY2017/18

\*\*GoU commitment is from the FY2017/18 vote 116 (NMS)

<sup>&</sup>lt;sup>5</sup> Commitments from GoU and Development Partners are as at March 2017 (except Global Fund commitment on laboratory requirements).

<sup>&</sup>lt;sup>6</sup> We cannot at this time confirm the exact figure and split for the supply of commodities from Global Fund. The exact amounts shall be readily available within

FY2017/18. The Laboratory (HIV and other requirements) figures quoted herein are forecasts and commitment (Global Fund) for calendar year 2018 but used as proxy for FY2017/18.

<sup>&</sup>lt;sup>7</sup> The forecast for Anti-TB medicines has reduced significantly FY2017/18 due to plenty of pipeline stock.

<sup>&</sup>lt;sup>8</sup> There was no gap for this category –Funding is 100% through partner commitment (Global Fund).

<sup>&</sup>lt;sup>9</sup> A conversion rate of 1 USD to UGX 3593.36 was used to convert all values quoted in USD (Source: BoU 01-03-2017).

All quantifications quoted in calendar years in the source documents were converted to financial reporting system (except Lab items).

#### 2.8 FY2017-18 Overall Commodity Evaluation

There is observed/anticipated decline in the value of partner support with about 34% (in relation to need) commitment expected in the FY2017/18 (see table 7 above). Based on the aforementioned annual forecasts and assuming a complete absence of partner support, the estimated financial year requirement from the government of Uganda is UGX824bn. Currently, the overall GoU commitment for these items stands at around UGX142bn. The risk is hiked by items such as Laboratory commodities, Artesunate Injection Vials, mRDTs, ACTS and RH were GoU has almost 100% non-commitment.

Commodity category	FY2016/17	FY2017/18	FY2016/17	FY2017/18
	Annual forecast	Annual forecast	% Not funded by	% Not funded
	(UGX)	(UGX)	GOU	by GOU
Essential Medicines	191,568,068,565	194,515,109,892	52	52
Laboratory (HIV test kits and other requirements)	112,262,460,516	90,813,251,687	96	96
ACTs	71,617,957,179	77,542,703,537	93	93
Artesunate Injection Vials	34,800,747,664	29,314,647,872	100	100
mRDTs	34,692,248,710	22,653,475,844	100	100
ARVs	413,711,495,290	298,279,843,983	77	68
Reproductive Health	84,329,038,698	93,743,889,702	90	91
Anti-TB	33,948,221,011	1,761,011,949	70	0
Immunisation	13,868,772,348	16,032,087,706	35	44
Overall	1,017,207,421,152	824,656,022,172	77%	72%

#### Table 8: Percentage of annual forecast (FY2017/2018) currently not funded by the GoU

#### 3.0 RECOMMENDATIONS AND CONCLUSIONS

This report is intended to provide GoU the national requirements of EMHLS for the public sector.

#### 3.1 Conclusions

Credit Line commodities:

- Public need (forecast) stands at UGX 194,515,109,892 billion
- GoU commitment (FY2017/18 vote 116) stands at UGX 93,431,145,000 billion (48%)
- FY2017/18 gap is 52%

Non-Credit Line commodities:

- Public need (forecast) stands at UGX 665,171,535,841 billion
- GoU commitment (FY2017/18 vote 116) stands at UGX 142,500,000,000 billion (21%)
- Development partner commitment stands at UGX 225,038,849,207 billion (34%)
- FY2017/18 gap is 45%

#### 3.2 Recommendations

- a. The overall value of unfunded demand for credit line essential medicines was estimated at 52%. The government needs to increase the allocations of each HC2 by 40%, HC3 by 41%, HCIV by 42%, GH by 25%, RRH by 49%, UCI by 47%, UHI by 42%, UBTS by 63%, Mulago NRH by 35% and Butabika NRH by 27% to fully meet the needs of the public health system at these levels.
- **b.** Government should prioritize increased financial commitment for non-credit line commodities as there was observed unfunded gap of about 45% of the annual forecast.
- c. The MoH should increase capacity building on irrational drug use in health facilities
- **d.** Health facilities should regularly and correctly generate and update consumption information to ensure accurate planning. This can be achieved through the use of computer systems.
- e. Facilities should track budget utilization throughout the financial year to inform future planning and allocations.

#### 4.0 ANNEXES

#### A. Introduction Letter for NMS staff to the Chief Administrative officer

Telephone: General Line:

Permanent Secretary's Office: Fax: 340874/231563/9 256 -41 - 340872 256 -41 - 231584

IN ANY CORRESPONDANCE ON THIS SUBJECT PLEASE QUOTE

No. ADM. 45/273/01



Ministry of Health P.O. Box 7272 Kampala Uganda

15th November, 2016

The Chief Administrative Officer,

..... District

#### RE: PROCUREMENT PLANNING FY 2017/2018

This is to introduce to you a team from MOH/NMS/CHAI who are in your district to guide government health facilities in preparing procurement plans for Essential Medicines, Medical sundries and Laboratory supplies (EMHS) for FY 2017/18. This will include revision of Basic Kits for your HCII and HCIII facilities and procurement plans for HCIVs and GHs.

This planning is being conducted for all Government Health Facilities in Uganda targeting facility Accounting Officers. The feedback will be essential in guiding procurement and distribution of EMHS to all government health facilities in FY 2017/18.

The bearer of this letter is a staff of **MOH/NMS** and you are kindly requested to provide him/her all the necessary assistance that he/she requires.

Looking forward for your co-operation.

Yours faithfully,

Prof. Anthony K. Mbonye Ag. Director General Health Services

c.c. General Manager, NMS

- " Resident District Commissioner
- " Chairman L.C.V
- " District Health Officer
- " Secretary for Health

B. MOH letter to districts on leveraging data to inform decision making during EM kit

planning

TELEPHONE: General office 340874/231563/9 PS office: 340872 TELEFAX: 231584 TELEX: 61372 HEALTH UGA.



In ANY CORRESPONDENCE ON THIS SUBJECT PLEASE QUOTE NO. ADM.45/273/01 MINISTRY OF HEALTH P.O. Box 7272 KAMPALA, UGANDA

7<sup>th</sup> December 2015

To the District Health Officer

#### RE: LEVERAGING DATA TO INFORM THE ESSENTIAL MEDICINES KIT REVISION 2016-2017 FY KIT PROCESS

Annually, the Ministry of Health and National Medical Stores support districts to conduct the Essential Medicines Kit revision process for lower level facilities (HC IIs and HC IIIs). The process involves quantification of a list of medicines against which NMS makes deliveries per cycle for the subsequent financial year. The main challenge however, has been the criteria for determining appropriate quantities for the district level kit.

In an effort to address this, the Ministry of Health in collaboration with National Medical Stores and Clinton Health Access Initiative will be applying a data driven approach in planning for the 2016-2017 FY kit.

The process will involve utilisation of data extracted from DHIS2 as well as additional reports on consumption and availability trends at health facility level. This data will be used to guide health workers on the right quantities to plan per commodity

The purpose of this letter therefore, is to request for your support in implementing this approach to ensure rational quantification of commodities.

Yours sincerely.

Dr. Aceng Jane Ruth.

Director General Health Sevices

C.C: Director General Health Services Director Health Services (Community and Clinical) Assistant Commissioner Child health Division Ag Commissioner Health Services (Pharmacy) General Manager, National Medical Stores

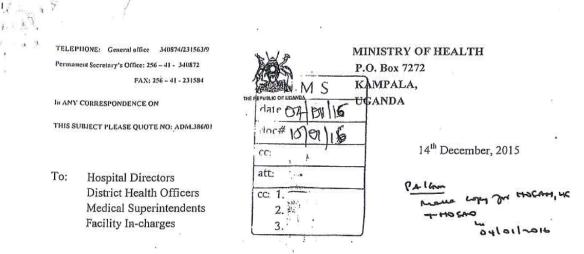
### $C. \quad \text{Sample extract of final EM kit template}$

Select I	District	TORORO							HC IIs Spend	Tracking		H	IC IIIs Spend Tra	cking	
HC II Bu	ıdget	UGX 1,400,000							v	E	N		v	E	N
HC III B	udget	UGX 4,000,000					Spend in UGX	UGX 0	UGX 0	UGX 0	Spend in UGX	UGX 0	UGX 0	UGX 0	
							A	s a % of Budget	0%	0%	0%	As a % of Budget	0%	0%	0%
							Bu	dget Remaining	UC	GX 1,400,00	0	Budget Remaining	UG	X 4,000,00	0
	TORORO LEVEL II & LEVEL III KIT REVIEW FOR THE PERIOD JULY 20		.Y 2017 - JUNE :	2018			OLD FY16/17 QTY (Adjusted for new unit size)	FY 17/18 RECOMM QTY	NEW FY17/18 QTY	NEW DISTRICT COST	OLD FY16/17 QTY (Adjusted for new unit size)	FY 17/18 RECOMM QTY	NEW FY17/18 QTY	NEW DISTRICT COST	
F S.No	CODE	DESCRIPTION	UNIT	HERAPEUTIC U	PRICE	LOC	VEN								
1	220320	IBUPROFEN 200MG TABLET	1000	ANALGESIC	13,301	HC3	E					2			0
2	220178	PARACETAMOL 125MG SUPPOSITORIES	5	ANALGESIC	4,897	HC2	E	0			0	0			0
۱ 3	220460	PARACETAMOL 500MG TABLETS	1000	ANALGESIC	12,420	HC2	E	8	8		0	15	24		0
4	220034	AMOXICILLIN 250MG CAPSULE	1000	ANTIBIOTIC	43,200	HC2	V	6	7		0	15	17		0
5	220070	AMOXICILLIN DISPERSABLE TABLETS 250MG	100	ANTIBIOTIC	6,480	HC2	V	0			0	0			0
6	215025	AMPICILLIN 500MG POWDER FOR RECONSTITUTION IV/IM	100	ANTIBIOTIC	40,860	HC3	V					0			0
7	215055	CHLORAMPHENICOL SODIUM SUCCINATE 1G INJECTION	50	ANTIBIOTIC	56,900	HC3	V					0.5			0
۱ 8	220162	CIPROFLOXACIN 500MG TABLET	100	ANTIBIOTIC	9,358	HC2	V	5	6		0	15	12		0
9	220189	COTRIMOXAZOLE 120MG TABLETS	1000	ANTIBIOTIC	0	HC2	V	1			0	0.5			0
10	220185	COTRIMOXAZOLE 480MG TABLET	1000	ANTIBIOTIC	30,102	HC2	V	5	7		0	7	11		0
11	220222	DOXYCYCLINE 100MG CAPS	100	ANTIBIOTIC	4,428	HC2	V	7			0	15			0
12	215205	GENTAMYCIN 80MG/2ML INJ IV/IM	100	ANTIBIOTIC	13,304	HC3	V					1			0
13	220415	METRONIDAZOLE 200MG TABLET	1000	ANTIBIOTIC	12,402	HC2	V	5	6		0	10	8		0
14	215440	PENICILLIN, PROCAINE 3MU+ BENZYL 1MU AMPOULE	10	ANTIBIOTIC	7,814	HC3	V					1			0
15	202064	TETRACYCLINE 1% EYE OINTMENT 3.5G TUBE	1	ANTIBIOTIC	1,128	HC2	V	8			0	50			0
16	215035	PENICILLIN, BENZATHINE BENZYL 2.4MU/1.44G AMPOULE	10	ANTIBIOTIC	7,554	HC3	E					1			0
17	215045	PENICILLIN. BENZYL 1MU/600MG INJ (PFR) IM	10	ANTIBIOTIC	2,318	HC3	E					10			0
18	202021	CHLORAMPHENICOL 0.5% EYE DROPS 10ML	1	ANTIBIOTIC	432	HC2	N	10			0	20			0
19	215334	MAGNESIUM SULPHATE 50% 5ML INJ	1	ANTIDOTE	5,781	HC3						1			0

D. Communication from MOH to Districts on Policy change for pneumonia management with Amoxycillin 250mg Dispersable Tablet

Telephone: General Lines: 340874/231563/9 Ministry of Health Permanent Secretary's Office: 256 - 41 - 340872 Fax:256 - 41 - 231584 P.O. Box 7272 Kampala Uganda June 18th, 2015 District Health officers Health Facility In charges **Private Practitioners** Dear Sir/Madam Re: POLICY GUIDANCE ON THE CHANGES IN THE MANAGEMENT OF NON SEVERE PNEUMONIA IN CHILDREN Childhood Pneumonia is the leading cause of death in children under 5 in Uganda. Oral Amoxicillin is the first line for the management of non-severe pneumonia in children. Recently WHO has revised the treatment guidelines for non-severe pneumonia among children. Guided by this recommendation by WHO, Ministry of Health would like to inform all health workers managing children with non-severe pneumonia about this new guidelines. The Uganda Standard Clinical Guidelines and Essential Medicines&Health Supplies List will reflect this update subsequently. Meanwhile, Ministry of Health is working with NMS and NDA to Introduce Amoxicillin 250mg strength/dispersible formulation on the market. Please find attached the revised guidelines on treatment, dosage and formulation of Amoxiciliin for childhood pneumonia. Looking forward to your usual cooperation. Stonghitt Dr. Aceng Jane Ruth **Director General Health Services** Cc: Director Health Services (Clinical and Community) : Commissioner Health Services (Clinical services) : Assistant Commissioner Health services - Child Health : Assistant Commissioner Health services - Pharmacy

#### E. Letter from Director General (DG) Health Services to HFs on XV list



# SUBJECT: EXTRA VITAL (XV) LIST OF ESSENTIAL MEDICINES AND HEALTH SUPPLIES

I am pleased to note that the list of Extra Vital essential medicines and health supplies here with attached was developed after extensive consultation.

National medical stores will now prioritize the procurement of these commodities and therefore, future orders from the facility should be informed by this list.

By copy of this letter, National Medical Stores is requested to ensure the availability of this Extra Vital list to all health facilities in a timely manner.

The purpose of this circular is direct that you use this list for all your future orders.

Dr. Aceng Jane Ruth DIRECTOR GENERAL HEALTH SERVICES

CC.

- Permanent Secretary, MOH
- Director Health services (Community and Clinical services)
- Director Planning and Development
- Commissioner Clinical services
- Ag Assistant Commissioner Pharmacy
- General Manager, National Medical Stores

#### F. List of 41 Tracer Commodities

SN	Description	UNIT-PACK	VEN	LOC
	Recommended first line ACT(Artemether/Lumefantrine	Tablet	V	HC2
1	100/200mg)			
2	Cotrimoxazole 480mg	Tablet	V	HC2
3	Therapeutic milk F75(75Kcal/100ml)	Packet	V	HOSPITAL
4	Therapeutic milk F100(100Kcal/100ml)	Packet	E	HOSPITAL
5	Ready to use Therapeutic feeds(RUTF)	Paste	Ν	HC1
6	Cotrimoxazole 960mg tablet	Pack of 1000	E	HC3
7	Chlorhexidine 20%	Litres	V	HC2
8	Bendrofulazide(Aprinox) 5mg	Tablet	E	HC3
9	Propranolol 40mg	Tablet	V	HC4
10	Nifedipine tablets 20mg	Tablet	V	HC3
11	Captopril 25mg	Tablet	E	HOSPITAL
12	Metformin 500mg	Tablet	V	HC4
13	Glibenclamide 5mg	Tablet	V	HC4
14	Insulin short acting	Vial	V	HC4
15	Cardic Aspirin 75/80mg	Tablet	V	HC4
	Tenofovir/Lamivudine/Efavirenz(TDF/3TC/EFV)	Packof 60	V	HC3
16	300mg/300mg/600mg			
17	Zidovudine/Lamivudine/Nevirapine(AZT/3TC/NVP)	Packof 60	V	HC3
18	Zidovudine/Lamivudine(AZT/3TC)300mg/150mg	Packof 60	V	HC3
19	Tenofovir/Lamivudine(TDF/3TC) 300mg/300mg	Packof 60	V	HC3
20	Nevirapine(NVP) 200mg	Packof 60	V	HC3
21	Efavirenz(EFV) 600mg	Packof 60	V	HC3
22	Abacavir/Lamivudine(ABC/3TC)60mg/30mg(peadiatric)	Packof 60	V	HC3
23	Nevirapine(NVP) 50mg	Packof 60	V	HC3
24	(RHZE) blister strip 150/75/400/275mg		V	
25	RH blister strip 150/75mg		V	
26	Determine HIV Screening test	Pack	V	HC2

27	Stat-pack HIV Comfirmatory rapid tests, tests	Pack	V	HC2
28	Unigold HIV RDT Tie-breaker test	Pack	V	HC2
29	CD4 reagent specify		V	HC4
30	Malaria Rapid Diagnostic tests	Tests	V	HC2
31	ZN Reagent for AFB		V	HC3
32	Blood 450ml	Millilitres	V	HC4
33	Depo-Provera	Ampoule	V	HC2
34	Sulfadoxine/Pyrimethamine	Tablet	V	HC2
35	ORS Sachets with zinc tablet	Sachet	V	HC2
36	Measles Vaccine	Sachet	V	HC2
37	Misoprostol 200mcg Tablet	Tablet	V	HC2
38	Amoxicillin dispersible 125mg tablet(For children)	30 Tablets	V	HC2
39	Ceftriaxone 1g injection	Vial	V	HC2
40	Oxytocin Injection	Ampoule	V	HC2
41	Mama kit	Kit	V	HC2

	Bimonthly Value			F	FY17-18 Quatification			Comparision	
LoC	XV	NON XV	Monthly Total	XV	NON XV	<b>Overall Annual Tota</b>	FY2016-17 Alloca	Difference	
Mulago NRH			1,166,350,005			13,996,200,060			
Butabika NRH			102,820,208			1,233,842,496			
Burns Unit (Mulago)			41,171,450			494,057,400			
			<b>Bimonthly Total</b>						
RRH	2,685,576,840	118,428,644	2,804,005,484	16,113,461,037.26	710,571,865.32	16,824,032,902.58	17,194,917,690	- 370,884,787	
GH	2,488,061,767	172,970,223	2,661,031,990	14,928,370,601	1,037,821,339	15,966,191,940	15,453,913,000	512,278,940	
HCIV	1,751,608,134	101,464,386	1,853,072,519	10,509,648,803	608,786,313	11,118,435,116	11,930,795,709	- 812,360,593	
HCIII	3,798,614,915		3,798,614,915	22,791,689,490	-	22,791,689,490	24,148,971,331	- 1,357,281,841	
HCII	2,518,354,025		2,518,354,025	15,110,124,150	-	15,110,124,150	15,607,489,948	- 497,365,798	
Total				79,453,294,080	2,357,179,518	81,810,473,598	84,336,087,678	- 2,525,614,080	

#### G. Overall value of commodities planned for the FY2017/18 (excluding& NRIs)

**Notes** 

✓ The totals 81,810,473,598 and 84,336,087,678 for the FY2017-18 and FY2016/17 respectively, are for RRHs and below

- ✓ NRHs quantification is monthly
- ✓ RRHs and other lower Level HFs quantification is bimonthly
- ✓ This aggregated plan does not include National Referral Institutes due to delayed submissions
- ✓ Quantification for Mulago is for the FY2016/17 due to delayed submission of the FY2017/18 plan
- ✓ Plan for FY2017/18 is below that of FY2016/17 as for this FY2017/18, HFs were not allowed to go beyond allocated planning Figures

Description/DHIS2	Description	Indicator	Comments	Source
AMOXICILLIN 250MG	% of OPD	-100% of Pneumonia and SARI		DHIS2 FY2014-15,
CAPSULE		cases		Goverment HC II and HC III
		20% of ENT, UTI and skin		
		conditions		
AMOXICILLIN	% of Under	-100% of Pneumonia and SARI	Assumed 10% of	DHIS2 FY2014-15,
DISPERSABLE	5	cases	included case value	Government HC II and HC
TABLETS 125MG	pneumonia	- 20% of OPD ENT / Other ENT,	would be treated by	Ш
	cases	Skin Diseases, Periodontal	Amoxicillin Dispersible	
		Diseases and UTIs	Tablets 125MG and	
			90% by A Amoxicillin	
			Dispersible Tablets	
			250MG	
CIPROFLOXACIN	% of OPD	- 100% of Genital Ulcers		DHIS2 FY2014-15,
500MG TABLET		-20% UTI, Dysentery, Typhoid fever		Government HC II and HC
				III
COTRIMOXAZOLE	% of under 5	20% ENT, UTI, Skin diseases,		DHIS2 FY2014-15,
120MG TABLETS	OPD	Dysentery, Typhoid fever		Government HC II and HC
				111
COTRIMOXAZOLE	% of OPD	20% ENT, UTI, Skin diseases,		DHIS2 FY2014-15,
480MG TABLET		Dysentery, Typhoid fever		Government HC II and HC
				Ш
DOXYCYCLINE	% of OPD	- 100% PID and Urethral Discharge		DHIS2 FY2014-15,
CAPSULES		- 20% STIs		Government HC II and HC
				Ш
METRONIDAZOLE	% of OPD	-100% of PID		DHIS2 FY2014-15,
200MG		-20% GI, periodontal, urethral		Government HC II and HC
		discharges, abortions		III
PENICILLIN,	% of OPD	- 100% of IPD pneumonia cases		
PROCAINE 3MU+				
BENZYL 1MU				
AMPOULE				

#### H. Summary of clinical assumptions applied in the development of minimum recommendations

TETRACYCLINE 1%	% of OPD	- Live births (81% of all births in HC	3% of OPD attendance	DHIS2 FY2014-15,
EYE OINTMENT		Ils are live nationally)	in HC II are Ophtalmia	Government HC II and HC
		- Ophtalmia neonatarum, other eye	neonatorum or Other	Ш
		conditions	Eye conditions	
			Prophylactic treatment	
			of all neonates soon	
			after delivery	
MAGNESIUM	% deliveries	- Pre-eclampsia, eclampsia	Incidence of pre-	Nakimuli et al. (2013)
SULPHATE 50% 5ML			eclampsia/eclampsia 6-	
INJ			8%, with higher	
			incidence in African	
			countries	
ALBENDAZOLE 400MG	% of OPD	- 100% of Intestinal worms cases	8% of total OPD	DHIS2 FY2014-15,
TABLET			attendance in HC II are	Government HC II and HC
			Intestinal Worms	Ш
PROMETHAZINE HCL	% of OPD	- ~20% Skin Conditions		DHIS2 FY2014-15,
25MG TABLET				Government HC II and HC
				Ш
ARTEMETHER	% of malaria	- Malaria and Malaria in Pregnancy	- All malaria cases	Table
20MG+LUMEFANTRINE	OPD		should receive ACTs,	2(b)_Uganda_NFM_Malaria
120MG (strip of 24 tabs)			46% of cases are >12	CN_PR1 Approved 11 Oct
			years (receiving 24	2014 revised 27 Oct 2014
			tabs)	UCG 2012
			- ACTs can be used	
			after the first trimester	
			for malaria in pregnance	
			(UCG 2012, pg. 42)	
ARTEMETHER	% of malaria	- Malaria and Malaria in Pregnancy	NMCP: 54% of cases	Table
20MG+LUMEFANTRINE	OPD		will be treated with 6-	2(b)_Uganda_NFM_Malaria
120MG (strip of 6 tabs)			packs. Of those, 28%	CN_PR1 Approved 11 Oct
			will need 1x6, 13% will	2014 revised 27 Oct 2014
			need 2x6 and 13% will	UCG 2012
			need 3x6, so that needs	
			to be adjusted for in the	
			number of pills per case	

ARTESUNATE	% of Severe	- 100% of Severe Malaria cases	All Severe Malaria	UCG 2012
SUPPOSITORIES	malaria		cases at HCII are	
50MG	cases		expected to use	
			Artesunate	
			suppositories for pre-	
			referral(Note from the	
			DHIS2, 7% of the OPD	
			cases are Severe	
			malaria)	
ARTESUNATE	% of Severe	- 100% of Severe Malaria cases	All Severe Malaria	UCG 2012
SUPPOSITORIES	malaria		cases at HCII are	
200MG	cases		expected to use	
			Artesunate	
			suppositories for pre-	
			referral(Note from the	
			DHIS2, 7% of the OPD	
			cases are Severe	
			malaria)	
PYRIMETHAMINE	% of ANC	- 100% of ANC 1st visits	IPTP will consist of two	NATIONAL MALARIA
25MG+SULFADOXINE	visits		doses of Sulfadoxine-	CONTROL POLICY - 2011
500MG TABLET			Pyrimethamine (SP)	Signed (2)
			given 4 weeks (one	
			month) apart starting in	
			the second trimester	
VITAMIN K1	% of births	- Live births (~81% of all births in HC	Indicated for all live	DHIS2 FY2014-15,
(PHYTOMENADIONE)		Ils are live nationally)	births, assuming 50%	Government HC II and HC
10MG/ML INJ IM			wastage	Ш
LIDOCAINE HCL 2%	% of OPD	- 100% of Injuries due to Animal	0.4% of total OPD	DHIS2 FY2014-15,
INJECTION		Bites, Road Traffic Accidents,	attendance due to	Government HC II and HC
		Gender Based Violence, Motorcycle	injuries	Ш
CARBAMAZEPINE	% of mental	- Epilepsy	75% of mental OPD	DHIS2 FY2014-15,
200MG TABLET	OPD		cases due to epilepsy	Government HC II and HC
	illnesses			III

CO-PACKAGED ORS	% of	- Diarrhea	Do we need to split this	
AND ZINC TABLETS	Diarrheoal		for under and over 5?	
	cases			
MISOPROSTOL	% of	Abortions/bleeding	Nationally 16%	DHIS2 FY2014-15,
200MCG TABS	deliveries		abortions/bleeding per	Government HC II and HC
			births/HC II	Ш
AMOXICILLIN	% of Under	- 100% of Pneumonia and SARI	Assumed 10% of	DHIS2 FY2014-15,
DISPERSABLE	5	cases	included case value	Government HC II and HC
TABLETS 250MG	pneumonia	- ~20% of OPD ENT / Other ENT,	would be treated by	III
	cases	Skin Diseases, Periodontal	Amoxicillin DT 125MG	
		Diseases and UTIs	and 90% by Amoxicillin	
			DT 250MG	

## I. Summary of national caseload data utilized from DHIS2

105-2.2a Deliveries in unit
105-1.3 OPD Diarrhoea-Acute
105-1.3 OPD Diarrhoea-Persistent
108-6 Diarrhoea – Acute
108-6 Diarrhoea – Persistent
Diarrhea - Acute – OPD
Diarrhea - Persistent – OPD
108-1 Admissions
105-1.3 OPD Malaria (Total)
Malaria – OPD
108-6 Malaria In Pregnancy
105-1.1 OPD New Attendance
105-1.1 OPD Re-Attendance
108-6 Malaria total
108-6 Dysentery
105-1.3 OPD Brucellosis (5-59 Years, Female)
105-1.3 OPD Dysentery
105-1.3 OPD Gastro-Intestinal Disorders (non-Infective) (5-59 Years, Female)
105-1.3 OPD Gastro-Intestinal Disorders (non-Infective) (5-59 Years, Male)
105-1.3 OPD Gastro-Intestinal Disorders (non-Infective) (60andAbove Years, Male)

105-1.3 OPD Gastro-Intestinal Disorders (non-Infective) (Female, 60andAbove Years)
105-1.3 OPD Other ENT conditions (5-59 Years, Female)
105-1.3 OPD Other ENT conditions (5-59 Years, Male)
105-1.3 OPD Other ENT conditions (60andAbove Years, Male)
105-1.3 OPD Other ENT conditions (Female, 60andAbove Years)
105-1.3 OPD Other Sexually Transmitted Infections (5-59 Years, Female)
105-1.3 OPD Other Sexually Transmitted Infections (5-59 Years, Male)
105-1.3 OPD Other Sexually Transmitted Infections (Female, 60andAbove Years)
105-1.3 OPD Typhoid Fever (5-59 Years, Female)
105-1.3 OPD Typhoid Fever (5-59 Years, Male)
105-1.3 OPD Urethral discharges (5-59 Years, Female)
105-1.3 OPD Urethral discharges (5-59 Years, Male)
105-1.3 OPD Urinary Tract Infections (UTI) (5-59 Years, Female)
105-1.3 OPD Urinary Tract Infections (UTI) (5-59 Years, Male)
105-1.3 OPD Urinary Tract Infections (UTI) (60andAbove Years, Male)
105-1.3 OPD Urinary Tract Infections (UTI) (Female, 60andAbove Years)
105-1.3 OPD Gastro-Intestinal Disorders (non-Infective) (29 Days-4 Years, Female)
105-1.3 OPD Gastro-Intestinal Disorders (non-Infective) (29 Days-4 Years, Male)
105-1.3 OPD Other ENT conditions (0-28 Days, Male)
105-1.3 OPD Other ENT conditions (29 Days-4 Years, Female)
105-1.3 OPD Other ENT conditions (29 Days-4 Years, Male)
105-1.3 OPD Other ENT conditions (Female, 0-28 Days)
105-1.3 OPD Other Sexually Transmitted Infections (29 Days-4 Years, Female)
105-1.3 OPD Other Sexually Transmitted Infections (29 Days-4 Years, Male)
105-1.3 OPD Typhoid Fever (29 Days-4 Years, Female)
105-1.3 OPD Typhoid Fever (29 Days-4 Years, Male)
105-1.3 OPD Urethral discharges (29 Days-4 Years, Female)
105-1.3 OPD Urinary Tract Infections (UTI) (0-28 Days, Male)
105-1.3 OPD Urinary Tract Infections (UTI) (29 Days-4 Years, Female)
105-1.3 OPD Urinary Tract Infections (UTI) (29 Days-4 Years, Male)
105-1.3 OPD Urinary Tract Infections (UTI) (Female, 0-28 Days)
105-1.3 OPD Anxiety Disorders
105-1.3 OPD Bipolar Disorders
105-1.3 OPD Childhood Mental Disorders

105-1.3 OPD Dementia
105-1.3 OPD Depression
105-1.3 OPD Epilepsy
105-1.3 OPD Other Mental Health Conditions
105-1.3 OPD Hypertension
105-1.3 OPD Neonatal Sepsis (0-7days)
105-1.3 OPD Neonatal Sepsis (8-28days)
105-1.3 OPD Pneumonia
105-1.3 OPD Severe Acute Respiratory Infection (SARI)
108-6 Neonatal Sepsis 0-7days
108-6 Pneumonia

#### J. Detailed breakdown of financial year forecasts by product category

#### Laboratory Forecast (Public Need for HIV/AIDS Commodities (64%))

	2018 (USD)		20	)19 (USD)
ltem	Projected	<b>GF</b> Contribution	Projected	<b>GF</b> Contribution
HIV Tests Kits	13,372,122	9,246,837	13,723,185	8,121,888
Viral Load POC commodities	1,138,492	-	2,558,880	-
EID POC commodities	752,148	-	1,000,485	-
CD4	2,792,677	1,179,589	2,651,116	1,117,364
Chemistry	1,996,029	1,487,061	2,119,166	1,530,997
Hematology	2,288,702	840,299	2,695,388	914,462
CRAG	467,089	242,716	487,663	253,408
Syphilis	497,125	246,587	512,040	253,985
HIV/Hepatitis Co-infection (Screening and VL)	1,968,133	885,862	2,027,757	912,712
Blood Sample Collection and other accessories		738,301		542,965
Funding gap	25,272,517	14,867,251	25,747,923	13,647,781

Source: QPPU-MoH (Accessed April 2017)

#### ARVs

	2017 (July -Dec)	2018 (Jan -Dec)	2019 (Jan – Dec)	2020 (Jan – Dec)
Expressed Need	34,119,226	97,778,782	109,459,439	120,363,148
GoU*	13,055,555	26,111,111	25,327,778	24,567,944
PEPFAR	2,000,000			
GF**		53,770,489	62,662,285	66,567,225
Available funds	15,055,555	79,881,600	87,990,063	91,135,169
Gap (With 25.229% PSM)	19,063,671	17,897,182	21,469,376	29,227,979

*Source:* QPPU-MoH (Accessed April 2017)

\*GF Products from the costed extention (July - Dec 2017) were brought forward to Jan-June 2017

\*GoU annual contribution is 94bn UGX released quarterly

#### ACTs

Public Sector Financial Gap Analysis	2017 (USD)	2018 (USD)	2019	2020USD)
			(USD)	
Total need	22,383,201	20,775,683	14,261,581	11,790,234
Domestic resources	1,503,746	1,503,746	1,503,746	1,503,746
External resources	2,238,320	2,077,568	1,426,158	1,179,023
External resources	12,549,164			
Total Finances available	16,291,230	3,581,314	2,929,904	2,682,769
Financial Gap	6,091,971	17,194,369	11,331,677	9,107,465
Request to be financed through GF funding proposal		17,194,369	11,331,677	9,107,465

#### Source: QPPU-MoH (Accessed March 2017)

#### mRDTs

Public Sector Financial Gap Analysis	2017 (USD)	2018 (USD)	2019 (USD)	2020 (USD)
Total need	6,818,917	5,789,603	6,000,921	6,280,369
Domestic resources				
External resources	736,921	578,960	600,092	628,037
External resources	5,229,355			
Total Finances available	5,966,275	578,960	600,092	628,037
Financial Gap	852,641	5,210,643	5,400,829	5,652,332
Request to be financed through GF funding proposal		5,210,643	5,400,829	5,652,332

#### Source: QPPU-MoH (Accessed March 2017)

#### Artesunate vials

Public Sector Financial Gap Analysis	2017 (USD)	2018 (USD)	2019	2020
			(USD)	(USD)
Total need	8,737,007	7,579,002	6,690,905	5,427,091
Domestic resources				
External resources	2,975,820	2,581,404	2,278,919	1,848,464
External resources	7,850,074			
Total Finances available	10,825,894	2,581,404	2,278,919	1,848,464
Financial Gap	8,096,339	8,096,339	8,096,339	8,096,339
Request to be financed through GF funding proposal		8,096,339	8,096,339	8,096,339

Source: QPPU-MoH (Accessed March 2017)

#### Immunisation (Public Sector) for FY2017/18

Cost item	Budgeted Cost	Current expenditure	Deficit required
	required (UGX)	(UGX)	(UGX)
Purchase of vaccines supplies funded by GoU	11,378,108,280	5,947,544,744	5,430,563,536
Purchase of LPG cylinders	1,912,308,000	1,837,047,600	75,260,400
Purchase of EPI Injection materials	1,767,021,293	1,055,371,295	711,649,998
Clearing, NDA and Airport handling charges	974,650,133	160,036,361	814,613,772
Total	16,032,087,706	9,000,000,000	7,032,087,706

Source: NMS-Vaccines Section (Accessed February 2017)

#### **Reproductive Health**

#### Summary Costs of Commodity Forecast (public sector)

Summary Costs	2016	2017	2018	2019
Contraceptives - public sector	1,965,808	2,070,971	2,107,536	2,080,351
Contraceptives - PNFP sector	2,826,353	3,157,447	3,562,816	4,075,092
Contraceptives total	4,792,160	5,228,418	5,670,352	6,155,444
Condoms (male and female)	7,452,313	12,188,628	16,033,511	22,725,293
Maternal Health Products	9,534,397	9,771,762	10,003,767	10,241,007
Child Health	684,075	1,112,990	1,198,043	1,283,097
New born Products	402,106	411,299	419,698	428,229
Resuscitation Devices	709,668			
TOTAL	23,574,720	28,713,097	33,325,371	40,833,069

**Source:** QPPU-MoH (Accessed February 2017)