



FY2019/20 NATIONAL ANNUAL NEEDS ANALYSIS AND QUANTIFICATION FOR PUBLIC HEALTH FACILITIES IN UGANDA

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FOREWARD

The National Development Plan II (NDP II) emphasises the need to improve health and promoting the well-being of people in Uganda. With improved physical access to health facilities whereby the proportion of the population leaving within 5 kilometres of a health facility has increased. Ministry of Health is committed to ensure free access to Essential Medicines, Laboratory and Health supplies in all government health facilities through promoting rational use of medicines and pharmaceutical supplies as stipulated in the Health financing strategy (2015/16-2024/25) with interventions in; Implementing order based procurement for all levels of care, minimize direct drug leakages and theft, Minimize expiration of drugs at national stores, and Improving prescribing practices.

The National Needs Analysis and Quantification is an annual exercise which 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 and Health Supplies List of Uganda (EMHSLU-2016) as well as increasing availability of medicines in all government facilities while taking into account the limited resources available.

The FY2019/20 quantification report was developed by National Medical Stores (NMS) under the supervision of Ministry of Health in consultation with Partners. This is an advisory report intended to provide up-to date advisory information to key stake holders in the health sector supply chain including; Ministry of Health, Ministry of Finance, Planning and Economic Development, Ministry of Local Government and National Drug Authority on the actual Financial Year (FY) drug needs in the public health sector in line with the NMS mandate.

Ministry of Health would like to appreciate all public health managers, pharmacists/dispensers at all levels of care for their continued cooperation in participating in the forecasting activities of their respective facilities.

It is my sincere hope that the information contained in here will be used by all key stakeholders to make informed decisions.

Morries Seru

Ag. Commissioner Pharmaceutical Services, Pharmacy Department

Ministry of Health

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ACRONYMS AND ABBREVIATIONS

| ABBREVIATION | LONG FORM |
|--------------|--|
| BoU | Bank of Uganda |
| SRCCR | Senior Regional Customer Care Representatives |
| CHAI | Clinton Health Access Initiative |
| CRL | Credit Line Commodities |
| DHO | District Health Officer |
| EMHLS: | Essential Medicines Laboratory and Health Supplies |
| EMHLSU: | Essential Medicines, Health and Laboratory Supplies List of Uganda |
| 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 |
| HF | Health Facility |
| IPF | Indicative Planning Figures |
| MoFPED | Ministry of Finance, Planning and Economic Development |
| МоН | Ministry of Health |
| mRDTs | Malaria Rapid Diagnostic Test Kits |
| NCDs | Non Communicable Diseases |
| NMCP | National Malaria Control Programme |
| NMS: | National Medical Stores |
| NRH | National Referral Hospital |
| NRI | National Referral Institute |
| QPPU | Quantification Procurement Planning Unit |
| RH | Reproductive Health |
| RRH | Regional Referral Hospital |
| UBTS | Uganda Blood Transfusion Services |
| UHI | Uganda Heart Institute |
| UGX | Uganda Shillings |
| UNICEF | United Nations International Children's Fund |
| USD | United States Dollar |
| WFP | World Food Programme |
| XV | Extra Vital |

GLOSSARY

| Term | Interpretation in the context of this report |
|------------------------------|--|
| Essential Medicines , | Medicines, Medical Devices, Health supplies, and consumables, |
| Health and | medical and Laboratory equipment. |
| Laboratory Supplies | |
| (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 are standardized packages of EMHS that are regularly delivered |
| Kits/Essential | to health facilities (HCIIIs and HCIIs). Kits are generally part of a |
| Medicines Kits | 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. |
| Therapeutic | Classification of medicines and related supplies into different groups |
| Classification of | according to their chemical characteristics, structure and how they are |
| Medicines | used to treat specific disease |
| Credit Line | Credit line commodities are items; |
| Commodities (CRL) | Funded by the Government of Uganda |
| | Have a budget ceiling |
| | Budgets are solely under the direct control of Health Facilities |
| | Quantification is solely under direct control of Health Facilities |
| Non Credit Line | Non Credit Line/Program commodities are items; |
| (Program) | Co-funded by the Government of Uganda and Development |
| commodities | Partners |
| | - Quantification, budgeting and reporting is under the control of |
| | Ministry of Health programs |
| | - The programs include Uganda National Expanded Program on |
| | Immunization (UNEPI), AIDS Control Program, National Malaria |
| | |

| | Control Program, TB / Leprosy Control Program, Reproductive |
|-----------------------------|--|
| | Health Program and Neglected Tropical Diseases |
| Oral Preparation | These are medicines whose substance is taken through the mouth. |
| Medicines | They come as solid tablets, capsules, chewable tablets or lozenges |
| | to be swallowed whole or sucked on, or as drinkable liquids such as |
| | drops, syrups or solutions |
| Parental Preparation | These are Medicines which enter the body by injection through the |
| Medicines | tissue and circulatory system |
| Funding Gap | A shortfall in government budget allocation needed to fund financial |
| | year medicines requirements. |
| Needs Analysis | This is a formal, systematic process of identifying and evaluating |
| | facility requirements in terms of; |
| | New medicines requirements |
| | Current budget requirements |

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NMS would like to express sincere thanks to all who made the FY2019/20 procurement planning possible. Special thanks go to the Ministry of Health, Pharmacy Department for providing the overall supervision and guidance during the exercise.

We extend our sincere thanks to CPHL for providing technical guidance during procurement planning for laboratory commodities, CHAI for financial support to CPHL team and planning for RH and Duo Test Kits, National Malaria Control Programme (NMCP), Management Sciences for Health (MSH), United Nations International Children's Fund (UNICEF) and World Food Programme (WFP).

We also wish to extend our sincere gratitude to all stakeholders who contributed to the successful completion of the validation and dissemination of the FY2019/20 National Quantification report, including:

- ✓ Chief Administrative Officers (CAOs) from all Districts in Uganda,
- ✓ Directors from all RRHs,
- ✓ District Health Officers (DHOs) from all Districts in Uganda,
- ✓ Medical Superintendent from all GHs,
- ✓ In-charges from all HCIVs,
- ✓ Pharmacists from all RRHs and GHs.
- ✓ District Medicines Management Supervisors (DMMSs) from all Districts in Uganda,
- ✓ Assistant Inventory Management Officers (AIMOs) from all Districts in Uganda,
- ✓ Assistant Inventory Management Officers (AIMOs) from all HCIVs, and
- ✓ Sickle Cell Clinic In-charges from all GHs.

EXECUTIVE SUMMARY

Background

Procurement planning is an annual exercise conducted by Health Facilities (HFs) countrywide 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 exercise involved quantifying for credit Line (CRL) commodities using pre-designed templates customized by level of care and also forecasting for centrally managed programs whose planning was conducted by MoH (QPPU).

Methodology

The Needs Analysis used the consumption quantification Method, while the Quantification exercise used a hybrid of both Morbidity quantification approach at HC4, GH, and RRH level as well as the consumption approach at HIII, HCII and National Referrals, taking into account stock availability at facility level, prioritization for most needed medicines at the respective levels of care and adjusting quantities to match the allocated budgets. Revision of the planning templates and determination of actual HF needs without a budget constraint was guided by the needs analysis study, a pre-procurement planning activity.

This report therefore gives highlights of the FY2019/20 procurement planning as well as funding gaps for all commodity programs.

Key Findings

The FY2019/20 exercise noted the following key findings:

- The overall public sector supply chain commodity need for FY2019/20 is UGX 1.45 trillion.
- The overall forecast for CRL commodities is UGX 203.2bn. FY2019/20 GoU commitment on CRL is UGX 140.4bn.
- Overall forecast for Non-CRL commodities was estimated at around UGX 1.24 trillion.
- Development partner commitments increased from UGX619.9bn in the FY2018/19 to UGX 894.8bn in the FY2019/20 indicating a 72% partner commitment. GoU funding for Non-CRL programmes increased by UGX 60bn from UGX 161.5bn in the FY2018/19 to UGX 221.5bn in the FY2019/20.
- Overall funding gap for Non-CRL commodities now stands at 10% significantly lower than 32% registered in the FY2018/19 forecast.
- GoU Commitment on both CRL and Non-CRL has increased from UGX276.96bn in the FY2018/19 to UGX 363.96bn in the FY2019/20.

- The funding gap for CRL has reduced to 31% (UGX 64.7bn). HCIVs have the highest funding gap of about 56% (UGX 16bn) followed by GHs with 32% (UGX 9.2bn), HIIIs with 28% (UGX 11.66bn) and RRHs with 28% (UGX 7bn).
- Funding gap for UBTS has significantly gone down to 8% (UGX 3bn).
- Funding gap for NCDs stands at 76% (UGX 7bn).

Major Recommendations

The main recommendations from the FY2019/20 needs analysis and quantification are as follows:

To Ministry of Health (MoH)

- GoU may consider increasing funding for HCIVs by UGX 16bn, GHs by UGX 9.2bn, RRHs by UGX 7bn and HCIIIs by UGX 12bn and National Referrals by around 18% of their current budgets.
- GoU may consider increasing the funding towards the supply of centrally managed commodities (Non-CRL); Laboratory Reagents by UGX 11bn, Reproductive Health by UGX 34bn, Anti-TB medicines by UGX 2bn and Immunisation supplies by UGX 2bn.
- GoU may consider increasing the funding on NCD supplies by around UGX 7bn.
- MoH may continue creating and increasing community awareness about diseases prevention mechanisms as this will help on reducing the volumes of morbidity cases in health facilities and therefore minimise pressure on Vote 116 budget.
- MoH may introduce community dispensing points for NCD medicines or use differentiated service delivery models to take services closer to the communities.
- MoH may integrate regular medical check-ups for NCDs into all routine health activities at all health facilities and also organize regular medical camps to address the same.
- The range of medicines under NCD should be expanded to include other commodities such as mental medicines and also provide basic investigative/screening monitoring equipment such as blood pressure machines.

To Health Facilities (HFs)

- HF managers may ensure and provide close supervision of accurate data collection and capture using available tools to accurately link inputs with outputs and should minimise the observed communication gap between their stores and prescribing personnel.
- HFs and MoH may put mechanisms at facility level to ensure accountability of drugs and their movement within the hospitals.

1.0. INTRODUCTION

1.1. Background

Procurement planning is an annual exercise done by Health Facilities (HFs) countrywide 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.

Since FY2018/19, the quantification exercise applied a data driven approach that utilizes both morbidity and consumption methods of forecasting. This was a successful approach which also led to the development of the Morbidity based quantification tool currently being used to provide guidance on how HFs should plan basing on the number of cases being treated per condition in these respective facilities. It is anticipated that while using the tool, implementation take into account adjusting quantities to match a fixed budget as per the FY2019/20 Health Facility allocations, and also monitor use of supplies by health facility staff. Quantification for laboratory commodities has also been integrated into the process of procurement planning of Essential Medicines, Laboratory and Health Supplies (EMHLS).

1.2. Responsiveness to Economic and Social Context

Supply and availability of medicines and medical supplies in government Health facilities is affected by a number of factors ranging from; increasing distribution costs explained by the ever rising fuel prices, efficiency of NMS suppliers in the supply chain, funding gaps, creation of new HFs and upgrading of others from one level of care to another.

1.2.1. Effect of Depreciation of the Uganda Shilling

Since FY2016/17, the Uganda shilling has been depreciating in value relative to the US Dollar month on month, with twelve months depreciation rates ranging between 2.2 percent and 6.7 percent. This increase has been noted year on year due to the loss against the USD. This low purchasing power of the Ugandan shilling caused fluctuations in the prices of imported items in the economy including imported drugs leading to increased user prices of EMLHS, increased fuel prices also led to the same effect. As indicated in the previous edition (Edition 3 of Needs Analysis & Quantification Report, FY2018/19), whereas GoU had increased funding towards supply of EMHLS in the FY2018/19, the increment was less felt by the facilities as AMCs did not change much compared to FY2017/18 quantification AMCs.

1.2.2. Needs Assessment

Needs assessment in government facilities is a pre-planning activity carried out prior to the National quantification exercise aimed at;

- ✓ Review and refine the XV items by Levels of Care (LoC),
- ✓ Review and prepare the procurement plan templates,
- ✓ Establish funding gaps by LoC,
- ✓ Test feasibility of preparing kits by facility for each District.

The assessment recommended improvements in the funding commitments at all levels of care as it established that the overall funding gap for CRL commodities had increased from 41% in the FY2017/18 to 46% in the FY2018/19 (HCIIs (61%), UBTS (60%), HCIVs (56%), and HCIIIs (52%) with the biggest unfunded gaps). The assessment also recommended adding Glibenclamide 5mg Tablet and Carbamazepine 200mg onto the NCD medicines being supplied under NCD budget as well as a one month cycle at RRH level. The assessment helped in determining the distribution of the FY2019/20 GoU increased funding towards the supply of EMHLS (See Results Chapter).

1.3. Problem Statement

Quantification of EMHLS is an annual exercise conducted by NMS to inform the procurement of medicines and health supplies in the public sector supply chain. Inaccurate procurement plans developed by facilities which later translates into ordering forms for the FY cycles sometimes lead to unstable availability of medicines at NMS and subsequently at facility level. This problems is always seen in the mismatch between the standard procurement plans and orders submitted to NMS. This exercise is therefore, embraced as an opportunity to check on irrational planning, accurate ordering within acceptable margins and use of EMHS in facilities and therefore improving stock availability at all levels in the public sector supply chain.

1.4. Objectives

- a) To provide data on specific commodity requirements and costs for the government's annual budget allocations.
- To assist HF managers better project requirements in order to more accurately order from NMS.
- To estimate commodity needs and assess stock status of the public sector supply pipeline to identify and correct supply imbalances.
- d) To identifying the funding needs and gaps for procuring the required commodities to more accurately advise stakeholders on the actual facility requirements.

1.5. Significance of the Exercise

The Quantification exercise is intended to:

- a) Provide overall commodity need for the public sector supply chain.
- b) Provide advisory information to all key stakeholders in the health sector.

1.6. Scope of the Quantification Exercise

The exercise covered both CRL commodities as well as other non-CRL programmes of National importance such as Antimalarial, ARV's, Anti-TB's, RH, Vaccines, Laboratory supplies and items used in the management of NCD's. Items here are either fully funded or co-funded by GoU for all Public facilities at all levels of care. The exercise commenced with planning activities in November 2018, fieldwork was conducted from November 2018 to March 2019, and report writing in May 2019.

2.0. METHODOLOGY

2.1. Introduction

The FY2019/20 quantification exercise applied both consumption and morbidity methods.

2.2. Morbidity Method

RRHs, GHs and HC4s quantified their EMHS requirements according to Morbidity based quantification method considering;

- ✓ Number of cases being treated.
- ✓ Available budget according to the current budget allocations as provided by MoFPED.

2.3. Consumption Based Method

This method was applied on the quantification of Medicines for HC2s, HC3s, NRHs and NRIs. This method required having the following; drug consumption data, accurate stock keeping records and good stock management practices. It was again observed that funding for essential medicines is still one of the major challenges hampering accurate forecasting of facility needs.

2.4. Preparatory Phase

The preparatory phase of developing the planning templates included the following activities;

Preparation of the procurement planning templates: NMS prepared procurement planning templates for HCIVs, GHs, and RRHs using morbidity data output from the morbidity quantification tool developed in MS-Access.

Classification of Items on the Planning templates: 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.

National Referral Templates and the Basic Kit template: The team ensured that all NRHs, and NRIs all Essential Medicines and health supplies were aligned with the Uganda Clinical Guidelines (2016) and Essential Medicines and Health Supplies list of Uganda (2016).

The process was also enriched with facility suggestions from the needs analysis study which was conducted in October 2018.

2.5. Stakeholders' involvement

NMS Client Services Departmental Manual, states that the District Kit shall be revised annually and with representatives from; NMS, DHOs, health facilities, MoH, and Development

Partners (DPs). During its implementation, NMS worked with MoH (Pharmacy Department), National Malaria Control Programme (NMCP), USAID RHITES EC, UNICEF, WFP CPHL and MSH. Specifically NMS stakeholders played the following roles;

MoH (Pharmacy Department): Provided overall supervision of the exercise.

NMCP: Ensured accurate planning for ACTs and Antimalarial commodities.

CHAI: Funded the pre-planning meetings at central level, facilitated teams which guided quantification for Laboratory commodities at facility and district level as well as Reproductive Health (RH) commodities. CHAI also facilitated accurate planning of items such as: Penicillin Benzathine Benzyl, Amoxicillin Dispersable Tablets 250MG, Co-Packaged ORS and Zinc Tablets, and Syphilis dual test kits in the planning meetings.

CPHL: Guided the development of the Laboratory planning template and also provided technical assistance to laboratory in-charges during planning meetings.

UNICEF: Ensured accurate planning for nutritional commodities.

WFP: Participated in selected planning meetings at various levels of care to understand how RH commodities are planned for and the gap assessment in such processes.

MSH: Through District Medicines Management Supervisors (DMMS), ensured data evidence based planning for essential medicines using accurate data from stock cards.

Training: All NMS staff participating in the exercise received refresher training on the new components of the procurement plan and EM kit template in a one day workshop at NMS and also at CHAI.

2.5.1. The roles of the different players

2.5.1.1. Facility Directors/Medical Superintendents/DHOs

- Convened and chaired planning meetings.
- ✓ Officially signed off the procurement plans/Kits.

2.5.1.2. NMS

- ✓ Facilitated the procurement planning meetings.
- ✓ Provided relevant templates according to the facility/level of care.

2.5.1.3. MOH

✓ Support supervision.

2.5.1.4. District Laboratory Focal Persons (DLFP)

✓ Provided overall technical guidance during meetings with laboratory in-charges.

2.6. Implementation Phase

The procurement planning exercise was implemented differently at various level of care as explained below;

2.6.1. Available Indicative Budget for FY2019/20

Table 1 below illustrations the Indicative Planning Figures (IPFs) which acted as budget ceiling during planning various levels of care.

Table 1: FY2019/20 Health Facility Budget Allocations-CRL

| Level of care ¹ | No of HFs | FY2018/19 (UGX) | FY2019/20 (UGX) |
|----------------------------|-----------|-----------------|-----------------|
| HC2 | 1,693 | 11,163,236,942 | 11,163,236,942 |
| HC3 | 1,094 | 20,360,000,000 | 30,360,000,000 |
| HC4 | 177 | 12,782,400,000 | 12,782,400,000 |
| GH | 50 | 19,456,000,000 | 19,456,000,000 |
| RRH | 16 | 18,233,600,000 | 18,233,600,000 |
| UHI | 1 | 2,181,400,000 | 2,181,400,000 |
| UBTS | 1 | 12,888,909,000 | 29,888,909,000 |
| Mulago NRH | 1 | 14,366,755,612 | 14,366,755,612 |
| Butabika NRH | 1 | 2,000,041,612 | 2,000,041,612 |

Source: NMS Vote 116

2.6.2. Higher Level Procurement Planning

During procurement planning sessions among higher level facilities (HCIVs, GHs & RRH), each facility was visited individually. All planning meetings were attended by a representative sample of clinicians, pharmacists/Dispensers, Records personnel, chaired by Hospital Directors/Medical Superintendents/ In-charges.

Facilities were provided with 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.

 $^{^{\}rm 1}\,\rm NRH$ & NRI have different planning arrangements

At the National referral level, the FY2019/20 procurement planning templates were sent to the respective pharmacists. Revisions were led by the pharmacists through commodity/therapeutic management committees. 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.

2.6.3. District Basic Kits for HCIIs and HCIIIs

The implementation team consisted of the NMS Client Services 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:

- a) Introductory meeting with the DHO and Heads of facility: 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.
- b) Overview of Quantification Kit Template: 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.
- c) Quantity Adjustment to Budget: 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.
- d) 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.

3.0 FINDINGS

3.1. Credit Line Commodities

The budget of UBTS for the supply of blood collection items increased from UGX12.88bn in the FY2018/19 to UGX29.88bn in the FY2019/20. This led to a drastic increase in the quantification of UBTS specialist supplies by 134.2%. The quantification for parenteral medicines increased from UGX16.5bn in the FY2018/19 to UGX17.9bn in the FY2019/20. General laboratory consumables (from UGX6.8bn to UGX9.1bn), Inhalations & Medical Gases (from UGX1bn to UGX1.2bn), RRH Records (from UGX140 million to UGX488 million), and Anti-cancers (from UGX71 million to UGX442million) also registered significant quantification values in the FY2019/20 compared to FY2018/19. Oral Preparations had the biggest budget share of about UGX 41bn, however, this reduced by 14.2% compared to that of FY2018/19 which was nearly UGX48bn.

Table 2 below shows a general decline in the quantification for medical sundries between the two financial years compared to medicines which registered increased quantification between the two financial years. However, the picture is slightly different at higher level facilities where majority of the budget is spent on medical sundries.

Table 2: Therapeutic Groups with Highest Value Quantifications (UGX)

| Therapeutic Grouping | Spend [FY2019/20] | Spend [FY2018/19] | % Change |
|-----------------------------|-------------------|-------------------|----------------|
| ORAL PREPARATIONS | 41,141,661,002 | 47,969,580,799 | -14.2% |
| UBTS SPECIALIST SUPPLIES | 28,635,673,333 | 12,226,959,333 | 134.2% |
| PARENTERALS | 17,876,766,287 | 16,502,395,281 | 8.3% |
| GLOVES | 9,222,183,269 | 10,878,430,111 | -15.2% |
| GENERAL LAB CONSUMABLES | 9,135,276,936 | 6,792,484,975 | 34.5% |
| ADMINISTRATION SETS | 7,967,149,124 | 8,398,093,788 | -5.1% |
| BANDAGES & DRESSINGS | 5,940,397,198 | 7,074,807,332 | -16.0% |
| SUTURES/SURGICALS | 4,170,365,496 | 5,843,556,307 | -28.6% |
| DISINFECTANTS | 4,156,718,541 | 4,072,999,591 | 2.1% |
| RENAL UNIT SUPPLIES | 3,436,630,578 | 3,201,073,978 | 1.4% |
| PROTECTIVES | 3,148,361,499 | 3,575,765,521 | -12.0% |
| DIAGNOSTIC KITS & REAGENTS | 3,097,966,813 | 3,630,294,613 | -14.7% |
| GENERAL MEDICAL STATIONERY | 2,878,673,888 | 2,857,977,211 | 0.7% |
| MULAGO SPECIALIST SUPPLIES | 1,607,503,185 | 1,089,355,200 | 1 47.6% |
| EYE/EAR/NOSE MEDICINE | 1,491,675,976 | 1,286,423,253 | 16.0% |
| INHALATIONS & MEDICAL GASES | 1,231,087,034 | 1,017,240,590 | 1 21.0% |
| UHI SPECIALIST SUNDRIES | 1,097,008,015 | 1,097,008,015 | 0.0% |
| RADIOLOGY & ULTRASOUND | 908,452,974 | 1,197,783,741 | -24.2% |
| PESSARIES/SUPPOSITORIES | 897,652,581 | 781,236,797 | 14.9% |
| BLADES | 772,020,559 | 714,019,666 | 8.1% |

| Therapeutic Grouping | Spend [FY2019/20] | Spend [FY2018/19] | % Change |
|----------------------|-------------------|-------------------|-----------------|
| RRH RECORDS | 487,765,803 | 139,868,903 | 1 248.7% |
| TOPICAL PREPARATIONS | 486,513,100 | 382,384,029 | 1 27.2% |
| ANTICANCERS ** | 442,696,428 | 71,132,256 | 1 522.4% |

Note: **Anti-cancers (*To be used in the management of sickle cell anemia*) include; Hydroxyurea 500MG Capsule and Methotrexate HCL 2.5MG Tablets

3.1.1. Oral Preparations

Amoxicillin 250mg capsule was the most quantified medicines among the oral preparation with an annual cost of UGX 10.6bn, a value reduction of about 20% compared to FY2018/19. Paracetamol tablets registered a small rise by just 2.5% from UGX 3.6bn in the FY2018/19 to nearly UGX 3.7bn. Major increments between the FY2019/20 and FY2018/19 values were on Pyrimethamine 25MG+Sulfadoxine 500MG Tablet (from UGX1.3bn to UGX2.6bn), Insulin Mixtard (from UGX1.1bn to UGX2.1bn), and Amoxicillin Dispersable Tablets 250MG (from UGX1.0bn to UGX1.4bn).

Table 3: Top 30 Oral Medicines Quantification by Value (UGX)

| Therapeutic Grouping | Spend [FY2019/20] | Spend [FY2018/19] | % Change |
|---|-------------------|-------------------|----------------|
| AMOXICILLIN 250MG CAPSULE | 10,636,878,335 | 13,328,349,312 | -20.2% |
| PARACETAMOL 500MG TABLETS | 3,691,791,842 | 3,601,322,946 | 2.5% |
| PYRIMETHAMINE 25MG+SULFADOXINE 500MG TABLET | 2,624,313,600 | 1,290,816,000 | 103.3% |
| METRONIDAZOLE 200MG TABLET | 2,213,650,350 | 2,524,783,536 | -12.3% |
| INSULIN MIXTARD HUMAN 100IU/ML | 2,126,340,138 | 1,110,592,626 | 91.5% |
| CIPROFLOXACIN 500MG TABLET | 1,843,517,665 | 2,313,023,716 | -20.3% |
| AMOXICILLIN DISPERSABLE TABLETS 250MG | 1,370,675,520 | 1,044,534,528 | 1 31.2% |
| CO-PACKAGED ORS AND ZINC TABLETS | 1,304,973,409 | 1,357,286,931 | -3.9% |
| FERROUS SULPHATE/FUMARATE 150- 200 MG+FOLIC ACID 0.25 -0.4MG TAB | 864,459,086 | 560,842,445 | 1 54.1% |
| ALBENDAZOLE 400MG TABLET | 798,361,920 | 803,882,880 | - 0.7% |
| CARBAMAZEPINE 200MG TABLET | 794,046,240 | 800,653,648 | -0.8% |
| ERYTHROMYCIN STEARATE 250MG TABLET | 742,426,268 | 529,320,384 | 40.3% |
| DOXYCYCLINE 100MG CAPS | 639,370,532 | 636,685,571 | 1 0.4% |
| SODIUM VALPROATE 500MG TABS | 558,856,368 | 273,189,465 | 104.6% |
| PHENOBARBITAL 30MG TABLET | 552,594,420 | 355,414,924 | 1 55.5% |
| FOLIC ACID 5MG TABLET | 465,271,015 | 339,437,304 | 1 37.1% |
| GRISEOFULVIN 500MG TABLET | 442,189,913 | 571,244,607 | -22.6% |
| MAGNESIUM TRISILICATE COMP 250+120MG TABLET | 417,272,310 | 512,594,892 | -18.6% |
| MEBENDAZOLE 100MG TABLETS | 408,939,840 | 406,840,320 | 0.5% |
| BENDROFLUAZIDE 5MG TABLET | 408,171,960 | 228,038,038 | 1 79.0% |
| METFORMIN HCL 500MG TABLET | 399,708,186 | 288,193,680 | 1 38.7% |
| BENZHEXOL 5MG TABLET | 398,691,909 | 280,039,680 | 1 42.4% |

| Therapeutic Grouping | Spend [FY2019/20] | Spend [FY2018/19] | % Change |
|--|-------------------|-------------------|----------------|
| IBUPROFEN 200MG TABLET | 381,355,131 | 398,021,840 | -4.2% |
| AMPICILLIN/CLOXACILLIN 250MG/250MG CAPSULES | 336,707,280 | 244,598,400 | 1 37.7% |
| PREDINISOLONE 5MG TABLET | 307,385,225 | 306,500,567 | 0.3% |
| CHLORPROMAZINE 100MG TABLET | 295,429,972 | 644,104,992 | -54.1% |
| NIFEDIPINE RETARD 20MG TABLET | 287,502,987 | 189,644,135 | 1 51.6% |
| OMEPRAZOLE 20MG CAPSULES | 278,305,042 | 196,142,594 | 1 41.9% |
| TRIFLUOPERAZINE 5MG TABLET | 275,462,650 | 213,384,176 | 1 29.1% |
| CHLORPHENAMINE MALEATE 4MG TABLET | 274,351,558 | 244,684,800 | 12.1% |

3.1.2. Parenteral Preparations

Table 4 below shows that the value quantification for ceftriaxone increased by nearly 78% from UGX 1.8bn in the FY2018/19 to UGX 3.3bn in the FY2019/20. Other items with significant value changes include; Cefotaxime Sodium Powder for Injection (339%), Propofol 10 MG/ML Injectable (253%), Meropenem INJ 500MG (191%), penicillin Benzyl (167%), Phenobarbital 200MG/2ML Injection (122%), and Gentamycin (76%) from UGX 401 million to UGX707 million in the FY2019/20, Some items such as Sodium Glucose 5% Infusion (22%), Bupivacaine HCL (52%) and Chloramphenicol Sodium Succinate 1G Injection (55%) had significant drop downs in terms of value quantification.

Table 4: Top 30 Parental Medicines Quantification by Value (UGX)

| Therapeutic Grouping | Spend [FY2019/20] | Spend [FY2018/19] | % Change |
|---|-------------------|-------------------|----------|
| CEFTRIAXONE SODIUM 1G POWDER FOR INJ.VIAL | 3,299,228,107 | 1,855,519,740 | 77.8% |
| SODIUM CHLORIDE/NORMAL SALINE 0.9% INFUSION | 2,058,166,454 | 2,135,160,518 | -3.6% |
| SODIUM (RINGERS) LACTATE COMPOUND INFUSION | 1,043,492,868 | 1,059,717,843 | -1.5% |
| GLUCOSE (DEXTROSE) 5% INFUSION 500ML | 802,245,708 | 1,026,004,320 | -21.8% |
| GENTAMYCIN 80MG/2ML INJ IV/IM | 707,508,461 | 401,831,934 | 76.1% |
| METRONIDAZOLE 500MG/100ML INFUSION | 658,350,374 | 669,377,346 | -1.6% |
| AMPICILLIN 500MG POWDER FOR RECONSTITUTION IV/IM/INFUSION | 478,670,051 | 494,624,617 | -3.2% |
| RABIES VACCINE + SOLVENT 0.5ML INJ 1 DOSE | 467,104,241 | 527,843,003 | -11.5% |
| PENICILLIN. BENZYL 1MU/600MG INJ (PFR) IM | 445,147,132 | 393,324,660 | 13.2% |
| DICLOFENAC SODIUM 75MG/3ML INJECTION | 431,487,000 | 161,560,995 | 167.1% |
| AMPICILLINE/CLOXACILINE 250MG/250MG INJECTION | 428,406,360 | 394,409,594 | 8.6% |
| WATER FOR INJECTION 10ML | 428,201,100 | 429,705,936 | -0.4% |
| HYDROCORTISONE SODIUM PHOSPHATE 100MG INJECTION | 411,588,667 | 540,483,192 | -23.8% |

| Therapeutic Grouping | Spend [FY2019/20] | Spend [FY2018/19] | % Change |
|---|-------------------|-------------------|----------|
| BUPIVACAINE HCL 0.5% IN DEXTROSE 8.0% INJ SOLUTION, 4ML AMPOULE, | | | T |
| SPINAL | 284,633,494 | 591,327,475 | -51.9% |
| OXYTOCIN 10IU/1ML INJECTION | 278,713,011 | 245,673,333 | 13.4% |
| INSULIN SOLUBLE, NEUTRAL, HUMAN 100IU/ML INJ SC | 243,898,247 | 270,269,122 | -9.8% |
| CHLORAMPHENICOL SODIUM SUCCINATE 1G INJECTION | 240,841,063 | 539,534,287 | -55.4% |
| LIDOCAINE HCL 2% INJECTION | 229,558,531 | 202,958,470 | 13.1% |
| PHENOBARBITAL 200MG/2ML INJECTION | 226,246,284 | 101,930,400 | 122.0% |
| CEFOTAXIME SODIUM POWDER FOR INJECTION 1GM VIAL | 179,332,448 | 40,882,452 | 338.7% |
| MEROPENEM INJ 500MG VIAL | 176,175,000 | 60,604,200 | 190.7% |
| PENICILLIN, BENZATHINE BENZYL 2.4MU/1.44G AMPOULE | 164,082,432 | 142,783,353 | 14.9% |
| HEPARIN INJECTION 5000IU/ML, 5ML VIAL | 158,172,588 | 119,556,000 | 32.3% |
| DARROWS SOLUTION (HALF STRENGTH),500ML INFUSION VIAL | 154,775,873 | 135,862,272 | 13.9% |
| HALOPERIDOL DECANOATE 50MG/ML DEPOT INJECTION | 146,582,936 | 165,831,201 | -11.6% |
| PETHIDINE 100MG/2ML INJ IV/IM/SC | 144,469,646 | 157,043,263 | -8.0% |
| KETAMINE 500MG/10ML INJECTION IV/IM | 143,054,776 | 154,362,682 | -7.3% |
| GLUCOSE 50% INJECTION 100ML | 134,638,200 | 137,229,795 | -1.9% |
| PROPOFOL 10 MG/ML, 50ML VIAL, INJECTABLE | 133,455,600 | 37,767,663 | 253.4% |
| FLUPHENAZINE 25MG/ML INJECTION | 129,365,424 | 119,964,240 | 7.8% |

3.1.3. Medical Consumables/Sundries

Table 5 below shows a general reduction in the quantification for medical sundries with items such as Gloves surgeon 7 1/2 sterile (27%), Gauze W.O.W Hydrophilic 90CM X 50M (17%), Cotton Wool (18%) having *reduced* quantification values between the two Financial Years. Examination gloves medium (15%), Blades Scalpel size 22 (20%) and Nylon G2/0 (37%) are some of the consumables with significant *increased* value quantifications.

Table 5: Top 30 Medical Sundries Quantification by Value (UGX)

| Therapeutic Grouping | Spend [FY2019/20] | Spend [FY2018/19] | % Change |
|---|-------------------|-------------------|----------|
| GLOVES SURGEON 7 1/2 STERILE PAIRS | 4,597,985,566 | 6,318,271,498 | -27.2% |
| GLOVES EXAMINATION LATEX, MEDIUM NON-STERILE | 4,340,924,787 | 3,781,255,676 | 14.8% |
| GAUZE W.O.W HYDROPHILIC 90CM X 50M | 3,364,268,110 | 4,028,731,721 | -16.5% |
| COTTON WOOL B.P. 500G | 1,303,156,080 | 1,584,503,335 | -17.8% |
| PGA G2/0 SL 75CM,1/2 CIRCLE, TF, 30MM | 1,060,997,495 | 1,080,023,220 | -1.8% |
| PGA G2 SL 90 CM,1/2 CIRCLE, TH, 40MM | 988,216,903 | 1,008,450,439 | -2.0% |
| PGA G1 SL 90 CM,1/2 CIRCLE, TH, 40MM | 888,435,022 | 937,042,409 | -5.2% |

| Therapeutic Grouping | Spend [FY2019/20] | Spend [FY2018/19] | % Change |
|---|-------------------|-------------------|---------------|
| PLASTER ADHESIVE ZINC OXIDE, 75MM X 5M | 801,777,949 | 1,001,617,817 | -20.0% |
| BLADES SCALPEL SIZE 22 | 583,591,205 | 488,446,326 | 19.5% |
| URINE STRIPS 10 PARAMETERS 100 TESTS | 429,652,642 | 548,679,196 | -21.7% |
| BIN LINERS (12L BLACK) | 421,210,412 | 426,817,644 | -1.3% |
| BIN LINERS (12L RED) | 362,345,170 | 373,136,348 | -2.9% |
| NYLON MONOFILAMENT G2/0, SL 45CM,3/8 CIRCLE,RC, 26MM | 351,419,888 | 256,538,405 | 37.0% |
| BIN LINERS (12L YELLOW) | 327,763,688 | 323,190,859 | 1.4% |
| NYLON MONOFILAMENT G1, SL 100CM,1/2 CIRCLE,RC,40MM | 297,003,056 | 320,174,775 | -7.2% |
| BIN LINERS (240L RED) | 267,105,600 | 202,047,466 | 32.2% |
| BIN LINERS (240L BLACK) | 223,836,464 | 204,376,343 | 9.5% |
| BIN LINERS (240L YELLOW) | 205,978,726 | 191,799,800 | 1 7.4% |
| PLASTER OF PARIS (POP) 6 INCH ROLL | 195,189,484 | 187,479,420 | 4.1% |
| BIN LINERS (12L BROWN) | 194,697,532 | 359,460,344 | -45.8% |
| MATERIAL FOR THEATRE GOWN(GREEN) 40M ROLLS | 187,164,432 | 231,856,992 | -19.3% |
| APRON PLASTIFIED LINEN HEAVY DUTY 90 X 100 CM | 180,089,568 | 120,010,266 | 50.1% |
| PLASTER OF PARIS (POP) 8 INCH ROLL | 174,814,733 | 160,436,819 | 9.0% |
| OXYGEN REGULATOR, CYLINDER MOUNTED | 143,956,852 | 41,352,314 | 248.1% |
| X-RAY FILMS 43 X 35CM GREEN SENSTIVE | 132,290,727 | 96,211,438 | 37.5% |
| GYNAECOLOGICAL GLOVES S-7 1/2,LATEX 1 PAIR | 130,871,894 | 73,196,782 | 78.8% |

3.1.4. Regular Items with Increased AMCs in the FY2019/20 Quantification

Table 6 below shows Items whose AMCs improved atleast by 50% in the FY2019/20 quantification compared to those in the FY2018/19. Most of these items have been having an upward trend in their AMCs since FY2017/18 procurement planning. (Note: Regular items are all Essential medicines distributed to all levels of care).

Table 6: Regular Items with Increased AMCs in the FY2019/20 Quantification

| DESCRIPTION | AMC [FY19/20] | AMC [FY18-19] | %(AMC Change) |
|---|---------------|---------------|---------------|
| NITROFURANTOIN 100MG TABLET | 535 | 100 | 434.8% |
| CEFOTAXIME SODIUM POWDER FOR INJECTION 1GM VIAL | 1,141 | 260 | 338.7% |
| HEPARIN INJECTION 5000IU/ML, 5ML VIAL | 753 | 205 | 267.5% |
| SILVER SULPHADIAZINE CREAM 1% 20G TUBE | 5,219 | 1,435 | 263.7% |
| HYOSCINE BUTYL BROMIDE 20MG/ML INJECTION | 178 | 50 | 255.5% |
| PROPOFOL 10 MG/ML, 50ML VIAL, INJECTABLE | 1,373 | 392 | 250.3% |
| AMETHOCAINE (TETRACAINE) HYDROCHLORIDE EYE DROPS 0.5%, 0.5ML DOSE UNITS | 53 | 15 | 250.0% |

| DESCRIPTION | AMC [FY19/20] | AMC [FY18-19] | %(AMC Change) |
|--|---------------|---------------|---------------|
| CHLORAMPHENICOL 5% EAR DROPS 10ML. | 5,161 | 1,500 | 244.1% |
| AUTOCLAVE MARKING TAPES, ROLL, 50M, 18MM WIDE | 227 | 70 | 224.4% |
| CLOXACILLIN 500MG INJ (PFR) IV/IM | 186 | 60 | 210.2% |
| MEROPENEM INJ 500MG VIAL | 938 | 323 | 190.7% |
| AZITHROMYCIN TABS 500MG | 525 | 182 | 188.5% |
| GENTAMYCIN 0.3% EYE/EAR DROP | 16,692 | 6,150 | 171.4% |
| X-RAY DEVELOPER AND REPLENISHER,(MANUAL)5L FOR 20L | 13 | 5 | 157.5% |
| METOCLOPRAMIDE 10MG TABLETS | 100 | 40 | 149.8% |
| ATRACURIUM 10MG/ML 2.5ML INJECTION | 48 | 20 | 140.1% |
| ENOXAPARIN 40MG/0.4ML,0.4ML VOL,PRE- FILLED SYRING | 193 | 81 | 139.2% |
| LISINOPRIL TABLETS 10MG | 234 | 100 | 134.3% |
| COLOSTOMY BAG CLOSED 30MM, SIZE 2, DIA 30MM 200X140 | 93 | 40 | 133.4% |
| DISPOSABLE SYRINGES 20ML WITH DETACHABLE NEEDLE | 349 | 150 | 132.3% |
| CLOXACILLIN 250MG CAPSULES | 1,008 | 453 | 122.4% |
| PHENOBARBITAL 200MG/2ML INJECTION | 144 | 65 | 122.0% |
| PARACETAMOL 125MG SUPPOSITORIES | 2,628 | 1,190 | 120.8% |
| ALCOHOL HANDSCRUB DISINFECTANT 1L | 1,158 | 540 | 114.7% |
| PROMETHAZINE INJECTION 25MG/ML 2ML AMP | 160 | 75 | 113.1% |
| PYRIMETHAMINE 25MG+SULFADOXINE 500MG TABLET | 2,025 | 996 | 103.3% |
| NEOSTIGMINE 0.5MG/ML AMPOULE | 54 | 29 | 90.8% |
| HYDROCORTISONE ACETATE EYE SUSPENSION DROPS 1%W/V, 5ML | 565 | 300 | 88.4% |
| MICONAZOLE PESSARIES 400MG | 133 | 71 | 87.1% |
| METHYLDOPA 250MG TABLETS | 234 | 125 | 87.0% |
| KETOCONAZOLE 200MG TABLET | 756 | 407 | 85.9% |
| CARVEDILOL 6.25MG TABLET | 229 | 125 | 83.1% |
| SODIUM VALPROATE 500MG TABS | 1,035 | 572 | 81.0% |
| INSULIN MIXTARD HUMAN 100IU/ML | 9,921 | 5,525 | 79.6% |
| SEVOFLURANE INHALATION IN 250ML VIAL | 91 | 51 | 78.4% |
| ACICLOVIR 5% TOPICAL CREAM | 892 | 500 | 78.4% |
| BENDROFLUAZIDE 5MG TABLET | 1,000 | 563 | 77.6% |
| X-RAY DEVELOPER LIQUID CONCENTRATE (AUTOMATIC), 5L | 18 | 10 | 75.0% |
| PIPERACILLIN -TAZOBACTAM 4.5G INJ | 485 | 280 | 73.2% |
| GLUTARALDEHYDE 2% 5 LTR SOLUTION | 42 | 25 | 66.7% |
| MULTIVITAMIN TABLET | 1,163 | 700 | 66.2% |
| GLUCOSE (DEXTROSE) 10% INFUSION 500ML | 694 | 420 | 65.2% |
| BISACODYL 5MG TABLETS | 657 | 399 | 64.6% |
| ACICLOVIR 200MG TABLET | 401 | 245 | 63.8% |
| VITAMIN B COMPLEX INJ 2ML AMP | 243 | 150 | 62.2% |
| BETAMETHASONE SODIUM PHOSPHATE 0.1% EYE DROPS 10ML | 4,969 | 3,100 | 60.3% |

| DESCRIPTION | AMC [FY19/20] | AMC [FY18-19] | %(AMC Change) |
|---|---------------|---------------|---------------|
| POVIDONE IODINE SCRUB 7.5% 500ML BOTTLE | 785 | 501 | 56.6% |
| TUBE ENDOTRACHEAL ORAL/NASAL PLASTIC CUFFED 8MM | 83 | 53 | 55.5% |
| METFORMIN HCL 500MG TABLET | 12,616 | 8,280 | 52.4% |
| NEEDLE LUMBAR PUNCTURE,25G X 90MM | 6,180 | 4,099 | 50.8% |

3.1.4.1. Regular Items with Decreased AMCs in the FY2019/20 Quantification

Table 7 below shows Items whose AMCs reduced 30% and below in the FY2019/20 quantification compared to those in the FY2018/19. Most of these items have been having an upward trend in their AMCs since FY2017/18 procurement planning.

Table 7: Items with Decreased AMCs in the FY2019/20 Quantification

| Description | AMC[FY2019-20] | AMC[FY2018-19] | %(AMC Change) |
|---|----------------|----------------|---------------|
| HOSPITAL OUT PATIENT MEDICAL FORM 5,MF5(100SHEETS)-BUTABIKA SPECIALIST SUPPLY | 20 | 243 | -91.8% |
| CHLORHEXIDINE GLUCONATE (HIBITANE) 5% W/V 5L | 2 | 15 | -88.9% |
| IMIPENEM + CILASTATIN 500MG INJ | 2 | 15 | -86.7% |
| CARVEDILOL TABS 25MG | 17 | 125 | -86.7% |
| ALCOHOL HANDSCRUB DISINFECTANT 20L JERRYCAN | 29 | 150 | -80.8% |
| DIGITAL 100SH 6800 35X43CM (14X17IN) DVB | 1 | 5 | -80.0% |
| VITAMIN A (RETINOL) 200.000 I U CAPSULE | 62 | 300 | -79.3% |
| PHENYTOIN SODIUM 100MG TABLET | 1,298 | 6,000 | -78.4% |
| CONTRAST MEDIUM IOPAMIRO 370, NON- IONIC, 50ML BOTTLE | 20 | 89 | -78.1% |
| ENZYMETIC DETERGENT (CIDIZYME SOLUTION), 1LITRE | 6 | 25 | -78.0% |
| ANTI-RABIES HUMAN IMMUNOGLOBULINE 300IU/2ML | 5 | 20 | -75.0% |
| MIDAZOLAM 5MG/ML INJECTION 3ML AMPOULE | 80 | 300 | -73.2% |
| DIGITAL 125SH 28X35CM (11X14IN) DVB | 1 | 5 | -72.5% |
| CATHETER SUCTION FG 6 OD 2MM | 221 | 800 | -72.4% |
| 0.55% ORTHO-PHTHALDEHYDE (OPA) | 10 | 30 | -66.7% |
| ALLOPURINOL 100MG TABLETS | 27 | 80 | -65.9% |
| TUBE ENDOTRACHEAL ORAL/NASAL PLASTIC CUFFED 7.5MM | 273 | 750 | -63.6% |
| CATHETER URETHRAL FOLEY, 10-30ML, FG24 2-WAY | 162 | 400 | -59.6% |
| LACTULOSE 10G/15ML SYRUP 100ML BOTTLE | 35 | 87 | -59.5% |
| HALOPERIDOL TABLETS 5MG | 169 | 402 | -57.9% |
| QUININE SULPHATE 300MG TABLET | 93 | 213 | -56.5% |
| CHLORAMPHENICOL SODIUM SUCCINATE 1G INJECTION | 255 | 572 | -55.4% |
| BLADES SCALPEL SIZE 11 | 30 | 67 | -55.1% |
| ENOXAPARIN 80MG/0.8ML,1ML SYRINGE | 22 | 47 | -53.6% |
| CATHETER SUCTION FG 12 OD 4MM | 190 | 400 | -52.6% |

| Description | AMC[FY2019-20] | AMC[FY2018-19] | %(AMC Change) |
|---|----------------|----------------|------------------|
| BLADES SCALPEL SIZE 15 | 52 | 109 | -52.5% |
| CATHETER SUCTION FG 20 OD 4MM | 193 | 400 | -51.8% |
| NASOGASTRIC TUBE - PEAD - 4 | 386 | 800 | -51.8% |
| DIGITAL 125SH 35X35CM (14X14IN) DVB | 2 | 4 | -50.0% |
| CATHETER URETHRAL FOLEY, 10-30ML, FG12 2-WAY | 187 | 368 | -49.1% |
| DIAZEPAM 5 MG TABLET | 395 | 771 | -48.7% |
| TUBE ENDOTRACHEAL ORAL/NASAL PLASTIC CUFFED 6MM | 119 | 232 | -48.6% |
| STOCK CARD (HMIS 015) | 574 | 1,100 | -47.8% |
| DIGITAL 125SH 20X25CM (8X10IN) DVB | 3 | 6 | -46.8% |
| NASOGASTRIC TUBE - PAED - 9 | 187 | 346 | -45.9% |
| BIN LINERS (12L BROWN) | 479 | 885 | -45.8% |
| CATHETER SUCTION FG 8 OD 2.7MM | 217 | 400 | -45.7% |
| TUBE ENDOTRACHEAL ORAL/NASAL PLASTIC CUFFED 5.5 MM | 83 | 153 | -45.7% |
| NASAL OXYGEN CANNULA TWIN, 200CM ADULT | 795 | 1,437 | -44.7% |
| CEFUROXIME TABLETS 500MG | 83 | 150 | -44.7% |
| DAPSONE 100MG TABLET | 213 | 381 | -44.1% |
| DEXAMETHASONE 4MG/ML 1ML,2ML AMPOULE | 154 | 271 | -43.2% |
| SAFETY BOX FOR SYRINGES & NEEDLE DISPOSAL | 937 | 1,640 | -42.9% |
| TUBE ENDOTRACHEAL ORAL/NASAL PLASTIC PLAIN 5MM | 50 | 86 | -41.7% |
| CATHETER URETHRAL FOLEY, 10-30ML, FG22 2-WAY | 464 | 795 | -41.6% |
| PHENYTOIN SODIUM 50MG/ML INJECTION 5ML | 804 | 1,365 | -41.1% |
| ENEMA CATHETER | 12 | 20 | -40.8% |
| DIAZEPAM 10MG/2ML INJ IM/SLOW IV/IV INFUSION | 255 | 430 | -40.8% |
| TUBE FEEDING PREMATURE DISP. FG6X 30/40CM OD 2MM | 414 | 692 | -40.2% |
| NALOXONE 0.4MG/ML 1ML AMPOULE | 15 | 25 | -39.7% |
| SALBUTAMOL 4MG TABLET | 680 | 1,107 | -38.6% |
| CARBIMAZOLE 5MG TABLETS | 31 | 50 | -38.4% |
| CATHETER SUCTION FG 18 OD 4MM | 247 | 400 | -38.3% |
| TUBE ENDOTRACHEAL ORAL/NASAL PLASTIC CUFFED 5 MM | 75 | 122 | -38.2% |
| CHLORPROMAZINE 100MG TABLET | 497 | 800 | -37.9% |
| DARROWS SOLUTION (HALF STRENGTH),500ML INFUSION VIAL | 226 | 364 | -37.9% |
| NASOGASTRIC TUBE - ADULT 22 | 158 | 252 | -37.2% |
| CATHETER SUCTION FG 14 OD 4MM CATHETER URETHRAL FOLEY, 3-5ML, FG10 2- | 257 128 | 400 200 | -35.8% -35.8% |
| WAY PHENYLEPHRINE INJECTION 10MG/ML, 1ML | 13 | 20 | -35.2% |
| AMPOULE | 28 | 43 | -34.3% |
| CHLORAMPHENICOL 250 MG CAPSULE | 36 | 55 | -34.1% |
| ACETYL SALICYLIC ACID 300 MG TAB | 90 | 133 | -32.5% |
| METOCLOPRAMIDE 10MG/2ML INJECTION | 90 | 133 | -52.576 |

| Description | AMC[FY2019-20] | AMC[FY2018-19] | %(AMC Change) |
|---|----------------|----------------|---------------|
| TUBE ENDOTRACHEAL ORAL/NASAL PLASTIC CUFFED 6.5MM | 294 | 434 | -32.2% |
| VITAMIN B1,B2,B6,B12 & FOLIC ACID TAB | 227 | 330 | -31.2% |
| SET INFUSION ADULT, 15-20 DROPS/ML, + NEEDLE 21G | 106,940 | 153,994 | -30.6% |

3.1.5. Tracer Medicines

MoH monitors the consumption and availability of 41 medicines (tracer medicines) on a regular basis to ensure that at atleast basic health care is provided at all times during care seeking. In the FY2019/20 planning, Pyrimethamine 25MG+Sulfadoxine 500MG Tablet had the biggest percentage change in AMCs (103%) followed Bendrofluazide (78%). The AMCs for; Propranolol 40MG Tablet (16%), Insulin Soluble (12%), Oxytocin (4%) Ceftriaxone 1G (4%) and Co-Packaged ORS and Zinc Tablets (3%) reduced compared to those registered in the FY2018/19.

Table 8: FY2019/20 Quantification of CRL Tracer Medicines

| DESCRIPTION | AMC [19-20] | AMC [18-19] | Spend [Fy19/20] -UGX | Spend [Fy18/19] -UGX | %AMC Change |
|--|----------------|----------------|-------------------------|-------------------------|----------------|
| PYRIMETHAMINE 25MG+SULFADOXINE 500MG TABLET | 2,025 | 996 | 2,624,313,600 | 1,290,816,000 | 103.3 |
| BENDROFLUAZIDE 5MG TABLET | 1,000 | 563 | 408,171,960 | 228,038,038 | 77.6 |
| METFORMIN HCL 500MG TABLET | 12,616 | 8,280 | 399,708,186 | 288,193,680 | 52.4 |
| NIFEDIPINE RETARD 20MG TABLET | 9,501 | 6,699 | 287,502,987 | 189,644,135 | 41.8 |
| ACETYLSALICYLIC ACID 75MG SR OR TABLET (CARDIOASPIRIN) | 1,126 | 900 | 70,906,599 | 70,644,744 | 25.1 |
| MISOPROSTOL 200MCG TABLETS | 1,802 | 1,507 | 1,000,000,000 | 836,500,738 | 19.5 |
| GLIBENCLAMIDE 5MG TABLET | 4,870 | 4,301 | 117,518,397 | 105,480,477 | 13.2 |
| CAPTOPRIL 25 MG TABLETS | 1,386 | 1,259 | 141,882,894 | 128,867,328 | 10.1 |
| CHLORHEXIDINE GLUCONATE 4%W/V 500ML WITH DISPENSER | 3,602 | 3,550 | 378,149,796 | 329,257,530 | 1.5 |
| CO-PACKAGED ORS AND ZINC TABLETS | 69,281 | 71,652 | 1,304,973,409 | 1,357,286,931 | -3.3 |
| CEFTRIAXONE SODIUM 1G POWDER FOR INJ.VIAL | 166,386 | 173,785 | 3,299,228,107 | 1,855,519,740 | -4.3 |
| OXYTOCIN 10IU/1ML INJECTION | 917 | 958 | 278,713,011 | 245,673,333 | -4.3 |
| INSULIN SOLUBLE, NEUTRAL, HUMAN 100IU/ML INJ SC | 1,197 | 1,360 | 243,898,247 | 270,269,122 | -12.0 |
| PROPRANOLOL 40MG TABLET | 140 | 167 | 22,608,623 | 26,940,947 | -16.1 |

3.1.6. Funding commitments for Credit Line (Program) commodities for FY2019/20

Prior to the quantification exercise, NMS conducts a needs analysis study on a representative sample of HFs at various levels of care aimed to understand the actual facility needs. Results from this exercise act as an advisory tool to all stakeholders. During analysis, facilities at each level of care are grouped into high volume and low volume categories and this is done to avoid skewed estimates. Standard Deviation (SD²) and Coefficient of Variation (CV³) are some of the measure of dispersion which were used to eliminate outliers.

In the FY2018/19, GoU increased funding for the supply of EMHLS to public HFs by UGX 46bn. This led to a reduction in the funding gap from 52% in the FY2017/18 to 41% in the FY2018/19. Funding for EMHLS was increased further by UGX 27bn in the next FY2019/20 translating into a further reduction in the funding gap to 31%. Out of the UGX 27bn increase for FY2019/20, UGX 17bn is a transfer from UBTS vote to NMS vote to boost up supply of blood collection items, and UGX 10bn was allocated to HCIIIs.

Besides HCIIs, HCIVs have the highest funding gap (56%). Out of the 28.9bn needed for adequate supply of medicines at this level, only UGX 12.7bn is available for the FY2019/20. This is followed by GHs at 32% and RRHs and HCIIIs at 28% each.

Table 9: Unfunded Gap for Credit Line Commodities (UGX)

| Level of Care | Budget 2019/20 | Funding Need[FY18-19] | Funding Need[FY19-20] | Gap [FY19-20] | %Gap [FY19 -20] | %Gap [FY18 -19] |
|-----------------|-----------------|--------------------------|--------------------------|----------------|-----------------------|-----------------------|
| HCII | 11,163,236,942 | 24,652,249,075 | 28,346,216,621 | 17,182,979,679 | 61% | 55% |
| HCIII | 30,360,000,000 | 39,233,107,035 | 42,017,196,600 | 11,657,196,600 | 28% | 48% |
| HCIV | 12,782,000,000 | 22,442,887,720 | 28,924,315,134 | 16,142,315,134 | 56% | 43% |
| GH | 19,456,000,000 | 22,825,760,899 | 28,646,362,062 | 9,190,362,062 | 32% | 15% |
| RRH | 18,233,000,000 | 30,043,007,748 | 25,215,615,215 | 6,982,615,215 | 28% | 39% |
| UBTS | 29,888,909,000 | 32,624,931,980 | 32,624,931,980 | 2,736,022,980 | 8% | 60% |
| UHI | 2,181,400,000 | | | | 0% | 0% |
| MULAGO NRH | 14,366,755,612 | 17,444,659,850 | 17,444,659,850 | 3,077,904,238 | 18% | 18% |
| BUTABIKA NRH | 2,000,041,612 | | | | 0% | 0% |
| Overall | 140,431,343,166 | 189,266,604,307 | 203,219,297,462 | 64,787,995,908 | 31% | 41% |

² A measure of dispersion was calculated to show how far data points deviate from the group means. The standard deviation was used to calculate the coefficient of variation (CV).

³ The coefficient of variation is a measure of spread that describes the amount of variability relative to the mean. This was calculated by dividing the standard deviation by the mean and multiplying by 100.

3.2. Non-Credit Line (Program) commodities

Centrally managed programs are commodities; 1) Funded by the Government of Uganda and Development Partners and 2) Quantification, budgeting and reporting is under the control of Ministry of Health. These 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.

3.2.1. Laboratory Items

There were significant improvements in the quantification for Laboratory supplies in the FY2019/20 as it covered all facilities with functional laboratories, unlike FY2018/19 were quantification was based on a sample of 346 HFs countrywide. QPPU through CPHL provided technical assistance during this exercise with funding from CHAI. The results are presented in Table 10 below.

Table 10: Highest Value Quantifications for Laboratory Items (Excluding UBTS specialized lab supplies)

| DESCRIPTION | AMC[FY2019-20] | AMC[FY2018-19] | %(AMC Change) |
|--|----------------|----------------|------------------|
| ANTI HUMAN GLOBULIN SERUM 5ML | 92 | 10 | 820% |
| PETRI DISHES(PLASTIC),90MM-PAIR | 250 | 51 | 388% |
| PAPER TOWELS ROLL | 1,281 | 339 | 278% |
| MICROSCOPE CLEANING PAPER 100 SHEETS | 704 | 200 | 252% |
| SPUTUM COLLECTION CONTAINER WITH LID- STERILE | 3,295 | 946 | 248% |
| VACUTAINER TUBES 6ML PLAIN | 254 | 113 | 125% |
| PIPETTE TIPS 100-1000 μL (BLUE) | 113 | 63 | 80% |
| PARAFILM ROLL-WAX 100MM X 75ML ROLL | 13 | 7 | 78% |
| VACUTAINER TUBES 4ML WITH SODIUM FLUORIDE (GREY TOP) | 89 | 54 | 63% |
| URINE CONTAINERS,SCREW-CAPPED,25ML | 1,412 | 1,000 | 41% |
| RHEUMATOID ARTHRITIS (RA) LATEX TEST KITS 100 TESTS | 129 | 103 | 26% |
| BIOHAZARD BAGS 30 INCH (RED) | 509 | 437 | 17% |
| MICROSCOPE SLIDES SINGLE FROSTED | 5,064 | 4,461 | 14% |
| URINE STRIPS 10 PARAMETERS 100 TESTS | 1,625 | 1,438 | 13% |
| SULPHOSALICYLIC ACID 3%,1000ML SOLUTION | 50 | 44 | 12% |
| VACUTAINER TUBES PLAIN 4ML (RED TOP) | 629 | 587 | 7% |
| BLOOD GLUCOSE STRIPS(50 STRIPS)-ONE TOUCH SELECT | 1,083 | 1,026 | 6% |
| STERILE SWABS IN PLASTIC TUBE CASING | 101 | 96 | 5% |
| TREPONEMA (TPHA) TEST STRIPS 100 TESTS | 683 | 700 | -2% |
| ALCOHOL SWABS - 70% ISOPROPYL | 3,035 | 3,212 | -6% |
| NEUTRAL RED 0.1% 1000ML SOLUTION | 121 | 128 | -6% |
| BIJOU BOTTLES,5ML SCREW-CAPPED | 2 | 2 | -8% |

| DESCRIPTION | AMC[FY2019-20] | AMC[FY2018-19] | %(AMC Change) |
|--|----------------|----------------|------------------|
| BOTTLE UNIVERSAL GLASS, WITH SCREW CAP 28 ML | 25 | 27 | -9% |
| PIPETTE TIPS 5-200 μL (YELLOW) | 226 | 248 | -9% |
| APPLICATOR STICKS WOODEN | 936 | 1,043 | -10% |
| GRAM IODINE 1000ML SOLUTION | 181 | 204 | -11% |
| FIELD STAIN A 1000ML SOLUTION | 559 | 634 | -12% |
| FIELD STAIN B 1000ML SOLUTION | 555 | 630 | -12% |
| ACETONE-ALCOHOL DECOLOURISER 50% 1 LTR | 545 | 626 | -13% |
| BIOHAZARD BAGS 30 INCH (YELLOW) | 379 | 437 | -13% |
| OIL IMMERSION FOR TROPICAL CLIMATE 100ML | 387 | 457 | -15% |
| LEISHMAN 1000ML SOLUTION | 41 | 49 | -16% |
| COVER GLASS MICROSCOPE 22 X 22MM | 881 | 1,058 | -17% |
| SULPHURIC ACID 25% 1000ML | 562 | 679 | -17% |
| BIOHAZARD BAGS 30 INCH (BLACK) | 359 | 437 | -18% |
| ANTI SERUM B 10ML | 485 | 603 | -20% |
| ANTI SERUM A 10ML | 485 | 604 | -20% |
| ANTI SERUM D 10ML | 485 | 606 | -20% |
| SHARPS CONTAINER (PLASTIC) 22.7 LITRES | 347 | 449 | -23% |
| VACUTAINER TUBES 4ML WITH EDTA (PURPLE TOPS) | 2,181 | 3,000 | -27% |
| FORMAL SALINE 10%,1000ML SOLUTION | 124 | 172 | -28% |
| DEIONISED WATER 20L | 380 | 530 | -28% |
| ANTI SERUM AB 10ML | 429 | 603 | -29% |
| METHYLENE BLUE 0.5% 1000ML SOLUTION | 409 | 606 | -33% |
| BRUCELLA ANTIGEN 100 TESTS | 358 | 534 | -33% |
| HUMAN DIESTRO ELECTROLYTE ANALYSER TESTING KITS | 1 | 2 | -33% |
| CRYSTAL VIOLET 2% 1000ML SOLUTION | 121 | 189 | -36% |
| STRONG CARBOL (BASIC) FUCHSIN SOLUTION 1000ML | 409 | 667 | -39% |
| HUMAN DIESTRO ISE CLEANING SOLUTION | 0.3 | 1 | -40% |
| HUMAN DIESTRO NA+ CONDITIONER | 0.3 | 1 | -40% |
| PREGNANCY TEST STRIPS 50 STRIPS | 1,108 | 2,037 | -46% |
| INDIAN INK,(LIQUID BIOLOGICAL STAIN) 100ML | 20 | 39 | -48% |
| STOOL CONTAINER PLASTIC W/SCREW CAP& SPOON | 464 | 1,000 | -54% |
| TURKS SOLUTION 2% 500ML | 10 | 25 | -60% |
| BLOOD COLLECTION SETS (BUTTERFLY NEEDLES 21G) | 158 | 500 | -68% |
| DRABKINS CAPSULES, 6 CAPS PER VIAL | 30 | 108 | -73% |
| CYANMETHEMOGLOBIN STANDARD 10ML | 19 | 75 | -75% |
| DAILY ACTIVITY LABORATORY REGISTER BOOK - 200PGS HCL 0.1M 1000ML SQLUTION | 74 | 376 | -80% |
| HCL 0.1M 1000ML SOLUTION | 10 | 104 | -90% |

Note: AMCs for FY2018/19 were based on a sample of 346 HFs, therefore not very accurate compared to those in the FY2019/20 which are based on a full population

3.2.2. Funding for Laboratory Supplies

Before FY2018/19, Laboratory program was one of the most unfunded outputs under vote116. GoU increased funding for the supply of these items by nearly 110% from UGX 5bn to UGX 11bn since the FY2018/19. This slightly reduced the funding gap and the FY2019/20 Needs analysis for laboratory reagents indicates a need of about UGX 11bn (50%).

Table 11: FY2019/20 Funding Gap for Laboratory Reagents (Excl. UBTS)

| Items | Total Requirement | Available funds | Funding Gap | % Funding gap |
|------------------|----------------------|-----------------|----------------|---------------|
| Blood Antiseras | 470,574,117 | 303,602,527 | 166,971,590 | 35% |
| Gram Stain | 448,644,686 | 199,955,910 | 248,688,776 | 55% |
| ZN stains | 591,961,130 | 312,594,518 | 279,366,612 | 47% |
| Blood Collection | 7,484,741,030 | 4,549,507,405 | 2,935,233,625 | 39% |
| Other supplies | 7,034,124,187 | 3,588,852,443 | 3,445,271,744 | 49% |
| Microbiology | 814,446,187 | 302,101,225 | 512,344,962 | 63% |
| Malaria stain | 660,235,236 | 368,224,026 | 292,011,210 | 44% |
| Lab HMIS tools | 631,829,246 | 301,623,699 | 330,205,547 | 52% |
| Total | 22,030,006,267 | 11,000,303,353 | 11,029,702,914 | 50% |

3.2.3. Antimalarial/ACTs Commodities

The burden of malaria has significantly been reducing. This could be attributed to World Health Organization (WHO) recommendations of; sleeping under an insecticide-treated mosquito net as one of the primary prevention method as well as indoor residual spraying. Other interventions include Mass Action Against Malaria (MAAM) where the fight against the disease is taken to household level in order to highlight everyone's individual responsibility in eliminating Malaria from Uganda by 2020.

MoH through QPPU and NMCP has been working was NMS during the quantification exercise since 2017 to ensure that the reduction in malaria is also reflected in the quantification, ordering and distribution of these commodities to HFs. Table 13 below shows trends in the quantification of Malaria commodities since FY2017/18.

Overall, there was a general reduction in the quantification for Antimalarial commodities by 37%. This indicates positivity on the fight against malaria in Uganda given also the increased quantification for mRDTs which are being used to implement test and treat policy. Generally, all malaria commodities significantly reduced between the two FYs.

Table 12: Quantification for ACTs/Anti-malarial Commodities for FY2019/20

| Description | UoM | FY17/18 Annual Qty | FY18/19 Annual Qty | FY19/20 Annual Qty | %Change [FY18/19] | %Change [FY19/20] |
|---|-----|--------------------------|--------------------------|--------------------------|----------------------|----------------------|
| ARTEMETHER 20MG+LUMEFANTRINE 120MG (STRIP OF 24 TABS) | 30 | 828,996 | 444,437 | 318,311 | -46% | -28% |
| ARTEMETHER 20MG+LUMEFANTRINE 120MG (STRIP OF 12 TABS) | 30 | 73,158 | 86,889 | 32,551 | 19% | -63% |
| ARTEMETHER 20MG+LUMEFANTRINE 120MG (STRIP OF 18 TABS) | 30 | 87,222 | 70,879 | 36,878 | -19% | -48% |
| ARTEMETHER 20MG+LUMEFANTRINE 120MG (STRIP OF 6 TABS) | 30 | 311,142 | 181,302 | 150,175 | -42% | -17% |
| ARTESUNATE INJECTION 60MG VIAL | 1 | 5,737,257 | 3,587,312 | 2,502,788 | -37% | -30% |
| MALARIA RAPID DIAGNOSTIC TEST KIT(RDT) | 25 | - | 786,438 | 1,029,312 | | 31% |
| Overall | | | | | -25% | -37% |

Note: Overall %change for FY2019/20 excludes mRDTs

3.2.4. Reproductive Health Supplies

Government of Uganda increased the budget allocation for Reproductive health (RH) supplies to UGX 16bn in the FY 2018/19. The annual requirement for Maternity kits increased from one million kits in the FY2018/19 to 1.2 million Kits in the FY2019/20 indicating a 14% increase. Subjecting this to the current Unit cost of a single maternity kit (UGX 24,300), the annual requirement for this item in value terms is UGX 29.33bn. This therefore means that the entire RRH budget can only serve 55% of the actual requirement for only this item.

There was a general increase in the quantification for RH commodities with items such as Levonorgestrel 0.75 MG (104%) and Etonogestrel 68MG Implant (IMPLANON) (149%) doubling their annual requirements between the two FYs. The increase in the AMCs for RH supplies is generally attributed to streamlining of the ordering and distribution of these commodities in the public sector supply chain. The streamlining is that all government HFs should be served by NMS.

There were observed deviations between the National quantification figures as reflected in the annual forecasts for RH commodities for FY2019/20 and the facility based quantifications. Going forward, there is need to harmonize this, as it has been the case with malaria commodities. For example, as per facility based quantification the public sector need for male condoms is about 550,000 packs of 144 while the National level quantification is 68% (1,700,000 million) more than the HF based need.

Table 13: FY2019/20 Reproductive Health Spending [National forecast is the base/denominator]

| Product Description | Unit | Annual QTY [FY19/20] | Annual QTY[FY1 8/19] | % Change | National Forecast [FY19/20] | %De viati on |
|---|------|----------------------------|----------------------------|-------------|-----------------------------------|--------------------|
| MALE CONDOMS GENERIC BULK FOILED | 144 | 549,803 | 370,946 | 48% | 1,741,137 | -68% |
| ETHINYLESTRADIOL0.03+LEVONORGE STREL0 .15MG 3CYCLES | 1 | 237,954 | 243,268 | -2% | 277,969 | -14% |
| IUD-COPPER CONTAINING DEVICE TCU380A | 1 | 59,478 | 34,907 | 70% | 96,916 | -39% |
| MEDROXYPROGESTERONE W/SYRINGE | 200 | 38,033 | 31,391 | 21% | 355 | |
| LEVONORGESTREL 0.75 MG | 1 | 104,655 | 51,350 | 104% | 64,100 | 63% |
| ETONOGESTREL 68MG IMPLANT (IMPLANON) | 1 | 225,966 | 90,812 | 149% | 183,682 | 23% |
| MEDROXYPROGESTERONE ACET. 104MG/0.65ML [SAYANA PRESS 160MG/ML 200X0.65] | 200 | 3,555 | | | 4,262 | -17% |
| LEVONORGESTREL 75 MG,IMPLANT(JADELLE) | 100 | 2,325 | | | 1,138 | 104% |
| SAFE DELIVERY (MATERNITY) KIT | 1 | 1,206,992 | 1057064 | 14% | 883,323 | 37% |
| MISOPROSTOL 200MCG TABLETS | 100 | 22,266 | 26723.2 | -17% | 12,550 | 77% |

3.2.5. Nutritional Medicines

Nutritional products are commodities which either supplement the nutrition or provide part or all of the daily nutritional requirements. They include intravenous or oral nutrition that can provide all the nutrition. Nutritional products also include supplements for example, iron and other vitamins, minerals and electrolytes. In the FY2019/20 Quantification, UNICEF working with ministry of health emphasized the need to integrate the supply of nutrition commodities into the public sector supply chain as the case is with other EMHLS. As a result, these items where included onto the procurement planning templates at all levels of care and they were zero rated as their procurement and cost of distribution shall be fulfilled through donor funding. Table 15 below shows the estimated annual requirements for these commodities.

Therapeutic Milk F 75KCAL, Therapeutic Milk F 100KCAL and Ready-To-Use-Therapeutic-Feeds (RUTF) were quantified up-to HC2 level. ReSoMal was quantified up-to HC4 level and Selenium up-to Hospital level. It should however be noted that these AMCs should form a baseline for the quantification of these items as there was no accurate data to guide the quantification for these items, a lot of personal judgement was used and therefore not very accurate. We hope for future improvements after accurate recording of the consumption of these commodities is put in place.

Table 14: FY2019/20 Quantification for Nutrition Commodities

| Product Description | Unit | Annual Requirement | Monthly Consumption [AMC] |
|--|------|-----------------------|---------------------------|
| THERAPEUTIC MILK F 75KCAL | 24 | 21,724 | 1,810 |
| THERAPEUTIC MILK F 100KCAL | 24 | 33,227 | 2,769 |
| READY-TO-USE-THERAPEUTIC-FEEDS (RUTF) | 150 | 35,529 | 2,961 |
| ReSoMaL Powder for 1 Litre | 1 | 22,581 | 1,882 |
| SELENIUM 200MCG+MORINGA OLEIFERA 500MG | 90 | 1,858 | 155 |

3.2.6. Non Communicable Diseases

Non Communicable Diseases (NCDs) is defined as those diseases that are not transmitted from one person to another (not infectious). NCDs, also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioral factors.

Main NCDs comprise of cardiovascular diseases like hypertension, heart attacks and stroke; Cancer; Diabetes; Chronic Respiratory diseases (such as chronic obstructive pulmonary disease and asthma). Included as well are Mental Health, Blood disorders e.g. Sickle Cell Diseases, Injuries, Violence and Oral Health were included.

The Global Action Plan 2013-2020 for prevention and Control of NCDs had one of it's Voluntary Global Targets (VGTs) of an **80%** availability of the affordable basic technologies and essential medicines, including generics, required to treat major non-communicable diseases in both public and private facilities. NMS selected nine (9) NCD medicines to be supplied to government HFs without affecting budget allocations under CRL. Since the start of the FY2018/19 these items are being supplied free of charge to facilities. This is intended to create more access to NCD drugs in the country as the prevalence of such conditions is rapidly increasing. Currently, the available budget for NCD medicines under vote116 is UGX 2.033bn and comparing this with the FY2019/20 annual need, the funding gap for such medicines is **76%.** In this years' forecast, atleast one commodity was chosen from each of the following four NCDs; *Diabetes, Hypertension, Sickle Cell Anaemia, Epilepsy and ANC*. The increased quantification for Pyrimethamine 25MG+Sulfadoxine 500MG Tablet is due to the revised policy on ANCs.

Table 15: FY2019/20 Quantification for Selected NCD Medicines

| Description | AMC [FY19/20] | AMC[F Y18/19] | Annual Spend [Fy2019/20] - UGX | Annual Spend [Fy2018/19] - UGX | %(AMC Change) | %(Value Change) |
|---|----------------------|------------------|---|---|------------------|--------------------|
| PYRIMETHAMINE 25MG+SULFADOXINE 500MG TABLET | 2,025 | 996 | 2,624,313,600 | 1,290,816,000 | 103.3% | 103.3% |
| INSULIN MIXTARD HUMAN 100IU/ML | 9,921 | 5,525 | 2,126,340,138 | 1,110,592,626 | 79.6% | 91.5% |
| BENDROFLUAZIDE 5MG TABLET | 1,000 | 563 | 408,171,960 | 228,038,038 | 77.6% | 79.0% |
| PHENOBARBITAL 30MG TABLET | 1,218 | 1,070 | 552,594,420 | 355,414,924 | 13.9% | 55.5% |
| NIFEDIPINE RETARD 20MG TABLET | 9,501 | 6,699 | 287,502,987 | 189,644,135 | 41.8% | 51.6% |
| FOLIC ACID 5MG TABLET | 3,645 | 2,659 | 465,271,015 | 339,437,304 | 37.1% | 37.1% |
| METFORMIN HCL 500MG TABLET | 12,616 | 8,280 | 399,708,186 | 288,193,680 | 52.4% | 38.7% |
| PHENYTOIN SODIUM 100MG TABLET | 1,298 | 1,158 | 1,393,154,381 | 1,243,158,210 | 12.1% | 12.1% |
| GLIBENCLAMIDE 5MG TABLET | 4,870 | 4,301 | 117,518,397 | 105,480,477 | 13.2% | 11.4% |
| Overall | | | 8,374,575,083 | 5,150,775,393 | | 62.6% |

Note: Available budget for the supply of NCD Medicines in the FY2019/20 is UGX 2.033bn

3.2.7. Forecasted Need for Non Credit Line (Program) commodities for FY2019/20

Centrally managed programs, are programs co-funded by both GoU and Development Partners (DPs). There quantification and supply plan is directly handled by QPPU (Pharmacy department). NMS together with HFs representatives plan for the cycle distribution of these items through procurement planning essentially to guide facility ordering during implementation of the public sector supply plan.

Overall, the FY2019/20 Quantification for Non-CRL commodities was UGX 1.24 Trillion. This was slightly higher than that of FY2018/19 (UGX 114 Trillion) due to increased forecast for ARVs (from UGX410bn in FY2018/19 to UGX 797bn in FY2019/20). There was a general increase in the commitments towards the supply of Non-CRL commodities both by GoU and DPs. GoU commitment FY2019/20 has increased from UGX 161.5bn in the FY2018/19 to UGX 221.5bn while the commitment for DPs has increased from UGX 620bn in the FY2018/19 to UGX 895bn in the FY2019/20.

Table 16: Funding commitments for Non Credit Line (Program) commodities for FY2019/20

| Commodities in a central pool | Need [FY18/19] | Need [FY19/20] | GoU Commitment (2018/19) | GoU Commitment (2019/20) | Partner Commitment[F Y18/19] | Partner Commitment[FY19/20] |
|-------------------------------------|-------------------|-------------------|-----------------------------|-----------------------------|------------------------------------|------------------------------------|
| Laboratory | 191,957,469,112 | 269,517,527,511 | 11,000,000,000 | 11,000,000,000 | 58,184,344,000 | 133,780,966,009 |
| ACTs | 184,609,843,542 | 43,487,540,582 | 11,108,625,000 | 5,108,625,000 | 184,609,843,542 | 43,487,540,582 |
| mRDTs | 71,133,765,980 | 32,661,422,198 | | | 76,896,009,804 | 32,661,422,198 |
| Artesunate Injection Vials | 76,896,009,804 | | | | 71,133,765,980 | |
| ARVs | 410,857,531,854 | 797,039,603,729 | 94,891,375,000 | 150,891,375,000 | 172,898,760,750 | 660,051,855,959 |
| Reproductive Health | 104,440,968,674 | 45,823,248,223 | 16,000,000,000 | 16,000,000,000 | 14,720,665,688 | 3,665,859,858 |
| TB Programme | 82,435,952,115 | 30,336,345,292 | 7,000,000,000 | 7,000,000,000 | 41,504,149,096 | 21,161,965,397 |
| Immunisation Supplies | 20,051,206,072 | 22,709,054,730 | 11,000,000,000 | 21,000,000,000 | | |
| Hepatitis B Vaccines | | | 8,000,000,000 | 8,000,000,000 | | |
| Emergency supplies | | | 2,500,000,000 | 2,500,000,000 | | |
| Overall | 1,142,382,747,154 | 1,241,574,742,264 | 161,500,000,000 | 221,500,000,000 | 619,947,538,860 | 894,809,610,003 |

^{*}FY2017/18 Government contribution to total forecast was 21.4% and the funding gap was 44.7%

Note: a conversion rate of 1 USD to UGX 3,750.54 shillings was used to convert all quantifications in Dollars as at April 30th 2019 (https://www.bou.or.ug/bou/home.html)

3.2.8. Funding Gap for Non Credit Line (Program) commodities for FY2019/20 and Risk Analysis

Stock availability is one of the factors that can negatively affect the quality of health care service delivery especially due to stockouts. The increase in the expenditure in the Ugandan health sector towards the supply of Non-CRL items is generally attributed to partner commitments (MoH, 2017). Table 18 below shows the current risks associated with donor support towards the supply of Non-CRL items.

There has been an upward trend in the funding of these items by DPs. In the FY2017/18, DP commitment was 34%, this increased to 54% in the FY2018/19 and then to 72% as a percentage of total forecast (UGX 1.24 Trillion) in the FY2019/20. This has significantly reduced the funding gap for the supply of such commodities and in the FY2019/20 the funding gap stands at **10%.** This represents 22% reduction in percentage points in the funding gap between the two FYs. *This is due to 100% funding for Anti-malaria commodities and HIV/AIDs commodities. Laboratory supplies* (46%) and RH supplies (57%) still have the biggest unfunded priorities.

The analysis presented in table 18 clearly unearth a challenge facing the per-capita expenditure in Uganda's health sector which needs to be addressed, otherwise in case donors pulled out, is GoU ready to fill this gap (UGX 894bn)?. In the MoH budget frame work for FY2019/20, one of the priority areas for FY2019/20 is to prioritize health promotion, prevention and early intervention with focus on improving hygiene and sanitation, integrated community case management of common conditions using the Village Health Teams and introduction of the community health extension workers' strategy. Fight against Malaria has already reached greater heights (as reflected in quantification of ACTs in table 18) because of this approach. Strategies on the fight against HIV should be more strengthened as well, otherwise the expenditure on HIV/AIDs medicines is almost increasing every FY.

Table 17: Funding gap for Non Credit Line (Program) commodities for FY2019/20

| Commoditi es in a central pool | Need [FY19/20] | Funding Gap [FY19/20] | GoU Commitment [2019/20] | Partner Commitment[F Y19/20] | GoU commitm ent [FY19/20] | Partner Commit ment[F Y17/18] | Partner Commit ment[FY 18/19] | Partner Commit ment[FY 19/20] | Gap[FY1 8/19] | Gap[FY1 9/20] |
|---|-------------------|--------------------------|--------------------------------|------------------------------------|------------------------------------|--|--|--|------------------|------------------|
| Laboratory | 269,517,527,511 | 92,152,879,149 | 11,000,000,000 | 133,780,966,009 | 4% | 46% | 30% | 50% | 64% | 46% |
| ACTs | 43,487,540,582 | | 5,108,625,000 | 43,487,540,582 | 12% | 39% | 100% | 100% | 0% | 0% |
| mRDTs | 32,661,422,198 | | | 32,661,422,198 | | 52% | 100% | 100% | 0% | 0% |
| ARVs | 797,039,603,729 | | 150,891,375,000 | 660,051,855,959 | 19% | 35% | 42% | 83% | 35% | 0% |
| Reproducti ve Health | 45,823,248,223 | 33,697,360,712 | 16,000,000,000 | 3,665,859,858 | 15% | | 14% | 8% | 71% | 57% |
| TB Programme | 30,336,345,292 | 2,098,568,173 | 7,000,000,000 | 21,161,965,397 | 23% | 95% | 50% | 70% | 41% | 7% |
| Immunisati on Supplies | 22,709,054,730 | 1,709,054,730 | 21,000,000,000 | | 92% | | | | 45% | 8% |
| Hepatitis B Vaccines | | | 8,000,000,000 | | 100% | | | | 0% | |
| Emergency supplies | | | 2,500,000,000 | | 100% | | | | 0% | |
| Overall | 1,241,574,742,264 | 129,657,862,764 | 221,500,000,000 | 894,809,610,003 | 18% | 34% | 54% | 72% | 32% | 10% |

3.3. Overall Commodity Gap

Overall, the entire public sector commodity need for FY2019/20 is estimated at around UGX 1.45 Trillion. The overall funding gap is 13% with CRL supplies being the most unfunded commodity line with 31% funding gap. *The 13% funding gap is highly skewed downwards by the low funding gap on centrally managed programs and therefore should be interpreted and quoted with caution.*

Table 18: FY2019/20 Overall Commodity Gap Analysis

| Commodity line | Forecasted Need | GoU Commitment | Partner Commitment | Funding Gap |
|------------------------|--------------------|-------------------|-----------------------|----------------|
| CRL Commodities | 203,219,297,462 | 140,431,343,166 | | 31% |
| NCD Commodities | 8,374,575,083 | 2,033,123,776 | | 76% |
| Non-CRL Commodities | 1,241,574,742,264 | 221,500,000,000 | 894,809,610,003 | 10% |
| Total | 1,453,168,614,809 | 363,964,466,942 | 894,809,610,003 | 13% |

4.0.DISCUSSION

4.1. Supply of CRL Commodities

The introduction of the morbidity based quantified has greatly improved evidence based planning for EMHLS. Challenges are still observed during planning with lower level facilities were the method cannot be applied because of the kit system. In the FY2017/18, Medical personal in HFs went on a sit down strike and among the many push factors for this was the need to ensure availability of medical sundries/consumables in government hospitals. To that effect, GoU increased the budget for Essential Medicines by UGX 46bn towards the supply of such commodities. However, in relation to FY2018/19 quantification (UGX 40.55bn) for items such as Gloves, Protective, Administration Sets, Bandages & Dressings, Sutures, Disinfectants and blades, the FY2019/20 Quantification (UGX 35.37bn) reduced by 13%. This can be attributed to the changing facility needs as it should be noted that prioritization is key during procurement planning.

The impact of inflationary tendencies which have greatly affected the purchasing power of the Uganda shilling against the US dollar is still causing imbalances in the Average Monthly Consumption (AMCs) of Essential Medicine whereby, despite increased GoU funding, AMCs mostly for Oral preparation medicines such as Amoxicillin tablets have dropped if compared with the Needs Analysis AMCs were planning was not constrained by the budget ceiling. However, there was observed prioritization for MoH tracer medicines with most of them registering increased AMCs, although, It is also important to note that most tracer items have rarely been affected by upward price movements.

4.2. Supply of Malaria Commodities

NMS has continued to work with NMCP, QPPU and CHAI during procurement planning especially during the planning for Anti-malaria commodities and this has significantly impacted on the realistic planning for these items. This coupled with preventive interventions by MoH, prompt diagnosis and treatment, use of Insecticide Treated Nets (ITNs) and Long-Lasting Insecticide Nets (LLINs), Indoor Residual Spraying (IRS) especially in Northern Uganda, and Intermittent Preventive Treatment (IPT) of pregnant women have lowered the high rates of malaria in the country and the need for Anti-malaria commodities has hit a downward trend. This was evidently

observed during planning for Malaria commodities whose quantification figures for FY2019/20 went down.

4.3. Supply of Laboratory Commodities

According to Uganda's national health laboratory services strategic plan (UNHLSSP-2010/2015), a well-developed laboratory system is a fundamental and crucial component of any health system. Laboratory services range from diagnosis of health/disease conditions for individual patients to national disease surveillance and control of disease outbreaks. It therefore requires the necessary attention and resource investment to fulfil its function. Apart from a handful of some government HCIIs especially military facilities, the structuring of laboratory services in government HFs start at HCIII level. Therefore, with technical guidance from CPHL, the FY2019/20 quantification for laboratory supplies covered almost all HFs at HCIII, HCIV, GH, RRH and NRH level.

Previously, planning for laboratory supplies was very hypothetical and therefore not evidence based. This was due to inadequate funding with only UGX 5bn allocated for the supply of Laboratory reagents and therefore considering a cost-benefit analysis, planning with HF was not very practical.

In the FY2018/19 GoU increased funding for laboratory supplies to UGX 11bn and hence necessitating accurate planning with HFs. Therefore FY2019/20 planning should be used as a baseline for comparing and tracking consumption trends for laboratory commodities. During planning the needs analysis was also conducted to establish the actual funding gap for laboratory supplies and the exercise revealed that GoU should allocated more UGX 11bn towards the supply of laboratory supplies. Whereas the overall funding gap for laboratory including HIV test kits stands at 46%, the funding gap for Laboratory reagents stands at 50%.

4.4. Supply of Non Communicable Diseases Commodities

In 2018, MoH and NMS agreed to provide a selected sample of NCD drugs (8 medicines) to public hospitals without affecting their CRL budgets, this was aimed to ensure availability and accessibility to such medicines given the rapidly growing trend in the prevalence of NCDs not just in Uganda but world over. The FY2019/20 quantification of the selected NCD medicines under Hypertension, Epilepsy, Diabetes,

Sickle Cell Anaemia and ANC was UGX 8.37bn. This figure is far higher than the available budget under vote 116 budget which is about UGX 2bn. According to "WHO 2018 NCD country profile report", in 2016, out of the 57 million deaths globally, 41 million death (71%) were due to NCDs with cardiovascular Diseases accounting for 44% of death among NCD group and 31% compared to all other disease. In 2016, the total number of deaths due to NCDs in Uganda was approximately 97,600 and the total number of death from all conditions was 297,000. This means that NCDs accounted for approximately 33% with cardiovascular being the leading cause and accounting for 11% of the total death in Uganda (WHO, 2018). Fight NCDs in Uganda is still a challenge due to the following factors *Unclear or unknown statistics about NCD burden at local levels*

- ✓ Inadequate screening and diagnostic medical equipment
- ✓ Sedentary life style
- ✓ Trending unhealthy products saturating local markets in form of parked drinks and foods
- ✓ Limited routine medical check-ups in the public health facilities
- ✓ Knowledge gap among health workers especially those in lower health facilities
- ✓ Budget constrained to prioritize for NCDs against other competing health challenges
- ✓ Confusing messages from unconventional healthcare providers

 In general, there are less than optimum efforts geared towards the fight against NCDs yet the negative economic consequences on national development are numerous. Government then should ensure that out of pocket payment for NCD medicines reduces by ensuring consistent free access to NCD medicines in public HFs.

4.5. Funding Gap Analysis

The FY2019/20 needs analysis for Essential Medicines is UGX 203bn. considering the estimated GoU funding of UGX 140.4bn for essential medicines, this leaves a funding gap of about UGX 64bn for all levels of care. In the FY2018/19 GoU increased funding by UGX 46bn and UGX 70bn in FY2019/20. Out of the UGX 70bn in the FY2019/20 UGX 50bn has been allocated to vote116 output of ARVs, UGX 10bn to vote116 output of Immunisation and UGX 10bn towards supply of essential medicines to HCIIIs from HCIV level. UBTS transferred UGX 17bn from vote 151 to NMS vote 116 to boost and increase the supply of blood collection supplies. The UGX 17bn on UBTS and UGX

10bn on HCIIIs and upgraded GHs has significantly improved the funding gap for essential medicines from 41% in the FY2018/19 to 31% in the FY2019/20 forecast. The funding gap for UBTS now stands at 8% down from 60% in the FY2018/19. HCIVs have the highest funding gap of about 56%, followed by GHs (32%) and RRH and HCIIS with 28% each.

Surprisingly, the quantification for ARVS for the FY2019/20 is fully funded despite increments in the forecasted figures. The supply of Malaria commodities is also funded 100%. Increased DPs commitments (nearly UGX 895bn) for non-CRL commodities as well as increased GoU commitment on Immunisation supplies (UGX 10bn) and ARVs (UGX 50bn) has led to a reduction in the funding gap for such commodities in the public sector from 32% in the FY2018/19 to 10% in the FY2019/20.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

The quantification was highly interactive with a good number of stakeholders involved. There were observed reductions especially in the areas of medical sundries as well as noticeable increases in the quantification for parental drugs. Increased GoU funding especially towards the supply of Essential Medicines is still needed

5.1.1. CRL Commodities

- 5.1.1.1. The overall forecast for CRL commodities was UGX 203.2bn. FY2019/20 GoU commitment on CRL is UGX 140.4bn.
- 5.1.1.2. The funding gap for CRL has reduced to 31% (UGX 64.7bn), considering the increments in the funding for supply of blood collection supplies and supply of essential medicines to HCIIIs.
- 5.1.1.3. HCIVs have the highest funding gap of about 56% (UGX 16bn) followed by GHs with 32% (UGX 9.2bn), HIIIs with 28% (UGX 11.66bn) and RRHs with 28% (UGX 7bn).
- 5.1.1.4. Funding gap for UBTS has significantly gone down to 8% (UGX 2bn).
- 5.1.1.5. Funding gap for NCDs stands at 76%.
- 5.1.1.6. GoU Commitment on both CRL and Non-CRL has increased from UGX 276.96bn in the FY2018/19 to UGX 363.96bn in the FY2019/20.

5.1.2. Non-CRL Commodities

- 5.1.2.1. Overall forecast for non CRL commodities was UGX1.24 trillion.
- 5.1.2.2. GoU funding for Non-CRL programmes increased by UGX 60bn from UGX 161.5bn in the FY2018/19 to UGX 221.5bn in the FY2019/20.
- 5.1.2.3. Development partner commitments increased from UGX619.9bn in the FY2018/19 to UGX 894.8bn in the FY2019/20 indicating a 72% partner commitment.
- 5.1.2.4. The Overall funding gap for centrally managed programs now stands at 10% significantly lower than 32% registered in FY2018/19 forecast.

5.2. Recommendations

The main recommendations from the FY2019/20 quantification exercise are as follows.

To Ministry of Health (MoH)

- 5.2.1. GoU may consider increasing funding for HCIVs by UGX 16bn, GHs by UGX9.2bn, RRHs by UGX 7bn and HCIIIs by UGX 12bn and National Referrals by around 18% of their current budgets.
- 5.2.2. GoU may consider increasing the funding towards the supply of centrally managed commodities (Non-CRL); Laboratory reagents by UGX 11bn, Reproductive Health by UGX 34bn, Anti-TB medicines by UGX 2bn and Immunisation supplies by UGX 2bn.
- 5.2.3. GoU may consider increasing the funding on NCD supplies by around UGX 7bn.
- 5.2.4. MoH may continue creating and increasing community awareness about diseases prevention mechanisms as this will help on reducing the volumes of morbidity cases in health facilities and therefore minimise pressure on Vote 116 budget.
- 5.2.5. MoH may introduce community dispensing points for NCD medicines or use differentiated service delivery models to take services closer to the communities.
- 5.2.6. MoH may integrate regular medical check-ups for NCDs into all routine health activities at all health facilities and also organize regular medical camps to address the same.
- 5.2.7. The range of medicines under NCD should be expanded to include mental drugs and also provide basic investigative/screening monitoring equipment such as blood pressure machines.

To Health Facilities (HFs)

- 5.2.8. HF managers may ensure and provide close supervision of accurate data collection and capture using available tools to accurately link inputs with outputs and should minimise the observed communication gap between their stores and prescribing personnel.
 - 5.3. HFs and MoH may put mechanisms at facility level to ensure accountability of drugs and their movement within the hospitals.

6.0 REFERENCES

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7.0 ANNEXES

Table 19: Annex 1A: Total Requirement per Sector for HIV/AIDS Laboratory Commodities

| Year | 2018 | 2019 | 2020 | 2018-2020 |
|---|------------------------|------------------------|---------------------|-------------------------------------|
| Test Category | Public Sector (USD) | Public Sector (USD) | Public Sector (USD) | Grant Total Public Need (USD) |
| HIV Test kits and Accessories | 15,896,590 | 15,636,688 | 14,971,166 | 46,504,443 |
| Viral Load | 23,298,916 | 26,293,585 | 28,482,154 | 78,074,654 |
| EID | 4,165,004 | 4,430,744 | 4,450,518 | 13,046,266 |
| CD4 | 3,982,089 | 3,785,304 | 3,227,716 | 10,995,110 |
| Chemistry | 2,183,156 | 2,317,838 | 2,462,210 | 6,963,205 |
| Hematology | 2,503,268 | 2,948,080 | 3,150,028 | 8,601,376 |
| Crag LFA and Accessories | 510,878 | 533,381 | 584,872 | 1,629,132 |
| Syphilis | 1,992,356 | 2,736,139 | 3,522,795 | 8,251,291 |
| Hepatitis B screening and VL testing | 2,152,646 | 2,217,859 | 2,285,071 | 6,655,576 |
| Blood Sample Collection and other accessories | 2,378,813 | 2,417,107 | 2,442,120 | 7,238,039 |
| HPV - Cervical Cancer Screening | 909,988 | 1,314,838 | 1,764,126 | |
| Total | 59,973,703 | 64,631,564 | 67,342,776 | 187,959,092 |

Source: QPPU-MoH (Accessed April 2019)

Table 20: Annex 1B: Funding Gap-Laboratory Forecast (Public Need)

| Item | Total Public Sector need | UNITAID Contribution | PEPFAR Contribution | Total GF Contribution | Total Gap excluding stock on hand & pipeline |
|--------------------------------------|-----------------------------------|-------------------------|------------------------|--------------------------|--|
| HIV Tests Kits | 46,504,443 | - | 3,798,697 | 35,280,856 | 7,424,889 |
| Viral Load | 78,074,654 | 637,500 | 42,099,719 | - | 35,337,435 |
| EID | 13,046,266 | 1,487,500 | 6,383,636 | - | 5,175,130 |
| CD4 | 10,995,110 | 480,000 | - | 5,804,496 | 4,710,614 |
| Chemistry | 6,963,205 | - | - | 4,576,600 | 2,386,605 |
| Hematology | 8,601,376 | - | - | 2,706,125 | 5,895,251 |
| CRAG | 1,629,132 | - | - | 747,282 | 881,849 |
| Syphilis | 8,251,291 | - | - | 629,255 | 7,622,036 |
| Hepatitis B screening and VL testing | 6,655,576 | - | - | 2,377,696 | 4,277,879 |
| Total Budget | 180,721,052 | 2,605,000 | 52,282,052 | 52,122,311 | 73,711,689 |

Table 21: Annex 2A: ARVs Forecast -2019

| National ARV medicines requirement 2019 (USD) | | | | | | | | | |
|---|-----------------|--------------|--------------|-----------------|-------------|--|--|--|--|
| | Jan-Mar 2019 | Apr-Jun 2019 | Jul-Sep 2019 | Oct-Dec 2019 | Totals | | | | |
| Procurement requirement | 58,343,848 | 31,432,088 | 51,138,592 | 54,334,583 | 195,249,112 | | | | |
| Funding profile | | | | | | | | | |
| GOU | 7,790,323 | - | 10,234,648 | 7,302,803 | 25,327,773 | | | | |
| PEPFAR 1* | 25,390,267 | 4,015,160 | 268,789 | 7,957,373 | 37,631,589 | | | | |
| PEPFAR 2** | 2,046,359 | 4,380,102 | 21,642,201 | 15,924,104 | 43,992,766 | | | | |
| PEPFAR 3*** | 2,359,432 | 3,631,667 | 5,272,105 | 15,169,571 | 26,432,775 | | | | |
| GF | 20,757,468 | 19,405,159 | 13,720,849 | 7,980,732 | 61,864,209 | | | | |
| Total funding available | 58,343,848 | 31,432,088 | 51,138,592 | 54,334,583 | 195,249,112 | | | | |
| Gap | - | - | - | - | - | | | | |

Table 22: Annex 2B: ARVs Forecast, 2020

| National ARV medicines requirement 2020 (USD) | | | | | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-------------|--|--|--|--|
| | Jan-Mar 2020 | Apr-Jun 2020 | Jul-Sep 2020 | Oct-Dec 2020 | Totals | | | | |
| Procurement requirement | 50,460,516 | 56,579,600 | 41,886,608 | 41,218,237 | 190,144,962 | | | | |
| Funding profile | | | | | | | | | |
| GOU | 4,334,683 | 14,652,673 | 2,727,733 | 2,852,875 | 24,567,964 | | | | |
| PEPFAR 1 | - | - | - | - | - | | | | |
| PEPFAR 2 | - | - | - | - | - | | | | |
| PEPFAR 3 | 16,462,649 | 19,113,591 | 24,903,650 | 28,231 | 60,508,121 | | | | |
| GF | 29,663,184 | 22,813,336 | 13,965,838 | - | 66,442,358 | | | | |
| Total funding available | 50,460,516 | 56,579,600 | 41,597,221 | 2,881,106 | 151,518,443 | | | | |
| Gap | - | - | 289,387 | 38,337,132 | 38,626,519 | | | | |

Table 23: Annex 3: ACTs Summary of Global fund grant allocation

| Product details | U | 2019 | SUPPLY | PLAN - | GLOBA | L FUND | |
|--|----|--------------------|----------------------------|----------------------------|----------------------------|----------------------|---|
| | M | CY19Q1 Quantity | CY19Q 2 Quanti ty | CY19Q 3 Quanti ty | CY19Q 4 Quantit y | Y2 Total Quantity | Y2 Total Cash Outflow + PSM (USD) |
| Artemether 20mg+lumefantrine 120mg (strip of 6 tabs) | 30 | 104,701 | 31,000 | 53,000 | 30,457 | 219,158 | 2,432,154 |
| Artemether 20mg+lumefantrine 120mg (strip of 12 tab) | 30 | | | 15,900 | 9,200 | 25,100 | 445,684 |

| Artemether 20mg+lumefantrine 120mg (strip of 18 tab) | 30 | | NOT PLANNED | | | | |
|---|----|---------|-------------|-------------|-------------|-----------|-----------|
| Artemether 20mg+lumefantrine 120mg (strip of 24) | 30 | 50,000 | 110,00 0 | 115,00 0 | 24,620 | 299,620 | 7,536,891 |
| Artesunate injection 60mg vial | 1 | NOT | PLANNE | D DUE T | O SUFFI | CIENT | |
| Malaria Rapid tests pack of 25's | 25 | 161,655 | 282,34 7 | 395,44 6 | 206,82 8 | 1,046,276 | 8,708,459 |
| Dihydroartemisinin/Piperaquin e 40mg+320mg - Tab - Blister of 9 | | | | | 483,42 4 | 483,424 | 1,180,278 |

Table 24: Annex 4A: Summary of procurement and supply plan for TB medicines 2019/2020

| Item | Total packs | Pack cost (USD) | Total cost (USD) |
|--|----------------|-----------------------|------------------|
| A. First line medicines | | | |
| Rifampicin/Isoniazid 150/75mg film coated | 3688 | 27.05 | 99,745.23 |
| tablets | 17266 | 27.05 | 466,974.30 |
| RHZE 150/75/400/275mg | 6140 | 56.43 | 346,458.69 |
| Ethambutol 100mg dispersible tablets | 6523 | 26.23 | 171,130.12 |
| RHZ 75/50/150mg dispersible film uncoated tablets | 4355 | 4.18 | 18,194.84 |
| Rifampicin/Isoniazid 75/50mg dispersible film uncoated tablets | 7196 | 3.44 | 24,758.85 |
| Vitamin B6, Pyridoxine 50mg | 12092 | 3.40 | 41,158.46 |
| | 32760 | 3.40 | 111,507.70 |
| | 32760 | 3.40 | 111,507.70 |
| | 32760 | 3.40 | 111,507.70 |
| B. Sample collection and processing items | | | |
| Sputum mugs | 1426 | 117.66 | 167,781.66 |
| Zip lock bag for sample packaging-triple packaging | 202 | 34.70 | 7,009.40 |
| Microscope slides | 2127 | 29.10 | 61,892.40 |
| C. Reagents for ZN microscopy | | | |
| Carbol fucshin | 5,000 | 15.00 | 75,000.00 |
| Methylene blue | 2,500 | 16.00 | 40,000.00 |
| Sulfuric acid | 5,000 | 13.00 | 65,000.00 |
| D. Genexpert cartridges | | | |
| Ultra-MTB RR reagent | 2000 | 565.00 | 1,130,000.00 |
| E. Infection control Materials | | | |
| Surgical masks/patient masks | 522 | 3.38 | 1,764.36 |
| N95 respirators | 7,925 | 24.86 | 197,041.62 |
| Total cost of product | | | USD3,248,433.04 |

| | UGX12,019,202,262. |
|--|---------------------|
| | UGA 12.019.202.202. |
| | |
| | 86 |
| | 00 |

Table 25: Annex 4B: Summary of supply plan for FLD TB medicines 2019/2020

| Item | Quantity in Packs | Supplier | Unit cost (USD) | Total cost (USD) |
|--|-------------------|---------------|-----------------------|------------------|
| Ethambutol 100mg film coated tablets | 4,736 | GDF | 3.75 | 17,760.00 |
| | 6,523 | GOU | 21.35 | 139,266.05 |
| | 6,523 | GDF | 21.35 | 139,266.05 |
| Isoniazid 300mg film uncoated tablets | 44,398 | GDF-HIV grant | 13.52 | 600,260.96 |
| | 11,850 | GDF-PEPFAR | 13.52 | 160,212.00 |
| | 14,874 | GDF-HIV grant | 13.52 | 201,096.48 |
| | 11,580 | PEPFAR | 13.52 | 156,561.60 |
| | 28,126 | PEPFAR | 13.52 | 380,263.52 |
| | 29,746 | PEPFAR | 13.52 | 402,165.92 |
| RH 150/75mg Rifampicin/Isoniazid 150/75mg film coated tablets | 7,664 | NMS | 22.01 | 168,684.64 |
| _ | 3,688 | NMS | 22.01 | 81,172.88 |
| | 16,899 | GDF | 22.01 | 371,946.99 |
| | 5,000 | GDF | 22.91 | 114,550.00 |
| | 17,266 | NMS | 22.01 | 380,024.66 |
| | 16,891 | GDF | 22.01 | 371,770.91 |
| | 16,892 | NMS | 22.01 | 371,792.92 |
| RH 75/50mg Rifampicin/Isoniazid 75/50mg dispersible film uncoated tablets | 18,197 | GDF | 2.8 | 50,951.60 |
| | 16,301 | GDF | 2.8 | 45,642.80 |
| | 7,196 | NMS | 2.8 | 20,148.80 |
| | 15,531 | GDF | 2.8 | 43,486.80 |
| | 15,532 | NMS | 2.8 | 43,489.60 |
| RHZ 75/50/150mg dispersible film uncoated tablets | 4,346 | GDF | 3.4 | 14,776.40 |
| | 6,268 | GDF | 3.4 | 21,311.20 |
| | 3,413 | GDF | 3.4 | 11,604.20 |
| | 4,355 | NMS | 3.4 | 14,807.00 |
| | 7,766 | GDF | 3.4 | 26,404.40 |
| RHZE 150/75/400/275mg | 17,362 | NMS | 45.92 | 797,263.04 |
| | 5,000 | GDF | 22.91 | 114,550.00 |
| | 7,546 | GDF | 45.92 | 346,512.32 |

| Item | Quantity in Packs | Supplier | Unit cost (USD) | Total cost (USD) |
|-----------------------------|-------------------|----------|-----------------------|------------------|
| | 4,347 | NMS | 45.92 | 199,614.24 |
| | 8,445 | GDF | 45.92 | 387,794.40 |
| Vitamin B6, Pyridoxine 50mg | 31,786 | NMS | 2.77 | 87,949.55 |
| | 12,092 | NMS | 2.77 | 33,457.69 |
| | 32,760 | NMS | 2.77 | 90,644.54 |
| | 32,760 | NMS | 2.77 | 90,644.54 |
| | 32,760 | NMS | 2.77 | 90,644.54 |
| TOTAL COUNTRY NEED | | | | USD 6,588,493.24 |
| PSM Cost 22.88% | | | | USD 1,507,447.25 |
| GRAND TOTAL | | | | USD 8,095,940.49 |
| GOU supply plan FY19/20 | | | | USD 940,810.70 |

Table 26: Annex 4C: Summary of supply plan for SLD TB medicines 2019/2020

| Item | Pack Size | Quantity in Packs | Supplier | Unit cost (USD) | Total cost (USD) |
|---|--------------|-------------------|----------|-------------------------------|---------------------|
| Amikacin 500mg/2ml solution for Injection | 10 | 80 | GDF | 6.184 | 494.72 |
| | 10 | 80 | GDF | 6.184 | 494.72 |
| | 10 | 191 | GDF | 7.05 | 1,346.55 |
| | 10 | 206 | GDF | 7.05 | 1,452.30 |
| | 10 | 111 | GDF | 7.05 | 782.55 |
| Capreomycin 1g injection vial | 1 | 24,842 | | 3.85 | |
| | 1 | 28,338 | GDF | 3.85 | |
| | 1 | 47,581 | GDF | 3.85 | |
| | 1 | 42,129 | GDF | 3.85 | |
| Kanamycin 1g powder for injection | 50 | 1,751 | GDF | 112.5 | |
| | 50 | 1,300 | GDF | 112.5 | 146,250.00 |
| | 50 | 421 | GDF | 46 | |
| Bedaquiline 100mg capsule | 188 | 129 | GDF | 103.5 | 13,351.50 |
| | 188 | 151 | GDF | 46 | 6,946.00 |
| | 188 | 156 | GDF | 46 | 7,176.00 |
| | 188 | 45 | GDF | 46 | 2,070.00 |
| Clofazimine 100mg capsule | 100 | 1,352 | GDF | 98.24 | |
| | 100 | 1,090 | GDF | 98.24 | 107,081.60 |
| | 100 | 1,309 | TBD | 98.24 | 128,596.16 |
| | 100 | 1,945 | GDF | 98.24 | 191,076.80 |
| | 100 | 1,912 | TBD | 98.24 | 187,834.88 |
| Cycloserine 100mg capsule | 100 | 1,897 | | 26.8 | |
| | 100 | 1,000 | GDF | 28.8 | 28,800.00 |
| | 100 | 780 | GDF | 28.8 | 22,464.00 |
| | 100 | 1,780 | GDF | 28.8 | 51,264.00 |
| Ethambutol 400mg tablet | 672 | 310 | GDF | 24.1 | 7,471.00 |
| Ethionamide 250mg tablet | 100 | 3,698 | GDF | 9.67 | |

| | 100 | 6,517 | GDF | 9.67 | 63,019.39 |
|---------------------------|-----|-------|-----|-------|--------------|
| | 100 | 6,303 | GDF | 9.67 | 60,950.01 |
| | 100 | 3,813 | GDF | 9.67 | 36,872.59 |
| | | , | | | |
| Isoniazid 300mg tablet | 672 | 349 | GDF | 13.5 | 4,711.50 |
| | 672 | 396 | NMS | 13.52 | 5,353.92 |
| Levofloxacin 250mg tablet | 100 | 2,338 | GDF | 3.78 | 8,837.64 |
| | 100 | 2,633 | GDF | 3.78 | 9,952.74 |
| Linezolid 600mg tablets | 10 | 784 | GDF | 13.69 | |
| | 10 | 518 | GDF | 13.79 | 7,143.22 |
| | 10 | 2,546 | GDF | 13.79 | 35,109.34 |
| | 10 | 5,949 | GDF | 13.79 | 82,036.71 |
| | 10 | 5,425 | GDF | 13.79 | 74,810.75 |
| Moxifloxacin 400mg tablet | 100 | 1,029 | GDF | 29 | |
| · | 100 | 1,838 | GDF | 29 | 53,302.00 |
| | 100 | 2,425 | GDF | 29 | 70,325.00 |
| Pyrazinamide 400mg tablet | 672 | 663 | | | |
| Delamanid 100mg | 672 | 11 | GDF | 1700 | 18,700.00 |
| | 672 | 11 | GDF | 1700 | 18,700.00 |
| | 672 | 24 | TBD | 1700 | 40,800.00 |
| | 672 | 20 | TBD | 1700 | 34,000.00 |
| TOTAL NEED | | | | | 1,500,034.09 |
| PSM costs | | | | | 372,751.30 |
| GRAND TOTAL | | | | | 1,872,785.39 |

Table 27: Annex 5: Reproductive Health (18 Months)

| Item Description | Unit | VOLUME GAP | unit cost (USD) | VALUE GAP (USD) |
|--|---------|---------------|---------------------------|--------------------|
| Depo-Provera | 1 vial | 2,220,878 | 0.8 | 1,776,702.40 |
| Sayana Press | 1 | 1,594,326 | 0.85 | 1,355,177.10 |
| Implanon NXT | 1 | - | 8.5 | - |
| Jadelle | 1 | 125,110 | 8.5 | 1,063,435.00 |
| IUD - Copper | 1 | - | 0.63 | - |
| Male Condom (52MM with and without Logo) | 1 | - | 0.028 | - |
| Female condoms | 1 | 346,530 | 0.5 | 173,265.00 |
| Levonorgestrel 1.5mcg (Emergency Contraceptive)*** | 1 tab | - | 0.37 | - |
| Combined Oral Contraceptives (Microgynon) | 1 cycle | - | 0.27 | - |
| Progestin only pill | cycle | 237,708 | 0.3 | 71,312.40 |
| Misoprostol 200mcg Tabs | 100 | - | 12.5 | - |
| Maama Kit (Safe Maternity Kit) | 1 | 810,196 | 9.6 | 7,777,881.60 |
| Total Gap | | | | 12,217,773.50 |
| PSM Costs | | | | 977,421.88 |
| GOU FY 19/20 commitment | | | | 4,210,526.32 |
| Overall Gap | | | | 8,984,669.06 |

Table 28: Annex 5: FY2019/20 Vaccine Projection

| Year | 2,019 | 2,020 | 2,021 |
|---------------------------------|----------------|----------------|----------------|
| Bacillus Calmette-Guerin (BCG) | 1,934,847,667 | 1,967,875,832 | 2,002,536,567 |
| Polio Oral Bivalent (BOPV) | 3,444,077,798 | 3,502,868,767 | 3,564,565,754 |
| MCV | 2,736,820,209 | 5,468,704,640 | 5,565,026,432 |
| Tetanus Diphtheria Vaccine (TD) | 6,793,893,122 | 7,051,634,137 | 7,308,409,570 |
| BCG adminstration 0.05ml | 578,264,768 | 588,135,842 | 598,494,840 |
| MCV and Td adminstration 0.5ml | 1,989,676,044 | 2,058,265,919 | 2,126,898,673 |
| BCG reconstitution 2ml | 455,843,828 | 463,625,156 | 471,791,113 |
| MCV reconstitution 5ml | 399,170,719 | 405,984,628 | 413,135,346 |
| (A) Subtotal | 18,332,594,155 | 21,507,094,920 | 22,050,858,295 |
| | | | |
| (B) LPG | 1,503,792,000 | 1,503,792,000 | 1,127,844,000 |
| Sum (A+B) | 19,836,386,155 | 23,010,886,920 | 23,178,702,295 |
| Service Charge 6% | 21,026,569,324 | 24,391,540,135 | 24,569,424,432 |