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# Prospective Country Evaluation Uganda

**2019 ANNUAL COUNTRY REPORT**

**Commissioned by the Technical Evaluation Reference Group  
(TERG) of the Global Fund**



## **DISCLAIMER**

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

AGYW	Adolescent Girls and Young Women
AIS	AIDS Indicator Survey
ART	Antiretroviral therapy
ARV	Antiretroviral drug
CCM	Country Coordinating Mechanism
CEP	Country Evaluation Partner
CHW	Community Health Worker
CRG	Community, Rights and Gender
CSO	Civil Society Organization
CSW	Commercial sex worker
CT	Country Team
DBS	Dried blood spot
DFID	Department for International Development
DHIS2	District Health Information System 2
DQA	Data Quality Assessment
DTLS	District TB and Leprosy Supervisor
GEP	Global Evaluation Partner
GOS	Grant operating system
GoU	Government of Uganda
HCT	HIV counselling and testing
HIV	Human immunodeficiency virus
HMIS	Health Management Information System
iCCM	Integrated Community Case Management
IDRC	Infectious Diseases Research Collaboration
IFMS	Integrated Financial Management System
IHME	Institute for Health Metrics and Evaluation
IPT	Isoniazid preventive therapy
ITN	Insecticide-Treated Net
KII	Key Informant Interview
KPI	Key Performance Indicator
KPMG	Klynveld Peat Marwick Goerdeler
KVP	Key and vulnerable populations
LFA	Local Fund Agent
LLIN	Long-Lasting Insecticide-Treated Net
M&E	Monitoring and Evaluation
MakSPH	Makerere University School of Public Health
MAPD	Malaria Action Plan for Districts
MARP	Most-at-Risk Population
MARPi	Most at Risk Populations Initiative
MCP	Malaria Control Program
MDA	Ministries, Departments, and Agencies
MDR TB	Multidrug-Resistant TB
MNL	Most-at-Risk Populations Network Limited
MoES	Ministry of Education and Sports
MoFPED	Ministry of Finance, Planning and Economic Development
MoGLSD	Ministry of Gender, Labor and Social Development
MoH	Ministry of Health
MoJ	Ministry of Justice
MoLG	Ministry of Local Government
MoU	Memorandum of Understanding

MTEF	Medium-term Expenditure Framework
NDA	National Drug Authority
NGO	Non-Governmental Organization
NMS	National Medical Stores
NSP	National Strategic Plan
NTLP	National TB and Leprosy Program
NTPS	National Tuberculosis Prevalence Survey
ODPP	Office of the Director of Public Prosecutions
PAAR	Priority Above Allocation Request
PACE	Programme for Accessible Health, Communication and Education
PCE	Prospective Country Evaluation
PEPFAR	President's Emergency Plan for AIDS Relief (U.S.)
PHIA	Population-based HIV Impact Assessment
PLHIV	People Living with HIV
PPM	Pooled Procurement Mechanism
PR	Principal Recipient
PSM	Procurement and Supply Chain Mechanism
PU/DR	Progress Update/Disbursement Request
RBM	Roll Back Malaria
RCA	Root Cause Analysis
RDT	Rapid Diagnostic Test
RSSH	Resilient and Sustainable Systems for Health
SHA	System of Health Accounts
SOMREC	School of Medicine Research and Ethics Committee
SR	Sub-Recipient
STC	Sustainability, Transition and Co-financing
TA	Technical Assistance
TASO	The AIDS Support Organization
TB	Tuberculosis
TERG	Technical Evaluation Reference Group
TRP	Technical Review Panel
UAC	Uganda AIDS Commission
UBoS	Uganda Bureau of Statistics
UGX	Uganda Shilling
UNCST	Uganda National Council of Science and Technology
UNICEF	United Nations International Children's Emergency Fund
UPHIA	Uganda Population-Based Impact Assessment survey
USTP	Uganda Stop TB Partnership
VfM	Value for Money
WHO	World Health Organization

## EXECUTIVE SUMMARY

The Prospective Country Evaluation (PCE) is an independent evaluation of the Global Fund commissioned by the Global Fund's Technical Evaluation Reference Group (TERG). The PCE evaluates how Global Fund policies and processes play out in country in real time and aims to provide high quality, actionable and timely information to national program implementers and Global Fund policymakers.

Five Global Fund grants were signed in Uganda amounting to US\$478,043,197 for the 2018-2020 grant cycle and are currently being implemented by dual track Principal Recipients (PRs) from both the public (PR1) and non-governmental (PR2) sectors. To prospectively evaluate the implementation of these grants and the operationalization of the Global Fund business in Uganda, the PCE draws upon process evaluation methods including key informant interviews, fact checking interviews, process tracking, document review and non-participant meeting observation. These data were triangulated with analyses of financial resources and quantitative output and outcome measurements from sources including detailed budgets and other financial data, the Uganda Health Management Information System (HMIS), surveys and publicly available data from online data dashboards. This report describes key findings from early implementation of the newly approved grants from January–November of 2018.

### Early grant implementation progress: Inputs, activities and outputs

**HIV/AIDS:** Of the US\$287.8 million allocated for the TB/HIV grants, US\$147.9 million was designated for the purchase of antiretroviral drugs (ARVs; 51.4%) and US\$19.7 million for HIV test kits (6.8%). The grant includes an additional 13.7% for the procurement and supply chain management of these medical commodities, indicating a strong emphasis on delivery, including stock out prevention, in the current grants. The Global Fund is the largest funder of ARVs in Uganda, accompanied by US\$37.9 million from PEPFAR and US\$26.3 million from the Government of Uganda (GoU) in fiscal year 2018. Early commodities success is represented by the declining number of ARV stock outs in Q1–Q3 of 2018. However, many other activities in Q1–Q3 2018 were not implemented as planned as a result of the prolonged onboarding process for the public sector PR1, delays in the disbursements of catalytic funds and protracted Sub-recipient (SR) selection for Principal Recipient 2 (PR2).

**TB:** Of the US\$18.4 million allocated for TB by PR1, the primary focus is on TB care and prevention (US\$13.0 million; 60.8%). PR2's combined TB/HIV grant includes US\$2.9 million allocated for TB, multidrug-resistant TB (MDRTB) and TB/HIV co-infection. Given the emphasis on TB-related commodities in the 2018–2020 grants, district stakeholders identified community-based case detection and follow-up as major gaps in spending and implementation in recent years. While diagnostic capabilities for TB and MDRTB have improved, case notifications remain low relative to burden due to limited funding for active case finding at the facility and community level. District-level stakeholders expressed concern that TB activities are neglected in comparison to activities for HIV and malaria, resulting in districts that are ill equipped to implement the complexity of TB case detection and diagnosis. The National TB and Leprosy Program (NTLP) made substantial progress in early 2018 towards HMIS systems integration, an activity that represents US\$2.6 million of the total grant allocation for all diseases. Systems integration has led to increased case reporting through Uganda's integrated HMIS. However, the continued reliance on paper-based reporting tools represents an ongoing barrier to full systems integration.

**Malaria:** Of the US\$190.0 million allocated to the malaria grants, 31% is for facility-based treatment (US\$59.4 million) and 39% is for long-lasting insecticide-treated net (LLIN) mass campaigns (US\$73.5 million), interventions that focus on commodity procurement. Both testing of suspected cases and treatment of confirmed cases have increased since grant initiation, such that the proportion of suspected cases tested with rapid diagnostic tests or microscopy increased from 67% to 82% in the first half of 2018. These trends were

accompanied by a decline in presumptive treatment in accordance with national guidelines and an increase in the number and percentage of patients treated who received confirmatory tests.

### **Global Fund Business Model in Practice**

Several aspects of the Global Fund business model were identified as key facilitators of program implementation. The flexibility to pre-order commodities prior to grant launch was seen as an essential mechanism to ensure a smooth transition between grants. In addition, the flexibility to reallocate funds allowed for increased responsiveness to the needs of national programs. Several innovations, such as staff validation exercises, proactive stakeholder alignment efforts and monthly meetings convened by the Ministry of Health (MoH), were facilitators of early grant implementation and demonstrated country ownership. Similarly, strong leadership and involvement by senior officials within the MoH and engagement by the Global Fund Country Team (CT) were important factors in early implementation, resulting in open communication and timely guidance to country stakeholders.

Several hindering factors to grant implementation were also identified. Most notably, implementation of some activities was delayed due to protracted SR selection processes for both PRs, resulting in delayed implementation of some activities. The SR selection, contracting and disbursement process have historically taken a minimum of five months for the public sector PR, the Ministry of Finance, Planning, and Economic Development (MoFPED; PR1), a time lag that was not reflected in implementation plans.

The SR selection process was also significantly delayed for the non-governmental PR, The AIDS Support Organization (TASO; PR2), despite its early start in December 2017. Country stakeholders expressed dissatisfaction with a rushed selection process by TASO and potential interference by key actors, leading the Global Fund Country Team to recommend that the SR selection process be repeated using an independent consulting firm. The original process was cancelled in April 2018 and restarted using the outside firm. Given the essential role of SRs in implementing TASO's grants, delays in SR selection had substantial repercussions for implementation progress and resulted in Q1-Q2 2018 financial absorption of only 22.5% for malaria and 27.5% for TB and HIV.

### **Progress on Strategic Objectives**

A consequence of protracted SR selection and onboarding was low funding absorption during the first half of 2018, especially for activities directed towards gender and human rights, key and vulnerable populations (KVPs) and resilient and sustainable systems for health (RSSH). As many gender and human rights activities are implemented by SRs, who represent unique expertise in reaching distinct populations, delayed implementation of gender and human rights activities in the first two quarters of 2018 was primarily due to delayed SR selection for TASO and onboarding delays of preselected SRs for MoFPED.

In the 2018-2020 grants, Uganda did not increase the overall percent of investment in RSSH compared to the prior 2014-2016 allocation period (6.4%). Although many RSSH activities were shifted into the malaria Priority Above Allocation Request (PAAR), the total RSSH investments across the main allocation and PAAR account for only 3.8% of the overall portfolio, representing limited progress towards meeting Global Fund Strategic Objective on RSSH.

Early observations indicate that activities designated as RSSH are supporting disease-specific system improvements rather than crosscutting health system strengthening. RSSH activities planned for Q1-Q2 2018 are not yet fully implemented due to the delayed onboarding of SRs, the protracted approval processes required for research activities and stakeholders' hesitation to use funds for activities that are challenging to document.

Evidence from document review indicates that the GoU has increased health expenditure in recent years in addition to the GoU plans to increase domestic contributions and sustainability



of diseases programs. Despite these domestic financial increments over the years, there is still a big gap in the funding of the three diseases.

## **Recommendations**

- There is need for Global Fund to place additional emphasis on key disease program performance indicators in addition to the fund absorption rate. This will encourage country stakeholders to invest in areas that are perceived as difficult to implement with Global Fund investments, including RSSH.

SR selection and onboarding:

- Country stakeholders working with the Global Fund Country Team should develop SR selection guidelines detailing roles, responsibilities, and expectations for engagement of Global Fund actors at each stage of SR selection. The selection process can then be evaluated against these set standards.
- Given the delay in SR selection and its observed consequences on implementation of the 2018-2020 grants, country stakeholders should include sufficient time for SR selection and onboarding at the outset of future grant cycles. Stakeholders recommended planning for PR activities during the first two quarters to allow time for SRs to finalize onboarding.
- An institution independent of CCM and PR2 should carry out the SR selection process in future grant cycles, as was the case with the recent SR selection process. Stakeholders viewed an independent institution as objective and important for minimizing conflicts of interest.

Gender and human rights, RSSH and sustainability, transition and co-financing (STC):

- The Global Fund should integrate matching funds requests, including for gender and human rights, into the timeline for the main grant allocations, creating a single process for funding request development and grant making and planning.
- In circumstances where crosscutting RSSH activities must be embedded in disease specific grants, having a strong coordinating mechanism between the different disease programs and responsible departments to ensure that planning and implementation of RSSH activities exhibits support across disease programs is paramount. the Quality Assurance Department under MoH is currently undertaking this role.
- The Global Fund and the GoU should jointly develop a clear and transparent institutional mechanism to monitor and report on the execution of counterpart financing.
- Although Uganda will likely remain reliant on Global Fund support for some time, the CCM should proactively engage GoU to increase budget allocations to the three diseases.

## **Dissemination and next steps**

The results of this report were disseminated to stakeholders in Uganda at a national level dissemination event in February 2019. Through stakeholder feedback generated at the dissemination meeting, findings and recommendations outlined in this report were further validated and finalized. Plans for 2019 will continue to be specified, including on impact measurement in Uganda for all three diseases. Synthesis of key findings across the eight PCE countries was reported to the Global Fund Board and its Strategy Committee, which highly value the TERG's independent evaluation of implementation of Global Fund strategy by the PCEs.

## **CHAPTER 1. OVERVIEW OF PCE IN 2018**

The Prospective Country Evaluation (PCE) is an independent evaluation of the Global Fund commissioned by the Global Fund's Technical Evaluation Reference Group (TERG). The PCE aims to evaluate the Global Fund business model, investments and impact to generate evidence in real time to inform global, regional and national stakeholders and to accelerate progress towards meeting the Global Fund Strategic Objectives. These objectives are to: 1) maximize impact against HIV, TB and malaria; 2) build resilient and sustainable systems for health (RSHH); 3) promote and protect human rights and gender equality; and 4) mobilize increased resources.

During the inception phase (May-September 2017), the Infectious Diseases Research Collaboration (IDRC) together with global partners established the PCE in Uganda. Following the inception phase, the first phase of the PCE focused on the funding request and grant making process for the 2017-2019 Global Fund application cycle. This report focuses on the early implementation of the 2018-2020 HIV/TB and malaria grants, including:

- Continuing to meet the needs of country stakeholders, including dissemination of reports, stakeholder meetings and solicitation of feedback for major findings;
- Prioritizing key impact and process questions at the country level;
- Building relationships and partnerships with the Country Team (CT), Country Coordinating Mechanism (CCM) and stakeholders;
- Identifying factors that facilitate or hinder grant implementation; and
- Evaluating the Global Fund business model in practice.

Based on the key principle of partnership, the PCE continues to prioritize stakeholder engagement to maximize learning. Drawing on the strong stakeholder platform that was established during the inception phase, IDRC has continuously engaged country stakeholders by presenting at and attending meetings as non-participant observers. IDRC continues to build relationships with key stakeholders, despite significant personnel turnover in the Ministry of Health (MoH) - a relationship building process that includes engaging the upper level management of MoH. Furthermore, IDRC has maintained continuous engagement with the Global Fund Country Team (CT) and the Minister of Health, who pledged her continued support. IDRC held an annual dissemination meeting in April 2018 at which findings, recommendations and 2018 focus areas were shared. Feedback from stakeholders was used to prioritize evaluation questions and key focus areas for the 2018 evaluation period.

The PCE in 2018 has evaluated whether grants are being implemented on time and as designed, including tracking the timeliness of Sub-recipient (SR) contracting and disbursements to Principal Recipients (PRs) and Sub-recipients (SRs). The PCE is also evaluating initial programmatic outputs and outcomes for HIV, TB and malaria, including barriers and facilitators to achieving targets, and how the Global Fund business model and national context contribute to grant implementation. To evaluate the implementation of the Global Fund Strategic Objectives, particular focus is given to how co-financing and RSSH were integrated into the current grant cycle.

This report summarizes emerging findings from the evaluation of quarters 1-3 (Q1-Q3) of grant implementation in 2018 and provides key considerations and recommendations.

### **1.1 Protocol development and Institutional Review Board approval**

The evaluation was conducted based on the protocol approvals obtained in December 2017. Approvals were obtained from Makerere School of Medicine Research and Ethics Committee (SOMREC) and the Uganda National Council of Science and Technology (UNCST). Annual protocol approval with SOMREC was renewed through 31 October 2019.

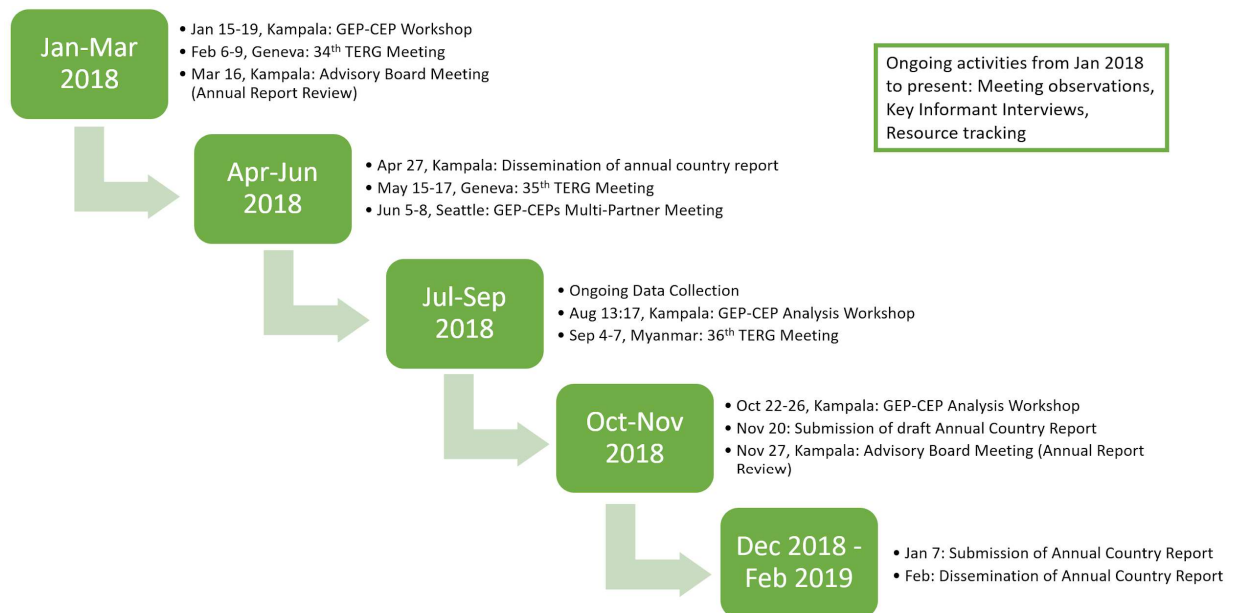
## 1.2 High-Level Advisory Board

IDRC formed a high-level advisory board to provide supportive oversight, monitor progress and review reports prior to dissemination. The advisory board consists of ten senior officials and opinion leaders who were selected based on their independence and knowledge and expertise in the areas of HIV, TB and malaria. An advisory board meeting was held in November 2018 to solicit feedback on emerging findings from early grant implementation.

## 1.3 Progress to date

During 2018, the PCE focused on tracking Global Fund grant initiation, early implementation of key grant processes and activities and measuring quantitative program indicators for HIV, TB, and malaria. Over the course of 2018, IDRC hosted three workshops with the Institute for Health Metrics and Evaluation (IHME) and PATH for evaluation planning, data analysis and writing. In April 2018, the PCE held its first dissemination workshop to present the findings from the funding request and grant making phase of the evaluation. IDRC also participated in three TERG meetings (February, May, and September) to present progress updates and early findings emerging from the Uganda PCE and to compare findings across the eight PCE countries.

**Figure 1. Uganda PCE progress to date.**



## CHAPTER 2: EVALUATION FRAMEWORK, OVERVIEW OF DATA SOURCES, AND ANALYTIC APPROACH

Key evaluation questions addressed during the early grant implementation phase are:

1. To what extent do Global Fund resources contribute to improvements in health outputs and outcomes for HIV, TB and malaria? And what are the barriers and facilitators to achieving outputs and outcomes?
2. What are the trends and distribution of HIV-, TB- and malaria-related health outputs and outcomes?
3. How effectively and efficiently do Global Fund investments move from global to the national and subnational levels?
4. How do Global Fund investments contribute to building RSSH?
5. What are the drivers of consistently low rates of absorption (financial execution) of Global Fund investments and facilitators of high rates of absorption?

## 2.1 Disease results chains and evaluation frameworks

The PCE uses an impact evaluation framework to prospectively track implementation progress. The framework provides a conceptual model describing the processes and causal mechanisms that lead from inputs and investments to outputs, intervention coverage, outcomes and impact. Additionally, the PCE consortia developed three results chains as an analytic framework to explain how Global Fund investments connect to health outputs, outcomes and impact (Annex 2 and Annex 5). The boxes within the results chains are primarily measured using quantitative data sources; the arrows connecting the boxes explain the relationships between boxes and are evaluated primarily using qualitative data sources.

## 2.2 Methods

### 2.2.1 Data collection and overview of data sources

Primary data were collected through document review, meeting observations, key informant interviews (KIIs) to explore issues in-depth and fact checking interviews to fill information gaps emerging from meeting observations or document review (Table 1). The PCE reviewed 45 key documents in 2018 to compare implementation processes to the Global Fund business model. The PCE also attended 33 meetings convened by the CCM, CT, MoH, The AIDS Support Organization (TASO) and other partners.

KIIs elicited stakeholder perspectives on global- and country-specific evaluation questions and allowed the PCE to better understand early implementation processes, including barriers and facilitators. Interviews also support data triangulation, interpretation and validation of results generated through other methods. In total, 57 interviews were conducted, including: 17 KIIs and 20 fact checking interviews at the national level; 22 subnational KIIs in four districts (Eastern Uganda: Kumi, Soroti; Northern Uganda: Lira, Oyam; South Western Uganda; Mbarara, Isingiro and Ibanda); and three global-level KIIs with the Global Fund Secretariat.

**Table 1. Process evaluation data sources**

Process	No.	Description of data sources: January-November 2018
Document Review	45	Global Fund grant narratives, budgets, and implementation plans; PR1 and PR2 quarterly progress reports to CCM; monthly progress updates to MoH senior leadership; communication/letters from Global Fund; National Strategic Plans (NSPs); progress update/disbursement requests (PU/DRs); CCM meeting minutes; matching funds documentation; Global Fund guidance, information notes and policy documents related to gender, key and vulnerable populations (KVPs), RSSH, and STC.
Interviews (Total = 62)	17 20 22 3	<b>National-level KIIs:</b> PRs; MoH Malaria, TB and HIV teams; civil society organizations (CSO); TASO grants coordination unit; Global Fund National Coordinator; Uganda AIDS Commission; Quantifications and Procurement Planning Unit; AIDS Control Program <b>National-level fact checking:</b> MoH program managers and monitoring and evaluation (M&E) officers; Local Fund Agent (LFA); Fund Coordination Unit; TASO; CCM Secretariat, Fisher folk representative; AIDS Control Program <b>Subnational-level KIIs:</b> Chief Administrative Officers; District Health Officers; Chief Financing Officers; Biostatisticians; District Health Team members; Regional Referral Principal Administrators; District & Zonal TB and Leprosy supervisors; Medical Doctors, Clinical Officers -TB Ward and Nursing Officers/Assistant nursing officers - TB Ward <b>Global-level KIIs:</b> Global Fund Secretariat
Meeting Observations (Total =38)	25 8 5	<b>CCM:</b> CCM Board Meetings; CCM Board Retreat; CCM Executive Committee; CCM Finance and Procurement Committee; CCM Program Oversight Committee; CCM Program Development and Resource Mobilization Committee; CCM Orientation Program; CCM year-end retreat; sub national site visits <b>CT missions:</b> Launch of Global Fund Grants; Guidance on Transitioning to New Grants; Guidance on Catalytic Funding; Enhanced Grant Review; National Programs; civil society organizations; Coordination for Malaria Stakeholders <b>Other:</b> National Harmonization and Alignment meeting for Global Fund Grants; Monthly meetings with MoH detailing PR1 progress; CCM evolution visit

The PCE also quantitatively analyzed secondary data sources, including Global Fund financial data (from detailed budgets, PU/DRs, and the Global Fund Grant Operating System (GOS)), subnational financial data, surveys, Health Management Information System (HMIS) and publicly available data downloaded from national online dashboards (Table 2). National online dashboards include the MoH Option B+ Dashboard, which reports weekly stock outs of antiretroviral drugs (ARVs) and HIV test kits, and the Uganda Viral Load Dashboard, which reports monthly viral suppression among people living with HIV (PLHIV) enrolled in care.

**Table 2. Quantitative data sources**

Quantitative	Date	Description of data sources
HMIS	July 2015-present	HIV, TB, and malaria indicators from national programs
Resource tracking	2011-2020	Global Fund detailed budgets, Progress Update/Disbursement Requests and subnational financial data obtained through document review and KIIs
MoH Option B+ Dashboard	2016-present	HMIS HIV testing and treatment indicators, including information on weekly stock outs of ARVs and test kits
Uganda AIS/PHIA*	2011; 2016/17	Nationally representative household surveys on HIV
Uganda Viral Load Dashboard	2014-present	Publicly available online dashboard reporting viral load testing and viral suppression among PLHIV enrolled in care
Uganda NTPS*	2014-15	Nationally representative household survey on TB

\*AIDS Indicator Survey (AIS); Population-Based HIV Impact Assessment (PHIA); National TB Prevalence Survey (NTPS)

### 2.2.2 Data analysis tools and methods

The PCE employs a mixed-methods approach to analysis across multiple data sources. Analytic methods are summarized below.

**Process mapping:** IDRC has been mapping key processes to understand Global Fund and country-level processes. By comparing the observed process to the theorized (or ideal) process described in the Global Fund documentation and guidance, the fidelity and quality of process implementation can be better understood, including identification of bottlenecks.

**Qualitative data management and analysis:** The PCE used the framework method to organize document review, observation, and KII data by key thematic areas and stakeholder groups into an analysis matrix. The framework method is a form of thematic analysis of qualitative data that allows for analytic comparisons across groups. Interview transcripts and meeting notes were coded according to key themes using an online qualitative data analysis software (Dedoose). Process data and emerging findings were continuously discussed during weekly IDRC team meetings and bi-weekly Global Evaluation Partner-Country Evaluation Partner (GEP-CEP) calls. Joint GEP-CEP analysis workshops were held in Kampala in August and October 2018 to review emerging findings and assess data robustness and strength of evidence to support each finding.

**Root cause analysis:** The PCE uses root cause analysis (RCA) to further explore, analyze and understand the root causes underlying observed challenges or successes identified through a variety of triangulated data sources (KIIs, secondary data analysis, document review). Findings from the RCA support proposed actions/solutions.

**Resource tracking:** The PCE conducted detailed financial analyses of Global Fund budget and expenditure over time by recipient, disease, module and intervention category and compared them to domestic spending by the Government of Uganda (GoU) and partner organizations using the following data sources:

- Global Fund detailed budgets for each PR and grant;
- Detailed Global Fund grant PR and SR expenditure reports; and

- Health expenditure data used to compile national health accounts and national evaluations of spending for the three diseases.

Investments were then compared with NSPs to determine alignment. Finally, an analysis of financial absorption, or expenditure as a percentage of budget allocation, by disease and PR was conducted using PU/DRs. To comprehensively track sub-national financial resources for malaria, the PCE used the System of Health Accounts (SHA) approach to map malaria investments by public, private and international organizations and to measure expenditure and financial transfers between financing sources, financing agents and healthcare providers at multiple levels of the health system.

**Dashboard visualizations:** To clearly display and analyze Global Fund grant allocations by module and intervention from 2011-2020, the PCE team built interactive dashboard visualizations for budgetary data in Tableau. Using data filters for time, disease, module, intervention and grant number, investments can easily be displayed and interpreted using a tree map (Figure 7), facilitating understanding of investment areas over time and key activities within grants. In addition, a grant implementation dashboard was developed to visually display quarterly activities planned for Year 1. Whenever possible, information was extracted from PR quarterly progress presentations to the CCM to monitor reported progress against the implementation plan. As the planned CCM dashboard for PR oversight is not currently functioning, the PCE is holding ongoing discussions with CCM stakeholders regarding how the CCM can utilize the PCE dashboards for monitoring and oversight.

**Output, outcome, and impact analysis:** The Uganda MoH produces several online dashboards that display HMIS data extracted from the DHIS2 system. These dashboards allow users to generate descriptive figures and to download publicly available, facility-level data for detailed analyses, including inventory data for some essential medicines. The PCE analyzed these data using R statistical software. To accommodate reporting lags in data collection, data were analyzed through October 1, 2018. Baseline impact estimates of malaria prevalence, treatment coverage with Artemisinin-based combination therapy (ACT), HIV prevalence and the number of PLHIV are obtained from the Malaria Atlas Project and IHME. Estimates from 2017 are forecast to later years using statistical modelling techniques.

### 2.3 Analytical Approach

**Triangulation:** Refers to the breadth of and comparison across qualitative and quantitative data sources (e.g. surveys, documents, KIIs, statistical analyses, etc.). Greater triangulation across multiple data sources equates to findings that are more robust.

**Quality of the data:** High-quality data contribute to greater robustness. Several indicators of quality were used to assess qualitative data, including recentness (for example, timing of KII relative to the topics to minimize recall bias); conditions of an interview or group discussion (includes rapport with the respondent, appropriate pacing, interruptions, appropriate level of privacy for interview, balanced as opposed to one-sided group discussions); and degree of proximity to the topic or event in question (first-hand observation by the evaluation team or a respondent's experience as compared to second-hand information).

**Strength of evidence:** A strength of evidence rating was assigned using a four-point scale to guide the ranking of findings and to describe the rationale behind the ranking (Table 3). The ranking process helps to identify which findings need additional triangulation and validation, particularly if rated as a "3" or lower.

**Table 3. Overview of the criteria for ranking the strength of evidence**

Rank	Rationale
1	The finding is supported by multiple data sources (good triangulation) which are generally of strong quality
2	The finding is supported by multiple data sources (good triangulation) of lesser quality, or the finding is supported by fewer data sources of higher quality
3	The finding is supported by few data sources (limited triangulation) of lesser quality
4	The finding is supported by very limited evidence (single source) or by incomplete or unreliable evidence. In the context of this prospective evaluation, findings with this ranking may be preliminary or emerging, with active and ongoing data collection to follow-up

## CHAPTER 3. EARLY GLOBAL FUND GRANT IMPLEMENTATION

### 3.1 Grants approved for start-up in 2018: Funding request type, investment and implementation arrangements

Uganda submitted two funding requests during Window 1 of the 2017-2019 application cycle, including an application for malaria, which included the majority of RSSH funds, and a joint HIV/TB application. Both applications underwent full reviews, were approved by the Global Fund Board in October 2017 and were signed in November 2017, allowing the new grants to begin on time in January 2018. Five grants were signed for the 2018-2020 grant cycle. These grants are being implemented by the same dual track PRs from the public and non-governmental sectors that served as the PRs for the 2015-2017 Global Fund grants. The Ministry of Finance, Planning and Economic Development (MoFPED) acts as the executing entity, in partnership with the MoH as the implementing entity, to oversee three grants (HIV, TB, and malaria), while TASO, a local non-governmental organization (NGO), oversees two grants (HIV/TB and malaria).

Most investments (92.5%) are channeled through the public sector PR1. Approximately 60% (US\$287.7 million) of investments support HIV/TB, while 40% (US\$190.3 million) support malaria. Two requests for matching funds to support the HIV grants by reducing human rights related barriers to accessing services (US\$4.4m) and programming for adolescent girls and young women (AGYW) (US\$5.0m) were subsequently approved by the Board in April 2018, bringing the total Global Fund investment in Uganda to US\$478 million for 2018-2020 (Table 4). Among Global Fund grants slated for closeout in December 2017, an additional 1.3 billion Ugandan Shillings (~US\$350,000) of funds that were unspent by December 31, 2017 were approved for carryover into 2018 for implementation of committed grant activities. In September 2018, an additional US\$23 million was allocated to the HIV/TB grant in the Priority Above Allocation Request (PAAR).

**Table 4. Global Fund investments during 2018-2020 period by PR and disease.**

PR	HIV	TB	Malaria**	Total
PR1: MoFPED	US\$248,212,125*	US\$18,445,026	US\$175,310,366	US\$441,967,517
PR2: TASO	HIV/TB: US\$21,106,146*		US\$14,969,534	US\$36,075,680
<i>Total</i>	<b>US\$287,763,297</b>		<b>US\$190,279,900</b>	<b>US\$478,043,197</b>

\*includes HIV matching funds for human rights and AGYW; \*\*includes majority of RSSH funds

### 3.2 Key grant management milestones

Early grant implementation milestones are displayed in Figure 2 below. Following the signing of the new grants in November 2017, the Global Fund completed its first disbursements to both PRs within two months. In mid-December 2017, TASO launched its

SR selection process; the process was contested and subsequently re-launched in mid-May 2018. In January 2018, MoFPED began the SR onboarding process for its predetermined SRs. Shortly thereafter in February, MoFPED signed its first SR contract with Gulu University. MoFPED's subsequent Memoranda of Understanding (MoUs) and contracts were signed from May-July 2018; however, two MoUs are still pending. Matching funds from the GoU were approved in April 2018. The second disbursement from the Global Fund arrived in late June 2018 (including matching funds), followed by the third and fourth disbursements in August and November, respectively. TASO began signing SR contracts in early September—this process is ongoing as of the time of writing. PU/DRs were submitted by MoFPED to the LFA in early October 2018, approximately six weeks delayed.



**Figure 2: Uganda Grant Milestone Tracking 2018-2020**

**GRANT MILESTONES**

- Grant signed (Main allocation)
- 1<sup>st</sup> grant disbursement
- Matching funds approved
- Matching funds disbursed
- SR selection process launched (TASO)
- SR selection process re-launched (TASO)
- SR onboarding process launched (MOFPED)
- SR contracts and/or MoUs signed
- 1<sup>st</sup> disbursement to SRs
- 2<sup>nd</sup> grant disbursement made
- 3<sup>rd</sup> grant disbursement made
- PRs submit PUDR to LFA
- Final LFA-verified PUDRs submitted to GF
- Final LFA-verified PUDRs submitted to GF
- 4<sup>th</sup> grant disbursement made

**DISEASE GRANT**

**MoFPED**



**TASO**



### 3.3 Early grant implementation progress: Inputs, activities and outputs

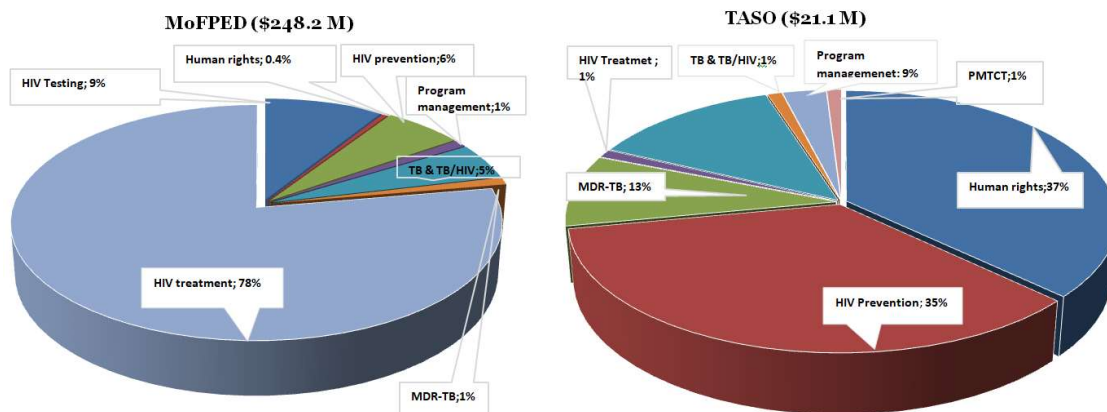
#### 3.3.1 HIV

##### Inputs

During the 2018-2020 grant implementation period, PR1 (MoFPED) was approved for an HIV grant totaling US\$248.2 million, including US\$2.6 million in matching funds. The majority of grant investments fund treatment, care and support for PLHIV (US\$207 million; 83.4%), including US\$199.9 million for differentiated antiretroviral therapy (ART) service delivery, 91.5% of which is for the procurement and distribution of ARVs (US\$182.9 million). The Global Fund is the largest funder of ARVs in Uganda, accompanied by US\$26.3 million from the GoU.(1) In addition to ARV procurement, investment areas include HIV testing (US\$24.0 million; 9.7%) and prevention programs (US\$12.8 million; 5.0%), including US\$12.5 million for condom procurement. All other investment modules each represent less than 2% of the total grant allocation, including US\$2.6 million for prevention programs for adolescents and youth and US\$1.1 million for reducing human rights-related barriers. Program management represents only 0.3% of the total grant (US\$708,162).

PR2 (TASO) is implementing a combined HIV/TB grant totaling US\$21.1 million, including US\$6.7 million in approved matching funds, representing a 47% increase over TASO's original budget. Over a third of the budget (US\$7.7 million; 36.5%) is devoted to programs to reduce human rights-related barriers to HIV services, while another third targets prevention programs for adolescents and youth (US\$7.4 million; 35.1%). The remaining 30% of the budget is comprised of interventions within five modules, including TB/HIV (US\$2.9 million; 13.8%), program management (US\$2 million; 9.5%), community responses and systems (US\$543,497; 2.6%), HIV treatment, care, and support (US\$299,840; 1.4%) and PMTCT (US\$222,854; 1.1%).

**Figure 3. 2018-2020 Investment in HIV by module summary**



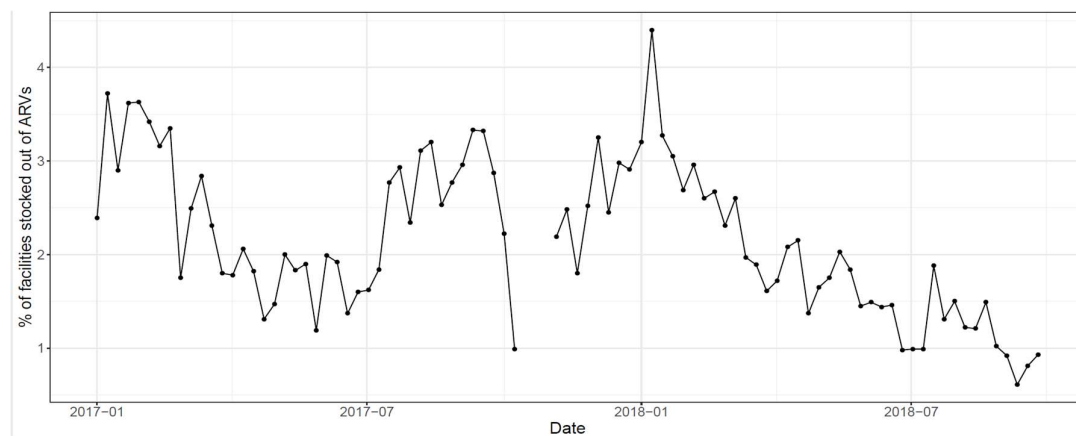
##### Translating HIV Activities and Implementation Progress to Outputs

Of the US\$287.8 million allocated for the HIV/TB grants, US\$147.9 million is for ARVs (51.4%) and US\$19.7 million is allocated for HIV test kits (6.8%). An additional 13.7% is for the procurement and supply chain management of these medical commodities, indicating a strong emphasis on procurement and delivery, including stock out prevention, in the current grants. Further discussion of financial inputs, programmatic outputs and patient outcomes is included in Annex 5.

To prevent stock outs of ARVs during the transition to a new grant cycle in 2018, the MoH pre-ordered ARVs through the Pooled Procurement Mechanism (PPM) in November 2017, with ARVs shipped to the National Medical Stores (NMS) in January 2018. This is reflected in Q1/Q2 absorption for treatment, care and support for HIV (60%), with an expenditure of US\$37.1 million in early 2018. The NMS began distributing these medications to health

facilities in February. Unfortunately, the percentage of ART sites that experienced a stock out of ARVs increased slightly in January 2018, with 95 ART sites reporting a stock out of at least one week (8.0% of ART sites that reported) compared to 83 ART sites in January of the previous year (6.9%) (Figure 4).

**Figure 4: Percentage of ART sites that reported a stock out of ARVs, 2017-2018**



Source: Descriptive statistics calculated from the Uganda MoH Option B+ Dashboard, which reports stock outs of ARVs at ART sites on a weekly basis and is publicly available at: <http://dashboard.mets.or.ug/>

Stock outs at ART sites normalized in late January, beginning a steady decline in the number of ART sites reporting a stock out. Because of this decline, the mean number of weeks stocked out of ARVs per ART site in 2018 was 0.6 weeks, compared to 0.8 weeks in the same period of 2017, and a mean of 1.9% of facility-weeks were stocked out in 2018, compared to 2.5% in 2017 (Table 5). Facility-weeks are defined as the cumulative number of weeks in which a facility reported whether it was out of stock<sup>1</sup>. Stock outs at ART sites also declined in absolute numbers, from 273 sites reporting a stock out of at least one week during January-September of 2017 compared to 235 sites reporting a stock out over the same period in 2018.

**Table 5. Regional ARV stock outs at ART sites in Uganda, 2017-2018**

Region	ART sites	Mean monthly % of ART sites reporting*		Mean weeks stocked out per site (Jan.-Sept.)		% of facility-weeks stocked out	
		2017	2018	2017	2018	2017	2018
Central 1	110	90.7	83.3	1.3	1.0	3.2	3.3
Central 2	161	96.3	84.3	0.7	0.8	1.7	2.6
East Central	118	83.9	86.0	1.6	0.7	4.9	2.4
Eastern	236	86.5	91.2	1.1	0.8	3.0	2.6
Kampala	32	83.6	81.2	0.0	0.0	0.0	0.1
Karamoja	34	96.3	74.8	1.4	0.6	3.5	2.5
North	134	96.6	79.4	2.0	0.2	4.9	0.7
Southwest	195	96.0	96.7	0.7	0.7	1.7	1.9
West Nile	109	99.2	99.9	0.2	0.2	0.5	0.5
Western	157	96.2	96.5	0.5	0.3	1.1	0.9
<b>All Regions</b>	<b>1286</b>	<b>92.8</b>	<b>89.5</b>	<b>0.8</b>	<b>0.6</b>	<b>2.5</b>	<b>1.9</b>

\* Represents the percentage of accredited ART sites that reported ARV stock out information at least once in the month; Source: MoH Uganda Option B+ Dashboard

<sup>1</sup> For example, if 10 facilities reported stock information for only 4 weeks of 2018 and were each stocked out for 2 of those weeks, the percentage of facility-weeks stocked out would be 20/40, or 50%.

Most ART sites (67.9%; n=873) had ARVs in stock for every week in 2017/18 for which they reported. However, of the 413 ART sites that experienced a stock out, the majority experienced a decline in 2018: 54.2% (n=224) of ART sites reported a lower percentage of facility-weeks stocked out in January-September of 2018 compared to the same time period in 2017. This represents a promising trend for procurement and supply chain management in Uganda, where stock outs remain a consistent barrier to HIV care.(1)

However, while nationwide stock outs of ARVs decreased from 2017 to 2018, stock outs in a subset of ART sites were frequent and/or prolonged. Of the 18.3% of ART sites that reported a stock out of ARVs in 2018 (n=235), 22.1% (n=52) were stocked out for at least four weeks, and, of those, 21 ART sites were out of ARVs for four weeks or more. Of those ART sites, the mean number of weeks stocked out of ARVs was 14.5. The PCE will continue to evaluate the implementation of supply chain activities as this “last mile problem” of consistent ARV distribution is addressed.

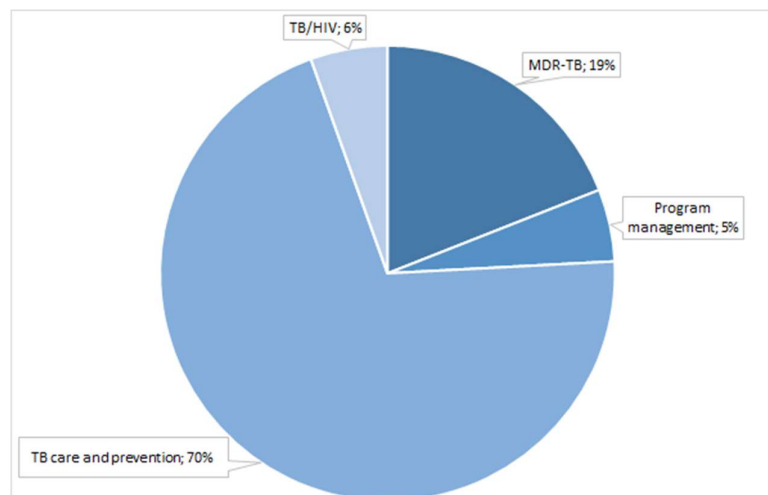
Despite the early success represented by the declining number of stock outs in Q1-Q3 of 2018, the majority of activities to be implemented by SRs in Q1-Q3 2018 were not implemented as planned, including the majority of activities focusing on gender and reducing human rights-related barriers. These delays in implementation were primarily the result of the prolonged onboarding process for PR1, the protracted SR selection for PR2 (TASO), and delays in disbursement of catalytic funds. Details are discussed in Chapter 4.

### 3.3.2 TB

#### Inputs

During the 2018-2020 grant implementation period, US\$21.4 million was allocated for TB, 86.3% of which will be implemented by MoFPED (US\$18.4 million). The MoFPED TB grant (Figure 5) is primarily for TB care and prevention (US\$13 million; 70.4%), including TB case detection and diagnosis (US\$9 million; 48.7%), TB treatment (US\$3.5 million; 19.2%), and programs for key populations (US\$460,198; 2.5%). An additional US\$3.5 million (19.0%) is allocated for MDR-TB and US\$1.0 million (5.5%) is for TB/HIV collaborative interventions. Program management represents 5.1% (US\$946,327). TASO’s combined TB/HIV grant is described above, with US\$2.9 million allocated for TB, MDR-TB and TB/HIV co-infection.

**Figure 5. Investment by module in the MoFPED TB grant**



#### **Translating TB Activities and Implementation Progress to Outputs**

While overall absorption for TB activities was relatively high in Q1 and Q2 (67.6%), district-level stakeholders expressed concern that TB activities are neglected in comparison to activities for HIV and malaria, resulting in districts that are ill-equipped to implement the complexity of TB case detection and diagnosis. Given the emphasis on TB-related

commodities in the 2018-2020 grants, these stakeholders also identified community-based case detection and follow-up as major gaps in spending and implementation in recent years.

*“Funding for TB has gradually reduced in our district. There is limited district supportive supervision to health facilities, no mentorship of health workers and as a result TB has been left to lower cadres at health facilities.” (Sub-national level KII, MoH).*

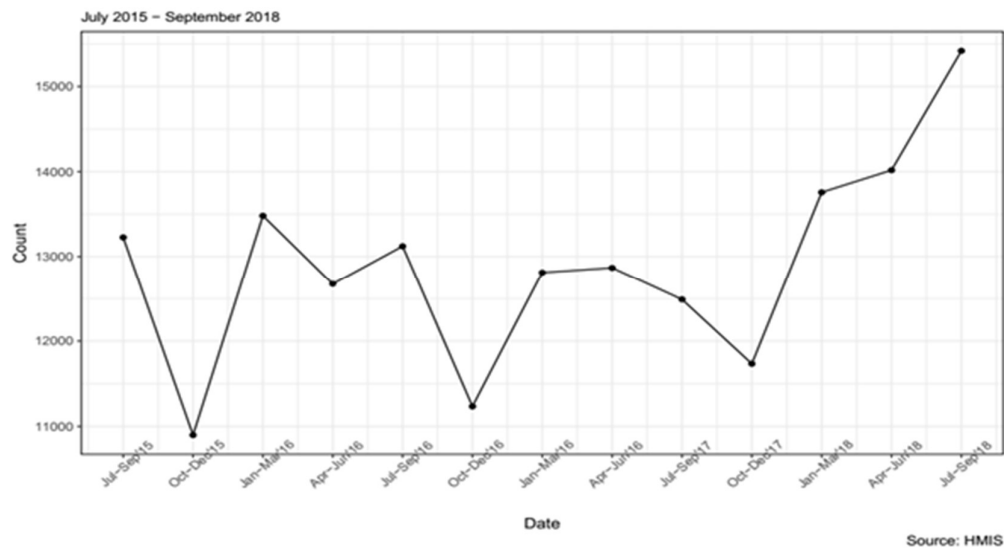
*“...the community tracking system collapsed. We used to follow up with [TB] patients and make sure they adhere to treatment. We would also sensitize their families and community members and do screening for TB. All this is no more.” (Sub-national KII, MoH)*

**Finding: While diagnostic capabilities for TB and MDRTB have improved, case notifications remain low due to limited funding for active case finding at facility and community-level.**

In the 2018-2020 grant cycle, case detection funding focused on facility-based case finding, while active case finding at the community level was placed in the PAAR. This request includes US\$18.7 million for TB case finding and diagnosis; however, the majority of the investment is for commodities including Xpert cartridges and digital X-rays. Only US\$2.5 million, or 9% of case detection funding, was allocated for scale-up of the active case finding toolkit, which promotes community-level screening for TB. Stakeholders suggested to the MoH to revamp the community follow up system of TB patients and intensify screening of contacts as a key strategy in fighting TB.

In addition, the NTLP has lagged behind other national disease programs in integrating surveillance and monitoring data into HMIS. However, in early 2018 the program made substantial progress towards HMIS system integration, which received a US\$2.6 million investment in the current grant cycle. This integration has led to increased TB case reporting through Uganda’s integrated HMIS (Figure 6).

**Figure 6. Number of quarterly TB case notifications, Q3 2015–Q3 2018**



The upward trend in case notifications may also represent improvements in diagnostic capabilities, as national-level stakeholders report that there has been a recent increase in the availability of reagents and GeneXpert machines. In addition, case reporting for MDR-TB increased in 2017 relative to 2016, with the contribution of Xpert for diagnosis. Still, an estimated 76% of MDR-TB cases are missed.(2) However, the full integration of TB data into HMIS has not yet been achieved, as some districts and healthcare workers continue to utilize paper-based reporting systems. Key informants attributed these integration delays to inadequate training for healthcare workers on the use of DHIS2 and the impact of complex

TB referral systems within and across districts on data accuracy—a process that may also result in duplicate case reporting.

*“We decided to maintain our district TB register. A patient reported as loss to follow up in our district could be receiving treatment in another district. We sometimes have regional meetings to harmonize the district TB registers. This is the easiest way to track patient outcomes.” (Sub-national level KII, MoH).*

As both historical and contemporary data are further integrated into HMIS, the PCE will continue to follow trends in case notification for TB and MDR-TB and interview stakeholders as to the underlying causes of those trends.

### 3.3.3 Malaria

#### Inputs

The approved 2017 malaria funding request included grants to two PRs, MoFPED and TASO, with investments totaling US\$190.3 million over 2018-2020. The majority of these resources (92%) are budgeted for MoFPED. Priority interventions are mainly focused on facility-based treatment (US\$59.4 million; 31% of the combined budget) and long-lasting insecticide-treated net (LLIN) mass campaigns (US\$73.5 million; 39% of the combined budget), with a large focus on commodity procurement. The largest specific activities in these grants are procurement of ACTs (US\$44.7 million across facility, community and private sector case management); procurement of LLINs for mass campaign (US\$42 million); in-country LLIN distribution costs during mass campaigns (US\$18.3 million); procurement of rapid diagnostic tests (RDTs) (US\$15.5 million across facility and community case management); procurement of injectable artesunate (US\$13.6 million); and procurement and supply management costs of LLINs for mass campaigns (US\$11.1 million). These numbers continue a stable trend of funding from the Global Fund, as case management has remained at nearly US\$40 million per year since 2015, and the 2019 mass LLIN campaign is budgeted to be similar in cost (around US\$72.3 million) as the 2016 campaign (US\$69.2 million). In year 1 of grant implementation (2018), the case management module accounts for 82% of the budget (Figure 7). In addition to the main funding request, the malaria PAAR included US\$64.1 million (including prioritized investments for RSSH interventions).

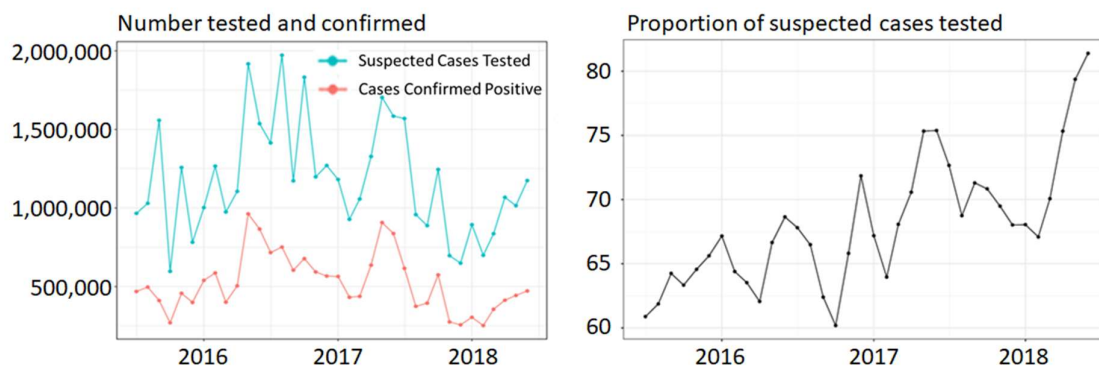
**Figure 7. Investment allocation by module in Year 1 (2018) of malaria grants**



### Translating Malaria Activities and Implementation Progress to Outputs

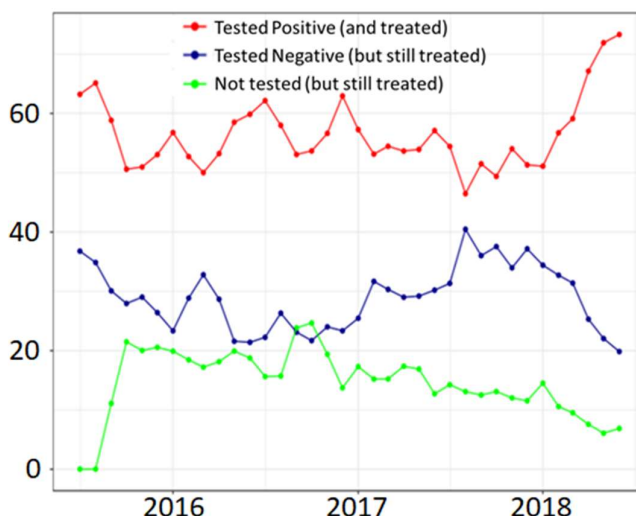
Early activities from these grants are underway and commodity procurement is so far on track. The first batches of LLINs, ACT and RDTs have completed procurement as of the time of writing; absorption of Global Fund resources (among modules and interventions within which procurement activities were budgeted) has been 59.7%. However, several contributing factors, including declines in confirmed cases (see Figure 8 below), have contributed to an overstock of ACT in many parts of the country. As a result, re-allocation is underway to apportion funds to RDTs instead of ACTs.

**Figure 8. Number of malaria cases tested with RDT or microscopy, number confirmed positive, and proportion of suspected cases tested Q3 2015–Q3 2018**



Outputs and outcomes have improved since the start of the grant. In the face of declining reported cases and stable funding from the Global Fund, the proportion of suspected cases tested with RDTs or microscopy has increased from 67% to 82% in the first half of 2018. The proportion of confirmed cases treated also increased in 2018. Together, these trends have amounted to a decline in presumptive treatment and increases of the proportion of those treated who received confirmatory testing. As shown in Figure 9, out of all patients treated for malaria, an increasing percentage of cases were confirmed, starting from around 50% at the start of 2018, and growing to nearly 75% by June. This trend reflects stricter adherence to the Uganda Malaria Reduction Strategic Plan, which has been implementing the Test, Treat and Track (T3) strategy through trainings, guidelines and provision of treatment supplies since 2014.(3) Although these numbers are below their goals, continued roll out of trainings and supplies, together with intermediate targets to testing appear to be driving this trend.

**Figure 9. Proportion of cases treated by testing status Q3 2015–Q3 2018**



While these positive trends are not entirely attributable to the Global Fund, a majority of the 2017 and 2018 Global Fund budgets (85% of the total US\$94.5 million budgeted across the grants in these years) is allocated to case management, and the Global Fund is estimated to comprise nearly half (46.2%) of the international development assistance for malaria case management received by Uganda in this time period.(4) In other words, although the National Malaria Control Program is providing the strategic direction and guidance on the T3 strategy, the Global Fund is playing a major role by supporting the commodities required.

### **3.4. Global Fund Target Setting, Grant Performance and Indicators**

#### **3.4.1 Grant Performance**

The PCE evaluated early grant performance against indicators in the Performance Frameworks using LFA-verified PR reporting through the PU/DRs. PU/DRs report progress against major indicators using a variety of data sources, including HMIS, program data and national surveys. Based on these indicators, MoFPED's combined HIV/TB grant is performing well, with achievement ratios at or near 100% for all indicators except one: the percentage of PLHIV newly enrolled in HIV care that were started on TB preventive therapy (TB/HIV-4.1), which reported an achievement ratio of only 21%. This is reflective of low levels of Isoniazid Preventive Therapy (IPT) uptake in Uganda, which began IPT distribution in December 2015.(5)

With the exception of "M&E-1: Percentage of HMIS or other routine reporting units submitting timely reports according to national guidelines" for the UGA-M-TASO grant (18% achievement), achievement ratios for all grants ranged from 70 to 100%. The highest achievement ratio was reported for "*HTS-1: Number of people who were tested for HIV and received their results during the reporting period.*" The target for this indicator was 4.13 million people tested from Q1 to Q2 of 2018; 6.65 million people received an HIV test, resulting in an achievement ratio of 161%. Indicators related to TB and TB/HIV co-infection also performed well, with an achievement ratio of 106% for HIV-positive TB patients enrolled on ART (TB/HIV-6(M)) and a ratio of 111% for the number of notified TB cases (all forms, new and relapse cases; TCP-1(M)). Performance on MDR-TB indicators was slightly lower, with both case notification (MDR TB-6) and enrollment on second-line treatment (MDR TB-3(M)) reporting achievement ratios of 70%.

For malaria, MoFPED's grant is also performing well on reported indicators, with achievement ratios for all indicators above 80% (range: 81%–104%). Performance was especially strong for malaria case management: the mean achievement ratio for suspected malaria cases that received a parasitological test was 99% across public sector facilities, private sector facilities, and in the community, with in the private sector performing best at 104%. For first-line antimalarial treatment of confirmed cases, achievement ratios ranged from 84–90%. Strong performance on case management also extends to TASO's malaria grant, in which the minimum achievement ratio for case management was 84%. Testing ratios were also especially high, with the proportion of malaria cases that received a parasitological test at private sector sites achieving 109.4%.

#### **3.4.2 Target Setting**

Information gathered from global-level stakeholders suggests the target setting process in Uganda was largely based on generating targets that reflected national objectives in the NSPs. Once set, these targets were subsequently negotiated and revised to reflect funding gaps identified during the gap analysis. In 2019, the PCE will continue to collect data on stakeholder experiences related to Global Fund grant target setting; however, emerging evidence is presented below.

#### **Many performance indicators do not reflect short-term grant performance and implementation progress.**

In assessing early Global Fund grant implementation, many of Uganda's performance indicators and targets are not proximal to the actual interventions and activities. As a result,



target achievements reported in the PU/DR often do not correlate with absorption levels: many targets are being met or nearly met despite low execution of funds. Performance of MoFPED's TB grant in Uganda, for example, is based on indicators such as *"TB O-1a: Case notification rate of all forms of TB per 100,000 population,"* yet the case detection and diagnosis activities in the grant largely focus on procurement of GeneXpert cartridges, related procurement and supply chain costs, and mobile X-ray procurement. More proximal indicators such as number of GeneXpert kits procured and distributed may be more suitable for monitoring quarterly implementation progress. Indicators related to KVPs serve as a positive example, as they are specific and related to activities. However, target achievement on these indicators was reportedly low, a trend that is correlated with low execution of funds.

One stakeholder indicated that the national programs are responsible for monitoring the more proximal process and output indicators, and that these do not need to be reported to the Global Fund for performance monitoring:

*"There is little appetite to go back and measure process and output indicators anymore. When we say Global Fund doesn't monitor output and process indicators, we aren't saying countries shouldn't monitor them. They should. When our coverage indicators are low, we ask countries to look at output indicators to see why." (KII, Global Fund Secretariat)*

There are important motivations behind maintaining coverage, outcome and impact targets too, however. This is particularly true in recognition that Global Fund is contributing to overall national programs and introducing more indicators would increase the already heavy reporting burden from PRs. Furthermore, such distal performance indicators do serve an important purpose in assessing long-term grant performance. However, particularly during the early grant implementation phase, the indicators included in Performance Frameworks may not fully reflect grant performance in short-term assessments such as PU/DRs. There are indications from the Global Fund Secretariat that they are working with national programs to ensure a broader set of related indicators is monitored locally.

*"Framework of the Global Fund is performance-based funding, so they are selective indicators—that is the problem. But if you want to understand how a module is working in the country, can't judge by a single indicator. We have proposed a cascade to PRs so that they understand where a single indicator is supported by other indicators from the national results system." (KII, Global Fund Secretariat)*

## **CHAPTER 4. GLOBAL FUND BUSINESS MODEL IN PRACTICE**

The aim of this chapter is to assess how the Global Fund business model is operating in Uganda during the early grant implementation phase, including an assessment of how Global Fund policies, processes and structures intersect with contextual factors to facilitate or hinder progress towards achieving impact. Not all aspects of the Global Fund business model can be fully addressed in a single chapter. Here, we assess early grant implementation through a set of thematic areas that were elected based on their importance to country stakeholders and areas of interest identified by the TERG and the other PCE consortia.

While most of Uganda's 2018-2020 grants are devoted to procuring commodities—a process that largely occurred on time—many of the activities planned for Q1-Q3 of 2018 have not started or not been completed on time. The PCE assessed early grant implementation progress, including these delays, through the lens of the Global Fund business model and contextual helping and hindering factors, summarized in Table 6.

**Table 6. Global Fund business model and contextual factors helping and hindering early grant implementation.**

<b>Global Fund Business Model factors helping or hindering early grant implementation</b>	
<b>Helping Factors (Facilitators)</b>	<b>Hindering Factors (Barriers)</b>
<p><b>Policies and Processes</b></p> <ul style="list-style-type: none"> <li>• Flexibility to pre-order commodities before grant signing</li> <li>• Simplicity of requesting and receiving Global Fund disbursements</li> <li>• Flexibility in reallocation</li> <li>• “Acceleration” planning to catch up on delayed implementation: a potential facilitator if activities are implemented as designed/quality is maintained</li> </ul> <p><b>Structures</b></p> <ul style="list-style-type: none"> <li>• Strong CT engagement to facilitate open communication</li> <li>• Enhanced grant review</li> </ul>	<p><b>Policies and Processes</b></p> <ul style="list-style-type: none"> <li>• Misalignment of the timing of matching funds requests with the main grant allocation hindered MoU signing with public sector SRs (did not want two MoUs: main grant and matching funds)</li> <li>• Insufficient guidance on SR selection policies/procedures. SR selection delays caused significant implementation delays</li> <li>• Overlapping grant closure and grant startup was lengthy (11 mo.) and challenging for implementers</li> <li>• Misalignment of Global Fund financial systems with Uganda’s financial system</li> <li>• Complexity of dealing with the Global Drug Facility (GDF) for offshore procurement of TB drugs (Lead time- minimum 8 months; no mechanisms for reversal logistics; no flexibility)</li> </ul> <p><b>Structures</b></p> <ul style="list-style-type: none"> <li>• Complex global-country communication channels / coordination mechanisms</li> </ul>
<b>Country contextual factors helping or hindering early grant implementation</b>	
<b>Helping Factors (Facilitators)</b>	<b>Hindering Factors (Barriers)</b>
<p><b>Processes</b></p> <ul style="list-style-type: none"> <li>• National stakeholder harmonization and alignment efforts (including meetings)</li> <li>• Staff “validation” exercise: performance assessments led by the government, an innovation intended as a facilitator of stronger grant implementation and performance</li> </ul> <p><b>Structures</b></p> <ul style="list-style-type: none"> <li>• Strong leadership from top management at MoH (PR1), including introducing monthly progress/oversight meetings</li> </ul>	<p><b>Processes</b></p> <ul style="list-style-type: none"> <li>• Protracted onboarding of public sector SRs</li> <li>• Protracted MoH program recruitment following staff validation: vacancies as a driver of low absorption of program management costs</li> <li>• Lengthy approval process for in-country procurement (layers of requisition sign-offs)</li> <li>• Global Fund investments were sent from MoFPED to district-level accounts without accompanying communication or guidance on the purpose of the funds and how they should be used</li> <li>• Lack of coordination between national and subnational levels, particularly in developing the funding request and aligning funding to district planning cycles. This results in: <ul style="list-style-type: none"> <li>- Misalignment between investments and district needs.</li> <li>- Lack of awareness among districts for when to expect Global Fund support thus hindering annual planning.</li> <li>- District reprioritization of Global Fund activities</li> </ul> </li> </ul> <p><b>Structures</b></p> <ul style="list-style-type: none"> <li>• Challenges with public sector SRs (MoES, MoGLSD) reporting to non-public sector PR2.</li> </ul>

## **4.1 Business model and contextual “helping” factors**

### **4.1.1 Flexibilities in Global Fund policies and processes**

Through stakeholder interviews and meeting observations, flexibilities in several aspects of the Global Fund business model were identified as key facilitators of grant implementation. As discussed in section 3.3.1, the flexibility to pre-order commodities prior to grant launch was viewed as an essential mechanism to ensure a smooth transition between grants.

*“We were running into a catastrophe. Our ARV stock levels were running dry. All key partners had tried to help but we still had gaps. The Country Team played a key role; they advised us to place orders ahead of the official grant signing. Even though there were delays in shipment, the consignment arrived at the time we most needed it.”*  
(National level KII, MoH)

In addition, flexibility in reallocation allowed for increased responsiveness to the needs of national programs; for example, funds designated for ACTs were reallocated toward RDTs after a potential over stock of ACTs was identified.

*“Global Fund processes are flexible and in fact, when we make savings e.g. from ACTs, we request Global Fund to divert this money to other activities. For instance, ACTs are not moving as fast as we had anticipated, mainly because malaria cases have reduced thus resulting in over stock of ACTs at national level. However, as a result of Global Fund’s flexibility, the extra ACTs will be used to fill the gap in the next period whereas the savings realized will be used to fill the gap in RDTs and other commodities.”* (National level KII, MoH)

### **4.1.2 Process and structure innovations**

#### ***Top leadership involvement***

During 2018, several innovations served as facilitators of early grant implementation and demonstrated country ownership. Observation and KII data indicate that strong leadership and engagement from the top management within the MoH was an important facilitator, with the leadership showing an increasing emphasis on accountability and involvement in the implementation of Global Fund grants. This leadership included the facilitation of monthly progress meetings, chaired by the Permanent Secretary, in which national disease programs provide updates and set targets for the upcoming reporting period. These meetings fostered greater accountability among responsible officers.

*“...Another facilitator to point out is that the current top management is very effective and supportive to the programs. For example, each month, there is a meeting between program managers (HIV, malaria and TB) and top management to give a progress update on activities conducted in that period.”* (National level KII, MoH)

#### ***Staff validation exercise***

To improve implementation of the new grants, the MoH leadership began a staff validation exercise (an assessment of the qualifications and performance of current staff). This process resulted in some challenges, with negative consequences for staff morale: positions left vacant by staff members who were removed by the process were not immediately filled, resulting in some delays in grant initiation. In addition, there were delays in grant reconciliation (closure) due to the departure of staff members with long-standing institutional knowledge, with one stakeholder stating that, *“The older broom knows all corners however inefficient it may be”* (KII, MoFPED). Despite these challenges, many stakeholders still considered the staff validation exercise an important performance improvement process that would ultimately increase grant performance. While it is too early to assess the long-term impact of the staff validation exercise, the PCE will continue to track progress in 2019.

### **Stakeholder alignment efforts**

Driven by the discovery that several planned Global Fund-supported activities overlapped with activities supported by other partners, the resource mobilization committee of the CCM organized a national harmonization and alignment meeting of all implementing and funding organizations for HIV, TB and malaria. The ultimate goal was to coordinate in-country financing mechanisms to avoid duplication, promote synergies among available resources and ensure activities align with the NSP.

In addition, national disease programs organized alignment activities to determine the geographic reach and scope of activities by distinct organizations. The Malaria Control Program (MCP) through Roll Back Malaria (RBM) organized national partner coordination meetings in which stakeholders realized that integrated community case management (iCCM) activities planned by TASO in Northern Uganda overlapped with similar activities implemented by the Malaria Action Plan for Districts (MAPD) project. As a result, TASO was advised to implement iCCM in Western Uganda, a catchment area previously occupied by UNICEF. Similar alignment efforts by the NTLP indicated that the CDC and the Global Fund were separately funding mass TB screening of inmates in high volume prisons. Despite these recent communication successes, stakeholders noted that some organizations are not transparent with budgetary information, undermining joint planning and leading to activity duplication.

### **Acceleration planning**

Given the substantial delays in SR selection and contracting, PRs are actively engaged in acceleration planning. Acceleration planning to correct for delayed implementation was also necessary by TASO during the 2015-2017 grant cycle; however, SR selection delays were lengthier with the current 2018-2020 grants.

*“We know that TASO has the capacity to accelerate the implementation once everyone is on board, but this is not the optimal way of doing things. We have outcome and impact indicators for Year 1 for a reason.” (KII, Global Fund Secretariat)*

Acceleration efforts may serve as an important implementation facilitator, but only if activities can still be implemented as designed. The PCE will continue to track acceleration planning to determine if these efforts facilitate rapid implementation of quality programming.

### **Global Fund Country Team engagement**

Stakeholders report that the CT has been increasingly engaged in the implementation process, openly communicating with country stakeholders and providing timely guidance. Key informants noted that the CT worked closely with the implementing teams and held a number of stakeholder meetings to ensure problems were resolved in a timely manner. For example, the CT held a three-day enhanced grant review meeting that brought together PRs, CCM members and other stakeholders to review the status of grant implementation, discuss best practices and identify solutions.

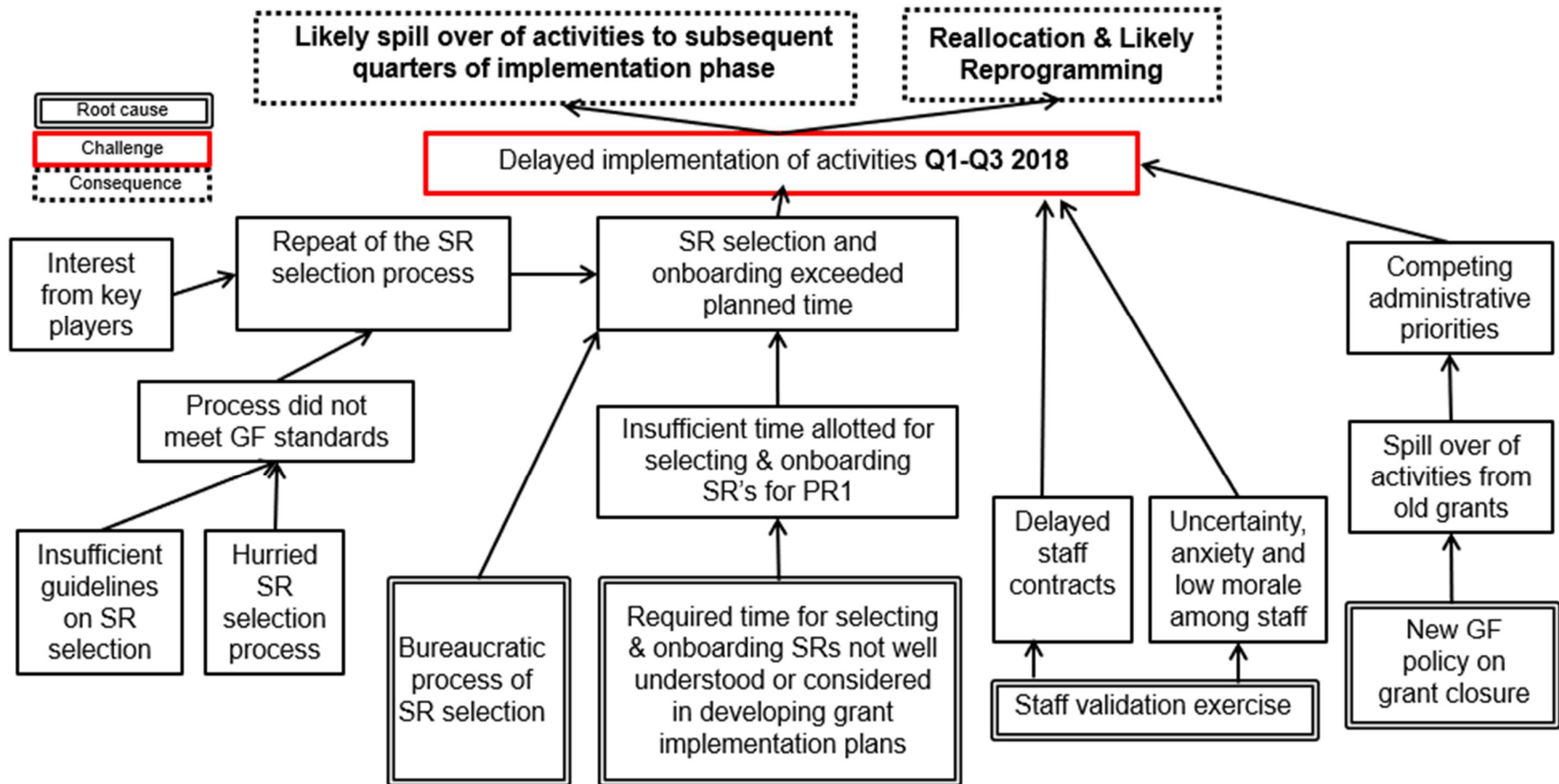
*“The Country Team is now part of us. We interact freely on a regular basis and get timely feedback. They now understand our context better and this has made them more flexible and accommodative to allow some changes in grant implementation whenever we ask.” (National level KII, MoH)*

However, some key informants expressed concern that the high number of CT visits disrupts program planning and consumes considerable staff time.

### **4.2 Business model and contextual “hindering” factors**

Suboptimal grant implementation in 2018 was due to both inefficiencies in existing country-level systems and Global Fund policy requirements and processes that are a part of the new funding model. These processes are summarized by the RCA illustrated in Figure 10 and are described in detail below.

**Figure 10. Root Cause Analysis of delayed implementation of activities**



#### 4.2.1 Grant closure (Implementing Partner Reconciliation) processes

The administrative burden associated with the grant closure process contributed to implementation bottlenecks and SR selection delays. Some stakeholders reported a heavy administrative burden to close the 2015-2017 grants, resulting from heightened oversight, including accounting for remaining grant funds and completing final reporting requirements. In addition, many grant closure activities continued in 2018, competing for administrative time with grant initiation. Although the grant closure process is designed to continue past the end of the implementation period (up to a period of 12 months) (6), the same administrator often conduct both grant close out and initiation, especially when the same PR continues from the previous grant.

*“...remember we signed the new grants in November 2017, this was after a lengthy and hectic process of fund request and grant making. We had lost considerable implementation time. So at the closure of the old grants several activities had not been implemented, the country risked losing money. Therefore it made more sense to prioritize those activities than starting on new ones whose grant had just started.” (National level KII, MoFPED)*

Stakeholders also noted that simultaneous responsibilities led to delays in key grant initiation milestones, such as timely submission of PU/DRs for January-June 2018.

*“PU/DRs are also due this month but because of the grant closure activities there will be delays in submitting the PU/DRs. CCM should offer all the necessary support to quicken this process.” (Remark from observation during a national level meeting)*

#### 4.2.2 SR selection and contracting processes

PRs disburse funds to SR organizations that are contracted to perform specific program activities within the grant. In some cases, SRs are pre-selected—for example, when a specific government entity is responsible for functions such as commodity storage and distribution (e.g. The National Medical Stores). When SRs are not identified in advance, the Global Fund recommends that PRs identify and select potential SRs with consultation from the CCM through a fair and transparent process that is based on objective criteria related to performance capacities.(7)

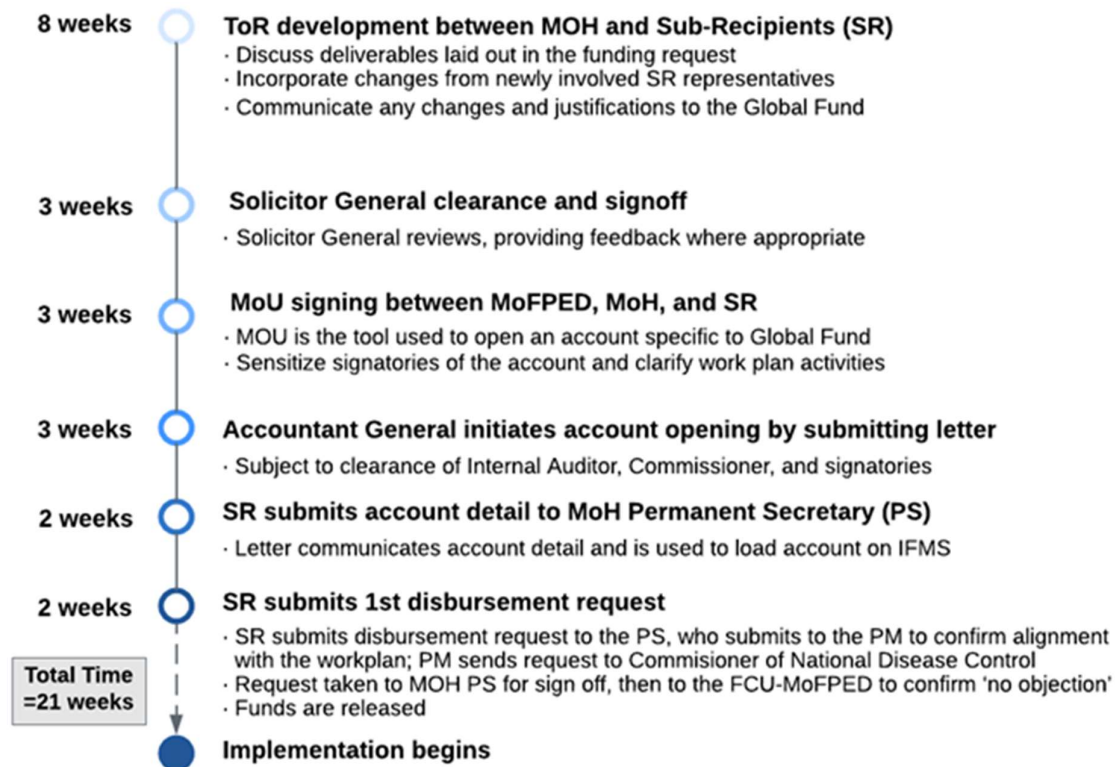
SRs in Uganda include a mix of government ministries, departments and agencies (MDA) in addition to other non-public sector partners such as local universities, institutes, NGOs and international partners (Annex 2). In the public sector, MoFPED’s SRs were predetermined, as were two TASO SRs: the Most At Risk Populations Initiative (MARPI) and Uganda Stop TB Partnership (USTP). These SRs were predetermined due to their expertise and unique position in the field of key populations and MDR-TB, respectively. The remainder of TASO’s SRs underwent a competitive application process, discussed in detail the following sections.

**Finding: The SR selection, contracting, and disbursement process in Uganda took five months for PR1, which was not sufficiently reflected in the grant implementation plans and led to implementation delays.**

*Robustness: (Ranking=1) The finding is corroborated by multiple sources of data, including key informant and fact checking interviews coupled with documented evidence (including dates) of the process steps required for public sector SR onboarding. Convergence of perspectives across multiple stakeholders involved in the onboarding process supports the robustness ranking.*

SRs for PR1 were pre-selected during the grant application process according to their constitutional mandates and areas of specialization. For the 2018-2020 grants, MoFPED/MoH has ten SRs (Annex 3) responsible for implementing 2.3% of the grants. Despite advance selection, the multi-step process of SR onboarding (Figure 11) was not included in implementation timelines, potentially due to limited guidance articulating sign off layers and clearance time at each stage.

**Figure 11. Timeline and process steps for onboarding public sectors SRs, based on interview data and process tracking**



Additionally, PR1 onboarding of SRs is subject to several bureaucratic levels of signing MoUs, with the time required for each sign-off dependent on the proactivity of the office in charge. Key informants indicated that the process was time-consuming and resulted in unpredicted delays in onboarding SRs. Based on current tracking, this process took five months (21 weeks) (Figure 11). Evidence from document review suggests the first public sector SR MoUs were signed May 7, 2018 and the final MoU signed July 12, 2018 but process mapping indicates that an additional seven weeks are then required for disbursements. As one key informant describes, the delays were layered and unexpected:

*"With the grant signing in January, we embarked on MoU signing but a lot happened. Thought it would take a month but took about three months or more. Today, the signatory is busy, tomorrow he is out of the country, next day he wants to read line by line. It's exhausting." (National level KII, MoH-SR)*

**Finding: There are unclear guidelines for SR selection, resulting in a lack of clarity surrounding the selection process and implementation delays when the process was restarted.**

*Robustness: (Ranking=1) The finding is corroborated by triangulation across multiple data sources, including key informant and documented evidence (Global Fund Operational Note; Newspaper Adverts; CCM meeting minutes) and observation meetings convened by CCM where SR selection was discussed. Data sources are considered strong and the quality of insights from respondents is high given their proximity to the SR selection process.*

The Global Fund recommends that nominated PRs identify SRs during grant making so that SRs are ready to receive disbursements before grant signing.(7) However, Global Fund documentation does not provide guidance for implementing the SR selection process or clarify the involvement of Global Fund structures, such as the CCM, PRs and CT. In Uganda, this lack of clear guidance resulted in stakeholder discontent and limited the CCM's ability to provide oversight.

“...at this point, we don’t actually know the exact role of the CCM when it comes to SR implementation and I think all this stems from Global Fund’s unclear guidance on what exactly CCMs should do and shouldn’t do during the SR selection process. Yet at the same time, they say that performance of the grant is in the hands of CCM. This partly explains why PR2 communicated the outcomes of the SR selection to CT before presenting them to CCM.” (KII, CCM)

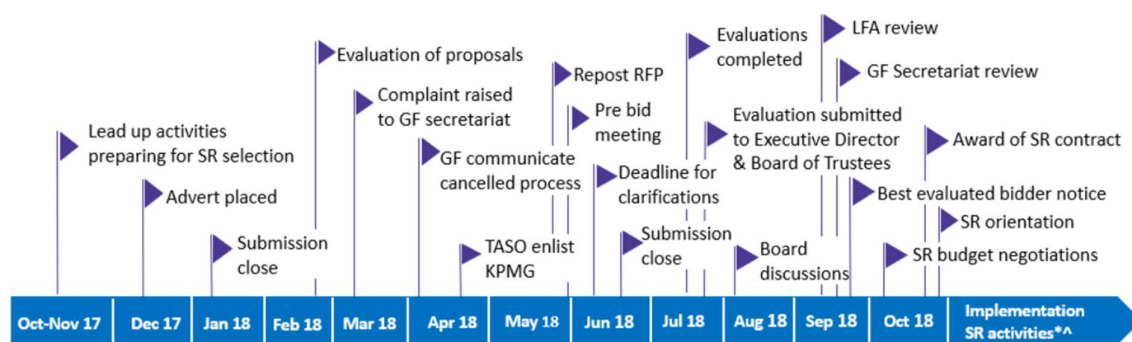
Following Global Fund’s recommendation on early SR selection, TASO began the SR selection process in early December 2017 using their procurement policy as a guiding document. After a number of stakeholders expressed dissatisfaction with the transparency and speed of the initial selection process, the Global Fund cancelled the selection process in April 2018 and appointed an outside consulting firm to repeat it. Stakeholders also expressed concerns that releasing the first SR advertising bid during the December holidays limited SR participation in the bidding process.

“There is something that is not clearly known regarding the SR selection. Global Fund doesn’t give full details on how the SR selection process should be conducted and they leave it to the PR. So it becomes hard to know the standards that should be followed to know that the process was okay and transparent.” (KII, CCM)

“There has been a general delay in selection of SRs. This is because the process of their recruitment or selection is very delicate, especially because Global Fund is very risk averse. For instance, most of the people who attend the CCM represent constituencies or organizations – these are the same organizations that eventually end up applying as SR’s which is a clear indication of conflict of interest. That is why the Local Fund Agency has to be extremely tough and strict in order to ensure that no organization is being smuggled in over the other.” (National level KII, MoH)

Over the three-year grant period, SR’s are responsible for implementing 53% of investments in TASO’s malaria grant and 65% of investments in TASO’s combined TB/HIV grant; in Year 1 the proportion of investments implemented by SRs is 46% and 62%, respectively. Given the essential role of SRs in implementing TASO’s grants, the delays in SR selection have had substantial repercussions on implementation progress and resulted in overall Q1-Q2 2018 absorption levels reported as 22.5% (malaria) and 27.5% (TB/HIV).

**Figure 12. Process timeline for TASO’s SR selection**



\*as of November 1, 2018, all TASO SRs have started implementing with the exception of PACE

^a limited bid was initiated to identify SRs for Cluster 4 activities

**Finding: The misalignment between the actual timing of SR selection, contracting and disbursement and the schedule reflected in grant implementation plans contributed to low absorption levels in Q1-Q2 2018.**

*Robustness: (Ranking=1) The finding is corroborated by triangulation across multiple data sources, including documents (funding requests, grant implementation plans, PU/DRs and*



absorption evidence) and KIIs. Data sources are considered strong due to the proximity of the informants to the planning and implementation processes.

Across the five grants in the current cycle, the Global Fund allocated US\$1.57 million and US\$1.62 million to SRs in Q1 and Q2 2018, respectively. While these sums represent relatively small percentages of the overall grants (3.5% and 1.8% in Q1 and Q2), they represent an ambitious effort to begin SR activities immediately upon grant initiation. These activities include contributing to national health strategies (e.g. conducting a comprehensive epidemiological evaluation of malaria in northern Uganda; US\$1 million), supporting community-based malaria case management (coordination meetings of village health teams, US\$321,000; village health team champion home visits, US\$225,000) and monthly outreach activities for KVPs (US\$337,000).

In total, SRs spent only 5.6% of the budget for SR activities during Q1-Q2 2018 compared to 58.0% spent by PRs. As SR activities in early 2018 require complex coordination, it is likely that implementation delays could have been anticipated. Historical data on financial absorption indicate that SR activities were similarly slow to execute in the first two quarters of the 2015-2017 grant cycle, with SRs spending only 14.7% of funds allocated for that period.

#### **Recommendations:**

- Country stakeholders working with the Global Fund Country Team should develop SR selection guidelines detailing roles, responsibilities, and expectations for engagement of Global Fund actors at each stage of SR selection. The selection process can then be evaluated against these set standards.
- Given the delay in SR selection and its observed consequences on implementation of the 2018-2020 grants, country stakeholders should include sufficient time for SR selection and onboarding at the outset of future grant cycles. Stakeholders recommended planning for PR activities during the first two quarters to allow time for SRs to finalize onboarding.
- An institution independent of CCM and PR2 should carry out the SR selection process in future grant cycles, as was the case with the recent SR selection process. Stakeholders viewed an independent institution as objective and important for minimizing conflicts of interest.

#### **4.2.3 Misalignment of Global Fund and Uganda Financial Systems**

Uganda uses an Integrated Financial Management System (IFMS) to manage annual fiscal flows with a fiscal year of July-June. Although IFMS was designed to improve budget preparation, execution and financial reporting, the difference between the IFMS fiscal year and the Global Fund's calendar year budgeting and reporting is causing implementation challenges, especially for activities planned during the closure of Uganda's fiscal year in June. Two challenges were identified: first, the IFMS closed for a longer period than usual at the close of its fiscal year (five weeks), and, second, pending activities at the end of the IFMS fiscal year must be "brought forward" into the new fiscal year by issuing a supplementary budget. Issuing this budget is time consuming and resulted in implementation delays.

*"We have scenarios where funds have come in-country, requisitions have been made but IFMS is only recognizing them as last year's activities and in that case we have to ask for a supplementary budget to call those activities with their money into a new financial year. This has consequences on ability to spend and this affects Quarter 3 and 4 activities because activities of Quarter 1 and 2 are going to crowd Quarter 3 and 4 and possibly spread then out into Quarter 5 and 6." (National level KII, MoH)*

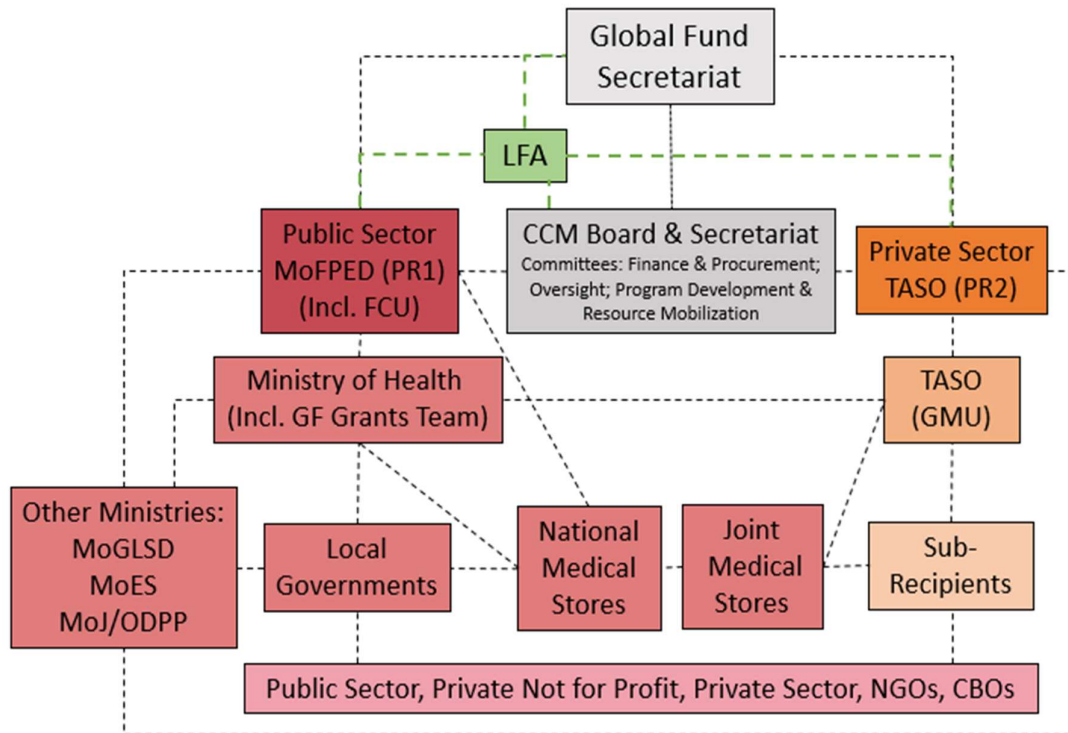
#### **4.2.4 Complex global-country coordination mechanisms and communication channels**

The Global fund business model operates through distinct entities interconnected in a complex web (Figure 13). This complexity results in some coordination and communication

challenges, including an occasional lack of clarity on the chain of command and communication flows. For example, MoFPED and MoH are constitutionally mandated to ensure GoU resource accountability and effective health service delivery. MoFPED and MoH have therefore advocated for increased programmatic and financial accountability from TASO through periodic updates, adding an additional layer of reporting.

In addition, many activities are implemented through districts governed through a decentralized system with independent administrative and accounting systems. Funds channeled to districts require multiple sign offs and realignment to fit into district budgets and work plans. The time required to conclude these processes and embark on implementation is not included in implementation plans.

**Figure 13: Global Fund Coordination Structure at Country Level**



Finally, a lack of communication with district-level stakeholders during the grant making process led to some confusion regarding funding flows and a misalignment between funding guidelines and district priorities. In the six districts examined in the sub-national Resource Tracking Study for Malaria, survey respondents noted that they were often unaware of upcoming financial commitments from international development partners and were therefore unable to integrate development partner funds into their annual planning cycles. These stakeholders stated that they were often only aware of funding flows for the current financial quarter, such that implementation planning was delayed until funding disbursements were received. In addition, stakeholders noted that funding guidelines did not always correspond to district-specific priorities, such that activity planning was based on the stipulations associated with donor funds rather than priorities at the district level. For additional information, see the Resource Tracking Study for Malaria report.

### 4.3 Gender and Human rights

The Global Fund 2017-2022 strategy made a commitment to “introduce and scale up programs that remove human rights barriers to accessing HIV, TB and malaria services” and

“to invest to reduce health inequalities including gender-and age-related disparities.” Programs aimed at reducing human rights and gender-related barriers are defined by the Global Fund as addressing all “stigmatizing, discriminatory and punitive attitudes, practices, regulations, policies, practices and laws that impede people’s access to health services.”(7) Additionally, the Global Fund made a commitment to integrate human rights considerations throughout the grant cycle to ensure “human rights principles are applied right from designing grants to their implementation, management, monitoring and evaluation. These should be through meaningful engagement with affected communities and without discrimination.”(8)

To encourage eligible countries to align their allocations towards the strategic priorities, Global Fund introduced additional catalytic ‘matching funds’ to select countries. Uganda successfully demonstrated compliance with the matching funds requirements for the gender and human rights priority areas, which include: a) supporting strategic priority areas; b) allocating investments in priority areas equal to or more than the matching funds requested (1:1 match); c) allocating a higher amount of funds than the previous allocation period; and d) investment in programs proposed under matching funds have clear potential to accelerate progress.(9) In April 2018, Global Fund approved Uganda’s matching funds requests for US\$4.4 million for programs to remove human rights-related barriers to accessing health services and US\$5.0 million for AGYW.

Matching funds activities focus on demand creation, catalyzing gender and human rights activities in the main grant. The total budget allocated to gender and human rights inclusive of matching funds is US\$16 million (with matching funds being US\$9.4million). The matching funds were split between the two PRs with TASO responsible for the larger share (72%) (see Annex 4 for a detailed budget for Gender and human rights).

The PCE Gender Framework outlines four main questions to explore:

1. To what extent and how is gender-responsive programming being addressed through the implementation of GF grants?
2. Is gender-responsive programming being implemented as designed/ intended?
3. What are the challenges/ barriers to implementing gender-responsive programming?
4. To what extent are systematic improvements to promote the sustainability of gender-equitable outcomes and impact institutionalized within in the three disease areas?

Gender-responsive program planning and implementation is meant to be operationalized through two primary means, including the integration of gender considerations into general aspects of national HIV, TB, and malaria programs, and through dedicated funding for specific gender-related activities. In Uganda, human rights and gender-related activities in the HIV and TB grant aligned with the strategic objectives in the NSP specifically around prevention which aims to reduce the number of new youth and adult HIV infections through: 1) Increasing adoption of safer sexual behaviors and reduction in risky behaviors; 2) Scaling up biomedical HIV prevention interventions; and 3) Mitigating underlying socio-cultural, gender and other factors.(9) These activities target most-at-risk populations, KVPs, adolescents (both in and out of school), young people, and pregnant women (Annex 4).

The alignment of the HIV grant to the NSP is clear with respect to gender responsive programming. In the TB grant, gender responsive programming is not well articulated; however, it is important to note efforts to respond to the needs of key and vulnerable populations, in this case prisoners through TB screening in high volume prisons (an activity under PR1 implemented by Uganda prisons). For the malaria grant, while it was acknowledged in the funding request that gender disparities may act as a barrier to accessing services, there were no clear efforts in the implementation plans for activities to address these disparities, except for addressing malaria in pregnancy and children under five. The TRP review also highlighted these limitations: “The funding request does not provide any analysis of human rights barriers as possible contributing factors to malaria in the country.

Additionally, while some gender dimensions of malaria are highlighted in the application, gender analysis and planning is not comprehensive or robust.” This is also illustrated through evidence from observation and KIIs. Stakeholders noted that there is limited attention and awareness about gender and malaria, in part due to a lack of familiarity with gender issues in malaria interventions and a belief that that malaria is “gender blind” because mosquitos bite indiscriminately.

Based on data gaps about human rights related barriers to HIV, TB and malaria services, the Global Fund commissioned a baseline assessment to understand the barriers in Uganda. With the forthcoming early 2019 release of the Global Fund baseline assessment, the PCE team plans to compare how the main allocation and matching funds grant activities align to the key human rights barriers identified in the baseline. Major discrepancies could point to the need for reprogramming to align activities to the highest priority human rights and gender-related barriers. The PCE will also track if activities for removing human rights barriers are being implemented as intended and are achieving the intended outputs, in addition to monitoring enablers and constraints to implementation of these activities.

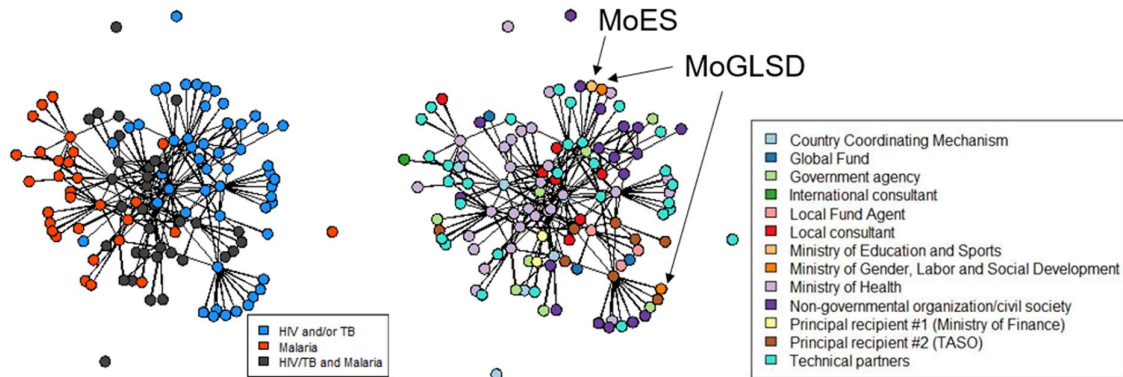
**Finding: Delayed implementation of gender and other human rights-related activities is primarily due to the delay in SR selection for TASO and delays in onboarding of preselected SRs for MoFPED**

*Robustness: (Ranking=1) The finding is corroborated by triangulation across multiple data sources, including key informants and document review (PU/DRs, MoUs, SR contract dates). Data sources are considered strong and the quality of insights from respondents is high.*

As of November 2018, most of the activities targeting gender and other human rights-related barriers scheduled for Quarter 1-3 2018 had not yet been implemented due to delayed SR selection. However, plans are underway to accelerate implementation. PR1 is implementing gender and other human rights activities through the following SRs: MoGLSD, MoES, Makerere University School of Public Health (MakSPH), The Office of the Director of Public Prosecutions (ODPP), and the Uganda AIDS Commission (UAC). PR2 is implementing gender and other human rights activities through MARPI (preselected and started in July 2018), MakSPH (also preselected) Baylor, Uganda Development and Health Associates, and Programme for Accessible Health, Communication and Education (PACE) (MoU still pending). To note, no suitable SR was identified for some activities within the RSSH module for community responses and systems activities and module for programs to reduce human rights related to barriers to accessing HIV services (gender and other human rights “legal” activities). However, through restricted bidding, TASO was able to identify a suitable SR and is awaiting a no objection from CCM board members and Global Fund.

Delayed onboarding of SRs for PR1 to implement gender and other human rights activities is also partly attributed to suboptimal coordination between Government Ministries (MoH, MoES, MoJ/ODPP, MoGLSD, MoLG), which is supported by evidence from document review, KIIs and the partnership survey of the grant application cycle. The partnership data specifically highlighted the peripheral involvement of MoGLSD and MoES during development of the funding request, with contributions to the TB/HIV funding request only (Figure 14); see PCE August 2018 partnership brief for additional details.(10) The suboptimal involvement of key stakeholders and implementing partners has subsequently led to a protracted process of bringing them on board as there were disagreements on implementation modalities of who should implement what, which should have been resolved at the grant making stage hence causing implementation delays particularly for PR2.

**Figure 14. Plot of Uganda’s 2017 Global Fund application network by funding request type (left) and by organizational affiliation of network members (right).**



**Finding: The Global Fund business model mechanism for separate catalytic funds application and approval resulted in delays in implementation of gender and other human rights activities for PR1.**

*Robustness: (Ranking=2) The finding is supported by triangulation across a few data sources, including KIIs and documents (MoUs, official Global Fund communication related to approval of matching funds, documentation on timing of matching funds disbursement). Data is considered high quality given the role of key informants in the negotiation and signing of MoUs between PR1 and the relevant SRs.*

Timing of activities in matching funds implementation plans included activities starting in Q1 and Q2 2018. However, the matching funds request was only approved in April 2018 and disbursement occurred in late June 2018. Given that Uganda submitted a request for matching funds after the approval of the main grant, it was unrealistic to assume matching fund activities could be implemented during the first half of 2018. All matching fund activities for PR1 scheduled for implementation during Quarter 1-3 could not be implemented on time due to delays in approval and disbursement. This concern had previously been raised by the stakeholders during the funding request evaluation phase.

With late approval and disbursement of matching funds, there was a delay in signing of MoUs for SRs under the PR1 HIV grant partly because there was concern that these SRs would be implementing some matching funds activities, whose approval and disbursement of funds was delayed. This led to the delayed implementation of gender and other human rights activities in the main grant.

*“The catalytic funding that was approved later also affected the process because we had a number of SRs that were linked to catalytic funding (MoGLSD, MoES, UAC) so it was difficult to finalize agreements with them when we were still checking and waiting what was coming out of the catalytic funding and on our side people were not comfortable with doing it twice, that you do an agreement today and when the other side confirms you do another one.” (National level KII, MoFPED)*

The disbursement of matching funds coincided with the closure of the Integrated Financial Management System (IFMS) in June-August 2018 and no funds could be disbursed to SRs.

*“Most of these new SRs, their activities are catered for in the catalytic grant, and we received those funds recently I think at the end of June. And as you may know, the government uses a centralized payment platform called IFMS, we got the disbursements notification at the time when IFMS was closing down at the end of financial year and therefore we could not process any payments.” (National level KII, MoH)*

**Finding: Suboptimal involvement of key populations and AGYW organizations during early grant implementation.**

Robustness (Ranking=3): *The finding is mainly supported by information drawn from key informants and supported by observation at meetings. Further data collection is required to improve the robustness rating.*

Evidence from the funding request and grant making evaluation phase indicated strong involvement of key and vulnerable populations in both the main grant and matching funds request development; however, as implementation begins there have been concerns of being “left out” of the implementation process starting with SR selection.

*“We feel used, we spent out a lot of time and resources on the grant writing process, we spent a lot of sleepless nights but we don’t see any benefit for the people we represent... when it comes to selecting SRs, they put stringent conditions and there is no way these small organizations like ours can go through” (National Level KII, CSO).*

The Global Fund advocates meaningful involvement of key and vulnerable populations at every level of implementation (design and delivery) of Global Fund grants to achieve a greater impact on the three diseases.(11) As such, the Global Fund through the Community, Rights, and Gender team has supported efforts to strengthen social networks and organizations supporting key populations. During 2018, the Alliance for Women Advocating for Change, a CSO serving as a network for rural and peri-urban female sex worker groups, sought technical assistance through the CRG platform. Working with two other organizations; Most- At-Risk Populations Network Limited (*MNL*) and Uganda Network of Sexworkers Organisations, they did mapping all key populations organizations in six districts of Northern Uganda. In addition, the CSO convened dialogue meetings in Northern Uganda and Kampala to inform key and vulnerable populations about stages along Global Fund’s grant cycle and the importance of meaningful involvement throughout the cycle. At this stage, it is not clear whether TA provided through the CRG platform helped improve involvement of key and vulnerable populations during early implementation. More so, to effectively involve key populations organizations and networks in implementation, there is a need for PRs to partner and strengthen the implementation capacity of the relevant civil society groups.

During 2019, the PCE will prospectively track implementation of the human rights activities, their enablers and constraints and progress towards achieving outputs and later impact. The PCE will also track the extent to which gender responsive programming will be addressed during implementation.

**4.4 Resilient and sustainable systems for health (RSSH)**

In the 2017-2022 Strategic Framework, one of the top priorities for the Global Fund is to build resilient and sustainable systems for health (RSSH), with the aim of ensuring that “people have access to effective, efficient, and accessible services through well-functioning and responsive health and community systems” for HIV, TB and malaria “as well as increased financial protection and equity, contributing to universal health coverage.”(7)

**Finding: In the 2018-2020 grants, Uganda failed to increase the overall level of investment in RSSH compared to the prior allocation period. Although many RSSH activities were shifted into the malaria PAAR, the total direct RSSH investments across the main allocation and PAAR still only account for 3.8% of the overall portfolio, which suggests limited progress in meeting the Global Fund’s Strategic Objective on RSSH.**

*Robustness: (Ranking = 1) The finding is supported by triangulation across documents (official grant source documents, including funding request narrative, detailed budgets and Global Fund’s RSSH information note), RSSH analysis by the TRP, and KIIs.*

In the 2017-2019 allocation letter, the Global Fund urged Uganda to maintain or increase the level of crosscutting RSSH investments made during the 2014-2017 allocation, which totaled

6.4% (US\$29,668,737) of the total grant portfolio. A recommended target of 10.1% was also stated in the letter based on the average crosscutting RSSH investment level in Global Fund grants within countries of similar income level. In the final approved budgets of the main allocation for 2017-2019, a total of US\$5,517,656 in direct RSSH investments was allocated across three of Uganda’s five grants, with the majority of funds (78.6%) embedded within MoFPED’s malaria grant. TASO implements the remaining RSSH investments, with 10.4% allocated to the malaria grant and 11.0% allocated to the combined TB/HIV grant. The direct RSSH investments account for 1.2% of the total allocation, which is far below the suggested target of 6.4%. However, an additional US\$13,148,085 were placed in the malaria PAAR for RSSH investments, Considering the main and PAAR RSSH allocations together (US\$18,665,741), Uganda still fails to meet the 6.4% investment level in RSSH falling short at 3.8%. It’s notable that 70% of RSSH funds were in the PAAR, but if cost savings are not realized in the malaria grant, there is no guarantee that such remaining RSSH activities will be funded.(12) That said, early discussions in-country indicate likely funding for US\$11,354,237 from the malaria PAAR and US\$400,000 under the TB/HIV PAAR.

### **RSSH module analysis**

Uganda invested in all seven RSSH modules within the 2018-2020 grants. National health strategies was allocated US\$1,814,060 (32.9%) the largest component, followed by HMIS/M&E (25.5%). Community responses and systems and human resources for health each received 15%, while lower allocations went to integrated service delivery (4.6%), procurement and supply chain management (4.4%), and financial management systems (2.5%) (Table 7).

**Table 7: Apportioning direct RSSH investments for the 2018-2020 implementation cycle (USD)**

<b>RSSH Module</b>	<b>TASO-C</b>	<b>TASO-M</b>	<b>MoFPED-M</b>	<b>Total</b>	<b>%</b>
Community responses and systems	\$605,685	\$38,729	\$185,657	\$830,071	15.0
Financial management systems			\$138,857	\$138,857	2.5
HMIS and M&E		\$473,209	\$932,529	\$1,405,738	25.5
Human resources for health			\$831,600	\$831,600	15.1
Integrated service delivery and quality improvement			\$251,848	\$251,848	4.6
National health strategies		\$64,060	\$1,750,000	\$1,814,060	32.9
PSM			\$245,482	\$245,482	4.4
<b>Total</b>	<b>\$605,685</b>	<b>\$575,998</b>	<b>\$4,335,973</b>	<b>\$5,517,656</b>	<b>100</b>

“Direct” RSSH investments fail to capture the full array of Global Fund investments geared toward strengthening systems for health. The Global Fund’s Country Response Profile for Uganda includes an analysis of the total 2018-2020 RSSH envelope based on “direct” plus “contributory” RSSH investments—this analysis suggests US\$89 million in total RSSH investments or approximately 18.6% of the overall allocation.(13) In contrast, an analysis of activities classified as RSSH by the Uganda CT suggests an approximate total RSSH envelope of US\$21 million (or 4.4% of the allocation). The variability suggests more consistency is needed in determining how grant activities are classified as RSSH, both within the Uganda portfolio and across other Global Fund country portfolios.

**Finding: Preliminary evidence suggests Uganda’s RSSH activities are predominantly supporting disease-specific rather than crosscutting systems strengthening improvements, in part as a result of the RSSH funds being primarily embedded within the malaria grants.**

*Robustness: (Ranking=2) The finding is supported by triangulation across a few data sources, including KIIs and documents (funding request narratives, budget analysis, and*

*TRP desk review of RSSH investments). As there has been very limited rollout of RSSH interventions to-date, the strength of evidence will be improved through observation of RSSH implementation in 2019.*

Using WHO's 4S framework, a recent TRP-led cross-country desk review examined whether RSSH investments were contributing to systems establishment, supporting systems, strengthening systems, or contributing to sustaining health systems. The review found the majority of Uganda's RSSH investments are targeting "supporting" activities (76%), rather than "strengthening" activities (24%).<sup>(12)</sup> The TRP finding is in line with stakeholder perceptions that Global Fund RSSH investments represent a piecemeal approach to funding short term and disease-specific RSSH gaps, rather than supporting an overall RSSH strategy. In moving from predominantly "supporting" activities to "strengthening" activities, a longer-term view of RSSH (in alignment with health sector plans), will likely be necessary.

Our early findings indicate RSSH funds embedded within the malaria grants appear predominantly vertically focused in support of the malaria program, rather than providing crosscutting support to strengthening systems for health. Whereas RSSH investments are categorized well under the modules provided for in the grant design, most of the end point spend activities are mainly geared towards specific disease program systems resulting in suboptimal allocation to cross cutting activities in RSSH. This is clearly demonstrated in the way the RSSH sections are described in the malaria funding request and detailed budget (which may have arisen from attempting to overemphasize the malaria-specific components). For example:

- RSSH HRH module supports salaries for technical and coordination staff within the National Malaria Control Program (15% of RSSH "direct" investments).
- RSSH national health strategies module supports two activities, including a malaria epidemiological study in Northern Uganda and various malaria-specific operations research projects (33% of RSSH "direct" investments).
- RSSH community responses and systems supports strengthening the malaria component of the district integrated epidemic response system, in addition to some cross-cutting activities such as district level trainings on data use.

In addition, despite inadequate data systems reported through all disease programs<sup>2</sup>, especially under TB, the TB program was not aware that there are RSSH funds within the malaria grant to strengthen data systems across the three disease programs.

*"We have made tremendous strides towards integrating TB data into DHIS2. However, this transition has faced challenges due to complexities in TB reporting resulting in data quality issues. We were recently informed that the malaria program had money we can tag along to conduct data quality assessments, but you know how difficult it is to access such money..." (National KII, TB Program)*

This was corroborated by key informants interviewed at the subnational level who reported that most of the Data Quality Assessments (DQAs) being implemented are mainly focused on particular diseases even though they are packaged as an integrated intervention.

*"We are having many partners working in this region [western Uganda] under the guise of 'integrated approaches' to addressing disease burden yet we all know and see that most of their effort is towards HIV thus suffocating others, especially TB." (Sub-national level KII, MoH)*

Further interviews and observations are necessary to assess how stakeholders are conceptualizing RSSH activities, in a vertical or cross cutting manner, and how that conceptualization contributes to implementation approaches. However, given the extensive delays in implementing RSSH activities (see below), the PCE has as of yet been unable to assess how these RSSH activities are unfolding in practice.

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<sup>2</sup> This finding comes from PU/DRs for Q1-Q2 2018



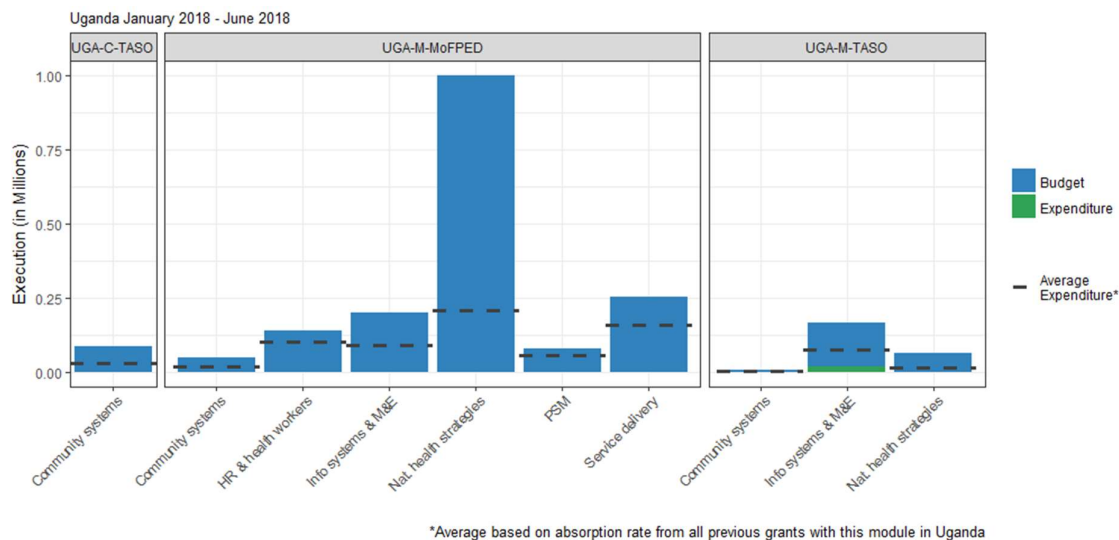
**Finding: As has been the case in previous grant cycles, the RSSH modules of the current grant are facing suboptimal implementation due to the delayed onboarding of SRs, the bureaucratic sign-off processes required for research activities, and stakeholders' hesitation to use funds for non-procurement / commodity activities.**

*Robustness: (Ranking=2) The finding is supported by triangulation across multiple data sources, including key informants, documents (PU/DRs, SR onboarding and contracting documentation, and process mapping of requisition layers), and meeting observations (CCM). Data is considered high quality given the role of key informants in managing RSSH interventions, but the finding can be strengthened through further evidence gathering and validation around barriers to RSSH implementation.*

During the funding request development, it was envisaged that embedding RSSH within disease grants would facilitate effective implementation due to streamlined coordination and easy reallocation of funds, however this has not been fully achieved in the first year of implementation. The RSSH activities are following the same trend of low absorption as previous grants, with only 6.1% of the budget for planned activities implemented during this reporting period by PR2 and no expenditure on RSSH activities by PR1 through Q2 2018 (Figure 15).

Analysis of the RSSH activities as of September 2018 reveals that two out of 10 planned activities have been implemented. None of the RSSH activities under PR2 have been fully implemented due to the delay of SR selection; however, faced by the delays, TASO began implementing training and supervision on routine reporting which was originally planned for SR implementation; this represents the only RSSH absorption during the first semester for either MoFPED or TASO2 (Figure 15). Given the context, the low absorption is not surprising and fits the earlier mentioned causes of delayed implementation of the 2018-2020 across all PRs.

**Figure 15. Budget Compared to Expenditure by RSSH Module, Q1-Q2 2018.**



Source: PU/DRs

Implementation of RSSH activities has been disproportionately affected by the complex implementation framework of the Global Fund within the national and subnational systems. In contrast to procurement and supply of commodities, RSSH activities require a process with several layers of sign-offs from inception through final implementation. All RSSH activities are implemented through SRs or directly through district systems. The current delayed implementation is largely due the protracted grant inception processes of SR selection for PR2 and the onboarding processes for the public sector implementing agencies

(see section 4.2). The research study activities, which account for 31% of RSSH allocation go through several reviews by the institutional review boards. The time required to navigate these bureaucratic processes is not well catered for by the current grant design and implementation plan timelines.

Moreover, previous experiences with mismanagement of implementing ‘soft’ activities, many of which are RSSH-related, and the risk mitigation measures put in place at the country level have caused an intrinsic “hesitation to use” Global Fund money. By ‘soft’ activities we are generally referring to non-commodity activities, such as capacity strengthening at sub-national and health facility level, supportive supervision and mentorship etc. As a result, there is guardedness about initiating requisitions especially for funds that have to go to the districts or funds that are going to be executed by multiple teams since the burden of expenditure and accountability goes back to the initiator of the request. This could explain why this view of “fear” to touch Global Fund money is mainly reported by national level respondents and not the district level KIIs.

*“...right now we have a big challenge of officers within disease programs being hesitant to put in request for activities because they are accountable for that money yet in the actual sense they don't have control over how and when the money is spent especially at district level. People within the ministry have had to repay lots of monies as a result of unclear accountabilities...” (National level KII, MoH).*

Until recently, the Quality Assurance Department under the Health Information Division of MoH has been entrusted with coordinating RSSH activities as an independent monitor and the PCE will prospectively track and document coordination of RSSH activities in 2019.

## **4.5 Sustainability, Transition, and Co-financing (STC)**

### **4.5.1 Co-Financing**

**Finding: There is no formal mechanism for stakeholders to confirm the fulfilment of co-financing commitments over the course of the grant cycle.**

*Robustness: (Ranking=2) The finding is supported by few data sources and is largely drawn from key informants and supported by a few documents. Further data collection is required to improve the robustness rating.*

To increase sustainability and facilitate country ownership of disease programs, Global Fund recipient countries must commit to a minimum increase in total government expenditure for health and expenditure for Global Fund-supported programs. National programs must also demonstrate progressive uptake of critical interventions. The Global Fund determines the requirements for government health expenditure based on the country’s income classification.<sup>(14)</sup> During the 2017 funding request process, Uganda demonstrated sufficient co-financing commitments to qualify for funding, including a US\$34.9 million co-financing commitment for the 2017–2019 allocation period. Uganda also demonstrated plans to increase domestic contributions to HIV, TB and malaria.<sup>(15)</sup>

The CT and Local Fund Agent (LFA) have developed internal mechanisms for determining compliance with co-financing commitments, including reviewing MoFPED budgets for the NMS and on-going communication with USAID, where teams conduct a monthly assessment of commodities procurement. The CT also monitors district-level commodities distribution, including commodities purchased by GoU. However, while these mechanisms represent an informal means of confirming co-financing expenditure, the Global Fund has not established a formal tracking system for co-financing commitments and disease-specific health expenditure, and the majority of stakeholders report that they are unaware of monitoring mechanisms for co-financing. In addition, stakeholders report concerns about the effectiveness of using MoFPED’s IFMS, which provides access to annual budgets, to monitor domestic financial support. Stakeholders recommended the need for CCM to initiate an institutionalized mechanism to increase awareness among country stakeholders on the

status of fulfillment of co-financing obligations as well as to improve accountability and transparency for PR1.

#### 4.5.2. Sustainability

To be eligible for Global Fund financing, countries must demonstrate they are embedding sustainability into their program design and implementation, including five core aspects:

- Strengthening of national strategic plans
- Development of health financing strategies
- Alignment and integration of systems
- Identifying efficiencies and enhancing optimization of disease responses
- Increased domestic financing of national disease response and interventions financed by the Global Fund (including the interventions focused on key populations and human rights-related barriers and gender).

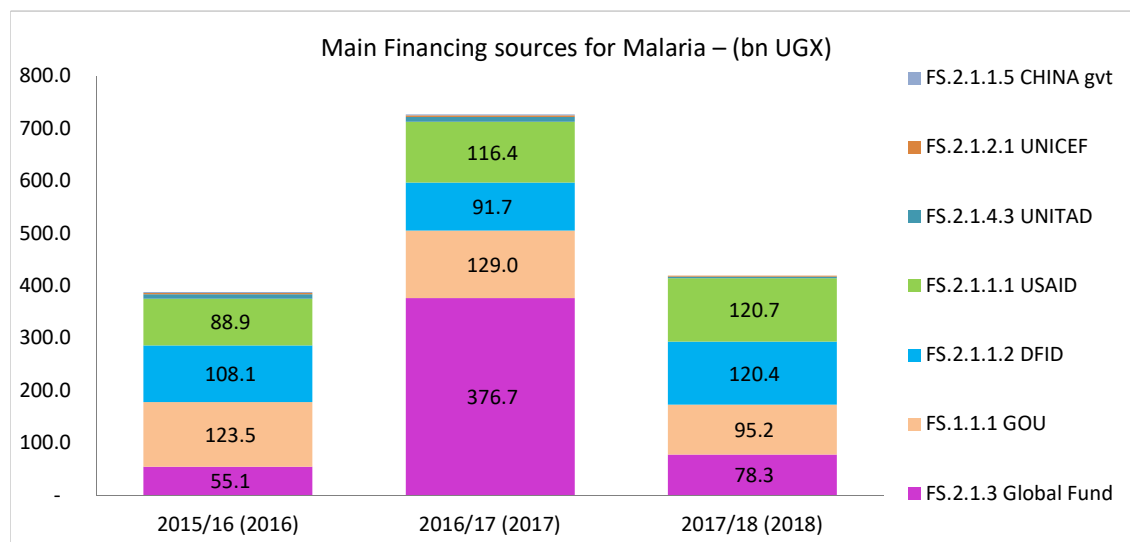
**Finding: Though there has been increased domestic financing of national disease response over the years, there is still a big gap in funding of the three diseases.**

Evidence from document review indicates that the GoU has increased health expenditure in recent years. Financial resources allocated for health increased from 70 billion UGX in 2011 to 143 billion UGX in 2017, primarily for health systems strengthening. In addition, the GoU plans to increase domestic contributions and sustainability of disease programs, including:

- Establishing The AIDS Trust Fund, which leverages domestic taxation to fund the national response to HIV/AIDS
- Creating a national health insurance scheme
- Supporting local commodities manufacturing, including local manufacturing of LLINs and malaria RDTs

Despite the above mentioned efforts, Uganda remains reliant on external donors to fund implementation of national disease programs. From 2014-2017 the GoU raised only 72% of the financial resources needed for malaria implementation, with 95% of funding provided by external donors. The majority of 2016-2017 expenditure on malaria originating from external donors (Figure 16), including the Global Fund (52%, UGX 377billion), GoU (18%, UGX 129 billion) USAID (16%, UGX 116billion) and DFID/UKAID (13%, UGX 92billion). Over the period 2015/16, 2016/17 and 2017/18, total donor expenditure on malaria was UGX 1.2 trillion (Figure 16).

**Figure 16. Total resource envelope for malaria in Uganda for 2015/16, 2016/17 and 2017/18**



Source: Resource tracking study; Sources of funding for malaria 2015/16, 2016/17 and 2017/2018

Even though Uganda is not close to transitioning from Global Fund support, informants interviewed recommended proactive engagement of the CCM with the GoU to increase the budget allocation to the three diseases.

The PCE will continue to follow the integration of sustainability planning into grant implementation in 2019.

#### **4.6 Value for Money**

Maximizing value for money (VfM) is a key principle and crosscutting theme embedded in the Global Fund's Strategy 2017-2022. The PCE assesses VfM through four constituent components: economy, efficiency, effectiveness and equity. While many finding statements in this report inherently involve one or more of these themes, we highlight their relationships with VfM more explicitly here and discuss novel VfM analyses.

There is evidence to suggest that program implementation efficiency is improving in Uganda. As described in Chapter 3.3 and Annex 2, several output indicators, such as HIV tests performed, TB case notification and case testing for suspected malaria are increasing over time relative to funding. For example, adding together all donor investment for malaria treatment, an estimated US\$18 of official development assistance was spent per malaria case treated at the start of 2015(4,16,17)—a number that declined to approximately US\$14 per case by the start of 2018. Although these numbers do not include co-financing trends, which are not reported separately by programmatic area in Uganda, they suggest an underlying trend towards heightened efficiency.

Improvements in economy may also be contributing to greater outputs per dollar invested. According to the Global Fund's Price and Quality Reporting datasets, unit prices secured by PRs have fallen below global reference prices in recent years. For example, the unit price for Atazanavir plus Ritonavir (an ARV) fell from 75 cents per tab in 2012 (18 cents above the global reference price) to 55 cents per tab in 2016 (2 cents below the global reference price). However, stakeholders also noted areas in which processes were inefficient—including grant closure, SR selection and contracting and the alignment of Global Fund and national financial systems. See chapter 4.2 above for more details.

#### **4.7 Limitations**

A limitation of the PCE is the reliance on existing secondary data sources, including HMIS and online dashboards, which are subject to availability and quality of underlying data sources. These sources of national surveillance data often include data entry errors and incomplete reporting by health facilities. To address issues of data quality, the PCE conducted data verification with the MoH and outlier removal. In addition, detailed assessments on the online dashboards were run on regular basis to check for completeness of reporting. In addition, secondary data from national health information systems were compared to additional data sources whenever possible, and mean and multiple imputation was used to correct reporting bias.

## **CHAPTER 5. SUMMARY ANALYSIS AND IMPLICATIONS OF FINDINGS FOR COURSE CORRECTION**

The Global Fund's new funding model is enhancing the Global Fund's ability to support strategically focused programs that have a greater and more sustainable impact in the fight against AIDS, TB and malaria. This represents a shift to implementation ready grants and the ability to better manage grants. The signing of grants in November 2017 was a great accomplishment for the country given that the funding request and development process was better guided, managed and coordinated compared to the previous application. Also, the funding request process for the 2017-2019 allocation took a shorter period (11 months) when compared to the 2014-2016 allocation (13 months). Early grant signing facilitated the offshore procurements which has greatly facilitated grant implementation. Despite the early

successes, the grant signing does not necessarily translate into the start of grant implementation. As discussed above, Uganda still had to complete grant activities to close out the 2014-2016 grant cycle in addition to initiating new grant activities. The biggest hindrance to grant implementation thus far has been the onboarding of preselected SRs and selection of new SRs. Given that several activities were to be implemented by SRs, absorption was affected during Q1-Q2 2018. However, a large proportion of the grants are allocated to commodities, as such, absorption tends to camouflage implementation at country level and yet it is a key performance indicator. This is a clear motivation by stakeholders to invest in areas which are ‘easy to spend’.

In Table 8 below we summarize the key finding statements and associated recommendations and strategic considerations for country and global-level stakeholders.

**Table 8: Summary of findings and recommendations**

<b>Findings</b>	<b>Recommendations / Strategic Considerations</b>
<p><b>Finding 1:</b> While diagnostic capabilities for TB and MDRTB have improved, case notifications remain low due to limited funding for active case finding at facility and community-level.</p>	<p>The MoH should revamp the community follow up system of TB patients and intensify screening of contacts.</p>
<p><b>Business Model: SR selection and onboarding process</b></p>	
<p><b>Finding 2:</b> The SR selection, contracting, and disbursement process in Uganda took five months for PR1, which was not sufficiently reflected in the grant implementation plans, and led to implementation delays</p>	<p>Country stakeholders working with the Global Fund Country Team should develop SR selection guidelines detailing roles, responsibilities, and expectations for engagement of Global Fund actors at each stage of SR selection. The selection process can then be evaluated against these set standards.</p>
<p><b>Finding 3:</b> There are unclear guidelines for SR selection, resulting in a lack of clarity surrounding the selection process and implementation delays when the process was restarted.</p>	<p>Given the delay in SR selection and its observed consequences on implementation of the 2018-2020 grants, country stakeholders should include sufficient time for SR selection and onboarding at the outset of future grant cycles. Stakeholders recommended planning for PR activities during the first two quarters to allow time for SRs to finalize onboarding.</p>
<p><b>Finding 4:</b> The misalignment between the actual timing of SR selection, contracting and disbursement and the schedule reflected in grant implementation plans contributed to low absorption levels in Q1 and Q2 2018.</p>	<p>An institution independent of CCM and PR2 should carry out the SR selection process in future grant cycles, as was the case with the recent SR selection process. Stakeholders viewed an independent institution as objective and important for minimizing conflicts of interest.</p>
<p><b>Gender and human rights</b></p>	
<p><b>Finding 5:</b> Delayed implementation of gender and other human rights-related activities is primarily due to the delay in SR selection for PR2 and delays in onboarding of preselected SRs for PR1.</p>	<p>Country stakeholders should include sufficient time for SR selection and onboarding at the outset of future grant cycles. Country stakeholders recommended that only activities to be implemented by PRs should be planned for the first two quarters to allow time for SRs to finalize onboarding processes.</p>

<p><b>Finding 6:</b> The Global Fund business model mechanism for separate catalytic funds application and approval resulted in delays in implementation of gender and other human rights-related activities for PR1.</p>	<p>Global Fund should integrate gender and human rights in the main allocations to the country. A portion of the country allocation should be specified for gender and human rights such that the country goes through one process of fund request and grant planning.</p>
<p><b>Finding 7:</b> Suboptimal involvement of key populations and AGYW organizations during early grant implementation.</p>	<p>There is a need for increased efforts to strengthen the implementation capacity of the relevant civil society groups.</p>
<p><b>RSSH</b></p>	
<p><b>Finding 8:</b> In the 2018-2020 grants, Uganda failed to increase the overall level of investment in RSSH compared to the prior allocation period. Although many RSSH activities were shifted into the malaria PAAR, the total RSSH investments across the main allocation and PAAR still only account for 3.8% of the overall portfolio, which suggests limited progress in meeting the Global Fund's Strategic Objective on RSSH.</p>	
<p><b>Finding 9:</b> Preliminary evidence suggests Uganda's RSSH activities are predominantly supporting disease-specific rather than crosscutting systems strengthening improvements, in part as a result of the RSSH funds being primarily embedded within the malaria grants.</p>	<p>To effectively manage implementation of RSSH activities, the MoH has recently assigned the Quality Assurance Department to coordinate the implementation of RSSH activities across the disease programs.</p>
<p><b>Finding 10:</b> As has been the case in previous grant cycles, the RSSH modules of the current grant are facing suboptimal implementation due to the delayed onboarding of SRs, the bureaucratic sign-off processes required for research activities, and stakeholders' hesitation to use funds for non-procurement/commodity activities.</p>	<p>Country stakeholders should include sufficient time for SR selection and onboarding at the outset of future grant cycles. Country stakeholders recommended that only activities to be implemented by PRs should be planned for the first two quarters to allow time for SRs to finalize onboarding processes.</p>
<p><b>Sustainability, Transition and Co-financing</b></p>	
<p><b>Finding 11:</b> There is no formal mechanism for stakeholders to confirm the fulfilment of co-financing commitments over the course of the grant cycle</p>	<p>The CCM should initiate an institutionalized mechanism to track payment of co-financing commitment that can be accessed by other stakeholders to ensure accountability and transparency of PR1.</p>
<p><b>Finding 12:</b> Though there has been increased domestic financing of national disease response over the years, there is still a big gap in funding of the three diseases.</p>	<p>Even though Uganda is not close to transitioning from Global Fund support, the CCM should proactively engage GoU to increase the budget allocation to the three diseases.</p>

## **CHAPTER 6. DISSEMINATION**

The ability to disseminate emerging findings in a timely manner is a core strength of prospective evaluations and provides an opportunity to contribute to quality improvement. In line with the PCE principle of added value, the PCE has disseminated findings through numerous avenues including dissemination meetings, policy briefs, presentations and informal communication channels like phone calls.

The 2018 Annual Report was shared with stakeholders during the dissemination workshop on April 18, 2018. The meeting was attended by approximately 60 stakeholders, representing various stakeholder groups including the CCM, MoH, LFA, technical partners, and others. Based on additional stakeholder feedback from the dissemination meeting, the report was finalized as of June 20, 2018 and was electronically disseminated to all stakeholders.(18)

The PCE also disseminated a brief titled: “Partnership in the Global Fund application cycle: Evidence from Uganda’s 2017 application process.”(10) The aim of this evaluation question was to understand the role, function and value add (efficiency, effectiveness and country ownership) of partnerships between the Global Fund partners and in-country stakeholders in supporting the development of the 2017 Global Fund grant application. Findings from the survey have informed stakeholders on the existing Global Fund network size and structure, which has aided understanding of the various representation and engagement of stakeholder groups so as to strengthen relationships between and among actors during grant implementation.

Furthermore, the PCE team conducted sub-national data collection in November 2018. Specific findings from the sub-national level were informally disseminated in November 2018 to particular program personnel at the MoH, including findings pertaining to operational level challenges at the district and health facility level. As such, the MoH has been able to address some issues in a timely manner that were impeding smooth implementation of the grant.

Other dissemination avenues have included presentations made at the high-level advisory board meetings in June and November 2018. A presentation to senior and top management of Ministry of Health is also planned.

Additionally, the PCE team has built dashboard visualizations in Tableau Server using official grant budget data to display Global Fund grant investments from 2011 through 2020 and using PR implementation plans to display Year 1 quarterly plans for activities. The overall purpose of this dashboard is to support monitoring of implementation progress. Given the complexity in tracking grant implementation, the PCE has since then engaged stakeholders such as the CCM and MoH. The dashboard will be an interactive tool for the stakeholders to aid grant tracking. Discussions are ongoing with various stakeholders regarding how to utilize the dashboards for routine monitoring and oversight purposes.

## **CHAPTER 7. PLANS FOR 2019**

Over the first phases of the evaluation, the PCE in Uganda focused on the analysis of funding request preparation and early grant implementation. Utilizing the results chain framework, the PCE has begun to measure inputs, outputs, and outcomes for the three diseases, focusing heavily on malaria for the first analyses of impact pathways.

For 2019, the PCE will move to the analysis of how outputs from Global Fund investments are translating into impacts in the three diseases, including geospatial analysis of burden of disease. Taking advantage of its prospective nature, we aim to understand what aspects of the Global Fund business model, or which contextual factors are facilitating or hindering the implementation of activities and their final impact. Considering the results obtained so far, several areas call our attention for further review in 2019:

1. Evaluation of the process for target-setting and its consequences;
2. Further exploration into gender and human rights, including the extent to which activities are appropriately defined and effectively carried out in implementation, as well as the alignment of current grant activities to the barriers identified in the forthcoming baseline report on human rights-related barriers to services;
3. Continued monitoring of many of the activities introduced in this report, including RSSH and co-financing policies;
4. Assessment of the impact of the staff validation exercise, and other innovation structures on the ongoing implementation of grant activities;
5. Contribution to reprogramming where possible;
6. Subnational resource tracking analyses.

Regarding impact evaluation specifically, the PCE will build upon the progress already made in tracking indicators along the results chains. For several reasons, HIV will be a primary quantitative focus for 2019, for which the PCE will track more indicators of activities, outputs and outcomes, and apply statistical models to measure the correlation between inputs and outputs. For malaria, continued descriptive monitoring of outputs and outcomes will be complemented by in-depth information from the subnational resource tracking study. For TB, a limited set of the most critical output and outcome indicators will be tracked and presented in a similar manner to the results chain section of this report. In doing so, the PCE may also be positioned to present analysis on trends in data quality, tracking indicators against national targets, and further analysis of absorption.

So far, the PCE's mixed methods approach has relied on primary (interviews, observation) and secondary (documents) data for process evaluation analysis and secondary data for quantitative data analysis. The support from all stakeholders in providing information for the PCE has been critical to success, including the CT, government program officers and civil society organizations. However, an important risk for 2019 may be the availability of information, as limitations in the health information systems have been identified. We aim to mitigate this risk by continuing to collaborate with stakeholders, but the need for primary data collection in some specific areas should be considered.



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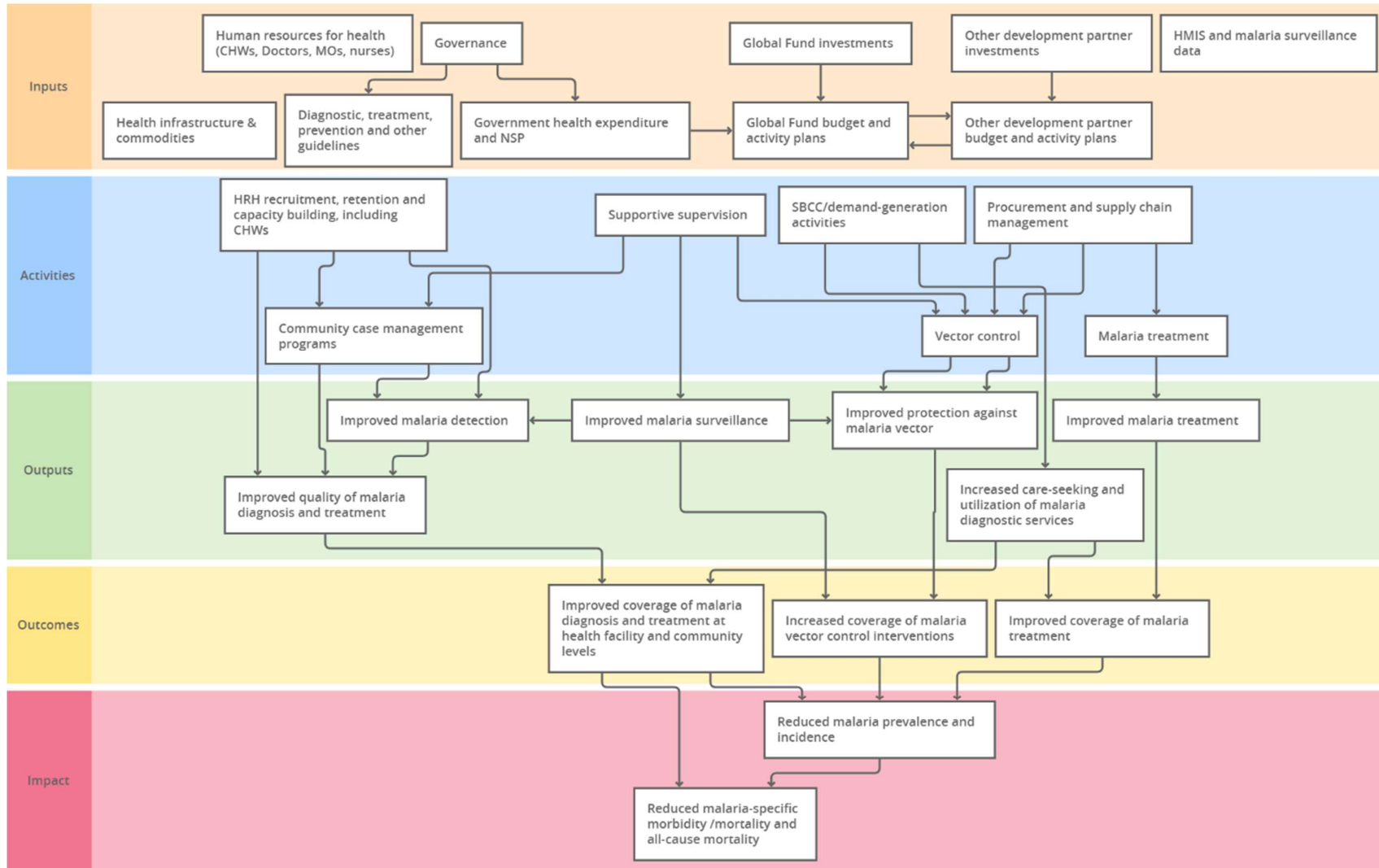
## ANNEXES

### Annex 1. Evaluation questions, sub-themes and prioritization for the early implementation phase of the Uganda PCE.

	Evaluation Question	Sub-themes	Priority
SO1   Impact, Transition, Challenging Operating Environment	What are the trends and distribution of HIV, TB and malaria-related health outputs and outcomes?	Geographic distribution of key health outputs & health outcomes	Yellow
	To what extent do Global Fund resources contribute to improvement in health outputs and outcomes for HIV, TB and malaria? ...and what are the barriers and facilitators to achieving outputs and outcomes?	<ul style="list-style-type: none"> <li>•Intensity of Global Fund resources coincide with changes in key health outputs</li> <li>•Geographic distribution of key health outputs coincide with geographic distribution of health outcomes</li> <li>•Intensity of Global Fund resources coincide with changes in health outcomes</li> </ul>	Green
	To what extent is the Global Fund STC policy applied and contributing to preparing for sustainability and transition?	<ul style="list-style-type: none"> <li>•Country initiatives planned or in place for STC (AIDS trust fund; \$1 Initiative)</li> <li>•Domestic resource mobilization for ATM</li> </ul>	Red
SO2   Build RSSH	How effectively does Global Fund money move from global to national to sub-national levels?	<ul style="list-style-type: none"> <li>•MoFPED &amp; MoH role in financial flows, fund coordination</li> <li>•PR1/PR2 relationships, functions</li> <li>•Movement of money from non-state PR2 to Gov't</li> <li>•Financial processes</li> </ul>	Yellow
	How do Global Fund investments contribute to building resilient and sustainable systems for health?	<ul style="list-style-type: none"> <li>•Incorporating RSSH policy in priority setting</li> <li>•Inclusion of HSS within grants</li> </ul>	Yellow
SO3   Human Rights & Gender	Are Global Fund investments in promoting and protecting human rights and gender equality sufficient, of quality, and effective?	<ul style="list-style-type: none"> <li>•How are Global Fund supported programs addressing barriers to services for the most vulnerable, including key populations?</li> <li>•What have been the challenges and successes of implementing gender responsive programs?</li> </ul>	Yellow
	To what extent have plans, policies and programs (related to three diseases in 2017-2019 allocation period) been designed and implemented in	<ul style="list-style-type: none"> <li>•To what extent has gender been addressed in the design of the grant application?</li> </ul>	Yellow

	accordance with gender responsive programming, within country contexts receiving Global Fund support?		
SO4   Mobilize Resources	What are the trends and distribution of Global Fund resources (inputs), and how do they compare with need?	<ul style="list-style-type: none"> <li>•Distribution of Global Fund and non-Global Fund resources by health function, geographic area, &amp; financing agent</li> </ul>	
	To what extent is allocation of Global Fund resources complementary to other resources (PEPFAR, domestic etc.)?	<ul style="list-style-type: none"> <li>•Visibility across funding streams &amp; activities</li> <li>•Consideration of other funding sources in allocation decisions</li> </ul>	
	What are the drivers of consistently low rates of absorption (financial execution) of Global Fund investments?	<ul style="list-style-type: none"> <li>•Drivers of variation in absorption by PRs, SRs, disease area</li> <li>•Potential bottlenecks to absorption</li> <li>•Aspects of the Global Fund business model facilitate or hinder effective and efficient absorption</li> </ul>	

## Annex 2. PCE Malaria Results Chain Framework



### Annex 3. SRs supporting Uganda's Global Fund grant implementation

Disease	PR1: MoFPED/MoH	PR2: TASO
HIV/TB	<p><i>Government MDAs*</i></p> <ul style="list-style-type: none"> <li>● Ministry of Gender, Labour &amp; Social Development (MoGLSD)</li> <li>● Ministry of Education &amp; Sports (MoES)</li> <li>● Ministry of Justice (MoJ)</li> <li>● Uganda Prisons Service</li> </ul> <p><i>Other*</i></p> <ul style="list-style-type: none"> <li>● Uganda AIDS Commission</li> <li>● Makerere School of Public Health</li> <li>● Uganda Virus Research Institute</li> </ul>	<p><i>Government MDAs*</i></p> <ul style="list-style-type: none"> <li>● MoGLSD</li> <li>● MoES</li> </ul> <p><i>Other</i></p> <ul style="list-style-type: none"> <li>● Baylor</li> <li>● Programme for Accessible health, Communication and Education (PACE)</li> <li>● Uganda Development &amp; Health Associates</li> <li>● Most At Risk Populations Initiative (MARPI)*</li> <li>● Uganda Stop TB Partnership (USTP)*</li> </ul>
Malaria	<p><i>Government MDAs*</i></p> <ul style="list-style-type: none"> <li>● National Drug Authority (NDA)^</li> <li>● National Medical Stores (NMS)</li> </ul> <p><i>Other*</i></p> <ul style="list-style-type: none"> <li>● Gulu University</li> </ul>	<p><i>Government MDAs*</i></p> <ul style="list-style-type: none"> <li>● MoLG</li> </ul> <p><i>Other</i></p> <ul style="list-style-type: none"> <li>● PACE#</li> <li>● Kagumu Development Organization</li> </ul>

\*Pre-selected SRs

#Contract or MoU still pending as of November 1, 2018

^Activities to be implemented by NDA were placed in malaria PAAR

#### Annex 4. Detailed budget for Gender and Human Rights (USD)

Prevention programs for adolescents and youth, in and out of school	MoFPED-H	TASO-C
Addressing stigma, discrimination, legal barriers to care for adolescents and youth	--	141,175
Behavioral change as part of programs for adolescent and youth	321,838	1,560,407
Community mobilization and norms change	29,836	862,421
GBV prevention and treatment programs for adolescents and youth	14,026	426,747
Keeping girls in school	1,956,241	2,669,758
Linkages of HIV, RMNCH, and TB programs for AGYW	4,571	--
Social economic approaches	--	1,725,747
Other interventions for adolescent and youth	229,868	22,930
<b>Totals</b>	<b>2,556,381</b>	<b>7,409,186</b>

Programs to reduce human rights-related barriers to HIV services	MoFPED-H	TASO-C
Improving laws, regulations and policies relating to HIV and HIV/TB	77,013	570,963
Legal Literacy ("Know Your Rights")	26,754	44,790
Other interventions to reduce human rights-related barriers to HIV services	88,513	5,255,356
Sensitization of lawmakers and law-enforcement agents	205,998	168,481
Stigma and discrimination reduction	472,166	318,895
Training of health care providers on human rights and medical ethics related to HIV and HIV/TB	207,373	440,113
Reducing HIV-related gender discrimination, harmful gender norms and violence against women and girls in all their diversity	--	376,716
<b>Totals</b>	<b>1,077,818</b>	<b>7,701,308</b>

Prevention of Mother to child Transmission of HIV(PMTCT)	MOFPED-H	TASO-C
Primary intervention of HIV-infection among women of childbearing age	---	222,854
<b>Totals</b>	<b>---</b>	<b>222,854</b>

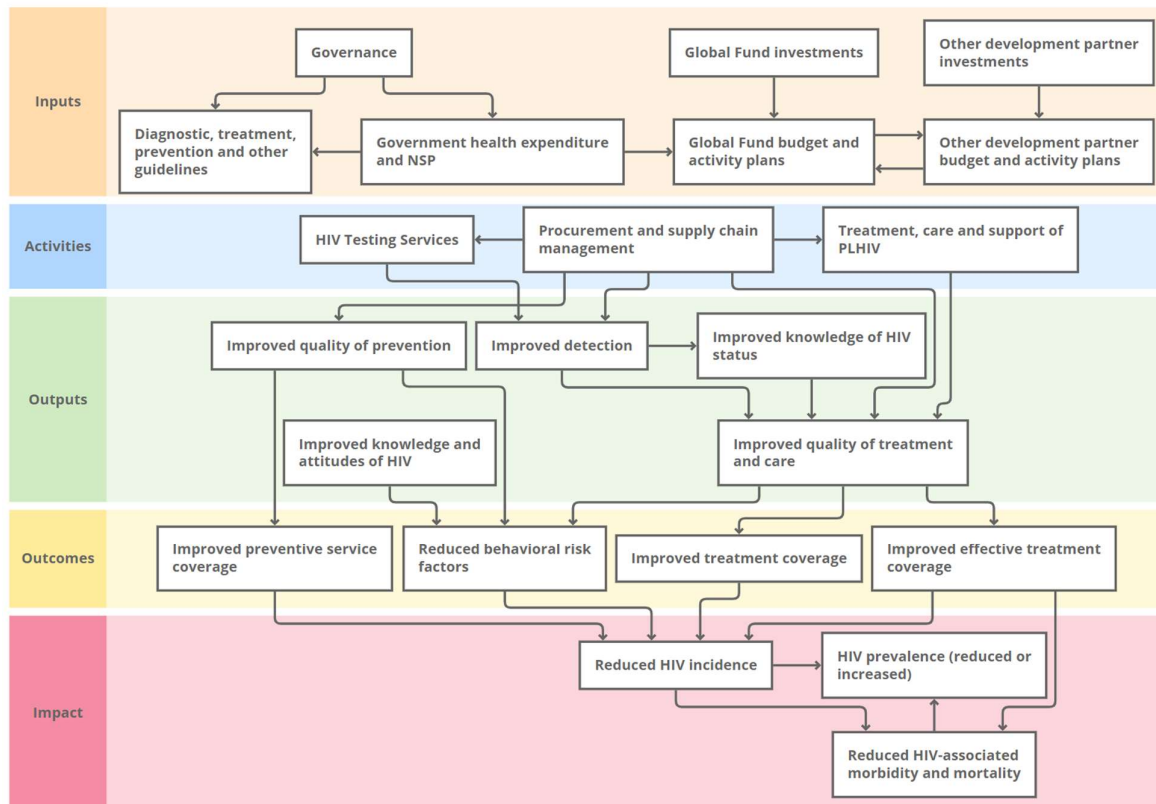
Resilient and sustainable systems for Health	MOFPED-H	TASO-C
Community based monitoring	---	1,220,623
Community led advocacy	---	56,537
Social mobilization building community linkages, collaboration and coordination	---	94,003
Institutional capacity building, planning and Leadership development	---	1,138,72
<b>Totals</b>	<b>---</b>	<b>1,485,035</b>

## Annex 5. Results Chain: HIV in Uganda

### Introduction

The Prospective Country Evaluation (PCE) developed the three results chains as an analytic framework to explain how Global Fund investments connect to health outputs, outcomes and impact for HIV, TB and malaria. The boxes within the results chains are primarily measured using quantitative data sources; the arrows connecting the boxes explain the relationships between boxes and are evaluated primarily using qualitative data sources (Figure 1)<sup>3</sup>.

**Figure 1. HIV Results Chain, Uganda**



Based on data availability, the high level of investment by the Global Fund in HIV-related commodities and the recent implementation of the Test and Treat policy, we focus our analyses on the pathways composing the HIV Cascade of Care, including HIV testing, enrollment on antiretroviral therapy (ART) and viral suppression. We also discuss barriers to HIV testing coverage, ART enrollment and retention, with a focus on commodities distribution and population-level outcomes for people living with HIV (PLHIV). We then compare these indicators to sub-national estimates of PLHIV and changes in HIV prevalence over time.

### Progress towards 90-90-90 and national targets

Uganda has made substantial progress towards the 90-90-90 goals since The Global Fund began funding programs in Uganda in 2003. UNAIDS estimates that, in 2017, 81% of PLHIV were aware of their HIV status, 89% of PLHIV who knew their status were on treatment (72% of all PLHIV), and 78% of people on treatment were virally suppressed, or 56% of all PLHIV.(19,20) The HIV and AIDS National Strategic Plan (NSP) for 2015/2016-2019/2020

<sup>3</sup> The above Results Chain represents HIV programming with inputs from the Global Fund in Uganda. The global HIV/AIDS Results Chain is available at: <https://evaluationplanningtool.org/model/mogebjaebcabjbcceb>



focuses on achieving the 90-90-90 targets, with a national goal of “zero new infections, zero HIV/AIDS-related mortality and morbidity and zero discrimination” by 2030.(9) In order to reach these targets, the NSP identifies four “sub goals,” including:

1. Reduce the number of new youth adult and HIV infections by 70% and the number of new pediatric HIV infections by 95%;
2. Decrease HIV-associated morbidity and mortality by 70% through achieving and maintaining 90% viral suppression by 2020;
3. Reduce vulnerability to HIV/AIDS and mitigation of its impact on PLHIV and other vulnerable groups;
4. Maintain an effective and sustainable multi-sectoral HIV/AIDS service delivery system that ensures universal access and coverage of quality, efficient and safe services to the target population by 2020.

In addition, the TB/HIV Performance Framework for the 2018-2020 grants identifies the following goals and objectives related to testing and treatment for HIV<sup>4</sup>:

- Increase equitable access to ART for those in need from 64% (2016) to 81% by 2020;
- Reduce incidence by 5% by 2019/2020: from 234/100,000 in 2015/2016 to 222.3/100,000 by 2019/2020;
- Strengthen TB/HIV integrated care for co-infected patients and increase ART coverage among TB/HIV co-infected patients from 88% in 2015/2016 to 95% by 2019/2020.

In December 2016, Uganda announced nationwide adoption of the Test and Treat Policy, in which health facilities immediately enroll HIV-positive patients on ART regardless of CD4 count, with implementation beginning in earnest in January 2017.(21, 22) Since the start of implementation, UNAIDS reports an increase in ART enrollment for both men and women and reductions in the “treatment gap” between newly diagnosed patients and people newly initiated on ART.(23) Despite this progress, a number of barriers to implementation persist: the 2018 U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) Country Operational Plan for Uganda identifies commodity security as “the biggest risk to implementation of the Test and Treat Policy for all and to achieving epidemic control.”(1) Commodity security, especially at peripheral health facilities, is also identified as an implementation barrier in the NSP.(9) Progress towards achieving the 90-90-90 targets, including commodity-related barriers, is discussed in depth in the following sections.

## **Inputs**

From 2003 - 2018, the Global Fund disbursed US\$555.5 million for HIV and TB/HIV, compared to US\$488.5 million disbursed for malaria and US\$53.2 million for TB.(24) The Global Fund’s combined 2018 - 2020 TB/HIV budget includes US\$24 million for HIV testing services and US\$207.4 million for treatment, care and support for HIV. 100% of funding for HIV testing was allocated to MoFPED (PR1), 82% of which covers the cost of rapid tests (US\$19.7 million; 19,690,622 kits over the grant duration at US\$1.00 per test kit). The remaining 18% (US\$4.3 million) covers the associated procurement and supply chain management costs for acquiring and distributing test kits.

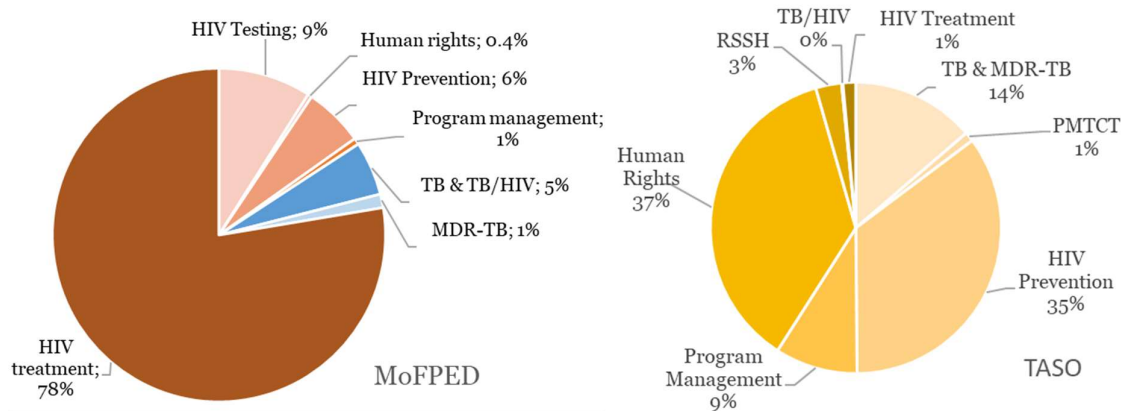
Of treatment funding, US\$207 million was allocated to MoFPED and US\$299,840 to TASO, with 68.6% of MoFPED’s grant allocation specifically for the procurement and distribution of antiretroviral drugs (ARVs) (US\$183 million). The Global Fund is the primary funder of both rapid test kits and ARVs in Uganda, with PEPFAR reporting an expenditure of US\$4.2

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<sup>4</sup> Uganda HIV/TB Performance Framework, 2018-2020. Provided by the Global Fund.

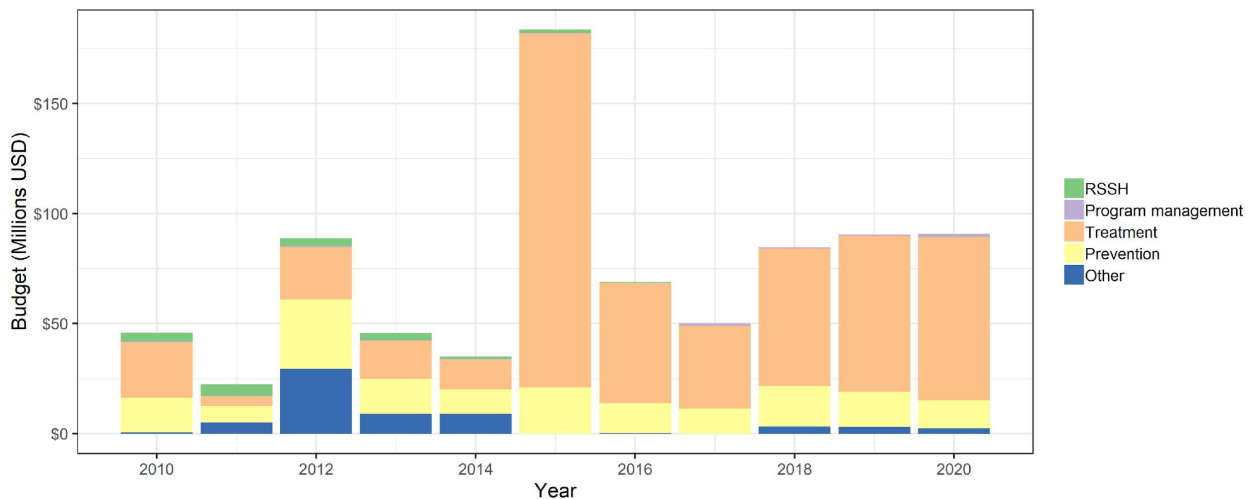
million on rapid test kits in Fiscal Year 2017 (September 2016 – October 2017) compared to US\$11.5 million by the Global Fund. The Global Fund is “by far” the largest funder of ARVs in Uganda, with US\$254.3 million distributed for treatment, care and support from 2010 to 2018.(1) PEPFAR contributed an additional US\$37.9 million to ARV procurement during Fiscal Year 2018. The Government of Uganda (GoU) does not purchase HIV rapid test kits, which are purchased primarily by The Global Fund (2018 budget allocation: US\$10.7 million) and PEPFAR (US\$5.2 million in FY 2018).(1) See section 3.3.1 for more details.

**Figure 2. Funding allocation by module, 2018 - 2020 TB/HIV grants**



Treatment, a category that includes both HIV testing and treatment, care and support for HIV<sup>5</sup>, is by far the largest proportion of HIV budgets in Uganda, with 61.0% of all funding from 2010-2020 and a mean of 58.2% of annual funding allocated to this category (Figure 3). Prevention is the second largest at 18.5% of all funding. Treatment represents the vast majority of funding in 2015 (92.6%), and since 2015, treatment has constituted the largest percentage of the annual budget compared to other categories (66.6% on average, compared to 48.3% before 2015). Funding for RSSH and program management has remained relatively consistent over time.

**Figure 3. Global Fund HIV budgets by type of service, Uganda, 2011 - 2018**



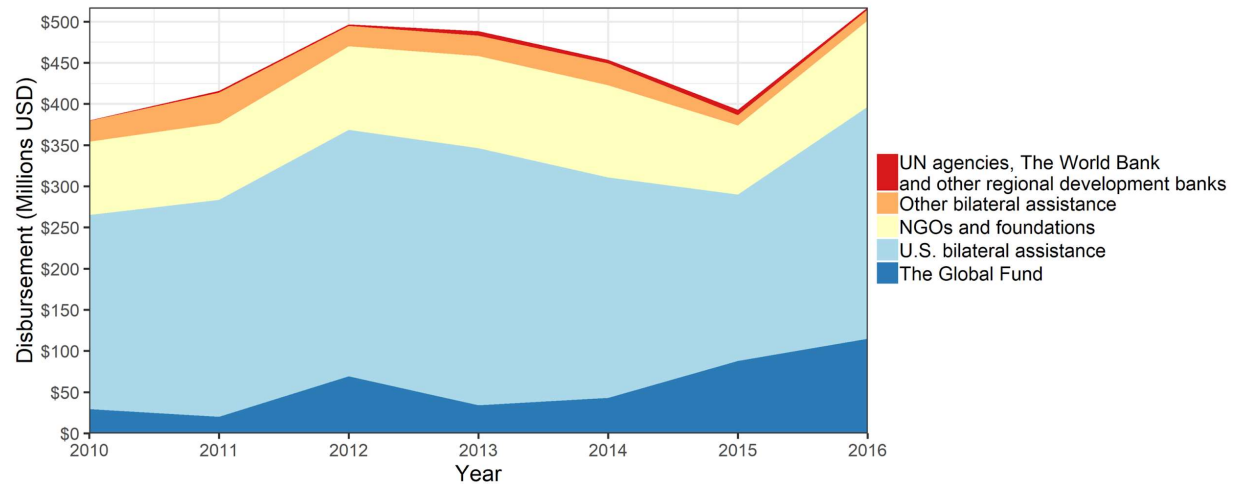
Source: Global Fund detailed budgets; Global Fund Grant Operating System (GOS)

**Inputs: Funding Landscape**

<sup>5</sup> For an explanation of module classifications by prevention and treatment, see Annex 6.

Uganda remains largely dependent on international donors to address the national HIV/AIDS epidemic (Figure 4). Contributions by international organizations compose 90% of the national AIDS response, with the Global Fund and PEPFAR as the largest contributors.(1)

**Figure 4. Landscape of HIV/AIDS funding in Uganda, 2010 – 2018**



Source: IHME, Financing Global Health

While reporting on government health expenditure in Uganda is not disaggregated by HIV-specific funding, PEPFAR estimates that the GoU contributes US\$61.3 million annually to HIV, including US\$26.4 million for ARVs<sup>6</sup>.(1) GoU expenditure on HIV is reflected in the GoU’s health expenditure in recent years, which in 2015 represented 7.3% of Uganda’s Gross Domestic Product (2015: US\$27.1 billion) and 17% of government final consumption expenditure (US\$2.5 billion)<sup>7</sup>.(25) Co-financing commitments, which represent US\$34.9 million for the 2018 - 2020 grants (see section 4.5.1), are also reflected in government health expenditure.

## Outputs

The following section discusses programmatic outputs and barriers to achieving national objectives for HIV testing and ART enrollment for PLHIV. From 2016 - 2017, HMIS reported that health facilities in Uganda performed 3,954,541 HIV tests, with a mean of 2,235,094 tests performed per quarter in Q1 - Q3 of 2018. Targets for HIV testing include 50% coverage of access to HIV counselling and testing (HCT), or 66% coverage for women and 45% for men, by 2018. For ART enrollment, 2018 targets include 80% ART coverage whereas ART coverage for all PLHIV is currently estimated to be 72%. (9)

PEPFAR has identified commodity security as a major barrier to achieving these objectives, as “underfunding of ARVs and HIV rapid test kits by the GoU has resulted in very low stock levels, some local stock-outs, and commodity insecurity in the public sector. Major weaknesses in supply chain systems remain a concern.”(22) As a result, commodity and

<sup>6</sup> PEPFAR COP 2018; p. 19; “there is presently no explicit budget line for HIV in the national budget”

<sup>7</sup> Estimates represent current health expenditure as a percentage of Gross Domestic Product (GDP) and of general government consumption expenditure in current USD for the most recent years in which data were available.

supply chain security represent one of PEPFAR's six 2018 strategic priorities and 85.6% of the total Global Fund grant allocation for Uganda from 2018-2020 (US\$246 million)<sup>8</sup>.

The majority of health facilities in Uganda did not experience a stock out of HIV test kits or antiretroviral drugs (ARVs) from 2014 – 2018. However, while stock outs of both test kits and ARVs decreased nationwide from 2017 to 2018, including a reduction in stock outs in 41 districts, the frequency of stock outs increased in 54 districts<sup>9</sup>, and stock outs in a subset of facilities were frequent and/or prolonged. Here, we define frequent stock outs as a facility being out of stock for at least eight weeks in a single year, regardless of the weeks' concurrency, while we define prolonged stock outs as at least four concurrent weeks out of stock (duration)<sup>10</sup>. Stock out rates in 2017 and 2018 were higher for HIV test kits than for ARVs. This indicates that, while procurement and supply chain management processes are functioning well in the majority of health facilities, a number of facilities and districts require increased support to maintain adequate stock of essential HIV-related commodities, especially HIV tests.

For analyses of inventory, we explored weekly data from January 1, 2014 through December 2, 2018. Data are available for the last four months of 2013; however, we excluded 2013 data due to low reporting in those weeks. No data were publicly available for the three weeks from October 16 – November 5, 2017 and the first week of 2015. When conducting year-on-year comparisons, we analyzed the months of January – November (inclusive) in order to account for reporting lags and incomplete 2018 data at the time of writing. We measure stock outs by the total number of weeks stocked out, the mean number of weeks stocked out per facility and the percentage of facility-weeks stocked out, defined as the number of weeks stocked out divided by the cumulative number of weeks in which a facility reported<sup>11</sup>. All output analyses rely on data from the Uganda Health Management Information System (HMIS), including data obtained through the publicly available Uganda Ministry of Health (MoH) Option B+ Dashboard.

Although many health facilities, especially those providing Option B+, maintain a stock of ARVs regardless of ART site accreditation, we limited our analysis of ARV stock outs to accredited ART sites (n=1,291) in order to examine only health facilities that regularly distribute ARVs. For analyses involving HIV test kits, we included all health facilities for which data were available (n=1,564), as HCT is a standard service for facilities providing primary health care in Uganda.(26)

## **Outputs: HIV testing**

National HIV testing guidelines recommend a serial testing algorithm, with Determine used as the initial screening test, Stat-Pak as the confirmatory test and SD Bioline as the tiebreaker.(27) An estimated 81% of PLHIV in Uganda know their HIV status, compared to 65% in 2015.(27) Testing targets are derived from the national goal of 95% treatment coverage and are stratified by testing type (e.g. index testing or outpatients clinic) and expected yield.(27) National targets determined by the MoH, MoFPED, PEPFAR, Global Fund and other partner organizations call for testing of 2,369,746 people in 2018 and

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<sup>8</sup> This percentage includes procurement and supply chain management for ARVs, test kits, first and second line TB drugs, condoms, lab reagents and other drugs to combat opportunistic infections.

<sup>9</sup> The mean weeks stocked out of ARVs per facility increased in 33 districts in 2018, and the mean weeks stocked out of HIV test kits increased in 44 districts. Of those, 19 districts had increases in both. The number of facilities stocked out for at least one week increased in 23 districts for ARVs and in 38 districts for test kits.

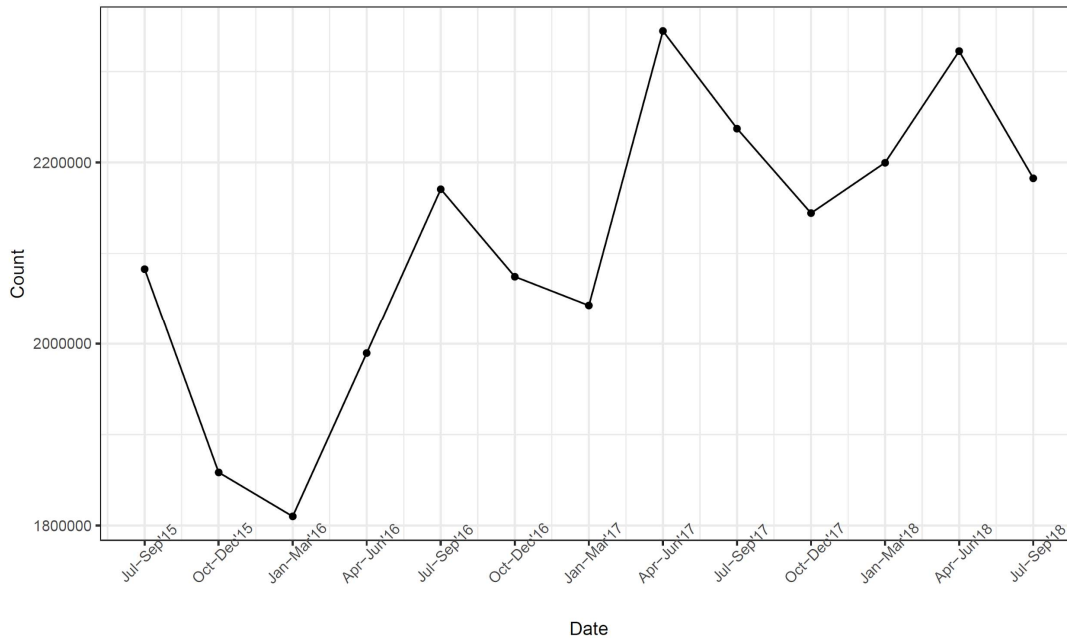
<sup>10</sup> For example, if a facility was out of ARVs for ten weeks in ten distinct months, they would be frequently out of stock, whereas a facility that was stocked out for ten successive weeks would be frequently out of stock and have a prolonged stock out.

<sup>11</sup> For example, if ten facilities reported stock information for only four weeks in 2018 and were each stocked out for two of those weeks, the mean percentage of facility-weeks stocked out would be 20/40, or 50%.

1,468,592 people in 2019, or a 38% reduction in the number of people tested from year to year.(22)

Uganda has experienced a dramatic increase in HCT since the first quarter of 2016, from 1,810,152 tests performed in 2016 to 2,144,390 tests in 2017 (Figure 5). A mean of 2,235,094 tests were performed per quarter in 2018, with the lowest number of tests performed in Amudat and the highest in Kampala. The mean number of tests performed per district in 2018 was 54,364, compared to a median of 42,335. High numbers of HIV tests relative to national targets are reflected in the PU/DRs, which report an achievement ratio of 161% for the performance indicator *HTS-1: Number of people who were tested for HIV and received their results during the reporting period* (section 3.4.1).

**Figure 5. HIV tests performed by quarter, Q3 2015 - Q3 2018**



However, despite substantial progress toward 90% of PLHIV knowing their HIV status, stock outs of first line and confirmatory HIV tests remain a consistent barrier to HIV testing in Uganda, with 41.5% of health facilities experiencing a stock out of one week or more in 2018.

**Procurement and supply chain management: HIV test kits**

There was a slight decline in stock outs of HIV test kits from 2017 to 2018, from a mean of 1.9 weeks stocked out per facility in 2017 to 1.8 in the same time period of 2018 (Table 1). The percentage of facility-weeks stocked out also declined, from 5.1% in 2017 to 4.7% in 2018, as did the total number of facilities reporting any stock out of HIV tests from January to November, from 683 facilities in 2017 to 649 in 2018. This decline in stock outs was observed in the majority of districts (50.9%, n=54) and regions (70%, n=7) as measured by mean weeks stocked out per facility and the percentage of facility-weeks stocked out (52.8% of districts; 70% of regions).

**Table 1. Regional stock outs of HIV test kits at health facilities, 2017 – 2018**

Region	Health facilities	Mean monthly % of facilities reporting		Mean weeks out per facility (Jan. – Nov.)		% of facility-weeks stocked out	
		2017	2018	2017	2018	2017	2018
Central 1	153	90.8	78.6	2.8	1.6	7.4	4.7

Central 2	196	91.6	77.9	2.3	1.8	5.8	5.0
East Central	144	78.6	80.1	2.7	2.8	9.4	7.7
Eastern	252	85.0	89.0	1.8	2.3	5.6	6.1
Kampala	36	85.5	81.8	0.1	0.5	0.4	1.4
Karamoja	65	93.1	69.5	1.0	0.8	2.9	2.8
North	142	96.8	75.8	2.0	0.7	4.8	2.4
Southwest	228	94.6	94.4	2.4	2.3	6.3	5.5
West Nile	129	99.3	99.9	0.9	0.8	2.1	1.8
Western	211	96.1	96.4	1.0	1.9	2.5	4.4
<b>All Regions</b>	<b>1556</b>	<b>91.1</b>	<b>84.3</b>	<b>1.9</b>	<b>1.8</b>	<b>5.1</b>	<b>4.7</b>

\* Represents the percentage of health facilities that reported test kit stock out information at least once in the month.

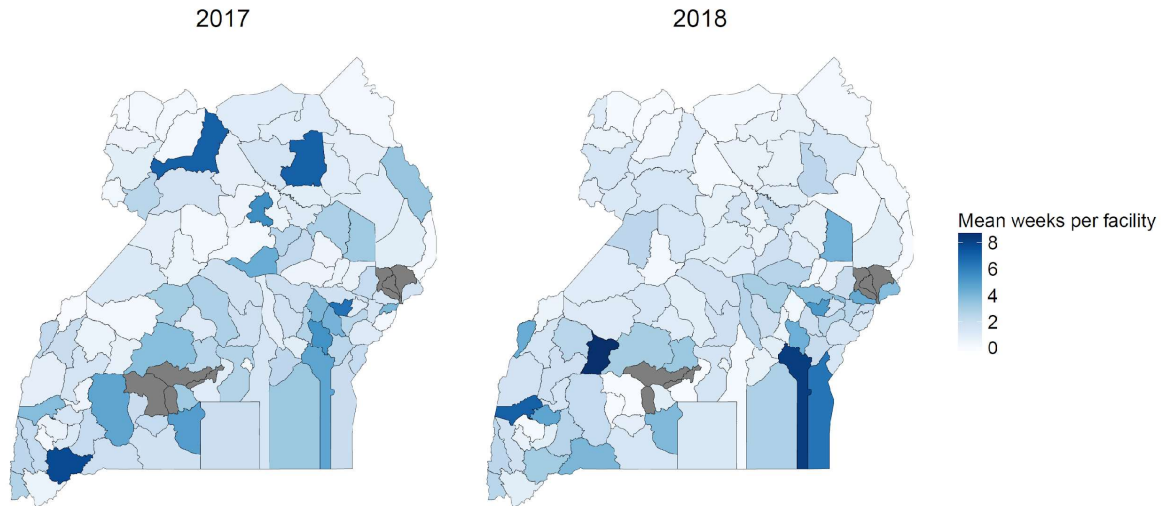
The majority of health facilities did not experience a stock out of HIV test kits in any year from 2014 to 2018. However, of the 41.5% of facilities that experienced a stock out in 2018 (n=649), 62.4% were out of stock for only 1 – 3 weeks of the year, while 37.6% reported being out of stock for four weeks or more, a slight decline from the same time period in 2017 (41.6%). The duration of stock outs also tended to be limited. Of 1,557 stock outs reported in 2018, 65.1% lasted only one week, and an addition 25.9% lasted 2 – 3 weeks. However, of the 139 stock outs lasting four weeks or more (8.9%), the average duration was 5.6 weeks. This indicates that, while the majority of facilities consistently have test kits in stock, facilities that experience stock outs tend to lack tests frequently and for long periods.

Prolonged and frequent stock outs also declined in 2018: in 2018, 244 facilities were out of HIV test kits for at least four weeks compared to 284 for the same eleven months of 2017, and the number of facilities out of stock for eight weeks or more fell from 92 to 83. The longest stock out of test kits in 2017 was 28 weeks, compared to 14 weeks in 2018. However, duration varied substantially by district, from a 14-week stock out in Kyegegwa to 13 districts in which no health facility experience a stock out longer than one week.

These stock outs were also concentrated in a small subset of facilities: 58.5% of health facilities did not report a stock out of test kits in 2018, compared to 55.1% in 2017. Stock outs tended to be concentrated in specific districts (Figure 6), with the highest mean number of weeks stocked out per facility in 2018 in Kyegegwa (mean of 8.7 weeks per facility), Mayuge (8.2), Rubirizi (7.1), Namayingo (6.4) and Kibuku (5.2) (Figure 5). Four of those five districts also had the highest percentage of facility-weeks stocked out: Mayuge (24.1%), Rubirizi (20.3%), Kyegegwa (19.5%), Namayingo (19.5%) and Buvuma (12.9%).

**Figure 6. Mean weeks stocked out of HIV test kits per facility**

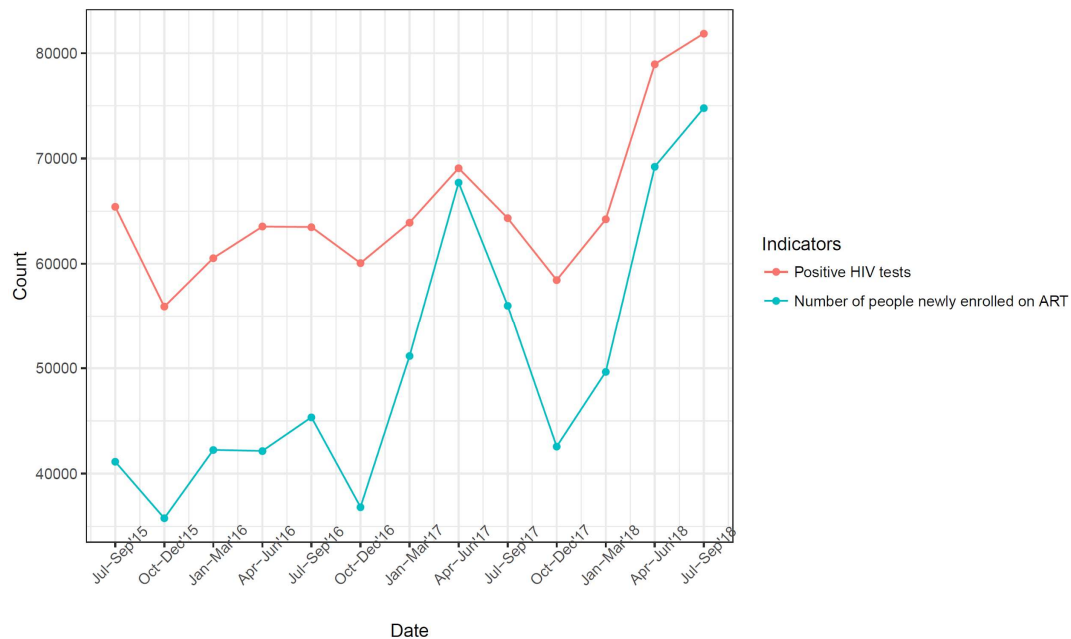
Same time period: January – November



**Enrollment on antiretroviral therapy (ART)**

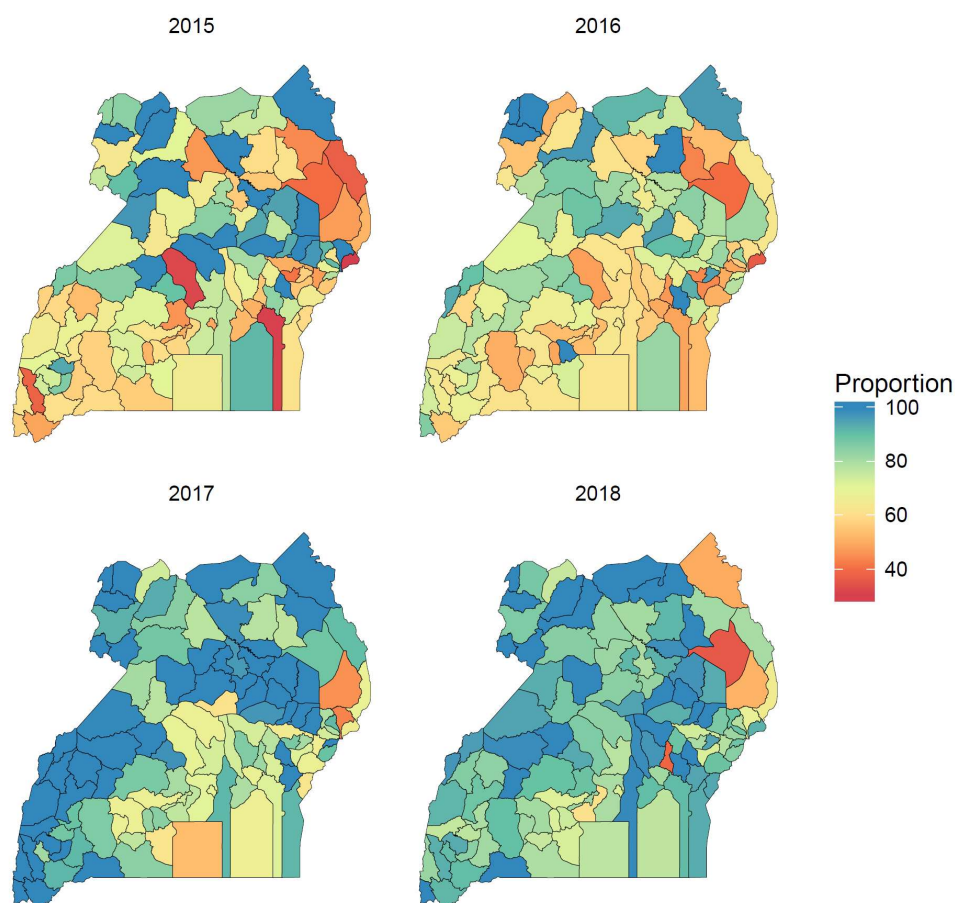
ART enrollment also increased in 2018, from a mean of 54,364 patients enrolled on ART per quarter in 2017 to 64,564 in 2018 (Figure 7). This overall upward trend in enrollment likely reflects both the expansion in HIV testing and the transition to the Test and Treat Policy, which maximizes linkage to care and limits the wait time associated with treatment initiation conditional on CD4 results.

**Figure 7. Positive HIV tests and people newly enrolled on ART, 2015 - 2018**



Positive changes in enrollment are also visible at the district level (Figure 8), in which an increasing percentage of those who test HIV-positive in health facilities are enrolled on ART.

**Figure 8. Percentage of people who tested HIV-positive enrolled on ART, 2015 - 2018**



**Procurement and supply chain management: ARVs**

Stock outs of ARVs declined slightly from 2017 to 2018. In 2018, the mean number of weeks stocked out of ARVs per ART site was 0.7, compared to 1.0 weeks in 2017, and a mean of 1.7% of facility-weeks were stocked out, compared to 2.5% in 2017 (Table 2). The majority of ART sites (64.9%; n=833) had ARVs in stock for every week in 2017 and 2018 for which they reported. However, of the 451 ART sites that experienced a stock out in 2017/18, almost half experienced an increase in the percentage of facility-weeks stocked out (49.0%, n=221), while 155 experienced the same percentage (31.9%, n=144) or a decrease (15.5%, n=70). Of the 221 facilities that experienced an increase in facility-weeks stocked out, the mean increase in the percentage of facility-weeks stocked out was 10.7%.

**Table 2. Regional stock outs of ARVs at ART sites, 2017 – 2018**

Region	ART sites	Mean monthly % of ART sites reporting*		Mean weeks stocked out per site (Jan. – Nov.)		% of facility-weeks stocked out	
		2017	2018	2017	2018	2017	2018
Central 1	116	90.7	95.7	1.2	1.0	3.2	2.9
Central 2	161	96.3	100.0	0.7	0.9	1.7	2.4

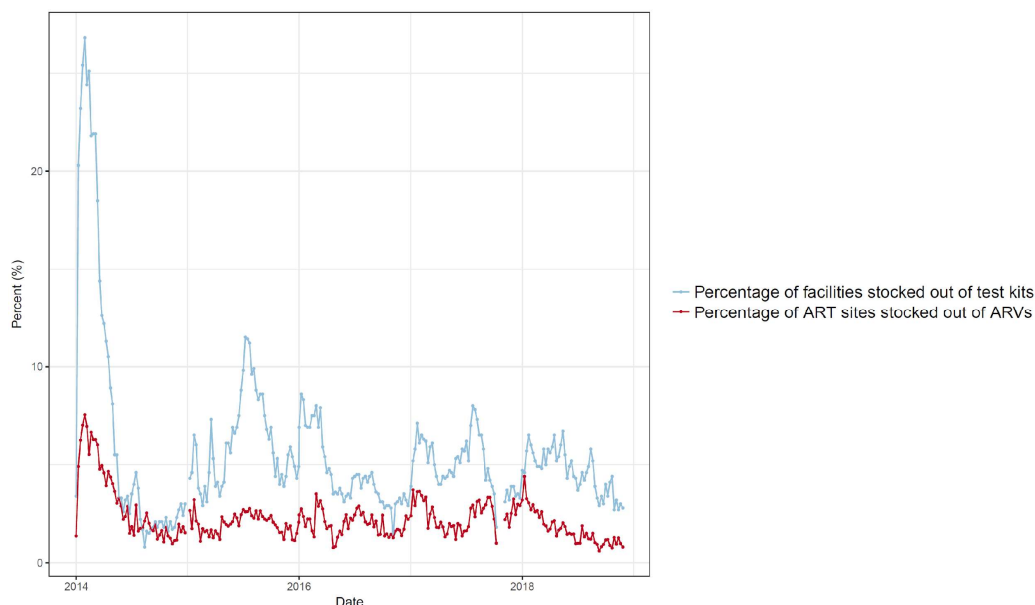


East Central	117	84.6	100.0	1.4	0.8	4.9	2.1
Eastern	236	86.5	100.0	0.9	0.9	3.0	2.4
Kampala	32	83.6	100.0	0.0	0.0	0.0	0.1
Karamoja	34	96.3	100.0	1.3	0.7	3.5	2.2
North	134	96.6	100.0	2.0	0.2	4.9	0.8
Southwest	195	96.0	100.0	0.6	0.7	1.7	1.7
West Nile	109	99.2	100.0	0.1	0.2	0.5	0.5
Western	157	96.2	100.0	0.4	0.3	1.1	0.8
<b>All Regions</b>	<b>1291</b>	<b>92.6</b>	<b>99.6</b>	<b>0.9</b>	<b>0.7</b>	<b>2.5</b>	<b>1.7</b>

\* Represents the percentage of accredited ART sites that reported ARV stock out information at least once in the month.

Stock out rates were higher for HIV test kits than ARVs (Figure 9), with a mean of 1.5 weeks stocked out per facility in 2018 and a mean of 4.7% of facility-weeks stocked out, compared to 0.7 weeks and 1.7% of facility-weeks for ARVs (Tables 1, 2). The percentage of facilities that were out of stock was consistently higher, with a mean of 8.7% of facilities without HIV test kits for at least one week per month in 2018 compared to 3.7% of facilities without ARVs.

**Figure 9. Percentage of facilities stocked out of HIV test kits or ARVs, 2014 – December 2018**

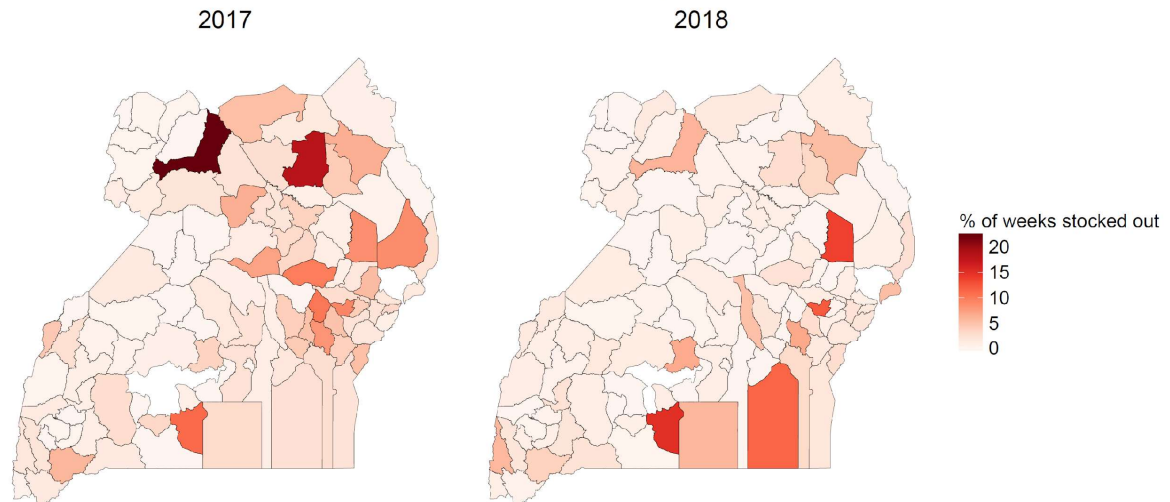


However, while the majority of ART sites did not experience a stock out of ARVs 2018 (79.6%), stock outs in a subset of ART sites were frequent and prolonged. Of the 20.4% of ART sites that experienced a stock out of ARVs in 2018 (n=256), 22.7% (n=56) were stocked out for at least four weeks, and 8.6% (n=22) were out of ARVs for eight weeks or more. Of ART sites stocked out for one month or more, the mean number of weeks stocked out was 14.6. In addition, stock outs were concentrated in a subset of districts (Figure 10). The highest mean numbers of weeks stocked out per ART site were observed in: Katakwi (mean of 5.0 weeks stocked out), Masaka (4.8), Kibuku (4.6), Mityana (2.6), and Bukwo (2.4). Three of those five districts also had the highest percentage of facility-weeks stocked out: Katakwi (16.9%), Masaka (16.3%), and Kibuku (13.2%) (Figure X). Mityana (7.4%) and

Bukwo (6.3%) had the sixth and tenth highest percentages of facility-weeks stocked out respectively.

**Figure 10. Percentage of facility-weeks stocked out of ARVs, 2017 - 2018**

Weeks ART sites were stocked out/Total weeks in which ART sites reported



### Outcomes: Viral suppression among PLHIV

Since nationwide scale up began in 2014, routine viral load testing has become an integral part of care for HIV positive patients in Uganda. In 2014, eight ART sites had a viral load machine on site and only six additional sites reported sending samples to an offsite laboratory.(28) Since then, both routine reporting and viral load testing have increased dramatically, from only 41 facilities reporting 16,322 viral load tests performed in 2014 to 1,963 facilities reporting 985,328 tests performed in 2018, or a 604% increase in the number of tests performed. This expansion in testing represents dramatic progress towards Strategic Objective 3 in the Uganda AIDS Commission National Strategic Plan, which calls for increased access to viral load monitoring and drug resistance surveillance for HIV-positive patients by 2018.(9) In addition to its role in clinical care, viral load tests among HIV-positive patients represent a critical measure of treatment outcomes for PLHIV enrolled on ART.

Despite progress towards nationwide testing, disparities in both viral load monitoring access and viral suppression persist. Viral suppression for all PLHIV enrolled in care remained largely the same from 2014 - 2018, with a small increase among females: from 85.9% of males and 87.9% of females virally suppressed in 2014 to 85.7% of males and 89.5% of females in 2018. The percentage of PLHIV with an undetectable viral load varied widely by sex, facility size and geographic area, with one district reporting a 2018 viral suppression ratio of 62.1% (2018 range: 62.1 – 92.8%). The following sections examine two sets of outcomes: facility-based estimates of viral suppression for PLHIV enrolled in care and population-based estimates for all PLHIV, regardless of treatment status.

In order to examine viral suppression among PLHIV in Uganda, we analyzed monthly data from August 2014 – December 1, 2018 from the Uganda Viral Load Dashboard, a publicly available data set that reports on age, sex, TB status and viral load test results for patients on ART. Because some plasma and dried blood spot (DBS) samples do not result in a valid test result, we calculated the percentage of PLHIV with an undetectable viral load as the number of undetectable viral load test results out of the total number of valid test results<sup>12</sup>. For

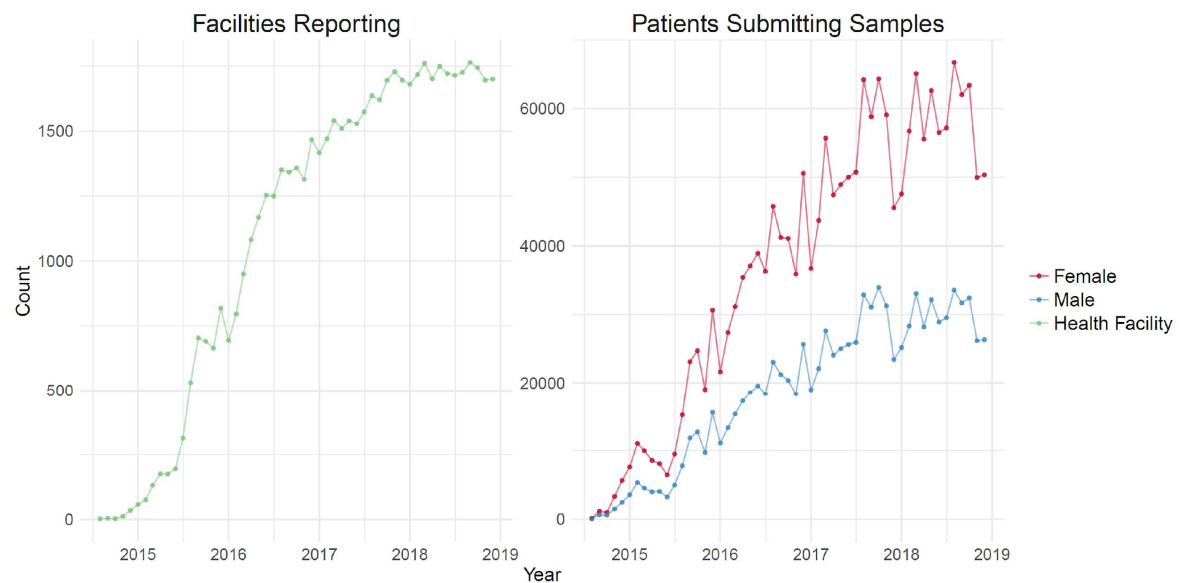
<sup>12</sup> The Uganda Viral Load Dashboard also reports the number of patients who submitted a viral load test, the number of samples received and the number of rejected samples.

patients whose sex was not recorded (1.2%, n=35,382), we used mean imputation to assign sex, maintaining the sex ratio of samples received, valid test results and viral suppression within each district<sup>13</sup>.

### Increased availability of viral load testing

Uganda’s National Strategic Plan calls for nationwide viral load testing for PLHIV on ART by 2018 as a part of Strategic Objective 3, “To improve quality of chronic HIV care and treatment.” Strategic Objective 3 includes four strategic actions to achieve the objective: strengthen treatment monitoring for clinical complications and complications arising from the long-term use of ARVs, promote universal access to basic HIV-related services, define and implement guidelines for basic services, including best practices for patients who are lost-to-follow-up, and strengthen treatment monitoring through viral load tests. This final strategic action - the scale up of viral load testing - was implemented largely as planned, with 333,615 males and 651,713 females submitting samples for a viral load test in 2018, compared to 293,320 males and 567,438 females in January – November of 2017, a difference of 124,570 tests (Figure 11).

**Figure 11. Number of facilities reporting and patients submitting samples, 2014 – 2018**

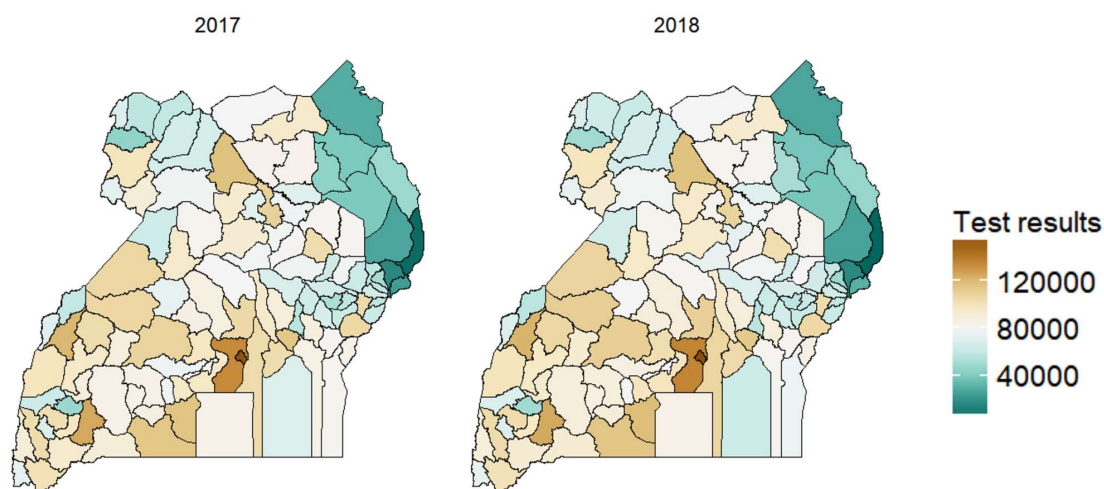


While viral load testing is primarily implemented by PEPFAR, which spent US\$21.3 million on commodities for viral load testing in Fiscal Year 2017 (Sept. 2016 – Oct. 2017), it is important to note the lower rates of testing in males compared to females (Figure 11; Table 3), who exhibit lower rates of treatment seeking for HIV. This disparity in testing is especially important given high rates of treatment resistance and treatment failure in Uganda.(28,29) In 2018, a mean of 57,802.1 women per month received a viral load test compared to 29,620.0 men, or a 2:1 ratio of female to male patients receiving tests. This ratio varied by geographic area, from a mean 53.0% of tests administered to females per month in Moroto to a high of 79.1% in Kween. There were also differences in the number of tests performed, ranging from 108 tests performed in Amudat in 2018 to 158,307 in Kampala

<sup>13</sup> For example, if a district had ten samples for which the patient’s sex was not recorded and 60% of all samples in the district were submitted by women, we imputed the sex as female for six samples and male for four samples. We applied the same methods to valid test results and suppressed samples to reflect the lower suppression ratios among males.

(Figure 12). While this is largely reflective of the number of PLHIV enrolled in care, it is also reflective of service delivery.

**Figure 12. Number of viral load tests performed, 2016 – 2018**



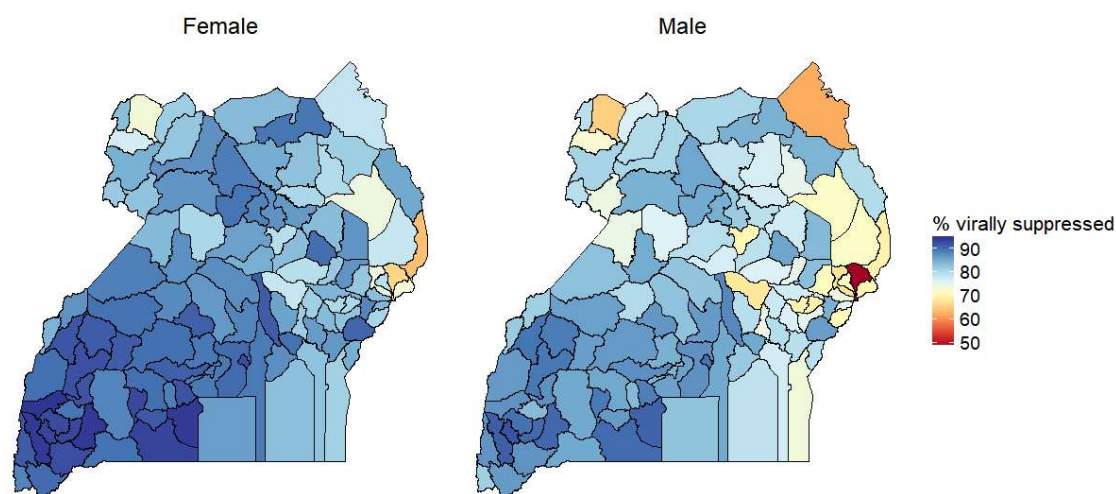
### Viral suppression

Viral suppression remained largely the same on a national level from 2014 to 2018, with the total percent suppressed 87.2% in 2014 compared to 88.2% in 2018. However viral suppression varied substantially by region and sex (Table 3, Figure 13).

**Table 3. Viral load tests performed and percent undetectable, 2018**

Region	Facilities Reporting	Viral load tests			% virally suppressed		
		Males	Females	Total	Males	Females	Total
Central 1	268	57,622	112,089	169,711	87.8	91.2	90.0
Central 2	229	37,919	74,200	112,118	84.9	88.9	87.5
East Central	166	19,882	40,392	60,273	80.1	86.1	84.1
Eastern	305	28,367	56,052	84,419	81.0	86.1	84.3
Kampala	84	51,795	106,512	159,307	89.7	92.3	91.4
Karamoja	58	1,570	2,432	4,002	76.0	79.5	78.1
North	178	35,131	68,514	103,645	82.0	86.9	85.3
Southwest	274	47,095	84,254	131,348	88.7	92.3	91.0
West Nile	138	10,238	20,933	31,171	77.5	82.4	80.8
Western	263	43,997	86,335	130,331	86.4	89.8	88.6
<b>All Regions</b>	<b>1,963</b>	<b>333,615</b>	<b>651,713</b>	<b>985,328</b>	<b>85.7</b>	<b>89.5</b>	<b>88.2</b>

**Figure 13. Viral suppression stratified by sex, 2018**



In 2019, as implementation progresses, the PCE will further examine the link between outputs, outcomes and population impact.

### Impact

The Uganda Population-Based Impact Assessment survey (UPHIA) estimated HIV prevalence in 2016/17 as 6.2%, with a higher prevalence among females (7.4%) than males (4.7%).(30) HIV prevalence was much higher among women living in urban areas (9.8%) than among women in rural areas (6.7%) and men in urban (7.5%) or rural areas (5.8%) and varied by geographic region. The Central 1 Region had the highest HIV prevalence (8.0%), followed closely by the Southwest Region (7.9%) and Mid-North (7.2%). West Nile had the lowest (3.1%).

A HIV prevalence of 6.2% corresponds to approximately 1.2 million PLHIV in 2016/17, above the IHME Local Burden of Disease estimate of 978,529 PLHIV in Uganda in 2017. HIV prevalence has decreased over time according to multiple sources (Figure 14); prevalence estimates from IHME’s Global Burden of disease indicate a decrease from 8.4% HIV prevalence in 2000 to 5.5% in 2017 (a slightly lower prevalence estimate than UPHIA), with HIV prevalence relatively constant since 2014 (Figure 14). Table 4 provides sub-national estimates of HIV prevalence and the number of PLHIV by region.

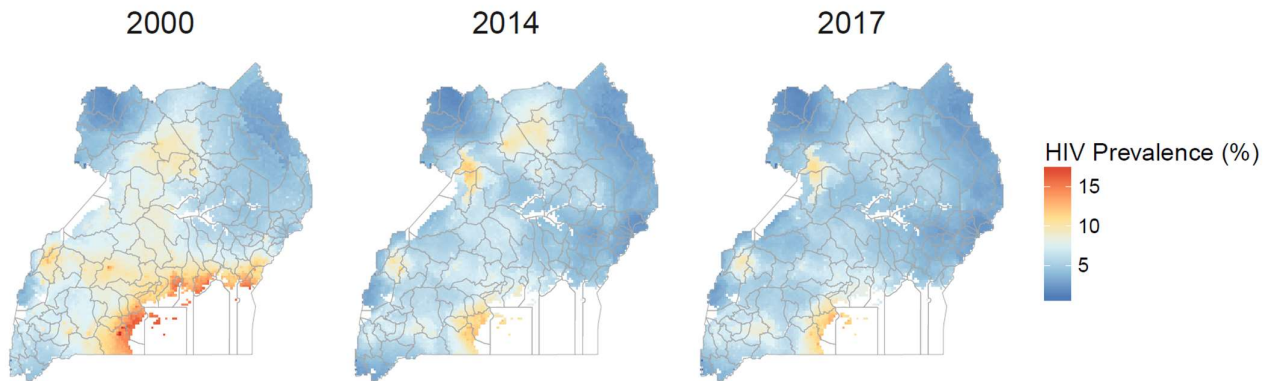
**Table 4. HIV prevalence and number of PLHIV by region, 2017 - 2018**

Region	Prevalence (%)		PLHIV	
	2016	2017	2016	2017
Central 1	7.8	7.8	169,129.6	176,807.3
Central 2	6.3	6.1	116,567.4	116,390.4
East Central	4.7	4.6	74,073.0	74,663.2
Eastern	3.9	3.8	88,660.4	88,323.7
Kampala	7.4	7.2	92,380.7	93,255.9
Karamoja	3.1	2.8	17,802.5	16,697.6
Lake Victoria*	8.3	8.1	12,139.5	12,173.3
North	6.7	6.0	106,575.3	98,697.4
Southwest	5.7	6.1	132,032.9	144,915.4
West Nile	3.2	3.0	41,469.8	41,125.9
Western	5.2	5.3	109,389.2	115,479.3
<b>All Regions</b>	<b>5.5</b>	<b>5.6</b>	<b>960,220.4</b>	<b>978,529.4</b>

\* Lake Victoria is calculated separately in these estimates and borders Central 1, Central 2, and the East Central regions; Source: IHME, Local Burden of Disease

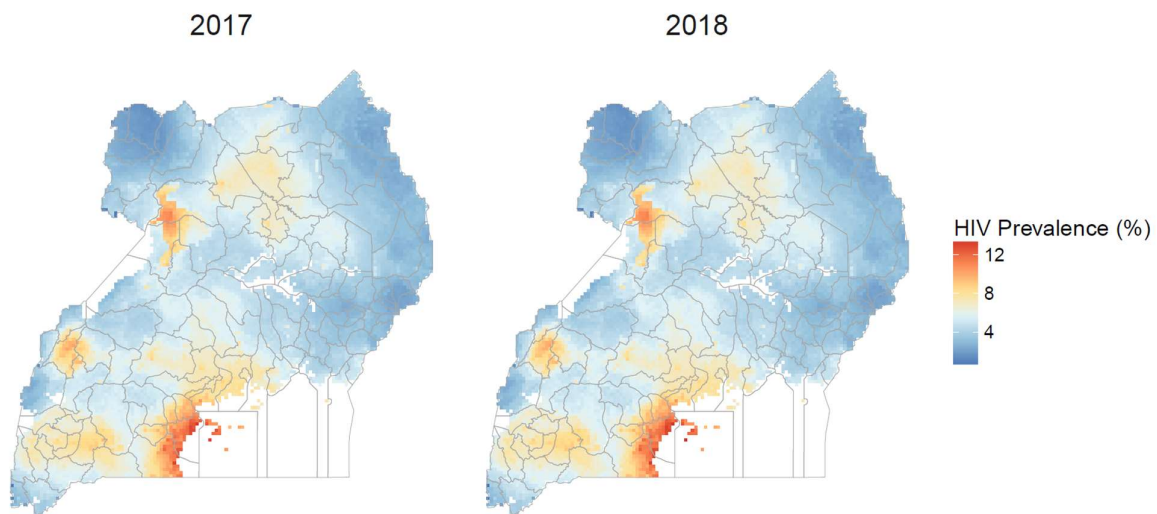
HIV prevalence varied both among and within regions (Figures 14, 15), from as low as 0.6% in 2017 in some areas to a high of 13.2% in some areas surrounding Lake Victoria. The largest reductions in HIV prevalence from 2000 to 2017 were observed in the Lake Victoria area (-7.3 percentage points, from 15.4% to 8.1%) and the Kampala (-5.8 percentage points) and East Central (-4.3) regions.

**Figure 14. HIV prevalence at a 5 kilometer scale, 2000 - 2017**



Projections of 2018 HIV prevalence show a similar geographic distribution to 2017 (Figure 15). At the district level in 2017, the highest HIV prevalence ratios were observed in Bujumba (12%), Kyamuswa (10.8%), Masaka (10.2%), Korters (10.1%), and Fort Portal (9.4%), four of which are located in the Central 1 region, while the lowest were in Aringa (2%), Terego (2.3%), Obongo (2.3%), Koboko (2.4%), and Kween (2.5%), with all districts except Kween located in the West Nile region.

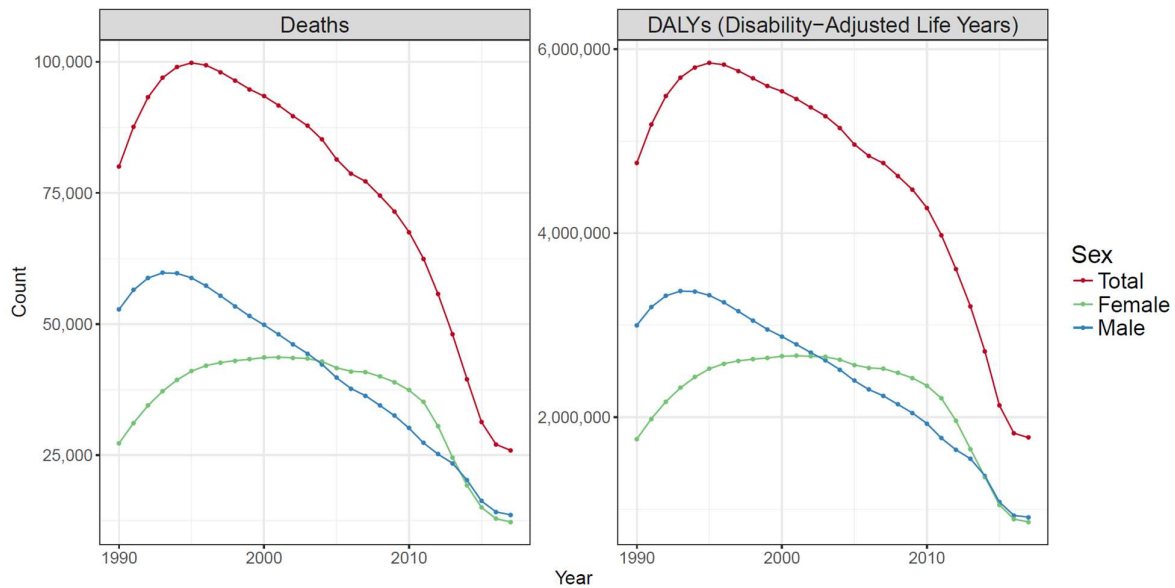
**Figure 15. HIV prevalence at a 5 kilometer scale, 2017 - 2018\***



\*2018 estimates are projected using statistical modeling. Finalized 2018 estimates will be available in 2019.

This decline in HIV prevalence corresponds to a dramatic decrease in HIV mortality, from a high of 99,815 deaths in 1995 to 25,920 deaths in 2017 (Figure 16).<sup>(31)</sup> The death rate per 100,000 people has similarly declined, from 109.3 deaths per 100,000 in 2014 to 66.3 deaths in 2017. Deaths among males and females have followed a similar trend in recent years, with a slightly higher number of male deaths than female deaths since 2014. This decline in overall mortality is widely considered to result from a reduction in HIV incidence and increased enrollment on ART.<sup>(9)</sup>

**Figure 16. HIV and TB/HIV mortality, 1990 - 2017**



In 2019, as implementation progresses, the PCE will further examine the link between outputs, outcomes and population impact, including the relationship between ART enrollment, viral suppression, HIV prevalence and cause-specific mortality for HIV/AIDS.

### Data sources and limitations

Limitations to resource tracking include the use of detailed budgets, which do not always reflect expenditure, re-allocation, re-programming and other deviations from the intended budget over time. Whenever possible, detailed budgets are supplemented by additional data sources. In addition, estimates of health expenditure from the GoU, the Global Fund Grant Operating System (GOS) and other international partners are sometimes calculated using distinct accounting methods and currency conversions, leading to some differences in comparison.

The list of health facilities included in the Option B+ Dashboard includes the same health facilities and ART sites from 2013 to present. This list is unlikely to be accurate as it is typical to experience some turnover in health facilities; however, no preferred list was available at the time of writing. Ten facilities never reported and were excluded from the analyses. In 2018, a mean of 1,217.7 of the 1,564 health facilities reported on a weekly basis (77.9%), ranging from 69.1% of health facilities reporting in the first week of January to 82.4% in the third week of February. However, reporting was higher on a monthly basis: a mean of 1,367.1 facilities reported at least once per month (87.4%), ranging from 83.2% of facilities reporting in September 2018 to 90.9% in January and February.

Weekly reporting to the Option B+ Dashboard decreased from 2017 to 2018, with a mean of 1,424.4 facilities reporting from January – November 2017 to 1,348.9 for the same months of 2018. ART sites, which represent a subset of all health facilities, reported at slightly higher rates. A mean of 1,024.6 of 1,286 ART sites reported, and a mean of 1,135.8 ART sites reported at least once per month. Mean monthly reporting was again higher for the corresponding months of 2017 (92.9% compared to 89.5% in 2018). The decline in reporting does not appear to be due to reporting lags, as reporting was lower in January – March of 2018 but higher in some recent months.

**Table 5. Data sources for HIV estimates**

<b>Source</b>	<b>Years</b>	<b>Brief Description</b>
IHME Financing Global Health	1995 - 2017	Ongoing study of the global health funding landscape(32)
HMIS	July 2015 - present*	Uganda's national Health Management Information System, administered via DHIS2
Option B+ Dashboard	2013 - present	Online dashboard reporting on ART sites, including weekly inventory, using HMIS data
Uganda Viral Load Dashboard	2014 - present	Online dashboard reporting information on viral load testing at ART sites
Population-Based Impact Assessment (UPHIA)	2016/17	Cluster-randomized household survey; estimates below the regional level are not yet publicly available
Uganda AIDS Indicator Survey	2011	Cluster-randomized household survey
IHME Global Burden of Disease Study	201 - 2017	Global study of morbidity and mortality; used for cause-specific mortality and DALYs
IHME Local Burden of Disease Study	20 - present	Global study of morbidity and mortality at the sub-national level; used for HIV prevalence and the number of PLHIV; estimates after 2017 are projected using statistical modelling techniques

\*HMIS was initiated in Uganda in 2012. However, reporting completeness increases substantially in July of 2015. We report HMIS estimates from July of 2015.

Additional information on all data sources is available upon request.



## Annex 6. Classification of modules and interventions into five broad budget categories

For visualization and summary purposes, we display some budget figures aggregated into five broad categories. This table indicates exactly what modules and interventions (from the Global Fund Modular Framework Handbook) are classified as each category.

Module	Intervention	Category
Comprehensive prevention programs for men who have sex with men	Community empowerment for men who have sex with men	Prevention
Comprehensive prevention programs for men who have sex with men	Other interventions for men who have sex with men	Prevention
Comprehensive prevention programs for sex workers and their clients	Condoms and lubricant programming for sex workers	Prevention
Comprehensive prevention programs for sex workers and their clients	Diagnosis and treatment of sexually transmitted infections and other sexual and reproductive health services for sex workers	Prevention
Comprehensive prevention programs for sex workers and their clients	Other interventions for sex workers and their clients	Prevention
Comprehensive prevention programs for men who have sex with men	Behavioral interventions for men who have sex with men	Prevention
Comprehensive prevention programs for transgender people	Community empowerment for transgender people	Prevention
Comprehensive prevention programs for transgender people	Addressing stigma, discrimination and violence against transgender people	Prevention
Comprehensive prevention programs for transgender people	Behavioral interventions for transgender people	Prevention
Comprehensive prevention programs for transgender people	Condoms and lubricant programming for transgender people	Prevention
Comprehensive prevention programs for transgender people	Pre-exposure prophylaxis (PrEP) and other biomedical interventions for transgender people	Prevention
Comprehensive prevention programs for men who have sex with men	Condoms and lubricant programming for men who have sex with men	Prevention
Comprehensive prevention programs for transgender people	HIV testing services for transgender people	Prevention
Comprehensive prevention programs for transgender people	Diagnosis and treatment of sexually transmitted infections and sexual health services for transgender people	Prevention
Comprehensive prevention programs for transgender people	Prevention and management of co-infections and co-morbidities for transgender people	Prevention
Comprehensive prevention programs for transgender people	Interventions for young transgender people	Prevention
Comprehensive prevention programs for transgender people	Other interventions for transgender people	Prevention
Comprehensive programs for people in	Condoms and lubricant programming for people in	Prevention

prisons and other closed settings	prisons and other closed settings	
Comprehensive prevention programs for men who have sex with men	Pre-exposure prophylaxis (PrEP) for men who have sex with men	Prevention
Comprehensive programs for people in prisons and other closed settings	Other interventions for people in prisons and other closed settings	Other
Comprehensive prevention programs for men who have sex with men	HIV testing services for men who have sex with men	Prevention
Comprehensive prevention programs for men who have sex with men	Diagnosis and treatment of sexually transmitted infections and other sexual health services for men who have sex with men	Prevention
Comprehensive prevention programs for men who have sex with men	Prevention and management of coinfections and co-morbidities men who have sex with men	Prevention
Treatment, care and support	HIV care	Treatment
Treatment, care and support	Treatment monitoring - Viral load	Treatment
Treatment, care and support	Treatment adherence	Treatment
Treatment, care and support	Prevention, diagnosis and treatment of opportunistic infections	Treatment
Treatment, care and support	Counseling and psycho-social support	Treatment
Treatment, care and support	Other interventions for treatment	Treatment
TB/HIV	TB/HIV collaborative interventions	Other
Programs to reduce human rights-related barriers to HIV services	Stigma and discrimination reduction	Other
Programs to reduce human rights-related barriers to HIV services	Legal literacy (Know Your Rights)	Other
Programs to reduce human rights-related barriers to HIV services	Training of health care providers on human rights and medical ethics related to HIV and HIV/TB	Other
Programs to reduce human rights-related barriers to HIV services	HIV and HIV/TB-related legal services	Other
Programs to reduce human rights-related barriers to HIV services	Sensitization of lawmakers and law enforcement agents	Other
Programs to reduce human rights-related barriers to HIV services	Improving laws, regulations and policies relating to HIV and HIV/TB	Other
Programs to reduce human rights-related barriers to HIV services	Other intervention(s) to reduce human rights-related barriers to HIV services	Other
Program management	Policy, planning, coordination and management of national disease control programs	Program management
Procurement and supply chain management systems	National costed supply chain master plan, and implementation	RSSH
Procurement and supply chain management systems	Other procurement and supply chain management intervention(s)	RSSH
Health management information system and monitoring and evaluation	Routine reporting	RSSH

Health management information system and monitoring and evaluation	Program and data quality	RSSH
Health management information system and monitoring and evaluation	Analysis, review and transparency	RSSH
Health management information system and monitoring and evaluation	Surveys	RSSH
Health management information system and monitoring and evaluation	Other health information systems and monitoring and evaluation intervention(s)	RSSH
Integrated service delivery and quality improvement	Laboratory systems for disease prevention, control, treatment and disease surveillance	RSSH
Integrated service delivery and quality improvement	Other service delivery intervention(s)	RSSH
National health strategies	National health strategies, alignment with disease-specific plans, health sector governance and financing	RSSH
National health strategies	Other policy and governance intervention(s)	RSSH
Community responses and systems	Social mobilization, building community linkages, collaboration and coordination	RSSH
Community responses and systems	Other community responses and systems intervention(s)	RSSH
Program management	Policy, planning, coordination and management of national disease control programs	Program management
Program management	Grant management	Program management
TB care and prevention	Case detection and diagnosis	Prevention
TB care and prevention	Treatment	Prevention
TB care and prevention	Prevention	Prevention
TB care and prevention	Engaging all care providers (TB care and prevention)	Prevention
TB care and prevention	Community TB care delivery	Prevention
TB care and prevention	Key populations (TB care and prevention) - Prisoners	Prevention
TB care and prevention	Key populations (TB care and prevention) - Others	Prevention
TB care and prevention	Collaborative activities with other programs and sectors (TB care and prevention)	Prevention
TB care and prevention	Removing human rights- and gender-related barriers to TB care and prevention	Prevention
TB/HIV	TB/HIV	Other
TB/HIV	TB/HIV collaborative interventions	Other
TB/HIV	Collaborative activities with other programs and sectors (TB/HIV)	Other
Multidrug-resistant TB	Case detection and diagnosis: MDR-TB	Treatment
Multidrug-resistant TB	Other MDR-TB intervention(s)	Other

Multidrug-resistant TB	Treatment: MDR-TB	Treatment
Multidrug-resistant TB	Prevention for MDR-TB	Prevention
Multidrug-resistant TB	Engaging all care providers (MDR-TB)	Other
Multidrug-resistant TB	Community MDR-TB care delivery	Treatment
Program management	Policy, planning, coordination and management of national disease control programs	Program management
Unspecified	Unspecified	Other
HIV Testing Services	Differentiated HIV testing services	Treatment
Prevention programs for general population	Behavioral interventions as part of programs for the general population	Prevention
Prevention programs for general population	Condoms as part of programs for the general population	Prevention
Prevention programs for adolescents and youth, in and out of school	Behavioral change as part of programs for adolescent and youth	Prevention
Prevention programs for adolescents and youth, in and out of school	Keeping girls in school	Prevention
Prevention programs for adolescents and youth, in and out of school	Other interventions for adolescent and youth	Prevention
Prevention programs for adolescents and youth, in and out of school	Gender-based violence prevention and treatment programs for adolescents and youth	Prevention
Prevention programs for adolescents and youth, in and out of school	Community mobilization and norms change	Prevention
Prevention programs for adolescents and youth, in and out of school	Addressing stigma, discrimination and legal barriers to care for adolescents and youth	Prevention
Prevention programs for adolescents and youth, in and out of school	Socioeconomic approaches	Prevention
Prevention programs for adolescents and youth, in and out of school	Linkages between HIV programs and RMNCH	Prevention
Prevention of mother-to-child transmission	Prong 1: Primary prevention of HIV infection among women of childbearing age	Prevention
Treatment, care and support	Differentiated antiretroviral therapy service delivery	Treatment
Treatment, care and support	Treatment monitoring - drug resistance surveillance	Treatment
TB/HIV	Collaborative activities with other programs and sectors (TB/HIV)	Other
TB/HIV	Other TB/HIV intervention(s)	Other
Programs to reduce human rights-related barriers to HIV services	Reducing HIV-related gender discrimination, harmful gender norms and violence against women and girls in all their diversity	Other
Program management	Grant management	Program management
Vector control	Long lasting insecticidal nets: Mass campaign	Prevention

Vector control	Long lasting insecticidal nets: Continuous distribution	Prevention
Vector control	Entomological monitoring	Prevention
Vector control	Information, education, communication/Behavior change communications  (vector control)	Prevention
Case management	Facility-based treatment	Treatment
Case management	Integrated community case management (iCCM)	Treatment
Case management	Severe malaria	Treatment
Case management	Private sector case management	Treatment
Specific prevention interventions	Intermittent preventive treatment - In pregnancy	Prevention
Program management	Policy, planning, coordination and management of national disease control programs	Program management
Program management	Grant management	Program management
Procurement and supply chain management systems	Procurement strategy	RSSH
Procurement and supply chain management systems	National product selection, registration and quality monitoring	RSSH
Health management information system and monitoring and evaluation	Vital registration system	RSSH
Integrated service delivery and quality improvement	Supportive policy and programmatic environment	RSSH
Financial management systems	Public financial management strengthening	RSSH
Community responses and systems	Community-based monitoring	RSSH
Community responses and systems	Community-led advocacy	RSSH
Community responses and systems	Institutional capacity building, planning and leadership development	RSSH
Multidrug-resistant TB	Collaborative activities with other programs and sectors (MDR-TB)	Other
Program management	Grant management	Program management
Prevention programs for general population	Gender-based violence prevention and treatment programs for general population	Prevention
Comprehensive prevention programs for men who have sex with men	Interventions for young men who have sex with men	Prevention
Comprehensive prevention programs for sex workers and their clients	Behavioral interventions for sex workers	Prevention
Comprehensive prevention programs for sex workers and their clients	HIV testing services for sex workers	Prevention

Comprehensive prevention programs for men who have sex with men	Addressing stigma, discrimination and violence against men who have sex with men	Prevention
Comprehensive prevention programs for sex workers and their clients	Interventions for young people who sell sex	Prevention
Comprehensive prevention programs for people who inject drugs and their partners	Behavioral interventions for people who inject drugs	Prevention
Comprehensive prevention programs for people who inject drugs and their partners	Condoms and lubricant programming for people who inject drugs	Prevention
Comprehensive prevention programs for people who inject drugs and their partners	HIV testing services for people who inject drugs	Prevention
Comprehensive prevention programs for people who inject drugs and their partners	Diagnosis and treatment of sexually transmitted infections and other sexual health services for people who inject drugs	Prevention
Comprehensive prevention programs for people who inject drugs and their partners	Needle and syringe programs for people who inject drugs and their partners	Prevention
Comprehensive prevention programs for people who inject drugs and their partners	Interventions for young people who inject drugs	Prevention
Comprehensive prevention programs for men who have sex with men	Harm reduction interventions for men who have sex with men who inject drugs	Prevention
Prevention of mother-to-child transmission	Prong 4: Treatment, care and support to mothers living with HIV, their children and families	Prevention
TB/HIV	Engaging all care providers (TB/HIV)	Other
Case management	Other case management intervention(s)	Treatment
Case management	Epidemic preparedness	Other
Case management	Active case detection and investigation (elimination phase)	Treatment
Case management	Ensuring drug and other health product quality	Treatment
Procurement and supply chain management systems	Supply chain infrastructure and development of tools	RSSH
Human resources for health, including community health workers	Capacity building for health workers, including those at community level	RSSH
Human resources for health, including community health workers	Retention and scale-up of health workers, including for community health workers	RSSH
Integrated service delivery and quality improvement	Improving service delivery infrastructure	RSSH
TB/HIV	Community TB/HIV care delivery	Treatment
TB/HIV	Key populations (TB/HIV) - Prisoners	Other