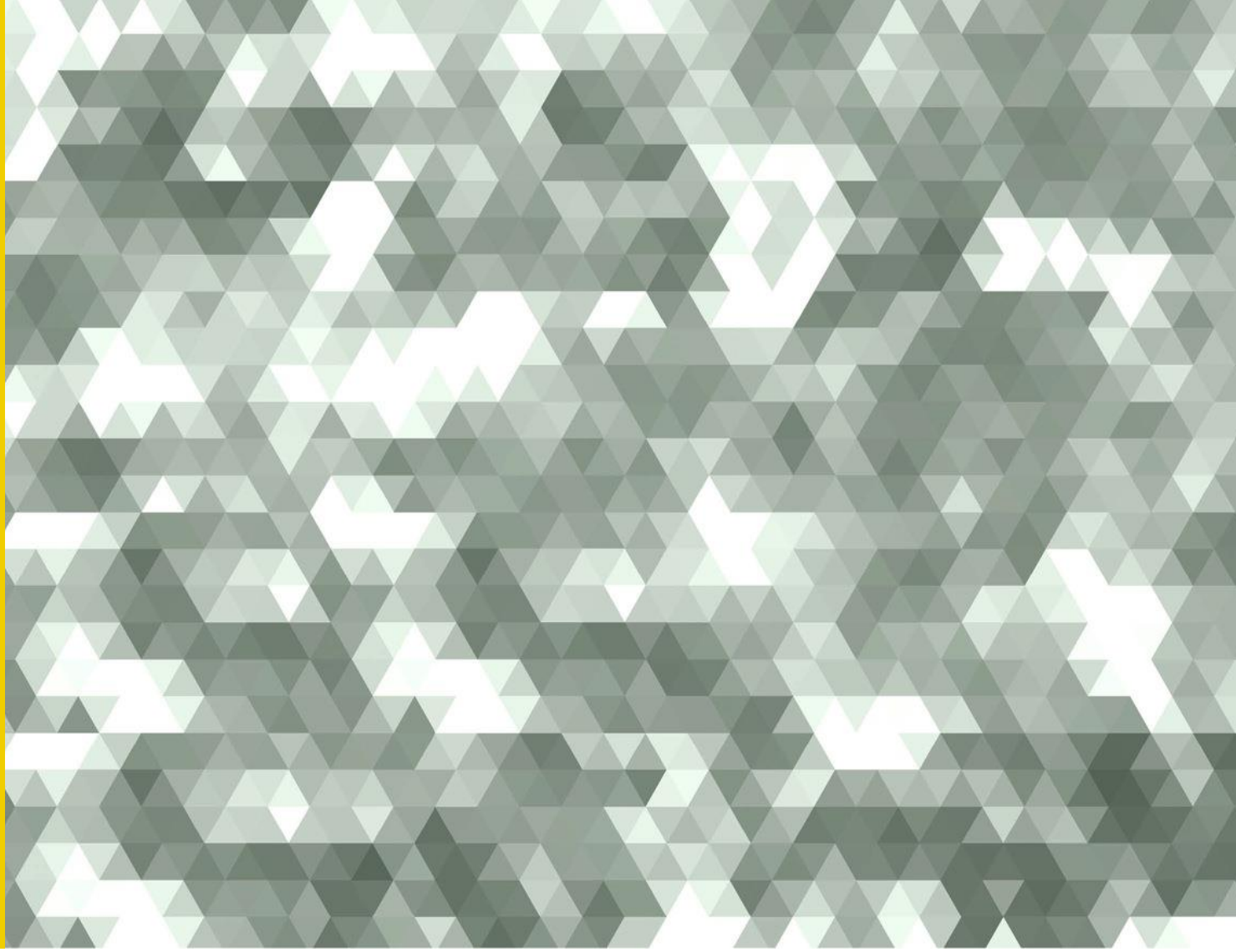

Audit Report

Global Fund Grants in the Republic of Liberia

GF-OIG-19-019
14 October 2019
Geneva, Switzerland

The Global Fund
Office of the Inspector General

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The Office of the Inspector General (OIG) safeguards the assets, investments, reputation and sustainability of the Global Fund by ensuring that it takes the right action to end the epidemics of AIDS, tuberculosis and malaria. Through audits, investigations and advisory work, it promotes good practice, reduces risk and reports fully and transparently on abuse.

Established in 2005, the OIG is an independent yet integral part of the Global Fund. It is accountable to the Board through its Audit and Finance Committee and serves the interests of all Global Fund stakeholders. Its work conforms to the International Standards for the Professional Practice of Internal Auditing and the Uniform Guidelines for Investigations of the Conference of International Investigators.

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Audit Report

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1. Executive Summary

1.1. Opinion

Liberia has made significant progress in tackling HIV, tuberculosis and malaria, particularly in the years since the most recent Ebola epidemic ended in 2016. HIV and TB services have scaled up, and there has been notable improvement in malaria testing and treatment. However, to achieve the grant targets by 2020, challenges in program, financial management and supply chain will need to be addressed.

The design and adequacy of the financial management arrangements in supporting the achievement of grant objectives and safeguarding of assets are rated as **needing significant improvement**. Inadequate management of sub-recipients (SRs) has impacted SRs' grant absorption and disrupted community-based activities. Deficiencies in the recording, tracking and utilization of grant assets have contributed to grant assets worth US$1.1 million not being recorded in the assets register and US$0.8 million of assets that could not be physically verified. Fiscal Agent oversight has also been inadequate.

Program processes and controls for ensuring linkages to care and delivery of quality services to beneficiaries, including key affected populations, are rated as **partially effective**. There has been impressive scale up in HIV and TB services and strong programmatic performance for malaria. However, gaps in linkages for HIV and TB services have resulted in low antiretroviral treatment coverage (31%), low MDR-TB notification and treatment rates (53% and 39%, respectively) and a high number of patients lost to follow up. The HIV/AIDS prevention grant targeting key affected populations has been negatively impacted by implementation challenges and shortages of key medicines and commodities. Sub-optimal engagement of the private sector for malaria services has impacted the ability of the Ministry of Health (MoH) to safeguard and monitor Global Fund funded commodities in private sector facilities. Despite private sector facilities playing an integral role in Liberia health system, they account for only 7% of reported malaria test results.

The Secretariat and other partners including USAID have put in place mechanisms to safeguard health commodities at the central level. These include the construction of a warehouse for storage of commodities and pooled procurement of medicines and health commodities. The OIG however noted gaps in inventory management at the central level, and an inadequate laboratory supply chain. Poor controls over inventory management at central level are leading to stock-outs and expiries of commodities for the three diseases at service delivery points, impacting quality of services to patients. Weak recording and monitoring of inventory are also exposing Global Fund funded commodities to the risk of loss and diversion. Inadequate leadership and oversight contribute to the gaps in supply chain management and the ability to resolve the above issues in a timely manner. The efficiency and effectiveness of supply chain structures, processes and systems to ensure timely availability of quality assured medicines and commodities are rated as **needing significant improvement.**

1.2. Key Achievements and Good Practices

Significant progress made in the fight against the three diseases: Liberia has made strong progress in addressing the HIV, TB and malaria epidemics since the Ebola outbreak ended in 2016. A 'test and treat' strategy was implemented in 2016, increasing the number of people on antiretroviral treatment from 8,100 in 2016 to 13,880 in 2018, a 71% increase.[1] Prevention of mother to child transmission of HIV has been a success, with the establishment of a mother-to-mother peer program for pregnant women which had coverage of 86% in 2017 and 93% in 2018.[2] The number of new TB case notifications increased by 16% to 8,405 in 2018.[3] The country has also had strong results in relation to its malaria "test and treatment" strategy, with a 47% reduction in malaria deaths being recorded and a 34% reduction in suspected malaria cases[4]. The country has also progressed well in the achievement of malaria grant targets on testing and treatment in 2018.

Increased investment in Supply Chain to deal with known challenges:
The MoH has articulated a clear strategic vision for its supply chain through the National Supply Chain Master Plan (2010 & 2015). In line with the master plan, the country has progressed on integrating the supply chain through the completion of the Caldwell central warehouse, consolidating health products at the central level into one secure warehouse. This warehouse was jointly funded by the Global Fund (US$3.2m), the US government and other donors. Further work on improving the supply chain has been supported by the Global Fund through the funding of a Supply Chain diagnostic review and subsequent Supply Chain Transformation plan with in-country technical assistance. This represents a US$0.5m investment (2017-19) from Catalytic Investment funding to complement Liberia's grant allocation to support the country in achieving its supply chain objectives.

Increased investment in financial systems and structures: The Global Fund has invested heavily in improving the control environment at MoH to strengthen its financial management capacity. Since 2010, the Global Fund has supported the Program Coordination Unit, which coordinates and oversee Global Fund grants implemented by the national disease programs. The Global Fund has also supported the installation and training for a new financial accounting and reporting system, 'NetSuite', at the MoH.

1.3. Key Issues and Risks

Sub-optimal financial management and oversight over sub-recipients and grant assets: Significant issues were noted in relation to the contracting and oversight of sub-recipients (SRs) under the MoH grant. No SRs were contracted to provide TB services at the community level in 2016 and short-term contracts were awarded for the last eight months of both 2017 and 2018, negatively impacting programmatic activities and financial absorption. Gaps in financial management and oversight of HIV and TB SRs by MoH were also noted. Limitations in the oversight of the Fiscal Agent as well as a lack of SR management policy in MoH contributed to these deficiencies.

Gaps in the recording, tracking and utilization of grant assets were also noted. For example, grant assets worth US$1.1m were not recorded in the fixed assets register and assets amounting to US$0.8m (36% of sampled assets) could not be physically verified by the OIG. Fifty-eight microscopes, funded by the Global Fund, were not used for 15 months after delivery in-country, impacting TB programmatic performance.

[1] UNAIDS Data 2017 (https://www.unaids.org/sites/default/files/media_asset/20170720_Data_book_2017_en.pdf) & 2018 PUDR for MoH Combined Grant
[2] UNAIDS Data 2018 (https://www.unaids.org/sites/default/files/media_asset/unaids-data-2018_en.pdf) & progress of Liberia catch-up plan
[3] 2018 PUDR for MoH Combined Grant
[4] WHO World Malaria Report, 2018 (https://apps.who.int/iris/bitstream/handle/10665/275867/9789241565653-eng.pdf?ua=1)

Ineffective linkages to care impacting provision of quality HIV & TB services to intended beneficiaries: While positive trends in scaling up HIV and TB services have been noted, gaps in linkages to care for HIV and MDR-TB testing and treatment have resulted in low antiretroviral treatment and MDR-TB coverage, as well as high loss to follow up: antiretroviral treatment coverage is at 31%, and MDR-TB case notification and treatment at 39% and 27% respectively. At the 25 health facilities visited by OIG, 49% of HIV patients were classified as lost to follow up in 2018.[5] Delays in the roll out of HIV and TB joint supervision and monitoring as well as gaps in the national community health worker strategy contributed to the ineffective linkage to care. National TB guidelines were last updated in 2012 and do not include current WHO guidelines, including GeneXpert diagnosis.

Limited engagement of the private sector to achieve malaria grant objectives: Despite the importance of the private sector to the health sector in Liberia, MoH has not effectively engaged private sector facilities to improve access to malaria services. The Memorandum of Understanding (MOU) between MoH and private sector facilities ceased in April 2017, despite Global Fund funded commodities still being provided to these facilities. Although private sector facilities (profit and not for profit) represent over 84% of all health facilities supported by the National Malaria Program in Montserrado county,[6] which accounts for one-third of the population, they account for only 7% of reported malaria tests. In addition, 30% of the private sector facilities visited by the OIG were selling Global Fund funded commodities in contravention of the Global Fund gratuity policy, impacting access to medicines. The lack of a comprehensive strategy on the engagement of private sector facilities and of a defined approach to the monitoring and supervision of private sector facilities limits the Global Fund grants' effectiveness.

Improvements needed in the design and implementation of interventions for Key Affected Populations: Significant delays in the completion of key programmatic studies and surveys have impacted the design and effective monitoring of performance of the PSI grant, which implements interventions for key affected populations. Consequently, the grant has low programmatic targets. Based on the latest Key Population Size Estimation Study, the key affected population program covers 20% of the population of men who have sex with men and of female sex workers. Implementation of prevention services to key affected populations is suboptimal due to shortages in key commodities, including condoms and sexually transmitted infection medicines. Inadequate donor coordination has resulted in a significant proportion of peer educators working under the Global Fund program joining the US Government key affected population program. This has contributed to lower results for the key populations grant in the first semester of 2019. Lack of leadership and coordination of the key affected population program by the MoH and the Country Coordinating Mechanism have contributed to these gaps.

Weak supply chain governance and leadership is affecting the timely availability of quality assured commodities: Significant gaps in inventory management at the central level as well as deficiencies in laboratory supply chain were identified; these have resulted in stock-outs and expiries at the service delivery level as well as increased risk of loss and diversion of Global Fund funded commodities. For example, OIG's reconciliation of stock movements between August 2018 and April 2019 noted an unsupported net difference of US$1.4m. Weak management and recording of stocks increase the risk of loss or diversion. Deficiencies in the laboratory supply chain are contributing to poor utilization of diagnostic equipment, leading to low early infant diagnosis coverage (9%) and low viral load coverage (20%). The underlying cause of these challenges is the lack of effective leadership and oversight across the supply chain by key stakeholders such as the MoH and technical committees, including the Supply Chain Technical Working Group. The lack of defined roles and responsibilities between government stakeholders and development partners as well as fragmentation in these roles are also impacting supply chain effectiveness in Liberia.

[5] 1,606 patients who were initiated on ART were recorded as LTFU from facilities visited by OIG
[6] Montserrado county accounts for 32% of total population (http://www.lisgis.net/pg_img/NPHC%202008%20Final%20Report.pdf) & 29% of total persons tested positive for malaria in 2018 (DHIS 2)

1.4. Rating:

	Objective 1: The design and adequacy of financial management arrangement in supporting the achievement of grant objectives and safeguarding of grant assets OIG rating: Need significant improvement
	Objective 2: The effectiveness of program processes and controls in ensuring linkages to care and delivery of quality services to beneficiaries, including key affected populations OIG rating: Partially Effective
	Objective 3: The efficiency and effectiveness of supply chain structures, processes and systems to ensure the timely availability of quality assured medicines and commodities OIG rating: Need significant improvement

1.5. Summary of Agreed Management Actions

The Global Fund Secretariat will work with the Principal Recipients, the MoH and relevant stakeholders on agreed management actions that will focus on the following areas:

- Strengthening financial management
- Roll out of electronic Joint Integrated Supportive Supervision
- Finalization of key strategies and studies for HIV and TB
- Private Sector engagement for malaria case management
- Supply Chain Governance

2. Background and Context

2.1. Overall Context

Liberia is divided into 15 counties, which are subdivided into 68 districts. More than half of the population lives in urban areas, with approximately one third living in Montserrado County. Liberia is classified as low income by the World Bank with an annual growth rate of 2.6%[7].

Population: **4.9 million**

GDP per capita: **US$663** (2018)

UNDP Human Development Index: **181 of 189** (2018)

Transparency International Corruption Perceptions Index: **120 of 180** (2018)

The country has been heavily impacted by civil war (1989-1996 and 1999-2003), stunting economic growth and impacting overall development. The impact of civil war was compounded by the Ebola outbreak between 2014 and 2016, which resulted in over 10,675 cases and 4,800 deaths.[8] The outbreak negatively affected all aspects of the health system and infected 3.4% of health workers, killing 176 (1.6%) of them.[9]

Liberia suffers from a lack of human resources for health (1.14 per 1,000 population compared to the WHO target of 2.3 per 1000).[10] In 2018, 3,929 positions (31%) of the health workforce were supported by donors[11] with a small proportion covered by the Global Fund. The majority of these transitioned to the Government of Liberia's payroll in 2018/19, with full transition expected by 2020. This has put pressure on a health sector budget which is already unable to support key interventions.

2.2. Differentiation Category for Country Audits

The Global Fund has classified the countries in which it finances programs into three portfolio categories: focused, core and high impact. These categories are primarily defined by size of allocation amount, disease burden and impact on the Global Fund's mission to end the three epidemics. Liberia is classified as:

	Focused: (Smaller portfolios, lower disease burden, lower mission risk)
X	**Core: (Larger portfolios, higher disease burden, higher risk)**
	High Impact: (Very large portfolio, mission critical disease burden)
X	**Challenging Operating Environment[12]**
	Additional Safeguard Policy[13]

[7] World Population Dashboard, United Nations Population Fund – Liberia (2019) https://www.unfpa.org/data/world-population-dashboard
[8] WHO Data 2018 - http://www.who.int/news-room/fact-sheets/detail/ebola-virus-disease
[9] Investment Plan for Building a Resilient Health System in Liberia 2015 (https://au.int/web/sites/default/files/newsevents/workingdocuments/27027-wd-liberia--investment_plan_for_building_a_resilient_health_system.pdf)
[10] Global Health Workforce Statistics, World Health Organization – Liberia (2015)
[11] Human Resources for Health historically supported by the Pooled Fund (DFID/Irish Aid as key supporters) and the USG through a FARA mechanism
[12] Liberia was classified as a challenging operating environment due to the impact of the civil war and the Ebola crisis (2014-16)
[13] While additional safeguards were not put in place for Liberia, a fiduciary arrangement (Fiscal Agent) was put in place over grants implemented by the Ministry of Health since 2014

2.3. Global Fund Grants in Liberia

The Global Fund has signed grants of over US$309 million and disbursed over US$248 million to Liberia since 2004, with US$65.7 million in current active grants. Liberia has been allocated matching funds from catalytic investments of US$2.1 million for integrated service delivery and Human Resources for Health. The country also benefits from Strategic Initiative funding, with an investment of US$0.5 million to address supply chain challenges in the country. The Ministry of Health and Social Welfare (MoH), Plan International and Population Services International (PSI) are the current Principal Recipients for the Global Fund grants for the 2018-2020 implementation period. Historically, the United Nations Development Program (UNDP) was the Principal Recipient for the Global Fund grants implemented by the MoH until 2011.

2.4. The Three Diseases

HIV/AIDS: HIV prevalence among 15 to 49-year olds is 1.4%. Prevalence is higher in men who have sex with men (19.8%), female sex workers (9.8%) and people who inject drugs (3.9%).

The Global Fund is the largest donor to the country's HIV response, representing 25% of funding available for 2018-2020. Support from Government and other donors[14] represents 6% and 1% respectively,[15] with a funding gap of US$68.4 million (68%)[16].

40,000 people living with HIV, of whom 31% (13,880) are on treatment (2018).

AIDS related deaths declined by 34% from 3,800 in 2010 to 2,500 in 2017

New HIV infections declined by 8% from 2010 to 2017.

Malaria: Malaria is a leading cause of death in Liberia. Estimated malaria deaths were 2,227 in 2017.[17] Over 2.4 million long lasting insecticide nets were distributed in 2018, funded through the Global Fund grant.

The Global Fund is the largest donor to the country's malaria response, funding 45% of the total funding need. The Government provides 7% and other donors 13%, with a funding gap of 35% (US$44 million).[16]

2,477,414 long lasting insecticide nets distributed in 2018.[18]

1,070,113 confirmed cases reported in 2017.[17]

Tuberculosis: Liberia is classified by WHO as one of the 30 highest TB burden countries, with estimated rates of incidence and mortality of 308 and 57 per 100,000 population, respectively.[19] TB case notification has increased by 32% in the last two years.

The Global Fund is the largest donor to the country's TB response (25%), with 8% provided by the Government of Liberia (Funding Cycle 2018-2020). The funding gap is 67% (US$13.07 million).[16]

7,728 TB cases notified (2017).[20] TB treatment coverage is 53%. Treatment success rate is 77% (2016)[19]

Mortality rate increased from 48/100,000 in 2010[21] to 57/100,000 in 2017. [19]

[16] Funding Landscape (Funding request to the Global Fund May 2017)
[17] WHO World Malaria Report, 2018 (https://apps.who.int/iris/bitstream/handle/10665/275867/9789241565653-eng.pdf?ua=1)
[18] LLINs distributed through mass campaign implemented by the Ministry of Health and Social Welfare and Plan International, Inc
[19] WHO Global Tuberculosis Report, 2018 (https://www.who.int/tb/publications/global_report/en/)
[20] WHO Liberia country TB profile, 2017 (https://extranet.who.int/sree/Reports?op=Replet&name=/WHO_HQ_Reports/G2/PROD/EXT/TBCountryProfile&ISO2=lr&outtype=pdf)
[21] WHO Global Tuberculosis Report, 2013 (https://apps.who.int/iris/bitstream/handle/10665/91355/9789241564656_eng.pdf?sequence=1&isAllowed=y)

2.5. Portfolio Performance

Grants in the country are generally performing well, as shown by the achievement rate of key coverage indicators. The grants are however not achieving their targets on early infant diagnosis, HIV testing, and notification and treatment of MDR-TB. The root causes of these low achievements are analyzed in sections 4.2 and 4.5 of this report. The overachievement of HIV targets for key populations is analyzed in section 4.4.

Global Fund Key Indicator Achievements (December 2018)[22]			
HIV/AIDS	**Target**	**Result**	**Achievement**
Number of people who were tested for HIV and received their results during the reporting period	196,947	140,489	71%
Percentage of infants born to HIV-positive women receiving a virological test for HIV within 2 months of birth	81%	9%	12%
Percentage of people living with HIV currently receiving ART	35%	31%	89%
Percentage of men who have sex with men reached with HIV prevention programs - defined package of services	19%	27%	120%
Percentage of MSM that have received an HIV test during the reporting period and know their results	19%	26%	120%
Percentage of sex workers reached with HIV prevention programs - defined package of services	24%	38%	120%
Percentage of sex workers that have received an HIV test during the reporting period and know their results	24%	36%	120%

TB	**Target**	**Result**	**Achievements**
Number of notified cases of all forms of TB- (i.e. bacteriologically confirmed + clinically diagnosed), includes new and relapse cases	4,630	4,752	103%
Percentage of HIV-positive new and relapse TB patients on ART during TB treatment	80%	61%	77%
Number of TB cases with RR-TB and/or MDR-TB notified	106	53	50%
Number of cases with RR-TB and/or MDR-TB that began second-line treatment	106	31	29%

Malaria	**Target**	**Result**	**Achievements**
Proportion of suspected malaria cases that receive a parasitological test at public sector health facilities	87%	89%	102%
Proportion of estimated malaria cases (presumed and confirmed) that received first line antimalarial treatment at public sector health facilities	90%	95%	106%
Proportion of suspected malaria cases that receive a parasitological test at private sector sites	8%	93%	120%
Proportion of suspected malaria cases that receive a parasitological test in the community	85%	91%	107%
Proportion of malaria cases (presumed and confirmed) that received first line antimalarial treatment in the community	85%	100%	118%

Exceeding Expectations	>100%
Meet Expectations	90-100%
Adequate	60-89%
Inadequate but potential demonstrated	30-59%
Unacceptable	<30%

[22] Global Fund Performance Letter for the four grants for the period ended December 2018; selected key grant performance indicators based on relevance and importance.

2.6 Risk Appetite

Risk appetite has been developed at the organizational level using data from a cohort of 25 countries[23] representing the majority of the global burden for the three diseases: 85% for HIV/AIDS; 80% for TB; 76% for malaria. The Global Fund's Risk Appetite Framework, operationalized in 2018, sets recommended risk appetite levels for eight key risks affecting Global Fund grants. Country Teams determine each risk at grant level using the Integrated Risk Management module. The ratings are reviewed by the second line functions and senior management from the Grant Management Division. Grant risk ratings are weighted using the country allocation amount to arrive at an aggregate risk level for the country portfolio.

The aggregated risk levels, along with the mitigation plan and expected trajectory of risk levels, are then approved by the Portfolio Performance Committee[24] during the Country Portfolio Review (CPR). Aggregated risk levels for Liberia have been reviewed, but Liberia has not been through a CPR. The OIG compared the Secretariat's aggregated assessed risk levels of the key risk categories covered in the audit objectives for the Liberia portfolio with the residual risk that exists based on OIG's assessment, mapping risks to specific audit findings. Please refer to the table below.

Risk	Secretariat aggregated assessed risk level	Assessed residual risk, based on audit results	Relevant audit issues
Program Quality	High	High	Finding 4.2, 4.3, 4.4
In-Country Supply Chain (ICSC)	Very High	Very High	Finding 4.5
Grant-Related Fraud & Fiduciary	Moderate	High	Finding 4.1
Accounting and Financial Reporting by Countries	High	High	Finding 4.1
National Program Governance and Grant Oversight	Moderate	High	Finding 4.1, 4.3, 4.4 & 4.5

Liberia is an operating environment in which risk levels remain high to very high across most of the grant implementation risk areas. The assessments of risk levels by the OIG and the Secretariat are aligned except for:

- **Grant-related Fraud & Fiduciary:** OIG audit results suggest the current level of residual risk is 'high' whereas the Secretariat aggregated assessed risk is 'Moderate'. The misalignment is mainly due to the difference in the rating of the sub-risk 'inadequate internal controls'. Fragmentation in roles and responsibilities over grant assets also result in completeness and validity gaps in asset registers held by the MoH. OIG could not physically verify 36% of assets sampled. Reporting and monitoring mechanisms in place to track the use of funds disbursed to SRs are inadequate, resulting in weak oversight and lack of timely liquidation of advances for critical community-based activities. The severity of this risk was assessed as higher compared to that of the Secretariat due to the nature of the assets impacted, which include essential health equipment. Inadequate oversight by the Fiscal Agent, which contributed to the above gaps in financial management, was also not factored into the Secretariat's assessment of residual risk.

  The Secretariat initially rated the sub-risk of 'inadequate internal controls' Moderate for both grants in scope based on oversight provided by the Fiscal Agent and high budget proportions (more than 50%) allocated to procurement of health commodities and well controlled through Pooled Procurement Mechanism. The Secretariat's risk assessment relevant to 'inadequate internal controls' highlighted the same core issues as identified in the audit report, namely weaknesses related to fixed asset management, payment, invoicing and cash management. While there is alignment on the nature of the issues, the Secretariat's rating is lower in part because of

[23] Bangladesh, Burkina Faso, Cameroon, Congo (DRC), Côte d'Ivoire, Ethiopia, Ghana, India, Indonesia, Kenya, Malawi, Mali, Mozambique, Myanmar, Nigeria, Pakistan, Rwanda, South Africa, Sudan, Tanzania, Uganda, Ukraine, Viet Nam, Zambia, Zimbabwe
[24] The role of the Portfolio Performance Committee is to conduct country portfolio reviews and enterprise reviews

the proportion of the budget at risk as a result of the weaknesses identified. The Secretariat's rating also considered the likelihood of an internal control risk materializing, leveraging an assessment conducted in May 2019 that assessed Fiscal Agent performance to be adequate. The Secretariat will review the sub-risk rating for the relevant grants based on Fiscal Agent deficiencies identified in the audit report.

- **National Program Governance and Grant Oversight:** OIG audit results suggest the current level of residual risk is 'high' whereas the Secretariat aggregated assessed risk is 'Moderate'. The misalignment is mainly due to the difference in the rating of sub-risks 'inadequate national program governance' and 'inadequate program coordination and SR oversight'. Weak leadership and governance has been identified as a key root cause to the challenges identified in the supply chain. Poor donor coordination and gaps in the role played by the MoH in mitigating potential duplication between Global Fund activities and other donor investments were identified. Weak governance and oversight over TB and HIV sub recipients also negatively impact programmatic performance.

  The Secretariat has assessed the sub-risk of 'program coordination and SR oversight' as high for two grants (LBR-C-MOH and LBR-H-PSI) based on issues relevant to sub-recipient oversight. This risk was assessed as moderate for the malaria grant (LBR-M-MOH) because it does not utilize sub-recipients. The different ratings for the three grants aggregate to moderate at the country portfolio level using a mathematical aggregation methodology explained in Annex C. The Secretariat has assessed the sub-risk of 'national program governance' as 'moderate'; however, many of the underlying root causes that OIG focused on, namely lack of leadership for cross-cutting RSSH interventions, poor planning across stakeholders, and gaps in accountability, contribute to 'high' or 'very high' ratings in other risk areas such as Program Quality and In-Country Supply Chain as they are interconnected. Because these underlying root causes were flagged in the areas where they have a notable impact, they were not reflected under the national program governance risk. The Secretariat will consider reviewing these cross-cutting issues and adjust impacted sub-risks where relevant.

3. The Audit at a Glance

3.1 Objectives

This audit sought to assess the:

(i) design and adequacy of financial management arrangements in supporting the achievement of grant objectives and safeguarding of grant assets

(ii) effectiveness of program processes and controls for ensuring linkages to care and delivery of quality services to beneficiaries, including key affected populations

(iii) efficiency and effectiveness of supply chain structures, processes and systems to ensure the timely availability of quality assured medicines and commodities

3.2 Scope and Methodology

The audit was in accordance with the methodology described in Annex B, covering the period from January 2017 to December 2018. Therefore, the audit covered both active and closed grants. Of the eight grants audited: two ended on 31 December 2017; two ended on 30 June 2018; and the other four will end on 31 December 2020.

Grant No.	Principal Recipient	Grant component	Grant period	Signed amount (US$)	Disbursed amount (US$)
Funding cycle 2016-2017/2018					
LBR-M-MOH	Ministry of Health and Social Welfare	Malaria	July 2016 to June 2018	26,452,112	22,429,782
LBR-M-PII	Plan International, Inc.	Malaria	July 2016 to June 2018	12,167,590	11,837,694
LBR-C-MOH	Ministry of Health and Social Welfare	HIV/TB	April 2016 to December 2017	27,343,285	20,876,936
LBR-H-PSI	Population Services International	HIV	April 2016 to December 2017	9,584,091	5,838,473
Total				**75,547,078**	**60,982,885**

Funding cycle 2018-2020					
LBR-M-MOH	Ministry of Health and Social Welfare	Malaria	July 2018 to June 2021	23,291,765	3,592,746
LBR-M-PII	Plan International, Inc.	Malaria	July 2018 to June 2021	12,976,384	2,433,633
LBR-C-MOH	Ministry of Health and Social Welfare	HIV/TB	January 2018 to December 2020	23,480,099	9,347,155
LBR-H-PSI	Population Services International	HIV	January 2018 to December 2020	6,000,000	2,159,161
Total				**65,748,248**	**17,532,695**

The auditors visited 25 health facilities and two drop-in-centers in three counties (Montserrado, Nimba and Grand Bassa) covering 62% of people on antiretroviral treatment, 74% of TB case notifications, and 12% of total malaria cases for 2018. The auditors also visited the Central Medical Store and county stores in Montserrado, Grand Bassa and Nimba.

3.3 Progress on Previously Identified Issues

This is the first OIG audit of grants in Liberia.

4. Findings

4.1 Sub-optimal financial management and oversight over sub-recipients and grant assets

The Global Fund has invested heavily in strengthening the Ministry of Health (MoH) financial management and oversight arrangements. Since 2010, the Global Fund has supported the establishment and maintenance of a Program Coordination Unit (PCU), which coordinates and oversees Global Fund grants implemented by the national disease programs. A Fiscal Agent[25] was put in place in 2014 to provide additional fiduciary controls over the grants implemented by MoH. In addition, the Global Fund has invested in the installation of a new financial accounting and reporting system at the MoH, including staff training. While there has been substantial investment, significant issues in financial management and oversight remain.

Deficiencies in oversight and management of sub-recipients

Sub-recipient contracting: Sub-recipients (SRs) for the NFM[26] 1 and 2 grants implemented by MoH were supposed to be contracted for the entire grant period (i.e. 2016 -2020) to provide key HIV and TB services. Although four international and local NGOs were selected as SRs, there were significant issues with their contracting, management and oversight. No SRs were contracted to provide TB services in 2016, and rather than fully contracting the selected SRs for the following full period, MoH opted to award short-term contracts of eight months each in 2017 and 2018, with significant gaps between contract implementation periods. The implementation periods were further delayed by four months in both 2017 and 2018 due to slow disbursement of funds to the SRs. This had a negative impact on HIV and TB community-based interventions: in 2017 and 2018, activities supporting community TB case notification and follow up of lost cases through community health volunteers were either delayed or stopped after a few months of implementation.[27]

Lengthy tendering processes at MoH and protracted budget negotiations with NGOs were key contributing causes of this issue. The protracted negotiations were also indicative of significant shortcomings in the overall grant making process, and a substantial rework of approved SR budgets was required months after the grants were signed. No management policies are in place at MoH to guide SR oversight and management; as a result, the roles and responsibilities of the various stakeholders dealing with SRs within MoH, including the PCU, national disease programs and the Office of Financial Management, have not been clearly defined. This has led to a lack of clarity over who is ultimately accountable for managing SRs.

Financial management: Cash advances to TB and HIV SRs implementing critical community-based activities are not effectively managed by MoH, resulting in long-outstanding advances due from several SRs since 2017. As of May 2019, advances totaling US$0.3m[28] had been outstanding for over 500 days. This is mainly because previous advances are not cleared before additional funds are disbursed. MoH only began sending demand letters to SRs for long-outstanding advances in Q2 2019.

Principal Recipient feedback to sub-recipients is significantly delayed: it takes five months for the PR to review and provide feedback on reports from SRs. Inadequacies in oversight over SR activities

[25] Fiscal Agent budgeted cost between 2016-2020 is US$2m

[26] NFM is the New Funding Model, the new approach to grants as a part of the 4th replenishment of the Global Fund and is the naming convention applied to all grants. NFM 1 for Liberia relates to grants starting in 2016 and ending in 2017/2018 and NFM 2 for Liberia relates to grants starting in 2018 and ending in 2020/21

[27] Activities that were suspended completely include the creation of an integrated TB-HIV catch up plan in two counties, recruitment of additional CHVs to support active case finding and critical training on TB/HIV. There were also delays in setting up of community DOTs centers.

[28] These advances were still outstanding at the time of the audit and covers 13% of total disbursements to HIV and TB MoH Sub-recipients under NFM 1

and funds has contributed to ineligible expenditure[29] being approved by the PR and low grant absorption (less than 50%).[30]

Inadequate oversight by the Fiscal Agent has contributed to further gaps in this area. Based on the OIG review of advances, it was noted that the Fiscal Agent does not perform any reconciliations on or review final accounting entries made by MoH to ensure accurate and complete financial reporting. They are required to approve disbursements to SRs under the MoH grants and review supporting documentation of advances liquidated by SRs. However, advances worth US$0.9 million were liquidated by the MoH without evidence of Fiscal Agent review. In addition, instances were noted where the review of the Fiscal Agent was disregarded by the MoH without justification.

Weak oversight of the in-country Fiscal Agent's work by its headquarters and insufficient performance monitoring at the Global Fund Secretariat compound the gaps in the Fiscal Agent's effectiveness. The Secretariat is supposed to conduct an annual performance assessment of the Fiscal Agent; however, no evidence of this assessment was provided for 2017. While a performance assessment was completed in 2018, the weaknesses identified were not highlighted. There are no policies or procedures to define the operational role of the Fiscal Agent in relation to MoH processes, undermining the Fiscal Agent's role and authority.

Weakness in grant asset controls and assurance

Significant gaps exist in the management of grant assets by MoH. Grant assets worth US$1.1 million[31] delivered to the country were not recorded in the fixed assets register[32]. Items reported as damaged or lost (worth US$1.2 million) were not included in the fixed assets register, despite not being formally disposed of. In addition, 36%[33] of assets sampled from the fixed assets register could not be physically verified, raising the risk of misappropriation. No verifiable evidence of misappropriation or misuse was noted during the audit; however, actions have been included in Agreed Management Action 1 to address the above discrepancies.

Significant underutilization of grant assets was also noted. For example, 58 microscopes procured in 2017 were kept in storage for 15 months before distribution, having been intermittently moved between multiple storage sites without being tracked. This was partly due to delay in training relevant staff members on how to appropriately use the new machines. In addition, underutilization of GeneXpert and viral load machines were noted (refer to finding 4.5). This under-utilization of health equipment has affected programmatic performance for MDR-TB and HIV viral load coverage, limiting the impact of Global Fund investments: the MoH grant achieved 39% of its grant target for 2018 for MDR-TB notification and low HIV viral load testing coverage at 20% (while viral load monitoring, the third "90" of UNAIDS targets, is not a grant-level indicator for Liberia, it is nevertheless a key metric in determining the success of HIV treatment program).

Fragmentation in roles and responsibilities over grant assets contributes to the gaps in asset management and utilization. Multiple incomplete asset registers are maintained by various departments at MoH, with no clarity over who is ultimately responsible for grant assets. MoH did not conduct a physical verification of grant assets in 2017 or 2018. The Global Fund was also notified of a missing Abbott machine worth US$0.29 million in April 2018. At the time of the audit, the in-country police investigation of the case had not been concluded.

There is a lack of assurance and oversight over grant assets. The Global Fund requires an annual external audit of all grants. However, the external audits of grants implemented by MoH in 2016 and 2017 were only finalized in December 2018. Although the external audit highlighted significant

[29] Out of US$354k liquidated in June 2018: US$95k was cleared without adequate support documents; and US$31k of duplicate transactions were also cleared.
[30] SRs grant budget absorption for 2016 – 2017 (NFM 1): PIH (41%); BRAC (33%); MERCI (40%) and CCHP (43%) with the total budget for 2016-2017 at US$1m for these SRs
[31] US$0.9 million relates to health equipment; US$0.2 million relates to vehicles and motorcycles procured through Global Fund grants between 2016-19
[32] The MoH fixed asset register is now maintained in the NetSuite electronic accounting system
[33] US$0.8m out of US$2.2m assets sampled in the audit

weaknesses in internal controls around fixed assets, the Global Fund Secretariat could not take timely corrective action due to the significant delay in finalizing the report. The Global Fund Secretariat has responsibility for contracting external auditors for MoH grants as a key risk mitigation to ensure quality audit services. However, gaps in the Secretariat's understanding in relation to procuring audit services led to the delay in contracting an external auditor for the grants: The Request for Proposal process started over a year into grant implementation and the scopes of work of other assurance providers, including the Local Fund Agent and Fiscal Agent, were not amended to cover risky areas while external audits were not being performed.

Agreed Management Action 1:

The Secretariat will support the capacity development of the Ministry of Health (MoH) in grant management, including supporting the following key actions:

- Development of a sub-recipient (SR) policy manual that includes defined roles and responsibilities between relevant MoH departments in relation to SRs oversight.
- Conduct a physical grant asset verification, including an update and consolidation of grant asset records into the existing 'NetSuite' accounting system. Any material discrepancies in the physical verification will be addressed following applicable Global Fund policies and procedures.

Owner: Mark Edington, Head Grant Management Division

Due date: 31 October 2020

Agreed Management Action 2:

The Secretariat will strengthen oversight of the Fiscal Agent functions, including:

- Reviewing the terms of reference to incorporate oversight of the Ministry of Health's fixed asset and SRs financial management systems.
- Implementing a quality assurance and monitoring system that specifies the oversight activities and due-diligence actions of the Fiscal Agent.

Owner: Jacques Le Pape, Chief Financial Officer

Due date: 30 September 2020

4.2 Ineffective linkage to care impacts provision of quality HIV & TB services to intended beneficiaries

Since the Ebola epidemic ended in 2016, there has been a significant scale up of HIV and TB services: the number of people on antiretroviral treatment increased by 71%, from 8,100 in 2016 to 13,880 in 2018;[34] prevention of Mother to Child antiretroviral treatment coverage has reached 86%, the third highest in West Africa;[35] and the number of new TB case notifications increased by 16% to 8,405 in 2018.[36] Liberia has challenges however in linking patients to diagnostic and treatment services.

Although the country has been able to achieve its grant-level targets for key populations, achievement of broader grant targets on HIV, TB-HIV and MDR-TB testing and treatment require improvement. HIV testing performance was 71% in 2018,[37] and only 61% of co-infected patients were on antiretroviral treatment against a target of 80%.[38] Furthermore at the 25 health facilities visited by the OIG, 49% of patients initiated on ART were classified as lost to follow up.[39] For MDR-TB case notification, the country achieved 50% of its target and for identified MDR-TB patients on treatment the country achieved 29% of its target.[40] The underlying causes of the ineffective linkage to care include:

Gaps in supervision and training

The country has moved towards electronic Joint Integrated Supportive Supervision (eJISS)[41] for the three diseases, as well as for other health programs such as reproductive health. The Global Fund has provided over US$0.5m per year towards this activity for 2018 to 2020. However, due to challenges in piloting and rolling out eJISS, only 10% of the available funds were spent in 2018. HIV and TB disease programs were not able to conduct critical supervision and monitoring activities that could have identified the gaps in linkages to care. In addition, over 60% of health facilities visited did not receive any HIV or TB refresher training, contributing to low quality of service. There was no evidence of systematic tracing of contacts for notified TB patients at the facilities visited, and 56% (14/25) of health facilities visited were not adhering to HIV testing guidelines, representing a missed opportunity for early diagnosis and treatment.

Limited community engagement for TB and HIV impacting access to services

As highlighted in finding 4.1, challenges in managing SRs under the MoH have negatively impacted the provision of TB and HIV community-based services. The National Strategy on Community Health Workers in Liberia has significant gaps in relation to HIV and TB service provision. It does not include: HIV community-based follow up; HIV testing and treatment; TB active case finding; and key population-specific activities or key population-focused health workers. This lack of strategic guidance limits the effectiveness of community health workers to improve linkages to care for TB and HIV.

Lack of policies and implemented strategies to inform HIV & TB testing, diagnosis & treatment

A lack of updated guidelines and strategies for HIV and TB interventions has impacted the implementation of program activities. National TB guidelines were last updated in 2012 and therefore do not include current WHO guidelines, including GeneXpert diagnosis. While an updated strategy[42] on differentiated approaches to offering more HIV testing to at-risk populations exists, it is yet to be operationalized.

[34] UNAIDS 2016 & Catch Up plan review 2018
[35] UNAIDS 2018 World AIDS report
[36] 2018 PUDR for MOH Combined Grant
[37] 2018 PUDR for MOH Combined Grant
[38] Result on Performance Indicator for TB/HIV co-infected ART coverage for 2018 from 2018 PUDR for MOH Combined grant
[39] 1,606 patients who were initiated on ART during or before 2018 were recorded as LTFU in 2018 from facilities visited by OIG the equivalent of 49% of all patients on ART in 2018
[40] 2018 PUDR for MOH Combined Grant highlighted 53 cases being notified and 31 cases being treated
[41] Global Fund has invested in an electronic based consolidated supervision, mentoring and training program that would be provided to county, district and facility health staff by the MOH
[42] Differentiated approach to HIV testing strategy was completed in November 2018

Agreed Management Action 3:

The Secretariat will support the Ministry of Health and relevant stakeholders including civil society Principal Recipient to finalize the update of the Community Health Strategy including procedures and referencing tools for identifying TB and HIV cases and tracking lost to follow-up.

Owner: Mark Edington, Head Grant Management Division

Due date: 31 October 2020

4.3 Limited engagement of the private sector to achieve malaria grant objectives

The malaria program has seen significant improvement in its programmatic results, culminating in the achievement of all key malaria targets relating to testing and treatment in 2018.[43] Insecticide nets, a key vector control measure, were distributed to 87% of the total population at risk, the highest recorded coverage in West Africa for 2017.[44] However, there have been challenges in engaging and leveraging the private sector to expand the provision of services to intended beneficiaries:

Poor levels of reporting: The private sector plays an important role in Liberia's health system. Private sector facilities (profit and not for profit) represent over 84% of all health facilities supported by the National Malaria Program in Montserrado county[45] alone. Despite the Global Fund providing free health commodities to the private sector facilities to improve access to services and reduce financial barriers to medical care, private sector facilities account for only 7% of reported malaria tests[43].

Lack of formalized structure for engagement: Memoranda of understanding (MOUs) between private sector facilities and the Ministry of Health and Social Welfare (MoH) are supposed to require private sector facilities to, among other things: adhere to the gratuity policy of the Global Fund; report in the health management information system; and routinely update the MoH on malaria inventories. They also require MoH to provide commodities on a regular basis, as well as training and oversight of facilities to ensure the MOU's conditions are observed. No MOU between the MoH and any private sector facility has however been signed since April 2017. As a result, not all facilities adhere to the Global Fund gratuity policy: 30% (3/10) of the private sector facilities visited by the OIG were selling Global Fund funded commodities.

The lack of a comprehensive strategy on private sector engagement is a contributing factor. This lack of clarity on private sector engagement is further compounded by different approaches taken by key donors for malaria. In addition, there is no clearly defined policy or approach on monitoring and supervising private sector facilities to ensure they adhere to the tenets of the MOUs, and limitations in human resources at MoH further contribute to the lack of supervision of private health facilities.

Agreed Management Action 4:

The Secretariat will work with the MoH to develop a strategy to scale up malaria case management in the private sector including training, supervision, and reporting.

Owner: Mark Edington, Head Grant Management Division

Due date: 31 October 2020

[43] December 2018 Progress Update for Ministry of Health Malaria Grant & Plan International Malaria Grant
[44] WHO World Malaria Report 2017
[45] Montserrado county accounts for 32% of total population (http://www.lisgis.net/pg_img/NPHC%202008%20Final%20Report.pdf) & 29% of total persons tested positive for malaria in 2018 (DHIS 2)

4.4. Improvements needed in the design and implementation of interventions for Key Affected Populations

The PSI grant, which funds activities for key affected populations, is the first of its type in Liberia and is in line with the broader UNAIDS Western and Central Africa catch-up plan[46] to target high prevalence groups. Since its inception in 2016, it has been strengthened to utilize more effective and efficient interventions targeting key affected populations. This includes utilizing peer-led HIV testing in the community and establishing Drop-In Centers as a safe space for provision of services. Issues with the design and implementation of the program are however affecting effective delivery of services:

Sub-optimal design of the HIV/AIDS prevention grant targeting key affected populations
There were no performance framework targets and indicators for the grant in 2017 (NFM 1). Programmatic activities were monitored through work plan tracking measures, which are not used to monitor coverage and outcomes of interventions. This limited the Global Fund's ability to properly assess grant performance during that period. In 2018, performance targets and indicators were put in place for the grant. However, these were based on proxy baselines from neighboring countries. Consequently, the grant has low programmatic targets. Based on the latest Key Population Size Estimation Study, the key affected population program covers 20% of the combined population of men who have sex with men and female sex workers. In addition, two out of the three counties[47] selected for the program do not have high populations of key affected persons.

The lack of key targets and indicators was due to significant delays in the completion of programmatic studies and surveys. The Integrated Biological and Behavioral Surveillance Survey was due to be completed in 2017 to inform programmatic planning for the grant and the wider HIV strategy. This study had not however been finalized at the time of the audit. The Secretariat and other partners are providing further technical assistance to the MoH to finalize the study. Delays were caused by the late disbursement[48] of grant funds in 2016, which was in turn due to the late signing of grant agreements[49] by MoH. This resulted in the transfer of responsibility over critical studies to another implementer. Difficulties in finding data collectors for the transgender and people who inject drugs populations also contributed to delays in completing the surveys.

Challenges in implementing interventions for key affected populations
A key grant component is the delivery of prevention services. This is the remit of Population Services International (PSI), while the provision of relevant health commodities, including condoms and Sexually Transmitted Infections (STIs) medicines, is the responsibility of MoH. These commodities have not been consistently available at service delivery points, limiting the provision of prevention services to key affected populations. Significant stock-outs of STI medicines were noted during the audit period,[50] leading to a situation where key affected populations screened for sexually transmitted infections were not provided with the appropriate medication in accordance with national guidelines; this is mainly due to the Government of Liberia defaulting on its commitment to procure 70% of STI medicines, due to funding constraints.

Another key grant intervention is the establishment of Drop in Centers (DICs) to act as a safe place for counselling, testing and treatment services for key affected populations. In 2016 and 2017, only two DICs (of a target of four) were operational, and one of the two was only operational for four months. In 2018, it took eight months after the start of the grant for the DICs to become operational due to changes in implementation arrangements. They were therefore not available for the majority of the period 2016 to 2018, limiting the provision of services to key affected populations. As a consequence, gaps in the continuum of HIV care were noted. For example, 59% of reactive cases[52]

[46] UNAIDs Data Source, WCA Catch Up Plan - https://www.unaids.org/sites/default/files/media_asset/WCA-catch-up-plan_en.pdf
[47] In lieu of complete key population size estimation data, counties were selected in line with the Liberia Catch up plan to end AIDS 2017-2020: Leaving No one Behind
[48] First disbursement to HIV/TB MOH grant in 2016 took place 5 months after the implementation period was to begin
[49] HIV/TB MoH grant signed in 2016 took place 4 months after the implementation period was to begin
[50] No STI stocks recorded at operational drop in centers between October 2018 and April 2019

tracked by the implementer did not complete confirmatory testing, 41% of HIV positive cases[52] were not initiated on antiretroviral treatment at the DICs despite being referred to these sites, and there was no evidence of follow-up on lost cases.

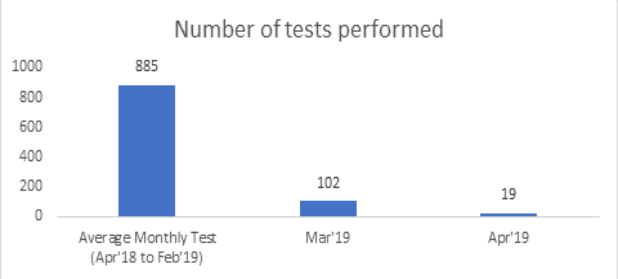
The delays in setting up and effectively operationalizing the DICs were due in part to challenges in managing sub-recipients, impacting service continuation between grant periods. Stigma and discrimination against key affected populations also negatively impacted the ability of INGO implementers to establish sites to provide services. During 2016-17, lost to follow-up activities were not carried out due to contract disputes with sub-recipients. Lost to follow up activities were rolled out in 2018, but 84% of cases at the main implementation site were not followed up, despite that facility having 20 peer educators in addition to clinical resources. The lack of robust monitoring and data management systems and processes to track cases referred for follow-up activities has contributed to the issue. The Principal Recipient does not have strategic oversight over activities at community level to ensure patients are effectively targeted by community actors.[51]

<u>Poor donor coordination is negatively impacting community led HIV testing</u>

A lack of leadership from MoH and the Liberia Coordinating Mechanism (LCM) in coordinating donor activities has led to implementation overlaps in terms of resources being leveraged by the two development partners funding key affected population programs. Both the Global Fund and a US Government-funded program (which started in 2019) are operating in Montserrado County, engaging with peer educators to conduct HIV testing in key affected populations, and referring patients to facilities for treatment.

Multiple discussions were held before the new US-funded program was initiated, but these did not ensure complementarity in terms of staffing and resources. In Q2 2019, 36% (53) of peer educators working under the Global Fund program joined the US program. This has contributed to a significant drop in HIV testing rates[52] under the Global Fund program,[53] as shown in *figure 1*.

Figure 1. Global Fund Key Population HIV testing results for Montserrado as at 21 May 2019



The root cause of this operational overlap is the lack of clear mechanisms by MoH and Liberia Coordinating Mechanism (LCM)[54] to ensure new donor programs do not duplicate existing projects. Despite the LCM's role as the coordinating body across multiple sectors, including representatives from MoH, US Government and Key Affected Populations, the US program was not effectively discussed, to avoid taking resources from one key population grant to another. At the time of the audit, active engagement was noted between implementers of the US and Global Fund funded programs to resolve the issues, including discussing them at the LCM level.

Management Action:

AMA 3 covers the finalisation of the Community Health Strategy, which includes strengthening community-based activities and key populations interventions.

[51] These include peer educators and field support supervisors
[52] Key Population HMIS Data extracted from DHIS 2 May 2019, PSI Liberia Country Office
[53] Peer Educators are the primarily mechanism to test key populations.
[54] Liberia Coordinating Mechanism is the Country Coordinating Mechanism for Liberia.

4.5. Weak supply chain governance and leadership is affecting the timely availability of quality-assured commodities

The Global Fund has aligned its investments to support Liberia's supply chain. Through the pooled procurement mechanism, the Global Fund ensures supply of medicines and commodities are provided when requests are received from the MoH. With support from the Global Fund and partners including USAID, the new Caldwell warehouse has been built in Monrovia to store health and non-health commodities. The Global Fund invested US$0.5m from Catalytic Investments funding to perform a supply chain diagnostic review in 2017 and support the development of a transformation plan. In addition to the challenges identified in the diagnostic review, the OIG noted gaps in inventory management at the central level, and an inadequate lab supply chain:

Weak inventory management at central level

Global Fund funded commodities were moved from a government managed warehouse[55] (JFK) to a USG/Chemonics managed warehouse (Freeport) in early 2018 and then finally to a different government managed warehouse (Caldwell) in December 2018. The move from JFK was due in part to instances of theft and the move to Caldwell was in line with agreed national plans. No closing and opening inventory counts were performed during the stock movements to ensure commodities were appropriately accounted for and safeguarded. In-country stakeholders[56] did not perform stock reconciliations to ensure Global Fund funded commodities were effectively transferred between sites. Significant deficiencies were also noted at the Caldwell central warehouse. There were no approved warehouse standard operating procedures in place until five months after Global Fund funded commodities were moved. No inventory management system, either paper or electronic, is in use at the warehouse. No routine inventory counts have been conducted, impacting the visibility of stock levels at central level, although ad-hoc counts have taken place.

As a result, inventory management gaps are contributing to stock-outs and expiries at both the central and service delivery level. Stock-outs of key commodities for testing and treatment across the three diseases were noted in 20 out of the 25 facilities visited, as shown in the table below, despite these commodities being in stock at the central level:

Disease component	Average number of days of stock-outs	Maximum number of days stocked out	% of facilities visited that incurred stock-outs
HIV commodities	68	404	48%
Malaria commodities	76	416	45%
TB Commodities	177	529	54%

Stock-outs of these key testing and treatment commodities have led to service disruption in several instances, for example stock-outs off HIV test kits resulted in the lost opportunity to test patients in 12 facilities. At the time of the audit, the audit noted that US$0.3m of Global Fund funded commodities in the central and Caldwell warehouses had expired or were at risk of expiry within the next 2-4 months. Expired test kits were also found on testing tables at 36% (9/25) of health facilities visited. Gaps in oversight and management of the transfer of commodities between central warehouses increase the risk of loss and diversion of Global Fund funded commodities. In the absence of clear inventory records, the OIG conducted a reconciliation of stock movements between August 2018 and April 2019, noting a net difference of US$1.4m between the expected commodities' balance as of April 2019 versus the actual stock balance. In the absence of adequate inventory records, the auditors could not conclude whether these discrepancies were the result of misappropriation, or bona fide transfers or stock movements that were not recorded correctly. The discrepancies have been referred to OIG's investigation unit for further review.

[55] Managed by the Central Medical Store – National Drug Store (CMS-NDS, a quasi-government entity reporting into the Chief Medical Officer.

[56] These In-country stakeholders include the MOH Supply Chain Management Unit, Central Medical Store and Chemonics (Funded by the US Government)

Inadequate lab supply chain management

Significant weaknesses were highlighted in the storage, recording and distribution of laboratory-related equipment and commodities. The laboratory supply chain is run in parallel to the medicines supply chain. Unlike medicines, no stock tools and records are maintained for lab commodities including GeneXpert cartridges, viral load consumables and test kits for early infant diagnosis. The system in place to deal with the distribution of lab products, which is also leveraged to transport diagnostic samples and results, is ad hoc and managed in siloes by the disease programs without input from supply chain stakeholders.

The inadequate lab supply chain system is contributing to poor programmatic performance for diagnostics for the TB and HIV programs. The GeneXpert machines[57] used for HIV and TB diagnostics conducted an average of 1.4 tests per day in 2018, despite having the capacity to run 14 tests per day. This low utilization is linked to stock-outs of cartridges at all facilities with GeneXpert machines visited, contributing to low achievement of the MDR-TB notification target (50%). For HIV, 28% of the health facilities offering antiretroviral treatment visited by the OIG had stopped collecting patient samples due to a lack of consumables for the viral load machines. This resulted in a viral load coverage of 20%. Early infant diagnosis was also heavily impacted, with coverage of just 9%. Due to stock-outs of Dry Blood Spot test kits and other lab consumables, 1035 exposed infants were not tested in 2018. Where tests were done, the turnaround time for results was between 3-6 months.[58] At health facilities visited, only 23% of exposed infants tested received their results within the required time.

The key contributing factors for weak inventory management and lab supply chain challenges are the lack of ownership and leadership from the MoH, and the lack of defined operational roles and responsibilities over the supply chain. Multiple reviews and assessments undertaken since 2015 have highlighted significant supply chain challenges and recommended critical actions by the MoH. However, only limited action has been taken by the MoH to ensure the recommendations are implemented. For example, 79% of key activities in the Supply Chain transformation plan which were due to be completed in Q1 2019 had not been implemented at the time of the audit, despite the supply chain diagnostic review having been finalized more than 14 months previously.

Many of the issues flagged in this report are known and have been discussed by supply chain committees and technical working groups; the key committees include the Technical Oversight Committee and Supply Chain Technical Working Group, with other sub-committees covering quantification and Logistics Management Information Systems. However, these key governance and oversight committees have been ineffective in making timely decisions and have not ensured that actions are tracked and monitored or appropriately owned. The frequency with which these committees meet is also an issue. The Supply Chain Technical Working Group only met 3 times (out of an expected 24 times) in 2017 and 2018, despite being an operational group. Also, key committees such as the quantification sub-committee do not have clear terms of reference or mandates to inform their work, resulting in issues in coordinating activity among stakeholders on key activities such as malaria quantification for 2018-2020.

Lack of defined operational roles and responsibilities over supply chain

While the Supply Chain Master Plan highlights the strategic mandates of key supply chain stakeholders, there is a lack of clearly defined operational roles and responsibilities for the various supply chain-related departments at the MoH, the Central Medical Stores and partners. The MoH Supply Chain Management Unit (SCMU) is identified in the Supply Chain Master Plan as the ultimate authority for Supply Chain. There are however no operating guidelines to determine its activities and how it operates its mandate over other MoH departments involved in supply chain management, such as the Program Coordinating Unit, the disease programs, the National Diagnostic Unit, central medical store and the Pharmacy division. The changes in both the legal status of the Central Medical Stores and its relationship with the MoH also contributed to the lack of clarity in

[57] Global Fund has supplied GeneXpert machines to the country since 2016
[58] WHO recommendations state turnaround time to be 4 weeks

roles and responsibilities. Chemonics, through US Government funding, provided warehouse management support at the Freeport warehouse and currently provides technical assistance at the Caldwell warehouse. Roles are however not defined through clear terms of reference with the MoH, limiting clarity over the operational roles of MoH, Central Medical Store and Chemonics in relation to warehouse management at central level.

Agreed Management Action 5:

The Secretariat will work with the MoH and relevant in-country stakeholders on the following:

- Update the Terms of Reference for the Supply Chain Technical Oversight Committee to clarify roles and responsibilities of the Committee and its members and related stakeholders, and to ensure that the Committee meets regularly.
- Develop a framework of roles and responsibilities of the relevant MoH units, the Central Medical Store and other relevant stakeholders involved in the in-country supply chain of the Global Fund commodities.
- Address the inventory management control gaps as part of the supply chain transformation plan. Supporting USAID & partners to establish an electronic inventory management system at the warehouse and support CMS and the MoH to plan and execute routine inventory counts and reconciliations.

Owner: Philippe Francois, Head Sourcing & Supply Chain Department

Due date: 31 December 2020

5. Table of Agreed Actions

Agreed Management Action	Target date	Owner
1. The Secretariat will support the capacity development of the Ministry of Health (MoH) in grant management, including supporting the following key actions: • Development of a sub-recipient (SR) policy manual that includes defined roles and responsibilities between relevant MoH departments in relation to SRs oversight; and • Conduct a physical grant asset verification, including an update and consolidation of grant asset records into the existing 'NetSuite' accounting system. Any material discrepancies in the physical verification will be addressed following applicable Global Fund policies and procedures.	31 October 2020	Mark Edington, Head Grant Management Division
2. The Secretariat will strengthen oversight of the Fiscal Agent functions, including: • Reviewing the terms of reference to incorporate oversight of the Ministry of Health's fixed asset and SRs financial management systems. • Implementing a quality assurance and monitoring system that specifies the oversight activities and due-diligence actions of the Fiscal Agent.	30 September 2020	Jacques Le Pape, Chief Financial Officer
3. The Secretariat will support the Ministry of Health and relevant stakeholders including civil society Principal Recipient to finalize the update of the Community Health Strategy including procedures and referencing tools for identifying TB and HIV cases and tracking lost to follow-up.	31 October 2020	Mark Edington, Head Grant Management Division
4. The Secretariat will work with the MoH to develop a strategy to scale up malaria case management in the private sector including training, supervision, and reporting.	31 October 2020	Mark Edington, Head Grant Management Division
5. The Secretariat will work with the MoH and relevant in-country stakeholders on the following: • Update the Terms of Reference for the Supply Chain Technical Oversight Committee to clarify roles and responsibilities of the Committee and its members and related stakeholders, and to ensure that the Committee meets regularly.	31 December 2020	Philippe Francois, Head Sourcing & Supply Chain Department

• Develop a framework of roles and responsibilities of the relevant MoH units, the Central Medical Store and other relevant stakeholders involved in the in-country supply chain of the Global Fund commodities. • Address the inventory management control gaps as part of the supply chain transformation plan. Supporting USAID & partners to establish an electronic inventory management system at the warehouse and support CMS and the MoH to plan and execute routine inventory counts and reconciliations.		

Annex A: General Audit Rating Classification

Effective	**No issues or few minor issues noted**. Internal controls, governance and risk management processes are adequately designed, consistently well implemented, and effective to provide reasonable assurance that the objectives will be met.
Partially Effective	**Moderate issues noted**. Internal controls, governance and risk management practices are adequately designed, generally well implemented, but one or a limited number of issues were identified that may present a moderate risk to the achievement of the objectives.
Needs significant improvement	**One or few significant issues noted**. Internal controls, governance and risk management practices have some weaknesses in design or operating effectiveness such that, until they are addressed, there is not yet reasonable assurance that the objectives are likely to be met.
Ineffective	**Multiple significant and/or (a) material issue(s) noted.** Internal controls, governance and risk management processes are not adequately designed and/or are not generally effective. The nature of these issues is such that the achievement of objectives is seriously compromised**.**

Annex B: Methodology

The OIG audits in accordance with the global Institute of Internal Auditors' (IIA) definition of internal auditing, international standards for the professional practice of internal auditing (Standards) and code of ethics. These Standards help ensure the quality and professionalism of the OIG's work.

The principles and details of the OIG's audit approach are described in its Charter, Audit Manual, Code of Conduct and specific terms of reference for each engagement. These help our auditors to provide high quality professional work, and to operate efficiently and effectively. They help safeguard the independence of the OIG's auditors and the integrity of their work. The OIG's Audit Manual contains detailed instructions for carrying out its audits, in line with the appropriate standards and expected quality.

The scope of OIG audits may be specific or broad, depending on the context, and covers risk management, governance and internal controls. Audits test and evaluate supervisory and control systems to determine whether risk is managed appropriately. Detailed testing takes place across the Global Fund as well as of grant recipients and is used to provide specific assessments of the different areas of the organization's' activities. Other sources of evidence, such as the work of other auditors/assurance providers, are used to support the conclusions.

OIG audits typically involve an examination of programs, operations, management systems and procedures of bodies and institutions that manage Global Fund funds, to assess whether they are achieving economy, efficiency and effectiveness in the use of those resources. They may include a review of inputs (financial, human, material, organizational or regulatory means needed for the implementation of the program), outputs (deliverables of the program), results (immediate effects of the program on beneficiaries) and impacts (long-term changes in society that are attributable to Global Fund support).

Audits may also assess how Global Fund grants/portfolios are performing against target for Secretariat-defined key indicators; specific indicators are chosen for inclusion based on their relevance to the topic of the audit.

Audits cover a wide range of topics with a particular focus on issues related to the impact of Global Fund investments, procurement and supply chain management, change management, and key financial and fiduciary controls.

Annex C: Risk Appetite and Risk Ratings: Content, Methodology and Implications

Risk appetite has been developed at the organizational level using data from a cohort of 25 countries[59] representing the majority of the global burden for the three diseases: 85% for HIV/AIDS; 80% for TB; 76% for malaria. The Global Fund's Risk Appetite Framework, operationalized in 2018, sets recommended risk appetite levels for eight key risks affecting Global Fund grants.

As accurate risk ratings and their drivers are critical to effective risk management and operationalization of risk appetite, a robust methodology was developed with clear definitions, granular risks, root causes as well as an extensive review process as detailed below.

The eight grant-facing risks for which risk appetite has been set represent an aggregation from 20 risks as depicted in the table on the following page. Each of these 20 risks is rated for each grant in a country using a standardized set of root causes and considers a combination of likelihood and severity scores to rate risk - Very High, High, Moderate or Low. Country Teams determine each risk at grant level using the Integrated Risk Management module. The ratings are reviewed by second line functions and senior management from the Grant Management Division.

The ratings at the 20-risk level are aggregated to arrive at the eight risks using simple averages, i.e. each of the component parts are assumed to have similar importance. For example, the risk ratings of *Inadequate program design (1.1)* and *Inadequate program quality and efficiency (1.3)* are averaged to arrive at the rating of Program Quality for a grant. As countries have multiple grants, which are rated independently, individual grant risk ratings are weighted by the grant signed amounts to yield an aggregate Current Risk Level for a country portfolio. As the ratings of grants often vary significantly and to ensure that focus is not lost on high-risk grants, a cut-off methodology on high risks is applied (the riskiest 50% of grants are selected) to arrive at a country risk rating. The aggregated risk levels, along with the mitigation plan and expected trajectory of risk levels, are then approved by the Portfolio Performance Committee[60] during the Country Portfolio Review.

Leveraging Risk Appetite in OIG's work

As the Risk Appetite framework is operationalized and matures, OIG is increasingly incorporating risk appetite considerations in its assurance model. Important considerations in this regard:

- The key audit objectives that are in the scope of OIG audits are generally calibrated at broad grant or program levels (for example, effectiveness of supply chain processes, adequacy of grant financial management, quality of services, reliability of data, overall governance of grant programs, etc.) as opposed to narrower individual risk levels. Thus, there is not a one-to-one match between the overall audit rating of these broad objectives and the individual rating of narrower individual risks. However, in the absence of a one-to-one match, OIG's rating of an overall audit objective does take into consideration the extent to which various individual risks relevant to that objective are being effectively assessed and mitigated.

- The comparison of OIG's assessed residual risks against the Secretariat's assessed risk levels is done at an aggregated level for the relevant grant-facing risks (out of the eight defined ones) that were within the scope of the audit. This comparison is not done at the more granular level of the 20 sub-risks, although a narrative explanation is provided every time the OIG and the Secretariat's ratings differ on any of those sub-risks. This aggregated approach is designed to focus the Board and AFC's attention on critical areas where actual risk levels may differ from perceived or assessed levels, and thus may warrant further discussion or additional mitigation.

[59] Bangladesh, Burkina Faso, Cameroon, Congo (DRC), Côte d'Ivoire, Ethiopia, Ghana, India, Indonesia, Kenya, Malawi, Mali, Mozambique, Myanmar, Nigeria, Pakistan, Rwanda, South Africa, Sudan, Tanzania, Uganda, Ukraine, Viet Nam, Zambia, Zimbabwe.
[60] The role of the Portfolio Performance Committee is to conduct country portfolio reviews.

For risk categories where the organization has not set formal risk appetite or levels, OIG focuses on the Secretariat's overall processes for assessing and managing those risks, and opines on their design and effectiveness.

Table of risks

Corporate Risks (8)	Operational Risks (20)
Program Quality	1.1 Inadequate program design and relevance
	1.3 Inadequate program quality and efficiency
M&E	1.2 Inadequate design and governance of M&E Systems
	1.4 Limited data availability and inadequate data quality
	1.5 Limited use of data
Procurement	3.3 Inefficient procurement processes and outcomes
In-Country Supply Chain	3.2 Unreliable forecasting, quantification and supply planning
	3.4 Inadequate warehouse and distribution systems
	3.6 Inadequate information (LMIS) management systems
Grant-Related Fraud & Fiduciary	2.1 Inadequate flow of funds arrangements
	2.2 Inadequate internal controls
	2.3 Fraud, corruption and theft
	2.5 Limited value for money
Accounting and Financial Reporting by Countries	2.4 Inadequate accounting and financial reporting
	2.6 Inadequate auditing arrangements
National Program Governance and Grant Oversight	4.1 Inadequate national program governance
	4.2 Ineffective program management
	4.3 Inadequate program coordination and SR oversight
Quality of Health Products	3.1 Inappropriate selection of health products and equipment
	3.5 Limited quality monitoring and inadequate product use