

AUDIT REPORT

Global Fund grant to the Republic of Zambia

GF-OIG-22-017
24 November 2022
Geneva, Switzerland

 **THE GLOBAL FUND**
Office of the Inspector General

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1. Executive Summary

1.1 Opinion

Zambia is a key country in the global fight against the three diseases. This is due in part to the significant disease burdens it has for malaria and HIV. The country has the world's sixth highest malaria incidence, a growing number of MDR-TB cases and an estimated one and a half million people living with HIV.¹

While there have been some improvements in the portfolio including progress in the HIV treatment cascade for adults and robust programmatic performance for drug susceptible (DS) TB since the last OIG audit in 2017, performance has also stagnated and declined in areas. This is most notable with malaria as well as persistent issues with HIV prevention activities for key populations (KP), issues with the Program Management Unit (PMU) of the Ministry of Health and challenges with procurement and supply chain.

The malaria program has witnessed downward trends in morbidity and mortality indicators since 2017, linked to issues in vector control, sub-optimal community case management, increasing lack of disease awareness and the government's decreasing prioritization of the malaria response. While the HIV program has made significant progress overall, issues with assessing ART attrition, as well as significant delays, sub-optimal performance and limited scale-up of adolescent and young people (AYP) and key population activities threaten to stall and reverse programmatic gains made. Multi-drug resistant TB is a growing problem in Zambia with increasing estimated cases coupled with declining notifications. Thus, the design and implementation of grant programs **needs significant improvement.**

Good oversight over implementation and financial management has been noted for the Churches Health Association Zambia (CHAZ) Principal Recipient. However, there are significant issues with the Program Management Unit of the MOH, with key gaps in financial and Sub-Recipient management and oversight along with challenges in assurance and human resource management. This is despite significant investment in the PMU structure since 2012, with US\$16.9 million budgeted between 2018-2023. Lapses in robust management and oversight in the MOH grant have resulted in material issues with financial management and program implementation for some activities. Thus the adequacy and effectiveness of program and financial management and oversight **needs significant improvement.**

Zambia's procurement and supply chain system has faced persistent challenges since 2017, notably with quantification and forecasting, the establishment of regional hubs and procurement and supply chain management (PSM) related data systems. Despite raising these issues in the previous OIG Audit in 2017 and repeated management letters from the Global Fund Secretariat throughout NFM 2 and 3, there has been limited action to resolve them. A contributing factor has been the limited implementation of oversight controls and lack of MOH senior management ownership over PSM activities. All of which has contributed to significant stock-outs of malaria commodities and high stock-out risks as well as actual stock-outs for HIV commodities. Thus, the effectiveness of the procurement and supply chain **needs significant improvement.**

1.2 Key Achievements and Good Practices

Significant progress in HIV treatment for adults

Zambia has made progress across the HIV treatment cascade for adults. On 95-95-95 targets, the country has reached 90%-98%-97% for adults in 2021 per the national ZAMPHIA survey. This puts Zambia on par or ahead of global and regional² results. The country also rolled out new treatment strategies to maintain patients on ART including enhanced adherence counselling, ART multi-month dispensing and ART home deliveries.

Robust TB programmatic performance for drug susceptible (DS) TB and TB/HIV comorbidity

There has been steady progress in tackling DS-TB with a 12% decline in annual cases when comparing 2020 rates to 2010. The TB program also showed strong resilience in increasing DS-TB case detection rates in 2020, one of

¹ <https://www.unaids.org/en/regionscountries/countries/zambia>

² UNAIDS 2020 estimates

the few countries in the world to achieve this during the COVID-19 pandemic. This was due to the strong coordination and leadership in the national TB situation room that was established with weekly reviews of data to inform agile decision making. In addition, the country has strong programmatic results for TB-HIV comorbidity with 93% of TB patients knowing their HIV status and 98% of HIV and TB patients on ART in 2020.

Good financial and Sub-Recipient management at CHAZ

The OIG audit highlighted good financial management, Sub-Recipient management and procurement processes under the Churches Health Association Zambia (CHAZ) Principal Recipient. CHAZ is responsible for circa 30% of the total grant amounts signed in Zambia for the three diseases. In the OIG sample reviewed of CHAZ transactions, well defined Sub-Recipient management policies, guidelines and procedures were observed along with strong processes to administer procurement and supplier management. This supported good oversight of Sub-Recipients with timely retirement of advances, adequate monitoring of performance and no material unsupported expenses or irregularities observed by the OIG.

1.3 Key Issues and Risks

Declining trends in malaria indicators linked to issues in vector control, case management and ownership

Zambia has experienced negative trends in malaria cases and deaths, which have increased in both relative and absolute terms since 2018. This highlights the inability of Global Fund grants to achieve the intended objective of supporting Zambia to eliminate malaria. The increases in malaria related morbidity and mortality are driven by operational challenges in implementing vector control activities. There has also been sub-optimal use of community health workers to support case management with workers contributing to just 11-12% of all malaria results. In addition, growing gaps in societal knowledge of malaria and the government's declining prioritization and ownership over the malaria response have also contributed to ineffective malaria interventions and poor programmatic impact.

Challenges in ART attrition, AGYW activities and KP programs threatening to reverse progress against HIV

While overall HIV performance has been positive, there are challenges in key areas of the HIV response that threaten to stall or reverse programmatic progress made. The picture of ART attrition is unclear in Zambia, making effective assessment and tackling non-adherence very difficult. Annual variances range from 60k to 150k per year when comparing the expected number of people on antiretroviral therapy (ART) versus the actual number reported. This unclear picture of ART attrition has limited the effectiveness of programmatic decision making.

There have also been significant delays, poor performance and limited scale-up of adolescent and young people (AYP) and key population (KP) activities under the MOH during NFM 3. This impacted the effectiveness of prevention interventions for these communities. This is a key gap in the program given the higher HIV prevalence rates in KPs as well as the under performance of the HIV program in supporting under fifteens. The 95-95-95 results for children are 58%-58%-48%,¹⁴ which is 30% points lower than adults in all pillars of the HIV treatment cascade.

Significant investment in the Program Management Unit (PMU) under MOH grants has not fostered strong financial and Sub-Recipient management and assurance

A significant investment of US\$16.9 million was budgeted for 2018-2023 to maintain the MOH Program Management Unit structure. Despite this investment, the OIG audit noted weak controls and persistent material issues in Sub-Recipient management, fixed assets management, staff imprest,³ financial accounting, internal audit, and human resource management. These issues have been allowed to persist due to gaps in the governance, oversight, and performance management of the PMU structure. These are all recurring issues previously identified in the 2017 OIG audit.

This has led to *significant* and prolonged outstanding Sub-Recipient balances and unsupported expenditures, including advances of US\$6.3 million that have been outstanding since the end of NFM 2 from 105 Sub-Recipients. The open balance exposes the grant to significant fiduciary risks. There was also US\$1.5 million of staff imprest

³ Imprest refers to an advance of funds to staff used to pay for business related expenses.

that remained outstanding across all MOH grants as of December 2021 per the PMU financial management system, “Navision.”

Gaps were also noted in asset management with variances of US\$5.2 million⁴ when comparing the Principal Recipient’s fixed asset register to records of asset purchases in the general ledger. The OIG also noted some instances of unsupported financial expenditures and incorrect accounting entries, with unsupported expenditures of US\$0.2 million across both MOH grants.

Significant PSM issues persisting since 2017 contribute to stock-out risks for malaria and HIV commodities

The previous OIG audit in 2017 highlighted critical issues in quantification and forecasting, as well as issues in the PSM data systems for warehouse management and logistics management (LMIS). The audit also highlighted challenges with last mile distribution, expiries, and stock-outs. While there has been some progress since the previous audit, these significant issues have been allowed to persist despite repeat follow-up by the Secretariat.

The lack of action on these issues is linked to limited oversight over implementation and lack of senior MOH ownership over strategic plans to address PSM issues. This has been evidenced through weak governance structures to monitor and tackle PSM issues and gaps and delays in developing and implementing national PSM strategic and operational plans/policies. PSM roles and responsibilities are also fragmented across the MOH. This has contributed to significant stock-outs of malaria commodities and some stock-outs for HIV commodities.

1.4 Objectives, Ratings and Scope

The overall objective of the audit is to provide reasonable assurance to the Global Fund Board on the adequacy, effectiveness, and efficiency of Global Fund Grants to the Republic of Zambia. Specifically, the audit assessed the objectives below.

Objective	Rating	Scope
Design and effectiveness of grants implementation to ensure achievement of grants impact	Needs significant improvement	The audit covers Principal Recipients and Sub-Recipients of the Global Fund supported programs. The audit covers NFM2 and NFM3 grants from January 2019 to December 2021. OIG auditors visited 45 health facilities and PSM sites in 17 districts and 5 provinces.
Adequacy and effectiveness of program management, financial management and oversight arrangements, in supporting the achievement of program objectives	Needs significant improvement	
Design and effectiveness of procurement and supply chain processes and systems to ensure timely availability of quality medicines, health, and non-health products.	Needs significant improvement	

Details about the general audit rating classification can be found in Annex A.

⁴ Out of the variance of US\$5.2 million, US\$2.5 million pertains to assets procured under NFM1 for which an outdated FAR (with no updated status of the state of assets whether disposed of or still in use and location of assets) was shared with the OIG after the end of the audit fieldwork stage. As such, these assets could not be included in the OIG’s physical verification exercise.

2. Background and Context

2.1 Overall context

Zambia's population of 18 million is one of the world's youngest: 45% are between 0-14 and 20% between 15-24 years. This makes it critical that health programs are adapted to focus on the needs of young adults and children for all three diseases.

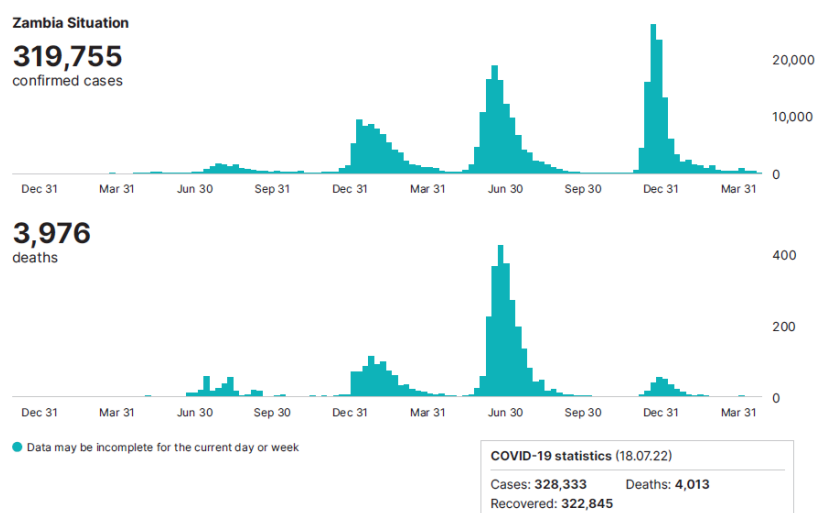
Newly classified as a low-income country,⁵ Zambia's GDP per capita fell by 29% between 2012 and 2020. Inflation doubled between 2012 and 2020 (from 7% to 13.7%).⁵ In addition, between mid-2017 and mid-2021, the currency depreciated by over 150% against the dollar. While the government budget for health increased from ZMW 9.5 billion in 2018 to ZMW 9.7 billion in 2021, due to currency depreciation this represented an actual decrease in dollar terms, from US\$950 million to US\$485 million.

In 2020, Zambia also became the first country to default during the COVID-19 pandemic era. It continues to struggle under a debt burden worth 120% of GDP. Its external debt topped US\$17 billion at the end of 2021.

Country Data ⁶	
Population	18 million
GDP per capita	US\$985 (2021)
Transparency International Corruption Perception Index	117/180 (2021)
UNDP Human Development Index	146/189 (2020)
Health expenditure (% of GDP)	6% (2021)

2.2 COVID-19 situation

Zambia had the second largest COVID-19 caseload in southern Africa after South Africa. It faced three waves of COVID-19, each with increased numbers of deaths and cases requiring hospitalization. During January-March 2021, Zambia recorded 820 COVID-19 related deaths, compared to 388 deaths during the whole of 2020. As of 20 May 2022, 17.4% of the population was fully vaccinated, and 13.6% partly vaccinated.⁷



⁵ Source : <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>

⁶ Sources: [World Bank Population Data](#); [World Bank GDP per capita](#); [TI Corruption Perception Index](#); [UNDP Human Development Index 2020](#); [World Bank Health Expenditure \(% of GDP\)](#) – All accessed March 28th 2022

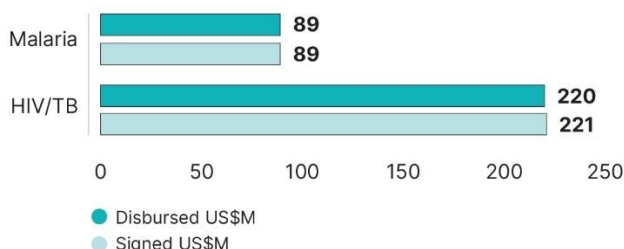
⁷ Source: Bloomberg Vaccine tracker as on 20-May-2022

2.3 Global Fund grants in Zambia

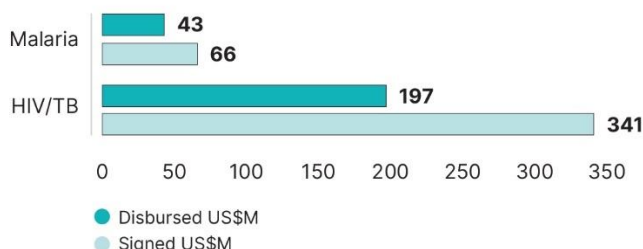
Since 2003, the Global Fund has signed over US\$1.8 billion and disbursed over US\$1.6 billion to Zambia. This includes active grants which total US\$407 million for the 2021-2023 funding allocation (January 2021 to December 2023 implementation period). Full details on the Zambia grants can be found at the [Global Fund's Data Explorer](#).

Zambia's Ministry of Health and Churches Health Association of Zambia (CHAZ) are the Principal Recipients for Global Fund grants.

NFM 2
(Jan 2018 - Dec 2020)






NFM 3
(Jan 2018 - Dec 2020)



Source: Global Fund Data Explorer

2.4 Disease burden

HIV / AIDS 	TUBERCULOSIS 	MALARIA 
<p>1.5 million people are living with HIV, of whom 86% know their status. Among those identified, 81% were on treatment and 76% have viral load suppressed in 2020.</p> <p>1.2 million people were on treatment by the end of 2021.</p> <p>Annual infections decreased by 7% since 2010 with 69,000 new infections in 2020.</p> <p>AIDS-related deaths fell from 35,000 in 2010 to 24,000 in 2020.</p> <p>Children 0-15 represent 10% of the new infections.</p>	<p>Decline in TB cases from 67,000 in 2010 to 59,000 in 2020.</p> <p>Decline in case detection of notified MDR-TB cases from 627 in 2018 to 426 in 2021.</p> <p>Mortality increased from 3,900 in 2010 to 5,700 in 2020.</p>	<p>Incidence rate increased to 340/1,000 people in 2021 from 333/1,000 in 2015.</p> <p>The number of reported malaria cases has ranged between 4 to 8 million per year since 2014.</p> <p>Significant increases in malaria cases with 7.1 million cases confirmed in 2021.</p> <p>Vector control coverage (either LLIN universal coverage or IRS) decreased from 61% in a 2018 malaria indicator survey to 57% in 2021 survey.</p>

3. Portfolio Risk and Performance Snapshot

3.1 Portfolio performance

Historically, Global Fund grants in Zambia have performed well against targets, as shown in the below grant ratings determined by the Global Fund Secretariat. The Secretariat approach to rating grants is complex, considering numerous factors. The ratings for the Ministry of Health highlight a disconnect between the OIG findings in key areas and the overall ratings given per grant.

NFM 2 (JAN 2018 - DEC 2020)						Grant ratings		
Grant number	Principal Recipient	Total Budget Amount (USD)	Expenditure as at Dec 2020 (USD)	Absorption Dec 2020 (%)	Dec 2018	Dec 2019	Dec 2020	
HIV/TB	ZMB-C-MOH	Ministry of Health	USD 160,849,175	USD, 134,516,451	83.6%	A2	B1	B1
HIV/TB	ZMB-C-CHAZ	Church Health Association of Zambia	USD 70,943,246	USD 66,148,477	93.2%	A2	A1	A2
Malaria	ZMB-C-MOH	Ministry of Health	USD 76,887,202	USD 65,574,837	85.3%	B1	B1	B1
Malaria	ZMB-C-CHAZ	Church Health Association of Zambia	USD 17,725,490	USD 17,215,607	97.1%	A1	A2	A2
TOTAL			USD 326,405,113	USD 283,455,372	86.8%			

3.2 Risk appetite

The OIG compared the Global Fund Secretariat's aggregated assessed risk levels (as of May-2022) of the key risk categories covered in the audit objectives for the Zambia portfolio with the residual risk that exists based on OIG's assessment, mapping risks to specific audit findings. It is important to note that the Secretariat risk rating was updated during grant making for NFM 3 in Q4 2020 and then again in March 2021 as part of a wider COVID-19 risk rating triangulation exercise. The Secretariat aggregated risk level at grant making was significantly lower when compared to the subsequent COVID-19 updated risk rating. The full risk appetite methodology and explanation of differences are detailed in Annex B of this report.

AUDIT AREAS	RISK CATEGORY	SECRETARIAT AGGREGATED ASSESSED RISK LEVEL	ASSESSED RESIDUAL RISK, BASED ON AUDIT RESULTS	RELEVANT AUDIT ISSUES
Programmatic and M&E Risks	HIV Program quality	Very High	Very High	Finding 4.2
	TB Program quality	Very High	Very High	Finding 4.3
	Malaria Program quality	Very High	Very High	Finding 4.1
Financial and Fiduciary Risks	Grant related fraud and Fiduciary	Moderate	High	Finding 4.4
	Accounting and Financial reporting	High	High	Finding 4.4
Health Product Management and Supply Chain Risks	Procurement	High	High	Finding 4.5
	In-country supply chain	High	High	Finding 4.5
Governance, Oversight and Management Risks	National Program Governance and Grant Oversight	Low	High	Finding 4.4 and 4.5

4. Findings

4.1 Declining performance in malaria highlights the inability of Global Fund grants to support the achievement of intended objectives

The malaria grant set ambitious elimination targets that have not been achieved. Rising rates of morbidity and mortality are linked to issues with vector control implementation, sub-optimal community case management, declining knowledge of malaria in the general population and the government's lack of prioritization of the malaria response.

Malaria has a significant impact on the people of Zambia. The disease remains highly endemic in the country with a significant proportion of the population deemed at risk of contracting the disease. It has the sixth highest malaria incidence and thirteenth highest mortality globally.⁸ Within the country's health sector, it is the number one cause of hospitalization and number two cause of morbidity and mortality, especially among pregnant women and young children.⁹ Considering this impact, the Global Fund has budgeted over US\$134 million during NFM 2 and NFM 3 for malaria interventions.¹⁰ These investments complement those from the U.S. President's Malaria Initiative (PMI) and the government of Zambia that together aim to support the country's goal to eliminate malaria.

There have been some successes and good practices from the malaria response. At the height of the COVID-19 pandemic in 2021, Zambia was able to execute a national mass campaign of long-lasting insecticidal nets (LLINs). Innovative approaches were rolled-out to adapt campaign activities to the pandemic context. In addition, ambitious goals around achieving malaria elimination have been established. This has been supported by the creation of national malaria elimination strategic plans that focus on both reducing the burden in high transmission settings as well as elimination approaches in lower transmission locations.

Since 2018, however, there has been a negative trend in malaria cases and deaths with increases in both relative and absolute terms. In 2020, there was a 58% increase in malaria cases with a 47% increase in malaria-related deaths. This built upon increases in previous years and shows that despite Zambia's ambition noted above, the country has failed to meet its goals of malaria elimination. The 2017 national strategic plan sought to initially eliminate malaria by 2019 before pushing the target back to 2021. These targets were not met as malaria incidences actually increased from 2018 levels, showing the country has moved further away from achieving elimination over the past five years.

The reasons for this drastic decline in malaria programmatic results is linked to a four root causes, some that directly relate to Global Fund investments and others linked to factors outside the Global Fund's control. However, it is important to contextualize Zambia's performance within the broader southern Africa region that has seen stagnant or declining trends in malaria results. The four root causes are described below.

1: Challenges in vector control implementation that cause operational gaps, reducing the effectiveness of activities to reduce malaria cases

Zambia follows a mosaic approach to vector control with parts of the country covered by LLINs and others by indoor residual spraying (IRS). However, multiple challenges in implementing this approach in 2020 and 2021 were noted.

Procurement and supply chain issues delayed the roll-out of activities, reducing effectiveness

The government of Zambia is responsible for IRS insecticide procurement. Limitations in the government's local procurement processes led to delays in ordering these critical commodities, pushing back IRS roll-out by two months in 2020. In addition, COVID-19 impacted the planned 2020 LLIN mass campaign. Global disruption of international supply chains delayed the arrival of LLINs to Zambia, delaying implementation from August to November 2020. Both sets of delays resulted in vector control activities starting after the rainy season started, reducing the effectiveness of the measures.

⁸ WHO World Malaria Report 2021

⁹ <https://www.mcd.org/news/helping-pregnant-women-protect-against-malaria-zambia#:~:text=Malaria%20is%20the%20number%20one,pregnant%20women%20and%20young%20children>

¹⁰ Signed NFM 2 and NFM 3 Grant Agreements

In addition, there were also procurement gaps for continuous LLIN distribution that reduced vector control coverage and exposed the population to increased malaria transmission. A gap of 2.5 million LLINs was recorded between 2019 and 2021 linked to a gap in overall funding that had no domestic funding coverage plan.

Lack of analysis to determine the effectiveness of the LLIN mass campaign

The Global Fund invested US\$20.5 million in the 2020 LLIN mass campaign, mainly to support LLIN procurement. While the program showed a successful roll-out in 2020, a subsequent 2021 malaria indicator survey (MIS) by the national program highlighted declines in coverage and use of vector control outputs. The MIS noted:

- Overall vector control coverage at 57%
- Use of insecticide treated nets (ITNs) by children under five down 23% points compared to MIS 2018 results
- Use of ITNs by pregnant women down 30% points compared to MIS 2018 results

The national malaria program did not conduct a post campaign evaluation or other programmatic analysis to verify the actual outputs and outcomes of the campaign or to explain the significant drop in coverage and LLIN use found in the survey. In addition, the Local Fund Agent did not complete assessments on the 2020 LLIN campaign until Q1 2022. This was over a year after the campaign had started. It should be noted that COVID-19 restrictions did prevent real-time assurance during this period. Nonetheless, without campaign assessments, there remains no clear technical understanding or assurance to determine if the Global Fund investment was effective or identify lessons learned to ensure greater impact on malaria cases in the future.

2: Missed opportunity in leveraging community case management to tackle increases in cases and deaths

Community engagement has proven key to the overall malaria response with Community Health Workers (CHWs) playing a decisive role in detecting and managing malaria cases. In Zambia, however, the focus is still on a facility centered response with cases tested by CHWs representing only 11-12% of the overall results between 2019-21. This under-leveraging of CHWs is linked to the low number of workers available as well as shortages of key enablers and commodities that are fundamental to CHW effectiveness. Across all 14 sites with CHWs that the OIG visited the following issues were noted:

- Gaps in the provision of malaria commodities resulting in CHWs not testing and treating cases
- Lack of policies and guidelines on CHW commodity sharing by the facility
- Shortage of key enablers and incentives for CHWs including bicycles, aprons, bags and boots that are required for CHWs to perform their role as defined
- Lack of quality of service and technical supervision to strengthen CHW work, which is linked to funding gaps for these activities.

In addition, the OIG noted issues with data quality in CHW reported results on key malaria indicators at all visited sites. Variances were recorded of over +/- 30% when comparing reported results to primary records. This was linked to a lack of reporting tools at the community level as well as gaps in supervision.

The issues in the capacity and capabilities of the CHW cohort reduces the effectiveness of the malaria response overall. Given the importance of the community response in tackling malaria, this highlights a major missed opportunity to tackle the growing numbers of cases and deaths.

3: Growing gap in malaria knowledge that impacts the effectiveness of program interventions

Surveys and studies conducted by the national malaria program show declining awareness and understanding of malaria in the general population. Per the 2021 MIS survey, malaria messages reached just 48% of women aged 15-49. Only 33% of the same group were aware of the location and role of CHWs and 79% understood that LLINs were used for malaria prevention (down from 86% in 2018).

This trend reflects a lack of social and behavioral change and communication interventions (SBCC). It is driven by issues in strategic guidance and planning, poor coordination amongst donors and limited financial resources to support SBCC. The 2017-2021 comprehensive national strategy only focused on communication components and the 2022-2026 strategy was not finalized at the time of the audit. Poor alignment between the government and donors on SBCC activities at the subnational level was noted with intervention overlaps and duplications. This was linked to a lack of robust donor mapping to facilitate good alignment. There is also a critical lack in financial resources for this key activity. Limited funding is provided by the government of Zambia and the SBCC component in the Global Fund MOH NFM 2 grant, representing only 0.16% of the total US\$43.2 million budget.

4: Reduced prioritization and ownership over malaria interventions cause key gaps in activities

An effective national program for malaria requires the government to prioritize and demonstrate ownership over the program. But in Zambia, the OIG noted the opposite is occurring with declining prioritization and ownership over the malaria response. This contributes to gaps in funding, planned domestic procurements going unrealized and delays in resolving key programmatic recommendations.

A key indicator is the decline in budgeted health funding as a proportion of the national budget from 8.8% in 2017 to 6.1% in 2021. The malaria component of the health budget has also stagnated over the last five years at 6-% of the total budget, despite Zambia's increasing need linked to population growth.

Unrealized government procurement commitments were also noted, with significant gaps in government fulfilment of malaria medicines in 2019 and procurement of IRS commodities in 2019 and 2021 (e.g., USD 3.5 million¹¹ gap in malaria commodity spend in 2019). As noted above, there is also limited government financial support for CHWs, SBCC and LLINs. This has contributed to the operational issues highlighted in this report, impacting the effectiveness of Global Fund investments.

Agreed Management Action 1

The Global Fund Secretariat will support the Ministry of Health (MoH) to assess factors which are hindering Malaria programmatic performance, developing tailored interventions as necessary, specifically for vector control to address challenges in the mosaic approach to reduce gaps to coverage and improve the outcomes of future campaigns.

OWNER: Head of Grant Management Division

DUE DATE: 30 June 2023

¹¹ ZMW 67 million converted using the FX rate in October 2022

4.2 Strong and significant progress seen on the 95-95-95 HIV treatment cascade, but key program gaps threaten to reverse progress

The HIV program has made significant progress in tackling HIV treatment for adults but issues with assessing ART attrition, as well as significant delays, poor performance and limited scale-up of adolescent and young people (AYP) and key population (KP) activities threaten to stall and reverse programmatic gains made.

Zambia is a high HIV prevalence country at 11.1% per estimates,¹² the eighth highest rate globally. Higher prevalence rates are noted in women as well as key populations including sex workers, men who have sex with men (MSMs), transgender (TG) people, prisoners and people who inject drugs (PWIDs).

Progress in tackling the epidemic among adults has been noted with new HIV infections decreasing by 15% between 2010 and 2019. The country is performing well against UNAIDS' 95-95-95 treatment targets,¹³ reaching 90%-98%-97% for adults per the 2021 ZAMPHIA survey, which is on par or ahead of global and regional.¹⁴ results. The country has rolled-out multiple innovative treatment strategies such as enhanced adherence counselling, ART multi-month dispensing and ART home deliveries.

Despite legal and societal barriers, efforts were made to strengthen activities that support key affected populations. The National HIV/AIDS/STI/TB Council (NAC) has taken deliberate steps to engage law enforcement agents and the media as a strategy to solicit buy-in to the KP program. NAC is also in the process of standardizing key population models developed with diverse partners. In addition, efforts to strengthen the design of prevention programs targeting adolescent and young people were undertaken, including creating a national adolescent health strategy (2017-21). This is particularly important due to the significant demographic shifts in Zambia where 65%¹⁵ of the population is under 25 years old.

Despite these achievements, however, challenges in three key areas of the HIV response threaten to reverse programmatic progress made.

Unclear picture of ART attrition, undermining the ability to effectively assess and tackle non-adherence

ART retention and adherence is critical to ensure effective HIV treatment, increase viral suppression and reduce mortality rates. Reducing ART attrition¹⁶ is a critical component of an effective HIV program. In Zambia, however, there is an unclear picture of ART attrition. This means data for decision making is lacking to effectively implement treatment activities. The national Health Information Management System (DHIS 2) indicates annual variances ranging from 60k to 150k in the expected number of people on antiretroviral therapy compared to the actual reported. These variances could include patients lost to follow up (LTFU), having died or due to broader data quality issues. All together, they contribute to incorrect data and analysis reported to the national level. The lack of national strategic guidance, oversight and action on these ART attrition issues risk the country's ability to sustain achievements on the treatment adherence goal.

At the facility level, a range of issues were noted that contribute to this unclear picture of ART attrition. The OIG noted during site visits that facilities use inconsistent definitions¹⁷ for patients lost to follow up, which impacts how they are recorded. In addition, there was a general lack of data quality control checks at facility and central levels, with OIG

¹² UNAIDS 2020 data, <https://www.unaids.org/en/regionscountries/countries/zambia>

¹³ 95% of people living with HIV will know their HIV status, 95% of people who know their HIV-positive status will be accessing treatment and 95% of people on treatment will have suppressed viral loads.

¹⁴ UNAIDS 2020 estimates

¹⁵ United Nations Demographic Yearbook 2020, https://unstats.un.org/unsd/demographic-social/products/dyb/dyb_2020/

¹⁶ Number and percentage of people living with HIV reported on ART at the end of the last reporting period and/or newly initiating ART during the current reporting period who were not on ART at the end of the reporting period.

¹⁷ OIG site visits to health facilities identified multiple approaches to defining and reporting LTFU. Some sites follow the national policy, while others only record a patient as LTFU after several attempts at contact, irrespective of the duration of missed appointments.

site visits noting an underreporting of patients LTFU. Recorded numbers of people LTFU at the 12 facilities sampled by the OIG were on average 189% higher than in DHIS 2.

In addition, while the SmartCare system is in place to properly track ART attrition and LTFU, facility health workers were not effectively using it. Late appointment lists are generated from SmartCare, but follow-up outcomes are not updated in the system. This impacts how outreach to patients is assessed. The country is also in the process of rolling-out an enhanced HIV case management system (SmartCare+). Yet, none of the OIG sites visited are using the updated version due to insufficient training.

Subsequent to the OIG audit fieldwork, the Ministry of Health has started¹⁸ a National ART data quality audit with the objective to determine the accurate number of patients on ART and determine the extent of ART attrition.

Delays, poor performance and limited scale-up of adolescent and young people (AYP) and key population (KP) activities under the MOH impact the effectiveness of prevention interventions

Prevention of new infections in AYPs and KPs is critical to ensure long-term achievement of 95-95-95 targets. This is especially important in Zambia due to the country's higher prevalence rates in KPs as well as the underperformance of the HIV program in supporting under-fifteens (95-95-95 results for children are at 58%-58%-48%,¹⁴ which is 30% points lower than that of adults for all pillars of the HIV treatment cascade). Operational issues have been noted for both these sets of activities.

Implementation challenges and delays of over 19 months of key AYP activities under MOH for NFM 3

There have been low results for key AYP activities including the roll-out of comprehensive sexual education in schools (CSE), adaptive leadership training¹⁹ and financial incentives to keep girls in schools (KGIS).

For adaptive leadership activities, despite a US\$6 million budget across NFM 2 and 3 there has been no value for money assessment to ensure this non-clinical intervention provides the best balance of economic value, effective outreach and sustainable results compared to other non-clinical activities. In addition, there has been no independent evaluation conducted on the activity to date.²⁰ For NFM 3, contracts with suppliers worth US\$2.9 million were unsigned 19 months into the grant period. This was due to issues in the local procurement processes undertaken by the MOH Program Management Unit (see finding 4.4).

As a Sub-Recipient under the Ministry of Health, the Ministry of General Education (MOGE) was responsible for implementing CSE and KGIS activities in NFM 3 with a budget of US\$3.1 million. At the time of the audit, however, no beneficiaries were reached 19 months into the grant. This is linked to the Ministry of Health's poor oversight of Sub-Recipient activities (see finding 4.4). Activities were effectively stalled for the majority of adaptive leadership training during NFM 3, and the MOH recorded no absorption of funds for the MOGE.

Slow progress in tackling key issues and scaling-up the key population program since the 2017 OIG audit

Poor programmatic results for key population activities under NFM 3 were noted as well as low coverage for these activities. Delays were seen scaling-up health facilities friendly to key populations with only two of the 10 planned under NFM 3 in place at the time of the audit. In addition, challenges identified in 2017 for key populations have yet to be resolved, including significant gaps in comprehensive data to inform program design. Importantly, no progress has been made to create a nationally representative Integrated Biological-Behavioral Surveillance Survey, which would help to target interventions to those most in need.

The OIG recognizes that key population programs operate in a broader context of legal and societal barriers that slow implementation. There are still high levels of stigma, denial and discrimination that impact the development of comprehensive national policy and strategy. In addition, there is a significant lack of government ownership over the key population program with limited domestic financing for activities.

¹⁸ The Ministry of Health commenced the national data quality audit on 19 September 2022

¹⁹ Adaptive leadership training is supporting the roll-out of the adaptive leadership framework in several communities in Zambia. The framework was a non-clinical approach to strengthen leadership to reduce HIV infections in adolescents. It involves engagement of the wider ecosystem of stakeholders around adolescents and the adolescents themselves to develop and implement interventions to support HIV prevention.

²⁰ Evaluation plans were in draft at the time of the audit fieldwork.

Instead, activities are primarily funded by international partners with the United States government as the key donor. This has resulted in limited progress in activities for key populations over the past five years, risking long-term programmatic success in reducing new infections.

Agreed Management Action 2

The Global Fund Secretariat will support the Ministry of Health to conduct i) a nationally representative Integrated Biological-Behavioral Surveillance Survey (IBBS) and ii) a nationally representative key population size estimate and mapping using multiple methods (for sampling and extrapolation) in line with the WHO/UNAIDS guidelines with the goal of improving data on key populations to support programmatic design.

OWNER: Head of Grant Management Division

DUE DATE: 31 December 2023

4.3

Continued progress seen in tackling drug susceptible TB and TB/HIV, but significant challenges remain with MDR-TB

There has been continued progress in reducing cases of drug susceptible TB with strong results for interventions on TB-HIV comorbidity. Multi-drug resistant TB, however, is a growing problem in Zambia with increased estimated cases coupled with declining notifications.

Zambia has made progress in tackling tuberculosis with a steady decline in the number of drug susceptible (DS) TB cases since 2010 and a 12% decline in annual cases by 2020. The national TB program also showed strong resilience in mitigating the impact of COVID-19. DS-TB case detection rates increased during 2020, one of the very few countries in the world to experience a positive trend. This was due to the establishment of a national TB situation room with weekly reviews of notification data on digital platforms involving staff across the nation and at facility and community levels.

In addition, there has been strong collaboration between the TB and HIV programs with a strong focus on TB-HIV comorbidity. This has led to positive programmatic results with 93% of TB patients knowing their HIV status and 98% of HIV+TB patients on ART in 2020. Also, the roll-out and scale-up of TB preventive treatment (TPT) has also contributed to a lower TB-HIV coinfection rate, from 46% (2019) to 39% (2020). The audit did identify issues, however, with multi-drug resistant TB (MDR-TB) interventions.

Low MDR-TB detection rates due to issues with use of diagnostics and challenges in active case finding

Low utilization and coverage of GeneXpert machines as well as suboptimal active case finding at the community level has contributed to the low detection rates of RR/MDR-TB cases. This resulted in 43% of agreed targets being met in 2020 and 27% in 2021. The utilization rate for GeneXpert machines was an average 32-37% between 2019-2021.

Low utilization has been linked to the lack of TB policy guidance to encourage the use of GeneXpert for diagnosis as well as the lack of an optimization plan. Both were only finalized in 2021. In addition, there were also issues in GeneXpert coverage linked to issues with specimen transportation, which created geographic barriers for some populations to receive timely diagnosis.

In addition, low numbers of community health workers (CHWs) contributed to suboptimal MDR-TB case detection. Too few CHWs were tasked with supporting TB active case finding and contact investigation. In addition, there were issues in CHW training and supervision to support these activities and ensure effective implementation. Lastly, issues were noted with CHW reporting that undermined the ability of the national program to monitor implementation and ensure cases are not missed. Altogether, these issues contributed to the increase in MDR-TB estimated cases that have led Zambia to become one of the highest estimated MDR-TB burden countries in the world with the sixth highest estimated number of cases in Africa.²¹


Agreed Management Action 3

The Global Fund Secretariat will work with the Ministry of Health to strengthen the training and supervision of Community Health Workers (CHWs) involved in Active Case Finding for TB.

OWNER: Head of Grant Management Division

DUE DATE: 31 December 2023

²¹ WHO World TB report 2021



4.4 Ineffective design and implementation of the Ministry of Health PMU structure results in gaps in financial management, internal audit, and HR management

Limited oversight over PMU operations and lack of accountability mechanisms have given rise to multiple, longstanding, and persistent issues in Sub-Recipient management, fixed assets management, staff imprest, accounting systems, internal audit, and human resource management.

Robust financial, Sub-Recipient (SR) and program management is a key enabler for effective programming. In Zambia, these grant management functions are the primary responsibility of the two Principal Recipients. The first is the Ministry of Health (MOH) which manages circa 70% of the signed grant amounts. A program management unit (PMU) has been in place since 2012 to support the effective management of grants to the MOH. The second Principal Recipient is the Churches Health Association of Zambia (CHAZ), which manages a smaller share of the total grant budget at circa 30%.

The OIG noted that CHAZ had well designed Sub-Recipient management policies, guidelines and procedures. In the OIG's sample-based review, robust monitoring and oversight was evidenced that resulted in timely supervision and feedback to Sub-Recipients and quick retirement of advances. The OIG also observed adequate financial controls in place at CHAZ, with no unsupported expenses or material irregularities found in the sample of transactions reviewed.

In contrast, the Ministry of Health PMU had several persistent and material issues in its functioning that negatively affect its overall financial and program management for the grants it supports.

Despite significant investments, the PMUs structure and practices fail to support robust project, financial, Sub-Recipient management, effective assurance and human resources management.

Significant investments have been made to establish the program management unit for the MOH and enhance its capacity, systems, tools, processes and people. US\$16.9 million was budgeted for the PMU between 2018-2023 to support the structure. In addition, US\$2million was budgeted to support the financial accounting and reporting system, "Navision" (2015-2023). Technical assistance to strengthen financial management capacity cost a further US\$0.65 million since 2017.

Despite these investments, however, the OIG audit revealed weak controls and persistent issues in Sub-Recipient management, fixed assets management, staff imprest,²² accounting systems, internal audit and human resource management. Apart from the improved functional linkages between PMU and ministry structures, little progress has been made to improve performance management, accountability and MOH senior management oversight of the PMU.

The PMU's sub-optimal management and oversight of Sub-Recipients results in significant outstanding advance balances

While the PMU has developed detailed guidelines, processes and policies for Sub-Recipient management, the OIG saw no evidence of implementation in the sample reviewed. Controls around disbursements to Sub-Recipients were not adhered to with the PMU continuing to approve additional disbursements, despite previous advances not being cleared in the Navision system.

There were also delays and weaknesses noted in the review of Sub-Recipient advances and reporting to the Ministry of Health. The PMU should review Sub-Recipient expenditure reporting during quarterly monitoring and supervision visits. Yet among the seven Sub-Recipients sampled during the audit, there was no evidence that these supervision visits took place. There have also been significant delays in signing key agreements with HIV program implementers. Gaps were also noted in oversight of key HIV Sub-Recipients, resulting in programmatic disruption for key HIV prevention activities (see finding 4.2).

²² Imprest refers to an advance of funds to staff used to pay for business related expenses.

This has all contributed to significant outstanding balances and unsupported expenditures for Sub-Recipients, amounting to US\$6.3 million since the end of NFM 2 per the Navision system. This amount relates to open balances for a range of activities conducted for the three diseases in the prior grant period accumulated from 105 Sub-Recipients, exposing the grant to significant fiduciary risks until resolved. It should be noted that other assurance providers in the audit period highlighted issues in Sub-Recipient expenditure reviews as well, resulting in unsupported expenditures of US\$0.28 million as well as other financial irregularities.

Issues with financial recording and clearance of PMU staff balances result in large unresolved imprest balances

Issues were noted in the maintenance of financial records around staff imprest. No reconciliations are undertaken to routinely analyze and clear imprest balances in the finance system. Gaps in the records prevent identification of staff members to whom money has been provided and for how long the balance has been outstanding.

Per the Navision system, US\$1.5 million of staff imprest remain outstanding across all MOH grants as of December 2021. This issue was raised in previous management letters from the Global Fund Secretariat and required escalation to the MOH finance director for resolution either through recovery or retirement. But limited action was taken at the time of the audit.

Gaps in key controls and process around fixed asset management lead to significant variance in records

The PMU does not routinely perform reconciliations between the general ledger and fixed asset register (FAR) to ensure completeness of records. In addition, the responsibilities for recording and safeguarding assets were only defined in 2021. This has led to potential missing assets and incomplete fixed asset records.

A variance of US\$5.2 million²³ was noted in the FAR when comparing Global Fund asset procurements under NFM1 to NFM3. This includes motor vehicles and diagnostic machines. The incomplete FAR increases the risk of assets being lost or stolen. In addition, the OIG's physical verification of samples on the FAR identified a US\$ 0.3 million gap in the accurate recording of assets.²⁴

Weaknesses in financial management systems, accounting, and reporting lead to unsupported financial expenditures, incorrect accounting and gaps in financial oversight

The continuous investment in Navision to strengthen controls and improve financial management, accounting and reporting has yielded limited results due to the PMU's overall lack of project management. As a result, the current system does not support age analysis of Sub-Recipient advances and the fixed assets module has not been fully implemented, despite these being key Global Fund requirements since 2016. Multiple delays were also noted with implementation. In one example, there was a 17-month delay to contract with a supplier due to the lack of well-defined TORs. This led to key activities not being implemented on time under the current NFM period.

Ineffective assessment of financial technical assistance has also been noted. Technical assistance contracts are renewed year after year without assessing the outcome or impact. There is no independent assessment of the supposed improvements in financial capacity of PMU staff who benefited from this technical assistance. This has led to unsupported financial expenditures and incorrect accounting and financial oversight.

Finally, multiple errors in financial accounting and reporting were noted. An OIG sample review of financial transactions highlighted unsupported expenditure of US\$0.2 million across both MOH grants. Obvious incorrect accounting entries were noted that impact financial reporting (e.g., indoor residual spraying procurement for malaria was charged to and paid from the HIV/TB grant). Against Global Fund guidance, budget overruns of more than 15% were also executed without prior approval of the Global Fund country team.

²³ Out of the variance of US\$5.2 million, US\$2.5 million pertains to assets procured under NFM1 for which an outdated FAR (with no updated status of the state of assets whether disposed of or still in use and location of assets) was shared with the OIG after the end of the audit fieldwork stage. As such, these assets could not be included in physical verification exercise conducted by OIG.

²⁴ US\$0.11 million was transferred to another location without asset transfer forms and without its location updated in the FAR. Another US\$0.07 million was missing and could not be located. The remaining US\$0.09 million was not in use.

Lack of monitoring of internal audit findings and issues with HR payroll processes

There is no process to systematically track and monitor agreed actions from prior internal audit reports. There is also no escalation process to deal with long outstanding audit recommendations, resulting in the same issues reoccurring annually. Persistent issues with payroll were also identified in the audit period, with delays in salary payment and statutory obligations. The internal audit unit of the PMU noted some recurring salary payments to employees no longer in service²⁵ with small monetary values. These still have not been resolved or recovered.

PMU issues driven by gaps in governance, oversight and performance management result in weak management of grants in key areas

The numerous issues noted above have been allowed to persist and worsen due to a broader issue with the MOH's governance and oversight of the PMU as well as gaps in PMU performance management. It should be noted that these challenges were previously highlighted in Zambia's OIG audit in 2017.²⁶

The OIG found that the MOH audit committee is not effective in overseeing the PMU. Audit committee meetings are sporadic and internal audit reports are rarely discussed. For instance, only six of the 25 internal audit reports were discussed between 2018 to 2021 at committee meetings. This is a recurring issue that was noted in the 2017 OIG audit. Since internal audit findings are not effectively addressed in meetings, they continue to persist year after year.

There are also gaps in the oversight of the PMU by senior MOH management. The MOH was supposed to develop an oversight strategy to clarify expectations on the PMU structure, however, this has not been defined. Several types of oversight meetings were intended, but these have either stopped being held or are irregular in frequency. This has led to limited formal PMU supervision by the MOH.

There are also key gaps in PMU performance management and key performance indicators. While new KPIs were defined in 2017, these do not address crucial operational areas. For instance, there is no KPI to address action points from Global Fund management letters. As a result, management action resolution is either delayed or not adequately implemented with no impact on performance of the PMU and its staff (55 personnel at the central and provisional level). Similarly, the finance unit has no KPIs to safeguard grant assets or effective management of Sub-Recipients.

The Global Fund has not conducted a performance evaluation of the PMU since 2017. Since then, PMU performance has not been evaluated and there is no defined process or framework for improvement at this time.

Staff performance appraisals have been irregular and ineffective, despite being required under the Ministry of Health performance appraisal process. For instance, no evidence was provided for the performance appraisal of the grant manager during the audit period, and 80% of staff had no performance evaluations in 2019 and 2021. For the staff that has been evaluated, there is no link between individual performance ratings and the performance of their respective functional unit. Finance unit staff were rated as meeting or over-performing on targets, despite persistent issues in financial management.

This lack of an effective PMU has resulted in the persistence of the material issues highlighted above, despite the OIG and other assurance providers flagging them in previous reviews and assessments.

Subsequent to the audit, the Global Fund Secretariat are conducting further analysis to determine the final recoverable amount relating to the above issues. Any demands of recovered amounts will be made in line with the Global Fund Operating Policy Note on Recovery of Grant Funds.

²⁵ Payments amount to US\$46k dating as far back as 2019

²⁶ 2017 OIG Audit of Global Fund grants to the Republic of Zambia - https://www.theglobalfund.org/media/7090/oig_gf-oig-17-028_report_en.pdf

Agreed Management Action 4

The Global Fund Secretariat will work with the Ministry of Health in a full redesign of the MoH Programme Management Unit (PMU) structure and its relationship with the MoH to strengthen operational management by the PMU and oversight by the MoH in time for the next grant cycle beginning 1 January 2024. Specifically:

- A) Through leveraging the outcomes of the OIG audit along with conducting and leveraging an independent assessment of the PMU MoH operating model, the MoH will redefine the PMU structure and implement revised reporting lines and reporting processes, and key performance indicators across PMU staff and enhanced PMU oversight.

- B) An annual performance review on the PMU after the redesign is implemented

OWNER: Head of Grant Management Division

DUE DATE: Part A: 30 September 2023 & Part B: 31 March 2025



4.5 Significant PSM issues have persisted since 2017, contributing to stock-out risks for malaria and HIV commodities

The OIG audit in 2017 highlighted critical issues in procurement and supply chain management (PSM). While there has been some progress since then, significant issues have persisted due to limited implementation oversight and lack of senior MOH ownership over PSM issues.

An effective procurement and supply chain is an important foundation for an effective disease program. It ensures that key commodities, equipment and consumables reach implementation sites and beneficiaries in a timely and uninterrupted manner. However, it is complex and includes numerous complementary components and processes. Strengthening PSM requires long-term investment and strategic direction due to the nature of the infrastructure, technical capacity and complex systems required to run an effective and efficient supply chain. Zambia has been slowly advancing in its journey to enhance PSM with some successes, along with several recurring and persistent issues noted.

CHAZ's procurement and supply chain processes and systems have been well designed and implemented. CHAZ has established an effective supplier performance evaluation process, using performance indicators to manage suppliers, incentivizing good PSM management and penalizing poor performers. CHAZ has also leveraged the pooled procurement mechanism (PPM) framework to access reliable suppliers for ART and ACTs at competitive prices, without being a formal part of PPM. The OIG also noted reasonable procurement process times from requisition to order placement based on the sample of transactions reviewed.

There have also been some positive PSM developments in the Ministry of Health since the last OIG audit in 2017. A new warehouse management system was established at the ZAMMSA central warehouse and regional hub level. Regional hubs were constructed with Global Fund investment to support a decentralized PSM approach. The Zambia Health Analytics Platform (ZHAP) was developed with Global Fund support to establish an end-to-end view on the malaria commodity supply chain.

Lastly, there have been positive moves to consolidate PSM activities under ZAMMSA²⁷ (replacing Medical Stores Limited). This was codified in the approval of the ZAMMSA Act 2019 that sought to transition quantification and forecasting, supply planning, and procurement of health commodities from the Ministry of Health to ZAMMSA.

Despite these improvements, many significant Ministry of Health related PSM issues have been allowed to persist over the past five years with limited actions taken to resolve them.

Significant PSM issues have persisted since the last OIG Audit, impacting the effectiveness of the national procurement and supply chain system to ensure timely availability of key commodities

The previous OIG audit in 2017 highlighted critical issues in quantification and forecasting, as well as issues in PSM data systems for warehouse management and logistics management (LMIS). The audit also highlighted challenges with last mile distribution and expiries and stock-outs. Ministry of Health PU/DR reporting during NFM 2 and 3 also highlighted continual issues with quantification and forecasting, inefficient supply planning, issues with LMIS data and data systems and stock-outs and stock-out risks throughout the audit period. In addition, the Global Fund continually flagged issues of weak governance and oversight over the supply chain to country stakeholders in routine management letters to the Ministry of Health across NFM 2 and 3.

Continuous delays were noted in launching key initiatives that would strengthen the PSM. In particular when establishing the National Supply Chain Coordination Unit (NSCCU) "control tower concept," which aims to provide visibility and oversight over the full supply chain to improve PSM management and data based decision-making. This has been identified as a key initiative since the 2017 OIG audit. But at the time of this audit, the concept was still in draft stage. There were also delays in the roll-out of the regional hub strategy (see below), which sought to create regional hubs to decentralize supply chains and strategic deposits of commodities closer to the last mile.

²⁷ Zambia Medicines and Medical Supplies Agency – per the 2019 ZAMMSA act, the entity is tasked with multiple PSM mandates including procuring, storing and distributing medicines and medical supplies as well as ensuring timely availability of medicines and medical supplies in public health facilities.

In key areas the OIG noted repeat issues from prior reviews, including:

- **Quantification and forecasting:** Like in the 2017 OIG audit, there are still persistent data quality, analysis and system issues impacting assumptions used in forecast planning. In addition, there are unexplained discrepancies between the forecasted demand and the eventual annual supply plans for ACT, RDT and core ART that are used to guide procurements, rendering the output of quantification and forecasting obsolete.
- **Regional warehouse hubs:** There have been delays in the roll-out of the regional hub strategy with the OIG noting implementation challenges at the two regional hub sites visited. These hubs remain under-utilized for the three diseases. Malaria commodities are still not part of the hub stock keeping strategy this means that all routine health facility orders for malaria products by-pass the regional hubs for processing at ZAMMSA HQ. A significant quantity of commodities still flows directly from ZAMMSA central warehouse to the district and Provincial health offices. Operational issues were noted with the regional hub warehouse management system that is not connected to ZAMMSA. In addition, the regional hub stock count variances are not being investigated and stock-outs were noted at the regional hub and health facility levels.²⁸
- **Electronic Logistics Management Information systems (eLMIS):** The eLMIS is still not rolled out fully with health facility coverage at just 45%. In addition, eLMIS is not interoperable with other key PSM data systems like the national warehouse management system, leading to gaps in oversight.
- **Monthly stock reconciliations variances:** The OIG noted variances in monthly stock reconciliations at ZAMMSA that were not investigated by warehouse staff. This increases the risk of stock mismanagement and loss.

Key PSM issues persist due to limited implementation oversight and lack of MOH senior management ownership over strategic plans

Due to the reasons outlined below, the numerous PSM challenges noted above have been allowed to persist despite being continually flagged to country stakeholders.

Lack of clear roles and responsibilities and capacity in the MOH over key elements of PSM operations

The fragmented roles and responsibilities over the national PSM system have led to a lack of overall prioritization of cross-cutting PSM issues. ZAMMSA was intended to consolidate several key PSM roles, but this had not been completed at the time of the audit. There are still separate teams and groups covering isolated parts of the PSM life cycle with no overall management or oversight in place. The different teams and groups include a technical working group for quantification and forecasting, PMU staff in charge of placement of international orders, a pharmaceutical services department and external technical assistance for supply planning funded by US donors.

Within the MOH, there is also insufficient capacity in key departments that play a role in PSM. The pharmaceutical services department should play a key role in managing overall PSM activities across different bodies, but there is only one staff member in place with vacancies for chief pharmacists. The NSCCU control tower mentioned before was a planned unit within the MOH designed to play a coordinating role across PSM activities, especially between MOH and ZAMMSA. At the time of the audit, however, this unit was not in place.

Gaps and delays in development and implementation of national strategic and operational plans and policies

There have been delays in completing key national strategic PSM documents. The National Health Sector Supply Chain Strategy Plan (HSSCP) 2022-2026 was not finalized at the time of the audit. The evaluation of the outgoing plan had also not been finalized at the time of the audit. There was also no approved operational plan for the regional hub strategy and no approved plan with key milestones, budgets, and funding sources for the National Supply Chain Control Unit.

Weak governance structures prevent the ability to effectively monitor, address and escalate PSM issues

²⁸ On average 26% of facilities reported stockouts for ARTs and 48% for essential medicines in the southern province according to the Choma regional Hub reports between October 2021 and April 2022

Several working groups and bodies are tasked with managing PSM issues. However, there is a lack of MOH senior management oversight and involvement in understanding and addressing issues. The Procurement and Supply Chain Management working group is a key body overseeing the full PSM process. But it is not placed at a senior level within the MOH, and the committee leadership is often delegated to middle management. While the group has been meeting, there are no mechanisms to effectively follow up on recurring issues or escalate to directorate level within the MOH. This leads to repeated issues being discussed with no action taken. In addition, there are sub-committees focused on areas such as (i) PSM Policy and Guidelines, (ii) Electronic Logistics and Supply Chain; (iii) Procurement, Storage and Distribution. Yet, there are no formal terms of reference for these committees and reporting from them is ad-hoc.

PSM challenges contribute to prolonged malaria commodity stock-outs as well as stock-outs and continual stock-out risks for HIV commodities

The many historic and current issues outlined above impact the availability of key commodities at the health facility and community levels, negatively impacting program implementation. OIG site visits highlighted chronic stock-outs of malaria commodities at the facility level with 21 out of 24 malaria sites suffering from stock-outs in the audit period. This has contributed to treatment disruption as noted in finding 4.1.

All 14 malaria sites with community health workers were affected by stock-outs of malaria commodities, resulting in the inability of workers to test and treat the disease. It is important to note that these stock-outs can also be attributed to funding gaps for malaria commodities. Stock-outs of at least one key HIV commodity were noted in six of 12 HIV sites the OIG visited, although stock-out periods were shorter than for those observed for malaria. It was not possible to determine if these HIV commodity stock-outs were impacting treatment.

Agreed Management Action 5

The Global Fund Secretariat will support the MoH in strengthening the governance, oversight and roles and responsibilities over Health-related Procurement and Supply Chain Management (PSM) processes under the MoH grants. Specifically:

- A) (i). Establishing a national PSM governance oversight mechanism reporting to the Permanent Secretary for monitoring the implementation of the national supply chain strategy
- (ii). Defining roles and responsibilities of national stakeholders over the full national health PSM cycle including cross cutting governance and oversight, Quantification & Forecasting, Supply Planning, Procurement (International & Local), Supply Chain and LMIS systems.
- B) The operationalization of the PSM governance oversight mechanism providing oversight over the national supply chain strategy

OWNER: Head of Grant Management Division

DUE DATE: Part A: 31 December 2023 & Part B: 31 December 2024

Annex A: Audit rating classification and methodology

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.

The OIG audits in accordance with the Global Institute of Internal Auditors' definition of internal auditing, international standards for the professional practice of internal auditing 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 documents help safeguard the independence of the OIG's auditors and the integrity of its work.

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 is used to provide specific assessments of these different areas. Other sources of evidence, such as the work of other auditors/assurance providers, are also 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 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 B: Risk appetite and risk ratings

In 2018, the Global Fund operationalized a Risk Appetite Framework, setting recommended risk appetite levels for eight key risks affecting Global Fund grants, formed by aggregating 20 sub-risks. Each sub-risk is rated for each grant in a country, using a standardized set of root causes and combining likelihood and severity scores to rate the risk as very high, high, moderate or low. Individual grant risk ratings are weighted by the grant signed amounts to yield an aggregate current risk level for a country portfolio. A cut-off methodology on high risks is applied (the riskiest 50% of grants are selected) to arrive at a country risk rating.

OIG incorporates risk appetite considerations into its assurance model. Key audit objectives are generally calibrated at broad grant or program levels, but OIG ratings also consider the extent to which individual risks are being effectively assessed and mitigated.

For country audits of high impact and core countries, OIG assesses residual risks are compared against the Secretariat's assessed risk levels at an aggregated level for those of the eight key risks which fall within the audit's scope. In addition, a narrative explanation is provided every time the OIG and the Secretariat's sub-risk ratings differ. For risk categories where the organization has not set formal risk appetite or levels, OIG opines on the design and effectiveness of the Secretariat's overall processes for assessing and managing those risks.

Global Fund grants to the Republic of Zambia

OIG and Secretariat risk levels were aligned, except for in two risk areas. First, *grant-related fraud and fiduciary risks*. This is a composite of several sub risks, including:

- I. Flow of funds arrangement
- II. Internal controls
- III. Financial
- IV. Fraud, corruption and theft
- V. Value for money

The OIG and the Secretariat have similar levels of assessed risk for (I), (III) and (IV), but different levels of assessed risk related to (II). The Secretariat rated this sub risk "moderate" due to gaps in fixed assets management, Sub-Recipient management and issues with timely liquidation of staff imprest.

OIG rates the current level of residual risk as "high." This is because of issues with roles and responsibilities for fixed assets management, weak controls around disbursement to Sub-Recipients, lack of review of Sub-Recipient expenditure, delay in liquidation of Sub-Recipient advances, lack of supervision and feedback to Sub-Recipients, sub-optimal and delayed implementation of Navision and unsupported expenditures noted during the OIG audit. Gaps were also noted in lack of monitoring of internal audit recommendations, with no escalation process to deal with long outstanding audit recommendations that result in the same issues reoccurring annually. The severity of this risk was assessed as higher compared to that of the Secretariat due to the magnitude of the issues and the lack of action by the Principal Recipient for timely resolution.

The second risk area is the *national program governance and grant oversight*. It is a composite of several sub risks, including:

- I. Health sector governance
- II. National program governance
- III. Principal Recipient governance
- IV. Implementation effectiveness
- V. Country Coordinating Mechanism (CCM) governance

The OIG audit scope did not cover (I), (II) and (V). The OIG and Secretariat have different levels of assessed risks for (III) and (IV). The Secretariat rated these risks as "low." OIG rates the current level of residual risk for both (III) and (IV) as "high." This is because of numerous issues in financial management, internal audit and human resource management that have been allowed to persist and worsen. This reflects a broader issue with MOH governance and oversight of the PMU as well as gaps in performance management of the PMU and its staff. The MOH audit committee is not effective in discharging its oversight over the PMU with gaps noted in the oversight of PMU by senior PMU management.

Without a MOH oversight strategy, there is limited formal supervision of the MOH. The OIG and other assurance providers have flagged the material issues resulting from this lack of governance and oversight over PMU operations. But limited progress has been made to resolve this at the time of the audit. Similarly, issues in PSM have persisted since the last OIG Audit that impact the effectiveness of the national procurement and supply chain system to ensure timely availability of key commodities. This is due to lack of senior MOH oversight and involvement in understanding and addressing key PSM issues.

OIG assessed levels of residual risk for IV as "high" due to gaps in Sub-Recipient management that resulted in long outstanding advances, lack of supervision and feedback and delays in contracting Sub-Recipients that impacted key HIV prevention activities.