Global Fund Grants in the Federal Republic of Nigeria

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Geneva, Switzerland

1.   Executive Summary

1.1   Opinion

Nigeria has the third highest number of HIV infections in the world: 1.7 million people are living with HIV and AIDS. It has the highest TB burden in Africa, and the sixth highest globally. Nigeria also had the highest number of global malaria cases in 2019, as well as the highest number of deaths. The country is accordingly the single biggest recipient of Global Fund grants, having been allocated over US$1.5 billion for the 2017-2019 and 2020-2022 funding cycles. The Global Fund has also allocated US$294 million to Nigeria to mitigate the impact of COVID-19.

Grants are mostly performing well across the three diseases, with a positive trend in key impact indicators. HIV performance is steadily improving: treatment figures are rising, and infections have decreased by 28% over the last 10 years. Malaria prevalence fell by almost 50% between 2010 and 2018. TB notification has increased, and TB treatment has improved from 24% to 40% in the last three years. Community interventions, however, are not meeting vulnerable populations' needs. Urgent attention should be given to interventions for pregnant women, children under 5 years old, adolescent people and key populations. Programmatic interventions are rated as **partially effective**.

By innovating and adapting, disease programs have continued to function throughout the COVID pandemic. Nigeria's ability to absorb C19RM funding remains low however, limiting its ability to implement key activities and procure commodities promptly. The management of COVID-19 funds needs **significant improvement**.

The Global Fund's supply chain arrangement in Nigeria similarly needs **significant improvement**. Since 2016, the organization has contracted Chemonics to provide supply chain services for HIV and malaria commodities. Chemonics' internal controls are inadequate, and we found multiple unexplained variances. Information technology systems do not generate accurate and reliable supply chain data and information.

1.2   Key Achievements and Good Practice

An **"HIV alignment agreement" between the Government of Nigeria, PEPFAR and the Global Fund defines roles and responsibilities, and contributes to improved coordination and reduced risk of duplication**. The HIV cascade is improving year by year: currently 90% of those living with HIV know their status, 80% of diagnosed cases are on antiretroviral (ARV) treatment and 72% of people on ARV have suppressed viral loads. A national survey in 2018 showed a reduction in HIV prevalence from 2.8% to 1.4%. The country can now more accurately plan interventions.

The TB program has made significant progress. The National Tuberculosis and Leprosy Control Program has been made a grant Principal Recipient, with all states as sub-recipients; this has improved coordination and ownership at state level. TB treatment coverage improved from 24% in 2018 to 40% in 2021. *Private Public Mix*, an initiative to engage the private sector in TB detection, treatment and prevention, is now active in 21 states. TB case notifications are increasing, from 120,000 in 2019 to 139,000 in 2020.

Successful insecticide-treated net mass distribution campaign in the midst of the pandemic. The use of technology supported timely payment of campaign personnel, and real-time tracking of campaign activities improved accountability and oversight. The Seasonal Malaria Chemoprophylaxis program for children under 5 has been scaled up. A new National Malaria Data Repository is supporting decision-making.

Disease programs successfully adapted during COVID. While lockdowns and movement restrictions impacted health facility visits and caused an initial dip in programmatic performance, programs have adapted and recovered. Community-level interventions have provided services closer to beneficiaries' homes. Services to patients were integrated with COVID-19 interventions, e.g. through combined testing for TB/malaria and COVID-19. Drug dispensing was adapted to provide drugs for longer periods, and home deliveries helped ensure that patients could continue treatment. COVID-19 Response Mechanism (C19RM) procurements such as mobile x-ray units and TB-lamp diagnostic technology are being used to strengthen the disease programs.

1.3　Key Issues and Risks

Only 57% of C19RM 2020 funds had been spent by the end of the implementation period (30 June 2021). Important activities amounting to US$24 million were not fully implemented and were reprogrammed in the C19RM 2021 award of August 2021. From the sampled commodities procured and received, only 23% had been distributed as of 30 September 2021. Commodities remained in warehouses for an average of six months, resulting in material stock-outs at district and facility levels, and expiries at the central warehouse level

Weak internal controls are hampering supply chain management. HIV and malaria supply chains have been outsourced to a private organization, Chemonics, which provides services to both Global Fund and US Government funded programs. Significant controls gaps on inventory management and warehouse management systems (WMS) were noted. WMS are missing application controls to ensure expired items are not selected for dispatch and only valid quantities are processed, and that errors or issues in facility data are flagged. This resulted in expired commodities being distributed to health facilities as well as a 49% order fulfilment rate by a third-party logistics provider for the Sept 2020 to Sept 2021 period. Significant gaps in Chemonics' oversight also were noted. Chemonics could not reconcile stock movements between goods received and distributed.

Government co-financing commitments increased to US$1.2 billion for 2020-2022, up 83% from 2017-2019. However, significant **delays and non-fulfilment of government commitments are affecting program impact**. Programmatic and supply chain data systems are not well coordinated, resulting in inefficiencies and data quality issues.

The design and implementation of vulnerable and key populations programs need improvement. Service coverage to vulnerable populations, such as pregnant women and children under five, has been stagnant or weak, due to limited scale-up and significant delays in the implementation of activities. Interventions for these population are not performing well across the three diseases.

Relevant data is needed for TB program planning. The TB program is working to scale up service coverage and improve case detection. While diagnostic capacity has improved, missing cases remain very high, at 73% for drug-sensitive TB and 89% for drug-resistant TB. The last TB prevalence survey was conducted in 2012, and estimates based on 2012 data guide current TB control efforts. Relevant data is needed to inform TB program design and implementation, to reach the most at-risk groups and focus on the most effective interventions.

1.4　Objectives, Ratings and Scope

The audit's overall objective was to provide reasonable assurance on the adequacy, effectiveness, and efficiency of Global Fund Grants to Nigeria. Specifically, the audit assessed:

Objective	Rating	Scope
Global Fund support, including grant flexibilities and C19RM funds utilization to maintain or scale up disease programs achievement in the face of COVID-19 challenges.	Needs significant improvement	• The audit covered the Principal Recipients and Sub-Recipients of Global Fund supported programs in Nigeria.
Grants design and implementation arrangements to ensure efficient and sustainable achievement of grant impact.	Partially effective	• The audit covered grants from April 2019 to June 2021, as well as the design of future arrangements for the implementation of grants in Nigeria.
Procurement and supply chain management system to deliver and account for quality assured medicines and health products.	Needs significant improvement	• Scope exclusion: **None**

OIG auditors visited 30 health facilities across three states (Federal Capital Territory, Kano and Taraba), as well as the Abuja Premier Medical Warehouse. A remote audit methodology and techniques were deployed where necessary. Details about the general audit rating classification can be found in Annex A.

2.   Background and Context

2.1   Overall Context

Nigeria is divided into 36 autonomous states and the Federal Capital Territory, with States further divided into 774 Local Government Areas (LGAs). The Federal government is responsible for overall health policy-making, planning and coordination. Individual states are responsible for curative care and basic medical specialties. LGAs are responsible for primary health care, under state coordination and supervision. 48% of the population live in rural areas.

Donor funding has decreased significantly since 2014, when the country was re-classified as "Lower Middle Income". In 2018, government health spending was 0.5% as a share of gross domestic product. Out-of-pocket expenditure accounts for over 75% of total healthcare expenditure, among the highest in the world. 25% of the population spends more than 10% of their income on health.

| ▶ Population	206 million
▶ GDP per capita	US$2,097 (2020)
▶ Transparency International Corruption Perception Index	149 of 180 (2020)
▶ UNDP Human Development Index	161 of 189 (2020)

2.2   COVID-19 situation

The first COVID-19 case was detected on February 27, 2020.[1] Measures to contain and slow the spread of the virus have included lockdowns on national and state levels, dusk to dawn curfews and school closures. Cumulatively, from the start of the outbreak until 15 December 2021, there has been a case fatality rate of 1.4%.[2]

Covid-19 statistics (15 Dec. 2021)
Number of cases – 220,020
Active cases – 5,745
Recovered - 211,292
Died – 2,983

Figure 1: COVID-19 cases and stringency index in Nigeria[3]
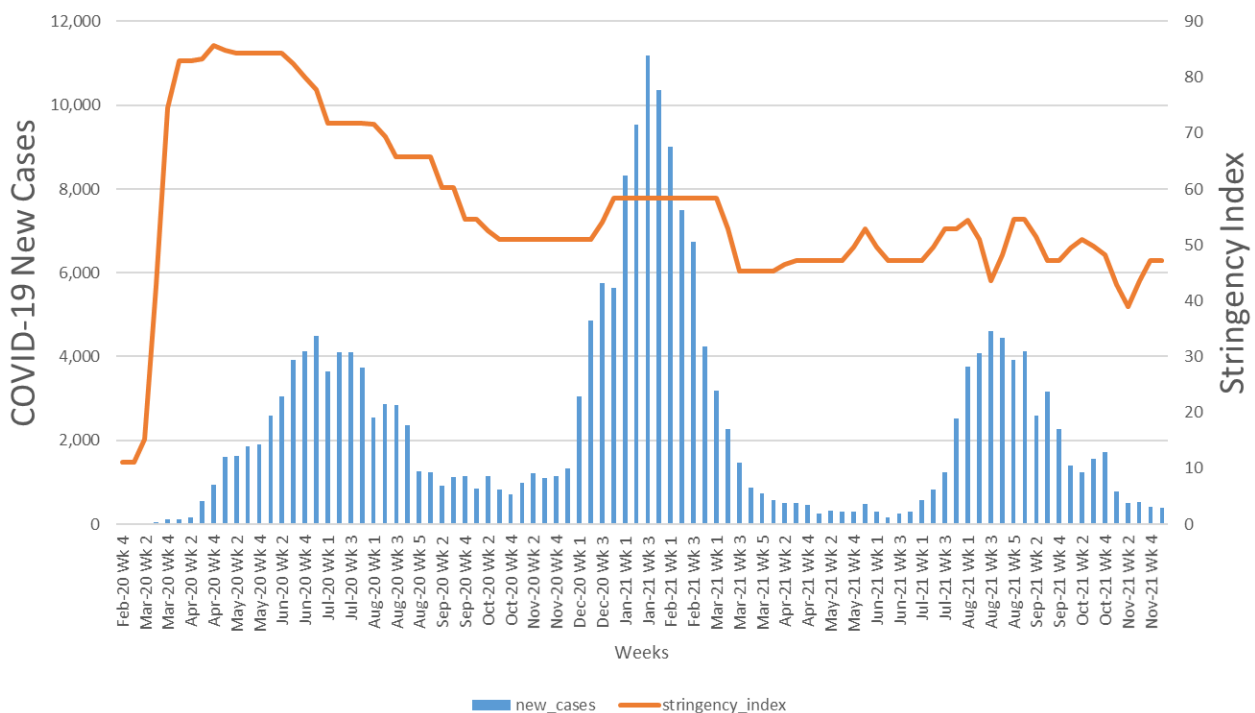
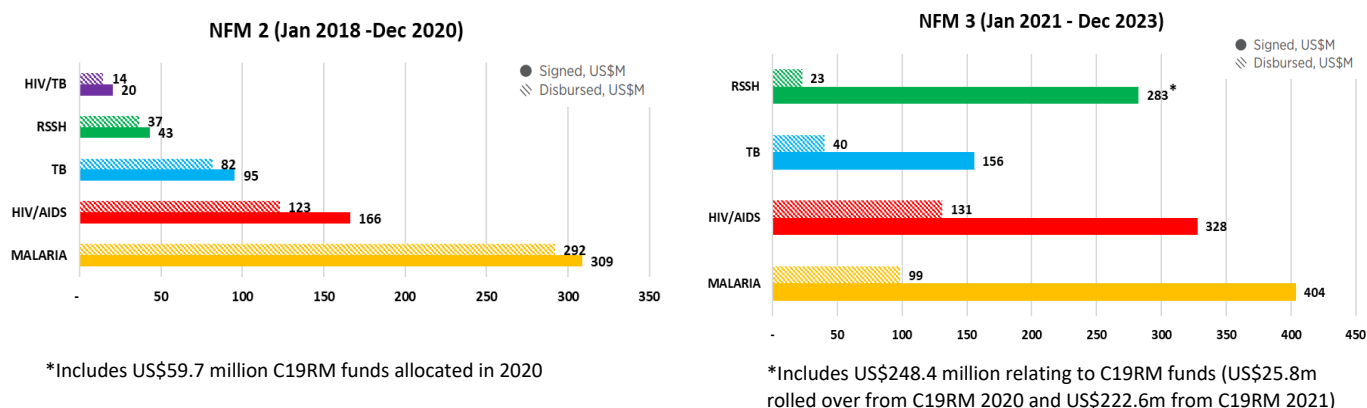[1] Nigeria Center for Disease Control website - (Accessed on 3 December 2021)
[2] ibid
[3]University of Oxford Our world in data (Accessed on 6 December 2021)

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2.3 Global Fund Grants in Nigeria

Since 2003, The Global Fund has disbursed almost US$3 billion to Nigeria. The allocation for the current implementation cycle (NFM3) starting in 2021 exceeds US$1.1 billion, of which 25% has been disbursed. Full details on grants can be found at the Global Fund's Data Explorer.[4] Seven Principal Recipients manage the eight NFM3 grants: HIV grants are managed by the National Agency for the Control of AIDS (NACA) and by Family Health International; TB grants by the National Tuberculosis and Leprosy Control Program, the Institute of Human Virology Nigeria and the Lagos State Ministry of Health; Malaria grants by the National Malaria Elimination Programme and Catholic Relief Services. The Resilient & Sustainable Systems for Health (RSSH) grant is managed by NACA.

Figure 2: Funding allocations, prior and current funding cycles (as of December 2021)[4]

NFM 2 (Jan 2018 -Dec 2020)

● Signed, US$M
▨ Disbursed, US$M

	Disbursed	Signed
HIV/TB	14	20
RSSH	37	43
TB	82	95
HIV/AIDS	123	166
MALARIA	292	309

*Includes US$59.7 million C19RM funds allocated in 2020

NFM 3 (Jan 2021 - Dec 2023)

● Signed, US$M
▨ Disbursed, US$M

	Disbursed	Signed
RSSH	23	283*
TB	40	156
HIV/AIDS	131	328
MALARIA	99	404

*Includes US$248.4 million relating to C19RM funds (US$25.8m rolled over from C19RM 2020 and US$222.6m from C19RM 2021)

2.4 The Three Diseases

HIV/AIDS

1,700,000 people are living with HIV[5], of whom 90% know their status. 86% of people living with HIV are on ARV treatment (only 45% of HIV positive children are on ARV treatment) and 72% of people living with HIV have suppressed viral loads.[6]

Annual infections have decreased by 26% since 2010. In 2020, there were 86,000 new infections.[7]

AIDS-related deaths decreased by 28% in 2010 to 49,000 in 2020.[8]

HIV prevalence rate of young women (0.6%) is 2X high as young men (0.3%).[9]

MALARIA

Nigeria accounts for **27% of the global malaria burden and 23% of global malaria deaths.**

Incidence rate has dropped steadily since 2008 (from 424.7 in 2008 to 291.9 in 2018, per 1000 population at risk).[10]

Over 46 million **insecticide-treated nets distributed** between 2018 and 2020.

In 2019, there were over 23 million presumed **and confirmed malaria cases** in Nigeria.[11]

TUBERCULOSIS

Nigeria has the highest **TB burden in Africa and ranks sixth in the world**.

Nigeria accounted for 4.4% of **global new infections** of TB in 2019 and 11% of the **global missed TB cases** in 2019.

Estimated missed cases: Drug-Sensitive (DS) TB: 73%, drug resistant TB: 89%. Total estimated TB **incidence:** 452,000, up from 418,000 in 2017. [12]

Treatment success rates: new and relapse cases (2019): 88%. DR-TB (2018): 78%[13]

[4] Global Fund's Data Explorer, Nigeria profile - https://data.theglobalfund.org/location/NGA/overview (Accessed on 3 December 2021)
[5] Estimate. Range: [1,300,000 – 2,300,000]. UNAIDS Aidsinfo 2020
[6] UNAIDS website - https://www.unaids.org/sites/default/files/media_asset/JC3032_AIDS_Data_book_2021_En.pdf , page 151 (Accessed on 3 December 2021)
[7] ibid
[8] ibid
[9] Ibid
[10] World Bank website - https://data.worldbank.org/indicator/SH.MLR.INCD.P3?locations=NG (Accessed on 2 December 2021)
[11] World Malaria Report 2020
[12] Global TB Report 2021 and 2018
[13] Global TB Report 2021

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3. Portfolio Risk and Performance Snapshot

3.1 Portfolio Performance

Performance and grant ratings are shown below:

NFM 2 (July 2019 – Dec 2020)

Comp	Grant	Principal Recipient	Total Budget Amount (USD)	Expenditure as at Dec 20 (USD)	Absorption Dec 2020 (%)	June 2019	Dec 2019	June 2020	Dec 2020
	NGA-H-FHI360	Family Health International (FHI360)	98,259,753	80,970,962	82%		B1	N/A*	B1
	NGA-H-NACA	National Agency for the Control of AIDS	52,108,742	20,710,916	40%		B2	N/A*	B2
	NGA-H-SFHNG	Society For Family Health	15,894,545	13,024,514	82%		B2	N/A*	B1
	NGA-M-CRS	Catholic Relief Services	286,957,011	268,781,444	94%	N/A*	B1	A2	A2
	NGA-M-NMEP	National Malaria Elimination Programme	21,763,844	20,236,190	93%	N/A*	B1	B1	B1
	NGA-T-IHVN	Institute of Human Virology Nigeria	55,992,458	46,285,348	83%	B2	B2	B2	B2
	NGA-T-NTBLCP	National Tuberculosis & Leprosy Control Programme	39,330,248	33,257,892	85%	B1	B1	N/A*	B1
	NGA-C-LSMOH	Lagos State Ministry of Health	20,207,233	15,461,995	77%	N/A*	B1	N/A*	B1
RSSH	NGA-S-MSH	Management Sciences for Health	42,996,203	35,152,970	82%		B2	B1	B1
			633,510,037	533,882,231	84.3%				

NFM 3 (Jan 2021 – Dec 2023)

Comp	Grant	Principal Recipient	Total Budget Amount (USD)	Budget as at June 21 Amount (USD)	Expenditure as at June 21 (USD)	Absorption June 21 (%)	June 2021
	NGA-H-FHI360	Family Health International (FHI360)	290,478,305	84,515,260	58,048,462	68.7%	C
	NGA-H-NACA	National Agency for the Control of AIDS	37,361,130	42,274,323	17,559,949	41.5%	B1
	NGA-M-CRS	Catholic Relief Services	323,935,333	49,089,158	9,474,336	19.3%	A2
	NGA-M-NMEP	National Malaria Elimination Programme	79,705,814	7,801,443	5,354,523	68.6%	B2
	NGA-T-IHVN	Institute of Human Virology Nigeria	53,248,569	4,603,362	3,394,196	73.7%	B1
	NGA-T-NTBLCP	National Tuberculosis & Leprosy Control Programme	89,518,547	7,855,496	3,461,035	44.1%	B2
	NGA-T-LSMOH	Lagos State Ministry of Health	12,794,316	1,949,064	1,255,046	64.4%	B2
RSSH	NGA-S-NACA	National Agency for the Control of AIDS	282,509,461	1,677,347			
			1,169,551,475	199,765,453	98,547,547	49.3%	

A Progress Updates (PU) waiver was in place. Principal Recipients were not required to submit PUs but rather quarterly programmatic data, which is not verify by the Local Fund Agent.

3.2 Risk Appetite

The OIG compared the Global Fund Secretariat's aggregated assessed risk levels of the key risk categories covered in the audit objectives for the Nigeria portfolio with the residual risk that exists based on OIG's assessment, mapping risks to specific audit findings. 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 (2nd December 2021)	ASSESSED RESIDUAL RISK, BASED ON OIG AUDIT RESULTS	RELEVANT AUDIT ISSUES
Global Fund support, including grant flexibilities and C19RM funds utilization	Procurement	High	High	Finding 4.2
Grant design and implementation arrangements	Program quality and efficiency	High	High	Findings 4.3, 4.4 and 4.5
	Program design and relevance	High	High	Findings 4.3, 4.4 and 4.5
Supply Chain arrangements	Warehouse and distribution systems	High	Very High	Findings 4.1 and 4.2
	Logistics management and information systems	Very High	Very High	Findings 4.1 and 4.2

4. Findings

4.1 Sub-optimal supply chain mechanisms to deliver and account for medicines

Ineffective supply chain controls are affecting the traceability and accountability of commodities received and distributed.

Health commodities, procurement and supply chain costs account for 62% of total NFM2 and NFM3 grants. The Global Fund and partners including USAID have sought to address supply chain challenges, such as by rolling out the Nigeria Health Logistics Management Information System (NHLMIS) under the National Supply Chain Integration Project.

Following the findings reported in the 2015 OIG audit and investigation reports,[14] the Secretariat engaged Chemonics to manage the storage and distribution of malaria and HIV commodities on behalf of Principal Recipients. Chemonics provides similar services for all U.S. Government funded programs in the country.

Chemonics has implemented a Commodity Ordering Management System (COMS), which is linked to the Warehouse Management Systems (WMS) used by the two contracted Third-Party Logistics (3PL) companies (MDS Logistics and Akesis) to facilitate the transfer of order processing data between them. The 3PLs carry out last-mile distribution of Global Fund-supported medicines and commodities to health facilities, in line with orders received from the State Logistics Management Coordination Units through NHLMIS. The two central warehouses in Abuja and Lagos, used for the HIV and malaria grants, comply with good storage practices, ensuring commodities retain their quality without degradation.

There are however inadequate controls across the supply chain at all levels, including weak Information Technology controls and sub-optimal oversight of storage and distribution of commodities. If not addressed, these could increase the risk of loss and diversion of Global Fund commodities, and compromise grant achievements.

Weak Information Technology controls

Weak IT controls in NHLIMS and in 3PLs' Warehouse Management Systems contribute to stock variances and impact national quantification and order planning. Control weaknesses noted in the 3PLs' WMS include:

- *Inconsistent facility and commodity master data between Chemonics and 3PL WMS:* Commodities dispatched by MDS Logistics warehouse to health facilities do not appear in the COMS database. Consequently, 276K items were dispatched by MDS Logistics to 12 facilities that do not have records in the COMS database. While these facilities are legitimate, this control gap limits Chemonics ability to ensure commodities are delivered to the right facilities.

- *COMS lacks an order validation mechanism* to detect incorrectly prepared and partially fulfilled orders. Order processing files transferred from COMS are stored within the WMS in an unencrypted format, making them susceptible to unauthorized alterations. For the Sept 2020 to Sept 2021 period, the OIG identified 1,527 orders with a fulfilment rate of 49% (116K items vs 235K items) that were dispatched by MDS Logistics, but which differ from orders in COMS. Lack of data quality assessment between Chemonics and 3PL providers on commodities and facilities master data is a contributing factor. Chemonics also lacks a defined process for validating orders processed by 3PL warehouses before dispatch. Reconciliations are not performed on COMS and WMS data.

- *Expiry alerts not enabled:* The expiry alert functionality on the two 3PL warehouse management systems has not been enabled. Additionally, commodities' expiry dates are not always entered into the system upon receipt at warehouses. Warehouse management systems are therefore not able to centrally track expiry dates, increasing the risk of expiries. Akesis and MDS Logistics dispatched expired HIV and malaria commodities to 57 facilities; these commodities had expired for an average of 119 days at the time of dispatch. In another instance, malaria

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[14] 2016 OIG reports on grants in Nigeria (OIG report number GF-OIG-16-014; OIG report number GF-OIG-16-015)

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commodities without expiry date information in the WMS were dispatched from the Akesis warehouse to 29 facilities.

- *Other IT control gaps:* There is no comprehensive back-up procedure to validate the restoration of data at Chemonics or Akesis. Product codes, names and units of commodities are not consistent across COMS and the two WMS, and there are no controls to flag duplications in the WMS at Lagos and Abuja warehouses.

A major root cause is that the system lacks application controls, such as to ensure expired items are not selected for dispatch, to validate order quantities, and to ensure errors or issues in facility data between COMS and WMS are flagged.

The audit also noted weak controls in the NHLMIS. Some of its Modules, including pipeline information and electronic proof of delivery, are not functional. NHLMIS cannot automatically aggregate results for Integrated National Stock Status reporting, requiring manual interventions on Excel, which is prone to human error. No data on malaria ACTs were reported in NHLMIS from January to February 2019. Missing data is partly due to States and LGAs procuring and distributing commodities without reporting the data in NHLMIS. Failure of health facilities to report into NHLMIS, a lack of standardization of date formats or quantities (pack/blister/unit), as well as mix-ups of units (pack sizes between receipts and stock records) at different times and in different warehouses are other contributing factors.

Sub-optimal oversight of storage and distribution of commodities

Key reconciliations to ensure inventory accuracy are not performed. There is no reconciliation between warehouse and health facility level data and ineffective controls around the resolution processes for stock adjustments. We noted unexplained adjustments in the warehouse management systems. For example, unexplained negative adjustments in the inventory management system amounting to US$0.5 million at Abuja Premier Medical Warehouse, and positive and negative adjustments amounting to US$1.83 million and US$1.57 million respectively at the Sokoto Axial Warehouse. Unexplained stock variances and mix-ups of commodity unit sizes were flagged by the Principal Recipient during Service Level Agreements (SLA) reviews, but this was not effectively followed up on or resolved by Chemonics.

Significant gaps in Chemonics' oversight and monitoring of 3PL during distribution of commodities were noted. Chemonics implements an electronic proof of delivery (e-POD) system which allows 3PL drivers to relay information upon completing a delivery, but the system does not provide for reconciliation of quantities of commodities dispatched vs quantities received. As such, POD reconciliation is still a manual process conducted by the State Logistics Management Coordination Units. The names of staff authorized to receive commodities at health facilities are not registered in the ePOD system/database. Consequently, 3PL drivers cannot confirm if commodities delivered are received by authorized personnel, posing a risk of loss or pilferage. Weak Proof of Delivery (POD) systems and 3PL monitoring are resulting in limited assurance of timely and in-full deliveries to health facilities.

Ineffective IT controls and weak oversight by Chemonics contributed to the following significant variances:

- Quantities received through the Global Fund's Pooled Procurement Mechanism (PPM) delivery reports differ from those recorded in the stock reports in both central warehouses. For malaria treatment and testing kits, as well as for HIV treatment and testing kits, Chemonics has registered significantly more quantities in their system than Global Fund deliveries through PPM.[15]

- Differences between the opening and closing stock balances of monthly stock reports at the two central warehouse; for example, there were differences of 4.2 million ACT blisters (worth US$2.5 million) and 2 million Malaria RDTs (worth US$413k) between Dec 2019 closing stock balance and the Jan 2020 opening stock balance.

- Differences between the stock issued by the central and axial warehouses[16] and those recorded by the health facilities in the NHLMIS: for example, WMS reported that 7 million Global Fund supported *Determine* tests were issued, but NHLMIS recorded 3.8 million tests as received by health facilities. A similar trend was observed for TLD packs (30) (3 million vs 2.2 million), mRDTs (27 million vs 20 million) and ACT blisters (29.1 million vs 24.6 million). The total of the variances between the amount issued by the central and axial warehouses and the

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amount recorded as received by the health facilities is US$9.9 million. The audit also noted unexplained stock variances estimated at US$1.1 million based on losses reported at health facility level in the NHLMIS.

As a result of these control gaps, and in the absence of adequate inventory movement documentation, there is limited assurance over Global Fund-funded commodities, both at central and lower levels.

Agreed Management Action 1:
The Secretariat will work with relevant Government agencies, development partners and program implementers, including Chemonics to: a. strengthen the oversight framework to ensure that key reconciliations and triangulations are performed and consolidated for visibility to all stakeholders; stock adjustments reviewed and third-party logistical service providers are adequately monitored;   b. design and implement systems improvements to strengthen controls in the relevant supply chain IT systems to address the issues identified including (i) ensuring expired items are not selected for dispatch; (ii) defining effective controls to validate order quantities; and ensuring errors or duplications in data are flagged; (iii) implementing back up procedures and define standard format for product codes, names and units of commodities across the relevant electronic management systems.   c. improve procurement and supply chain processes and procedures, including (i) updating relevant procurement manuals/procedures, and (ii) establishing a well-defined system that enables adequate monitoring and accountability of donor-funded commodities.
OWNER: Head of Grant Management Division
DUE DATE: 30 June 2023

4.2 Better management of C19RM funds is needed to drive efficiency and accountability

Global Fund C19RM funds helped Nigeria respond to the pandemic and mitigate its effects on the three diseases, however the utilization of funds could be improved. Non-compliance with procurement and commodity monitoring controls is contributing to inefficiencies and limited accountability.

The Global Fund allocated a total of US$294 million[17] in 2020 and 2021 to Nigeria to mitigate COVID's impact. The C19RM allocation was awarded to the National Agency for the Control of AIDS (NACA) and the Lagos State Ministry of Health (LSMOH) whereas Grant Flexibilities were awarded to the other Principal Recipients[18] to ensure funding was integrated with existing grants. The Nigeria's Country Coordinating Mechanism played a key role in the national COVID-19 response. A National COVID-19 Pandemic Response Plan was developed, as well as a procurement plan for C19RM commodities. NACA has a well-designed governance structure that provides oversight for procurements over US$0.1 million. The audit however noted weaknesses in the management of C19RM funds, including low utilization of funds and non-compliance with procurement guidelines and supply chain controls.

Improvement needed in the management of C19RM and grant flexibility funds

At the end of the C19RM 2020 implementation period (June 2021), Nigeria had spent 50%[18] of the US$11.7 million approved grant flexibilities funds and 57%[19] of the C19RM funds of US$59.7 million received in 2020. Important activities such as GeneXpert and Oxygen optimization projects, amounting to US$24 million, had not been fully implemented, and various procurements were initiated late. Delays in onboarding C19RM implementing partners/sub-recipients (ranging from three to four months), the pandemic's impact on global supply chains as well as NACA's low capacity contributed to the delayed implementation.

Improvements needed in the procurement and supply of COVID-19 commodities

Acknowledging the need to adapt continuously to the pandemic, the audit noted non-compliance with COVID-19 procurement controls, and a need to improve inventory management processes and commodity distribution controls:

COVID-19 related procurement controls

The audit noted non-adherence with eligibility requirements for 67% (6 out of 9) of sampled procurements totalling US$7.5 million, where vendors were awarded contracts without providing bank/performance guarantees, despite this being a pre-condition for contract awards. A joint venture was awarded two contracts worth US$3.5 million without being legally registered, and without providing the bank/performance guarantee. In addition, eight of nine sampled vendors were awarded contracts amounting to US$8.6 million despite not providing certified financial statements.[20] The absence of key tender documents to assess vendor performance poses risks of suppliers not being able to execute contracts or deliver on time.

NACA's procurement evaluation process lacks technical and financial scoring criteria to assess the best-suited bidder beyond the set eligibility criteria. Contracts were awarded to the lowest price bidder regardless of their technical capacity. Some suppliers were unable to fulfil contracts as expected, due to their lack of capacity to handle large orders, and others supplied sub-standard commodities. For example, 63,056 procured masks by CRS were rejected by the sub-recipient, Association for Civil Society in Malaria Control, Immunization and Nutrition, as unusable, while a US$3.5 million contract to supply coveralls and lab gowns was awarded to a vendor who had only previously handled contracts totalling US$71k, and who subsequently requested to extend the delivery period from six to twelve weeks.

On average, commodities were procured with delays of 142 days against procurement plan targets. Lagos State Ministry of Health procurements took on average 172 days from initiation to contract signing. These delays contributed to the low absorption of C19RM 2020 funds and to stock-outs of COVID-19 commodities.

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[17] Nigeria was allocated US$11.7 m in Grant Flexibilities and US$282 m in C19RM
[18] PRs' grant flexibilities absorption: NTBLCP (31%), MSH (45%), NMEP (54%), CRS (92%), FHI360 (37%) and LSMOH (72%)
[19] C19RM absorption: NACA (61%) and LSMOH (9%)
[20] The solicitation document requested "duly certified company audited accounts for the last three years (2017, 2018 and 2019) by the Corporate Affairs Commission

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Limited oversight by the Fiscal Agent also contributes to the procurement gaps. The Fiscal Agent oversees the process for all local procurements and reviews all payment vouchers at high risk implementers. These reviews have improved financial discipline and mitigated against irregular procurements, however they are not consistently effective. As highlighted above, instances of non-adherence to procurement guidelines were noted. As per their Terms of Reference, the Fiscal Agent is not required and does not participate in the verification of goods received by implementers before payments are made.

COVID-19 commodities supply chain
Safety measures are well designed and strictly adhered to at the central warehouse in Abuja. There is enhanced security, and COVID-19 commodities are stored in good conditions. An Enterprise Logistics Management System (ELMS) records commodities, and Third-Party Logistics (3PLs) providers are used for last mile distribution. The audit however noted weakness in inventory management and in the distribution of COVID-19 commodities.

Inventory management processes
There is limited human resources capacity and lack of procedures to ensure efficient receipt of commodities. It took on average 15 days for NACA to physically verify (after MDS verification) and record C19RM commodities delivered to the warehouse, risking NACA being unable to identify discrepancies in real time. The audit also noted instances (3 out of 36) where COVID-19 commodities were recorded as distributed in the ELMS but had not been released from the central warehouse to States. This poses the risk of reliability of information in the ELMS. Occasional delays in the PR issuing instructions to the warehouse to release stock were also noted. As an example, NACA notified an implementer of the availability of 60% of procured C19RM commodities on 11 August 2021. As of November 2021, the commodities were yet to be issued, and NACA is incurring estimated warehousing costs of US$82,561 per month for them.

Distribution of COVID-19 commodities
77% (27 out of 35) of sampled commodities amounting to US$5.2 million received in May 2021 had not been distributed at the time of the audit in November 2021. Similarly, 77% of Antigen Rapid Diagnostic Tests received in the warehouse over six months previously had not been distributed and 66% of US$43.5 million worth of Antigen Rapid Diagnostic Tests were ordered without a national COVID-19 testing plan. This risks expiries, as the tests have a 12-month shelf life. Similarly, NACA is yet to develop a sampling strategy for the procurement of Genome Sequencing equipment amounting to US$16.6 million to ensure equipment and supplies could effectively identify SARS-CoV-2 virus variants. There is no goods-in-transit insurance for C19RM commodities, posing a risk in case of loss during transit. Modalities for computing the weight of commodities to be distributed are not defined, and the Principal Recipient has no system to verify billing metrics presented by the 3PL Agent. As a result, from a sample of seven invoices, 29% had been overbilled, while the accuracy of the billed weight for 43% of them could not be ascertained.

The gaps in procurement controls, inventory management and distribution have contributed to stock-outs of COVID-19 commodities as well as expiries. 41% of 14,835 packs of COVID-19 sampler kits worth US$0.8 million, which have a 12-month shelf life, expired, and 16% have been in the warehouse since May 2021. The main root cause is NACA's insufficient capacity to manage the C19RM in addition to its other responsibilities. Grants managed by NACA have increased significantly, from US$6 million to US$320 million (and from one to three grants), without any accompanying increase in resources. NACA is expected to provide oversight for an additional 10 sub-recipients and other service providers. While a previous Global Fund assessment in January 2021 highlighted NACA's limited procurement capacity, limited action was noted at the time of the audit to improve capacity has been defined.

No actions have been agreed under this finding for procurement and supply chain-related issues, as the root causes highlighted above are addressed by Agreed Management Action 1 on page 12.

Agreed Management Action 2:
The Secretariat will finalize the capacity assessment of the Nigeria Centre for Disease Control (NCDC), and develop a costed and timebound capacity building plan for NCDC and the National Agency for the Control of AIDS (NACA).
OWNER: Head of Grant Management Division
DUE DATE: 30 June 2022
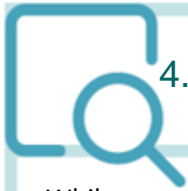
4.3 Greater focus is required on the sustainability and integration of funded programs

While government contributions have increased, significant delays and non-fulfilment of government commitments have affected program interventions. Uncoordinated programmatic and logistics data systems are impacting sustainability and resulting in inefficiencies.

While HIV, TB and malaria interventions are mostly financed by external donors,[21] the Government of Nigeria has progressively increased its investments. Government co-financing commitments for the three disease programs increased to US$1.2 billion for the period 2020-2022, 83% higher than the 2017-2019 period. The Government has also committed to funding antiretroviral treatment for 100,000 patients and to scale up TB interventions by adding 5,000 TB centers. There are ongoing efforts to integrate HIV and TB treatment into the Basic Minimum Package of Health Services and National Health Insurance schemes. HIV interventions supported by the Government and development partners have been aligned, to reduce the risk of duplication and improve coordination. However, significant delays and in some instances non-fulfilment of government commitments, along with parallel systems, are putting the sustainability of the country's response to the three diseases at risk.

Delays in the materialization of government commitments

In some cases, the Government has fallen short on, or been significantly delayed in, fulfilling its commitments. For example, there is persistent unavailability of SP (sulfadoxine-pyrimethamine) for Intermittent Preventive Therapy among pregnant women, and over three-year delays in the procurement of Isoniazid (INH).[22] Similarly, the IMPACT project to provide malaria services to 13 states is yet to be implemented at scale. These delays have impacted the achievement of program targets. There are insufficient long-lasting insecticidal nets to cover the needs of pregnant women and children. Although a domestic resource mobilization and sustainability plan has been developed for the HIV program, there is nothing similar for TB or malaria.

Parallel and uncoordinated health and logistic systems

Robust information management systems that provide sufficient and reliable data are key for decision-making, program planning and long-term sustainability. While progress has been made in integrating data across systems, health and logistic systems are not completely integrated. There is limited reliability of data and systems are still largely driven by the availability of donor funds, limiting government ownership and sustainability.

Health data systems

Several systems and platforms manage patient and aggregated treatment data for the three diseases in Nigeria. The National Malaria Data Repository (NMDR) stores malaria data and is mostly integrated into the District Health Information System (DHIS2). For HIV, Electronic Medical Records (EMR) capture patient data which are consolidated into the National Data Repository. Integration, including harmonizing indicators in the EMR-NMR and DHIS2, is not complete. For TB, the National Electronic TB Information Management System comprises the e-TB manager,[23] GX-Alert, and DHIS2 systems. Integration of the e-TB manager with DHIS2 is incomplete.

The NFM2 Resilient & Sustainable Systems for Health (RSSH) grant budgeted interventions to strengthen data management and DHIS2 integration through updating tools, providing IT equipment, and capacity building. However, only 23% of the funds (US$5.7 million) had been spent as of October 2021.

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[21] External funding of 86%, 64% and 40% of TB, HIV and malaria interventions respectively during 2015-2020
[22] Isoniazid is used with other medications to treat active TB infections. It is also used alone to prevent active TB infections in people who may be infected with the bacteria (people with positive TB skin test).
[23] The e-TB manager is a real-time reporting system for TB patient data. It is rolled out country-wide, but paper-based reporting is still prevalent, and optimization of the system is still underway.

Logistic systems

The National Health Logistics Management Information System (NHLMIS) has been rolled out in all states and is the primary tool for capturing and approving facility commodity orders, as well as an aggregation and reporting tool on commodity availability. User training was undertaken through Global Fund support in the NFM2 RSSH grant. The Global Fund invested US$21 million in the creation of the Nigeria Supply Chain Integration Project (NSCIP) in 2015.[24] The project was aimed at enhancing cost-efficiency and effectiveness by integrating systems and coordinating actions, and integrating vertical supply chains for HIV, TB, Malaria and Reproductive Health.[25]

Parallel and uncoordinated supply chain systems still exist, however, leading to inefficiencies and hindering integration and sustainability. Storage and distribution of TB, multi-drug resistant (MDR) TB medicines and TB-related laboratory reagents and consumables is performed by the National Tuberculosis and Leprosy Control Programme, while the Institute of Human Virology Nigeria stores and distributes GeneXpert cartridges. HIV, malaria and COVID-19 commodities are stored and distributed by Chemonics. This has complicated the NSCIP and could undermine investments.

One of the objectives of NSCIP, to establish a supply chain agency, has not yet been actioned, limiting integration efforts. As part of the National Health Products Supply Chain Strategy and Implementation Plan (2021-2025), the country established an activity plan towards realizing an integrated supply chain. However, as of November 2021, only 35% of planned activities in the 2021 workplan had been implemented due to delays at the start of the RSSH grant.

It is difficult to analyze national data in the current context, meaning that decision-making and program planning risks being based on incomplete and unreliable data. It is also challenging to reconcile the use of commodities with the number of patients. While the malaria program has progressed in triangulating data between DHIS2 and NHLMIS, this is still performed manually, as NHLIMS and DHIS2 are not yet integrated. We noted that the number of malaria rapid diagnostic tests reported in NHLMIS as "consumed" is consistently below the number reported as "performed" in DHIS2. For example, in 2019 NHLMIS reported 5.9 million tests vs. 11.7 million Malaria RDTs reported in DHIS2. In 2020, the equivalent numbers were 8.5 million vs. 11.7 million. A similar trend was observed for ACT blisters: in 2020, 9.3 million and 9.7 million ACT blisters were reported as consumed in NHLMIS and DHIS2 respectively.

Agreed Management Action 3:
The Secretariat will work with the CCM and relevant partners to develop an integrated domestic resource mobilization and sustainability plan for the HIV, TB, malaria and RSSH programs.
OWNER: Head of Grant Management Division
DUE DATE: 31 October 2022

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[24] The US$21 million was invested over the period, 2015 to 2018
[25] Global Fund Nigeria Supply Chain Integration Project – https://nscip.gov.ng/about-nscip/ ; https://www.iplussolutions.org/projects/the-nigeria-supply-chain-integration-project/ (Accessed 12 December 2021)

24 March 2022
Geneva, Switzerland

4.4 Need for better design and implementation of key and vulnerable population activities

Global Fund programs are achieving real impact in fighting the three diseases, however interventions to support pregnant women, children under 5, adolescents and other key populations need improvement.

The HIV cascade has significantly improved over time. 90% of people living with HIV (PLHIV) now know their status, 80% of PLHIV who know their status are on antiretroviral (ARV) treatment and 72% have suppressed viral loads.[26] Key populations, including men who have sex with men (MSM), female sex workers (FSW) and people who inject drugs (PWID) are especially vulnerable to HIV infection, and there have been efforts to harmonize key population service packages between Global Fund and PEPFAR. A Risk Stratification Tool introduced for efficient testing of key populations contributed to a 2% increase in HIV positive cases finding in 2020. TB treatment coverage has improved, from 24% in 2018 to 40% in 2021. *Private Public Mix*, an initiative to engage the private sector in TB detection, treatment and prevention, is now active in 33 states (through support from the Global Fund and USAID). TB case notifications are increasing, from 120,000 in 2019 to 139,000 in 2020. Nigeria has also made progress in malaria control, with a decline in prevalence from 42% in 2010 to 23% in 2018.[27]

Despite the progress, interventions for key and vulnerable populations are not performing well:

Pregnant women and children: insufficiently adapted interventions are leading to low service coverage

Interventions for pregnant women:
"Mentor mothers" are providing counselling, Prevention of Mother to Child Transmission (PMTCT) services, birth and post-natal care. Pregnant women are however hard to reach for formal healthcare services; only about one-third receive HIV testing services. Of an estimated 7.5-8 million pregnant women per year, only about 2.7 million (34%) attended antenatal care (ANC) services in 2020, of whom 2.5 million received HIV testing services.[28] PMTCT coverage for pregnant women who are HIV positive has remained stagnant since 2018, at around 45%.[29] The number of HIV-positive women who received antiretroviral therapy (ART) during pregnancy fell from 59% in 2017 to 45% in 2020.[30]

The 2018 DHS indicated that 57% of women had at least four ANC visits for their most recent birth in the five years preceding the survey. In the first half of 2021, only 21% of pregnant women received full intermittent preventive treatment (down from 47% in 2020 and 51% in 2019). Persistent stock-outs of sulfadoxine-pyrimethamine (for Intermittent Preventive Therapy) due to procurement delays by the Government are contributing to the low coverage.

Routine distribution of insecticide-treated nets to at-risk populations fell by 15% from 2019 to 2020,[31] likely impacted by COVID-19. Distribution did not adequately cover 43% of the eligible population (fully immunized children and pregnant women who attended ANC). There is no dedicated budget for routine net distribution in NFM3 grants, as it was estimated this need would be covered through government procurement, savings from the mass distribution campaign, re-programming and other means. However, government procurement was delayed and few nets were left from the mass distribution campaign, contributing to shortages.

Limited use of existing State/Local Government Area primary health care facilities[32] contributed to the low PMTCT coverage. These facilities do not have the capacity to provide all the required PMTCT services.[33] Institutionalizing PMTCT in other existing maternal and child health services would improve access to services. Limited involvement and unstructured engagement with non-health sector (e.g. traditional birth attendants) and private sector providers, especially for HIV and malaria, is another contributing factor. Most pregnant women prefer to consult the non-health sector, as opposed to facility-based services.[34] Most private sector data is not captured in the national database, and

[26] UNAIDS website - https://www.unaids.org/sites/default/files/media_asset/JC3032_AIDS_Data_book_2021_En.pdf, page 151 (Accessed on 16 December 2021)
[27] WHO website - https://www.afro.who.int/news/nigeria-launches-implementation-malaria-eradication-fund (Accessed on 12 December 2021)
[28] Akudo, I, 2021: Status of PMTCT in Nigeria and NASCP; 2021: PMTCT- getting the data right.
[29] NACA, 2021: GF_OIG visit review meeting slide presentation
[30] NASCP, 2021: PMTCT, linking data to strategy slide presentation
[31] Verified NMEP PUDR report: 2019 and 2020
[32] Primary health care facilities include health posts, health centres and maternity homes.
[33] Nigeria National Operational Plan for eMTCT, 2015-2016
[34] PMTCT and EID review, 2019 – https://www.theglobalfund.org/media/10170/core_pmtctearlyinfantdiagnosis_review_en.pdf (Accessed on 29 Nov 2021)

DHIS2 data was incomplete for sampled PMTCT interventions. The Government's Community Health Influencers, Promoters and Services (CHIPS) program, launched in 2018 to provide services in hard-to-reach communities, is not fully funded or functional.[35] The Global Fund provides malaria commodities in some states while other partners are required to provide non-malaria commodities. There have been delays in implementation by other partners and the government, although preparatory and other initial engagements have commenced.

Interventions for children under 5
Nigeria has a high HIV burden among children under 5: one out of seven children born HIV-positive globally is born in the country.[36] Despite this, all three disease programs are producing low results for this group. In 2019, 20% of new HIV infections were due to mother-to-child transmission during pregnancy and birth. Only 40% of pregnant women deliver in health facilities, and the loss to follow-up of mother-baby pairs is above 30%.[37] Only a third of HIV-exposed infants receive an early infant diagnosis within two months of birth,[38] and ART coverage for children is low (45%).

15% of all missed TB cases each year in Nigeria are children. In 2020, there were 20% fewer notifications of childhood TB (under 5 years old) than in 2019.[39] Children who have been in contact with family members with infectious TB need isoniazid preventive treatment (IPT) to reduce the risk of contracting TB. The Global Fund indicator on the number of children under 5 who began IPT shows persistent low performance (30% or below since 2019). ACT coverage and insecticide treated net use among children under 5 are also low at 52% and 48% respectively.

Poor sample collection from sites, including insufficient specimens for testing and inappropriate containers, and long turnaround times (averaging 32 days) for EID test results are contributing factors for the low levels of testing. 20% of dry blood spot results were not received between October 2020 and August 2021.[40] Diagnostic skills, for example for childhood TB, are inadequate, partly due to the childhood TB testing algorithm not being robust enough and partly due to a lack of training of health workers. Not all secondary facilities have access to chest x-ray, an effective tool for diagnosing TB in children, and TB lamps and urine testing are not widely used.

Delays in implementing interventions for key populations

Key populations account for 3.4% of the population in Nigeria, but 32% of new HIV infections. HIV prevalence for MSM is 25%, non-brothel based FSWs is 15%, brothel-based FSW is 17% and PWID is 11%, compared to 0.7% among the general population.[41] Prevalence has increased for all sub-populations apart from brothel-based FSW since 2014. The increased prevalence highlights the importance of efficient prevention interventions, such as targeted, community-based behavior-change activities. However, in 2021, very few such activities took place. By June 2021, six months into the grants, Global Fund performance was close to nil on key indicators such as the percentage of Key Populations (KPs) who received defined package of HIV prevention services, the number of KPs tested for HIV and who received test results, the number of needles and syringes distributed to PWIDs, and the number of KPs initiated on ART.

This was due to slow start-up of the grants, with delays in onboarding sub-recipients and subsequent delays in selecting, and onboarding community-based organizations (CBOs) who implement community mobilization and outreach activities. Agreements with CBOs had not been signed at the time of the audit in November 2021.

The delays in starting grant activities have also impacted the implementation of activities for adolescent girls and young women/adolescent young people. The 15–24 year age group accounts for 32% of all new HIV infections in Nigeria. A mapping and assessment exercise to inform activities was delayed and is yet to be completed, resulting in delays to programs. Despite catch-up plans being developed to accelerate implementation, one year of prevention activities to this important group of beneficiaries has been lost, further increasing the risk of new infections.

[35] The CHIPS program is designed with 5-10 CHIPS agents per ward who offers behavioural changes communication in hard-to-reach communities
[36] UNAIDS website - aidsinfo.unaids.org (Accessed on 29 November 2021)
[37] https://pubmed.ncbi.nlm.nih.gov : loss to follow up within the prevention of mother to child transmission care cascade in a large ART program in Nigeria: H.E. Rawizza (2017); NDHS, 2018, Antenatal care and delivery
[38] Akudo, I, 2021: Status of PMTCT in Nigeria
[39] National Health Logistics Information System (NHMIS) reports from 2018, 2019 and 2020 (NTBLCP)
[40] National Integrated Sample Referral System (NiSRN) Nov 2021 report

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Agreed Management Action 4:

The Secretariat will work with the PRs, relevant Government agencies and partners to develop an Action Plan to improve PMTCT service coverage in Nigeria – specifically to fill the huge gaps in testing pregnant women, scale-up ARV coverage and improve Early Infant Diagnosis (EID). The plan should include at a minimum mechanism to:

a. scale-up availability of PMTCT and EID services to all facilities (including at primary health care facilities) and through engagement of private health facilities and expanding services at community level (such as through traditional birth attendants, community health workers and volunteers);

b. strengthen early infant diagnosis – including referral system, sample transportation and turn-around time; and

c. improve the data system for PMTCT and EID.

OWNER: Head of Grant Management Division

DUE DATE: 31 December 2022

4.5 Progress made in the TB program, however improvement needed to ensure relevant data for program design

The TB program has seen improvements in coordination with States, service coverage and private sector collaboration. Despite this, Nigeria still has one of the highest TB burdens in the world, with high numbers of missing cases. Interventions are being planned and prioritized using outdated data.

Significant progress has been made in the coordination and management of TB. In 2019, the National Tuberculosis and Leprosy Control Program became a Principal Recipient. All States are sub-recipients, allowing for effective coordination and improved implementation. There was a 13% increase in TB case detection in 2019, and the treatment coverage rate has increased from 24% in 2018 to 40% in 2021.

Private-Public Mix coverage is increasing steadily and is now active in 21 states through Global Fund support and an additional 12 states through USAID support; case finding from providers increased from 16% in 2018 to 36% in 2020. There are now 17,699 Directly Observed Treatment, Short-course facilities. Treatment success rates are high: 85% for drug sensitive TB and 83% for drug resistant TB. Diagnostic capacity has improved through the deployment and optimization of 403 GeneXpert MTB/RIF assay machines and investments in other technologies, including mobile X-rays and TB-lamp diagnostic technology (useful for diagnosing pediatric cases) as well as TrueNat (to bring diagnostics closer to the point of care) are under way.[42]

Despite the progress made, Nigeria has the highest TB burden in Africa and ranks sixth in the world. TB case notification is consistently low, with 73% of missing cases for drug sensitive TB and 89% for drug resistant TB. According to the estimates, the number of presumptive TB cases continues to increase. See *Figure 2*.

Figure 2: Trends in case notification and treatment
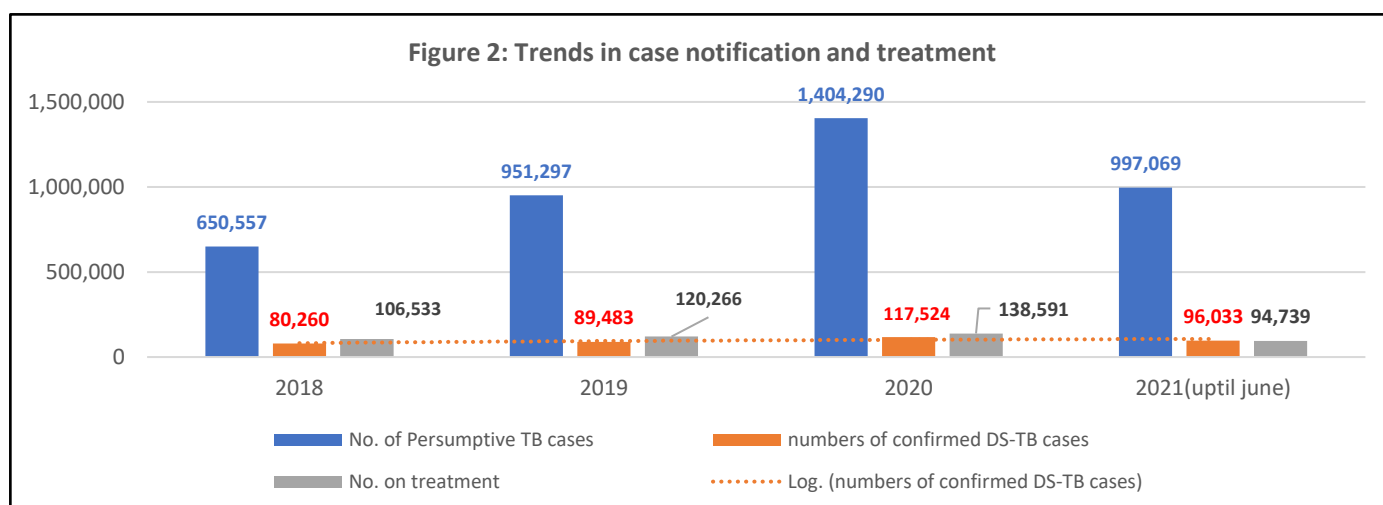
Outdated data to inform program planning and priorities is a contributing factor. The last TB prevalence survey was conducted in 2012, and estimates based on 2012 data continue to guide TB control efforts. The survey still informs estimates for presumptive cases and prevalence levels, which may no longer reflect reality given the significant progress made in coordination and management of TB. Consequently, TB programs may not reach the most at-risk groups and may not focus on the most effective interventions. Other root causes for the high TB burden and persistent high number of missing cases include:

- *Limited human resource capacity and resources* to identify presumptive cases and diagnose them at the community and primary care level. A comprehensive training plan was developed in 2019 (under NFM2), but implementation was delayed in 2020 due to COVID-19.

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[42] NHMIS data

- *GeneXpert access and utilization* - Although the use of GeneXpert machines has increased, access to GeneXpert machines is currently at 58% due to high downtime of the machines because of delays in repair and maintenance. This is being addressed through a GeneXpert optimization project across the country.[43]

Low TB service coverage - In 2021, TB treatment coverage was 40% (24% in 2018). The Government plans to increase TB service coverage by adding 5,000 TB centers.

Agreed Management Action 5:
The Secretariat will, in collaboration with the National TB and Leprosy Control Programme, relevant partners and stakeholders, support efforts to develop a roadmap for a TB prevalence survey highlighting the major survey milestones, indicative budgets and timelines.
OWNER: Head of Grant Management Division
DUE DATE: 30 April 2023

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[43] Institute of Human Virology, Nigeria (IHVN) is responsible to ensure the optimization of selected GeneXpert MTB/RIF machines on behalf of the National Tuberculosis, Leprosy and Buruli Ulcer Control Program

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Geneva, Switzerland

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.

OIG's assessed 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 in Nigeria: comparison of OIG and Secretariat risk levels

OIG and Secretariat risk levels were aligned, except for "In-Country Supply Chain."

"In-Country Supply Chain" is a composite of the following sub risks:
- forecasting quantification and supply planning,
- warehouse and distribution systems, and
- Logistics management and information systems (LMIS).

The OIG and the Secretariat have similar levels of assessed risk for (i) and (iii) but different levels of assessed risk related to (ii). The Secretariat rated this sub risk "**High**" due to limited Government capacity to provide oversight of the 4PL contract (Chemonics). OIG rates the current level of residual risk as "**Very High**". This is because issues identified during the quarterly SLA review meetings remain unaddressed, and also control deficiencies of the systems relied upon by Chemonics for its services as well as the inadequate monitoring and oversight of Chemonics on the 3PLs it has contracted. There was a lack of assurance that the warehouse and distribution systems adequately provide adequate accountability to the Global Fund commodities.